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DALLA QUALITÀ IL NATURALE SVILUPPO

Giunta al traguardo di cinquant'anni di attività nel settore della componentistica per la refrigerazione e il condizionamento dell'aria, CASTEL si è ormai affermata in tutto il mondo come produttore di componenti di qualità. Qualità che è il risultato di una filosofia aziendale che impronta ogni fase del ciclo produttivo ed è testimoniata sia dalla Certificazione del Sistema di Qualità Aziendale, ratificata da TUV SUD in conformità alla norma UNI EN ISO 9001:2008, sia dalle numerose certificazioni di prodotto, in conformità a Direttive Europee e a Marchi di Qualità europei ed extraeuropei. La qualità del prodotto si accompagna alla qualità del lavoro, eseguito utilizzando macchinari ed impianti ad elevato contenuto tecnologico, dotati degli standard di sicurezza e di tutela ambientale richiesti dalla legislazione vigente. CASTEL offre agli operatori dei settori refrigerazione e condizionamento dell'aria e alle industrie costruttrici prodotti collaudati per l'impiego con i fluidi frigorigeni HFC e HFO attualmente in uso nel mercato del freddo.

Sulla base delle esperienze maturate nel campo della refrigerazione che utilizza fluidi fluorurati la Castel è orgogliosa di presentare sempre agli operatori dei settori refrigerazione e condizionamento dell'aria e alle industrie costruttrici due ampie linee di prodotti specificatamente realizzate e collaudate per operare su sistemi che utilizzano refrigeranti naturali: idrocarburi (fluidi HC) e anidride carbonica (R744).

DE LA QUALITÉ, LE DÉVELOPPEMENT NATUREL

Après cinquante années d'activités dans le secteur des composants pour la réfrigération et la climatisation, CASTEL s'impose désormais dans le monde entier comme producteur de composants de qualité. Qualité résultant d'une philosophie d'entreprise qui caractérise toutes les phases du cycle de production et se voit reconnue aussi bien par la Certification du Système de Qualité Entrepreneurial, ratifiée par TUV SUD conformément à la norme UNI EN ISO 9001:2008, que par les nombreuses certifications de produits, conformément aux Directives Européennes et aux Marques de Qualité européennes et extra-européennes.

À la qualité des produits s'ajoute la qualité de la production qui utilise des machines et des équipements de haute technologie répondant aux standards de sécurité et de sauvegarde environnementale requis par la législation en vigueur.

CASTEL offre aux opérateurs des secteurs réfrigération et climatisation et aux fabricants des produits approuvés pour l'utilisation avec les fluides frigorigènes HFC et HFO actuellement utilisés dans le marché du froid.

Sur la base de l'expérience accumulée dans le domaine de la réfrigération qui utilise des fluides fluorés, Castel est maintenant fière de présenter, toujours aux opérateurs des secteurs réfrigération et climatisation et aux fabricants, deux lignes de produits spécialement réalisés et rodés pour opérer sur les systèmes qui utilisent des réfrigérants naturels : hydrocarbures fluides (fluides HC) et gaz carbonique (R744).

FROM QUALITY OUR NATURAL DEVELOPMENT

Active in the industry of Refrigeration and Air Conditioning for fifty years, Castel is well-established all over the world as a manufacturer of quality products. Quality is the result of our business philosophy and has a special priority, in every step, all along the production cycle. Evidence of this Quality System approach are the Business Quality System Certification issued by TUV SUD according to UNI EN ISO 9001:2008 standard and several product certifications in conformity with European Directives and European and extra-European Quality Approvals. Labor quality matches product quality: manufacturing is carried out using high-tech machinery and systems that comply with safety and environmental protection standards currently in force.

CASTEL offers to the Refrigeration and Air Conditioning Market and Manufacturers fully tested products suitable with HFC and HFO Refrigerants currently used in the Refrigeration & Air Conditioning Industry.

Based on the experience accrued in the refrigeration market that uses fluorocarbon fluids Castel is proud to present to operators of the Refrigeration and Air Conditioning Market and Manufacturers two wide ranges of products specifically designed and tested to operate on systems that use natural refrigerants: hydrocarbons (HC fluids) and carbon dioxide (R744).

AUS DER QUALITÄT, DIE NATÜRLICHE WEITERENTWICKLUNG

Nach dem Erreichen des Ziels einer fünfzigjährigen Tätigkeit im Bereich der Bauteile für die Kühlung und Klimatisierung der Luft, hat sich die Firma CASTEL in der ganzen Welt als ein Hersteller von Qualitätsbauteilen durchgesetzt. Diese Qualität ist das Ergebnis einer Unternehmensphilosophie, prägt alle Phasen des Produktionszyklus und wird sowohl durch die Zertifizierung des betrieblichen Qualitätsmanagementsystems, das vom TÜV entsprechend der Norm UNI EN ISO 9001:2008 bescheinigt wurde, als auch durch die zahlreichen Produktzertifikate entsprechend der Europäischen Richtlinien sowie europäischen und außereuropäischen Qualitätsmarken belegt. Die Qualität des Produktes geht einher mit der Qualität der Arbeit, die unter Einsatz von Maschinen und Anlagen von hohem technologischen Gehalt ausgeführt wird, die die von der gültigen Gesetzgebung geforderten Standards hinsichtlich Sicherheit und Umweltschutz erfüllen. CASTEL bietet den Unternehmen der Bereiche Luftkühlung und -klimatisierung sowie der Verarbeitungsindustrie geprüfte Produkte zum Einsatz mit den Kältemitteln FKW und HFO an, die derzeit auf dem Kühlungsmarkt verwendet werden. Auf Grundlage der im Bereich der Tiefkühlung gesammelten Erfahrung, in dem fluorierte Fluide verwendet werden, stellt die Firma Castel mit Stolz den im Bereich der Kühlung und Klimatisierung der Luft tätigen Fachleuten und der Bauindustrie zwei umfassende Produktlinien vor, die speziell hergestellt und geprüft wurden, um in Systemen zu arbeiten, in denen natürliche Kältemittel eingesetzt werden: Kohlenwasserstoffe (HC-Fluide) und Kohlendioxid (R744).

CONDIZIONI GENERALI DI VENDITA

Ordini

Gli ordini presuppongono da parte del cliente, l'accettazione integrale delle nostre condizioni di vendita elencate di seguito e non ci impegnano mai alle condizioni di acquisto dell'acquirente.

Spedizioni

Le merci viaggiano a rischio e pericolo del cliente anche in caso di vendita "franco fabbrica".

Imballi

Gli imballi sono fatturati al prezzo di costo e non sono accettati di ritorno.

Consegne

I termini di consegna non sono impegnativi: non è quindi accettato alcun addebito di responsabilità o penalità per ritardi di consegna. Eventuali ritardi non danno diritto alla risoluzione del contratto.

Pagamenti

I pagamenti devono essere effettuati presso la nostra sede. I ritardi di pagamento ci danno il diritto alla sospensione delle forniture e allo scioglimento dei contratti in corso.

Reclami

In genere valgono solamente i reclami inoltrati presso la nostra sede entro dieci giorni dalla ricezione dei materiali. Eventuali difetti evidenti che si rivelassero durante l'uso e dopo lo scadere dei dieci giorni, saranno considerati secondo i termini del paragrafo "garanzia".

Garanzia

Tutti i prodotti Castel sono garantiti per un periodo di 12 mesi. La garanzia riguarda tutti quei prodotti o parti di essi che risultino difettosi entro il periodo della garanzia stessa. Il cliente dovrà in questo caso, a sue spese, rimandare i materiali unitamente a una descrizione dettagliata dei difetti riscontrati. La garanzia non è riconosciuta, quando i difetti dei prodotti Castel risultino dovuti a errori del cliente o di terzi quali: installazioni errate, usi contrari alle indicazioni fornite dalla Castel, manomissioni. Per eventuali difetti o vizi dei propri prodotti, la Castel si impegna alla pura e semplice sostituzione degli stessi senza riconoscere, in nessun caso, diritti a rifusione di danni di qualsiasi specie. La Castel si riserva il diritto di apportare variazioni o modifiche ai propri prodotti senza preavviso ed in qualsiasi momento.

Resi

Non si accettano restituzioni di merci che non siano state da noi esplicitamente autorizzate e non ci giungano in porto franco.

Prezzi

Si intendono sempre per merce "franco fabbrica" e possono essere modificati in qualsiasi momento in funzione dei costi.

Vertenze

Per qualsiasi vertenza è competente il Tribunale di Milano.

APPLICAZIONE DELLA DIRETTIVA 2014/68/UE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO, DEL 15 MAGGIO 2014, IN MATERIA D'ATTREZZATURE A PRESSIONE NEI CONFRONTI DEI PRODOTTI CASTEL PER REFRIGERAZIONE

La Direttiva 2014/68/UE, meglio conosciuta come PED 2 o PED Recast, si applica alla progettazione, fabbricazione e valutazione di conformità delle attrezzature a pressione e degli insiemi con una pressione massima ammissibile "PS" superiore a 0,5 bar con l'esclusione dei casi elencati nell'Articolo 1, Paragrafo 2 della medesima Direttiva.

La rinnovata Direttiva PED Recast abroga la precedente Direttiva 97/23/CE, nello specifico:

- L'articolo 13 della Direttiva PED Recast, relativo alla classificazione delle attrezzature a pressione, è entrato in vigore dal 1° giugno 2015 e abroga l'Articolo 9 della precedente Direttiva PED
- Tutti gli altri articoli della Direttiva PED Recast entreranno in vigore dal 19 luglio 2016, abrogando tutti gli articoli della precedente direttiva PED. A partire da tale data, negli Stati membri della Comunità Europea, diverrà obbligatoria la commercializzazione unicamente di attrezzature a pressione marcate CE secondo la Direttiva PED Recast.

Ai fini dell'Articolo 2 della Direttiva PED Recast valgono le seguenti definizioni:

- **Attrezzature a pressione:** recipienti, tubazioni, accessori di sicurezza e accessori a pressione.
- **Recipiente:** un alloggiamento progettato e costruito per contenere fluidi in pressione.
- **Tubazioni:** i componenti di una condotta destinati al trasporto di fluidi, allorché essi sono collegati al fine di essere inseriti in un sistema a pressione.
- **Accessori di sicurezza:** i dispositivi destinati alla protezione degli apparecchi a pressione contro il superamento dei limiti ammissibili.
- **Accessori a pressione:** dispositivi aventi funzione di servizio e i cui alloggiamenti sono sottoposti a pressione; ad esempio: valvole solenoidi, rubinetti in genere, indicatori.
- **Insiemi:** varie attrezzature a pressione assiemate da un costruttore per costituire un tutto integrato e funzionante.

- **Pressione massima ammissibile (PS):** la pressione massima per la quale l'attrezzatura è progettata, specificata dal costruttore.
- **Temperatura minima / massima ammissibile (TS):** le temperature minima / massima per le quali l'attrezzatura è progettata, specificata dal costruttore.
- **Volume (V):** il volume interno di una camera compreso il volume dei raccordi alla prima connessione ed escluso il volume degli elementi interni permanenti.
- **Dimensione nominale (DN):** la designazione numerica della dimensione che è comune a tutti i componenti di un sistema di tubazioni
- **Fluidi:** i gas, i liquidi e i vapori allo stato puro e le loro miscele.

Nell'Articolo 4 e nel successivo Allegato II della Direttiva PED Recast le attrezzature a pressione sono classificate in categorie di rischio crescente dalla I alla IV in funzione di:

- Stato del fluido contenuto
- Classe di pericolosità del fluido contenuto
- Tipo di attrezzatura
- Dimensioni e potenziale energetico; V, DN, PS, PS x V, PS x DN

e devono soddisfare i Requisiti Essenziali di Sicurezza stabiliti nell'Allegato I della Direttiva PED Recast.

Le attrezzature a pressione aventi caratteristiche inferiori o pari ai limiti fissati ai punti 1.a, 1.b e 1.c e al punto 2 dell'Articolo 4 della Direttiva PED Recast non devono soddisfare i Requisiti Essenziali di Sicurezza stabiliti nell'Allegato I, ma devono essere progettati e fabbricati secondo una corretta prassi costruttiva in uso in uno degli Stati membri che assicurino la sicurezza di utilizzazione; tali attrezzature non devono recare la marcatura CE (Articolo 4, Paragrafo 3).

Nell'Articolo 13 della Direttiva Recast i fluidi sono classificati, in base alla loro pericolosità, in due gruppi:

- **Gruppo 1** che comprende sostanze e miscele, così come definite all'articolo 2, punti 7 e 8, del regolamento CE n. 1272/2008, classificate come pericolose a norma delle classi di pericolo fisico e per la salute di cui all'allegato I, parti 2 e 3 di tale regolamento. Al punto 1.a dell'Articolo 13 sono elencate 18 classi di fluidi pericolosi (esplosivi, infiammabili, comburenti, tossici).
- **Gruppo 2** che comprende sostanze e miscele non elencate al punto 1.a

Tutti i prodotti Castel, elencati nella prima capitolo del catalogo, sono adatti all'impiego con fluidi refrigeranti appartenenti al Gruppo 2, classificati A1 nell'Annex E della norma EN 378-1:2008. Fra questi fluidi sono presenti i ben noti: R22, R134a, R404A, R407C R410A, R507.

Alcuni prodotti Castel, elencati nel primo capitolo del catalogo, sono adatti anche all'impiego con fluidi refrigeranti appartenenti al Gruppo 1, classificati A2L nell'Annex E della norma EN 378-1:2008.

I suddetti fluidi sono: R32, R1234yf.

I prodotti Castel, elencati nella seconda capitolo del catalogo, sono adatti all'impiego con fluidi refrigeranti appartenenti al Gruppo 1, classificati A3 nell'Annex E della norma EN 378-1:2008. Fra questi fluidi sono presenti i ben noti: R290, R600, R600a.

APPLICAZIONE DELLA DIRETTIVA 2011/65/UE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO, DELL'8 LUGLIO 2011, SULLA RESTRIZIONE DELL'USO DI DETERMINE SOSTANZE PERICOLOSE NELLE APPARECCHIATURE ELETTRICHE ED ELETTRONICHE NEI CONFRONTI DEI PRODOTTI CASTEL PER REFRIGERAZIONE

La Direttiva 2011/65/UE, meglio conosciuta come Direttiva RoHS 2 o RoHS-Recast (Restriction of Hazardous Substances), mira a proibire o limitare l'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche e al recupero e allo smaltimento ecologicamente corretto dei rifiuti d'apparecchiature elettriche ed elettroniche. La Direttiva 2011/65/UE sostituisce la precedente Direttiva 2002/95/CE (RoHS) che è stata abrogata con effetto dal 3 gennaio 2013.

Le disposizioni della Direttiva RoHS 2 si applicano alle AEE (Apparecchiature Elettriche ed Elettroniche) che rientrano nelle Categorie 1, 2, 3, 4, 5, 6, 7, 10, 11 elencate nell'Allegato 1 della Direttiva medesima.

Le apparecchiature appartenenti alle categorie 1-"Grandi elettrodomestici" e 10-"Distributori automatici" sono dettagliate nell'Allegato 2 della Direttiva 2012/19/UE, RAEE-Recast, (rifiuti di apparecchiature elettriche ed elettroniche) che sostituisce la precedente Direttiva 2002/96/CE, abrogata dal 15 febbraio 2014. Negli elenchi dell'Allegato 2 sono presenti fra l'altro:

- Grandi apparecchi di refrigerazione
- Frigoriferi
- Congelatori
- Altri grandi elettrodomestici per la refrigerazione, la conservazione e il deposito degli alimenti
- Apparecchi per il condizionamento
- Altre apparecchiature per la ventilazione, l'estrazione dell'aria e il condizionamento
- Distributori di bevande calde, fredde, bottiglie e lattine

L'articolo 4 della Direttiva RoHS 2 prevede che le AEE immesse sul mercato, compresi i cavi e i pezzi di ricambio destinati alla loro riparazione, al loro riutilizzo, all'aggiornamento delle loro funzionalità al potenziamento delle loro capacità, non contengano le sostanze elencate nell'Allegato 2, cioè:

- Piombo - (0,1%)
- Mercurio - (0,1%)
- Cadmio - (0,01%)
- Cromo esavalente - (0,1%)
- Bifenili polibromurati (PBB) - (0,1%)
- Etere di difenile polibromurato (PBDE) - (0,1%)

L'Allegato 3 prevede diverse esenzioni sulle restrizioni all'uso indicate nell'articolo 4 e Allegato 2. Fra le varie esenzioni previste sono di particolare interesse per il settore della refrigerazione/condizionamento le seguenti:

- Piombo come elemento di lega nell'acciaio contenente fino allo 0,35% di piombo in peso, alluminio contenente fino allo 0,4% di piombo in peso e leghe di rame contenenti fino al 4% di piombo in peso
- Cromo esavalente come agente anticorrosivo nei sistemi di raffreddamento di acciaio al carbonio nei frigoriferi ad assorbimento

La ditta Castel ha avviato da prima del 2005, anno di recepimento delle Direttive 2002/95/CE e 2002/96/CE da parte dello Stato Italiano, un'accurata indagine, congiuntamente con i propri fornitori, con lo scopo di individuare la presenza o meno delle sopradette sostanze pericolose sia nei propri prodotti sia nei propri processi produttivi e progressivamente eliminarle.

Al termine di quest'ampia analisi iniziale e di un continuo monitoraggio dei prodotti e dei processi, la ditta Castel è in grado di dichiarare che tutti i prodotti che fornisce ai propri clienti sono conformi alle restrizioni dell'uso di determinate sostanze pericolose, definite nella Direttiva 2001/65/UE.

Nello specifico i prodotti della ditta Castel:

1. Non contengono mercurio, cadmio, cromo esavalente, bifenili polibromurati (PBB), etere di difenile polibromurato (PBDE)
2. Contengono piombo come elemento di lega nell'acciaio, nell'alluminio e nelle leghe di rame entro i limiti di accettabilità previsti dall'Allegato 3 della Direttiva RoHS 2

La ditta Castel dichiara altresì che i tutti i prodotti forniti ai propri clienti, in quanto componenti/ricambi utilizzati in AEE non devono:

- essere marcati CE come richiesto nell'articolo 15 della Direttiva 2011/65/UE
- essere accompagnati da una Dichiarazione di Conformità redatta secondo l'Allegato 6 della medesima Direttiva.

come specificato nel Cap. 7 - par. Q7.3 e nel Cap. 8 - par. Q8.5 della Guida RoHS 2 FAQ pubblicata il 12/12/2012 dalla Commissione Europea

APPLICAZIONE DEL REGOLAMENTO 1907/2006/CE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO, DEL 18 DICEMBRE 2006, CONCERNENTE LA REGISTRAZIONE, LA VALUTAZIONE, L'AUTORIZZAZIONE E LA RESTRIZIONE DELLE SOSTANZE CHIMICHE (REACH) NEI CONFRONTI DEI PRODOTTI CASTEL PER REFRIGERAZIONE

Il Regolamento europeo 1907/2006/CE concernente la registrazione, la valutazione, l'autorizzazione e la restrizione delle sostanze chimiche, meglio noto con l'acronimo di REACH (Registration, Evaluation, Authorisation of Chemicals) è stato pubblicato sulla GUCE L136 del 29 maggio 2007 ed è entrato in vigore in tutta l'Unione Europea il 1° Giugno 2007. Tale Regolamento richiede la pre-registrazione e la registrazione delle sostanze chimiche prodotte o importate in Europa presso l'Agenzia europea per le sostanze chimiche (European Chemicals Agency - ECHA).

La ditta Castel si è prontamente attivata per approfondire i contenuti e le finalità della nuova legislazione con lo scopo di definire i ruoli che essa assume nella catena d'approvvigionamento e gli eventuali obblighi a cui deve adempiere, in conformità al Regolamento REACH.

La ditta Castel non è un "fabbricante" o un "importatore" di sostanze e quindi non deve ottemperare agli obblighi di pre-registrazione e/o registrazione.

La ditta Castel non è un "fabbricante" o un "importatore" di preparati e quindi non deve fornire ai clienti informazioni sulla registrazione delle sostanze contenute in essi né informazioni sulla sicurezza.

La ditta Castel non è un "fabbricante" o un "importatore" di articoli che rilasciano sostanze in condizioni d'uso normali o ragionevolmente prevedibili (Art. 7.1 del REACH) e quindi non deve ottemperare agli obblighi di pre-registrazione e/o registrazione di tali sostanze.

La ditta Castel, nei confronti dei propri fornitori, è un "utilizzatore a valle" di sostanze, preparati e articoli utilizzati nei propri processi produttivi e nei propri prodotti. La ditta ha avviato da tempo presso tutti i suoi fornitori di sostanze/preparati e articoli una raccolta d'informazioni per verificare che:

- siano a conoscenza dei contenuti e finalità del Regolamento REACH
- si siano attivati per adempiere agli obblighi di loro competenza previsti dal suddetto Regolamento
- ci assicurino la continuità delle loro forniture per il futuro

La ditta Castel, nei confronti dei suoi clienti, è un "fabbricante" di articoli e in tale ruolo è costantemente impegnata a verificare che nei suoi prodotti:

- non siano utilizzate in modo non conforme alla restrizione le sostanze soggette a restrizioni elencate nell'Allegato XVII, secondo quanto previsto dall'Art. 67. del REACH non siano presenti in concentrazioni superiori allo 0,1% peso/peso. (il limite dello 0,1% è relativo al peso totale dell'articolo) le sostanze estremamente problematiche, meglio note con l'acronimo di SVHC (Substance of Very High Concern) elencate nella Candidate List e nell'Authorisation List dell'Allegato XIV e contemporaneamente soddisfatte tutte le condizioni elencate nell'Art. 7.2 del REACH. Qualora si verifichi questa eventualità la ditta Castel si impegna a comunicarlo tempestivamente ai propri clienti, fornendo informazioni sufficienti per l'uso in sicurezza, secondo quanto previsto dall'Art. 33 del REACH. Per avere ulteriori informazioni circa la SVHC Candidate List aggiornata, suggeriamo ai nostri clienti di visitare il sito http://echa.europa.eu/chem_data/candidate_list_table_en.asp dell'Agenzia Europea ECHA.

APPLICAZIONE DEL REGOLAMENTO UE N° 517/2014 DEL PARLAMENTO EUROPEO E DEL CONSIGLIO, DEL 16 APRILE 2014, SUI GAS FLUORURATI AD EFFETTO SERRA (F-GAS) NEI CONFRONTI DEI PRODOTTI CASTEL PER REFRIGERAZIONE

Il Regolamento europeo UE No 517/2014 sui gas fluorurati ad effetto serra, meglio noto come Regolamento F-Gas, è stato pubblicato sulla GUCE L150 del 20 maggio 2014 ed è entrato in vigore in tutta l'Unione Europea il 1° gennaio 2015, abrogando il precedente Regolamento CE No 842/2006.

Il nuovo regolamento si articola su tre argomenti principali trattati nei seguenti capitoli:

- Capo II: Contenimento
- Capo III: Immissione in commercio e controllo dell'uso
- Capo IV: Riduzione della quantità di idrofluorocarburi immessa in commercio.

Contenimento

L'articolo 4 prevede che gli operatori di apparecchiature contenenti gas fluorurati ad effetto serra in quantità pari o superiore a 5 tonnellate di CO2 equivalente devono assicurare controlli per verificare eventuali perdite. Le apparecchiature del settore condizionamento e refrigerazione da controllare sono: apparecchiature fisse di refrigerazione, apparecchiature fisse di condizionamento dell'aria, pompe di calore fisse, celle frigorifere di autocarri e rimorchi. Sono escluse dai controlli le apparecchiature ermeticamente sigillate contenenti F-Gas in quantità inferiore a 10 tonnellate equivalenti di CO2, purché etichettate come ermeticamente sigillate.

Immissione in commercio e controllo dell'uso

Restrizioni all'immissione in commercio: l'articolo 11 prevede che, a decorrere dalle date indicate, sia vietata l'immissione in commercio dei prodotti e delle apparecchiature elencati nell'Allegato III. Le apparecchiature del settore condizionamento e refrigerazione sottoposte a tale divieto sono:

| Descrizione prodotto | Data divieto |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Frigoriferi e congelatori per uso domestico che contengono HFC con GWP \geq 150 | 01/01/2015 |
| Frigoriferi e congelatori per uso commerciale (apparecchiature ermeticamente sigillate) che contengono HFC con GWP \geq 2500 | 01/01/2020 |
| Frigoriferi e congelatori per uso commerciale (apparecchiature ermeticamente sigillate) che contengono HFC con GWP \geq 150 | 01/01/2022 |
| Apparecchiature fisse di refrigerazione contenenti HFC con GWP \geq 2500, eccetto apparecchiature progettate per funzionare a T < -50 °C | 01/01/2020 |
| Sistemi di refrigerazione centralizzati multipack per uso commerciale con potenzialità nominale \geq 40 kW che contengono HFC con GWP \geq 150, eccetto circuiti primari di impianti a cascata dove è permesso l'utilizzo di HFC con GWP < 1500. | 01/01/2022 |

| | |
|---------------------------------------------------------------------------------------------------------------------------------|------------|
| Apparecchiature mobili di climatizzazione (apparecchiature ermeticamente sigillate) che contengono HFC con GWP \geq 150 | 01/01/2020 |
| Sistemi di condizionamento monosplit contenenti meno di 3 Kg di HFC con GWP \geq 750 | 01/01/2025 |

Controllo dell'uso: l'articolo 13 prevede che a decorrere dal 1 gennaio 2020 è vietato l'uso di HFC con GWP \geq 2500 per l'assistenza e la manutenzione delle apparecchiature di refrigerazione con carica di refrigerante \geq 40 tonnellate di CO₂ equivalente. La proibizione non si applica per apparecchiature progettate per funzionare a T < -50 °C. Il divieto è posticipato al 1 gennaio 2030 per HFC rigenerati con GWP \geq 2500, etichettati in conformità all'articolo 12, e per HFC riciclati con GWP \geq 2500, scaricati dalla stessa apparecchiatura su cui si fa manutenzione.

Riduzione della quantità di idrofluorocarburi immessa in commercio

L'articolo 15 prevede che la quantità di HFC che i produttori e gli importatori possono immettere ogni anno in commercio nell'Unione Europea non deve eccedere la quantità massima indicata nell'Allegato V. Facendo 100% la quantità massima permessa nel 2015, l'Allegato V prevede una riduzione progressiva della quantità massima commerciabile fino ad arrivare al 21% nel 2030. Dal 1 gennaio 2017 anche le apparecchiature di refrigerazione, condizionamento e pompe di calore precaricate con HFC possono essere messe in commercio unicamente se rientrano nelle quantità massime previste dall'Allegato V.

L'articolo 16 prevede che all'interno di questa quantità massima definita per anno la Commissione Europea assegni ai produttori in regola con il regolamento delle quote di immissione sul mercato di HFC.

Riteniamo che l'applicazione del Regolamento F-Gas porterà in breve tempo a grandi cambiamenti nei vari settori della refrigerazione e, seppure in minor misura, anche nel condizionamento dell'aria. L'impiego di due refrigeranti considerati primari nel settore della refrigerazione, l'R404A (GWP=3922 secondo AR4) e l'R507 (GWP=3985 secondo AR4) è destinato a ridursi drasticamente nel giro di pochi anni fino a sparire completamente. Lo stesso utilizzo dell'R134a (GWP=1430 secondo AR4) è destinato a ridursi considerando i cambiamenti in atto su refrigerazione domestica e condizionamento automotive. Anche l'utilizzo dei due refrigeranti tradizionalmente utilizzati in condizionamento, l'R407C (GWP=1774 secondo AR4) e l'R410A (GWP=2088 secondo AR4) è destinato a ridimensionarsi considerando le apparecchiature di climatizzazione citate nell'Allegato III del regolamento.

La ditta Castel si è prontamente attivata per approfondire i contenuti e le finalità della nuova legislazione con lo scopo di verificare la compatibilità dei propri prodotti con i nuovi fluidi refrigeranti che le maggiori case produttrici propongono come alternativa ai tradizionali HFC destinati alla proibizione.

Negli ultimi due anni la Castel ha già presentato due linee di prodotto specifiche per utilizzo con fluidi refrigeranti naturali: una linea di prodotto per CO₂, con differenti pressioni di utilizzo, una linea di prodotto per idrocarburi (R290, R600, R600a)

Nel corso dell'anno 2015 la Castel ha, condotto con esito positivo, prove di compatibilità sui suoi prodotti standard, normalmente utilizzati con refrigeranti HFC tradizionali, con una serie di nuovi refrigeranti proposti come alternativi ai tradizionali, in particolare:

- HFC monocomponenti come R32
- HFO monocomponenti come R1234yf e R1234ze
- Miscele HFC/HFO come R448A, R449A, R450A, R452A

GENERAL SALES CONDITIONS

Orders

The purchaser confirms his fully acceptance of our "General Sales Conditions".

Delivery

Goods travel at the risk of the buyer, even if delivery terms are "ex works". Customers will have to insure goods and case they wish.

Packing

Disposable packing is included in the price and will not be credited if returned.

Terms of Delivery

Terms are not mandatory and no charges for delay or responsibility will be accepted by the seller. Delay in deliveries will not be cause for contract resolutions.

Terms of Payment

Remittances should be done to our Head Office only. In case of payment delays we reserve our right to interrupt or cancel the fulfilment of the pending orders.

Notice of Claims

Claims concerning wrong deliveries of goods must be informed - by written - within ten (10) days from reception of delivery in the customer's warehouses.

Guarantee

Castel products are guaranteed for 12 months. This only includes those products or parts of products which have defects within the guarantee period. The client will send goods back to his costs with a detailed description of the claimed defects. The guarantee is not recognized when the defect claimed is due to client's mistakes or wrong installations, or application is not allowed by the technical indications supplied by Castel. In case of defects of the products Castel will only replace the defective goods and will not refund any kind of damages of any types. Castel reserves to bring variations of charges to its own products without any notice and in any moment.

Returned Goods

Not returns of goods are accepted without obtaining a proper Castel authorisation by submissions of a Claim Code.

Prices

Are ex works. Castel reserves the right to modify without notice its prices in "Force Majeur" cases if costs of raw materials or other costs increase in an unsustainable measure.

Disputes

For any dispute arising in connection with the agreements the courts of Milan shall have exclusive jurisdiction.

IMPLEMENTATION OF EUROPEAN PARLIAMENT AND EUROPEAN COUNCIL DIRECTIVE 2014/68/EU DATED 15 MAY 2014, CONCERNING PRESSURE EQUIPMENT TO CASTEL REFRIGERATION PRODUCTS

Directive 2014/68/EU, the so called PED 2 or PED Recast, applies to the design, manufacture and conformity assessment of pressure equipment and assemblies with a maximum admissible pressure "PS" greater than 0,5 bar except for the cases listed in Article 1, Paragraph 2 of the same Directive.

The new PED Recast Directive repeals previous Directive 97/23/EC, in particular:

- Article 13 of PED Recast Directive, regarding the classification of pressure equipment, have become effective on 1 June 2015 and repeals Article 9 of the previous PED Directive
- All of the other articles of PED Recast Directive will become effective from 19 July 2016, repealing all Articles of the previous PED Directive. Effective from that date, only EC-marked pressure equipments according to PED Recast can be marketed in the Member States of European Community.

The definitions below shall apply for the purposes of Article 2 of Directive PED Recast:

- **Pressure equipment** : vessels, piping, safety accessories, and pressure accessories
- **Vessel** : a container designed and built to keep fluids under pressure.
- **Piping** : piping components intended for the transport of fluids, when connected together to form a pressure system.
- **Safety accessories** : devices designed to protect pressure equipment from exceeding the admissible limits.
- **Pressure accessories** : devices with an operational function and including pressure-bearing containers. For example: solenoid valves, valves, indicators.
- **Assemblies** : several pieces of pressure equipment assembled by a manufacturer to constitute an integrated and functional set.
- **Maximum admissible pressure (PS)** : the maximum pressure the equipment is designed for, as specified by the manufacturer.
- **Maximum/minimum allowable temperature (TS)** : the maximum/minimum temperatures the equipment is designed for, as specified by the manufacturer.
- **Volume (V)** : the internal volume of a chamber, including the volume of nozzles to the first connection or weld and excluding the volume of permanent inner parts.

- **Nominal size (DN)** : numerical designation of size, which is common to all components in a piping system.

- **Fluids** : gases, liquids and vapours in pure form as well as mixes thereof.

Pressure equipments referred to in Article 4 and subsequent Annex II to Directive PED Recast are classified by categories according to ascending level of hazard, on the basis of:

- State of the fluid
- Hazard classification of the fluid
- Type of equipment
- Dimensions and energetic potential; V, DN, PS, PS x V, PS x DN

and must comply with the Essential Safety Requirements as set out in Annex I of PED Recast Directive.

Pressure equipment whose characteristics are below or equal to the limits in Article 4, points 1.a, 1.b and 1.c and section 2 of Directive PED Recast must not comply with the Essential Safety Requirements as set out in Annex I, but must be designed and manufactured in accordance with the sound engineering practice in a Member State in order to guarantee safe use; these products needn't bear EC marking (Article 4, Paragraph 3).

In Article 13 of Directive PED Recast, fluids are classified, according to level of their hazard, in two groups:

- **Group 1** includes substances and mixtures, as defined in points 7 and 8 of Article 2 of EC Regulation No 1272/2008, that are classified as hazardous in accordance with physical or health hazard classes as laid down in Parts 2 and 3 of Annex I to that Regulation. A list of 18 classes of hazardous fluids is included in point 1.a of Article 13 (explosive, flammable, oxidizing, toxic).
- **Group 2** includes substances and mixtures not listed on point 1.a

All Castel products, listed in the first chapter of this Catalogue, are suitable for using with refrigerant fluids belonging to Group 2, classified under A1 in Annex E of standard EN 378-1:2008. These fluids include also well-known substances like: R22 ; R134a ; R404A ; R407C ; R410A ; R507.

Some Castel products, listed in the first chapter of the Catalogue, are also suitable for use with refrigerant fluids belonging to Group 1, classified under A2L in Annex E of standard EN 378-1:2008. These fluids are: R32 ; R1234yf.

Castel products, listed in the second chapter of this Catalogue, are suitable for use with refrigerant fluids belonging to Group 1, classified under A3 in Annex E of standard EN 378-1:2008. These fluids include also well-known substances like: R290 ; R600 ; R600a.

APPLICATION OF DIRECTIVE 2011/65/UE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, OF 8 JULY 2011, ON THE RESTRICTION OF THE USE OF CERTAIN HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT TOWARDS CASTEL REFRIGERATION PRODUCTS

The purpose of Directive 2011/65/UE, the so called RoHS 2 or RoHS Recast Directive, is to prevent or restrict the use of hazardous substances in electrical and electronic equipment and to contribute to the environmentally sound recovery and disposal of waste electrical and electronic equipment.

Directive 2011/65/UE replaces the previous Directive 2002/95/EC that is repealed with the effect from 3 January 2013.

RoHS 2 Directive shall apply to EEE (Electrical and Electronic Equipment) falling under the categories 1, 2, 3, 4, 5, 6, 7, 10, 11 set out in Annex 1 of the same Directive.

The equipment proper to the first category "Large household appliances", and to the 10th category "Automatic dispensers", are set out in Annex 2 of Directive 2012/19/UE, WEEE-Recast Directive (Waste electrical and electronic equipment) that replaces the previous Directive 2002/96/EC, repealed from 15 February 2014. The list of Annex 2 shows these products:

- Large cooling appliance
- Refrigerators
- Freezers
- Other large appliances used for refrigeration, conservation and storage of food
- Air conditioner appliances
- Other fanning, exhaust ventilation and conditioning equipment
- Automatic dispenser for hot or cold bottles and cans

Article 4 of RoHS 2 Directive establishes that EEE placed on the market, including cable and spare parts for its repair, its reuse, updating of its functionalities or upgrading of its capacities, do not contain the following substances:

- Lead – (0,1%)
- Mercury – (0,1%)
- Cadmium – (0,001%)
- Hexavalent chromium – (0,1%)

- Polybrominated biphenyls (PBB) – (0,1%)
- Polybrominated diphenyl ethers (PBDE) – (0,1%)

The restriction of use of these hazardous substances shall not apply to the applications listed in Annex 3; among these applications the following exceptions are particularly interesting in air conditioning / refrigerating systems:

- Lead as an alloying element in steel containing up to 0,35% lead by weight, aluminium containing up to 0,4% lead by weight and as a copper alloy containing up to 4% lead by weight
- Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators

For a long time, before year 2005, Castel Company has started a careful inquiry, together with its suppliers, to identify the presence or not of the above-mentioned hazardous substances, either in its own products or in its own production processes, and to remove them progressively.

At the end of this wide examination and continuously monitoring its products and processes, Castel Company may declare that all the products supplied to its customers are compliant to the Restriction on Hazardous Substances, as defined in the Directive 2011/65/UE.

Specially Castel products:

1. Do not contain mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE)
2. Contain lead as an alloying element in steel, aluminium and copper alloys within the accepted limits according to the Annex 3 of RoHS 2 Directive.

Castel also declares that all the products supplied to its customers, since **components / spare parts** used in EEE do not have:

- to be CE marked, as requested in article 15 of Directive 2011/65/UE
- a Declaration of Conformity, written according to Annex 6 of the same directive.

as specified in Chap. 7 – par. Q7.3 and in Chap. 8 par. Q8.5 of the RoHS 2 FAQ Guidance published by European Commission, dated 12/12/2012.

APPLICATION OF REGULATION 1907/2006/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, OF 18 DECEMBER 2006, ON THE REGISTRATION, EVALUATION, AUTHORISATION AND RESTRICTION OF CHEMICALS (REACH) TOWARDS CASTEL REFRIGERATION PRODUCTS

The European Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorization and Restrictions of Chemicals, the so called REACH Regulation, was published on GUCE L136 dated 29 May 2007 and came into force in the European Union on the 1st June 2007. This Regulation requires to pre-register and register chemical substances produced or imported into Europe at the European Agency for Chemicals (ECHA).

Castel investigates for a long time about the contents and the aims of this new law. The purpose of our company is to define its rules in the supply chain and the possible obligations we have to fulfill to, according to the REACH Regulation.

Castel is not a “manufacturer” or an “importer” of substances and so the company has not the obligation to pre-register and/or register.

Castel is not a “manufacturer” or an “importer” of preparations and so the company has not to give to its customers either information about registrations of the contained substances or information about safety.

Castel is not a “manufacturer” or an “importer” of articles that have substances intended to be realised during normal and reasonable foreseeable conditions of use (Art. 7.1 of REACH) and so the company has not the obligation to pre-register and/or register these substances.

For its suppliers, Castel is a “downstream users” of substances, preparations and articles, used in its own manufacturing processes and in its own products. For a long time our Company has started, together with its suppliers of substances/preparations and articles, a careful inquiry to verify that:

- They well know the contents and the aims of REACH Regulation
- They are working to fulfil the obligations pertaining to them, foreseen by the Regulation
- They guarantee us smooth continuity of their supplies also in the future

For its customers, Castel is a “manufacturer” of articles and in this rule our company is constantly engaged to verify that in its products:

- The restricted substances listed in Annex XVII are not used in a manner not conform to restrictions, in compliance with to Art. 67 of REACH

- The SVHC, Substances of Very High Concern, listed in the Candidate List and in the Authorisation List of Annex XIV; are not present in the articles we supply you in more than 0,1% mass/mass. (the 0,1% threshold relates to the total weight of the articles) and simultaneously satisfied all the conditions listed in Art. 7.2 of REACH. If this case happens our company binds itself to communicate it in time to its own customers, ensuring sufficient information to safety use, according to Art. 33 of REACH. To obtain further information about the new SVHC Candidate List, please visit the following web site http://echa.europa.eu/chem_data/candidate_list_table_en.asp of ECHA European Agency.

IMPLEMENTATION OF EUROPEAN PARLIAMENT AND EUROPEAN COUNCIL DIRECTIVE EU N° 517/2014 DATED 16 APRIL 2014 ON FLUORINATED GREENHOUSE GASES (F-GAS) TO CASTEL REFRIGERATION PRODUCTS

European Regulation EU No. 517/2014 on fluorinated greenhouse gases, the so called F-Gas Regulation, was published in the Official Gazette of the Economic Community L150 dated 20 May 2014 and became into force in the European Union on the 1st January 2015, repealing previous Regulation EC No 842/2006.

The new regulation is divided into three main topics and includes the following chapters.

- Chapter II: Containment
- Chapter III: Release onto the market and control of use
- Chapter IV: Reduction of the quantity of hydrofluorocarbons released onto the market

Containment

Article 4 states that the operators of equipments that contain fluorinated greenhouse gases in quantities not smaller than 5 tonnes of CO2 equivalent must assure that the equipment is checked for leaks. The conditioning and refrigerating equipment to be checked is as follows: stationary refrigeration equipment, stationary air-conditioning equipment, stationary heat pumps, refrigeration units of trucks and trailers. Hermetically sealed equipment that contains fluorinated greenhouse gases in quantities smaller than 10 tonnes of CO2 equivalent, shall not be subject to leak checks, provided that they are labelled as hermetically sealed.

Release onto the market and control of use

Restriction on the release onto the market: Article 11 states that the release onto the market of products and equipment listed in Annex III, shall be prohibited from the date specified here below. Refrigeration and air-conditioning equipment subject to the prohibition are:

| Product Description | Date of prohibition |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Domestic refrigerators and freezers that contain HFCs with GWP ≥ 150 | 01/01/2015 |
| Refrigerators and freezers for commercial use (hermetically sealed equipment) that contain HFCs with GWP ≥ 2500 | 01/01/2020 |
| Refrigerators and freezers for commercial use (hermetically sealed equipment) that contain HFCs with GWP ≥ 150 | 01/01/2022 |
| Stationary refrigeration equipment that contains HFCs with GWP ≥ 2500, except equipment designed to work at T < -50 °C | 01/01/2020 |
| Multipack centralised refrigeration systems for commercial use with rated capacity ≥ 40 kW that contain HFCs with ≥ 150, except primary circuit of cascade systems where HFCs with GWP <1500 may be used. | 01/01/2022 |
| Movable air-conditioning equipment (hermetically sealed equipment) that contain HFCs with GWP ≥ 150 | 01/01/2020 |
| Single split air-conditioning systems containing less than 3 Kg of HFCs with GWP ≥ 750 | 01/01/2025 |

Control of use: Article 13 states that the use of HFCs with GWP ≥ 2500 to service or maintain refrigeration equipment with a refrigerant load ≥ 40 tonnes of CO2 equivalent, shall be prohibited from 1 January 2020. This prohibition shall not apply to equipments designed to work at T < -50 °C. The ban is postponed to 1 January 2030 for regenerated HFCs with GWP ≥ 2500, labelled in accordance with Article 12, and for recycled HFCs with GWP ≥ 2500, drained from the same equipment under maintenance.

Reduction of the quantity of hydrofluorocarbons released on the market

Article 15 provides that the quantity of HFCs that manufacturers and importers are

entitled to release onto the market in the European Union each year must not exceed the maximum quantity indicated in Annex V. If 100% is the maximum quantity admitted in 2015, Annex V foresees a gradual reduction of the maximum marketable quantity up to 21% in 2030. From 1 January 2017 also refrigeration, air-conditioning and heat pump equipment preloaded with HFCs can only be released onto the market if they fall into the maximum quantities provided for by Annex V. Article 16 provides that the European Commission assigns every year to the manufacturers that comply with the Regulation, HFCs quotas that can be released onto the market, within the maximum quantity defined for that year.

We believe that the F-Gas Regulation will soon lead to great changes in refrigeration and, to a lesser extent, also in air-conditioning. The use of two refrigerants that are considered as primary in the refrigeration industry, R404A (GWP = 3922 according to AR4) and R507 (GWP = 3985 according to AR4), is expected to fall sharply within a few years until it disappears completely. The use of R134a (GWP = 1430 according to AR4) is also set to drop because of the current changes in domestic refrigeration and automotive air-conditioning. The use of the two traditionally refrigerants for air conditioning, R407C (GWP = 1774 according to AR4) and R410A (GWP = 2088 according to AR4) is expected to shrink considering the equipments mentioned in Annex III of the Regulation.

Castel took immediate steps to understand the contents and purposes of the new legislation in order to check the compatibility of its products with the new fluid refrigerants that are offered by most manufacturers as alternatives to traditional HFCs that are going to be banned.

In the last two years Castle has already presented two specific product lines for use with natural refrigerants: a product line for CO₂, with different operating pressures, a product line for hydrocarbons (R290, R600, R600a)

In 2015, Castel has conducted successful compatibility tests on its standard products, which normally use traditional HFC refrigerants, with a series of new refrigerants proposed as alternatives to traditional ones, in particular:

- single-component HFCs, like: R32
- single-component HFO, like: R1234yf and R1234ze
- HFC / HFO mixtures like: R448A, R449A, R450A, R452A

CONDITIONS GÉNÉRALES DE VENTE

Commandes

Les commandes présument de la part du client, l'acceptation intégrale de nos conditions de vente énumérées ci-après et ne nous engagent jamais aux conditions d'achat de l'acquéreur.

Expéditions

La marchandise voyage au risque et péril du client même en cas de vente "départ usine".

Emballages

Les emballages sont facturés au prix coûtant et ne seront pas remboursés en cas de retour.

Livraisons

Les délais de livraison ne sont pas liants : Aucune réclamation ou pénalités pour retards de livraison ne seront acceptées. Les éventuels retards ne donneront pas droit à la résiliation du contrat.

Paiements.

Les paiements doivent être effectués à notre siège. Les retards de paiement nous donnent le droit de suspendre les fournitures et d'annuler les contrats en cours.

Réclamations

Seules les réclamations envoyées à notre siège dans les dix jours à compter de la réception de la marchandise seront retenues valides. Les défauts qui seraient éventuellement détectés pendant l'utilisation ou après l'expiration des dix jours, seront pris en considération comme stipulé au paragraphe "garantie".

Garantie

Tous les produits Castel sont garantis pour une période de 12 mois. La garantie concerne tous les produits ou pièces de ceux-ci qui seraient retenus défectueux pendant la période de garantie. Le client devra dans ce cas retourner la marchandise à ses frais accompagnée d'une description détaillée des défauts. La garantie ne s'applique pas quand les défauts des produits Castel sont dus à des erreurs du client ou de tiers tels que : installations erronées, usages contraires aux indications fournies par Castel ou endommagements. En cas de défauts ou vices éventuels de ses produits, Castel s'engage purement et simplement à les remplacer ; dans ce cas, le destinataire ne pourra prétendre à aucun dédommagement. Castel se réserve le droit d'apporter à tout moment des variations ou des modifications à ses produits sans préavis.

Retours

Aucun retour de marchandise ne sera accepté sans l'autorisation écrite de Castel et si celle-ci n'est pas envoyée franco de port.

Prix

Ils s'entendent toujours "départ-usine" et peuvent être modifiés à tout moment en fonction des coûts.

Litiges

En cas de litige, seul le Tribunal de Milan est compétent.

APPLICATION DE LA DIRECTIVE 2014/68/UE DU PARLEMENT EUROPÉEN ET DU CONSEIL, DU 15 MAI 2014, EN MATIÈRE D'ÉQUIPEMENTS SOUS PRESSION VIS-À-VIS DES PRODUITS CASTEL POUR RÉFRIGÉRATION

La Directive 2014/68/UE, mieux connue sous le nom de PED 2 ou PED-Recast, s'applique à la conception, fabrication et évaluation de conformité des équipements sous pression et des ensembles avec une pression maximale admissible "PS" supérieure à 0,5 bar à l'exception des cas énumérés dans l'Article 1, Paragraphe 2 de cette même Directive.

La nouvelle Directive PED Recast abroge la directive précédente 97/23/CE, en particulier :

- L'article 13 de la Directive PED Recast, liée à la classification des équipements sous pression, est entré en vigueur à partir du 19 Juin 2015 et abroge l'article 9 de la Directive PED précédente
- Tous les autres articles de la Directive PED Recast seront efficaces du 19 Juillet 2016, abrogeant tous les articles de la Directive PED précédente. À ce jour, dans les États membres de la Communauté européenne, il sera possible de placer sur le marché que des équipements de pression marqué CE selon PED refonte.

Aux fins de l'Article 2 de la Directive PED Recast, voir les définitions suivantes :

- **Équipements sous pression:** récipients, tuyauteries, accessoires de sécurité et accessoires sous pression.
- **Récipient:** un logement conçu et fabriqué pour contenir les fluides sous pression.
- **Tuyauteries:** les composants d'un conduit destinés au transport de fluides lorsque ceux-ci sont raccordés afin d'être introduits dans un système sous pression.
- **Accessoires de sécurité:** les dispositifs destinés à la protection des appareils sous pression contre le dépassement des limites autorisées.
- **Accessoires sous pression:** dispositifs ayant la fonction de service et dont les logements sont soumis à pressions ; par exemple : vannes solénoïdes, robinets en général, indicateurs.

- **Ensembles:** divers équipements sous pression assemblés par un fabricant pour construire un tout intégré et fonctionnant.
- **Pression maximale admissible (PS):** la pression maximum pour laquelle l'équipement est conçu, spécifiée par le fabricant.
- **Température minimum / maximale admissible (TS):** les températures minimum / maximum pour lesquelles l'équipement est conçu, spécifiées par le fabricant.
- **Volume (V):** le volume interne d'une chambre y compris le volume des raccords à la première connexion et le volume des éléments internes permanents.
- **Dimension nominale (DN):** la désignation numérique de la dimension qui est commune à tous les composants d'un système de tuyauteries
- **Fluides:** les gaz, les liquides et les vapeurs à l'état pur et leurs mélanges.

Dans l'Article 4 et Annexe II suivante de la Directive PED Recast, les équipements sous pression sont classés par catégories de risque croissant de I à IV en fonction de :

- État du fluide contenu
- Classe de dangerosité du fluide contenu
- Type d'équipement
- Dimensions et potentiel énergétique ; V, DN, PS, PS x V, PS x DN

et doivent remplir les Conditions Requises Essentielles de Sécurité établies dans l'Annexe I de la Directive PED Recast.

Les équipements sous pression ayant des caractéristiques inférieures ou similaires aux limites fixées aux points 1.a, 1.b et 1.c et au point 2 de l'Article 4 de la Directive PED Recast ne doivent pas remplir les Conditions Essentielles de Sécurité fixées dans l'Annexe I mais doivent être conçus et fabriqués selon une bonne pratique de fabrication utilisée dans l'un des États membres garantissant la sécurité d'utilisation (Article 4, Paragraphe 3). Ces équipements ne doivent pas porter la marque CE.

Dans l'Article 13 de la Directive, les fluides sont classés en fonction de leur dangerosité, en deux groupes :

- **Groupe 1** qui comprend les substances et les préparations, telles que définies aux points 7 et 8 de l'Article 2 du Règlement CE n° 1272/2008, qui sont classés comme dangereux en conformité avec les classes de danger physique ou à la santé énoncées dans la partie 2 et 3 de l'Annexe I ce règlement. Une liste de 18 classes de fluides dangereux sont présentées au point 1.a de l'article 13 (explosifs, inflammables, oxydants, toxiques).
- **Groupe 2** qui comprend tous les autres substances et préparations non énumérés sur le point 1.a

Tous les produits Castel, énumérés au premier chapitre de ce catalogue, peuvent être utilisés avec des fluides frigorigènes appropriés pour le Groupe 2, classé A1 à l'annexe E de la norme EN 378-1: 2008. Parmi les fluides sont bien connus: R22; R134a; R404A; R407C; R410A; R507.

Certains produits Castel, énumérés au premier chapitre de ce catalogue, peuvent aussi être utilisés avec des liquides réfrigérants appropriés pour le Groupe 1, classé A2L à l'annexe E de la norme EN 378-1: 2008. Ces fluides sont les suivants: R32; R1234yf.

Castel, produits énumérés au deuxième chapitre de ce catalogue, peuvent être utilisés avec des fluides frigorigènes appropriés pour le Groupe 1, classe A3 à l'annexe E de la norme EN 378-1: 2008. Parmi les fluides, on connaît bien : R290; R600 ; R600a.

APPLICATION DE LA DIRECTIVE 2011/65/UE DU PARLEMENT EUROPÉEN ET DU CONSEIL, DU 8 JUILLET 2011, SUR LA RESTRICTION RELATIVE À L'UTILISATION DE CERTAINES SUBSTANCES DANGEREUSES DANS LES APPAREILLAGES ÉLECTRIQUES ET ÉLECTRONIQUES VIS-À-VIS DES PRODUITS CASTEL POUR RÉFRIGÉRATION

La Directive 2011/65/UE, mieux connue sous le nom de Directive RoHS 2 ou RoHS-Recast (Restriction of Hazardous Substances), vise à interdire ou limiter l'utilisation de certaines substances dangereuses dans les appareillages électriques et électroniques ainsi qu'à la récupération et l'élimination écologiquement correctes des déchets d'appareillages électriques et électroniques. La Directive 2011/65/UE remplace la précédente Directive 2002/95/CE (RoHS) qui a été abrogée depuis le 3 janvier 2013.

Les dispositions de la Directive RoHS 2 s'appliquent aux AEE (Appareillages Électriques et Électroniques) qui entrent dans les Catégories 1, 2, 3, 4, 5, 6, 7, 10, 11 énumérées dans l'Annexe 1 de cette même Directive.

Les appareillages appartenant aux catégories 1-"Grands appareils électroménagers" et 10-"Distributeurs automatiques" sont détaillés à l'Annexe 2 de la Directive 2012/19/UE, RAEE-Recast, (déchets d'appareillages électriques et électroniques) qui remplace la précédente Directive 2002/96/CE, abrogée depuis le 15 février 2014. Dans les listes de l'Annexe 2, figurent entre autres:

- Grands appareils de réfrigération
- Réfrigérateurs
- Congélateurs
- Autres grands appareils électroménagers pour la réfrigération, la conservation et le

dépôt des aliments

- Appareils pour le conditionnement
- Autres appareillages pour la ventilation, l'extraction de l'air et le conditionnement
- Distributeurs de boissons chaudes, froides, bouteilles et canettes

L'Article 4 de la Directive RoHS 2 prévoit que les AEE introduites sur le marché, y compris les câbles et les pièces détachées destinés à leur réparation, à leur réutilisation, à la mise à jour de leur fonctionnalité, au renforcement de leurs capacités, ne contiennent pas les substances énumérées dans l'Annexe 2, à savoir :

- Plomb - (0,1%)
- Mercure – (0,1%)
- Cadmium – (0,01%)
- Chrome hexavalent – (0,1%)
- Polybromobiphényle (PBB) – (0,1%)
- Polybromodiphényléther (PBDE) – (0,1%)

L'Annexe 3 prévoit différentes exemptions sur les restrictions d'utilisation indiquées dans l'Article 4 et l'Annexe 2. Parmi les différentes exemptions prévues, celles qui suivent sont d'un intérêt particulier pour le secteur de la réfrigération/conditionnement :

- Plomb comme élément d'alliage dans l'acier contenant jusqu'à 0,35 % de plomb en poids aluminium contenant jusqu'à 0,4 % de plomb en poids et alliage de cuivre contenant jusqu'à 4 % de plomb en poids
- Chrome hexavalent comme agent anticorrosif dans les systèmes de refroidissement d'acier au carbone dans les réfrigérateurs à absorption

La société Castel a mis en oeuvre avant 2005, année de transposition des Directives 2002/95/CE et 2002/96/CE par l'État Italien, une enquête détaillée, avec ses propres fournisseurs, dans le but de déterminer la présence ou non des susdites substances dangereuses, aussi bien dans ses propres produits que dans ses processus de production, et de les limiter progressivement.

Au terme de cette grande analyse initiale et d'une surveillance constante des produits et des procédés, la société Castel est en mesure de déclarer que tous les produits qu'elle fournit à ses clients sont conformes aux restrictions relatives à l'utilisation de certaines substances dangereuses, définies dans la Directive 2001/65/UE.

De manière spécifique, les produits de la société Castel :

1. Ne contiennent pas de mercure, cadmium, chrome hexavalent, Polybromobiphényles (PBB), Polybromodiphényléthers (PBDE)
2. Contiennent du plomb comme élément d'alliage dans l'acier, dans l'aluminium et dans les alliages de cuivre dans les limites d'acceptabilité prévues par l'Annexe 3 de la Directive RoHS 2

La société Castel déclare également que tous les produits fournis à ses clients, comme composants/pièces détachées utilisés dans les AEE ne doivent pas :

- être marqués CE comme requis dans l'Article 15 de la Directive 2011/65/UE
- être accompagnés d'une Déclaration de Conformité rédigée selon l'Annexe 6 de cette même Directive.

Comme spécifié dans le Chap. 7 - par. Q7.3 et dans le Chap. 8 - par. Q8.5 du Guide RoHS 2 FAQ publié le 12/12/2012 par la Commission Européenne.

APPLICATION DU RÈGLEMENT 1907/2006/CE DU PARLEMENT EUROPÉEN ET DU CONSEIL, DU 18 DÉCEMBRE 2006, CONCERNANT L'ENREGISTREMENT, L'ÉVALUATION, L'AUTORISATION ET LA RESTRICTION DES SUBSTANCES CHIMIQUES (REACH) VIS-À-VIS DES PRODUITS CASTEL POUR RÉFRIGÉRATION

Le Règlement européen 1907/2006/CE concernant l'enregistrement, l'évaluation, l'autorisation et la restriction des substances chimiques, plus connu sous l'acronyme REACH (Registration, Evaluation, Authorisation of Chemicals) a été publié sur la GUCE L136 du 29 mai 2007 et est entré en vigueur dans toute l'Union Européenne le 1er Juin 2007. Ce Règlement requiert le pré-enregistrement et l'enregistrement des substances chimiques fabriquées ou importées en Europe auprès de l'Agence européenne pour les substances chimiques (European Chemicals Agency – ECHA).

La société Castel s'est aussitôt activée pour approfondir les contenus et les finalités de la nouvelle législation dans le but de définir les rôles qu'elle assume dans la chaîne d'approvisionnement et les éventuelles obligations auxquelles elle doit répondre conformément au Règlement REACH.

La société Castel n'est pas un "fabricant" ou un "importateur" de substances et ne doit donc pas obtempérer aux obligations de pré-enregistrement et/ou d'enregistrement.

La société Castel n'est pas un "fabricant" ou un "importateur" de préparations et ne doit donc pas fournir d'informations aux clients sur l'enregistrement des substances contenues dans celles-ci ni d'informations sur la sécurité.

La société Castel n'est pas un "fabricant" ou un "importateur" d'articles qui relâchent des substances dans les conditions normales d'utilisation ou raisonnablement prévisibles (Art. 7.1 du REACH) et ne doit donc pas obtempérer aux obligations de pré-enregistrement et/ou d'enregistrement de ces substances.

La société Castel, vis-à-vis de ses fournisseurs, est un "utilisateur en aval" de substances, préparations et articles utilisés dans leurs processus de production et dans leurs produits. La société a recueilli des informations auprès de tous ses fournisseurs de substances/préparations et produits pour vérifier :

- qu'ils connaissent les contenus et finalités du Règlement REACH
- qu'ils se sont activés pour remplir les obligations leur incombant et prévues par le susdit Règlement
- qu'ils assurent la continuité de leurs fournitures dans le futur

La société Castel est un "fabricant" d'articles envers ses clients et en tant que tel, s'engage à vérifier constamment que dans ses produits:

- les substances sujettes à restriction, énumérées dans l'Annexe XVII, ne sont pas utilisées, de manière non conforme à la restriction, selon ce que prévoit l'Art. 67. du REACH
- les substances extrêmement problématiques, mieux connues sous l'acronyme SVHC (Substance of Very High Concern) énumérées dans la Candidate List et la Authorisation List de l'Annexe XIV, ne sont pas présentes dans des concentrations supérieures à 0,1 % poids/poids. (la limite de 0,1 % relative au poids total de l'article) et qu'elles remplissent toutes les conditions énumérées dans l'Art. 7.2 du REACH. Si cette éventualité se produit, la société Castel s'engage à le communiquer aussitôt à ses clients en fournissant toutes les informations nécessaires pour une utilisation en toute sécurité, selon ce que prévoit l'Art. 33 du REACH.

APPLICATION DU RÈGLEMENT N° UE 517/2014 DU PARLEMENT EUROPÉEN ET DU CONSEIL, DU 16 AVRIL 2014, RELATIF A CERTAINS GAZ A EFFET DE SERRE FLUORES VIS-A-VIS DES PRODUITS CASTEL POUR REFRIGERATION

Le Règlement européen UE No 517/2014 sur les gaz à effet de serre fluorés, mieux connu comme le Règlement F-Gaz, a été publié sur le JOCE L150 du 20 mai 2014 et est entré en vigueur dans toute l'Union Européenne le 1er janvier 2015, abrogeant le précédent Règlement CE N° 842/2006.

Le nouveau règlement s'articule sur trois principaux sujets traités dans les chapitres suivants :

- Chapitre II : Confinement
- Chapitre III : Introduction sur le marché et contrôle de l'utilisation
- Chapitre IV : Réduction de la quantité d'hydrofluorocarbures introduite sur le marché.

Confinement

L'article 4 prévoit que les opérateurs d'appareillages contenant des gaz à effet de serre fluorés en quantité égale ou supérieure à 5 tonnes de CO2 équivalentes doivent effectuer des contrôles pour vérifier la présence éventuelle de fuites. Les appareillages du secteur conditionnement et réfrigération à contrôler sont : appareillages fixes de réfrigération, appareillages fixes de conditionnement de l'air, pompes à chaleur fixes, chambres réfrigérées de camions et remorques. Sont exclus des contrôles, les appareillages hermétiquement scellés contenant du F-gaz dans une quantité inférieure à 10 tonnes de CO2 équivalentes pourvu qu'ils soient étiquetés et hermétiquement scellés.

Introduction sur le marché et contrôle de l'utilisation

Restrictions à l'introduction sur le marché : l'article 11 prévoit qu'à compter des dates indiquées, soit interdite l'introduction sur le marché des produits et des appareillages énumérés dans l'Annexe III. Les appareillages du secteur du conditionnement soumis à cette interdiction sont :

| Description du produit | Date d'interdiction |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Réfrigérateurs et congélateurs pour usage domestique qui contiennent des HFC avec des GWP ≥ 150 | 01/01/2015 |
| Réfrigérateurs et congélateurs pour usage commercial (appareillages hermétiquement scellés) qui contiennent des HFC avec des GWP ≥ 2500 | 01/01/2020 |
| Réfrigérateurs et congélateurs pour usage commercial (appareillages hermétiquement scellés) qui contiennent des HFC avec des GWP ≥ 150 | 01/01/2022 |
| Appareillages fixes de réfrigération contenant des HFC avec des GWP ≥ 2500, à l'exception des appareillages conçus pour fonctionner à des T < -50 °C | 01/01/2020 |

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Systèmes de réfrigération centralisés k pour usage commercial avec potentialité nominale ≥ 40 kW qui contiennent des HFC avec des GWP ≥ 150 , à l'exception des circuits primaires de système en cascade où l'utilisation de HFC avec GWP < 1500 est autorisée. | 01/01/2022 |
| Appareillages mobiles de climatisation (appareillage hermétiquement scellés) qui contiennent des HFC avec des GWP ≥ 150 | 01/01/2020 |
| Systèmes de climatisation mono-split contenant moins de 3 Kg de HFC avec GWP ≥ 750 | 01/01/2025 |

Contrôle de l'utilisation : l'article 13 prévoit qu'à partir du 1er janvier 2020, l'utilisation de HFC avec GWP ≥ 2500 est interdite pour l'assistance et la maintenance des appareillages de réfrigération avec charge de réfrigérant ≥ 40 tonnes de CO₂ équivalente. L'interdiction ne s'applique pas pour les appareillages conçus pour fonctionner à des T < -50 °C. L'interdiction est repoussé au 1^{er} janvier 2030 pour les HFC régénérés avec GWP ≥ 2500 , étiquetés conformément à l'article 12 et pour les HFC recyclés avec les GWP ≥ 2500 , déchargés du même équipement sur lequel est effectuée la maintenance.

Réduction de la quantité d'hydrofluorocarbures introduite sur le marché

L'article 15 prévoit que la quantité de HFC que les producteurs et importateurs peuvent introduire chaque année sur le marché dans l'Union Européenne ne doit pas dépasser la quantité maximum indiquée dans l'Annexe V. La quantité maximum autorisée étant de 100 % en 2015, l'Annexe V prévoit une réduction progressive de la quantité maximum pouvant être commercialisée jusqu'à arriver à 21 % en 2030. À partir du 1er janvier 2017, les appareillages de réfrigération, conditionnement et pompes à chaleur préchargés avec des HFC peuvent être introduits sur le marché uniquement s'ils ne dépassent pas les quantités maximum prévues par l'Annexe V.

L'article 16 prévoit qu'à l'intérieur de cette quantité maximum définie par année, la Commission Européenne attribue, conformément au règlement, des quotas d'émission sur le marché des HFC.

Nous pensons que l'application du Règlement F-Gaz portera d'ici peu de grands changements dans les différents secteurs de la réfrigération même si, dans une moindre mesure, également dans le conditionnement de l'air. L'utilisation de deux réfrigérants considérés primordiaux dans le secteur de la réfrigération, le R404A (GWP = 3922 second AR4) et le R507 (GWP=3985 second AR4) est destinée à se réduire considérablement en l'espace de quelques années jusqu'à disparaître complètement. La même utilisation du R134a (GWP=1430 selon AR4) est destinée à se réduire vu les changements en cours sur la réfrigération domestique et la climatisation automobile. L'utilisation des deux réfrigérants traditionnellement utilisés dans la climatisation, le R407C (GWP = 1774 selon AR4) et le R410A (GWP = 2088 selon AR4) est également destinée à se redimensionner vu les appareillages de climatisation dans l'Annexe III du règlement.

La société Castel s'est aussitôt activée pour approfondir les contenus et les finalités de la nouvelle législation dans le but de vérifier la compatibilité de ses produits avec les nouveaux fluides réfrigérants que les plus grandes maisons productrices proposent comme alternative aux HFC traditionnels destinés à être interdits.

Au cours des deux dernières années, Castel a déjà présenté deux lignes de produit spécifiques à utiliser avec des fluides réfrigérants naturels : une ligne de produits pour CO₂, avec différentes pressions d'utilisation, une ligne de produits pour hydrocarbures (R290, R600, R600a)

Au cours de l'année 2015, Castel a effectué, avec résultats positifs, des tests de compatibilité sur ses produits standard, normalement utilisés avec des réfrigérants HFC traditionnels, avec une série de nouveaux réfrigérants proposés comme des solutions alternatives à celles traditionnelles, plus particulièrement :

- HFC monocomposants comme R32
- HFO monocomposants comme R1234yf et R1234ze
- Mélanges HFC/HFO comme R448A, R449A, R450A, R452A

ALLGEMEINE VERKAUFSBEDINGUNGEN

Aufträge

Die Aufträge setzen die vollständige Annahme unserer Verkaufsbedingungen seitens des Kunden

voraus, die nachstehend aufgeführt werden, und binden uns niemals an die Kaufbedingungen des Käufers.

Versand

Bei einem Verkauf "frei Werk" reisen die Waren auf Risiko und Gefahr des Kunden.

Verpackung

Die Verpackungen werden zum Selbstkostenpreis hergestellt und werden nicht zurückgenommen.

Lieferungen

Lieferfristen sind unverbindlich: somit wird keinerlei Haftung oder Vertragsstrafe für verspätete Lieferung anerkannt. Eventuelle Verspätungen begründen kein Recht zur Kündigung des Vertrages.

Zahlungen

Die Zahlungen müssen an unserem Sitz erfolgen. Verspätungen bei den Zahlungen geben uns das Recht zur Einstellung der Lieferungen und zur Kündigung des kaufenden Vertrages.

Reklamationen

Im Allgemeinen gelten nur die an unserem Sitz innerhalb von zehn Tagen nach Erhalt der Materialien eingereichten Reklamationen. Eventuelle deutliche Defekte, die während des Gebrauchs und nach Ablauf der zehn Tage festgestellt werden, werden gemäß der Bedingungen im Abschnitt "Garantie" behandelt.

Garantie

Für alle Produkte von Castel wird eine Garantie über einen Zeitraum von 12 Monaten gewährt. Die Garantie betrifft alle jene Produkte oder Teile dieser, die sich innerhalb des Garantiezeitraums als defekt herausstellen. Der Kunde muss in diesem Fall auf seine Kosten, die Materialien zusammen mit einer detaillierten Beschreibung der festgestellten Defekte zurücksenden. Die Garantie wird nicht anerkannt, wenn die Defekte an den Produkten von Castel auf Fehlern des Kunden oder Dritter beruhen, wie: falsche Installationen, Gebrauch entgegen der von Castel erteilten Anweisungen, Veränderungen. Bei eventuellen Defekten oder Mängeln unserer Produkte verpflichtet sich Castel zur alleinigen und einfachen Auswechslung dieser, ohne keinesfalls ein Recht auf Schadensersatz jeglicher Art anzuerkennen. Die Firma Castel behält

sich vor, ohne vorherige Ankündigung und zu einem beliebigen Zeitpunkt Veränderungen an ihren Produkten vorzunehmen.

Rückgaben

Es wird keine Rückgabe von Waren angenommen, die nicht ausdrücklich genehmigt wurde und uns nicht frachtfrei erreicht.

Preise

Die Preise der Waren werden stets "frei Werk" verstanden und können zu einem beliebigen Zeitpunkt in Abhängigkeit der Kosten geändert werden.

Streitsachen

Für jegliche Streitsachen ist das Landgericht Mailand zuständig.

ANWENDUNG DER RICHTLINIE 2014/68/EU DES EUROPÄISCHEN PARLAMENTES UND RATES VOM 15. MAI 2014, BEZÜGLICH UNTER DRUCK STEHENDER AUSRÜSTUNGEN, HINSICHTLICH DER PRODUKTE VON CASTEL FÜR DIE KÜHLUNG

Die Richtlinie 2014/68/EU (PED 2 oder PED-Recast) kommt auf den Entwurf, die Herstellung und Bewertung der Übereinstimmung der unter Druck stehenden Ausrüstungen und Baugruppen mit einem maximal zulässigen Druck "PS" von mehr als 0,5 bar ausgenommen der in Artikel 1, Abschnitt 3 dieser Richtlinie aufgeführten Fälle zur Anwendung.

Die neue Richtlinie PED Recast ersetzt die vorausgehende Richtlinie 97/23/EU, d.h. im Besonderen:

- Artikel 13 der Richtlinie PED Recast, bezüglich der Klassifizierung der Druckgeräte, ist am 19. Juni 2015 in Kraft getreten und ersetzt Artikel 9 der früheren PED-Richtlinie.
- Alle anderen Artikel der Richtlinie PED Recast treten ab dem 19. Juli 2016 in Kraft und ersetzen alle Artikel der früheren PED-Richtlinie. Ab diesem Datum ist es in den Mitgliedstaaten der Europäischen Gemeinschaft nur möglich, Druckgeräte mit der CE-Kennzeichnung gemäß RED C[^]Recast auf den Markt zu bringen.

Zum Zwecke des Artikels 2 der Richtlinie PED Recast siehe in den folgenden Definitionen:

- **Druckgeräte:** Behälter, Leitungen, Sicherheitszubehör und Druckzubehör.
- **Behälter:** ein zur Aufnahme von unter Druck stehenden Flüssigkeiten entworfenes und gebautes Gefäß.
- **Leitungen:** die Bauteile einer für die Förderung von Flüssigkeiten dienenden Leitung,

vorausgesetzt diese sind angeschlossen, um in ein Drucksystem aufgenommen zu werden.

- **Sicherheitszubehör:** die zum Schutz der Druckgeräte vor einer Überschreitung der zulässigen Grenzwerte bestimmten Vorrichtungen.
- **Druckzubehör:** Vorrichtung mit Hilfsfunktionen, deren Anschlüsse unter Druck stehen, wie zum Beispiel: magnetventile, Ventile im Allgemeinen, Anzeigen.
- **Baugruppen:** verschiedene Druckgeräte, die von einem Hersteller zusammengebaut werden, um eine integrierte und funktionstüchtige Einheit zu bilden.
- **Zulässiger Höchstdruck (PS):** der vom Hersteller angegebene Höchstdruck, für den das Gerät entworfen wurde.
- **Zulässige Mindest-/Höchst-Temperatur (TS):** die vom Hersteller angegebene Mindest-/Höchst-Temperatur, für die das Gerät entworfen wurde.
- **Volumen (V):** das Volumen im Inneren einer Kammer, einschließlich des Volumens der Anschlüsse bei der ersten Verbindung sowie ausgenommen des Volumens der dauerhaften Elemente im Inneren.
- **Nennabmessung (DN):** die numerische Bezeichnung der Größe, die allen Bauteilen eines Leitungssystems gemein ist.
- **Flüssigkeit:** die Gase, Flüssigkeiten und Dämpfe im reinen Zustand sowie ihre Mischungen.

In Artikel 4 sowie in der nachfolgenden Anlage II der Richtlinie werden die Druckgeräte in Klassen mit steigender Gefahr von I bis IV eingeteilt, in Abhängigkeit von:

- Zustand des enthaltenen Flüssigkeit;
 - Gefahrenklasse des enthaltenen Flüssigkeit;
 - Geräteart;
 - Abmessungen und Energiepotential; V, DN, PS, PS x V, PS x DN
- und müssen die grundlegenden Sicherheitsanforderungen erfüllen, die in Anlage I der PED 2 Richtlinie festgelegt sind.

Druckgeräte mit niedrigeren oder gleichen Eigenschaften, wie in den Punkten 1.a, 1.b und 1.c sowie in Punkt 2 des Artikels 4 der PED 2 Richtlinie festgelegt, müssen die in Anlage I festgelegten, grundlegenden Sicherheitsanforderungen nicht erfüllen, sondern entsprechend einer korrekten Vorgehensweise entworfen und hergestellt werden, die in einem der Mitgliedsstaaten zur Anwendung kommt sowie die Sicherheit der Anwendung gewährleistet (Artikel 4, Abschnitt 3). Diese Geräte müssen keine CE-Kennzeichnung tragen.

In Artikel 13 der Richtlinie werden die Fluide nach ihrer Gefährlichkeit in zwei Gruppen unterteilt:

- **Gruppe 1,** umfasst Stoffe und Gemische, laut Definition in den Punkten 7 und 8 des Artikels 2 der EG-Regelung Nr. 1272/2008, die gemäß der in Teil 2 und 3 von Anhang I zu dieser Regelung aufgeführten körperlichen oder gesundheitlichen Gefahrenklassen als gefährlich eingestuft werden. Eine Liste von 18 Klassen gefährlicher Fluide ist unter Punkt 1. des Artikels 13 zu sehen (explosive, entflammbar, oxidierend, toxisch).
 - **Gruppe 2,** umfasst Stoffe und Gemische, die nicht unter Punkt 1.a aufgeführt sind
- Alle Produkte von Castel, die im ersten Kapitel dieses Katalogs aufgeführt sind, eignen sich zum Einsatz mit zur Gruppe 2 gehörenden Kühlflüssigkeiten, die als A1 im Anhang E des Standards EN 378-1:2008 eingeordnet werden. Unter diesen Fluiden sind bekannt: R22; R134a; R404A; R407C; R410A; R507.
- Einige Produkte von Castel, die im ersten Kapitel dieses Katalogs aufgeführt sind, eignen sich auch zum Einsatz mit zur Gruppe 1 gehörenden Kühlflüssigkeiten, die als A2L im Anhang E des Standards EN 378-1:2008 eingeordnet werden. Diese Fluide sind: R32; R1234yf.
- Produkte von Castel, die im zweiten Kapitel dieses Katalogs aufgeführt sind, eignen sich zum Einsatz mit zur Gruppe 1 gehörenden Kühlflüssigkeiten, die als A3 im Anhang E des Standards EN 378-1:2008 eingeordnet werden. Unter diesen Fluiden sind bekannt: R290; R600; R600a.

ANWENDUNG DER RICHTLINIE 2011/65/EU DES EUROPÄISCHEN PARLAMENTES UND RATES VOM FREITAG, 8. JULI 2011, BEZÜGLICH DER EINSCHRÄNKUNG DES GEBRAUCHS BESTIMMTER GEFÄHRENSTOFFE IN ELEKTRISCHEN UND ELEKTRONISCHEN GERÄTEN HINSICHTLICH DER PRODUKTE VON CASTEL FÜR DIE KÜHLUNG

Die Richtlinie 2011/65/EU, die besser als Richtlinie RoHS 2 oder RoHS-Recast (Restriction of Hazardous Substances) bekannt ist, zielt auf eine Beschränkung oder ein Verbot des Einsatzes bestimmter Gefahrenstoffe in elektrischen und elektronischen Geräten sowie auf die Rückgewinnung und umweltgerechte Entsorgung elektrischer und elektronischer Geräte. Die Richtlinie 2011/65/EU ersetzt die bisherige Richtlinie 2002/95/EG (RoHS), die ab dem 3. Januar 2013 unwirksam geworden ist.

Die Bestimmungen der Richtlinie RoHS 2 kommen auf die elektrischen und elektronischen Geräte der Kategorien 1, 2, 3, 4, 5, 6, 7, 10, 11 der Anlage 1A dieser Richtlinie zur Anwendung.

Die zu den Kategorien 1-“Haushaltsgroßgeräte” und 10-“Automatische Ausgabegeräte” werden in Anlage 2 der Richtlinie 2012/19/EU, RAEE-Recast, (Abfälle von elektrischen und elektronischen Geräten) näher erläutert, die die vorausgehende Richtlinie 2002/96/CE ersetzt, die ab 15. Februar 2014 ihre Wirksamkeit verliert.

In den Listen von Anlage 2 sind unter anderem enthalten:

- Große Kühlgeräte;
- Kühlschränke;
- Gefrierschränke;
- Andere große elektrische Hausgeräte zur Kühlung, Aufbewahrung und Lagerung von Lebensmitteln;
- Klimageräte;
- Andere Geräte zur Lüftung, Luftanleitung und Klimatisierung;
- Automaten für Heiß- und Kaltgetränke, Flaschen und Büchsen.

Artikel 4 der Richtlinie RoHS 2 sieht vor, dass die auf den Markt gebrachten elektrischen und elektronischen Geräte einschließlich Kabeln und Ersatzteilen für ihre Reparatur, Wiederverwendung, Aktualisierung ihrer Funktionen zur Erweiterung ihrer Fähigkeiten, nicht die in Anlage 2 aufgeführten Stoffe enthalten dürfen, d.h.:

- Blei - (0,1 %)
- Quecksilber - (0,1 %)
- Kadmium - (0,01 %)
- Sechswertiges Chrom - (0,1 %)
- Polybromierte Biphenyle (PBB) (0,1%)
- Polybromierte Diphenyläther - (PBDE) (0,1%)

Anlage 3 sieht verschiedene Ausnahmen bei den in Artikel 4 und Anlage 2 angegebenen Gebrauchsbeschränkungen vor. Unter den verschiedenen vorgesehenen Ausnahmen sind für den Bereich der Kühlung und Klimatisierung die folgenden von besonderem Interesse:

- Blei als Element einer Legierung von Stahl mit einem Gewichtsanteil von bis zu 0,35% Blei, von Aluminium mit einem Gewichtsanteil von bis zu 0,4% Blei sowie von Kupfer mit einem Gewichtsanteil von bis zu 4% Blei;
- Sechswertiges Chrom als Korrosionsschutz in Kühlsystemen aus Karbonstahl in Absorptionskältemaschinen;

Über eine lange Zeit vor dem Jahre 2005 hat die Firma Castel zusammen mit ihren Lieferanten eine sorgfältige Untersuchung eingeleitet, um das Vorhandensein oder Fehlen der oben erwähnten gefährlichen Stoffe sowohl bei ihren Produkten als auch ihren Produktionsprozessen festzustellen und diese zunehmend zu beseitigen.

Am Ende dieser umfassenden anfänglichen Analyse und einer ständigen Überwachung der Produkte und Prozesse ist die Firma Castel in der Lage zu erklären, dass alle an ihre Kunden gelieferten Produkte ie Gebrauchsbeschränkungen bestimmter Gefahrenstoffe erfüllen, die in der Richtlinie 2001/65/UE festgelegt werden.

Im Besonderen gilt für die Produkte der Firma Castel, das:

1. sie kein Quecksilber, kein Kadmium, kein sechswertiges Chrom, keine polybromierten Biphenyle (PBB) sowie keine polybromierten Diphenylether (PBDE) enthalten;
2. Blei nicht als Legierungselement von Stahl-, Aluminium- und Kupferlegierungen innerhalb der durch die Anlage 3 der Richtlinie RoHS 2 vorgesehenen Zulässigkeitsgrenzen enthalten ist.

Die Firma Castel erklärt außerdem, dass alle ihren Kunden gelieferten Produkte, da es sich um Bauteile/Ersatzteile handelt, die in elektrischen und elektronischen Geräten verwendet werden, nicht:

- die CE-Kennzeichnung tragen müssen, wie in Artikel 15 der Richtlinie 2011/65/UE gefordert wird;
- durch eine Konformitätserklärung begleitet werden müssen, die gemäß Anlage 6 der gleichen Richtlinie erstellt wurde.

Wie im Kap. 7 - Abschn. Q7.3 und im Kap. 8 - Abschn. Q8.5 der Anleitung RoHS 2 FAQ, veröffentlicht am 12/12/2012 von der Europäischen Kommission vorgeschrieben.

ANWENDUNG DER VERORDNUNG 1907/2006/EG DES EUROPÄISCHEN PARLAMENTES UND RATES VOM 18. DEZEMBER 2006, BEZÜGLICH DER REGISTRIERUNG, BEWERTUNG, ZULASSUNG UND BESCHRÄNKUNG DER CHEMIKALIEN (REACH) HINSICHTLICH DER PRODUKTE VON CASTEL FÜR DIE KÜHLUNG

Die europäische Verordnung 1907/2006/EG bezüglich der Registrierung, Bewertung, Zulassung und Beschränkung der Chemikalien, die besser unter der Abkürzung REACH (Registration, Evaluation, Authorisation of Chemicals) bekannt ist, wurde im EG-Amtsblatt GUCE L136 vom 29. Mai 2007 veröffentlicht und ist in der gesamten Europäischen Gemeinschaft am 1. Juni 2007 in Kraft getreten. Diese Regelung fordert die Vorab-Registrierung und Registrierung in Europa hergestellter oder importierter Chemikalien bei

der Europäischen Agentur für Chemikalien (European Chemicals Agency – ECHA).

Die Firma Castel hat sich umgehend dafür eingesetzt, die Inhalte und Zielstellungen der neuen Gesetzgebung zu vertiefen, um die von ihr in der Bevorratungskette übernommenen Rollen und eventuell gemäß der REACH-Verordnung zu erfüllende Pflichten festzulegen.

Die Firma Castel ist kein “Hersteller” oder “Importeur” von Stoffen und muss somit nicht die Pflichten der Vorab-Registrierung und / oder Registrierung erfüllen.

Die Firma Castel ist kein “Hersteller” oder “Importeur” von Präparaten und muss den Kunden somit weder Informationen zur Registrierung der darin enthaltenen Stoffe noch zur Sicherheit erteilen.

Die Firma Castel ist kein “Hersteller” oder “Importeur” von Artikeln, die bei normalem oder vernünftigerweise vorhersehbarem Gebrauch (Art. 7.1 REACH) Stoffe freisetzen, und muss deshalb nicht die Pflichten zur Vorab-Registrierung und / oder Registrierung dieser Stoffe erfüllen.

Die Firma Castel ist gegenüber ihren Zulieferern ein “nachgeordneter Anwender” von Stoffen, Präparaten und Artikeln, die in ihren Produktionsprozessen und Produkten verwendet werden. Die Firma hat seit einiger Zeit bei allen ihren Zulieferern von Stoffen / Präparaten und Artikelneine Sammlung von Daten eingeleitet, um zu prüfen, ob:

- diese Kenntnis von den Inhalten und Zielstellungen der REACH-Verordnung haben;
- diese sich dafür einsetzen, die ihnen laut der vorgenannten Verordnung obliegenden Pflichten zu erfüllen;
- die Unterbrechungslosigkeit ihrer Lieferungen in der Zukunft gewährleisten;

Die Firma Castel ist gegenüber ihren Kunden ein “Hersteller” von Artikeln und innerhalb dieser Rolle ständig darum bemüht, zu prüfen, ob ihre Produkte:

- die in Anlage XVII aufgeführten, einer Beschränkung unterliegenden Stoffe nicht abweichend von der Beschränkung benutzt werden, die in Art. 67 der REACH-Verordnung vorgesehen ist;
- nicht in Konzentrationen von mehr als 0,1% Gewichtsanteil vorhanden sind. (der Grenzwert von 0,1% bezieht sich auf das Gesamtgewicht des Artikels) keine besonders besorgniserregenden Stoffe enthalten sind, die besser unter der Abkürzung SVHC (Substance of Very High Concern) bekannt und in der Candidate List und in der Authorisation List der Anlage XIV aufgeführt sind, sowie gleichzeitig alle in Art. 7.2 der REACH-Verordnung aufgeführten Bedingungen erfüllt sind. Sollte dieser Fall eintreten, verpflichtet sich die Firma Castel, dies ihren Kunden rechtzeitig mitzuteilen und für einen sicheren Gebrauch gemäß Art. 33 der REACH-Verordnung ausreichende Informationen bereit zu stellen. Für weitere Informationen zur aktuellen SVHC Candidate List empfehlen wir unseren Kunden, die Internetseite http://echa.europa.eu/chem_data/candidate_list_table_en.asp der Europäischen Agentur ECHA.

ANWENDUNG DER VERORDNUNG (EU) NR. 517/2014 DES EUROPÄISCHEN PARLAMENTES UND RATES VOM 16. APRIL 2014, ÜBER FLUORIERTER TREIBHAUSGASE (F-GAS) HINSICHTLICH DER PRODUKTE VON CASTEL FÜR DIE KÜHLUNG

Die Europäische Regelung EU Nr. 517/2014 zu on fluorierten Treibhausgasen, die sogenannte F-Gas-Regelung, wurde im GUCE L150 mit Datum vom 20. Mai 2014 veröffentlicht und trat in der Europäischen Union am 1. Januar 2015 in Kraft, womit die frühere Regelung EC Nr. 842/2006 ersetzt wurde.

Die neue Regelung gliedert sich in den folgenden Kapiteln in drei Hauptthemen.

- Kapitel II: Eingrenzung
- Kapitel III: Einführung auf dem Markt und Kontrolle des Einsatzes
- Kapitel IV: Reduzierung der auf dem Markt eingeführten Menge von Fluorkohlwasserstoffen

Eingrenzung

Im Artikel 4 legt fest, dass die Nutzer von Geräten, die fluorierte Treibhausgase in Mengen von 5 Tonnen CO₂ oder gleichwertig mehr enthalten, absichern müssen, dass die Geräte auf Leckstellen geprüft werden. Die folgenden Geräte zur Klimatisierung und Kühlung müssen geprüft werden: stationäre Kühlgeräte, stationäre Klimageräte, stationäre Wärmepumpen, Kühlaggregate von Lastwagen und Anhängern, hermetisch abgedichtete Geräte, die fluorierte Treibhausgase in Mengen von weniger als 10 Tonnen CO₂ gleichwertig enthalten, unterliegen keiner Pflicht zur Kontrolle auf Leckstellen, wenn sie als hermetisch abgedichtet beschildert sind.

Einführung auf dem Markt und Kontrolle des Einsatzes

Beschränkung bei der Einführung auf dem Markt: Artikel 11 legt fest, dass die Einführung von Produkten und Geräten auf dem Markt, die im Anhang Annex III aufgeführt sind, ab

dem in diesem Anhang angegebenen Datum untersagt ist. In Anhang III aufgeführte Kühl- und Klimageräte sind:

| Beschreibung des Produktes | Verbotsdatum |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Haushaltskühlschränke und -tiefkühlschränke, die HFCs mit GWP \geq 150 enthalten | 01/01/2015 |
| Kühlschränke und Tiefkühlschränke für gewerbliche Zwecke (hermetisch abgedichtete Geräte), die HFCs mit GWP \geq 2500 enthalten | 01/01/2020 |
| Kühlschränke und Tiefkühlschränke für gewerbliche Zwecke (hermetisch abgedichtete Geräte), die HFCs mit GWP \geq 150 enthalten | 01/01/2022 |
| Stationäre Kühlgeräte, die HFCs mit GWP \geq 2500 enthalten, mit Ausnahme von Geräten, die für den Betrieb bei T < -50 °C vorgesehen sind | 01/01/2020 |
| Zentralisierte Multipack-Kühlsysteme zum gewerblichen Gebrauch mit einer Nennkapazität \geq 40 kW, die HFCs mit \geq 150, mit Ausnahme des Primärkreises von Kaskadensystemen enthalten, wo HFCs mit GWP < 1500 verwendet werden können. | 01/01/2022 |
| Mobile Geräte zur Raumklimatisierung (hermetisch abgedichtete Geräte), die HFC mit GWP \geq 150 enthalten | 01/01/2020 |
| Single split Luft-Klimatisierungssysteme, die weniger als 3 kg HFCs mit GWP \geq 750 enthalten | 01/01/2025 |

Kontrolle des Einsatzes: Artikel 13 legt fest, dass der Einsatz von HFCs mit GWP \geq 2500 zum Betrieb oder zur Wartung von Kühlgeräten mit einer Füllmenge von \geq 40 Tonnen CO₂ gleichwertig, ab dem 1. Januar 2020 untersagt werden. Dieses Verbot kommt nicht bei Geräten zur Anwendung, die für einen Betrieb bei T < -50 °C vorgesehen sind, und wird auf den 1. Januar 2030 bei zurückgewonnenen HFCs mit GWP \geq 2500 hinausgeschoben, die entsprechend Artikel 12 gekennzeichnet sind, sowie bei recycelten HFCs mit GWP \geq 2500, die aus dem gleichen Gerät während der Wartung zurückgewonnen wurden.

Reduzierung der auf dem Markt eingeführten Menge von Fluorkohlwasserstoffen

Artikel 15 legt fest, dass die Menge von HFCs, zu deren Einleitung auf dem Markt der EU die Hersteller und Importeure pro Jahr berechtigt sind, die Höchstmenge des betreffenden Jahres nicht überschreiten darf, die gemäß Anhang V berechnet wurde. Beträgt die zulässige Höchstmenge des Jahres 2015 100% sieht Anhang V eine zunehmende Reduzierung der maximal vermarkt baren Menge von bis zu 21% im Jahre 2030 vor. Ab dem 1. Januar 2017 dürfen auch Kühl-, Luftklimatisier- und Wärmepumpengeräte, die mit HFCs befüllt werden, nicht auf den Markt gebracht werden, es sei denn, die Füllmenge an HFCs wird zum Anteilssystem von Anhang V hinzugerechnet. Artikel 16 legt fest, dass die Europäische Kommission jedes Jahr den die Regelung erfüllenden Herstellern HFCs-Anteile zuweist, die unter Berücksichtigung der für dieses Jahr im Anhang V festgelegten Höchstmenge auf den Markt gebracht werden können.

Wir sind der Meinung, dass die Regelung zum F-Gas bald zu großen Veränderungen bei der Kühlung und in geringerem Maße auch bei der Luftklimatisierung führen wird. Es wird erwartet, dass der Einsatz von zwei Kältemitteln, die bei den Kühlsystemen als primär angesehen wird, d.h., R404A (GWP = 3922 gemäß AR4) und R507 (GWP = 3985 gemäß AR4), innerhalb weniger Jahre stark zurückgehen wird bis er vollständig entfällt. Gleichfalls wird der Einsatz von R134a (GWP = 1430 gemäß AR4) unter Berücksichtigung der Veränderungen bei der Kühlung im Haushalt und der Luftklimatisierung in Autos sinken. Der Gebrauch der beiden herkömmlichen Kältemittel zur Luftkühlung, R407C (GWP = 1774 gemäß AR4) und R410A (GWP = 2088 gemäß AR4) wird sich in Anbetracht der in Anhang III der Regelung erwähnten Geräte nur unwahrscheinlich verringern.

Die Firma Castel hat sofortige Maßnahmen eingeleitet, um die Inhalte und Zwecke der neuen Gesetzgebung zu vertiefen, damit die Kompatibilität ihrer Produkte zu den neuen Kühlfluiden zu prüfen, die die meisten Hersteller als Alternative zum herkömmlichen HFC auf Grund des Verbots anbieten. In den vergangenen zwei Jahren hat die Firma Castle bereits zwei spezifische Produktlinien mit Einsatz natürlicher Kältemittel vorgestellt: eine Produktlinie für CO₂, mit unterschiedlichem Betriebsdruck, eine Produktlinie für Kohlenwasserstoffe (R290, R600, R600a). Im Laufe des Jahres 2015 hat die Firma Castel mit positiven Ergebnissen Kompatibilitätstests an ihren Standard-Produkten, die normalerweise mit den herkömmlichen HFC-Kältemitteln verwendet werden, mit einer Reihe neuer Kältemittel durchgeführt, die als Alternativen zu den herkömmlichen angeboten werden, wie z.B.:

- HFC einzelnes Bauteil, wie: R32
- HFO einzelnes Bauteil, wie: R1234yf R1234ze
- HFC / HFO Gemisch, wie: R448A, R449A, R450A, R452A

TENUTA VERSO L'ESTERNO

Tutti i prodotti Castel sono sottoposti singolarmente, oltre che a prove funzionali mirate, a prove di tenuta sotto pressione. Il tasso di perdita ammesso verso l'esterno, e rilevabile durante le prove, è in accordo a quanto previsto nel paragrafo 9.4 della norma EN 12284 : 2003:

"Durante la prova, non devono formarsi bolle per un periodo di almeno un minuto quando il campione è immerso in acqua con una bassa tensione superficiale."

Raccordi e attacchi di carica, quando costituiti da un unico componente, sono provati a campione.

RESISTENZA A PRESSIONE

Tutti i prodotti Castel, se sottoposti a prova idrostatica, garantiscono una resistenza a pressione almeno pari a 1,43 x PS secondo quanto previsto dalla Direttiva 97/23/CE.

Tutti i prodotti Castel, se sottoposti a prova di scoppio, garantiscono una resistenza a pressione almeno pari a 3 x PS secondo quanto previsto dalla norma EN 378-2:2008. Numerosi fra i prodotti Castel possono garantire una resistenza alla pressione di scoppio pari o superiore a 5 x PS in accordo a quanto prevede la norma UL 207:2009.

ATTACCHI DEI PRODOTTI CASTEL

I prodotti Castel possono essere forniti con differenti tipi di attacchi. In modo particolare i prodotti Castel sono costruiti o con attacchi filettati o con attacchi a saldare.

In Tabella 1 è riportata l'equivalenza tra i codici Castel e le dimensioni in pollici. Questi codici sono normalmente impiegati nel mercato internazionale.

In Tabella 2 è riportata l'equivalenza tra i codici Castel e le dimensioni in millimetri.

DESCRIZIONE DEGLI ATTACCHI ATTUALMENTE UTILIZZATI PER I PRODOTTI CASTEL.

1) ATTACCHI FILETTATI

Possono essere di tre tipi differenti:

FLARE

Attacco filettato (secondo SAE J513-92; ASME B1.1-89) per collegamento con tubo di rame con estremità opportunamente svasata "cartellatura" a mezzo di un adatto bocchettone (vedi Tabella 3).

NPT

Attacco filettato con filettatura conica (secondo ASME B1.20.1-92) per il collegamento di raccordi, rubinetti, valvole di sicurezza a serbatoi o tubazioni in acciaio.

FPT

Attacco filettato femmina con filettatura GAS cilindrica (secondo ISO 228/1) usato in idraulica per il collegamento di raccordi o rubinetti a serbatoi o tubazioni in acciaio (vedi tabella 4).

2) ATTACCHI A SALDARE.

Possono essere di quattro differenti tipi e sono adatti per tubi con diametro sia in pollici che in millimetri:

ODS (oppure ODF)

Attacco a saldare femmina per tubo in rame. La dimensione indicata corrisponde al diametro esterno del tubo in rame a cui effettuare il collegamento.

Esempio: 1/2" ODS attacco a saldare adatto a ricevere al suo interno un tubo di rame con diametro esterno di 1/2".

ODM

Attacco a saldare maschio per tubo in rame. La dimensione indicata corrisponde al diametro esterno del tubo in rame a cui effettuare il collegamento.

Esempio: 16 ODM attacco a saldare adatto a collegarsi ad un tubo di rame con diametro esterno da 16 mm mediante un manicotto femmina/femmina M16.

IDS

Attacco a saldare maschio per tubo in rame. La dimensione indicata corrisponde al diametro interno del tubo in rame a cui effettuare il collegamento.

Esempio: 10 IDS attacco a saldare adatto a ricevere al suo esterno un tubo in rame con diametro interno di 10 mm.

W

Attacco a saldare per tubi in acciaio. La dimensione indicata corrisponde al diametro esterno del tubo in acciaio a cui effettuare il collegamento.

Esempio: 76,1 W attacco a saldare adatto a collegarsi a un tubo in acciaio con diametro esterno di 76,1 mm mediante saldatura elettrica di testa.

EXTERNAL LEAKAGE

All the Castel products are submitted, one by one, to tightness tests besides to functional tests. Allowable external leakage, measurable during the test, agrees to the definition given in the Standard EN 12284 : 2003 , Par. 9.4:

"During the test, no bubbles shall form over a period of at least one minute when the specimen is immersed in water with low surface tension, ...".

Fittings and access fittings, when only one piece manufactured, are sample tested.

PRESSURE CONTAINMENT

All Castel products, if submitted to hydrostatic test, guarantee a pressure strength at least equal to 1,43 x PS in compliance with the Directive 97/23/EC.

All Castel products, if submitted to burst test, guarantee a pressure strength at least equal to 3 x PS according to the EN 378-2:2008 Standard.

A great number of Castel products can guarantee a higher pressure strength, equal to 5 x PS according to the Standard UL 207 : 2009.

CONNECTIONS OF CASTEL PRODUCTS

Castel products can be supplied with different connections. In particular Castel products are produced either with threaded connections or solder connections.

Table 1 shows the equivalence between Castel codes and dimensions in inches. These codes are commonly used in the international market.

Table 2 shows the equivalence between Castel codes and dimensions in millimetres.

DESCRIPTION OF CONNECTIONS THAT ARE CURRENTLY USED FOR CASTEL PRODUCTS.

1) THREADED CONNECTIONS

They can be of three different types:

FLARE

Straight threaded connection (according to SAE J513-92; ASME B1.1-89) for junction to a copper pipe with a suitable flared end, using a right nut (see Table 3).

NPT

Taper threaded connection (according to ASME B1.20.1-92) to joint fittings, valves, safety valves to vessel or steel pipes.

FPT

Straight female threaded connection (according to UNI ISO 228/1) used in the hydraulic system to joint fittings or valves to vessel or steel pipes (see table 4).

2) SOLDER CONNECTIONS

They can be of four different types and can fit pipes with diameter both in inches and in millimetres:

ODS (or ODF)

Female solder connection for copper tubes. The indicated size corresponds to the outer diameter of the copper tube which to joint.

E.e.: 1/2" ODS solder connection suitable to receive inside a copper pipe with a 1/2" outer diameter

ODM

Male solder connection for copper tubes. The indicated size corresponds to the outer diameter of the copper tube which to joint.

E.e.: 16 ODM solder connection suitable to joint a copper pipe with a 16 mm outer diameter, by means of an M16 female/female copper sleeve.

IDS

Male solder connection for copper tube. The indicated size corresponds to the inner diameter of the copper tube which to joint.

E.e.: 10 IDS solder connection suitable to receive outside a copper pipe with an 10 mm inner diameter)

W

Solder connection for steel pipes. The indicated size corresponds to the external diameter of the steel pipe which to joint.

E.e.: 76,1 W solder connection suitable to connect a steel pipe with a 76,1 mm external diameter, by means of butt welding.

ÉTANCHÉITÉ VERS L'EXTÉRIEUR

Tous les produits Castel sont soumis individuellement, en plus des tests fonctionnels ciblés, à des essais d'étanchéité sous pression. Le taux de perte admis vers l'extérieur, détectable pendant les tests, est conforme à ce qui est prévu au paragraphe 9.4 de la norme EN 12284 : 2003 :

“Au cours de l'essai, aucune bulle ne doit se former pendant au moins une minute quand l'échantillon est plongé dans l'eau avec une basse tension superficielle”.

Quand ils sont constitués d'un seul composant, les raccords et embouts de chargement sont testés de manière aléatoire.

RÉSISTANCE À LA PRESSION

Tous les produits Castel, s'ils sont soumis à l'essai hydrostatique, assurent une résistance à la pression d'au moins 1,43 x PS selon ce que prévoit la Directive 97/23/CE.

Tous les produits Castel, s'ils sont soumis au test d'éclatement, assurent une résistance à la pression d'au moins 3 x PS selon ce que prévoit la Directive EN 378-2:2008.

Nombreux sont les produits Castel pouvant garantir une résistance à la pression d'éclatement égale ou supérieure à 5 x PS conformément à ce que prévoit la norme UL 207:2009.

RACCORDS DES PRODUITS CASTEL

Les produits Castel peuvent être fournis avec différents types de raccords. De manière particulière, les produits Castel sont fabriqués avec des raccords filetés ou avec des raccords à souder. Au Tableau 1, est indiquée l'équivalence entre les codes Castel et les dimensions en pouces. Ces codes sont normalement utilisés dans le marché international.

Au Tableau 2, est indiquée l'équivalence entre les codes Castel et les dimensions en millimètres.

DESCRIPTION DES RACCORDS ACTUELLEMENT UTILISÉS POUR LES PRODUITS CASTEL.

1) RACCORDS FILETÉS

Ils peuvent être de trois types différents:

FLARE

Raccord fileté (selon SAE J513-92; ASME B1.1-89) pour raccordement avec tuyau en cuivre avec extrémité adéquatement évasée (“évasement”) au moyen d'un embout adapté (voir Tableau 3).

NPT

Raccord fileté à filetage conique (selon ASME B1.20.1-92) pour le raccordement d'embouts, robinets, robinets, soupapes de sécurité aux réservoirs ou tuyauteries en acier.

FPT

Raccord fileté femelle avec filetage GAS cylindrique (selon ISO 228/1) utilisé dans les systèmes hydrauliques pour la jonction d'embouts ou robinets aux réservoirs ou tuyauteries en acier (voir tableau 4).

2) RACCORDS À SOUDER.

Ils peuvent être de quatre types différents et sont adaptés pour tuyaux avec diamètre aussi bien en pouces qu'en millimètres :

ODS (ou ODF)

Raccord à souder femelle pour tuyau en cuivre. La dimension indiquée correspond au diamètre extérieur du tuyau en cuivre à raccorder.

Exemple : Embout 1/2" ODS à souder pouvant recevoir à l'intérieur un tuyau en cuivre d'un diamètre externe de 1/2".

ODM

Raccord à souder mâle pour tuyau en cuivre. La dimension indiquée correspond au diamètre extérieur du tuyau en cuivre à raccorder.

Exemple : Embout 16 ODM à souder pouvant être raccordé à un tuyau en cuivre d'un diamètre externe de 16 mm au moyen d'un manchon femelle/femelle M16

IDS

Raccord à souder mâle pour tuyau en cuivre. La dimension indiquée correspond au diamètre intérieur du tuyau en cuivre à raccorder.

Exemple : Embout 10 IDS à souder pouvant recevoir à l'extérieur un tuyau en cuivre d'un diamètre interne de 10 mm.

W

Raccord à souder pour tuyaux en acier. La dimension indiquée correspond au diamètre extérieur du tuyau en acier à raccorder.

Exemple : Embout 76,1 W à souder pouvant être raccordé à un tuyau en acier d'un diamètre externe de 76,1 mm par soudure électrique bout à bout.

ABDICHTUNG NACH AUSSEN

Alle Produkte der Firma Castel werden einzeln nicht nur gezielten Funktionstests sondern auch Dichtheits tests unter Druck unterzogen. Der zulässige und bei den Tests messbare Verlust nach außen entspricht den Vorgaben im Abschnitt 9.4 der Norm EN 12284 : 2003: “Während des Tests dürfen sich über einen Zeitraum von mindestens einer Minute keine Blasen bilden, wenn das Testobjekt in Wasser mit einer niedrigen Oberflächenspannung eingetaucht wird”.

Verbindungen und Füllanschlüsse werden Stichprobenartig geprüft, wenn sie aus einem einzigen Bauteil bestehen.

DRUCKFESTIGKEIT

Alle Produkte von Castel garantieren, wenn sie einem hydrostatischen Test unterzogen werden, eine Druckfestigkeit von mindestens 1,43 x PS gemäß den Vorgaben in der Richtlinie 97/23/EG. Alle Produkte von Castel garantieren, wenn sie einem Bersttest unterzogen werden, eine Druckfestigkeit von mindestens 3 x PS gemäß den Vorgaben in der Norm EN 378-2:2008.

Zahlreiche der Produkte von Castel können eine Widerstandsfähigkeit gegenüber dem Berstdruck von mindestens 5 x PS entsprechend der Vorgaben in der Norm UL 207:2009 garantieren.

ANSCHLÜSSE DER PRODUKTE VON CASTEL

Die Produkte von Castel können mit unterschiedlichen Anschlussarten geliefert werden. Im Besonderen werden die Produkte von Castel mit Schraub- oder Schweißanschlüssen gebaut.

Tabelle 1 enthält die Beziehung zwischen den Codes von Castel und den Abmessungen in Zoll. Dieses Codes werden üblicherweise auf dem internationalen Markt verwendet. Tabelle 2 enthält die Beziehung zwischen den Codes von Castel und den Abmessungen in Millimetern.

BESCHREIBUNG DER DERZEIT FÜR DIE PRODUKTE VON CASTEL VERWENDETEN ANSCHLÜSSE.

1) SCHRAUBANSCHLÜSSE.

Möglich sind drei verschiedene Arten:

FLARE

Schraubanschluss (gemäß SAE J513-92; ASME B1.1-89) zum Anschluss an Kupferrohr mit einem entsprechend aufgeweiteten Ende, d.h. mit “Bördelung” durch einen geeigneten Stutzen (siehe Tabelle 3).

NPT

Schraubanschluss mit Kegelfgewinde (gemäß ASME B1.20.1-92) zum Anschluss von Verbindungen, Hähnen, Sicherheitsventilen von Behältern oder Stahlrohren.

FPT

Schraubanschluss mit Innengewinde mit zylinderförmigem GAS-Gewinde (gemäß ISO 228/1), verwendet in der Hydraulik zum Anschluss von Verbindungen oder Hähnen von Behältern oder Stahlrohren (siehe Tabelle 4).

2) SCHWEISSANSCHLÜSSE.

Hier sind vier Arten möglich, die sich für Rohre mit einem sowohl in Zoll als auch in Millimeter angegebenen Durchmesser eignen:

ODS (ODER ODF)

Schweißanschluss mit Innengewinde für Kupferrohr. Die angegebene Abmessung entspricht dem Außendurchmesser des Kupferrohres, zu dem der Anschluss hergestellt wird.

Beispiel: 1/2" ODS Schweißanschluss zur Aufnahme eines Kupferrohres mit einem Außendurchmesser von 1/2" in seinem Inneren.

ODM

Schweißanschluss mit Außengewinde für Kupferrohr. Die angegebene Abmessung entspricht dem Außendurchmesser des Kupferrohres, zu dem der Anschluss hergestellt wird.

Beispiel: 16 ODM Schweißanschluss, geeignet zur Verbindung mit einem Kupferrohr mit einem Außendurchmesser von 16 mm mittels einer Muffe Innengewinde/Innengewinde M16.

IDS

Schweißanschluss mit Außengewinde für Kupferrohr. Die angegebene Abmessung entspricht dem Innendurchmesser des Kupferrohres, zu dem der Anschluss hergestellt wird.

Beispiel: 10 IDS Schweißanschluss zur Aufnahme eines Kupferrohres mit einem Innendurchmesser von 10 mm an seinem Äußeren.

W

Schweißanschluss für Stahlrohre. Die angegebene Abmessung entspricht dem Außendurchmesser des Stahlrohres, zu dem der Anschluss hergestellt wird.

Beispiel: 76,1 W Schweißanschluss zur Verbindung zu einem Stahlrohr mit einem Außendurchmesser von 76,1 mm mittels elektrischem Kopfschweißen.



PRODOTTI IDONEI PER REFRIGERANTI IDROCARBURI

I prodotti per refrigeranti idrocarburi presentati in questo catalogo possono essere impiegati con i seguenti fluidi frigoriferi: R290 (propano), R600 (butano) e R600a (isobutano).

Questi refrigeranti sono classificati come fluidi infiammabili appartenenti al Gruppo di sicurezza A3 secondo la norma EN 378-1: 2008 + A1.

I suddetti prodotti devono essere utilizzati esclusivamente su sistemi frigoriferi che siano conformi alle normative vigenti in materia di fluidi refrigeranti infiammabili (serie EN 60335).

Interventi d'installazione, manutenzione e riparazione devono essere condotti solamente da personale autorizzato, qualificato a operare su impianti con refrigeranti infiammabili.



PRODUCTS SUITABLE FOR HYDROCARBONS REFRIGERANTS

The products for hydrocarbons refrigerants shown in this catalogue can be used with the following refrigerant fluids: R290 (propane), R600 (butane) and R600a (isobutane).

These refrigerants are classified as flammable fluids proper to Safety Group A3 according to EN 378-1: 2008 + A1 Standard.

The aforesaid products must be used solely on refrigerating systems that are in compliance with regulations about flammable refrigerant fluids (EN 60335).

Only authorized persons, qualified to work on refrigerating systems containing flammable hydrocarbons, may do installation, maintenance and repair.



PRODUITS ADÉQUATS POUR FLUIDES RÉFRIGÉRANTS HYDROCARBURES

Les produits pour réfrigérants hydrocarbures présentés dans ce catalogue peuvent être utilisés avec les fluides réfrigérants suivants : R290 (propane), R600 (butane) et R600a (isobutane). Ces réfrigérants sont classés comme des fluides inflammables appartenant au Groupe de sécurité A3 selon la norme EN 378-1: 2008 + A1.

Les susdits produits doivent être utilisés exclusivement sur des systèmes frigorifiques qui soient conformes aux normes en vigueur en matière de fluides réfrigérants inflammables (série EN 60335). Les interventions d'installation, de maintenance et de réparation ne doivent être effectuées que par le personnel autorisé, qualifié, capable de travailler sur des systèmes avec réfrigérants inflammables.



FÜR KÄLTEMITTEL MIT KOHLENWASSERSTOFFEN GEEIGNETE PRODUKTE

Die in diesem Katalog vorgestellten Produkte für Kältemittel mit Kohlenwasserstoffen können mit den folgenden Kühlfliuiden eingesetzt werden: R290 (Propan), R600 (Butan) und R600a (Isobutan).

Diese Kältemittel werden als gemäß der Norm EN 378-1 als zur Sicherheitsgruppe A3 gehörige Flüssigkeiten eingeordnet: 2008 + A1.

Die obigen Produkte dürfen ausschließlich in Kühlsystemen verwendet werden, die den geltenden Bestimmungen für entzündliche Kühlfliuide (Serie EN 60335) erfüllen.

Installations-, Wartungs- und Reparaturarbeiten dürfen nur von befugtem und zum Arbeiten an Anlagen mit entzündlichen Kältemitteln qualifiziertem Personal ausgeführt werden.

TABELLA 1 - Corrispondenza tra i codici Castel e le dimensioni in pollici
 TABLE 1 - Equivalence between Castel codes and dimensions in inches
 TABLEAU 1 - Correspondance entre les codes Castel et les dimensions en pouces
 TABELLE 1 - Beziehung zwischen den Codes von Castel und den Abmessungen in Zoll

| Codice Castel Castel code Code Castel Code von Castel | Dimensione Dimension Dimension Abmessung [in] |
|----------------------------------------------------------------|-----------------------------------------------------------|
| .../1 | 1/8" |
| .../2 | 1/4" |
| .../2.5 | 5/16" |
| .../3 | 3/8" |
| .../4 | 1/2" |
| .../5 | 5/8" |
| .../6 | 3/4" |
| .../7 | 7/8" |
| .../8 | 1" |
| .../9 | 1" 1/8 |
| .../11 | 1" 3/8 |
| .../13 | 1" 5/8 |
| .../17 | 2" 1/8 |
| .../21 | 2" 5/8 |
| .../24 | 3" |
| .../25 | 3" 1/8 |
| .../28 | 3" 1/2 |
| .../29 | 3" 5/8 |
| .../33 | 4" 1/8 |
| .../34 | 4" 1/4 |

Esempio: 1098/7 - valvola a solenoide con attacchi a saldare con $\varnothing = 7/8"$
 F.e.: 1098/7 - solenoid valve with solder connection with $\varnothing = 7/8"$
 Exemple : 1098/7 - vanne solénoïde avec embouts à souder avec $\varnothing = 7/8"$
 Beispiel: 1098/7 - Solenoidventil mit Schweißanschlüssen zu $\varnothing = 7/8"$

TABELLA 2 - Corrispondenza tra i codici Castel e le dimensioni in millimetri
 TABLE 2 - Equivalence between Castel codes and dimensions in millimeters
 TABLEAU 2 - Correspondance entre les codes Castel et les dimensions en millimètres

TABELLE 2 - Beziehung zwischen den Codes von Castel und den Abmessungen in Millimetern

| Codice Castel Castel Code Code Castel Code von Castel | Dimensione Dimension Dimension Abmessung [mm] |
|----------------------------------------------------------------|-----------------------------------------------------------|
| .../M6 | 6 |
| .../M10 | 10 |
| .../M12 | 12 |
| .../M15 | 15 |
| .../M18 | 18 |
| .../M22 | 22 |
| .../M28 | 28 |
| .../M42 | 42 |
| .../M64 | 64 |

Esempio: 4411/M42A - filtro disidratatore con cartuccia solida anti acida sostituibile con attacchi a saldare con $\varnothing = 42$ mm.
 F.e.: 4411/M42A - filter drier with replaceable anti-acid solid core with solder connection with $\varnothing = 42$ mm.
 Exemple : 4411/M42A - filtre déshydrateur avec cartouche solide anti-acide remplaçable avec embouts à souder avec $\varnothing = 42$ mm
 Beispiel: 4411/M42A - Dehydrationsfilter mit säurebeständigem, festem, auswechselbarem Einsatz mit Schweißanschlüssen mit $\varnothing = 42$ mm.

TABELLA 3 - Attacco FLARE
 TABLE 3 - Flare Connection
 TABLEAU 3 - Raccord FLARE
 TABELLE 3 - Anschluss FLARE

| Codice Castel Castel Code Code Castel Code von Castel | FLARE | Adatto per tubo in rame Suitable for copper tube Adéquat pour tuyau en cuivre Adapter für Kupferrohr | Filettatura Thread Filetage Gewinde |
|----------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| .../2 | 1/4" | \varnothing 1/4" | 7/16" - 20 UNF |
| .../2.5 | 5/16" | \varnothing 5/16" | 1/2" - 20 UNF |
| .../3 | 3/8" | \varnothing 3/8" | 5/8" - 18 UNF |
| .../4 | 1/2" | \varnothing 1/2" | 3/4" - 16 UNF |
| .../5 | 5/8" | \varnothing 5/8" | 7/8" - 14 UNF |
| .../6 | 3/4" | \varnothing 3/4" | 1.1/16" - 14 UNS |
| .../7 | 7/8" | \varnothing 7/8" | 1.1/4" - 12 UNF |
| .../8 | 1" | \varnothing 1" | 1.3/8" - 12 UNF |

TABELLA 4 - Attacco FPT
 TABLE 4 - FPT Connection
 TABLEAU 4 - Raccord FPT
 TABELLE 4 - Anschluss FPT

| Codice Castel Castel Code Code Castel Code von Castel | Filettatura Thread Filetage Gewinde |
|----------------------------------------------------------------|----------------------------------------------|
| .../01 | G 1/8" |
| .../02 | G 1/4" |
| .../03 | G 3/8" |
| .../04 | G 1/2" |
| .../06 | G 3/4" |
| .../08 | G 1" |
| .../010 | G 1.1/4" |
| .../012 | G 1.1/2" |
| .../016 | G 2" |
| .../020 | G 2.1/2" |
| .../024 | G 3" |

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(R1234yf ⁽¹⁾, R1234ze, R448A, R449A, R450A, R452A)

(#): Per applicazioni specifiche con fluidi refrigeranti non elencati sopra, prego contattare l'Ufficio Tecnico della Castel

(#): For specific applications with refrigerant fluids not listed above, please contact Castel Technical Department

(#): Pour des applications spécifiques avec des fluides frigorigènes non énumérés ci-dessus, s'il vous plaît contacter le service technique de la Castel

(#): Für spezielle Anwendungen mit Kältemitteln nicht oben aufgeführt sind, kontaktieren Sie bitte Castel Technische Abteilung

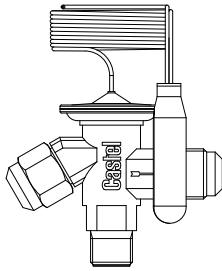
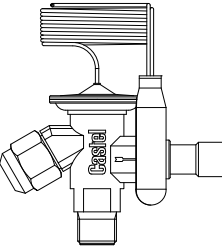
(1): Per applicazioni con R32 e R1234yf (refrigeranti classificati A2L secondo la norma ASHRAE 34-2013) prego contattare l'Ufficio Tecnico della Castel

(1): For applications with R32 and R1234yf (refrigerants classified A2L according to ASHRAE 34-2013 Standard) please contact Castel Technical Department

(1): Pour les applications avec R32 et R1234yf (réfrigérants classés A2L selon la norme ASHRAE 34-2013) s'il vous plaît contacter le service technique Castel

(1): Für Anwendungen mit R32 und R1234yf (Kältemittel klassifiziert A2L nach ASHRAE 34-2013 Standard) kontaktieren Sie bitte Castel Technische Abteilung

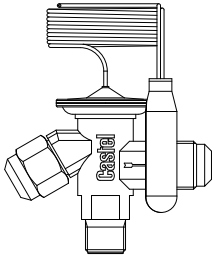
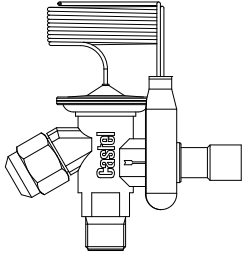
VALVOLE D'ESPANSIONE TERMOSTATICHE CON GRUPPO ORIFICIO INTERCAMBIABILE CARICA LIQUIDA (1) CAMPO TEMPERATURE D'EVAPORAZIONE -40 → +10 °C
 THERMOSTATIC EXPANSION VALVES WITH INTERCHANGEABLE ORIFICE ASSEMBLY LIQUID CHARGE (1) EVAPORATING TEMPERATURE RANGE -40 → +10 °C
 DÉTENDEURS THERMOSTATIQUES AVEC ENSEMBLES ORIFICES INTERCHANGÉABLES CHARGE LIQUID (1) PLAGE DE TEMPÉRATURE D'ÉVAPORATION -40 → +10 °C
 THERMOSTATISCHE EXPANSIONSVENTILE MIT AUSTAUSCHBAREM DÜSENEINSATZ FLÜSSIGKEITSFÜLLUNG (1) VERDAMPF TEMPERATUR BEREICH -40 → +10 °C

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | | | Refrigerante Refrigerant Frigorigène Kältemittel | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|------|-------|------------|-------|-------------|-----------------------------------------------------------|--------------|---------|------|------------------------------------------------------------|-------|
| | | SAE Flare | | | ODS Ø [mm] | | ODS Ø [in.] | | | min | max | | |
| | | In | Out | Equal | Out | Equal | Out | | | | | | Equal |
|  | 2210/4 | 3/8" | 1/2" | - | - | - | - | R22 - R407C | 34 | -60 | +120 | 15 | |
| | 2210/4E | | | 1/4" | - | - | - | R22 - R407C | | | | | |
| | 2220/4 | | | - | - | - | - | R134a | | | | | |
| | 2220/4E | | | 1/4" | - | - | - | R134a | | | | | |
| | 2230/4 | | | - | - | - | - | R404A - R507 | | | | | |
| | 2230/4E | | | 1/4" | - | - | - | R404A - R507 | | | | | |
|  | 2210/4S | 3/8" | - | - | - | - | 1/2" | - | R22 - R407C | 34 | -60 | +120 | 15 |
| | 2210/4SE | | | | - | - | 1/2" | 1/4" | R22 - R407C | | | | |
| | 2210/M12S | | | | 12 | - | - | - | R22 - R407C | | | | |
| | 2210/M12SE | | | | 12 | 6 | - | - | R22 - R407C | | | | |
| | 2220/4S | | | | - | - | 1/2" | - | R134a | | | | |
| | 2220/4SE | | | | - | - | 1/2" | 1/4" | R134a | | | | |
| | 2220/M12S | | | | 12 | - | - | - | R134a | | | | |
| | 2220/M12SE | | | | 12 | 6 | - | - | R134a | | | | |
| | 2230/4S | | | | - | - | 1/2" | - | R404A - R507 | | | | |
| | 2230/4SE | | | | - | - | 1/2" | 1/4" | R404A - R507 | | | | |
| | 2230/M12S | | | | 12 | - | - | - | R404A - R507 | | | | |
| | 2230/M12SE | | | | 12 | 6 | - | - | R404A - R507 | | | | |

Note:

- (1) : gruppo orificio da ordinare separatamente
- (1) : orifice assembly to be ordered separately
- (1) : ensemble orifice doit être commandé séparément
- (1) : Düsenersatz sind separat zu bestellen

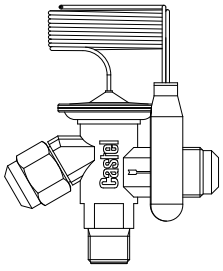
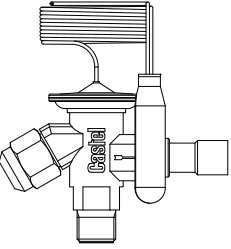
VALVOLE D'ESPANSIONE TERMOSTATICHE CON GRUPPO ORIFICIO INTERCAMBIABILE CARICA MOP +15 °C (1) CAMPO TEMPERATURE D'EVAPORAZIONE -40 → +10 °C
 THERMOSTATIC EXPANSION VALVES WITH INTERCHANGEABLE ORIFICE ASSEMBLY MOP CHARGE +15 °C (1) EVAPORATING TEMPERATURE RANGE -40 → +10 °C
 DETENDEUR THERMOSTATIQUES AVEC ENSEMBLES ORIFICES INTERCHANGEABLES CHARGE MOP +15°C (1) PLAGE DE TEMPÉRATURE D'ÉVAPORATION -40 → +10 °C
 THERMOSTATISCHE EXPANSIONSVENTILE MIT AUSTAUSCHBAREM DÜSENEINSATZ MOP +15°C (1) VERDAMPF TEMPERATUR BEREICH -40 → +10 °C

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | | | Refrigerante Refrigerant Frigorigène Kältemittel | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|------|-------|------------|-------|-------------|-----------------------------------------------------------|--------------|---------|------|------------------------------------------------------------|--------------|
| | | SAE Flare | | | ODS Ø [mm] | | ODS Ø [in.] | | | min | max | | |
| | | In | Out | Equal | Out | Equal | Out | | | | | | Equal |
|  | 2211/4 | 3/8" | 1/2" | - | - | - | - | R22 - R407C | 34 | -60 | +120 | 15 | |
| | 2211/4E | | | 1/4" | - | - | - | - | | | | | R22 - R407C |
| | 2221/4 | | | - | - | - | - | R134a | | | | | |
| | 2221/4E | | | 1/4" | - | - | - | - | | | | | R134a |
| | 2231/4 | | | - | - | - | - | R404A - R507 | | | | | |
| | 2231/4E | | | 1/4" | - | - | - | - | | | | | R404A - R507 |
|  | 2211/4S | 3/8" | - | - | - | - | 1/2" | - | R22 - R407C | 34 | -60 | +120 | 15 |
| | 2211/4SE | | | | - | - | 1/2" | 1/4" | R22 - R407C | | | | |
| | 2211/M12S | | | | 12 | - | - | - | R22 - R407C | | | | |
| | 2211/M12SE | | | | 12 | 6 | - | - | R22 - R407C | | | | |
| | 2221/4S | | | | - | - | 1/2" | - | R134a | | | | |
| | 2221/4SE | | | | - | - | 1/2" | 1/4" | R134a | | | | |
| | 2221/M12S | | | | 12 | - | - | - | R134a | | | | |
| | 2221/M12SE | | | | 12 | 6 | - | - | R134a | | | | |
| | 2231/4S | | | | - | - | 1/2" | - | R404A - R507 | | | | |
| | 2231/4SE | | | | - | - | 1/2" | 1/4" | R404A - R507 | | | | |
| | 2231/M12S | | | | 12 | - | - | - | R404A - R507 | | | | |
| | 2231/M12SE | | | | 12 | 6 | - | - | R404A - R507 | | | | |

Note:

- (1) : gruppo orificio da ordinare separatamente
- (1) : orifice assembly to be ordered separately
- (1) : ensemble orifice doit être commandé séparément
- (1) : Düsenersatz sind separat zu bestellen

VALVOLE D'ESPANSIONE TERMOSTATICHE CON GRUPPO ORIFICIO INTERCAMBIABILE CARICA MOP -20 °C (1) CAMPO TEMPERATURE D'EVAPORAZIONE -60 → -25 °C
 THERMOSTATIC EXPANSION VALVES WITH INTERCHANGEABLE ORIFICE ASSEMBLY MOP CHARGE -20 °C (1) EVAPORATING TEMPERATURE RANGE -60 → -25 °C
 DETENDEUR THERMOSTATIQUES AVEC ENSEMBLES ORIFICES INTERCHANGEABLES CHARGE MOP -20°C (1) PLAGE DE TEMPÉRATURE D'ÉVAPORATION -60 → -25 °C
 THERMOSTATISCHE EXPANSIONSVENTILE MIT AUSTAUSCHBAREM DÜSENEINSATZ MOP -20°C (1) VERDAMPF TEMPERATUR BEREICH -60 → -25 °C

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | | | | Refrigerante Refrigerant Frigorigène Kältemittel | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|------|-------|------------|-------|-------------|--------------|-----------------------------------------------------------|----------|---------|------|------------------------------------------------------------|
| | | SAE Flare | | | ODS Ø [mm] | | ODS Ø [in.] | | | | min | max | |
| | | In | Out | Equal | Out | Equal | Out | Equal | | | | | |
|  | 2234/4 | 3/8" | 1/2" | - | - | - | - | R404A - R507 | 34 | -60 | +120 | 15 | |
| | 2234/4E | | | 1/4" | - | - | - | - | | | | | R404A - R507 |
|  | 2234/4S | 3/8" | - | - | - | - | 1/2" | - | R404A - R507 | 34 | -60 | +120 | 15 |
| | 2234/4SE | | | | - | - | 1/2" | 1/4" | R404A - R507 | | | | |
| | 2234/M12S | | | | 12 | - | - | - | R404A - R507 | | | | |
| | 2234/M12SE | | | | 12 | 6 | - | - | R404A - R507 | | | | |

Note:

- (1) : gruppo orificio da ordinare separatamente
- (1) : orifice assembly to be ordered separately
- (1) : ensemble orifice doit être commandé séparément
- (1) : Düsenersatz sind separat zu bestellen

VALVOLE D'ESPANSIONE TERMOSTATICHE CON GRUPPO ORIFICIO INTERCAMBIABILE CARICA LIQUIDA (1)

CAMPO TEMPERATURE D'EVAPORAZIONE -60 → -25 °C

THERMOSTATIC EXPANSION VALVES WITH INTERCHANGEABLE ORIFICE ASSEMBLY LIQUID CHARGE (1)

EVAPORATING TEMPERATURE RANGE -60 → -25 °C

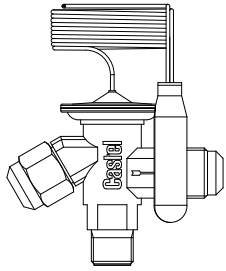
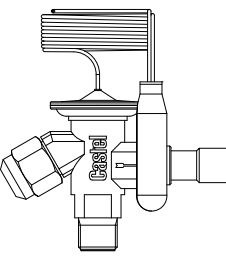
DÉTENDEURS THERMOSTATIQUES AVEC ENSEMBLES ORIFICES INTERCHANGEABLES CHARGE LIQUID (1)

PLAGE DE TEMPÉRATURE D'ÉVAPORATION -60 → -25 °C

THERMOSTATISCHE EXPANSIONSVENTILE MIT AUSTAUSCHBAREM DÜSENEINSATZ FLÜSSIGKEITSFÜLLUNG (1)

VERDAMPF TEMPERATUR BEREICH -60 → -25 °C

**NEW
2016**

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | | | Refrigerante Refrigerant Frigorigène Kältemittel | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|------|-------|------------|-------|-------------|-----------------------------------------------------------|----------|---------|------|------------------------------------------------------------|--------------|
| | | SAE Flare | | | ODS Ø [mm] | | ODS Ø [in.] | | | min | max | | |
| | | In | Out | Equal | Out | Equal | Out | | | | | | Equal |
|  | 2239/4 | 3/8" | 1/2" | - | - | - | - | R404A - R507 | 34 | -60 | +120 | 15 | |
| | 2239/4E | | | 1/4" | - | - | - | | | | | | - |
|  | 2239/4S | 3/8" | - | - | - | - | 1/2" | - | 34 | -60 | +120 | 15 | |
| | 2239/4SE | | | | - | - | 1/2" | 1/4" | | | | | R404A - R507 |
| | 2239/M12S | | | | 12 | - | - | - | | | | | R404A - R507 |
| | 2239/M12SE | | | | 12 | 6 | - | - | | | | | R404A - R507 |

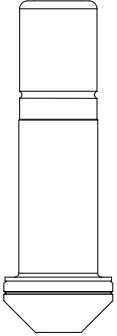
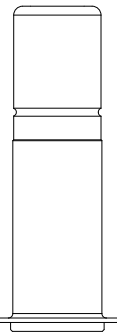
(1) : gruppo orificio da ordinare separatamente

(1) : orifice assembly to be ordered separately

(1) : ensemble orifice doit être commandé séparément

(1) : Düsenersatz sind separat zu bestellen

HFC / HFO

| Potenzialità nominali in kW (1) Rated capacities in kW (1) Capacités nominales en kW (1) Nennleistungen in kW (1) | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------|------------|----------------|------------------------------------------------------------|
| Disegno Drawing Dessin Zeichnung | N° Catalogo (2) Part number (2) N° Catalogue (2) Katalog Nr (2) | | Campo temperature d'evaporazione Evaporating temperature range Plage de température d'évaporation Verdampfungstemperaturbereich | | | | Confezione n° pz Package pcs Emballage Verpackung |
| | Valvole con attacchi SAE Flare Valves with SAE Flare connections Vannes avec SAE Flare raccords Ventile mit SAE Flare Anschlüsse | Valvole con attacchi ODS Valves with ODS connections Vannes avec ODS raccords Ventile mit ODS Anschlüsse | -40 → +10 [°C] | | | -60 → -25 [°C] | |
| | | | R22 R407C | R134a | R404A R507 | R404A R507 | |
| |  | 220X | - | 0.5 | 0.4 | 0.38 | |
| 2200 | | 1.0 | | 0.9 | 0.7 | 0.7 | |
| 2201 | | 2.5 | | 1.8 | 1.6 | 1.6 | |
| 2202 | | 3.5 | | 2.6 | 2.1 | 2.1 | |
| 2203 | | 5.2 | | 4.6 | 4.2 | 3.5 | |
| 2204 | | 8.0 | | 6.7 | 6.0 | 4.9 | |
| 2205 | | 10.5 | | 8.6 | 7.7 | 6.0 | |
| 2206 | | 15.5 | | 10.5 | 9.1 | 6.6 | |
|  | 220X/S | - | 0.5 | 0.4 | 0.38 | 0.38 | 10 |
| | 2200/S | | 1.0 | 0.9 | 0.7 | 0.7 | |
| | 2201/S | | 2.5 | 1.8 | 1.6 | 1.6 | |
| | 2202/S | | 3.5 | 2.6 | 2.1 | 2.1 | |
| | 2203/S | | 5.2 | 4.6 | 4.2 | 3.5 | |
| | 2204/S | | 8.0 | 6.7 | 6.0 | 4.9 | |
| | 2205/S | | 10.5 | 8.6 | 7.7 | 6.0 | |
| | 2206/S | | 15.5 | 10.5 | 9.1 | 6.6 | |

Note:

- (1) Le potenzialità nominali, per il campo di temperature -40 → +10, sono riferite a:
 - Temperatura d'evaporazione $T_{evap} = +5\text{ °C}$
 - Temperatura di condensazione $T_{cond} = +32\text{ °C}$
 - Temperatura del liquido all'ingresso della valvola $T_{liq} = +28\text{ °C}$
 Le potenzialità nominali, per il campo di temperature -60 → -25, sono riferite a:
 - Temperatura d'evaporazione $T_{evap} = -30\text{ °C}$
 - Temperatura di condensazione $T_{cond} = +32\text{ °C}$
 - Temperatura del liquido all'ingresso della valvola $T_{liq} = +28\text{ °C}$

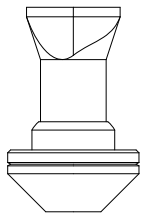
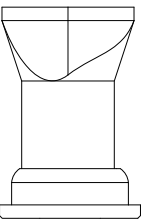
- (1) Rated capacities, for temperature range -40 → +10, are based on:
 - Evaporating temperature $T_{evap} = +5\text{ °C}$
 - Condensing temperature $T_{cond} = +32\text{ °C}$
 - Refrigerant liquid temperature ahead of valve $T_{liq} = +28\text{ °C}$
 Rated capacities, for temperature range -60 → -25, are based on:
 - Evaporating temperature $T_{evap} = -30\text{ °C}$
 - Condensing temperature $T_{cond} = +32\text{ °C}$
 - Refrigerant liquid temperature ahead of valve $T_{liq} = +28\text{ °C}$

- (1) Les capacités nominales pour plage de température -40 → +10 se basent sur:
 - Température d'évaporation $T_{evap} = +5\text{ °C}$
 - Température de condensation $T_{cond} = +32\text{ °C}$
 - Température du liquide frigorigène en amont du détendeur $T_{liq} = +28\text{ °C}$
 Les capacités nominales pour plage de température -60 → -25 se basent sur:
 - Température d'évaporation $T_{evap} = -30\text{ °C}$
 - Température de condensation $T_{cond} = +32\text{ °C}$
 - Température du liquide frigorigène en amont du détendeur $T_{liq} = +28\text{ °C}$

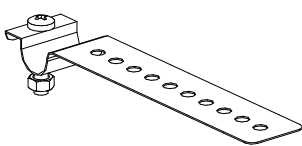
- (1) Nennleistungen für den Temperaturbereich -40 → +10 basieren auf:
 - Verdampfungstemperatur $T_{verd} = +5\text{ °C}$
 - Kondensationstemperatur $T_{kond} = +32\text{ °C}$
 - Temperatur des flüssigen Kältemittels vor dem Ventil $T_{flü} = +28\text{ °C}$
 Nennleistungen für den Temperaturbereich -60 → -25 basieren auf:
 - Verdampfungstemperatur $T_{verd} = -30\text{ °C}$
 - Kondensationstemperatur $T_{kond} = +32\text{ °C}$
 - Temperatur des flüssigen Kältemittels vor dem Ventil $T_{flü} = +28\text{ °C}$

- (2) I gruppi orificio sono forniti completi di filtro
 (2) The assembly orifices are supplied with filter
 (2) Les orifices sont fournis avec le filtre
 (2) Der Düseneinsatz wird komplett mit Filter geliefert

FILTRI PER GRUPPO ORIFICIO
 FILTERS FOR ORIFICE ASSEMBLY
 FILTRES POUR ENSEMBLE ORIFICE
 DÜSENEINSATZ FILTER

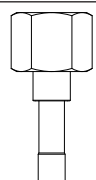
| Disegno Drawing Dessin Zeichnung | N° Catalogo Part number N° Catalogue Katalog Nr | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| | Valvole con attacchi SAE Flare Valves with SAE Flare connections Vannes avec SAE Flare raccords Ventile mit SAE Flare Anschlüsse | Valvole con attacchi ODS Valves with ODS connections Vannes avec ODS raccords Ventile mit ODS Anschlüsse | |
|  | 2290 | - | 10 |
|  | - | 2290/S | 10 |

FASCETTA SERRA BULBO (1)
 BULB STRAP (1)
 COLLIER POUR BULBE (1)
 FÜHLERBAND (1)

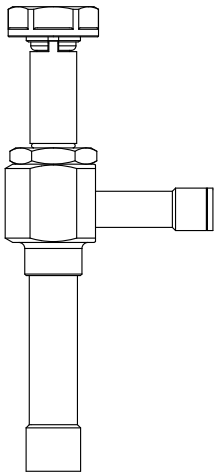
| Disegno Drawing Dessin Zeichnung | N° Catalogo Part number N° Catalogue Katalog Nr | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------|
|  | G9150/R61 | 10 |

(1) : con vite e dado (1) : with screw and nut (1) : avec vis et écrous (1) : mit Schraube und Mutter

ADATTATORI ODS
 SOLDER ADAPTERS
 ADAPTEURS DE BRASAGE
 LÖTADAPTER

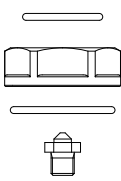
| Disegno Drawing Dessin Zeichnung | N° Catalogo Part number N° Catalogue Katalog Nr | Confezione n° pz Package pcs Emballage Verpackung | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------|------|------------------------------------------------------------|
| | | [in.] | [mm] | |
|  | 2271/M6S | - | 6 | 5 |
| | 2271/2S | 1/4" | - | |
| | 2271/3S | 3/8" | - | |
| | 2271/M10S | - | 10 | |

VALVOLE D'ESPANSIONE A SOLENOIDE CON ORIFIZIO INTERCAMBIABILE
SOLENOID EXPANSION VALVES WITH INTERCHANGEABLE ORIFICE
DÉTENDEURS À COMMANDE ÉLECTRIQUES AVEC ENSEMBLE ORICE INTERCHANGEABLE
ELEKTRISCHE EXPANSIONSVENTILE MIT AUSTAUSCHBAREM DÜSENEINSATZ

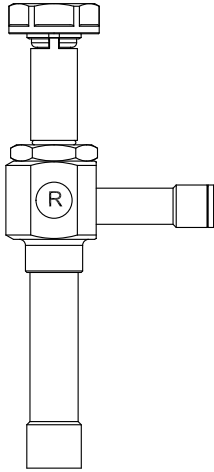
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo orificio Orifice type Type d'orifice Düseineinsatz Typ | Attacchi Connections Raccords Anschlüsse | | | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | In | | Out | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 2028/3S01 | 01 | 3/8" | - | 1/2" | - | 0,010 | 45 | -40 | +100 | 17 |
| | 2028/M10S01 | | - | 10 | - | 12 | | | | | |
| | 2028/3S02 | 02 | 3/8" | - | 1/2" | - | 0,017 | | | | |
| | 2028/M10S02 | | - | 10 | - | 12 | | | | | |
| | 2028/3S03 | 03 | 3/8" | - | 1/2" | - | 0,023 | | | | |
| | 2028/M10S03 | | - | 10 | - | 12 | | | | | |
| | 2028/3S04 | 04 | 3/8" | - | 1/2" | - | 0,043 | | | | |
| | 2028/M10S04 | | - | 10 | - | 12 | | | | | |
| | 2028/3S05 | 05 | 3/8" | - | 1/2" | - | 0,065 | | | | |
| | 2028/M10S05 | | - | 10 | - | 12 | | | | | |
| | 2028/3S06 | 06 | 3/8" | - | 1/2" | - | 0,113 | | | | |
| | 2028/M10S06 | | - | 10 | - | 12 | | | | | |
| | 2028/4S07 | 07 | 1/2" | - | 5/8" | - | 0,200 | | | | |
| | 2028/M12S07 | | - | 12 | - | 16 | | | | | |
| | 2028/4S08 | 08 | 1/2" | - | 5/8" | - | 0,230 | | | | |
| | 2028/M12S08 | | - | 12 | - | 16 | | | | | |
| | 2028/4S09 | 09 | 1/2" | - | 5/8" | - | 0,250 | | | | |
| | 2028/M12S09 | | - | 12 | - | 16 | | | | | |

Note:
per le potenzialità nominali vedere tabella dei gruppi orificio
for rated capacities see table of the orifice assemblies
pour les capacités nominales voir tableau des ensembles d'orifices
für Nennleistungen siehe Tabelle der Austrittsanordnungen

GRUPPI ORIFICI
ORIFICE ASSEMBLIES
ENSEMBLES ORIFICE
DÜSENEINSATZ

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo orificio Orifice type Type d'orifice Düseineinsatz Typ | Potenzialità nominali (1) Rated capacity (1) Capacités nominales (1) Nennleistungen (1) [kW] | | | | | | | | | | | | Confezione n° pz Package pcs. Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------|------|---------------|-------|-------|---------|---------|-------|-------|-------|-------|-------------------------------------------------------------------|
| | | | R134a | R22 | R32 | R404A R507 | R407C | R410A | R1234ze | R1234yf | R448A | R449A | R450A | R452A | |
| | | |  | 9150/R63 | 01 | 0.8 | 1.0 | 2.3 | 0.8 | 1.1 | 1.5 | 0.7 | 0.6 | 0.9 | |
| 9150/R64 | 02 | 1.6 | | 1.9 | 4.4 | 1.6 | 2.0 | 2.8 | 1.5 | 1.4 | 1.9 | 2.1 | 1.6 | 1.7 | |
| 9150/R65 | 03 | 1.9 | | 2.4 | 5.5 | 1.9 | 2.3 | 3.5 | 1.7 | 1.6 | 2.3 | 2.6 | 1.8 | 2.1 | |
| 9150/R66 | 04 | 3.0 | | 3.8 | 8.7 | 3.0 | 3.7 | 5.7 | 2.7 | 2.5 | 3.6 | 4.1 | 3.0 | 3.3 | |
| 9150/R67 | 05 | 5.1 | | 6.6 | 15.1 | 5.2 | 6.5 | 9.7 | 4.8 | 1.5 | 6.3 | 7.2 | 5.2 | 5.8 | |
| 9150/R68 | 06 | 7.0 | | 9.1 | 20.6 | 7.1 | 9.0 | 13.3 | 6.6 | 6.1 | 8.6 | 9.8 | 7.0 | 7.9 | |
| 9150/R69 | 07 | 11.1 | | 14.7 | 33.0 | 11.4 | 14.8 | 21.0 | 10.5 | 9.7 | 13.8 | 15.7 | 11.3 | 12.7 | |
| 9150/R78 | 08 | 13.4 | | 17.2 | 39.8 | 13.7 | 17.3 | 25.2 | 12.7 | 11.6 | 16.6 | 19.0 | 13.6 | 15.2 | |
| 9150/R79 | 09 | 15.0 | | 19.1 | 44.2 | 15.2 | 19.0 | 28.1 | 14.0 | 13.0 | 18.5 | 21.2 | 15.1 | 17.0 | |

Note:
(1) Le potenzialità nominali sono riferite a:
- Temperatura d'evaporazione T_{evap} = + 5 °C
- Temperatura di condensazione T_{cond} = + 32 °C
- Temperatura del liquido all'ingresso della valvola T_{liq} = + 28 °C
(1) Rated capacities are based on:
- Evaporating temperature T_{evap} = + 5 °C
- Condensing temperature T_{cond} = + 32 °C
- Refrigerant liquid temperature ahead of valve T_{liq} = + 28 °C
(1) Les capacités nominales se basent sur :
- Température d'évaporation T_{evap} = + 5 °C
- Température de condensation T_{cond} = + 32 °C
- Température du liquide frigorigène en amont du détendeur T_{liq} = + 28 °C
(1) Nennleistungen basieren auf:
- Verdampfungstemperatur T_{verd} = + 5 °C
- Kondensationstemperatur T_{kond} = + 32 °C
- Temperatur des flüssigen Kältemittels vor dem Ventil T_{flü} = + 28 °C

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo orificio Orifice type Type Type d'orifice Düseneneinsatz Typ | Attacchi Connections Raccords Anschlüsse | | | | Kv [m ³ /h] | Potenzialità nominali Rated capacity Capacités nominales Nennleistungen (1) [kW] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|---------------------------|-------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------------|
| | | | In | | Out | | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | | |
|  | 2028R/3S01 | 01 | 3/8" | - | 1/2" | - | 0,010 | 1.5 | 45 | -80 | +60 | 17 |
| | 2028R/M10S01 | | - | 10 | - | 12 | | | | | | |
| | 2028R/3S02 | 02 | 3/8" | - | 1/2" | - | 0,017 | 2.8 | | | | |
| | 2028R/M10S02 | | - | 10 | - | 12 | | | | | | |
| | 2028R/3S03 | 03 | 3/8" | - | 1/2" | - | 0,023 | 3.5 | | | | |
| | 2028R/M10S03 | | - | 10 | - | 12 | | | | | | |
| | 2028R/3S04 | 04 | 3/8" | - | 1/2" | - | 0,043 | 5.6 | | | | |
| | 2028R/M10S04 | | - | 10 | - | 12 | | | | | | |
| | 2028R/3S05 | 05 | 3/8" | - | 1/2" | - | 0,065 | 9.7 | | | | |
| | 2028R/M10S05 | | - | 10 | - | 12 | | | | | | |
| | 2028R/3S06 | 06 | 3/8" | - | 1/2" | - | 0,113 | 13.2 | | | | |
| | 2028R/M10S06 | | - | 10 | - | 12 | | | | | | |
| | 2028R/4S07 | 07 | 1/2" | - | 5/8" | - | 0,200 | 21.1 | | | | |
| | 2028R/M12S07 | | - | 12 | - | 16 | | | | | | |
| | 2028R/4S08 | 08 | 1/2" | - | 5/8" | - | 0,230 | 25.5 | | | | |
| | 2028R/M12S08 | | - | 12 | - | 16 | | | | | | |
| | 2028R/4S09 | 09 | 1/2" | - | 5/8" | - | 0,250 | 28.4 | | | | |
| | 2028R/M12S09 | | - | 12 | - | 16 | | | | | | |

Note:

(1) Le potenzialità nominali sono riferite a:

- Temperatura d'evaporazione T_{evap} = - 29 °C
- Temperatura di condensazione T_{cond} = - 1 °C
- Temperatura del liquido all'ingresso della valvola T_{liq} = - 7 °C

(1) Rated capacities are based on:

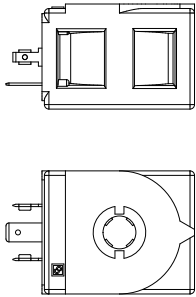
- Evaporating temperature T_{evap} = - 29 °C
- Condensing temperature T_{cond} = - 1 °C
- Refrigerant liquid temperature ahead of valve T_{liq} = - 7 °C

(1) Les capacités nominales se basent sur :

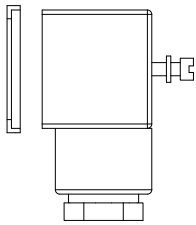
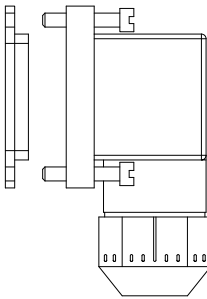
- Température d'évaporation T_{evap} = - 29 °C
- Température de condensation T_{cond} = - 1 °C
- Température du liquide frigorigène en amont du détendeur T_{liq} = - 7 °C

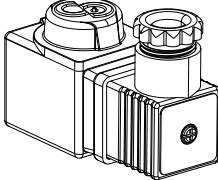
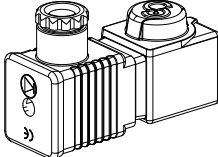
(1) Nennleistungen basieren auf:

- Verdampfungstemperatur T_{verd} = - 29 °C
- Kondensationstemperatur T_{kond} = - 1 °C
- Temperatur des flüssigen Kältemittels vor dem Ventil T_{flü} = - 7 °C

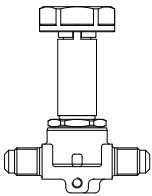
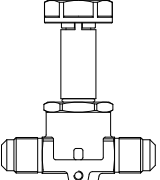
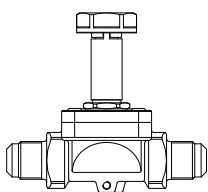
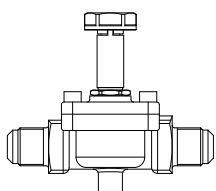
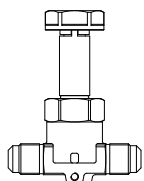
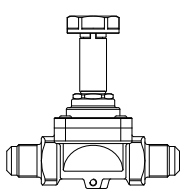
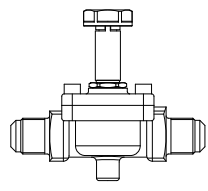
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Connettori Connections Raccordeme Anschlüsse | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| | | | | Grado di protezione IP 65 Degree of protection IP 65 Degré de protection IP 65 Schutz - Klasse IP 65 | Grado di protezione IP 68 Degree of protection IP 68 Degré de protection IP 68 Schutz - Klasse IP 68 | |
|  | 9160/RA2 | 24 A.C. | 50 | 9150/R02 9900/X66 | 9155/R01 9155/R02 | 90 |
| | 9160/R4A | 110 A.C. | 50 | | | |
| | 9160/RA6 | 220/230 A.C. | 50 | | | |
| | 9160/RA7 | 240 A.C. | 50 | | | |
| | 9160/RD1 | 12 D.C. | - | | | |
| | 9160/RD2 | 24 D.C. | - | | | |

CONNETTORI
CONNECTORS
CONNECTEURS
STECKER

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Grado di protezione Degree of protection Degré de protection Schutz - klasse | Lunghezza cavo Cable length Longueur du câble Kabellänge | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------|
|  | 9150/R02 | IP 65 | - | 240 |
| | 9900/X66 | | 1 | 100 |
|  | 9155/R01 | IP 65 / IP 68 | - | 120 |
| | 9155/R02 | | 1 | 1 |

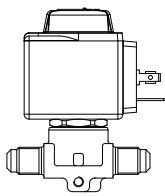
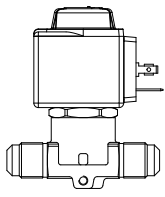
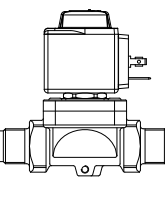
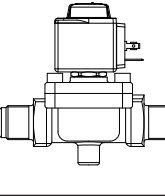
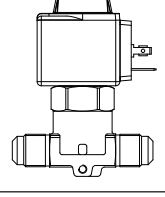
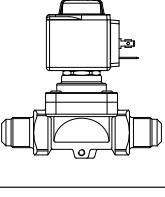
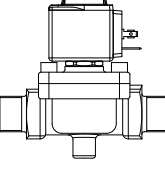
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | T boost [msec] | Potenza Power Puissance Leistung | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|-------------------|--------------------------------------------------|------------------------------------------|------------------------------------------------------------|
| | | | | | esercizio working travail Arbeit [W] | avvio start début Anfang [W] | |
|  | 9910/RD1 | 12 VDC | - | 130 | 3 | 50 | 12 |
| | 9910/RD2 | 24 VDC | - | 130 | 5 | 50 | 12 |
|  | 9910/RA2 | 24VAC | 50/60 | 200 | 7 | 50 | 12 |
| | 9910/RA6 | 220VAC | 50/60 | 200 | 7 | 50 | 12 |
| | 9910/RA7 | 240VAC | 50/60 | 200 | 7 | 50 | 12 |
| | | | | | | | |

VALVOLE SOLENOIDI N.C. ATTACCHI SAE FLARE SENZA BOBINA
 N.C. SOLENOID VALVES SAE FLARE CONNECTIONS WITHOUT COILS
 VANNES ELECTROMAGNETIQUES N.F. SAE FLARE RACCORDS SANS BOBINE
 N.G. MAGNETVENTILE MIT BÖRDELANSCHLUSS OHNE SPULE

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi SAE Flare Connections SAE Flare Raccords SAE Flare Anschlüsse SAE Flare | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------|-------------|---------|------|------------------------------------------------------------|
| | | | | | | | Min | Max | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1020/2S | HF2 HF3 HM2 HM3 HM4 CM2 | 1/4" | 0.18 | 45 | -35 | +110 | 18 |
| | | 1020/3S | | 3/8" | 0.23 | | | | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membrantrieb |  | 1064/3S | HF2 HF3 HM2 HM3 HM4 CM2 | 3/8" | 0.80 | 45 | -35 | +105 | 18 |
| | | 1064/4S | | 1/2" | | | | | |
| |  | 1070/4S | | 1/2" | 2.20 | 45 | -35 | +105 | 24 |
| | | 1070/5S | | 5/8" | 2.61 | | | | |
| |  | 1090/5S | | 5/8" | 3.80 | 45 | -35 | +105 | 14 |
| | | 1090/6S | | 3/4" | 4.80 | | | | |
| Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | 1034/3S | HF2 HF3 HM2 HM3 HM4 CM2 | 3/8" | 1.00 | 45 | -35 | +110 | 18 |
| | | 1034/4S | | 1/2" | | | | | |
| |  | 1040/4S | | 1/2" | 2.40 | 45 | -35 | +110 | 24 |
| | | 1040/5S | | 5/8" | 3.00 | | | | |
| |  | 1050/5S | | 5/8" | 3.80 | 45 | -35 | +110 | 14 |
| | | 1050/6S | | 3/4" | 4.80 | | | | |

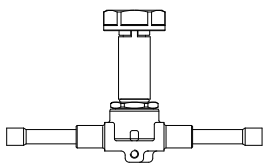
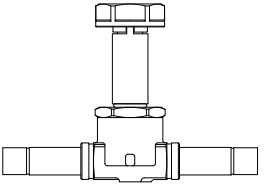
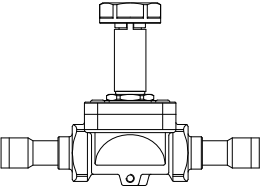
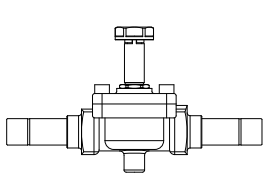
(1) : bobine che possono essere montate sulle valvole
 (1) : coils that can be mounted on the valves
 (1) : bobines qui peuvent être montées sur les vannes
 (1) : Spulen, die an den Ventilen montiert werden können

VALVOLE SOLENOIDI N.C. ATTACCHI SAE FLARE CON BOBINA 220/230 VAC (A6), 240 VAC (A7)
 N.C. SOLENOID VALVES SAE FLARE CONNECTIONS WITH COILS 220/230 VAC (A6), 240 VAC (A7)
 ELECTROVANNES N.F. SAE FLARE RACCORDS AVEC BOBINE 220/230 VAC (A6), 240 VAC (A7)
 N.G. MAGNETVENTILE MIT BÖRDELANSCHLUSS UND SPULE 220/230 VAC (A6), 240 VAC (A7)

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi SAE Flare Connections SAE Flare Raccords SAE Flare Anschlüsse SAE Flare | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | | |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------|-------------|---------|------|------------------------------------------------------------|------|------|
| | | | | | | | Min | Max | | | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1020/2A6 | HF2 | 1/4" | 0.18 | 45 | -35 | +110 | 18 | | |
| | | 1020/2A7 | | 3/8" | | | | | | 0.23 | |
| | | 1020/3A6 | | | 1020/3A7 | | | | | | |
| | | 1020/3A7 | | | | | | | | | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membranantrieb |  | 1064/3A6 | HF2 | 3/8" | 0.80 | 45 | -35 | +105 | 18 | | |
| | | 1064/3A7 | | | | | | | | 1/2" | 2.20 |
| | | 1064/4A6 | | 1064/4A7 | | | | | | | |
| | | 1064/4A7 | | | | | | | | | |
| |  | 1070/4A6 | | 45 | -35 | | | | | +105 | 24 |
| | | 1070/4A7 | | | | | | | | | |
| | | 1070/5A6 | | | | | | | | | |
| | | 1070/5A7 | | | | | | | | | |
| |  | 1090/5A6 | | 45 | -35 | | | | | +105 | 14 |
| | | 1090/5A7 | | | | | | | | | |
| | | 1090/6A6 | | | | | | | | | |
| | | 1090/6A7 | | | | | | | | | |
| Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | 1034/3A6 | HF2 | 3/8" | 1.00 | 45 | -35 | +110 | 18 | | |
| | | 1034/3A7 | | | | | | | | 1/2" | 2.40 |
| | | 1034/4A6 | | 1034/4A7 | | | | | | | |
| | | 1034/4A7 | | | | | | | | | |
| |  | 1040/4A6 | | 45 | -35 | | | | | +110 | 24 |
| | | 1040/4A7 | | | | | | | | | |
| | | 1040/5A6 | | | | | | | | | |
| | | 1040/5A7 | | | | | | | | | |
| |  | 1050/5A6 | | 45 | -35 | | | | | +110 | 14 |
| | | 1050/5A7 | | | | | | | | | |
| | | 1050/6A6 | | | | | | | | | |
| | | 1050/6A7 | | | | | | | | | |

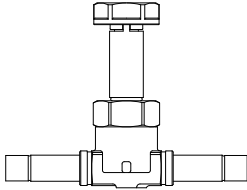
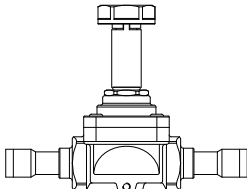
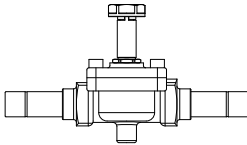
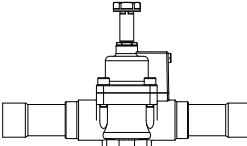
(1): bobine montate sulle valvole
 (1): coils mounted on the valves
 (1): Bobines montées sur des vannes
 (1): An den Ventilen montierte Spulen

VALVOLE SOLENOIDI N.C. ATTACCHI ODS SENZA BOBINA
 N.C. SOLENOID VALVES ODS CONNECTIONS WITHOUT COILS
 VANNES ELECTROMAGNETIQUES N.F. ODS RACCORDS SANS BOBINE
 N.G. MAGNETVENTILE ODS ANSCHLÜSSE OHNE SPULE

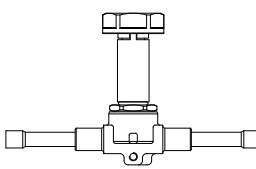
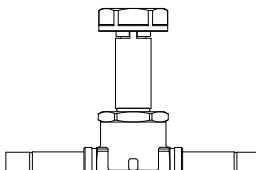
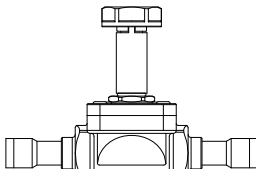
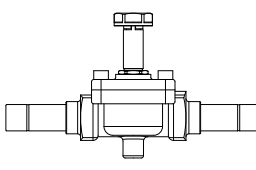
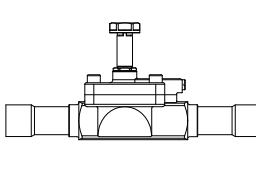
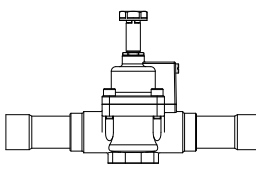
| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | [in.] | [mm] | | | Min | Max | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1028/2S | HF2 | 1/4" | - | 0,15 | 45 | -35 | +110 | 24 |
| | | 1028/2S.E | HF3 | 1/4" | - | 0,23 | | | | |
| | | 1028/3S | HM2 | 3/8" | - | | | | | |
| | | 1028/M10S | HM3 HM4 CM2 | - | 10 | | | | | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membranantrieb |  | 1068/3S | HF2 HF3 HM2 HM3 HM4 CM2 | 3/8" | - | 0,80 | 45 | -35 | +105 | 24 |
| | | 1068/M10S | | - | 10 | | | | | |
| | | 1068/M12S | | - | 12 | | | | | |
| | | 1068/4S | | 1/2" | - | | | | | |
| |  | 1078/M12S | | - | 12 | 2,20 | 45 | -35 | +105 | 17 |
| | | 1078/4S | | 1/2" | - | | | | | |
| | | 1078/5S | | 5/8" | 16 | 2,61 | | | | |
| | | 1079/7S | | 7/8" | 22 | | | | | |
| |  | 1098/5S | | 5/8" | 16 | 3,80 | 45 | -35 | +105 | 14 |
| | | 1098/6S | | 3/4" | - | 4,80 | | | | |
| | | 1098/7S | | 7/8" | 22 | 5,70 | | | | |
| | | 1099/9S | | 1.1/8" | - | | | | | |
| 1078/9S | | 1.1/8" | - | 10,00 | 45 | -35 | | | | |
| 1079/11S | 1.3/8" | 35 | | | | | | | | |

- (1) : bobine che possono essere montate sulle valvole
 (1) : coils that can be mounted on the valves
 (1) : bobines qui peuvent être montées sur les vannes
 (1) : Spulen, die an den Ventilen montiert werden können

VALVOLE SOLENOIDI N.C. ATTACCHI ODS SENZA BOBINA
 N.C. SOLENOID VALVES ODS CONNECTIONS WITHOUT COILS
 VANNES ELECTROMAGNETIQUES N.F. ODS RACCORDS SANS BOBINE
 N.G. MAGNETVENTILE ODS ANSCHLÜSSE OHNE SPULE

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | [in.] | [mm] | | | Min | Max | |
| Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | 1038/3S | HF2 HF3 HM2 HM3 HM4 CM2 | 3/8" | - | 1.00 | 45 | -35 | +110 | 24 |
| | | 1038/M10S | | - | 10 | | | | | |
| | | 1038/M12S | | - | 12 | | | | | |
| | | 1038/4S | | 1/2" | - | | | | | |
| |  | 1048/M12S | | - | 12 | 2.40 | 45 | -35 | +110 | 14 |
| | | 1048/4S | | 1/2" | - | | | | | |
| | | 1048/5S | | 5/8" | 16 | 3.00 | | | | |
| | | 1049/7S | | 7/8" | 22 | | | | | |
| |  | 1058/5S | | 5/8" | 16 | 3.80 | 45 | -35 | +110 | 14 |
| | | 1058/6S | | 3/4" | - | 4.80 | | | | |
| | | 1058/7S | | 7/8" | 22 | 5.70 | | | | |
| | | 1059/9S | | 1.1/8" | - | | | | | |
| |  | 1098/9S | | 1.1/8" | - | 10 | 45 | -35 | +110 | 1 |
| | | 1099/11S | | 1.3/8" | 35 | | | | | |
| | | 1078/11S | | 1.3/8" | 35 | 16 | | | | |
| | | 1079/13S | | 1.5/8" | - | | | | | |
| | | 1079/M42S | | - | 42 | | | | | |
| | | 1078/13S | | 1.5/8" | - | 25 | | | | |
| | | 1078/M42S | | - | 42 | | | | | |
| 1079/17S | | 2.1/8" | 54 | | | | | | | |

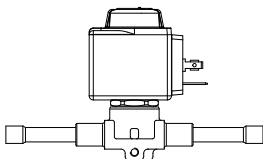
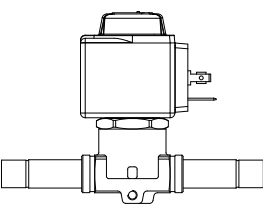
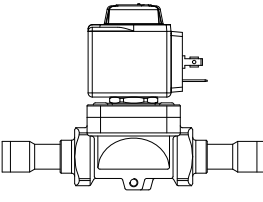
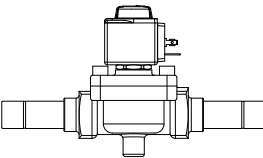
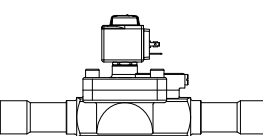
- (1) : bobine che possono essere montate sulle valvole
 (1) : coils that can be mounted on the valves
 (1) : bobines qui peuvent être montées sur les vannes
 (1) : Spulen, die an den Ventilen montiert werden können

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | | |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------|---------------------------|-------------|---------|------|------------------------------------------------------------|------|---|
| | | | | [in.] | [mm] | | | Min | Max | | | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1028N/2S (2) | HF2 | 1/4" | - | 0,15 | 45 | -40 | +130 | 24 | | |
| | | 1028N/2S.E (2) | HF3 | 1/4" | - | 0,23 | | | | 24 | | |
| | | 1028N/3S (2) | HM2 | 3/8" | - | | | | | 24 | | |
| | | 1028N/M10S (2) | HM3 HM4 CM2 | - | 10 | | | | | 24 | | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membranantrieb |  | 1068N/3S (2) | HF2 HF3 HM2 HM3 HM4 CM2 | 3/8" | - | 0,80 | 45 | -40 | +120 | 24 | | |
| | | 1068N/M10S (2) | | - | 10 | | | | | 24 | | |
| | | 1068N/M12S (2) | | - | 12 | | | | | 24 | | |
| | | 1068N/4S (2) | | 1/2" | - | | | | | 24 | | |
| |  | 1078N/M12S (2) | | - | 12 | 2,20 | 45 | -40 | +120 | 17 | | |
| | | 1078N/4S (2) | | 1/2" | - | | | | | 17 | | |
| | | 1078N/5S (2) | | 5/8" | 16 | | | | | 2,61 | 17 | |
| | | 1079N/7S (2) | | 7/8" | 22 | | | | | 2,61 | 17 | |
| |  | 1098N/7S (2) | | 7/8" | 22 | 5,70 | 45 | -40 | +120 | 14 | | |
| | | 1099N/9S (2) | | 1.1/8" | - | 5,70 | | | | 14 | | |
| |  | 1078N/9S (2) | | 1.1/8" | - | 10 | 45 | -40 | +120 | 1 | | |
| | | 1079N/11S (2) | | 1.3/8" | 35 | 10 | | | | 1 | | |
| | Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | | 1098N/9S (2) | HF2 | 1.1/8" | - | 10 | 45 | -40 | +120 | 1 |
| | | | | 1099N/11S (2) | HF3 HM2 HM3 HM4 CM2 | 1.3/8" | 35 | 10 | | | | 1 |

(1) : bobine che possono essere montate sulle valvole
 (1) : coils that can be mounted on the valves
 (1) : bobines qui peuvent être montées sur les vannes
 (1) : Spulen, die an den Ventilen montiert werden können

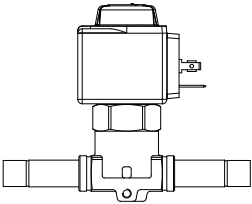
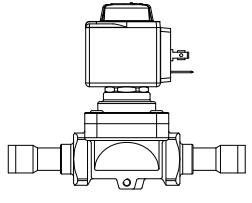
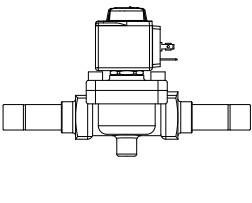
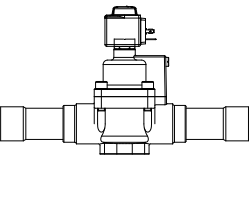
(2) Prodotto a richiesta. NB: Non impiegare con R22 , oli minerali e alchilbenzenici
 (2) Product on request. NB: No use with R22 , mineral and alchylbenzene oils
 (2) Produit sur demande. NB: Incompatible avec R22 , Huiles minérales alchylbenzènes
 (2) Produkt auf Anfrage. NB: Nicht mit R22 verwendbar , Mineralölen und Alkylbenzol

VALVOLE SOLENOIDI N.C. ATTACCHI ODS CON BOBINA 220/230 VAC (A6), 240 VAC (A7)
 N.C. SOLENOID VALVES ODS CONNECTIONS WITH COILS 220/230 VAC (A6), 240 VAC (A7)
 VANNES ELECTROMAGNETIQUES N.F. ODS RACCORDS AVEC BOBINE 220/230 VAC (A6), 240 VAC (A7)
 N.G. MAGNETVENTILE ODS ANSCHLÜSSE MIT SPULE 220/230 VAC (A6), 240 VAC (A7)

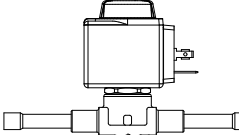
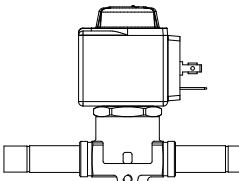
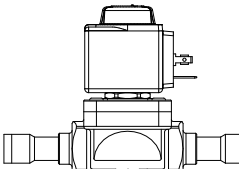
| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | | | | | |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|--------|--------------|-------------|---------|------|------------------------------------------------------------|-------|----|-----|------|---|
| | | | | [in.] | [mm] | | | Min | Max | | | | | | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1028/2A6 | HF2 | 1/4" | - | 0,15 | 45 | -35 | +105 | 24 | | | | | |
| | | 1028/2A7 | | | | | | | | | | | | | |
| | | 1028/2A6.E | | 1/4" | - | 0,25 | | | | | | | | | |
| | | 1028/2A7.E | | | | | | | | | | | | | |
| | | 1028/3A6 | | 3/8" | - | 0,25 | | | | | | | | | |
| | | 1028/3A7 | | - | 10 | 0,25 | | | | | | | | | |
| | | 1028/M10A6 | | - | 10 | 0,25 | | | | | | | | | |
| | | 1028/M10A7 | | - | 10 | 0,25 | | | | | | | | | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membranantrieb |  | 1068/3A6 | HF2 | 3/8" | - | 0,80 | 45 | -35 | +105 | 24 | | | | | |
| | | 1068/3A7 | | | | | | | | | | | | | |
| | | 1068/M10A6 | | - | 10 | 0,80 | | | | | | | | | |
| | | 1068/M10A7 | | - | 12 | 0,80 | | | | | | | | | |
| | | 1068/M12A6 | | - | 12 | 0,80 | | | | | | | | | |
| | | 1068/M12A7 | | - | 12 | 0,80 | | | | | | | | | |
| | | 1068/4A6 | | 1/2" | - | 0,80 | | | | | | | | | |
| | | 1068/4A7 | | 1/2" | - | 0,80 | | | | | | | | | |
| |  | 1078/M12A6 | HF2 | - | 12 | 2,20 | 45 | -35 | +105 | 17 | | | | | |
| | | 1078/M12A7 | | | | | | | | | | | | | |
| | | 1078/4A6 | | 1/2" | - | 2,20 | | | | | | | | | |
| | | 1078/4A7 | | | | | | | | | | | | | |
| | | 1078/5A6 | | 5/8" | 16 | 2,61 | | | | | | | | | |
| | | 1078/5A7 | | 5/8" | 16 | 2,61 | | | | | | | | | |
| | | 1079/7A6 | | 7/8" | 22 | 2,61 | | | | | | | | | |
| | | 1079/7A7 | | 7/8" | 22 | 2,61 | | | | | | | | | |
| |  | 1098/5A6 | HF2 | 5/8" | 16 | 3,80 | 45 | -35 | +105 | 14 | | | | | |
| | | 1098/5A7 | | | | | | | | | | | | | |
| | | 1098/6A6 | | 3/4" | - | 4,80 | | | | | | | | | |
| | | 1098/6A7 | | | | | | | | | | | | | |
| | | 1098/7A6 | | 7/8" | 22 | 5,70 | | | | | | | | | |
| | | 1098/7A7 | | | | | | | | | | | | | |
| | | 1099/9A6 | | 1.1/8" | - | 5,70 | | | | | | | | | |
| | | 1099/9A7 | | | | | | | | | | | | | |
|  | | 1078/9A6 | | HF2 | 1.1/8" | - | | | | | 10,00 | 45 | -35 | +105 | 1 |
| | | 1078/9A7 | | | | | | | | | | | | | |
| | 1079/11A6 | 1.3/8" | 35 | | 10,00 | | | | | | | | | | |
| | 1079/11A7 | | | | | | | | | | | | | | |

(1): bobine montate sulle valvole
 (1): coils mounted on the valves
 (1): Bobines montées sur des vannes
 (1): An den Ventilen montierte Spulen

VALVOLE SOLENOIDI N.C. ATTACCHI ODS CON BOBINA 220/230 VAC (A6), 240 VAC (A7)
 N.C. SOLENOID VALVES ODS CONNECTIONS WITH COILS 220/230 VAC (A6), 240 VAC (A7)
 VANNES ELECTROMAGNETIQUES N.F. ODS RACCORDS AVEC BOBINE 220/230 VAC (A6), 240 VAC (A7)
 N.G. MAGNETVENTILE ODS ANSCHLÜSSE MIT SPULE 220/230 VAC (A6), 240 VAC (A7)

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | [in.] | [mm] | | | Min | Max | |
| Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | 1038/3A6 | HF2 | 3/8" | - | 1,00 | 45 | -35 | +110 | 24 |
| | | 1038/3A7 | | | | | | | | |
| | | 1038/M10A6 | | 10 | | | | | | |
| | | 1038/M10A7 | | | | | | | | |
| | | 1038/M12A6 | | 12 | 17 | | | | | |
| | | 1038/M12A7 | | | | | | | | |
| | | 1038/4A6 | | 1/2" | - | | | | | |
| | | 1038/4A7 | | | | | | | | |
| |  | 1048/M12A6 | | - | 12 | 2,40 | 45 | -35 | +110 | 14 |
| | | 1048/M12A7 | | | | | | | | |
| | | 1048/4A6 | | 1/2" | - | | | | | |
| | | 1048/4A7 | | | | | | | | |
| | | 1048/5A6 | | 5/8" | 16 | 3,00 | | | | |
| | | 1048/5A7 | | | | | | | | |
| | | 1049/7A6 | | 7/8" | 22 | | | | | |
| | | 1049/7A7 | | | | | | | | |
| |  | 1058/5A6 | | 5/8" | 16 | 3,80 | 45 | -35 | +110 | 14 |
| | | 1058/5A7 | | | | | | | | |
| | | 1058/6A6 | | 3/4" | - | 4,80 | | | | |
| | | 1058/6A7 | | | | | | | | |
| | | 1058/7A6 | | 7/8" | 22 | 5,70 | | | | |
| | | 1058/7A7 | | | | | | | | |
| | | 1059/9A6 | | 1.1/8" | - | | | | | |
| | | 1059/9A7 | | | | | | | | |
| |  | 1098/9A6 | | 1.1/8" | - | 10 | 45 | -35 | +110 | 1 |
| | | 1098/9A7 | | | | | | | | |
| | | 1099/11A6 | | 1.3/8" | 35 | | | | | |
| | | 1099/11A7 | | | | | | | | |
| | | 1078/11A6 | | 1.3/8" | 35 | | | | | |
| | | 1078/11A7 | | | | | | | | |
| | | 1079/13A6 | | 1.5/8" | - | 16 | | | | |
| | | 1079/13A7 | | | | | | | | |
| | | 1079/M42A6 | | - | 42 | | | | | |
| | | 1079/M42A7 | | | | | | | | |
| | | 1078/13A6 | | 1.5/8" | - | 25 | | | | |
| | | 1078/13A7 | | | | | | | | |
| 1078/M42A6 | | - | 42 | | | | | | | |
| 1078/M42A7 | | | | | | | | | | |
| 1079/17A6 | | 2.1/8" | 54 | | | | | | | |
| 1079/17A7 | | | | | | | | | | |

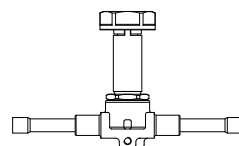
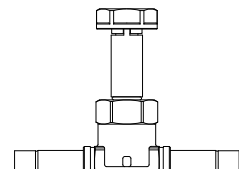
(1): bobine montate sulle valvole
 (1): coils mounted on the valves
 (1): Bobines montées sur des vannes
 (1): An den Ventilen montierte Spulen

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | | | |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|-----|------|------|
| | | | | [in.] | [mm] | | | Min | Max | | | | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1028N/2A6 (2) | HF2 | 1/4" | - | 0,15 | 45 | -40 | +130 | 24 | | | |
| | | 1028N/2A6.E (2) | | 1/4" | - | 0,23 | | | | 24 | | | |
| | | 1028N/3A6 (2) | | 3/8" | - | | | | | 24 | | | |
| | | 1028N/M10A6 (2) | | - | 10 | | | | | 24 | | | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membrantrieb |  | 1068N/3A6 (2) | HF2 | 3/8" | - | 0,80 | 45 | -40 | +120 | 24 | | | |
| | | 1068N/M10A6 (2) | | - | 10 | | | | | 24 | | | |
| | | 1068N/M12A6 (2) | | - | 12 | | | | | 24 | | | |
| | | 1068N/4A6 (2) | | 1/2" | - | | | | | 24 | | | |
| |  | 1078N/M12A6 (2) | | - | 12 | 2,20 | | | | 45 | -40 | +120 | 17 |
| | | 1078N/4A6 (2) | | 1/2" | - | | | | | | | | 17 |
| | | 1078N/5A6 (2) | | 5/8" | 16 | | | | | | | | 2,61 |

(1): bobine montate sulle valvole
 (1): coils mounted on the valves
 (1): Bobines montées sur des vannes
 (1): An den Ventilen montierte Spulen

(2) Prodotto a richiesta. NB: Non impiegare con R22 , oli minerali e alchilbenzenici
 (2) Product on request. NB: No use with R22 , mineral and alchylbenzene oils
 (2) Produit sur demande. NB: Incompatible avec R22 , Huiles minérales alkylbenzènes
 (2) Produkt auf Anfrage. NB: Nicht mit R22 verwendbar , Mineralölen und Alkylbenzol

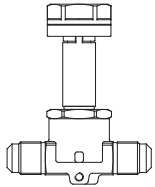
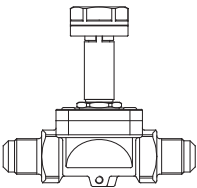
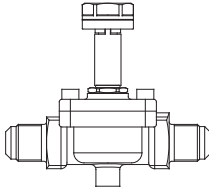
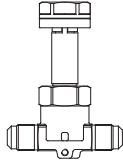
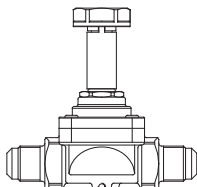
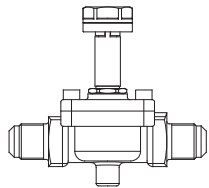
VALVOLE SOLENOIDE PULSATE PER BY-PASS GAS CALDO E INIEZIONE DI LIQUIDO
PULSE SOLENOID VALVES FOR HOT GAS BY-PASS AND LIQUID INJECTION
ÉLECTROVANNES PULSÉES POUR LA DÉRIVATION DE GAZ CHAUD ET INJECTION DE LIQUIDE
PULSE MAGNETVENTILE FÜR HEIßGAS-DURCHLAUF UND FLÜSSIGKEITSEINSPRITZUNG

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | [in.] | [mm] | | | Min | Max | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1328N/2S020 | HF2 HF3 HM2 HM3 HM4 CM2 | 1/4" | - | 0,15 | 45 | -40 | +150 | 24 |
| | | 1328N/2S030 | | 1/4" | - | 0,23 | | | | 24 |
| | | 1328N/3S020 | | 3/8" | - | 0,15 | | | | 24 |
| | | 1328N/3S030 | | 3/8" | - | 0,23 | | | | 24 |
| | | 1328N/M10S020 | | - | 10 | 0,15 | | | | 24 |
| | | 1328N/M10S030 | | - | 10 | 0,23 | | | | 24 |
| Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | 1338N/3S065 | HF2 HF3 HM2 HM3 HM4 CM2 | 3/8" | - | 1,00 | 45 | -40 | +150 | 24 |
| | | 1338N/M10S065 | | - | 10 | | | | | 24 |
| | | 1338N/M12S065 | | - | 12 | | | | | 24 |
| | | 1338N/4S065 | | 1/2" | - | | | | | 24 |

(1) : bobine che possono essere montate sulle valvole
 (1) : coils that can be mounted on the valves
 (1) : bobines qui peuvent être montées sur les vannes
 (1) : Spulen, die an den Ventilen montiert werden können

NB: Non impiegare con R22 , oli minerali e alchilbenzenici
 NB: No use with R22 , mineral and alchylbenzene oils
 NB: Incompatible avec R22 , Huiles minérales alkylbenzènes
 NB: Nicht mit R22 verwendbar , Mineralölen und Alkylbenzol

VALVOLE SOLENOIDI N.A. ATTACCHI SAE FLARE SENZA BOBINA
N.O. SOLENOID VALVES SAE FLARE CONNECTIONS WITHOUT COILS
VANNES ELECTROMAGNETIQUES N.O. SAE FLARE RACCORDS SANS BOBINE
N.O. MAGNETVENTILE MIT BÖRDELANSCHLUSS OHNE SPULE

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi SAE Flare Connections SAE Flare Raccords SAE Flare Anschlüsse SAE Flare | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------|-------------|---------|------|------------------------------------------------------------|
| | | | | | | | Min | Max | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membranantrieb |  | 1164/3S | HM3 HM4 | 3/8" | 0,80 | 45 | -35 | +105 | 24 |
| |  | 1170/4S | | 1/2" | 2,20 | 45 | -35 | +105 | 24 |
| | | 1170/5S | | 5/8" | 2,61 | | | | |
| |  | 1190/5S | | 5/8" | 3,80 | 45 | -35 | +105 | 14 |
| | | 1190/6S | | 3/4" | 4,80 | | | | |
| | Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | | 1134/3S | HM3 HM4 | 3/8" | 1,00 | 45 | -35 |
|  | | 1140/4S | 1/2" | 2,40 | | 45 | -35 | +110 | 24 |
| | | 1140/5S | 5/8" | 3,00 | | | | | |
|  | | 1150/5S | 5/8" | 3,80 | | 45 | -35 | +110 | 14 |
| | | 1150/6S | 3/4" | 4,80 | | | | | |

Note:

Le valvole NA sono state progettate per il funzionamento con bobine in corrente continua.

Per applicazioni con alimentazione a 220/230 V AC utilizzare la bobina 9120/RD6 con il connettore 9150/R45

The N.O. valves have been designed to work only with direct current coil.

To use them with an alternate current supply it's necessary to mate the N.O. valve with the 9120/RD6 coil and the connector 9150/R45

Les vannes N.O. ont été conçues pour le fonctionnement avec des bobines en courant continu uniquement.

Pour les applications avec alimentation en courant alternatif, il faut coupler la vanne N.O. avec la bobine 9120/RD6 et le connecteur 9150/R45.

Die N.O. Ventile sind ausschließlich für den Betrieb mit Gleichstromspulen vorgesehen.

Bei Verwendung mit Wechselstromspeisung ist das N.O. Ventile mit Spule 9120/RD6 und Verbinder 9150/R45

(1) : bobine che possono essere montate sulle valvole

(1) : coils that can be mounted on the valves

(1) : bobines qui peuvent être montées sur les vannes

(1) : Spulen, die an den Ventilen montiert werden können

VALVOLE SOLENOIDI N.A. ATTACCHI ODS SENZA BOBINA
N.O. SOLENOID VALVES ODS CONNECTIONS WITHOUT COILS
VANNES ELECTROMAGNETIQUES N.O. ODS RACCORDS SANS BOBINE
N.O. MAGNETVENTILE ODS ANSCHLÜSSE OHNE SPULE

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | [in.] | [mm] | | | Min | Max | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membranantrieb | | 1168/3S | HM3 HM4 | 3/8" | - | 0,80 | 45 | -35 | +105 | 24 |
| | | 1168/M10S | | - | 10 | | | | | |
| | | 1178/M12S | HM3 HM4 | - | 12 | 2,20 | 45 | -35 | +105 | 14 |
| | | 1178/4S | | 1/2" | - | | | | | |
| | | 1178/5S | | 5/8" | 16 | 2,61 | | | | |
| | | 1198/5S | HM3 HM4 | 5/8" | 16 | 3,80 | 45 | -35 | +105 | 14 |
| | | 1198/6S | | 3/4" | - | 4,80 | | | | |
| | | 1198/7S | | 7/8" | 22 | 5,70 | | | | |
| | | 1178/9S | HM3 HM4 | 1.1/8" | - | 10,00 | 45 | -35 | +105 | 1 |

Note:

Le valvole NA sono state progettate per il funzionamento con bobine in corrente continua.

Per applicazioni con alimentazione a 220/230 V AC utilizzare la bobina 9120/RD6 con il connettore 9150/R45

The N.O. valves have been designed to work only with direct current coil.

To use them with an alternate current supply it's necessary to mate the N.O. valve with the 9120/RD6 coil and the connector 9150/R45

Les vannes N.O. ont été conçues pour le fonctionnement avec des bobines en courant continu uniquement.

Pour les applications avec alimentation en courant alternatif, il faut coupler la vanne N.O. avec la bobine 9120/RD6 et le connecteur 9150/R45.

Die N.O. Ventile sind ausschließlich für den Betrieb mit Gleichstromspulen vorgesehen.

Bei Verwendung mit Wechselstromspeisung ist das N.O. Ventile mit Spule 9120/RD6 und Verbinder 9150/R45

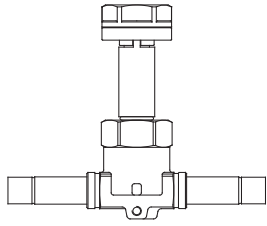
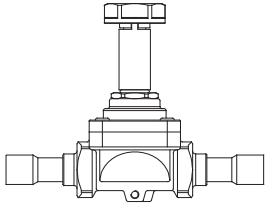
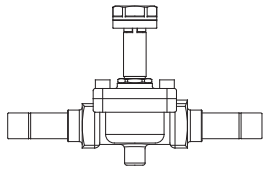
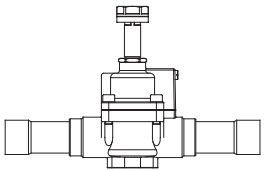
(1) : bobine che possono essere montate sulle valvole

(1) : coils that can be mounted on the valves

(1) : bobines qui peuvent être montées sur les vannes

(1) : Spulen, die an den Ventilen montiert werden können

VALVOLE SOLENOIDI N.A. ATTACCHI ODS SENZA BOBINA
 N.O. SOLENOID VALVES ODS CONNECTIONS WITHOUT COILS
 VANNES ELECTROMAGNETIQUES N.O. ODS RACCORDS SANS BOBINE
 N.O. MAGNETVENTILE ODS ANSCHLÜSSE OHNE SPULE

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | [in.] | [mm] | | | Min | Max | |
| Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | 1138/3S | HM3 HM4 | 3/8" | - | 1,00 | 45 | -35 | +110 | 24 |
| | | 1138/M10S | | - | 10 | | | | | |
| |  | 1148/M12S | HM3 HM4 | - | 12 | 2,40 | 45 | -35 | +110 | 14 |
| | | 1148/4S | | 1/2" | - | | | | | |
| 1148/5S | | 5/8" | | 16 | 3,00 | | | | | |
|  | 1158/5S | HM3 HM4 | 5/8" | 16 | 3,80 | 45 | -35 | +110 | 14 | |
| | 1158/6S | | 3/4" | - | 4,80 | | | | | |
| | 1158/7S | | 7/8" | 22 | 5,70 | | | | | |
|  | 1178/9S | HM3 HM4 | 1.1/8" | - | 10 | 45 | -35 | +110 | 1 | |
| | 1178/11S | | 1.3/8" | 35 | 16 | | | | | |
| | 1178/13S | | 1.5/8" | - | 25 | | | | | |
| | 1178/M42S | | - | 42 | | | | | | |

Note:

Le valvole NA sono state progettate per il funzionamento con bobine in corrente continua.

Per applicazioni con alimentazione a 220/230 V AC utilizzare la bobina 9120/RD6 con il connettore 9150/R45

The N.O. valves have been designed to work only with direct current coil.

To use them with an alternate current supply it's necessary to mate the N.O. valve with the 9120/RD6 coil and the connector 9150/R45

Les vannes N.O. ont été conçues pour le fonctionnement avec des bobines en courant continu uniquement.

Pour les applications avec alimentation en courant alternatif, il faut coupler la vanne N.O. avec la bobine 9120/RD6 et le connecteur 9150/R45.

Die N.O. Ventile sind ausschließlich für den Betrieb mit Gleichstromspulen vorgesehen.

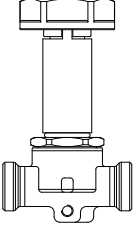
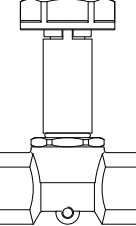
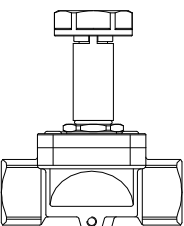
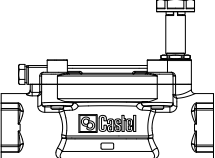
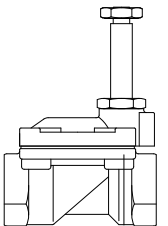
Bei Verwendung mit Wechselstromspeisung ist das N.O. Ventile mit Spule 9120/RD6 und Verbinder 9150/R45

(1) : bobine che possono essere montate sulle valvole

(1) : coils that can be mounted on the valves

(1) : bobines qui peuvent être montées sur les vannes

(1) : Spulen, die an den Ventilen montiert werden können

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo Bobina Coil Type Type Bobine Spulentyp (4) | Attacchi Connections Raccords Anschlüsse | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------|---------------------------|----------|---------|------|------------------------------------------------------------|
| | | | FPT | | | min | max | |
|  | 1512/01S (1) | HF2 HF3 HM2 HM3 HM4 CM2 | G 1/8" | 0,07 | 30 | -15 | +130 | 18 |
| | | | | | | | | |
|  | 1522/02S (2) | HF2 HF3 HM2 HM3 HM4 CM2 | G 1/4" | 0,4 | 30 | -15 | +130 | 18 |
| | 1522/03S (2) | | G 3/8" | | | | | 18 |
| | 1522/04S (2) | | G 1/2" | | | | | 18 |
| | | | | | | | | |
|  | 1132/03S (3) | HF2 HF3 HM2 HM3 HM4 CM2 | G 3/8" | 2,1 | 30 | -15 | +130 | 24 |
| | 1132/04S (3) | | G 1/2" | | | | | 2,2 |
| | 1132/06S (3) | | G 3/4" | 5,5 | 15 | | | 14 |
| | 1132/08S (3) | | G 1" | | | | | 6 |
| | | | | | | | | |
|  | 1142/010S (3) N | HF2 HF3 HM2 HM3 HM4 CM2 | G 1.1/4" | 22 | 15 | -15 | +130 | 1 |
| | 1142/012S (3) N | | G 1.1/2" | | | | | 24 |
|  | 1133/010V370S (3) (5) | HM6 | G 1.1/4" | 18 | 25 | -10 | +130 | 1 |
| | 1133/012V370S (3) (5) | | G 1.1/2" | | | | | 21 |

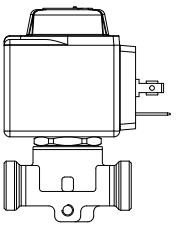
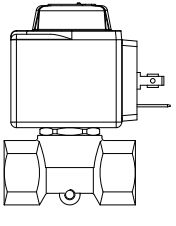
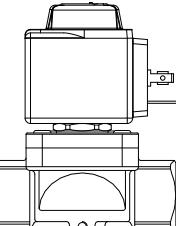
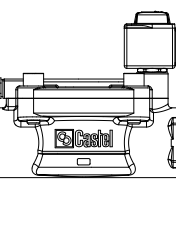
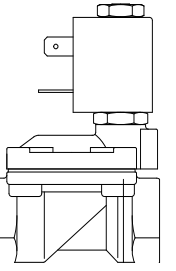
(1) Per acqua, aria e gasolio
 (1) For water, air and gas oil
 (1) Pour eau, air et gas-oil
 (1) Für wasser, luft und gasöl

(2) Per acqua e gasolio
 (2) For water and gas oil
 (2) Pour eau et gas-oil
 (2) Für wasser und gasöl

(3) Per acqua, aria, gasolio e soluzioni di acqua e glicole
 (3) For water, air, gas oil and solution of water and glycol
 (3) Pour eau, air, gas-oil et solutions d'eau + glycol
 (3) Für wasser, luft, gasöl und wasser + glykol lösungen

(4) : bobine che possono essere montate sulle valvole
 (4) : coils that can be mounted on the valves
 (4) : bobines qui peuvent être montées sur les vannes
 (4) : Spulen, die an den Ventilen montiert werden können

(5) Prodotto in esaurimento scorte
 (5) Product running out of stock
 (5) Produit en rupture de stock
 (5) Produkt bis zum Ende der Vorräte erhältlich

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo Bobina Coil Type Type Bobine Spulentyp (4) | Attacchi Connections Raccords Anschlüsse | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------|---------------------------|----------|---------|------|------------------------------------------------------------|
| | | | FPT | | | min | max | |
|  | 1512/01A6 (1) | HF2 | G 1/8" | 0,07 | 30 | -15 | +130 | 18 |
|  | 1522/02A6 (2) | HF2 | G 1/4" | 0,4 | 30 | -15 | +130 | 18 |
| | 1522/03A6 (2) | | G 3/8" | | | | | 18 |
| | 1522/04A6 (2) | | G 1/2" | | | | | 18 |
|  | 1132/03A6 (3) | HF2 | G 3/8" | 2,1 | 30 | -15 | +130 | 24 |
| | 1132/04A6 (3) | | G 1/2" | 2,2 | | | | 24 |
| | 1132/06A6 (3) | | G 3/4" | 5,5 | 15 | | | 14 |
| | 1132/08A6 (3) | | G 1" | 6 | | | | 14 |
|  | 1142/010A6 (3) N | HF2 | G 1.1/4" | 22 | 15 | -15 | +130 | 1 |
| | 1142/012A6 (3) N | | G 1.1/2" | 24 | | | | 1 |
|  | 1133/010V370A6 (3) (5) | HM6 | G 1.1/4" | 18 | 25 | -10 | +130 | 1 |
| | 1133/012V370A6 (3) (5) | | G 1.1/2" | 21 | | | | 1 |

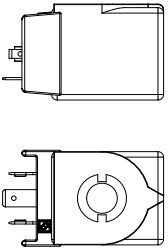
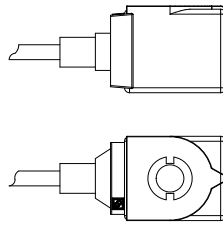
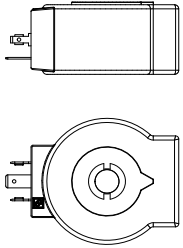
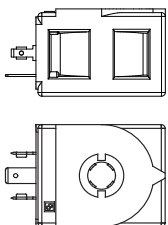
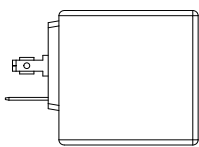
(1) Per acqua, aria e gasolio
 (1) For water, air and gas oil
 (1) Pour eau, air et gas-oil
 (1) Für wasser, luft und gasöl

(4): bobine montate sulle valvole
 (4): coils mounted on the valves
 (4): Bobines montées sur des vannes
 (4): An den Ventilen montierte Spulen

(2) Per acqua e gasolio
 (2) For water and gas oil
 (2) Pour eau et gas-oil
 (2) Für wasser und gasöl

(5) Prodotto in esaurimento scorte
 (5) Product running out of stock
 (5) Produit en rupture de stock
 (5) Produkt bis zum Ende der Vorräte erhältlich

(3) Per acqua, aria, gasolio e soluzioni di acqua e glicole
 (3) For water, air, gas oil and solution of water and glycol
 (3) Pour eau, air, gas-oil et solutions d'eau + glycol
 (3) Für wasser, luft, gasöl und wasser + glykol lösungen

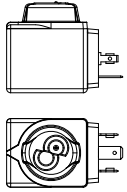
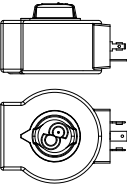
| Disegno Drawing Dessin Zeichnung | Tipo Bobina Coil Type Type bobine Spulentyp | N° catalogo Part number N° Catalogue Katalog Nr | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Potenza Power Puissance Leistung [W] | Confezione n° pz Package pcs Emballage Verpackung | |
|-------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------|----|
|  | HM2 | 9100/RA2 (3) | 24 | 50/60 | 8 | 90 | |
| | | 9100/RA4 (3) | 110 | | | | |
| | | 9100/RA6 (3) | 220/230 | | | | |
| | | 9100/RA7 (3) | 240 | | | | |
| | | 9100/RA8 (3) | 380 | | | | |
|  | CM2 (1) | 9110/RA2 | 24 | 50/60 | 8 | 10 | |
| | | 9110/RA4 | 110 | | | | |
| | | 9110/RA6 | 220/230 | | | | |
| | | 9110/RA7 | 240 | | | | |
|  | HM3 | 9120/RA6 (3) | 220/230 | 50/60 | 12 | 45 | |
| | | 9120/RD1 | 12 D.C. | | - | | 20 |
| | | 9120/RD2 | 24 D.C. | | | | |
| | | 9120/RD3 | 27 D.C. | | | | 22 |
| | | 9120/RD4 | 48 D.C. | | | | |
| | | 9120/RD6 (2) | 220 RAC | | 18 | | |
|  | HM4 | 9160/RA2 | 24 | 50/60 | 8 | 90 | |
| | | 9160/RA4 | 110 | | | | |
| | | 9160/RA6 | 220/230 | | | | |
| | | 9160/RA7 | 240 | | | | |
|  | HM6 | 9220/RA2 | 24 A.C. | 50/60 | 15 VA | 90 | |
| | | 9220/RA4 | 110 A.C. | | | | |
| | | 9220/RA6 | 220/230 A.C. | | | | |
| | | 9220/RA7 | 240 A.C. | - | 10 | | |
| | | 9220/RD1 | 12 D.C. | | | | |
| | | 9220/RD2 | 24 D.C. | | | | |

Note:

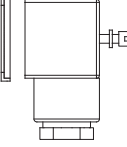
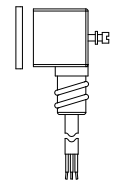
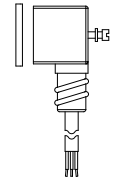
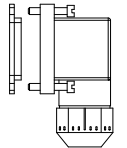
(1) Lunghezza cavo 1 m
(1) Cable length 1 m
(1) Longueur du câble 1 m
(1) Kabellänge 1 m

(2) Utilizzare esclusivamente con connettore raddrizzatore 9150/R45
(2) Use only with 9150/R45 connector / rectifier
(2) Utiliser exclusivement en association avec le connecteur/redresseur 9150/R45
(2) Bitte nur mit Verbinder/gleichrichter 9150/R45 benutzen

(3) Prodotto in esaurimento scorte
(3) Product running out of stock
(3) Produit en rupture de stock
(3) Produkt bis zum Ende der Vorräte erhältlich

| Disegno Drawing Dessin Zeichnung | Tipo Bobina Coil Type Type bobine Spulentyp | N° catalogo Part number N° Catalogue Katalog Nr | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Potenza Power Puissance Leistung [W] | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------|
|  | HF2 | 9300/RA2 | 24 | 50/60 | 8 | 30 |
| | | 9300/RA4 | 110 | | | |
| | | 9300/RA6 | 220/230 | | | |
| | | 9300/RA7 | 240 | | | |
| | | 9300/RA8 | 380 | | | |
|  | HF3 | 9320/RA6 | 220/230 | - | 12 | 18 |
| | | 9320/RD1 | 12 D.C. | | 20 | |
| | | 9320/RD2 | 24 D.C. | | | |
| | | 9320/RD3 | 27 D.C. | | | |
| | | 9320/RD4 | 48 D.C. | | | |

CONNETTORI
CONNECTORS
CONNECTEURS
STECKER

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Grado di protezione Degree of protection Degré de protection Schutz - klasse | Lunghezza cavo Cable length Longueur du câble Kabellänge [m] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------|
|  | 9150/R02 | IP 65 | - | 240 |
| | 9150/R45 (1) | | | 1 |
|  | 9150/R90 (1) | IP 65 | 2 | 1 |
| |  | 9900/X66 | IP 65 | 1 |
| 9900/X84 | | 1.5 | | 1 |
| 9900/X73 | | 2 | | 80 |
| 9900/X55 | | 3 | | 80 |
| 9900/X54 | | 5 | | 50 |
|  | 9155/R01 | IP 65 / IP 68 | - | 120 |
| | 9155/R02 | | 1 | 1 |
| | | | | |

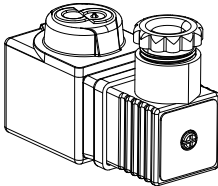
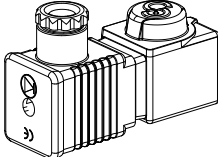
Note:

(1) Connettore/Raddrizzatore: tensione d'alimentazione 220/230V AC

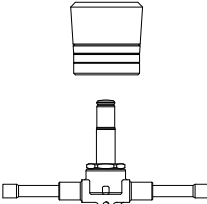
(1) Connector/Rectifier: supply voltage 220/230V AC

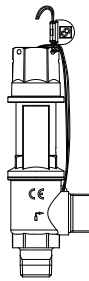
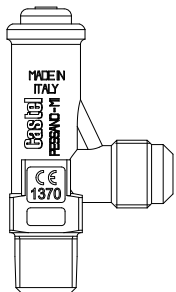
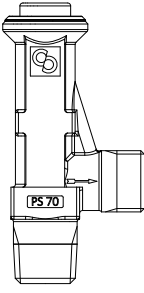
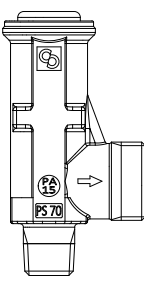
(1) Connecteur/Redresseur: tension d'alimentation 220/230V AC

(1) Verbinder/Gleichrichter: Speisespannung 220/230V AC

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | T boost [msec] | Potenza Power Puissance Leistung | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|-------------------|--------------------------------------------------|------------------------------------------|------------------------------------------------------------|
| | | | | | esercizio working travail Arbeit [W] | avvio start début Anfang [W] | |
|  | 9910/RD1 | 12 VDC | - | 130 | 3 | 50 | 12 |
| | 9910/RD2 | 24 VDC | - | 130 | 5 | 50 | 12 |
|  | 9910/RA2 | 24VAC | 50/60 | 200 | 7 | 50 | 12 |
| | 9910/RA6 | 220VAC | 50/60 | 200 | 7 | 50 | 12 |
| | 9910/RA7 | 240VAC | 50/60 | 200 | 7 | 50 | 12 |
| | | | | | | | |

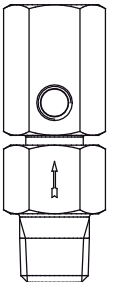
MAGNETE PERMANENTE
PERMANENT MAGNET
OUTIL MAGNETIQUE
DÄERMAGNET

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------|
|  | 9900/X91 | 1 |

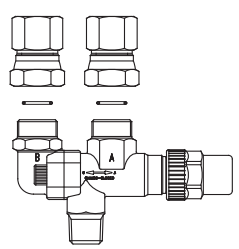
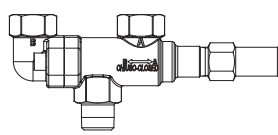
| Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Attacchi Connections Raccords Anschlüsse | | Sezione orifizio Orifice section Section orifice Öffnungs- querschnitt [mm ²] | Coefficiente d'efflusso Kd Discharge coefficient Kd Coefficient d'écoulement Kd Ausströmungsfaktor Kd | Campo taratura Set pressure range Champ de tarage Einstellbereich [bar] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------|---------|------|------------------------------------------------------------------|
| | | IN | OUT | | | | | Min | Max | |
|  | 3030/88C | 1" NPT | 1.1/4" G | 298 | 0,83 | 8→50 | 55 | -40 | +150 | 8 |
| | 3030/66C | 3/4" NPT | 3/4" G | 113 | 0,9 | | | | | 15 |
| | 3030/44C | 1/2" NPT | 3/4" G | 113 | 0,9 | 15 | | | | |
| | 3030/44G (1) | 1/2" G | 3/4" G | 113 | 0,9 | 8→50 | | | | 15 |
|  | 3060/46C | 1/2" NPT | 3/4" G | 78,5 | 0,93 | 9→50 | 55 | -40 | +120 | 45 |
| | 3060/36C | 3/8" NPT | 3/4" G | 78,5 | 0,92 | | | | | 45 |
| | 3060/45C | 1/2" NPT | 5/8" SAE | 70,9 | 0,45 | | | | | 45 |
| | 3060/34C | 3/8" NPT | 1/2" SAE | 38,5 | 0,69 | | | | | 45 |
| | 3060/33C | 3/8" NPT | 3/8" SAE | 38,5 | 0,63 | | | | | 45 |
| | 3060/24C | 1/4" NPT | 1/2" SAE | 38,5 | 0,69 | | | | | 45 |
| | 3060/23C | 1/4" NPT | 3/8" SAE | 38,5 | 0,63 | | | | | 45 |
|  | 3061/2C N | 1/4" NPT | 3/8" G | 44,2 | -- | 10→60 | 70 | -40 | +150 | 18 |
| | 3061/3C N | 3/8" NPT | 1/2" G | 44,2 | -- | | | | | 18 |
| | 3061/4C N | 1/2" NPT | 1/2" G | 44,2 | -- | | | | | 18 |
|  | 3065/4C N | 1/2" NPT | 1" G | 143,1 | -- | 10→60 | 70 | -40 | +120 | 24 |
| | 3065/6C N | 3/4" NPT | 1" G | 143,1 | -- | | | | | 24 |

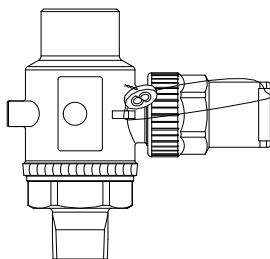
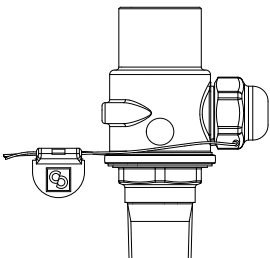
(1) Prodotto a richiesta.
(1) Product on request.
(1) Produit sur demande.
(1) Produkt auf Anfrage.

DISPOSITIVI DI SICUREZZA CON DISCO DI ROTTURA
BURSTING DISCSAFETY DEVICES
DISPOSITIF DE SÉCURITÉ AVEC DISQUE DE RUPTURE
SICHERHEITSVORRICHTUNG MIT BERSTPLATTE

| Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Attacchi Connections Raccords Anschlüsse | | | Sezione orificio Orifice section Section orifice Öffnungs- querschnitt [mm ²] | Pressione di rottura Pb Bursting pressure Pb Pression de rupture Pb Brechdruck Pb | Max pressione d'esercizio Max operating pressure Pression d'exercice max. Max. Betriebsdruck | PS [bar] | | TS [°C] | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------|-----|------------|---------------------------------------------------------------|
| | | IN maschio male IN IN mâle EINGANG mit Außen- gewinde | OUT femmina female OUT OUT femelle AUSGANG mit Innen- gewinde | servizio service service Hilfsan- schluss | | | | min | max | | |
|  | 3070/44C140 | 1/2" NPT | 1/2" NPT | 2 x 1/8" NPT | 113 | 14,0 | 75 % Pb | 55 | -40 | +150 | 20 |
| | 3070/44C160 | | | | | | | | | | 20 |
| | 3070/44C190 | | | | | | | | | | 20 |
| | 3070/44C210 | | | | | | | | | | 20 |
| | 3070/44C240 | | | | | | | | | | 20 |
| | 3070/44C248 | | | | | | | | | | 20 |
| | 3070/44C275 | | | | | | | | | | 20 |
| | 3070/44C280 | | | | | | | | | | 20 |

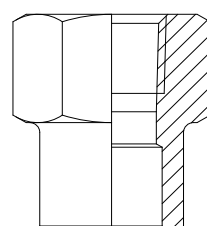
RUBINETTI DI SCAMBIO
CHANGEOVER VALVES
VANNE D'ECHANGE
WECHSELHAHN

| Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Adatto per valvola Designed for valve Adaptée pour vanne Passed für Ventil | Attacchi Connections Raccords Anschlüsse | | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------|----------|---------------------------|-------------|---------|------|------------------------------------------------------------|
| | | | IN | OUT | | | Min | Max | |
|  | 3032/33 | 3060/33C 3060/34C 3060/36C | 3/8" NPT | 3/8" NPT | 2,5 | 80 | -40 | +150 | 14 |
| | 3032/44 | 3060/45C 3060/46C | 1/2" NPT | 1/2" NPT | 3,3 | | | | 14 |
|  | 3032/64 | 3030/44C | 3/4" NPT | 1/2" NPT | 9 | 80 | -40 | +150 | 15 |
| | 3032/66 | 3030/66C | 3/4" NPT | 3/4" NPT | 9 | | | | 15 |
| | 3032/88 | 3030/88C | 1" NPT | 1" NPT | 14,5 | | | | 1 |
| | 3032/108 | | 1.1/4" NPT | 1" NPT | 20 | | | | 1 |

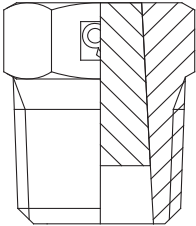
| Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Attacchi Connections Raccords Anschlüsse | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|-----|-----------|----------|---------|-----|------------------------------------------------------------|
| | | NPT | | | | Min | Max | |
|  | 3063/22 (1) | 1/4" | 2,5 | 55 | -40 | +150 | 40 | |
| | 3063/33 (1) | 3/8" | 5 | | | | 40 | |
| | 3063/44 (1) | 1/2" | 5 | | | | 40 | |
| | 3033/44 (1) | 1/2" | 10 | | | | 24 | |
| | 3033/88 (1) | 1" | 20 | | | | 14 | |
|  | 3064/22 N | 1/4" | 2,5 | 80 | -40 | +150 | 20 | |
| | 3064/33 N | 3/8" | 5 | | | | 20 | |
| | 3064/44 N | 1/2" | 10 | | | | 24 | |
| | 3064/88 N | 1" | 20 | | | | 14 | |

(1) Prodotto in esaurimento scorte
 (1) Product running out of stock
 (1) Produit en rupture de stock
 (1) Produkt bis zum Ende der Vorräte erhältlich

**RACCORDI
 UNIONS
 RACCORDS
 ANSCHLÜSSE**

| Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Attacchi Connections Raccords Anschlüsse | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|------------|----------|------------------------------------------------------------|
| | | NPT | ODS Ø [mm] | | |
|  | 3035/2 | 1/4" | 12 | 120 | 100 |
| | 3035/3 | 3/8" | 18 | | 100 |
| | 3035/4 | 1/2" | 22 | | 60 |
| | 3035/6 | 3/4" | 28 | | 30 |
| | 3035/8 | 1" | 35 | | 20 |
| | 3035/10 | 1.1/4" | 42 | | 6 |

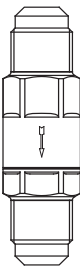
TAPPI FUSIBILI
 FUSIBLE PLUGS
 BOUCHONS FUSIBLES
 SCHMELZVERSCHLÜSSE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr | Attacchi NPT Connections NPT Raccords NPT Anschlüsse NPT | Sezione orificio Orifice section Section orifice Öffnungs- querschnitt [mm²] | Kd | PS [bar] | Temperatura di fusione Melting point Température de fusion Schmelztemperatur [°C] | Max temperatura d'esercizio Max operating temperature Température de service max Maximale Betriebstemperatur [°C] | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------|-------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
|  | 3080/1C | 1/8" | 18.8 | 0,91 | 42 | 79 | 68 | 10 |
| | 3080/2C | 1/4" | 25.5 | | | | | |
| | 3080/3C | 3/8" | 56.7 | | | | | |
| | 3080/4C | 1/2" | 67.9 | | | | | |
| | 3082/1C | 1/8" | 18.8 | 30 | 138 | 127 | | |
| | 3082/2C | 1/4" | 25.5 | | | | | |
| | 3082/3C | 3/8" | 56.7 | | | | | |
| | 3082/4C | 1/2" | 67.9 | | | | | |

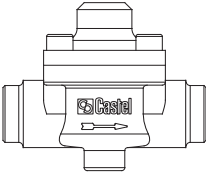
VALVOLE DI RITEGNO
CHECK VALVES
CLAPETS ANTI-RETOUR
RÜCKSCHLAGVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | Kv [m³/h] | Pressione differenziale Differential pressure Pression différentielle Differenzial Druck (1) [bar] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------|--------|---------|--------------|-------------------------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|--------|
| | | SAE Flare | ODS | | ODM | | | | min | max | | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | | | | | | | Ø [mm] |

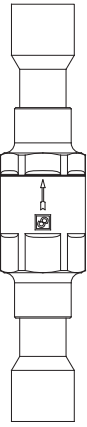
IN LINEA CON ATTACCHI SAE FLARE / STRAIGHT WITH SAE FLARE CONNECTIONS / CONNEXIONS DROITES SAE FLARE / DURCHFLOSS VERBINDUNG SAE BÖRDE

| | | | | | | | | | | | | |
|-----------------------------------------------------------------------------------|--------|------|---|---|---|---|-----|-----|----|-----|------|----|
|  | 3112/2 | 1/4" | - | - | - | - | 0.5 | 0.1 | 45 | -40 | +105 | 90 |
| | 3112/3 | 3/8" | - | - | - | - | 1.5 | | | | | 90 |
| | 3112/4 | 1/2" | - | - | - | - | 1.8 | | | | | 90 |
| | 3112/5 | 5/8" | - | - | - | - | 3.3 | | | | | 90 |
| | 3112/6 | 3/4" | - | - | - | - | 5 | | | | | 34 |
| | | | | | | | | | | | | |

IN LINEA CON ATTACCHI ODS D'OTTONE / STRAIGHT WITH BRASS ODS CONNECTIONS / CONNEXIONS DROITES ODS LAITON / DURCHFLOSS VERBINDUNG ODS MESSING

| | | | | | | | | | | | |
|------------------------------------------------------------------------------------|----------|--------|----|--------|----|------|-----|----|-----|------|----|
|  | 3122/M22 | - | 22 | - | 28 | 6.6 | 0.1 | 45 | -35 | +150 | 14 |
| | 3122/7 | 7/8" | - | 1.1/8" | - | 6.6 | | | | | 14 |
| | 3122/M28 | - | 28 | 1.3/8" | 35 | 8.8 | | | | | 14 |
| | 3122/9 | 1.1/8" | - | 1.3/8" | 35 | 8.8 | | | | | 14 |
| | 3122/11 | 1.3/8" | 35 | 1.5/8" | - | 15.2 | | | | | 14 |
| | 3122/13 | 1.5/8" | - | 2" | - | 25 | | | | | 1 |
| | 3122/M42 | - | 42 | 2" | - | 25 | | | | | 1 |
| | 3122/17 | 2.1/8" | 54 | - | - | 40 | | | | | 1 |

IN LINEA CON ATTACCHI ODS DI RAME / STRAIGHT WITH COPPER ODS CONNECTIONS / CONNEXIONS DROITES ODS CUIVRE / DURCHFLOSS VERBINDUNG ODS KUPFER

| | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|------|----|---|---|-----|-----|----|-----|------|-----|
|  | 3132/2 | 1/4" | - | - | - | 0.5 | 0.1 | 45 | -40 | +105 | 90 |
| | 3132/3 | 3/8" | - | - | - | 1.5 | | | | | 45 |
| | 3132/M10 | - | 10 | - | - | 1.5 | | | | | 45 |
| | 3132/M12 | - | 12 | - | - | 1.8 | | | | | 34 |
| | 3132/4 | 1/2" | - | - | - | 1.8 | | | | | 34 |
| | 3132/5 | 5/8" | 16 | - | - | 3.3 | | | | | 42 |
| | 3132/M18 | - | 18 | - | - | 5 | | | | | 42 |
| | 3132/6 | 3/4" | - | - | - | 5 | | | | | 42 |
| | 3132/7 | 7/8" | 22 | - | - | 5 | | | | | 42 |
| | 3133/2 | 1/4" | - | - | - | 0.5 | | | | | 0.3 |
| | 3133/3 | 3/8" | - | - | - | 1.5 | 45 | | | | |
| | 3133/M10 | - | 10 | - | - | 1.5 | 45 | | | | |
| | 3133/M12 | - | 12 | - | - | 1.8 | 34 | | | | |
| | 3133/4 | 1/2" | - | - | - | 1.8 | 34 | | | | |
| | 3133/5 | 5/8" | 16 | - | - | 3.3 | 42 | | | | |
| | 3133/M18 | - | 18 | - | - | 5 | 42 | | | | |
| | 3133/6 | 3/4" | - | - | - | 5 | 42 | | | | |
| | 3133/7 | 7/8" | 22 | - | - | 5 | 42 | | | | |

(1) Minima pressione a cui la valvola è completamente aperta

(1) Minimum pressure at which the valve is completely open

(1) Pression minimale à laquelle la vanne est entièrement ouverte

(1) Mindestdruck, bei dem das Ventil vollständig offen ist

**VALVOLE DI RITEGNO
CHECK VALVES
CLAPETS ANTI-RETOUR
RÜCKSCHLAGVENTILE**

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | Kv [m ³ /h] | Pressione differenziale Differential pressure Pression différentielle Differenzial Druck (1) [bar] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------|--------|---------|---------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|--------|
| | | SAE Flare | ODS | | ODM | | | | min | max | | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | | | | | | | Ø [mm] |

IN LINEA CON ATTACCHI ODS DI RAME / STRAIGHT WITH COPPER ODS CONNECTIONS / CONNEXIONS DROITES ODS CUIVRE / DURCHFLUSS VERBINDUNG ODS KUPFER

| | | | | | | | | | | | | |
|--|----------|---|--------|----|---|---|------|-----|----|-----|------|----|
| | 3142/7 | - | 7/8" | 22 | - | - | 6.6 | 0.1 | 45 | -35 | +150 | 15 |
| | 3142/M28 | | - | 28 | | | 8.8 | | | | | 15 |
| | 3142/9 | | 1.1/8" | - | | | 8.8 | | | | | 15 |
| | 3142/11 | | 1.3/8" | 35 | | | 15.2 | | | | | 10 |
| | 3142/13 | | 1.5/8" | - | | | 25 | | | | | 1 |
| | 3142/M42 | | - | 42 | | | 25 | | | | | 1 |
| | 3142/17 | | 2.1/8" | 54 | | | 40 | | | | | 1 |
| | 3142/21 | | 2.5/8" | - | | | 40 | | | | | 1 |
| | 3142/25 | | 3.1/8" | - | | | 40 | | | | | 1 |

A SQUADRA CON ATTACCHI ODS DI RAME / RIGHT ANGLE WITH COPPER ODS CONNECTIONS / ANGLE DROIT AVEC CONNEXION CUIVRE ODS / WINKELANSCHLUSS MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG

| | | | | | | | | | | | | |
|--|--------------|---|--------|----|---|---|------|-----|----|-----|------|----|
| | 3182/7 (2) | - | 7/8" | 22 | - | - | 8.5 | 0.1 | 45 | -35 | +150 | 10 |
| | 3182/M28 (2) | | - | 28 | | | 9.5 | | | | | 10 |
| | 3182/9 (2) | | 1.1/8" | - | | | 9.5 | | | | | 10 |
| | 3182/11 (2) | | 1.3/8" | 35 | | | 19 | | | | | 1 |
| | 3182/13 | | 1.5/8" | - | | | 37 | | | | | 1 |
| | 3182/M42 | | - | 42 | | | 37 | | | | | 1 |
| | 3182/17 | | 2.1/8" | 54 | | | 45.4 | | | | | 1 |

(1) Minima pressione a cui la valvola è completamente aperta

(1) Minimum pressure at which the valve is completely open

(1) Pression minimale à laquelle la vanne est entièrement ouverte

(1) Mindestdruck, bei dem das Ventil vollständig offen ist

(2) Prodotto in esaurimento scorte

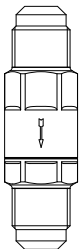
(2) Product running out of stock

(2) Produit en rupture de stock

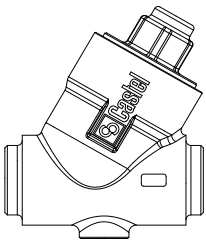
(2) Produkt bis zum Ende der Vorräte erhältlich

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | Kv [m ³ /h] | Pressione differenziale Differential pressure Pression différentielle Differenzial Druck (1) [bar] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------|--------|---------|---------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|--------|
| | | SAE Flare | ODS | | ODM | | | | min | max | | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | | | | | | | Ø [mm] |

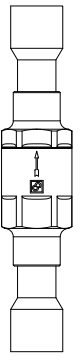
IN LINEA CON ATTACCHI SAE FLARE / STRAIGHT WITH SAE FLARE CONNECTIONS / CONNEXIONS DROITES SAE FLARE / DURCHFLUSS VERBINDUNG SAE BÖRDE

| | | | | | | | | | | | | |
|-----------------------------------------------------------------------------------|-------------|------|---|---|---|---|-----|-----|----|-----|------|----|
|  | 3112N/2 (2) | 1/4" | - | - | - | - | 0.5 | 0.1 | 45 | -40 | +150 | 20 |
| | 3112N/3 (2) | 3/8" | - | - | - | - | 1.5 | | | | | 20 |
| | 3112N/4 (2) | 1/2" | - | - | - | - | 1.8 | | | | | 20 |
| | 3112N/5 (2) | 5/8" | - | - | - | - | 3.3 | | | | | 20 |
| | 3112N/6 (2) | 3/4" | - | - | - | - | 5 | | | | | 16 |

IN LINEA CON ATTACCHI ODS D'OTTONE / STRAIGHT WITH BRASS ODS CONNECTIONS / CONNEXIONS DROITES ODS LAITON / DURCHFLUSS VERBINDUNG ODS MESSING

| | | | | | | | | | | | |
|------------------------------------------------------------------------------------|---------------|--------|----|--------|----|------|------|----|-----|------|----|
|  | 3124N/M22 (2) | - | 22 | - | 28 | 8.1 | 0.04 | 45 | -40 | +150 | 14 |
| | 3124N/7 (2) | 7/8" | - | 1.1/8" | - | 8.1 | | | | | 14 |
| | 3124N/M28 (2) | - | 28 | 1.3/8" | 35 | 10.4 | | | | | 14 |
| | 3124N/9 (2) | 1.1/8" | - | 1.3/8" | 35 | 10.4 | | | | | 14 |
| | 3124N/11 (2) | 1.3/8" | 35 | 1.5/8" | - | 15.6 | | | | | 14 |
| | 3125N/M22 (2) | - | 22 | - | 28 | 8.1 | 0.3 | 45 | -40 | +150 | 14 |
| | 3125N/7 (2) | 7/8" | - | 1.1/8" | - | 8.1 | | | | | 14 |
| | 3125N/M28 (2) | - | 28 | 1.3/8" | 35 | 10.4 | | | | | 14 |
| | 3125N/9 (2) | 1.1/8" | - | 1.3/8" | 35 | 10.4 | | | | | 14 |
| | 3125N/11 (2) | 1.3/8" | 35 | 1.5/8" | - | 15.6 | | | | | 14 |

IN LINEA CON ATTACCHI ODS DI RAME / STRAIGHT WITH COPPER ODS CONNECTIONS / CONNEXIONS DROITES ODS CUIVRE / DURCHFLUSS VERBINDUNG ODS KUPFER

| | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|---------------|------|----|---|---|-----|-----|----|-----|------|----|
|  | 3132N/2 (2) | 1/4" | - | - | - | 0.5 | 0.1 | 45 | -40 | +150 | 25 |
| | 3132N/3 (2) | 3/8" | - | - | - | 1.5 | | | | | 25 |
| | 3132N/M10 (2) | - | 10 | - | - | 1.5 | | | | | 25 |
| | 3132N/M12 (2) | - | 12 | - | - | 1.8 | | | | | 16 |
| | 3132N/4 (2) | 1/2" | - | - | - | 1.8 | | | | | 16 |
| | 3132N/5 (2) | 5/8" | 16 | - | - | 3.3 | | | | | 16 |
| | 3132N/M18 (2) | - | 18 | - | - | 5 | | | | | 21 |
| | 3132N/6 (2) | 3/4" | - | - | - | 5 | 21 | | | | |
| | 3132N/7(2) | 7/8" | 22 | - | - | 5 | 21 | | | | |
| | 3133N/2 (2) | 1/4" | - | - | - | 0.5 | 0.3 | 45 | -40 | +150 | 25 |
| | 3133N/3 (2) | 3/8" | - | - | - | 1.5 | | | | | 25 |
| | 3133N/M10 (2) | - | 10 | - | - | 1.5 | | | | | 25 |
| | 3133N/M12 (2) | - | 12 | - | - | 1.8 | | | | | 16 |
| | 3133N/4 (2) | 1/2" | - | - | - | 1.8 | | | | | 16 |
| | 3133N/5 (2) | 5/8" | 16 | - | - | 3.3 | | | | | 16 |
| | 3133N/M18 (2) | - | 18 | - | - | 5 | | | | | 21 |
| | 3133N/6 (2) | 3/4" | - | - | - | 5 | 21 | | | | |
| 3133N/7(2) | 7/8" | 22 | - | - | 5 | 21 | | | | | |

(1) Minima pressione a cui la valvola è completamente aperta

(1) Minimum pressure at which the valve is completely open

(1) Pression minimale à laquelle la vanne est entièrement ouverte

(1) Mindestdruck, bei dem das Ventil vollständig offen ist

(2) Non impiegare con R22, oli minerali e alchilbenzenici

(2) No use with R22, mineral and alchylbenzene oils

(2) Incompatible avec R22, Huiles minérales alchylbenzènes

(2) Nicht mit R22 verwendbar, Mineralölen und Alkylbenzol

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | Kv [m ³ /h] | Pressione differenziale Differential pressure Pression différentielle Differenzial Druck (1) [bar] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------|--------|---------|---------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|--------|
| | | SAE Flare | ODS | | ODM | | | | min | max | | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | | | | | | | Ø [mm] |

IN LINEA CON ATTACCHI ODS DI RAME / STRAIGHT WITH COPPER ODS CONNECTIONS / CONNEXIONS DROITES ODS CUIVRE / DURCHFLOSS VERBINDUNG ODS KUPFER

| | | | | | | | | | | | | | |
|--|---------------|---|--------|----|---|---|-----|------|----|-----|------|------|----|
| | 3144N/7 (2) | - | 7/8" | 22 | - | - | 8.1 | 0,04 | 45 | -40 | +150 | 15 | |
| | 3144N/M28 (2) | | - | 28 | | | | | | | | 10,4 | 14 |
| | 3144N/9 (2) | | 1.1/8" | - | | | | | | | | 10,4 | 14 |
| | 3144N/11 (2) | | 1.3/8" | 35 | | | | | | | | 15,6 | 5 |
| | 3145N/7 (2) | - | 7/8" | 22 | - | - | 8.1 | 0,3 | 45 | -40 | +150 | 15 | |
| | 3145N/M28 (2) | | - | 28 | | | | | | | | 10,4 | 14 |
| | 3145N/9 (2) | | 1.1/8" | - | | | | | | | | 10,4 | 14 |
| | 3145N/11 (2) | | 1.3/8" | 35 | | | | | | | | 15,6 | 5 |

A SQUADRA CON ATTACCHI ODS DI RAME / RIGHT ANGLE WITH COPPER ODS CONNECTIONS / ANGLE DROIT AVEC CONNEXION CUIVRE ODS / WINKELANSCHLUSS MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG

| | | | | | | | | | | | | | |
|--|---------------|---|--------|----|---|---|---|------|----|-----|------|----|---|
| | 3184N/7 (2) | - | 7/8" | 22 | - | - | 9 | 0,04 | 45 | -40 | +150 | 14 | |
| | 3184N/M28 (2) | | - | 28 | | | | | | | | 19 | 1 |
| | 3184N/9 (2) | | 1.1/8" | - | | | | | | | | 19 | 1 |
| | 3184N/11 (2) | | 1.3/8" | 35 | | | | | | | | 29 | 1 |
| | 3185N/7 (2) | - | 7/8" | 22 | - | - | 9 | 0,3 | 45 | -40 | +150 | 14 | |
| | 3185N/M28 (2) | | - | 28 | | | | | | | | 19 | 1 |
| | 3185N/9 (2) | | 1.1/8" | - | | | | | | | | 19 | 1 |
| | 3185N/11 (2) | | 1.3/8" | 35 | | | | | | | | 29 | 1 |

(1) Minima pressione a cui la valvola è completamente aperta

(1) Minimum pressure at which the valve is completely open

(1) Pression minimale à laquelle la vanne est entièrement ouverte

(1) Mindestdruck, bei dem das Ventil vollständig offen ist

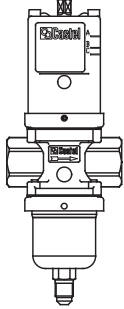
(2) Non impiegare con R22, oli minerali e alchilbenzenici

(2) No use with R22, mineral and alchylbenzene oils

(2) Incompatible avec R22, Huiles minérales alchylbenzènes

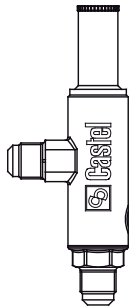
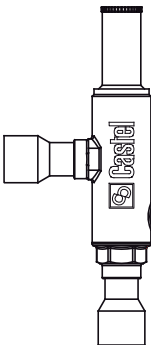
(2) Nicht mit R22 verwendbar, Mineralölen und Alkylbenzol

VALVOLE PRESSOSTATICHE PER ACQUA
CONDENSING PRESSURE REGULATOR WATER VALVES
VANNES PRESSOSTATIQUES POUR EAU
DRUCKGESTEUERTE WASSERVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | Campo taratura Working range Champ tarage Einstellbereich [bar] | Pressione massima acqua Max water pressure Pression maximum eau Max Wasserdruck [bar] | Temperatura massima acqua Max water temperature Température maximum eau Max Wasser Temperatur [°C] | Pressione massima d'esercizio refrigerante Refrigerant max working pressure Pression maximum travail réfrigérant Max Kältemittel betriebsdruck [bar] | Kv [m³/h] | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------|
|  | 3210/03 | 6 3/8" | 5 - 20 | 10 | 80 | 22 | 2 | 17 |
| | 3210/04 | 6 1/2" | | | | | 3 | |
| | 3210/06 | 6 3/4" | | | | | 4,7 | |

REGOLATORI DI CAPACITÀ - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
HOT GAS BYPASS CAPACITY REGULATORS - APPROVED BY UNDERWRITERS LABORATORIES INC.
RÉGULATEURS DE CAPACITÉ - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
LEISTUNGSREGLER - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

**NEW
2016**

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Campo di regolazione Regulation range Plage de régulation Regelbereich [bar] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------------|-------------|------------------------------------------------------------------------------------------|--------------|-------------|---------|-------|------------------------------------------------------------|
| | | SAE Flare | ODS [in.] | ODS [mm] | | | | min | max | |
|  | 3310/4 | 1/2" | - | - | 0.2 - 6 | 0.70 | 28 (1) | - 40 | + 110 | 15 |
| | 3310/5 | 5/8" | - | - | | 1.26 | | | | 15 |
|  | 3310/M12S | - | - | 12 | 0.2 - 6 | 0.70 | 28 (1) | - 40 | + 110 | 15 |
| | 3310/4S | - | 1/2" | - | | 0.70 | | | | 15 |
| | 3310/5S | - | 5/8" | 16 | | 1.26 | | | | 15 |
| | 3310/7S | - | 7/8" | 22 | | 1.84 | | | | 8 |
| | 3315/M12S (2) N | - | - | 12 | 2 - 7 | 0.70 | 45 | - 40 | + 110 | 15 |
| | 3315/4S (2) N | - | 1/2" | - | | 0.70 | | | | 15 |
| | 3315/5S (2) N | - | 5/8" | 16 | | 1.26 | | | | 15 |
| | 3315/7S (2) N | - | 7/8" | 22 | | 1.84 | | | | 8 |

Note:

(1): MWP = 405 psi in conformità a omologazione UL

(1): MWP = 405 psi according to UL approval

(1): MWP = 405 psi conformément à homologation UL

(1): MWP = 405 psi in Übereinstimmung zur UL-Zulassung

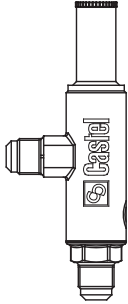
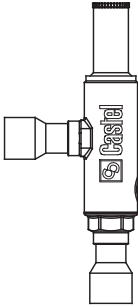
(2): non omologato UL

(2): not UL approved

(2): Pas approuvé UL

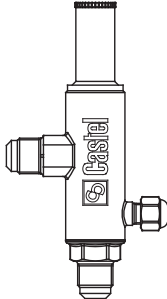
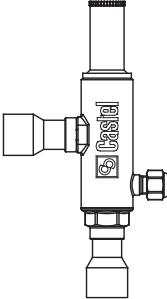
(2): Ohne UL-Zertifizierung

REGOLATORI D'AVVIAMENTO - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 CRANKCASE PRESSURE REGULATORS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 RÉGULATEURS DE PRESSION DE DÉMARRAGE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 STARTREGLER - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Campo di regolazione Regulation range Plage de régulation Regelbereich [bar] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------------|-------------|------------------------------------------------------------------------------------------|--------------|-------------|---------|-------|------------------------------------------------------------|
| | | SAE Flare | ODS [in.] | ODS [mm] | | | | min | max | |
|  | 3320/4 | 1/2" | - | - | 0,2 - 6 | 3,3 | 28 (1) | - 40 | + 110 | 15 |
| | 3320/5 | 5/8" | - | - | | | | | | 15 |
|  | 3320/M12S | - | - | 12 | 0,2 - 6 | 3,3 | 28 (1) | - 40 | + 110 | 15 |
| | 3320/4S | - | 1/2" | - | | | | | | 15 |
| | 3320/5S | - | 5/8" | 16 | | | | | | 15 |
| | 3320/7S | - | 7/8" | 22 | | 8 | | | | |
| | 3320/9S | - | 1.1/8" | - | | 1 | | | | |
| | 3320/M28S | - | - | 28 | | 1 | | | | |
| | 3320/11S | - | 1.3/8" | 35 | | 1 | | | | |

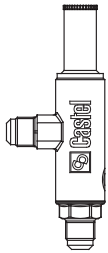
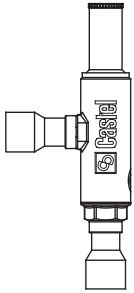
Note:

- (1): MWP = 405 psi in conformità a omologazione UL
- (1): MWP = 405 psi according to UL approval
- (1): MWP = 405 psi conformément à homologation UL
- (1): MWP = 405 psi in Übereinstimmung zur UL-Zulassung

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Campo di regolazione Regulation range Plage de régulation Regelbereich [bar] | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------------|-------------|------------------------------------------------------------------------------------------|---------------------------|-------------|---------|-------|---------------------------------------------------------------|
| | | SAE Flare | ODS [in.] | ODS [mm] | | | | min | max | |
|  | 3330/4 | 1/2" | - | - | 0,2 - 5,5 | 2,7 | 28 (1) | - 40 | + 110 | 15 |
| | 3330/5 | 5/8" | - | - | | | | | | 15 |
|  | 3330/M12S | - | - | 12 | 0,2 - 5,5 | 2,7 | 28 (1) | - 40 | + 110 | 15 |
| | 3330/4S | - | 1/2" | - | | | | | | 15 |
| | 3330/5S | - | 5/8" | 16 | | | | | | 15 |
| | 3330/7S | - | 7/8" | 22 | | 8 | | | | |
| | 3330/9S | - | 1.1/8" | - | | 1 | | | | |
| | 3330/M28S | - | - | 28 | | 1 | | | | |
| | 3330/11S | - | 1.3/8" | 35 | 1 | | | | | |
| | 3335/M12S (2) N | - | - | 12 | 3 - 20 | 2,7 | 45 | - 40 | + 110 | 15 |
| | 3335/4S (2) N | - | 1/2" | - | | | | | | 15 |
| | 3335/5S (2) N | - | 5/8" | 16 | | | | | | 15 |
| | 3335/7S (2) N | - | 7/8" | 22 | | | | | | 8 |

Note:

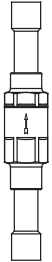
- | | |
|--------------------------------------------------------|-----------------------------|
| (1): MWP = 405 psi in conformità a omologazione UL | (2): non omologato UL |
| (1): MWP = 405 psi according to UL approval | (2): not UL approved |
| (1): MWP = 405 psi conformément à homologation UL | (2): Pas approuvé UL |
| (1): MWP = 405 psi in Übereinstimmung zur UL-Zulassung | (2): Ohne UL-Zertifizierung |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Campo di regolazione Regulation range Plage de régulation Regelbereich [bar] | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------------|-------------|------------------------------------------------------------------------------------------|---------------------------|-------------|---------|-------|------------------------------------------------------------|
| | | SAE Flare | ODS [in.] | ODS [mm] | | | | min | max | |
|  | 3340/4 | 1/2" | - | - | 3-20 | 2,7 | 28 (1) | - 40 | + 110 | 15 |
| | 3340/5 | 5/8" | - | - | | | | | | 15 |
|  | 3340/M12S | - | - | 12 | 3-20 | 2,7 | 28 (1) | - 40 | + 110 | 15 |
| | 3340/4S | - | 1/2" | - | | | | | | 15 |
| | 3340/5S | - | 5/8" | 16 | | | | | | 15 |
| | 3340/7S | - | 7/8" | 22 | | | | | | 8 |
| | 3340/9S | - | 1.1/8" | - | | | | | | 1 |
| | 3340/M28S | - | - | 28 | | | | | | 1 |
| | 3340/11S | - | 1.3/8" | 35 | 1 | | | | | |
| | 3345/M12S (2) N | - | - | 12 | 18 - 30 | 2,7 | 45 | - 40 | + 110 | 15 |
| | 3345/4S (2) N | - | 1/2" | - | | | | | | 15 |
| | 3345/5S (2) N | - | 5/8" | 16 | | | | | | 15 |
| | 3345/7S (2) N | - | 7/8" | 22 | | | | | | 8 |

Note:

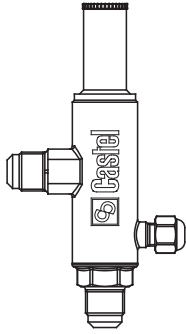
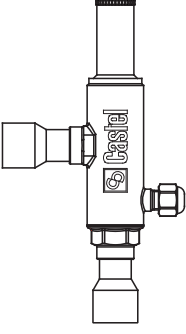
- | | |
|--------------------------------------------------------|-----------------------------|
| (1): MWP = 405 psi in conformità a omologazione UL | (2): non omologato UL |
| (1): MWP = 405 psi according to UL approval | (2): not UL approved |
| (1): MWP = 405 psi conformément à homologation UL | (2): Pas approuvé UL |
| (1): MWP = 405 psi in Übereinstimmung zur UL-Zulassung | (2): Ohne UL-Zertifizierung |

VALVOLE DIFFERENZIALE
DIFFERENTIAL VALVES
VANNES À PRESSION DIFFÉRENTIELLE
DIFFERENZDRUCKVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Pressione differenziale d'apertura Opening differential pressure Pression différentielle d'ouverture Öffnungsdifferenzdruck [bar] | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------|---------|-------|------------------------------------------------------------|
| | | SAE Flare | ODS [in.] | OD [mm] | | | | min | max | |
|  | 3136/M12 (2) | - | - | 12 | 1,4 - 3 | 1,5 | 45 | - 40 | + 110 | 34 |
| | 3136/4 (2) | - | 1/2" | - | | | | | | 34 |

- | | |
|-----------------------|-----------------------------|
| (2): non omologato UL | (2): Pas approuvé UL |
| (2): not UL approved | (2): Ohne UL-Zertifizierung |

REGOLATORI DI PRESSIONE DEL RICEVITORE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 RECEIVER PRESSURE REGULATORS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 RÉGULATEURS DE PRESSION DE BOUTEILLE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 SAMMLERDRUCKREGLER - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Campo di regolazione Regulation range Plage de régulation Regelbereich [bar] | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|-------|-------|------------------------------------------------------------------------------------------|---------------------------|-------------|---------|-------|------------------------------------------------------------|
| | | SAE Flare | ODS Ø | ODS Ø | | | | min | max | |
|  | 3350/4 | 1/2" | - | - | 3 - 20 | 1,8 | 28 (1) | - 40 | + 110 | 15 |
| | 3350/5 | 5/8" | - | - | | | | | | 15 |
|  | 3350/M12S | - | - | 12 | 3-20 | 1,8 | 28 (1) | - 40 | + 110 | 15 |
| | 3350/4S | - | 1/2" | - | | | | | | 15 |
| | 3350/5S | - | 5/8" | 16 | | | | | | 15 |


Note:

- (1): MWP = 405 psi in conformità a omologazione UL
- (1): MWP = 405 psi according to UL approval
- (1): MWP = 405 psi conformément à homologation UL
- (1): MWP = 405 psi in Übereinstimmung zur UL-Zulassung

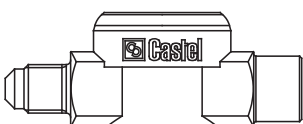
INDICATORI DI LIQUIDO - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 LIQUID INDICATORS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 VOYANTS DE LIQUIDE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FLUSSIGKEITSSCHAUGLAS - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|-----------|----------|-------------|---------|-----|------------------------------------------------------------|
| | | SAE Flare | ODS [in.] | ODS [mm] | | min | max | |


ATTACCHI SAE FLARE MASCHIO - MASCHIO / SAE FLARE MALE - MALE CONNECTIONS / RACCORDS SAE FLARE MÂLE - MÂLE / BÖRDELANSCHLÜSSE AUSSEN - AUSSEN

| | | | | | | | | |
|-----------------------------------------------------------------------------------|---------|------|---|---|-----------|-----|------|----|
|  | 3810/22 | 1/4" | - | - | 45 (1) | -40 | +120 | 90 |
| | 3810/33 | 3/8" | | | | | | |
| | 3810/44 | 1/2" | | | | | | |
| | 3810/55 | 5/8" | | | | | | |
| | 3810/66 | 3/4" | | | | | | |

ATTACCHI SAE FLARE MASCHIO - FEMMINA / SAE FLARE MALE - FEMALE CONNECTIONS / RACCORDS SAE FLARE MÂLE - FEMELLE / BÖRDELANSCHLÜSSE INNEN - AUSSEN

| | | | | | | | | |
|------------------------------------------------------------------------------------|---------|------|---|---|-----------|-----|------|----|
|  | 3850/22 | 1/4" | - | - | 45 (1) | -40 | +120 | 90 |
| | 3850/33 | 3/8" | | | | | | 90 |
| | 3850/44 | 1/2" | | | | | | 90 |
| | 3850/55 | 5/8" | | | | | | 90 |
| | 3850/66 | 3/4" | | | | | | 24 |

ATTACCHI DI RAME A SALDARE / COPPER BRAZE CONNECTIONS / RACCORDS A SOUDER EN CUIVRE / KUPFER LÖTANSCHLÜSSE

| | | | | | | | |
|-------------------------------------------------------------------------------------|----------|--------|----|-----------|-----|------|----|
|  | 3840/2 | 1/4" | - | 45 (1) | -40 | +120 | 42 |
| | 3840/3 | 3/8" | - | | | | 42 |
| | 3840/M10 | - | 10 | | | | 42 |
| | 3840/M12 | - | 12 | | | | 42 |
| | 3840/4 | 1/2" | - | | | | 42 |
| | 3840/5 | 5/8" | 16 | | | | 42 |
| | 3840/M18 | - | 18 | | | | 42 |
| | 3840/6 | 3/4" | - | | | | 42 |
| | 3840/7 | 7/8" | 22 | | | | 42 |
| | 3840/9 | 1.1/8" | - | | | | 11 |

Note:

(1): MWP = 500 psi in conformità a omologazione UL

(1): MWP = 500 psi according to UL approval

(1): MWP = 500 psi conformément à homologation UL

(1): MWP = 500 psi in Übereinstimmung zur UL-Zulassung

INDICATORI DI UMIDITÀ - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 MOISTURE INDICATORS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 VOYANT LIQUIDE AVEC INDICATEURS D' HUMIDITE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FLÜSSIGKEITSINDIKATOREN - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------|--------|-------------|---------|-----|---------------------------------------------------------------|
| | | SAE Flare | ODS | | | min | max | |
| | | | Ø [in.] | Ø [mm] | | | | |


ATTACCHI SAE FLARE MASCHIO - MASCHIO / SAE FLARE MALE - MALE CONNECTIONS / RACCORDS SAE FLARE MÂLE - MÂLE / BÖRDELANSCHLÜSSE AUSSEN - AUSSEN

| | | | | | | | | |
|-----------------------------------------------------------------------------------|---------|------|---|---|--------|-----|------|----|
|  | 3910/22 | 1/4" | - | - | 45 (1) | -40 | +120 | 90 |
| | 3910/33 | 3/8" | | | | | | |
| | 3910/44 | 1/2" | | | | | | |
| | 3910/55 | 5/8" | | | | | | |
| | 3910/66 | 3/4" | | | | | | |

ATTACCHI SAE FLARE MASCHIO - FEMMINA / SAE FLARE MALE - FEMALE CONNECTIONS / RACCORDS SAE FLARE MÂLE - FEMELLE / BÖRDELANSCHLÜSSE INNEN - AUSSEN

| | | | | | | | | |
|-----------------------------------------------------------------------------------|---------|------|---|---|--------|-----|------|----|
|  | 3950/22 | 1/4" | - | - | 45 (1) | -40 | +120 | 90 |
| | 3950/33 | 3/8" | | | | | | 90 |
| | 3950/44 | 1/2" | | | | | | 90 |
| | 3950/55 | 5/8" | | | | | | 90 |
| | 3950/66 | 3/4" | | | | | | 24 |

ATTACCHI DI RAME A SALDARE / COPPER BRAZE CONNECTIONS / RACCORDS A SOUDER EN CUIVRE / KUPFER LÖTANSCHLÜSSE


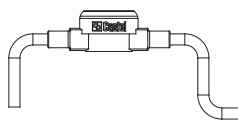
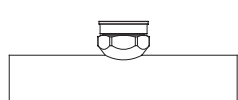
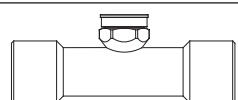
| | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|---|--------|----|--------|-----|------|----|
|  | 3940/2 | - | 1/4" | - | 45 (1) | -40 | +120 | 42 |
| | 3940/3 | | 3/8" | - | | | | 42 |
| | 3940/M10 | | - | 10 | | | | 42 |
| | 3940/M12 | | - | 12 | | | | 42 |
| | 3940/4 | | 1/2" | - | | | | 42 |
| | 3940/5 | | 5/8" | 16 | | | | 42 |
| | 3940/M18 | | - | 18 | | | | 42 |
| | 3940/6 | | 3/4" | - | | | | 42 |
| | 3940/7 | | 7/8" | 22 | | | | 42 |
| | 3940/9 | | 1.1/8" | - | | | | 11 |

Note:

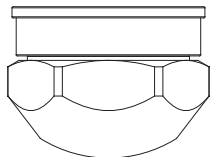
- (1): MWP = 500 psi in conformità a omologazione UL
- (1): MWP = 500 psi according to UL approval
- (1): MWP = 500 psi conformément à homologation UL
- (1): MWP = 500 psi in Übereinstimmung zur UL-Zulassung

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | | | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|---------|--------|------------------------------------------------|--------|---------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | ODM | | Per tubo For pipe Pour tuyau Für rohr | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | Foro Hole Orifice Loch | | | | |
| | | | | | | | | Ø [mm] | | | | |

ATTACCHI DI RAME A SALDARE / COPPER BRAZE CONNECTIONS / RACCORDS A SOUDER EN CUIVRE / KUPFER LÖTANSCHLÜSSE

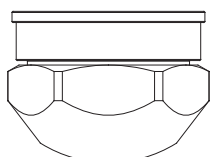
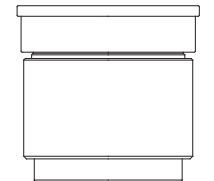
| | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|--------|----|--------|----|---|---|---|----|-----|------|-----|
|  | 3940/X01 | - | - | - | 6 | - | - | - | 45 | -40 | +120 | 120 |
|  | 3940/X02 | - | - | - | 6 | - | - | - | 45 | -40 | +120 | 48 |
|  | 3770/M28 | - | - | - | 28 | - | - | - | 45 | -30 | +110 | 17 |
| | 3770/11 | | | 1.3/8" | 35 | | | | | | | |
| | 3770/13 | | | 1.5/8" | - | | | | | | | |
| | 3770/M42 | | | - | 42 | | | | | | | |
|  | 3771/11 | 1.3/8" | 35 | - | - | - | - | - | 45 | -30 | +110 | 17 |
| | 3771/M42 | - | 42 | - | - | - | - | - | 45 | -30 | +110 | |
| | 3771/17 | 2.1/8" | - | - | - | - | - | - | 45 | -30 | +110 | 15 |

A SELLA CON INDICATORE DI LIVELLO, PER LINEA DELL'OLIO / SADDLE TYPE WITH LEVEL INDICATOR, FOR OIL CONTROL SYSTEM / TYPE SELLE AVEC INDICATEUR DE NIVEAU, POUR LE SYSTÈME DE CONTRÔLE DE L'HUILE / SATTELTYP MIT FÜLLSTANDSANZEIGE, ÖLKONTROLLSYSTEM

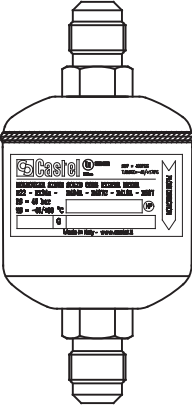
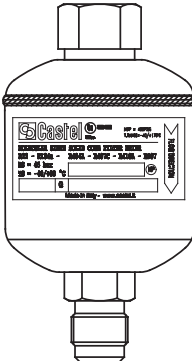
| | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|----------------------|---|---|---|---|--------|----|---|----|-----|------|-----|
|  | 3680/7 (1) N | - | - | - | - | 7/8" | 22 | - | 45 | -40 | +150 | 225 |
| | 3680/9 (1) N | | | | | 1.1/8" | 28 | | | | | |
| | 3680/11 (1) N | | | | | 1.3/8" | 35 | | | | | |

- (1) Non impiegare con R22, oli minerali e alchilbenzenici
 (1) No use with R22, mineral and alchylbenzene oils
 (1) Incompatible avec R22, Huiles minérales alkylbenzènes
 (1) Nicht mit R22 verwendbar, Mineralölen und Alkylbenzol

A SELLA / SADDLE TYPE / EMBASE À BRASER / SATTEL TYP

| | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|---|---|---|---|--------|----|----|----|-----|------|-----|
|  | 3780/5 | - | - | - | - | 5/8" | 16 | - | 45 | -30 | +110 | 225 |
| | 3780/M18 | | | | | - | 18 | | | | | |
| | 3780/7 | | | | | 7/8" | 22 | | | | | |
| | 3780/9 | | | | | 1.1/8" | 28 | | | | | |
| | 3780/11 | | | | | 1.3/8" | 35 | | | | | |
|  | 3781/M28 | - | - | - | - | - | - | 28 | 45 | -30 | +110 | 255 |


FILTRI DISIDRATATORI A CARTUCCIA SOLIDA 100% SETACCIO MOLECOLARE - ATTACCHI SAE FLARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 SOLID CORE FILTER DRIERS 100% MOLECULAR SIEVES - SAE FLARE CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 100% TAMIS MOLECULAIRE - RACCORDS SAE FLARE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FILTERTROCKNER MIT 100% MOLEKULARSIEB - BÖRDELANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse SAE Flare | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | | | | min | max | |
|  | 4303/2 | 032 | 1/4" | 50 | 45 (1) | -40 | +80 | 45 |
| | 4303/3 | 033 | 3/8" | 50 | | | | 45 |
| | 4305/2 | 052 | 1/4" | 80 | | | | 34 |
| | 4305/3 | 053 | 3/8" | 80 | | | | 34 |
| | 4308/2 | 082 | 1/4" | 130 | | | | 24 |
| | 4308/3 | 083 | 3/8" | 130 | | | | 24 |
| | 4308/4 | 084 | 1/2" | 130 | | | | 24 |
| | 4316/2 | 162 | 1/4" | 250 | | | | 28 |
| | 4316/3 | 163 | 3/8" | 250 | | | | 28 |
| | 4316/4 | 164 | 1/2" | 250 | | | | 28 |
| | 4316/5 | 165 | 5/8" | 250 | | | | 28 |
| | 4330/3 | 303 | 3/8" | 500 | | | | 12 |
| | 4330/4 | 304 | 1/2" | 500 | | | | 12 |
| | 4330/5 | 305 | 5/8" | 500 | | | | 12 |
| | 4332/4 | 304 | 1/2" | 500 | | | | 15 |
| | 4332/5 | 305 | 5/8" | 500 | | | | 15 |
| | 4341/4 | 414 | 1/2" | 670 | | | | 14 |
| | 4341/5 | 415 | 5/8" | 670 | | | | 14 |
| 4341/6 | 416 | 3/4" | 670 | 14 | | | | |
|  | 4303/2F | - | 1/4" | 50 | 45 (1) | -40 | +80 | 45 |
| | 4305/2F | | 1/4" | 80 | | | | 34 |
| | 4308/2F | | 1/4" | 130 | | | | 24 |
| | 4308/3F | | 3/8" | 130 | | | | 24 |
| | 4316/3F | | 3/8" | 250 | | | | 28 |

Note:

- (1): MWP = 435 psi in conformità a omologazione UL per filtri serie 4303 , 4305 , 4316 , 4332
 MWP = 400 psi in conformità a omologazione UL per filtri serie 4308 , 4330 , 4341
- (1): MWP = 435 psi according to UL approval for filters series 4303 , 4305 , 4316 , 4332
 MWP = 400 psi according to UL approval for filters series 4308 , 4330 , 4341
- (1): MWP = 435 psi conformément à homologation UL pour filtres séries 4303 , 4305 , 4316 , 4332
 MWP = 400 psi conformément à homologation UL pour filtres séries 4308 , 4330 , 4341
- (1): MWP = 435 psi in Übereinstimmung zur UL-Zulassung für Filter der Serie 4303 , 4305 , 4316 , 4332
 MWP = 400 psi in Übereinstimmung zur UL-Zulassung für Filter der Serie 4308 , 4330 , 4341

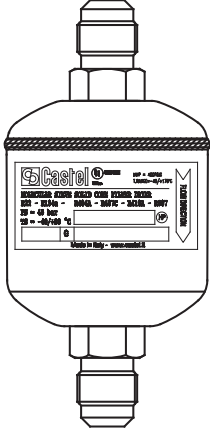
FILTRI DISIDRATATORI A CARTUCCIA SOLIDA 100% SETACCIO MOLECOLARE - ATTACCHI A SALDARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 SOLID CORE FILTER DRIERS 100% MOLECULAR SIEVES - SOLDER CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 100% TAMIS MOLECLAIR - RACCORDS A SOUDER - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FILTERTROCKNER MIT 100% MOLEKULARSIEB - LÖTANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm ³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|--------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | ODS | | ODM | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 4303/2S | 032S | 1/4" | - | 3/8" | - | 50 | 45 (1) | -40 | +80 | 45 |
| | 4303/2.5S | - | 5/16" | - | 3/8" | - | 50 | | | | 45 |
| | 4303/3S | 033S | 3/8" | - | 1/2" | - | 50 | | | | 45 |
| | 4305/2S | 052S | 1/4" | - | 3/8" | - | 80 | | | | 34 |
| | 4305/3S | 053S | 3/8" | - | 1/2" | - | 80 | | | | 34 |
| | 4305/M10S | - | - | 10 | - | 12 | 80 | | | | 34 |
| | 4308/2S | 082S | 1/4" | - | 3/8" | - | 130 | | | | 24 |
| | 4308/3S | 083S | 3/8" | - | 1/2" | - | 130 | | | | 24 |
| | 4308/M10S | - | - | 10 | - | 12 | 130 | | | | 24 |
| | 4308/M12S | - | - | 12 | - | 14 | 130 | | | | 24 |
| | 4308/4S | 084S | 1/2" | - | 5/8" | 16 | 130 | | | | 24 |
| | 4316/3S | 163S | 3/8" | - | 1/2" | - | 250 | | | | 28 |
| | 4316/M10S | - | - | 10 | - | 12 | 250 | | | | 28 |
| | 4316/M12S | - | - | 12 | - | 14 | 250 | | | | 28 |
| | 4316/4S | 164S | 1/2" | - | 5/8" | 16 | 250 | | | | 28 |
| | 4316/5S | 165S | 5/8" | 16 | 3/4" | - | 250 | | | | 28 |
| | 4316/7S | 167S | 7/8" | - | 1.1/8" | - | 250 | | | | 28 |
| | 4330/3S | 303S | 3/8" | - | 1/2" | - | 500 | | | | 12 |
| | 4330/4S | 304S | 1/2" | - | 5/8" | 16 | 500 | | | | 12 |
| | 4330/5S | 305S | 5/8" | 16 | 3/4" | - | 500 | | | | 12 |
| | 4330/7S | 307S | 7/8" | - | 1.1/8" | - | 500 | | | | 12 |
| | 4330/9S | 309S | 1.1/8" | - | 1.3/8" | 35 | 500 | | | | 12 |
| | 4332/4S | 304S | 1/2" | - | 5/8" | 16 | 500 | | | | 15 |
| | 4332/5S | 305S | 5/8" | 16 | 3/4" | - | 500 | | | | 15 |
| | 4341/4S | 414S | 1/2" | - | 5/8" | 16 | 670 | | | | 14 |
| | 4341/5S | 415S | 5/8" | 16 | 3/4" | - | 670 | | | | 14 |
| | 4341/6S | 416S | 3/4" | - | 7/8" | - | 670 | | | | 14 |
| | 4341/7S | 417S | 7/8" | - | 1.1/8" | - | 670 | | | | 14 |
| | 4375/4S | 754S | 1/2" | - | 5/8" | 16 | 1340 | | | | 1 |
| | 4375/5S | 755S | 5/8" | 16 | 3/4" | - | 1340 | | | | 1 |
| 4375/6S | 756S | 3/4" | - | 7/8" | - | 1340 | 1 | | | | |
| 4375/7S | 757S | 7/8" | - | 1.1/8" | - | 1340 | 1 | | | | |
| 4375/9S | 759S | 1.1/8" | - | 1.3/8" | 35 | 1340 | 1 | | | | |

Note:

- (1): MWP = 435 psi in conformità a omologazione UL per filtri serie 4303, 4305, 4316, 4332, 4375
 MWP = 400 psi in conformità a omologazione UL per filtri serie 4308, 4330, 4341
- (1): MWP = 435 psi according to UL approval for filters series 4303, 4305, 4316, 4332, 4375
 MWP = 400 psi according to UL approval for filters series 4308, 4330, 4341
- (1): MWP = 435 psi conformément à homologation UL pour filtres séries 4303, 4305, 4316, 4332, 4375
 MWP = 400 psi conformément à homologation UL pour filtres séries 4308, 4330, 4341
- (1): MWP = 435 psi in Übereinstimmung zur UL-Zulassung für Filter der Serie 4303, 4305, 4316, 4332, 4375
 MWP = 400 psi in Übereinstimmung zur UL-Zulassung für Filter der Serie 4308, 4330, 4341


FILTRI DISIDRATATORI A CARTUCCIA SOLIDA 80% SETACCIO MOLECOLARE, 20% ALLUMINA - ATTACCHI SAE FLARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 DEHYDRATOR FILTERS WITH SOLID CORE 80% MOLECULAR SIEVE, 20% ALUMINA - SAE FLARE CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 80% TAMIS MOLECULAIRE, 20% ALUMINE - RACCORDS SAE FLARE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FILTERTROCKNER MIT 80% MOLEKULARSIEB, 20% ALUMINIUMOXID - BÖRDELANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse SAE Flare | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | | | | min | max | |
|  | 4203/2 | 032 | 1/4" | 50 | 45 (1) | -40 | +80 | 45 |
| | 4203/3 | 033 | 3/8" | 50 | | | | 45 |
| | 4205/2 | 052 | 1/4" | 80 | | | | 34 |
| | 4205/3 | 053 | 3/8" | 80 | | | | 34 |
| | 4208/2 | 082 | 1/4" | 130 | | | | 24 |
| | 4208/3 | 083 | 3/8" | 130 | | | | 24 |
| | 4208/4 | 084 | 1/2" | 130 | | | | 24 |
| | 4216/2 | 162 | 1/4" | 250 | | | | 28 |
| | 4216/3 | 163 | 3/8" | 250 | | | | 28 |
| | 4216/4 | 164 | 1/2" | 250 | | | | 28 |
| | 4216/5 | 165 | 5/8" | 250 | | | | 28 |
| | 4230/3 | 303 | 3/8" | 500 | | | | 12 |
| | 4230/4 | 304 | 1/2" | 500 | | | | 12 |
| | 4230/5 | 305 | 5/8" | 500 | | | | 12 |
| | 4232/4 | 304 | 1/2" | 500 | | | | 15 |
| | 4232/5 | 305 | 5/8" | 500 | | | | 15 |
| | 4241/5 | 415 | 5/8" | 670 | | | | 14 |
| | 4241/6 | 416 | 3/4" | 670 | | | | 14 |

Note:

- (1): MWP = 435 psi in conformità a omologazione UL per filtri serie 4203 , 4205 , 4216 , 4232
MWP = 400 psi in conformità a omologazione UL per filtri serie 4208 , 4230 , 4241
- (1): MWP = 435 psi according to UL approval for filters series 4203 , 4205 , 4216 , 4232
MWP = 400 psi according to UL approval for filters series 4208 , 4230 , 4241
- (1): MWP = 435 psi conformément à homologation UL pour filtres séries 4203 , 4205 , 4216 , 4232
MWP = 400 psi conformément à homologation UL pour filtres séries 4208 , 4230 , 4241
- (1): MWP = 435 psi in Übereinstimmung zur UL-Zulassung für Filter der Serie 4203 , 4205 , 4216 , 4232
MWP = 400 psi in Übereinstimmung zur UL-Zulassung für Filter der Serie 4208 , 4230 , 4241

FILTRI DISIDRATATORI A CARTUCCIA SOLIDA 80% SETACCIO MOLECOLARE, 20% ALLUMINA - ATTACCHI A SILDARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 DEHYDRATOR FILTERS WITH SOLID CORE 80% MOLECULAR SIEVE, 20% ALUMINA - SOLDER CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 80% TAMIS MOLECLAIRE, 20% ALUMINE - RACCORDS A SOUDER - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FILTERTROCKNER MIT 80% MOLEKULARSIEB, 20% ALUMINIUMOXID - LÖTANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | Cubatura nominale Nominal volume Cubature nominale Nominater Rauminhalt [cm ³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|--------------------------------------------------------------------------------------------------------|-------------|---------|------|------------------------------------------------------------|
| | | | ODS | | ODM | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 4203/2S | 032S | 1/4" | - | 3/8" | - | 45 (1) | -40 | +80 | 45 | |
| | 4205/2S | 052S | - | - | - | - | | | | 80 | |
| | 4205/3S | 053S | 3/8" | - | 1/2" | - | | | | 80 | |
| | 4205/M10S | - | - | 10 | - | 12 | | | | 80 | |
| | 4208/2S | 082S | 1/4" | - | 3/8" | - | | | | 130 | |
| | 4208/3S | 083S | 3/8" | - | 1/2" | - | | | | 130 | |
| | 4208/M10S | - | - | 10 | - | 12 | | | | 130 | |
| | 4208/M12S | - | - | 12 | - | 14 | | | | 130 | |
| | 4208/4S | 084S | 1/2" | - | 5/8" | 16 | | | | 130 | |
| | 4216/3S | 163S | 3/8" | - | 1/2" | - | | | | 250 | |
| | 4216/M10S | - | - | 10 | - | 12 | | | | 250 | |
| | 4216/M12S | - | - | 12 | - | 14 | | | | 250 | |
| | 4216/4S | 164S | 1/2" | - | 5/8" | 16 | | | | 250 | |
| | 4216/5S | 165S | 5/8" | 16 | 3/4" | - | | | | 250 | |
| | 4230/3S | 303S | 3/8" | - | 1/2" | - | | | | 500 | |
| | 4230/4S | 304S | 1/2" | - | 5/8" | 16 | | | | 500 | |
| | 4230/5S | 305S | 5/8" | 16 | 3/4" | - | | | | 500 | |
| | 4232/4S | 304S | 1/2" | - | 5/8" | 16 | | | | 500 | |
| | 4232/5S | 305S | 5/8" | 16 | 3/4" | - | | | | 500 | |
| | 4241/5S | 415S | 5/8" | 16 | 3/4" | - | | | | 670 | |
| | 4241/6S | 416S | 3/4" | - | 7/8" | - | | | | 670 | |
| | 4241/7S | 417S | 7/8" | - | 1.1/8" | - | | | | 670 | |
| | 4275/4S | 754S | 1/2" | - | 5/8" | 16 | | | | 1340 | |
| | 4275/5S | 755S | 5/8" | 16 | 3/4" | - | | | | 1340 | |
| | 4275/6S | 756S | 3/4" | - | 7/8" | - | | | | 1340 | |
| | 4275/7S | 757S | 7/8" | - | 1.1/8" | - | | | | 1340 | |
| | 4275/9S | 759S | 1.1/8" | - | 1.3/8" | 35 | | | | 1340 | |

Note:

(1): MWP = 435 psi in conformità a omologazione UL per filtri serie 4203 , 4205 , 4216 , 4232 , 4275

MWP = 400 psi in conformità a omologazione UL per filtri serie 4208 , 4230 , 4241

(1): MWP = 435 psi according to UL approval for filters series 4203 , 4205 , 4216 , 4232 , 4275

MWP = 400 psi according to UL approval for filters series 4208 , 4230 , 4241

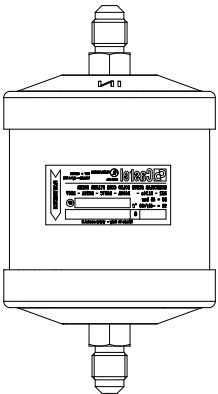
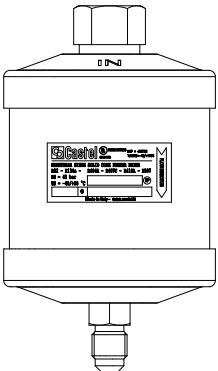
(1): MWP = 435 psi conformément à homologation UL pour filtres séries 4203 , 4205 , 4216 , 4232 , 4275

MWP = 400 psi conformément à homologation UL pour filtres séries 4208 , 4230 , 4241

(1): MWP = 435 psi in Übereinstimmung zur UL-Zulassung für Filter der Serie 4203 , 4205 , 4216 , 4232 , 4275

MWP = 400 psi in Übereinstimmung zur UL-Zulassung für Filter der Serie 4208 , 4230 , 4241

FILTRI DISIDRATORI A CARTUCCIA SOLIDA 100% SETACCIO MOLECOLARE - ATTACCHI SAE FLARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 SOLID CORE FILTER DRIERS 100% MOLECULAR SIEVES - SAE FLARE CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 100% TAMIS MOLECULAIRE - RACCORDS SAE FLARE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FILTERTÖCKNER MIT 100% MOLEKULARSIEB - BÖRDELANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

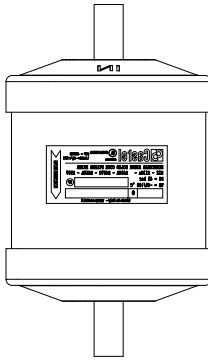
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr | Codice internazionale International code Code international Internationaler code | Attacchi SAE Flare Connections SAE Flare Raccords SAE Flare Anschlüsse SAE Flare | Cubatura nominale Nominal volume Cubature nominale Nominaler rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------|------------|-----|------------------------------------------------------------|
| | | | | | | min | max | |
|  | D303/2 | 032 | 1/4" | 50 | 45 (1) | -40 | +80 | 25 |
| | D303/3 | 033 | 3/8" | 50 | | | | 25 |
| | D305/2 | 052 | 1/4" | 80 | | | | 25 |
| | D305/3 | 053 | 3/8" | 80 | | | | 25 |
| | D308/2 | 082 | 1/4" | 130 | | | | 25 |
| | D308/3 | 083 | 3/8" | 130 | | | | 25 |
| | D308/4 | 084 | 1/2" | 130 | | | | 25 |
| | D316/2 | 162 | 1/4" | 250 | | | | 15 |
| | D316/3 | 163 | 3/8" | 250 | | | | 15 |
| | D316/4 | 164 | 1/2" | 250 | | | | 15 |
| | D316/5 | 165 | 5/8" | 250 | | | | 15 |
| | D330/3 | 303 | 3/8" | 500 | | | | 10 |
| | D330/4 | 304 | 1/2" | 500 | | | | 10 |
| | D330/5 | 305 | 5/8" | 500 | | | | 10 |
| | D341/4 | 414 | 1/2" | 670 | | | | 6 |
| | D341/5 | 415 | 5/8" | 670 | | | | 6 |
| D341/6 | 416 | 3/4" | 670 | 6 | | | | |
|  | D303/2F | - | 1/4" | 50 | 45 (1) | -40 | +80 | 25 |
| | D305/2F | | 1/4" | 80 | | | | 25 |
| | D308/2F | | 1/4" | 130 | | | | 25 |
| | D308/3F | | 3/8" | 130 | | | | 25 |
| | D316/3F | | 3/8" | 250 | | | | 15 |

Note:

- (1): MWP = 650 psi in conformità a omologazione UL
 (1): MWP = 650 psi according to UL approval
 (1): MWP = 650 psi conformément à homologation UL
 (1): MWP = 650 psi in Übereinstimmung zur UL-Zulassung

I filtri: D303/.. ; D305/.. ; D308/.. ; D316/.. ; D330/.. ; D341/.. saranno disponibili sino alla fine del 2016
 The filters: D303/.. ; D305/.. ; D308/.. ; D316/.. ; D330/.. ; D341/.. will be available until the end of 2016
 Les filtres: D303/.. ; D305/.. ; D308/.. ; D316/.. ; D330 / .. ; D341/.. seront disponibles jusqu'à la fin de 2016
 Die Filter: D303/.. ; D305/.. ; D308/.. ; D316/.. ; D330/.. ; D341/.. verfügbar sein wird, bis Ende 2016

FILTRI DISIDRATATORI A CARTUCCIA SOLIDA 100% SETACCIO MOLECOLARE - ATTACCHI A SALDARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 SOLID CORE FILTER DRIERS 100% MOLECULAR SIEVES - SOLDER CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 100% TAMIS MOLECULAIRE - RACCORDS A SOUDER - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FILTERTROCKNER MIT 100% MOLEKULARSIEB - LÖTANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm ³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|--------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | ODS | | ODM | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | D303/2S | 032S | 1/4" | - | 3/8" | - | 50 | 45 (1) | -40 | +80 | 25 |
| | D303/3S | 033S | 3/8" | - | 1/2" | - | 50 | | | | 25 |
| | D305/2S | 052S | 1/4" | - | 3/8" | - | 80 | | | | 25 |
| | D305/3S | 053S | 3/8" | - | 1/2" | - | 80 | | | | 25 |
| | D305/M10S | - | - | 10 | - | 12 | 80 | | | | 25 |
| | D308/2S | 082S | 1/4" | - | 3/8" | - | 130 | | | | 25 |
| | D308/3S | 083S | 3/8" | - | 1/2" | - | 130 | | | | 25 |
| | D308/M10S | - | - | 10 | - | 12 | 130 | | | | 25 |
| | D308/M12S | - | - | 12 | - | 14 | 130 | | | | 25 |
| | D308/4S | 084S | 1/2" | - | 5/8" | 16 | 130 | | | | 25 |
| | D316/3S | 163S | 3/8" | - | 1/2" | - | 250 | | | | 15 |
| | D316/M10S | - | - | 10 | - | 12 | 250 | | | | 15 |
| | D316/M12S | - | - | 12 | - | 14 | 250 | | | | 15 |
| | D316/4S | 164S | 1/2" | - | 5/8" | 16 | 250 | | | | 15 |
| | D316/5S | 165S | 5/8" | 16 | 3/4" | - | 250 | | | | 15 |
| | D316/7S | 167S | 7/8" | - | 1.1/8" | - | 250 | | | | 15 |
| | D330/3S | 303S | 3/8" | - | 1/2" | - | 500 | | | | 10 |
| | D330/4S | 304S | 1/2" | - | 5/8" | 16 | 500 | | | | 10 |
| | D330/5S | 305S | 5/8" | 16 | 3/4" | - | 500 | | | | 10 |
| | D330/7S | 307S | 7/8" | - | 1.1/8" | - | 500 | | | | 10 |
| | D330/9S | 309S | 1.1/8" | - | 1.3/8" | 35 | 500 | | | | 10 |
| | D341/4S | 414S | 1/2" | - | 5/8" | 16 | 670 | | | | 6 |
| | D341/5S | 415S | 5/8" | 16 | 3/4" | - | 670 | | | | 6 |
| | D341/6S | 416S | 3/4" | - | 7/8" | - | 670 | | | | 6 |
| | D341/7S | 417S | 7/8" | - | 1.1/8" | - | 670 | | | | 6 |
| | D375/4S | 754S | 1/2" | - | 5/8" | 16 | 1340 | | | | 1 |
| | D375/5S | 755S | 5/8" | 16 | 3/4" | - | 1340 | | | | 1 |
| | D375/6S | 756S | 3/4" | - | 7/8" | - | 1340 | | | | 1 |
| | D375/7S | 757S | 7/8" | - | 1.1/8" | - | 1340 | | | | 1 |
| | D375/9S | 759S | 1.1/8" | - | 1.3/8" | 35 | 1340 | | | | 1 |

Note:

(1): MWP = 650 psi in conformità a omologazione UL

(1): MWP = 650 psi according to UL approval

(1): MWP = 650 psi conformément à homologation UL

(1): MWP = 650 psi in Übereinstimmung zur UL-Zulassung

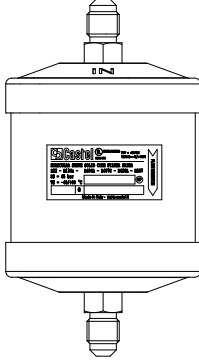
I filtri: D303/.. ; D305/.. ; D308/.. ; D316/.. ; D330/.. ; D341/.. ; D375/.. saranno disponibili sino alla fine del 2016

The filters: D303/.. ; D305/.. ; D308/.. ; D316/.. ; D330/.. ; D341/.. ; D375/.. will be available until the end of 2016

Les filtres: D303/.. ; D305/.. ; D308/.. ; D316/.. ; D330 / .. ; D341/.. ; D375/.. seront disponibles jusqu'à la fin de 2016

Die Filter: D303/.. ; D305/.. ; D308/.. ; D316/.. ; D330/.. ; D341/.. ; D375/.. verfügbar sein wird, bis Ende 2016

FILTRI DISIDRATATORI A CARTUCCIA SOLIDA 80% SETACCIO MOLECOLARE, 20% ALLUMINA - ATTACCHI SAE FLARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 DEHYDRATOR FILTERS WITH SOLID CORE 80% MOLECULAR SIEVE, 20% ALUMINA - SAE FLARE CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 80% TAMIS MOLECOLAIRE, 20% ALUMINE - RACCORDS SAE FLARE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FILTERTROCNER MIT 80% MOLEKULARSIEB, 20% ALUMINIUMOXID - BÖRDELANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

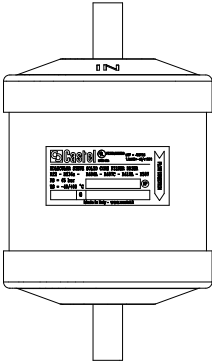
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr | Codice internazionale International code Code international Internationaler code | Attacchi SAE Flare Connections SAE Flare Raccords SAE Flare Anschlüsse SAE Flare | Cubatura nominale Nominal volume Cubature nominale Nominaler rauminhalt [cm ³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------|------------|-----|------------------------------------------------------------|
| | | | | | | min | max | |
|  | D203/2 | 032 | 1/4" | 50 | 45 (1) | -40 | +80 | 25 |
| | D203/3 | 033 | 3/8" | 50 | | | | 25 |
| | D205/2 | 052 | 1/4" | 80 | | | | 25 |
| | D205/3 | 053 | 3/8" | 80 | | | | 25 |
| | D208/2 | 082 | 1/4" | 130 | | | | 25 |
| | D208/3 | 083 | 3/8" | 130 | | | | 25 |
| | D208/4 | 084 | 1/2" | 130 | | | | 25 |
| | D216/2 | 162 | 1/4" | 250 | | | | 15 |
| | D216/3 | 163 | 3/8" | 250 | | | | 15 |
| | D216/4 | 164 | 1/2" | 250 | | | | 15 |
| | D216/5 | 165 | 5/8" | 250 | | | | 15 |
| | D230/3 | 303 | 3/8" | 500 | | | | 10 |
| | D230/4 | 304 | 1/2" | 500 | | | | 10 |
| | D230/5 | 305 | 5/8" | 500 | | | | 10 |
| | D241/5 | 415 | 5/8" | 670 | | | | 6 |
| | D241/6 | 416 | 3/4" | 670 | | | | 6 |

Note:

- (1): MWP = 650 psi in conformità a omologazione UL
- (1): MWP = 650 psi according to UL approval
- (1): MWP = 650 psi conformément à homologation UL
- (1): MWP = 650 psi in Übereinstimmung zur UL-Zulassung

I filtri: D203/.. ; D205/.. ; D208/.. ; D216/.. ; D230/.. ; D241/.. saranno disponibili sino alla fine del 2016
 The filters: D203/.. ; D205/.. ; D208/.. ; D216/.. ; D230/.. ; D241/.. will be available until the end of 2016
 Les filtres: D203/.. ; D205/.. ; D208/.. ; D216/.. ; D230 / .. ; D241/.. seront disponibles jusqu'à la fin de 2016
 Die Filter: D203/.. ; D205/.. ; D208/.. ; D216/.. ; D230/.. ; D241/.. verfügbar sein wird, bis Ende 2016

FILTRI DISIDRATATORI A CARTUCCIA SOLIDA 80% SETACCIO MOLECOLARE, 20% ALLUMINA - ATTACCHI A SILDARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 DEHYDRATOR FILTERS WITH SOLID CORE 80% MOLECULAR SIEVE, 20% ALUMINA - SOLDER CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 80% TAMIS MOLECLAIRE, 20% ALUMINE - RACCORDS A SOUDER - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FILTERTROCKNER MIT 80% MOLEKULARSIEB, 20% ALUMINIUMOXID - LÖTANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|-------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | ODS | | ODM | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | D203/2S | 032S | 1/4" | - | 3/8" | - | 50 | 45 (1) | -40 | +80 | 25 |
| | D203/3S | 033S | 3/8" | - | 1/2" | - | 50 | | | | 25 |
| | D205/2S | 052S | 1/4" | - | 3/8" | - | 80 | | | | 25 |
| | D205/3S | 053S | 3/8" | - | 1/2" | - | 80 | | | | 25 |
| | D205/M10S | - | - | 10 | - | 12 | 80 | | | | 25 |
| | D208/2S | 082S | 1/4" | - | 3/8" | - | 130 | | | | 25 |
| | D208/3S | 083S | 3/8" | - | 1/2" | - | 130 | | | | 25 |
| | D208/M10S | - | - | 10 | - | 12 | 130 | | | | 25 |
| | D208/M12S | - | - | 12 | - | 14 | 130 | | | | 25 |
| | D208/4S | 084S | 1/2" | - | 5/8" | 16 | 130 | | | | 25 |
| | D216/3S | 163S | 3/8" | - | 1/2" | - | 250 | | | | 15 |
| | D216/M10S | - | - | 10 | - | 12 | 250 | | | | 15 |
| | D216/M12S | - | - | 12 | - | 14 | 250 | | | | 15 |
| | D216/4S | 164S | 1/2" | - | 5/8" | 16 | 250 | | | | 15 |
| | D216/5S | 165S | 5/8" | 16 | 3/4" | - | 250 | | | | 15 |
| | D216/7S | 167S | 7/8" | - | 1.1/8" | - | 250 | | | | 15 |
| | D230/3S | 303S | 3/8" | - | 1/2" | - | 500 | | | | 10 |
| | D230/4S | 304S | 1/2" | - | 5/8" | 16 | 500 | | | | 10 |
| | D230/5S | 305S | 5/8" | 16 | 3/4" | - | 500 | | | | 10 |
| | D230/7S | 307S | 7/8" | - | 1.1/8" | - | 500 | | | | 10 |
| | D230/9S | 309S | 1.1/8" | - | 1.3/8" | 35 | 500 | | | | 10 |
| | D241/5S | 415S | 5/8" | 16 | 3/4" | - | 670 | | | | 6 |
| | D241/6S | 416S | 3/4" | - | 7/8" | - | 670 | | | | 6 |
| | D241/7S | 417S | 7/8" | - | 1.1/8" | - | 670 | | | | 6 |
| | D275/4S | 754S | 1/2" | - | 5/8" | 16 | 1340 | | | | 1 |
| | D275/5S | 755S | 5/8" | 16 | 3/4" | - | 1340 | | | | 1 |
| | D275/6S | 756S | 3/4" | - | 7/8" | - | 1340 | | | | 1 |
| | D275/7S | 757S | 7/8" | - | 1.1/8" | - | 1340 | | | | 1 |
| | D275/9S | 759S | 1.1/8" | - | 1.3/8" | 35 | 1340 | | | | 1 |

Note:

(1): MWP = 650 psi in conformità a omologazione UL
 (1): MWP = 650 psi according to UL approval
 (1): MWP = 650 psi conformément à homologation UL
 (1): MWP = 650 psi in Übereinstimmung zur UL-Zulassung

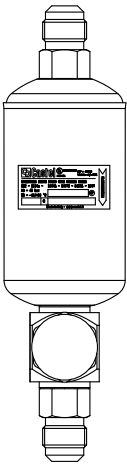
I filtri: D203/.. ; D205/.. ; D208/.. ; D216/.. ; D230/.. ; D241/.. ; D275/.. saranno disponibili sino alla fine del 2016
 The filters: D203/.. ; D205/.. ; D208/.. ; D216/.. ; D230/.. ; D241/.. ; D275/.. will be available until the end of 2016
 Les filtres: D203/.. ; D205/.. ; D208/.. ; D216/.. ; D230 / .. ; D241/.. ; D275/.. seront disponibles jusqu'à la fin de 2016
 Die Filter: D203/.. ; D205/.. ; D208/.. ; D216/.. ; D230/.. ; D241/.. ; D275/.. verfügbar sein wird, bis Ende 2016

FILTRI DISIDRATORI A CARTUCCIA SOLIDA 100% SETACCIO MOLECOLARE, CON INDICATORE D'UMIDITÀ - ATTACCHI SAE FLARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.

SOLID CORE FILTER DRIERS 100% MOLECULAR SIEVES, WITH MOISTURE INDICATOR - SAE FLARE CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.

FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 100% TAMIS MOLECULAIRE, ET INDICATEUR D' HUMIDITE - RACCORDS SAE FLARE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.

FILTERTROCKNER 100% MOLEKULARSIEB MIT FLÜSSIGKEITSINDIKATOR - BÖRDELANSCHLUSS - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° Catalogo Part number N° Catalogue Katalog Nr | Codice internazionale International code Code international Internationaler Code | Attacchi SAE Flare Connections SAE Flare Raccords SAE Flare Anschlüsse SAE Flare | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm ³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | | | | min | max | |
|  | 4105/2 | 052 | 1/4" | 80 | 45 (1) | -40 | +80 | 24 |
| | 4105/3 | 053 | 3/8" | | | | | 24 |
| | 4108/2 | 082 | 1/4" | 130 | | | | 24 |
| | 4108/3 | 083 | 3/8" | | | | | 24 |
| | 4108/4 | 084 | 1/2" | | | | | 24 |
| | 4116/3 | 163 | 3/8" | 250 | | | | 14 |
| | 4116/4 | 164 | 1/2" | | | | | 14 |
| | 4116/5 | 165 | 5/8" | | | | | 14 |
| | 4132/6 | 306 | 3/4" | | | | | 14 |

Note:

(1): MWP = 400 psi in conformità a omologazione UL

(1): MWP = 400 psi according to UL approval

(1): MWP = 400 psi conformément à homologation UL

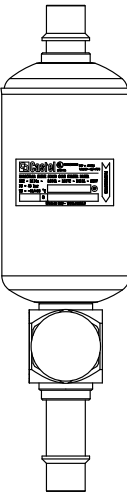
(1): MWP = 400 psi in Übereinstimmung zur UL-Zulassung

FILTRI DISIDRATORI A CARTUCCIA SOLIDA 100% SETACCIO MOLECOLARE, CON INDICATORE D'UMIDITÀ - ATTACCHI A SALDARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.

SOLID CORE FILTER DRIERS 100% MOLECULAR SIEVES, WITH MOISTURE INDICATOR - SOLDER CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.

FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 100% TAMIS MOLECLAIRE, ET INDICATEUR D' HUMIDITE - RACCORDS A SOUDER - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.

FILTERTROCKNER 100% MOLEKULARSIEB MIT FLÜSSIGKEITSINDIKATOREN - LÖTANSCHLUSS - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|-------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | ODS | | ODM | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 4105/2S | 052S | 1/4" | - | 3/8" | - | 45 (1) | -40 | +80 | 24 | |
| | 4105/3S | 053S | 3/8" | - | 1/2" | - | | | | 24 | |
| | 4108/2S | 082S | 1/4" | - | 3/8" | - | | | | 24 | |
| | 4108/3S | 083S | 3/8" | - | 1/2" | - | | | | 24 | |
| | 4108/M10S | - | - | 10 | - | 12 | | | | 130 | 24 |
| | 4108/M12S | - | - | 12 | - | 14 | | | | 24 | |
| | 4108/4S | 084S | 1/2" | - | 5/8" | 16 | | | | 24 | |
| | 4116/3S | 163S | 3/8" | - | 1/2" | - | | | | 250 | 14 |
| | 4116/M10S | - | - | 10 | - | 12 | | | | 14 | |
| | 4116/M12S | - | - | 12 | - | 14 | | | | 14 | |
| | 4116/4S | 164S | 1/2" | - | 5/8" | 16 | | | | 14 | |
| | 4116/5S | 165S | 5/8" | 16 | 3/4" | - | | | | 14 | |
| | 4132/6S | 306S | 3/4" | - | 7/8" | - | | | | 500 | 14 |
| | 4132/7S | 307S | 7/8" | - | 1.1/8" | - | | | | 14 | |

Note:

(1): MWP = 400 psi in conformità a omologazione UL

(1): MWP = 400 psi according to UL approval

(1): MWP = 400 psi conformément à homologation UL

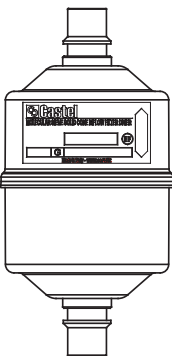
(1): MWP = 400 psi in Übereinstimmung zur UL-Zulassung

FILTRI DISIDRATORI BIFLUSSO A CARTUCCIA SOLIDA 100% SETACCIO MOLECOLARE - ATTACCHI A SALDARE - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.

SOLID CORE BI-FLOW FILTER DRIERS 100% MOLECULAR SIEVES - SOLDER CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.

FILTRES DÉSHYDRATEURS BIDIRECTIONNELS AVEC CARTOUCHE SOLIDE 100% TAMIS MOLECLAIRE - RACCORDS A SOUDER - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.

BI-FLOW FILTERTROCKNER 100% MOLEKULARSIEB - LÖTANSCHLUSS - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|-------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | ODS | | ODM | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 4608/3S | 083S | 3/8" | - | 1/2" | - | 45 (1) | -40 | +80 | 28 | |
| | 4608/4S | 084S | 1/2" | - | 5/8" | 16 | | | | 28 | |
| | 4616/3S | 163S | 3/8" | - | 1/2" | - | | | | 250 | 15 |
| | 4616/4S | 164S | 1/2" | - | 5/8" | 16 | | | | 15 | |
| | 4616/5S | 165S | 5/8" | 16 | 3/4" | - | | | | 15 | |
| | 4616/7S | 167S | 7/8" | - | 1.1/8" | - | | | | 15 | |

Note:

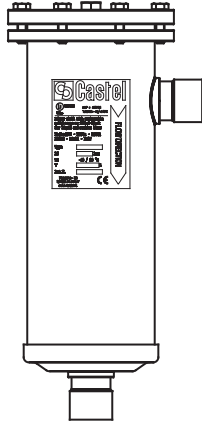
(1): MWP = 400 psi in conformità a omologazione UL

(1): MWP = 400 psi according to UL approval

(1): MWP = 400 psi conformément à homologation UL

(1): MWP = 400 psi in Übereinstimmung zur UL-Zulassung

FILTRI DISIDRATORI A CARTUCCIA SOLIDA RICAMBIABILE - ATTACCHI DI RAME - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 FILTER DRIERS WITH REPLACEABLE SOLID CORE - COPPER CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE REMPLAÇABLE - RACCORDS EN CUIVRE - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 FILTERTROCKNER FÜR UNIVERSAL BLOCKEINSATZ - KUPFER-ANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | | Attacchi ODS ODS Connections Raccords ODS Anschlüsse ODS | | Tipo cartucce Cores type Type cartouches Patronentyp | N° cartucce N° of cores N° cartouches Patronenanzahl | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm ³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------|--------|---------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------|---------|-----|---------------------------------------------------------------|-----------|
| | Coperchio filettato Threaded cover Couvercle fileté Schraubkappe | Coperchio cieco Blind cover Couvercle borgne Blindkappe | Ø [in.] | Ø [mm] | | | | | Min | Max | | |
| | | | | | | | | | | | | |
|  | 4411/5A | 4411/5B | 5/8" | 16 | 4490/A 4490/B 4490/AA 4490/AB | 1 | 800 | 45 (1) | -40 | +80 | 1 | |
| | 4411/7A | 4411/7B | 7/8" | 22 | | | | | | | | |
| | 4411/M28A | 4411/M28B | - | 28 | | | | | | | | |
| | 4411/9A | 4411/9B | 1.1/8" | - | | | | | | | | |
| | 4411/11A | 4411/11B | 1.3/8" | 35 | | | | | | | | |
| | 4411/13A | 4411/13B | 1.5/8" | - | | | | | | | | |
| | 4411/M42A | 4411/M42B | - | 42 | | | | | | | | |
| | 4411/17A | 4411/17B | 2.1/8" | 54 | | | | | | | | |
| | 4411/21A | 4411/21B | 2.5/8" | - | | | | | | | | |
| | 4412/7A | 4412/7B | 7/8" | 22 | | 2 | 1600 | | | | | |
| | 4412/M28A | 4412/M28B | - | 28 | | | | | | | | |
| | 4412/9A | 4412/9B | 1.1/8" | - | | | | | | | | |
| | 4412/11A | 4412/11B | 1.3/8" | 35 | | | | | | | | |
| | 4412/13A | 4412/13B | 1.5/8" | - | | | | | | | | |
| | 4412/M42A | 4412/M42B | - | 42 | | | | | | | | |
| | 4412/17A | 4412/17B | 2.1/8" | 54 | | | | | | | | |
| | 4413/7A | 4413/7B | 7/8" | 22 | | 3 | 2400 | | | | | |
| | 4413/9A | 4413/9B | 1.1/8" | - | | | | | | | | |
| | 4413/11A | 4413/11B | 1.3/8" | 35 | | | | | | | | |
| | 4413/13A | 4413/13B | 1.5/8" | - | | | | | | | | |
| | 4413/M42A | 4413/M42B | - | 42 | | | | | | | | |
| | 4413/17A | 4413/17B | 2.1/8" | 54 | | | | | | | | |
| | 4414/11A | 4414/11B | 1.3/8" | 35 | | 4 | 3200 | | | | | 35 (1) |
| | 4414/13A | 4414/13B | 1.5/8" | - | | | | | | | | |
| 4414/M42A | 4414/M42B | - | 42 | | | | | | | | | |
| 4414/17A | 4414/17B | 2.1/8" | 54 | | | | | | | | | |

Note:

- (1): MWP = 470 psi in conformità a omologazione UL
- (1): MWP = 470 psi according to UL approval
- (1): MWP = 470 psi conformément à homologation UL
- (1): MWP = 470 psi in Übereinstimmung zur UL-Zulassung

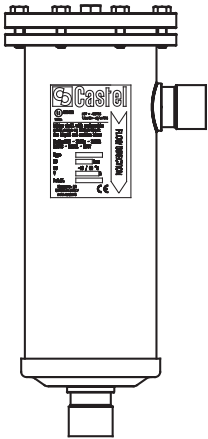
FILTRI DISIDRATORI A CARTUCCIA SOLIDA RICAMBIABILE- ATTACCHI D'ACCIAIO - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.

FILTER DRIERS WITH REPLACEABLE SOLID CORE - STEEL CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.

FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE REMPLAÇABLE - RACCORDS EN ACIER - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.

FILTERTROCKNER FÜR UNIVERSAL BLOCKEINSATZ - STAHL-ANSCHLÜSSE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° Catalogo Part number N° Catalogue Katalog Nr | Attacchi Connections Raccords Anschlüsse | | | Tipo cartucce Cores type Type cartouches Patronentyp | N° cartucce N° of cores N° cartouches Patronenanzahl | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|----------------------------------------------------------|---------------------------------------------------|--------|---|------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------|---------|-----|---------------------------------------------------------------|
| | | ODS | | W | | | | | Min | Max | |
| | Ø [in.] | Ø [mm] | Ø [mm] | | | | | | | | |

| | | | | | | | | | | | | |
|------------------------------------------------------------------------------------|------------|--------|-----|-------|----------------------------------------|-------------------|-----|-----------|-----------|-----|---|--|
|  | 4411/5AF | 5/8" | 16 | 21,3 | 4490/A 4490/B 4490/AA 4490/AB | 1 | 800 | 45 (1) | -40 | +80 | 1 | |
| | 4411/7AF | 7/8" | 22 | 26,9 | | | | | | | | |
| | 4411/9AF | 1.1/8" | - | 33,7 | | | | | | | | |
| | 4411/11AF | 1.3/8" | 35 | 42,4 | | | | | | | | |
| | 4411/13AF | 1.5/8" | - | 48,3 | | | | | | | | |
| | 4411/M42AF | - | 42 | 48,3 | | | | | | | | |
| | 4411/17AF | 2.1/8" | 54 | 60,3 | | | | | | | | |
| | 4411/21AF | 2.5/8" | - | 76,1 | | | | | | | | |
| | 4412/7AF | 7/8" | 22 | 26,9 | | | | | | | | |
| | 4412/9AF | 1.1/8" | - | 33,7 | | | | | | | | |
| | 4412/11AF | 1.3/8" | 35 | 42,4 | | | | | | | | |
| | 4412/13AF | 1.5/8" | - | 48,3 | | | | | | | | |
| | 4412/M42AF | - | 42 | 48,3 | | | | | | | | |
| | 4412/17AF | 2.1/8" | 54 | 60,3 | | | | | | | | |
| | 4413/7AF | 7/8" | 22 | 26,9 | | | | | | | | |
| | 4413/9AF | 1.1/8" | - | 33,7 | | | | | | | | |
| | 4413/11AF | 1.3/8" | 35 | 42,4 | | | | | | | | |
| | 4413/13AF | 1.5/8" | - | 48,3 | | | | | | | | |
| | 4413/M42AF | - | 42 | 48,3 | | | | | | | | |
| | 4414/11AF | 1.3/8" | 35 | 42,4 | | | | | | | | |
| | 4414/13AF | 1.5/8" | - | 48,3 | | | | | | | | |
| | 4414/M42AF | - | 42 | 48,3 | | | | | | | | |
| | 4414/17AF | 2.1/8" | 54 | 60,3 | | | | | | | | |
| | 4423/17A | 2.1/8" | 54 | 60,3 | | 4491/A 4491/AA | 3 | 4800 | 32 (1) | | | |
| | 4423/21A | 2.5/8" | 67 | 76,1 | | | | | | | | |
| | 4423/25A | 3.1/8" | 80 | 88,9 | | | | | | | | |
| | 4424/25A | 3.1/8" | 80 | 88,9 | | | | | | | | |
| | 4424/34A | 4.1/4" | 108 | 114,3 | | | 4 | 6400 | | | | |

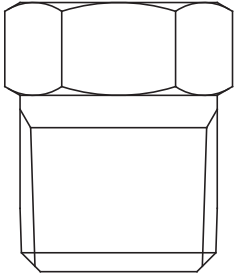
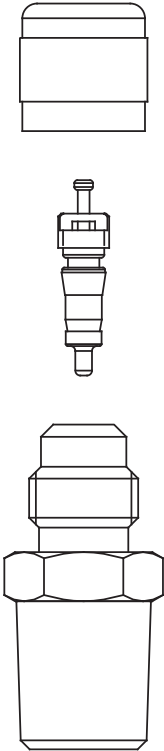
Note:

(1): MWP = 470 psi in conformità a omologazione UL

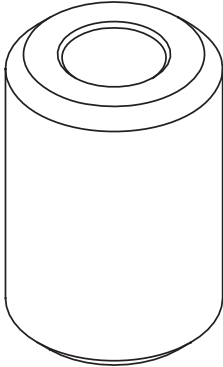
(1): MWP = 470 psi according to UL approval

(1): MWP = 470 psi conformément à homologation UL

(1): MWP = 470 psi in Übereinstimmung zur UL-Zulassung

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Componenti Parts Composant Komponenten | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | 7520/2 | Tappo NPT NPT plug Bouchons NPT NPT Verschluss | 25 |
|  | G9150/R05 | Attacco di carica + meccanismo + cappuccio Access fitting + valve core + cap Raccords de charge + mécanismes+ capuchons Schraderventil + Ventileinsatz + Kappen | 1 |

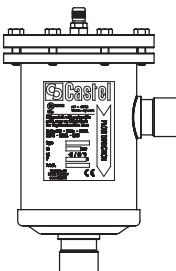
CARTUCCE PER FILTRI DISIDRATATORI
CARTRIDGES
CARTOUCHE SOLIDE
BLOCKEINSÄTZE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr | Carica disidratante Dehydrating charge Charge déshydratant Bindemittel | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm ³] | Adatta per filtri Suitable for filter Adapté pour filtre Passend für Filter | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | 4490/A (1) | 100 % Setaccio molecolare | 800 | 4411/A-/B-/AF 4412/A-/B-/AF 4413/A-/B-/AF 4414/A-/B-/AF | 15 |
| | | 100% Molecular sieve | | | |
| | | 100% Tamis moleculaire | | | |
| | | 100% Molekularsieb | | | |
| | 4490/B (2) | 100 % Setaccio molecolare | 800 | 4411/A-/B-/AF 4412/A-/B-/AF 4413/A-/B-/AF 4414/A-/B-/AF | 15 |
| | | 100% Molecular sieve | | | |
| | | 100% Tamis moleculaire | | | |
| | | 100% Molekularsieb | | | |
| | 4490/AA (1) | 80% Setaccio molecolare + 20% allumina attivata | 800 | 4411/A-/B-/AF 4412/A-/B-/AF 4413/A-/B-/AF 4414/A-/B-/AF | 15 |
| | | 80% Molecular sieve + 20% activated alumina | | | |
| | | 80% Tamis moleculaire + 20% alumine activee | | | |
| | | 80% molekularsieb + 20% aktivem Aluminium | | | |
| | 4490/AB (2) | 80% Setaccio molecolare + 20% allumina attivata | 800 | 4411/A-/B-/AF 4412/A-/B-/AF 4413/A-/B-/AF 4414/A-/B-/AF | 15 |
| | | 80% Molecular sieve + 20% activated alumina | | | |
| | | 80% Tamis moleculaire + 20% alumine activee | | | |
| | | 80% molekularsieb + 20% aktivem Aluminium | | | |
| 4491/A (3) | 100 % Setaccio molecolare | 1600 | 4423/A 4424/A | 8 | |
| | 100% Molecular sieve | | | | |
| | 100% Tamis moleculaire | | | | |
| | 100% Molekularsieb | | | | |
| 4491/AA (3) | 80% Setaccio molecolare + 20% allumina attivata | 1600 | 4423/A 4424/A | 8 | |
| | 80% Molecular sieve + 20% activated alumina | | | | |
| | 80% Tamis moleculaire + 20% alumine activee | | | | |
| | 80% molekularsieb + 20% aktivem Aluminium | | | | |

Note:

- (1) Fornita con guarnizioni di ricambio del coperchio, sia per filtri Castel sia per filtri della concorrenza
(1) Supplied with cover gasket as spare part, either for Castel filters or for competitors ones
(1) Fournie avec joints de rechange du couvercle aussi bien pour les filtres Castel que pour les filtres de la concurrence
(1) Geliefert mit Ersatzdichtungen für den Deckel sowohl für Filter von Castel als auch Filter der Konkurrenz.
- (2) Fornita senza guarnizione di ricambio della controflangia del filtro
(2) Supplied without cover gasket as spare part
(2) Fournie sans joint de rechange du couvercle du filtre
(2) Ohne Ersatzdichtung für Filtergegenflansch geliefert
- (3) Fornita con guarnizione di ricambio del coperchio del filtro Castel
(3) Supplied with cover gasket as spare part for Castel filter
(3) Fournie avec joint de rechange du couvercle du filtre Castel
(3) Geliefert mit Ersatzdichtung für den Deckel des Filters von Castel

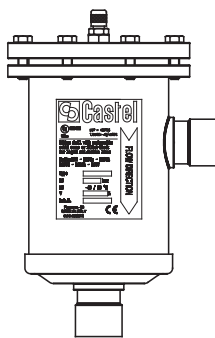
FILTRI A CARTUCCIA MECCANICA RICAMBIABILE - ATTACCHI DI RAME E COPERCHIO FILETTATO - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 MECHANICAL FILTERS WITH REPLACEABLE FILTERING BLOCK - COPPER CONNECTIONS AND THREADED COVER - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES A CARTOUCHE MÉCANIQUE REMPLAÇABLES - RACCORDS EN CUIVRE ET COUVERCLE FILETÉ - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 MECHANISCHE SAUGLEITUNGSFILTER - KUPFERANSCHLÜSSE UND SCHRAUBKAPPE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi ODS ODS Connections Raccords ODS Anschlüsse ODS | | Tipo cartuccia Cartridge type Type cartouches Patronentyp | Superficie filtrante Filtering surface Surface filtrante Filterfläche [cm ²] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|--------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------|---------|-----|------------------------------------------------------------|
| | | Ø [in.] | Ø [mm] | | | | min | max | |
|  | 4411/5C | 5/8" | 16 | 4495/C | 820 | 45 (1) | -40 | +80 | 1 |
| | 4411/7C | 7/8" | 22 | | | | | | |
| | 4411/M28C | - | 28 | | | | | | |
| | 4411/9C | 1.1/8" | - | | | | | | |
| | 4411/11C | 1.3/8" | 35 | | | | | | |
| | 4411/13C | 1.5/8" | - | | | | | | |
| | 4411/M42C | - | 42 | | | | | | |
| | 4411/17C | 2.1/8" | 54 | | | | | | |
| | 4411/21C | 2.5/8" | - | | | | | | |

Note:

- (1): MWP = 470 psi in conformità a omologazione UL
- (1): MWP = 470 psi according to UL approval
- (1): MWP = 470 psi conformément à homologation UL
- (1): MWP = 470 psi in Übereinstimmung zur UL-Zulassung

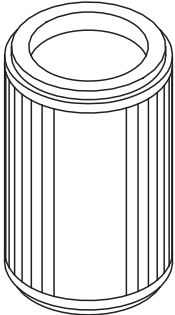
FILTRI A CARTUCCIA MECCANICA RICAMBIABILE - ATTACCHI D'ACCIAIO E COPERCHIO FILETTATO - OMOLOGATI DA UNDERWRITERS LABORATORIES INC.
 MECHANICAL FILTERS WITH REPLACEABLE FILTERING BLOCK - STEEL CONNECTIONS AND THREADED COVER - APPROVED BY UNDERWRITERS LABORATORIES INC.
 FILTRES A CARTOUCHE MÉCANIQUE REMPLAÇABLES - RACCORDS EN ACIER ET COUVERCLE FILETÉ - HOMOLOGUÉS PAR UNDERWRITERS LABORATORIES INC.
 MECHANISCHE SAUGLEITUNGSFILTER - STAHLANSCHLÜSSE UND SCHRAUBKAPPE - ZUGELASSEN VON UNDERWRITERS LABORATORIES INC.

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Tipo cartuccia Cartridge type Type cartouches Patronentyp | Superficie filtrante Filtering surface Surface filtrante Filterfläche [cm ²] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------|---------|-----|------------------------------------------------------------|
| | | ODS | | W | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [mm] | | | | | | |
|  | 4411/5CF | 5/8" | 16 | 21,3 | 4495/C | 820 | 45 (1) | -40 | +80 | 1 |
| | 4411/7CF | 7/8" | 22 | 26,9 | | | | | | |
| | 4411/9CF | 1.1/8" | - | 33,7 | | | | | | |
| | 4411/11CF | 1.3/8" | 35 | 42,4 | | | | | | |
| | 4411/13CF | 1.5/8" | - | 48,3 | | | | | | |
| | 4411/M42CF | - | 42 | 48,3 | | | | | | |
| | 4411/17CF | 2.1/8" | 54 | 60,3 | | | | | | |
| | 4411/21CF | 2.5/8" | - | 76,1 | | | | | | |
| | 4411/25CF | 3.1/8" | 80 | 88,9 | | | | | | |
| | 4421/21C | 2.5/8" | 67 | 76,1 | 4496/C | 1850 | 32 (1) | | | |
| | 4421/25C | 3.1/8" | 80 | 88,9 | | | | | | |
| | 4421/34C | 4.1/4" | 108 | 114,3 | | | | | | |

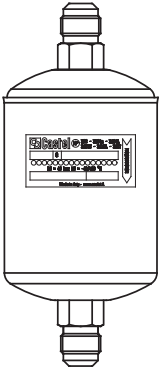
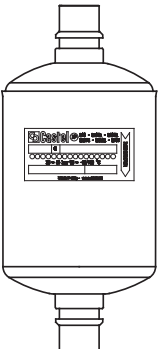
Note:



- (1): MWP = 470 psi in conformità a omologazione UL
- (1): MWP = 470 psi according to UL approval
- (1): MWP = 470 psi conformément à homologation UL
- (1): MWP = 470 psi in Übereinstimmung zur UL-Zulassung

CARTUCCE PER FILTRI MECCANICI
BLOCKS
CARTOUCHE PUOR FILTRES MÉCANIQUE
FILTEREINSATZ FUER MECHANISCHE FILTER

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr | Superficie filtrante Filtering surface Surface filtrante Filterfläche [cm ²] | Per filtri Suitable for filter Pour filtre Für Filter | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------|
|  | 4495/C | 820 | 4411 /C | 15 |
| | 4496/C | 1850 | 4421 /C | 8 |
| | | | | |

FILTRI A RETE
STRAINERS
FILTRES AVEC TAMIS MÉTALLIQUE
NETZFILTER

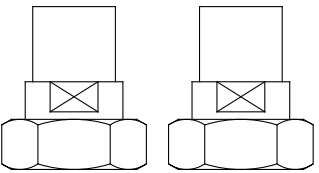
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr | Attacchi Connections Raccords Anschlüsse | | | | Superficie filtrante Filtering surface Surface filtrante Filterfläche [cm ²] | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | | |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|---------|--------|---------|------------------------------------------------------------------------------------------------------|---------------------------|-------------|------------|-----|------------------------------------------------------------|--------|----|
| | | SAE Flare | ODS | | ODM | | | | min | max | | | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | | | | | | | Ø [mm] | |
|  | 4510/3 | 3/8" | - | - | - | - | 58 | 2,4 | 45 | -40 | +80 | 34 | |
| | 4510/4 | 1/2" | - | - | - | - | 142 | 3,2 | | | | 28 | |
|  | 4520/2 | - | 1/4" | - | 3/8" | - | 58 | 2,4 | 45 | -40 | +80 | 34 | |
| | 4520/3 | - | 3/8" | - | 1/2" | - | | 2,4 | | | | 34 | |
| | 4520/M10 | - | - | 10 | - | 12 | | 2,4 | | | | 34 | |
| | 4520/M12 | - | - | 12 | - | 14 | | 3,4 | | | | 34 | |
| | 4520/4 | - | 1/2" | - | 5/8" | 16 | | 3,4 | | | | 34 | |
| | 4520/5 | - | 5/8" | 16 | 3/4" | - | | 3,4 | | | | 34 | |
| | 4520/M18 | - | - | 18 | - | 22 | | 142 | | | | 8 | 28 |
| | | | | | | | | | | | | | |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | N° catalogo coppia attacchi saldare (1) Part number couple of solder connections (1) N° Catalogue couple de raccords à souder (1) Katalog Nr. Schweissanschluss-Paar (1) | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|---------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | ODM | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 5540/4 | 1/2" | - | 5/8" | 16 | 45 | -10 | +130 | 1 | |
| | 5540/5 | 5/8" | 16 | 3/4" | - | | | | | |
| | 5540/7 | 7/8" | - | 1" | - | | | | | |
| | 5540/9 | 1.1/8" | - | 1.3/8" | 35 | | | | | |
| | 5540/11 | 1.3/8" | 35 | 1.5/8" | - | | | | | |
| | 5540/13 | 1.5/8" | - | - | - | | | | | |
| | 5540/M42 | - | 42 | - | - | | | | | |
| | 5540/17 | 2.1/8" | 54 | - | - | 32 | | | | |
|  | 5520/C | - | - | - | 5590/5 - 5590/7 | 45 | -10 | +130 | 1 | |
| | 5520/D | - | - | - | 5590/9 - 5590/11 | | | | | |
| | 5520/E | - | - | - | 5590/13 - 5590/M42 | | | | | |

Note:

- (1) Da ordinare separatamente
- (1) To be ordered separately
- (1) Doit être commandé séparément
- (1) Sind separat zu bestellen

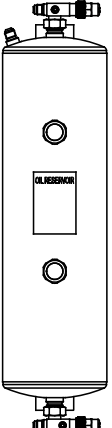
COPPIE DI ATTACCHI PER SEPARATORI D'OLIO 5520
COUPLE OF CONNECTIONS FOR OIL SEPARATORS 5520
COUPLE DE CONNECTIONS POUR SÉPARATEURS D'HUILE 5520
LÖTFITTING-PAAR FÜR ÖLABSCHEIDER 5520

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi saldare ODS ODS Solder connections Raccords à souder ODS Schweissanschlüsse ODS | | Guarnizione Gasket Dichtung Joint (1) | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------|---------------------------------------------------|----------|---------|------|------------------------------------------------------------|
| | | Ø [in.] | Ø [mm] | | | min | max | |
|  | 5590/5 | 5/8" | 16 | 003879 | 45 | -10 | +130 | 1 |
| | 5590/7 | 7/8" | - | | | | | |
| | 5590/9 | 1.1/8" | - | | | | | |
| | 5590/11 | 1.3/8" | 35 | 003870 | | | | |
| | 5590/13 | 1.5/8" | - | 003965 | | | | |
| | 5590/M42 | - | 42 | | | | | |

Note:

- (1) Da ordinare separatamente
- (1) To be ordered separately
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- (1) Sind separat zu bestellen

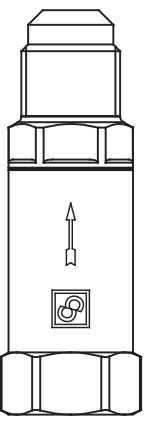
RISERVE D'OLIO
OIL RESERVOIRS
RÉSERVOIRS D'HUILE
ÖLSAMMELGEFÄSSE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi SAE FLARE SAE FLARE Connections Raccords SAE FLARE SAE FLARE Anschlüsse | | | Volume Volume Volume Inhlat | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------------|--------------------------------------|-----|----------|---------|------|------------------------------------------------------------|
| | | IN | OUT | Valvola tarata (1) Set valve (1) Clapet taré (1) Druckventile (1) | US Gallons | [l] | | min | max | |
|  | 5740/2G | | | | 2 | 8 | 32 | -10 | +130 | 1 |
| | 5740/3G | 3/8" | 3/8" | 3/8" | 3 | 12 | | | | |
| | 5740/4G | | | | 4 | 14 | | | | |

Note:

- (1) Da ordinare separatamente
- (1) To be ordered separately
- (1) Doit être commandé séparément
- (1) Sind separat zu bestellen

VALVOLE TARATE PER RISERVA D'OLIO
OIL RESERVOIR PRESSURE VALVES
CLAPETS TARÉS POUR RÉSERVOIR D'HUILE
DRUCKVENTILE FÜR ÖLSAMMELGEFÄSS

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi SAE FLARE SAE FLARE Connections Raccords SAE FLARE SAE FLARE Anschlüsse | | Kv [m³/h] | Pressione differenziale Differential pressure Pression différentielle Differenzial Druck [bar] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|----------|--------------|------------------------------------------------------------------------------------------------------------|-------------|---------|------|------------------------------------------------------------|
| | | IN | OUT | | | | min | max | |
|  | 3150/X01 | | | 1,6 | 0,35 | 45 | -40 | +105 | 90 |
| | 3150/X02 | 3/8" - F | 3/8" - M | | 1,4 | | | | 90 |
| | 3150/X03 | | | | 3 | | | | 90 |

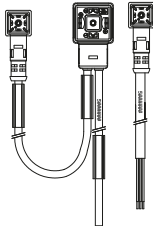
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Versione Version Modèl Ausführung | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Grado di protezione Degree of protection Degré de protection Schutzgrad | Kit cavi Cables kit Câbles kit Kabel-Kit (1) | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------------|
| | | Adattatori carter compressore Compressor crankcase adapters Adaptateurs de carter du compres- seur Kompressor- Kurbel- gehäuse- Adapter (1) | Spia livello olio Oil level inspection Hublot de con- trôle de niveau d'huile Ölschauglas | Ingresso olio Oil inlet Entree d'huile Öleintritt SAE FLARE | | | | | | | min | max | |

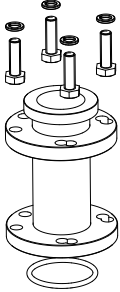
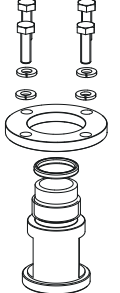
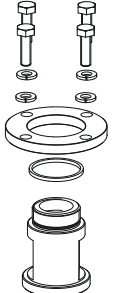
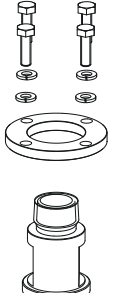
| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------------------------------------------------------|----------|----------------------------------------------|-------------------------------------------------------------------|------|----------------------------------------------|-------------------------------------------------------------------|-------|-------|----------|----|-----|------|---|------------------------------------|--------|-------|-------|----------|----|-----|------|---|
|  | 5650/RA2 | 5690/X11 5690/X12 5690/X13 5690/X14 | 1 spia di livello 1 sight glass 1 indicateur 1 Schauglas | 3/8" | Destro Right Droit Recht | 24VAC | 50/60 | IP 65 | 9901/X26 | 45 | -30 | +130 | 1 | | | | | | | | | |
| | 5650/RA6 | | | | | 220VAC | 50/60 | | | | | | | | | | | | | | | |
|  | 5650/LA2 | | | | 5690/X11 5690/X12 5690/X13 5690/X14 | 1 spia di livello 1 sight glass 1 indicateur 1 Schauglas | 3/8" | | | | | | | Sinistro Left Gauche Link | 24VAC | 50/60 | IP 65 | 9901/X26 | 45 | -30 | +130 | 1 |
| | 5650/LA6 | | | | | | | | | | | | | | 220VAC | 50/60 | | | | | | |

Note:

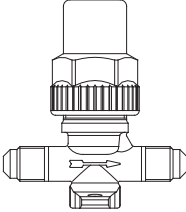
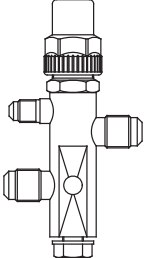
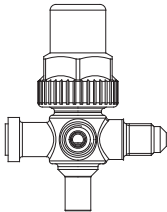
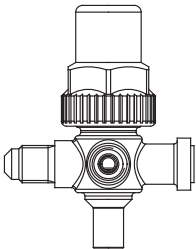
- (1) Da ordinare separatamente
- (1) To be ordered separately
- (1) Doit être commandé séparément
- (1) Sind separat zu bestellen

KIT CAVI
CABLES KIT
CÂBLES KIT
KABEL-KIT

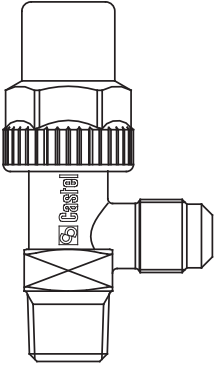
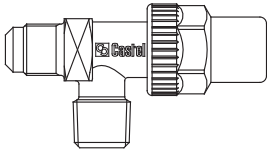
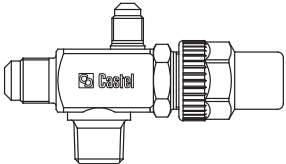
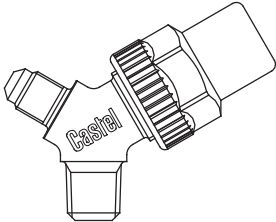
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr | Impiego Use Usage Benutzen | Grado di protezione Degree of protection Degré de protection Schutz - klasse | Lunghezza cavo Cable length Longueur du câble Kabellänge [m] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------|
|  | 9901/X26 | Cavo alimentazione Power supply cable Câble d'alimentation Stromversorgungskabel | IP 67 | 3 | 1 |
| | | Cavo allarmi Alarms cable câble alarmes Alarmkabel | IP 67 | 3 | |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr | Attacchi carter compressore Compressor crankcase connections Raccords carter du compresseur Verdichter-Kurbelgehäuse Anschlüsse | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | 5690/X11 | Flangiato con 3 fori su Ø 1.7/8 e 4 fori su Ø 50 mm Flanged with 3 holes on dia 1.7/8" and 4 holes on dia 50 mm Joint torique avec 3 trous sur Ø 1.7/8 et 4 trous sur Ø 50 mm Flansch mit 3 Löcher vom Ø 1.7/8" und Löcher vom Ø 50 mm | 1 |
|  | 5690/X12 | Filettato 1.1/8" - 12 UNF 1.1/8" - 12 UNF thread Fileté 1.1/8" - 12 UNF Gewinde 1.1/8" - 12 UNF | 1 |
|  | 5690/X13 | Filettato 1.1/8" - 18 UNEF 1.1/8" - 18 UNEF thread Fileté 1.1/8" - 18 UNEF Gewinde 1.1/8" - 18 UNEF | 1 |
|  | 5690/X14 | Filettato 3/4" NPT 3/4" NPT thread Fileté 3/4" NPT Gewinde 3/4" NPT | 1 |

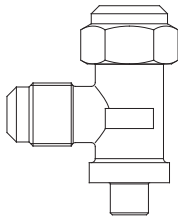
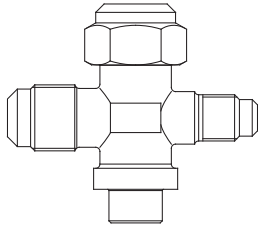
RUBINETTI PER SISTEMI FRIGORIFERI ERMETICI
 VALVES FOR HERMETIC SYSTEMS
 VANNES PUOR INSTALLATIONS DE GROUPES HERMÉTIQUES
 KLEINVENTILE FÜR HERMETISCHE KÄLTEANLAGEN

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Att. Carica Acces fitting Raccord chargement Füllanschlüss SAE Flare | Attacchi Connections Raccords Anschlüsse | | | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | | |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------|---------|--------|---------------------------|-------------|---------|-----|---------------------------------------------------------------|----|-----|
| | | | SAE Flare | ODS | | | | min | max | | | |
| | | | | Ø [in.] | Ø [mm] | | | | | | | |
|  | 6010/2 | - | 1/4" | 1/4" | - | - | 0,27 | 45 | -40 | +130 | 45 | |
| | 6012/22 | | 1/4" | - | 1/4" | | | | | | - | 72 |
|  | 6020/222 | 1/4" | 1/4" | 1/4" | - | - | 0,39 | 45 | -40 | +110 | 40 | |
| | 6020/233 | | 3/8" | 3/8" | | | | | | | | 1,2 |
| | 6020/244 | | 1/2" | 1/2" | | | | | | | | 2,2 |
| | 6020/255 | | 5/8" | 5/8" | | | | | | | | 2,8 |
|  | 6062/22M6 | 1/4" | 1/4" | - | - | 6 | 0,46 | 45 | -40 | +110 | 48 | |
| | 6062/23M10 | | 3/8" | 10 | 1,38 | | | | | | | |
|  | 6072/22M6 | 1/4" | 1/4" | - | - | 6 | 0,46 | 45 | -40 | +110 | 48 | |
| | 6072/23M8 | | 3/8" | | | 8 | 1,29 | | | | | |
| | 6072/23M10 | | 3/8" | | | 10 | 1,38 | | | | | |
| | 6072/24M12 | | 1/2" | | | 12 | 2,55 | | | | | |
| | 6072/25M16 | | 5/8" | | | 16 | 3,4 | | | | 36 | |

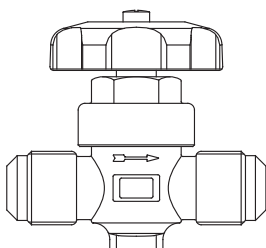
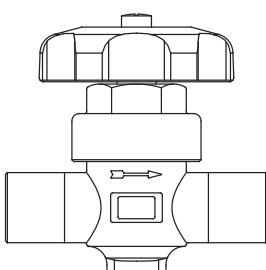
RUBINETTI PER SERBATOIO
 RECEIVER VALVES
 VANNES POUR RÉSERVOIR
 SAMMLER VENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Att. Carica Acces fitting Raccord chargement Füllanschluss SAE Flare | Attacchi Connections Raccords Anschlüsse | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------|----------|--------------|----------|---------|------|---------------------------------------------------------------|
| | | | SAE Flare | NPT | | | min | max | |
| | | | | | | | | | |
|  | 6110/21 | - | 1/4" | 1/8" | 0,44 | 45 | -40 | +130 | 90 |
| | 6110/22 | | 1/4" | 1/4" | 0,44 | | | | 90 |
| | 6110/X11 | | - | 1/4" M/F | 0,44 | | | | 90 |
| | 6110/X15 | 1/4" f | 1/4" | - | 0,44 | | | | 90 |
| | 6110/23 | - | 1/4" | 3/8" | 0,45 | | | | 90 |
| | 6110/32 | | 3/8" | 1/4" | 1,35 | | | | 90 |
| | 6110/33 | | 3/8" | 3/8" | 1,35 | | | | 90 |
| | 6110/X13 | 3/8" f | 3/8" | - | 1,35 | | | | 90 |
| | 6110/43 | - | 1/2" | 3/8" | 2,4 | | | | 90 |
| | 6110/44 | | 1/2" | 1/2" | 3,4 | | | | 90 |
| | 6110/54 | | 5/8" | 1/2" | 3,4 | | | | 90 |
| | 6110/66 | | 3/4" | 3/4" | 6 | | | | 24 |
|  | 6120/22 | - | 1/4" | 1/4" | 0,44 | 45 | -40 | +130 | 90 |
| | 6120/23 | | 1/4" | 3/8" | 0,45 | | | | 90 |
| | 6120/32 | | 3/8" | 1/4" | 1,35 | | | | 90 |
| | 6120/33 | | 3/8" | 3/8" | 1,35 | | | | 90 |
| | 6120/43 | | 1/2" | 3/8" | 2,4 | | | | 90 |
| | 6120/44 | | 1/2" | 1/2" | 3,4 | | | | 90 |
| | 6120/54 | | 5/8" | 1/2" | 3,4 | | | | 90 |
| | 6120/66 | | 3/4" | 3/4" | 6 | | | | 24 |
|  | 6132/22 | 1/4" | 1/4" | 1/4" | 0,45 | 45 | -40 | +110 | 90 |
| | 6132/33 | | 3/8" | 3/8" | 1,2 | | | | 90 |
| | 6132/44 | | 1/2" | 1/2" | 2,2 | | | | 40 |
| | 6132/54 | | 5/8" | 1/2" | 3,85 | | | | 40 |
| | | | | | | | | | |
|  | 6140/22 | - | 1/4" | 1/4" | 0,36 | 45 | -40 | +130 | 90 |
| | 6140/23 | | 1/4" | 3/8" | | | | | |

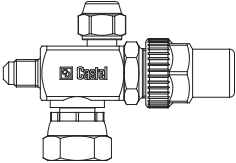
RUBINETTI PER CONDIZIONATORI SPLIT
 STOP VALVES FOR SPLIT CONDITIONING SYSTEMS
 VANNES POUR CLIMATISEURS SPLIT
 KLEINVENTILE FÜR SPLIT - KLIMAANLAGEN

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Att. Carica Acces fitting Raccord chargement Füllanschlüss SAE Flare | Attacchi Connections Raccords Anschlüsse | | | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------|---------|--------|---------------------------|-------------|---------|------|---------------------------------------------------------------|
| | | | SAE Flare | ODS | | | | min | max | |
| | | | | Ø [in.] | Ø [mm] | | | | | |
|  | 6165/22 | - | 1/4" | 1/4" | - | 0,68 | 45 | -20 | +110 | 96 |
| | 6165/33 | | 3/8" | 3/8" | - | 1,7 | | | | |
|  | 6175/33 | 1/4" | 3/8" | 3/8" | - | 1,7 | 45 | -20 | +110 | 72 |
| | 6175/44 | | 1/2" | 1/2" | - | 3,4 | | | | 72 |
| | 6175/55 | | 5/8" | 5/8" | 16 | 4,6 | | | | 72 |
| | 6170/66 | | 3/4" | 3/4" | - | 9 | | | | 14 |
| | 6170/77 | 7/8" | 7/8" | - | 10,8 | 14 | | | | |
| | 6176/44 | 5/16" | 1/2" | 1/2" | - | 3,4 | | | | 72 |
| | 6176/55 | | 5/8" | 5/8" | 16 | 4,6 | | | | 72 |
| | 6176/66 | | 3/4" | 3/4" | - | 7,5 | | | | 48 |

RUBINETTI A MEMBRANA
 DIAPHRAGM VALVES
 VANNES A MEMBRANE
 MEMBRANVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung | |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------|-------------|-----------|---------|---------------------------------------------------------------|--------|
| | | | | | SAE Flare | ODS | | |
| | | | | | | Ø [in.] | | Ø [mm] |
|  | 6210/2 | 1/4" | 0,28 | 28 | -35 | +90 | 45 | |
| | 6210/3 | 3/8" | 1 | | | | 45 | |
| | 6210/4 | 1/2" | - | | | | 1,3 | 45 |
| | 6210/5 | 5/8" | - | | | | 1,8 | 45 |
| | 6210/6 | 3/4" | - | | | | 3,65 | 14 |
|  | 6220/M6 | - | 6 | 0,28 | 28 | -35 | +90 | 45 |
| | 6220/2 | 1/4" | - | 0,28 | | | | 45 |
| | 6220/3 | 3/8" | - | 1 | | | | 45 |
| | 6220/M10 | - | 10 | 1 | | | | 45 |
| | 6220/4 | 1/2" | - | 1,3 | | | | 45 |
| | 6220/5 | 5/8" | 16 | 1,8 | | | | 45 |
| | 6220/6 | 3/4" | - | 3,65 | | | | 14 |
| | 6220/7 | 7/8" | - | 3,65 | | | | 14 |

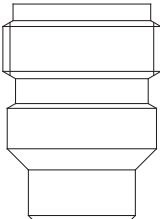
RUBINETTI ROTALOCK
ROTALOCK VALVES
VANNES TYPE ROTALOCK
ROTALOCKVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Att. Carica Acces fitting Raccord chargement Füllanschlüss SAE Flare | Attacchi Connections Raccords Anschlüsse | | Raccordo Union Raccord Anschlussutzen | Guarnizione Gasket Joint Dichtung | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------|------------------------------------------------|--------------------------------------------|--------------|-------------|---------|------|---------------------------------------------------------------|
| | | | SAE Flare | Rotalock | | | | | min | max | |
| | | |  | 6310/2 | | | | | 1/4" | 1/4" | |
| 6310/3 | 3/8" | 3/4" UNF | | 7910/6 (1) | 7990/6 (1) | 1,35 | 45 | | | | |
| 6310/4 | 1/2" | 3/4" UNF | | 7910/6 (1) | 7990/6 (1) | 1,35 | 45 | | | | |
| 6320/3 | 3/8" | 1" UNS | | 7910/8 (1) | 7990/8 (1) | 1,4 | 45 | | | | |
| 6320/4 | 1/2" | 1" UNS | | 7910/8 (1) | 7990/8 (1) | 3,1 | 40 | | | | |
| 6320/5 | 5/8" | 1" UNS | | 7910/8 (1) | 7990/8 (1) | 3,4 | 40 | | | | |
| 6320/6 | 3/4" | 1" UNS | | 7910/8 (1) | 7990/8 (1) | 3,4 | 40 | | | | |

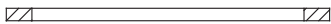
Note:

- (1) Da ordinare separatamente
- (1) To be ordered separately
- (1) Doit être commandé séparément
- (1) Sind separat zu bestellen

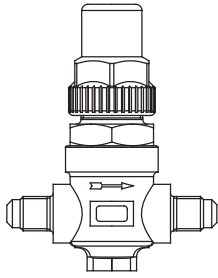
RACCORDI PER RUBINETTI ROTALOCK
ROTALOCK VALVES UNIONS
RACCORDS POUR VANNES TYPE ROTALOCK
ANCHLUSSTUTZEN FÜR ROTALOCKVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------|
|  | 7910/6 | 3/4" UNF | 25 |
| | 7910/8 | 1" UNS | 25 |

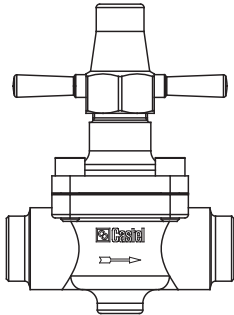
GUARNIZIONI PER RUBINETTI ROTALOCK
ROTALOCK VALVES GASKETS
JOINTS POUR VANNES TYPE ROTALOCK
DICHTUNG FÜR ROTALOCKVENTILE

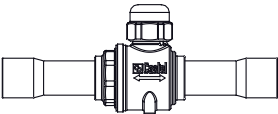
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------|
|  | 7990/6 | 3/4" UNF | 25 |
| | 7990/8 | 1" UNS | 25 |

RUBINETTI A CAPPELOTTO
 CAPPED VALVES
 VANNES A CAPUCHON
 KAPPENVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------|--------|------|--------------|-------------|---------|----|------------------------------------------------------------|
| | | SAE Flare | ODS | | min | | | max | | |
| | | | Ø [in.] | Ø [mm] | | | | | | |
|  | 6410/2 | 1/4" | - | - | 0,4 | 45 | -40 | +110 | 45 | |
| | 6410/3 | 3/8" | - | - | 1 | | | | 45 | |
| | 6410/4 | 1/2" | - | - | 1,45 | | | | 45 | |
| | 6410/5 | 5/8" | - | - | 1,7 | | | | 45 | |
| | 6410/6 | 3/4" | - | - | 3,5 | | | | 14 | |
| | 6420/2 | - | 1/4" | - | 0,4 | | | | 45 | -40 |
| 6420/3 | - | 3/8" | - | 1 | 45 | | | | | |
| 6420/3S3 | 3/8" - OUT | 3/8" - IN | - | 1 | 45 | | | | | |
| 6420/M10 | - | - | 10 | 1 | 45 | | | | | |
| 6420/M12 | - | - | 12 | 1,45 | 45 | | | | | |
| 6420/4 | - | 1/2" | - | 1,45 | 45 | | | | | |
| 6420/5 | - | 5/8" | 16 | 1,7 | 45 | | | | | |
| 6420/M18 | - | - | 18 | 3,5 | 14 | | | | | |
| 6420/6 | - | 3/4" | - | 3,5 | 14 | | | | | |
| 6420/M22 | - | - | 22 | 3,5 | 14 | | | | | |
| 6420/7 | - | 7/8" | - | 3,5 | 14 | | | | | |

RUBINETTI A GLOBO
 GLOBE VALVES
 ROBINET À SOUPAPE
 GLOBE ABSPERRVENTILE

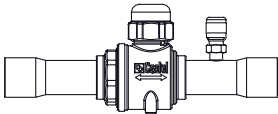
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|---------|--------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | ODS | | ODM | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 6512/M22 | - | 22 | - | 28 | 7,1 | 45 | -35 | +160 | 14 |
| | 6512/7 | 7/8" | - | 1.1/8" | - | 7,1 | | | | 14 |
| | 6512/M28 | - | 28 | 1.3/8" | 35 | 8,4 | | | | 14 |
| | 6512/9 | 1.1/8" | - | 1.3/8" | 35 | 8,4 | | | | 14 |
| | 6512/11 | 1.3/8" | 35 | 1.5/8" | - | 15 | | | | 10 |
| | 6512/13 | 1.5/8" | - | 2" | - | 25 | | | | 1 |
| | 6512/M42 | - | 42 | 2" | - | 25 | | | | 1 |
| | 6512/17 | 2.1/8" | 54 | - | - | 40 | | | | 1 |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Foro Sfera Ø Ball port Ø Orifice bille Ø Bohrung Ø [mm] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|---------------------------------------------------------------------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | ODS | | | | | min | max | |
| | | Ø [in.] | Ø [mm] | | | | | | |
|  | 6570/M6 | — | 6 | 10 | 0,8 | 45 (1) | -40 | +150 | 25 |
| | 6570/2 | 1/4" | — | 10 | 0,8 | | | | 25 |
| | 6570/3 | 3/8" | — | 10 | 3 | | | | 25 |
| | 6570/M10 | — | 10 | 10 | 3 | | | | 25 |
| | 6570/M12 | — | 12 | 10 | 5 | | | | 25 |
| | 6570/4 | 1/2" | — | 10 | 5 | | | | 25 |
| | 6571/5 | 5/8" | 16 | 10 | 5 | | | | 25 |
| | 6570/M15 | — | 15 | 15 | 17 | | | | 16 |
| | 6570/5 | 5/8" | 16 | 15 | 17 | | | | 16 |
| | 6570/M18 | — | 18 | 15 | 17 | | | | 16 |
| | 6570/6 | 3/4" | — | 15 | 17 | | | | 16 |
| | 6571/7 | 7/8" | 22 | 15 | 17 | | | | 16 |
| | 6570/7 | 7/8" | 22 | 19 | 29 | | | | 21 |
| | 6571/M28 | — | 28 | 19 | 29 | | | | 21 |
| | 6571/9 | 1.1/8" | — | 19 | 29 | | | | 21 |
| | 6570/M28 | — | 28 | 25 | 51 | | | | 16 |
| | 6570/9 | 1.1/8" | — | 25 | 51 | 16 | | | |
| | 6571/11 | 1.3/8" | 35 | 25 | 51 | 16 | | | |
| | 6590/11 | 1.3/8" | 35 | 32 | 86 | 5 | | | |
| | 6591/13 | 1.5/8" | - | 32 | 86 | 5 | | | |
| | 6591/M42 | - | 42 | 32 | 86 | 5 | | | |
| | 6590/13 | 1.5/8" | - | 38 | 117 | 10 | | | |
| | 6590/M42 | - | 42 | 38 | 117 | 10 | | | |
| | 6591/17 | 2.1/8" | 54 | 38 | 117 | 10 | | | |
| | 6590/17 | 2.1/8" | 54 | 50 | 214 | 1 | | | |
| | 6591/M64 | - | 64 | 50 | 214 | 1 | | | |
| | 6591/21 | 2.5/8" | - | 50 | 214 | 1 | | | |
| | 6570/M64 (2) N | — | 64 | 60 | 380 | 45 | -40 | +150 | 1 |

Note:

- (1): MWP = 500 psi per 6570/.. e 6590/.. - MWP = 435 psi per 6571/.. e 6591/.. in conformità a omologazione UL
 (1): MWP = 500 psi for 6570/.. and 6590/.. - MWP = 435 psi for 6571/.. and 6591/.. according to UL approval
 (1): MWP = 500 psi pour 6570/.. et 6590/.. - MWP = 435 psi pour 6571/.. et 6591/.. conformément à homologation UL
 (1): MWP = 500 psi für 6570/.. und 6590/.. - MWP = 435 psi für 6571/.. und 6591/.. in Übereinstimmung zur UL-Zulassung

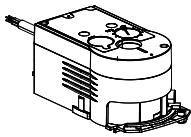
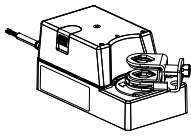
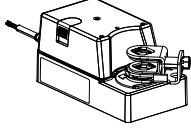
- (2): non omologato UL
 (2): not UL approved
 (2): Pas approuvé UL
 (2): Ohne UL-Zertifizierung

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Foro Sfera Ø Ball port Ø Orifice bille Ø Bohrung Ø [mm] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|---------------------------------------------------------------------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | ODS | | | | | min | max | |
| | | Ø [in.] | Ø [mm] | | | | | | |
|  | 6570/M6A | — | 6 | 10 | 0,8 | 45 (1) | -40 | +150 | 25 |
| | 6570/2A | 1/4" | — | 10 | 0,8 | | | | 25 |
| | 6570/3A | 3/8" | — | 10 | 3 | | | | 25 |
| | 6570/M10A | — | 10 | 10 | 3 | | | | 25 |
| | 6570/M12A | — | 12 | 10 | 5 | | | | 25 |
| | 6570/4A | 1/2" | — | 10 | 5 | | | | 25 |
| | 6570/M15A | — | 15 | 15 | 17 | | | | 16 |
| | 6570/5A | 5/8" | 16 | 15 | 17 | | | | 16 |
| | 6570/M18A | — | 18 | 15 | 17 | | | | 16 |
| | 6570/6A | 3/4" | — | 15 | 17 | | | | 16 |
| | 6570/7A | 7/8" | 22 | 19 | 29 | | | | 21 |
| | 6570/M28A | — | 28 | 25 | 51 | | | | 16 |
| | 6570/9A | 1.1/8" | — | 25 | 51 | | | | 16 |
| | 6590/11A | 1.3/8" | 35 | 32 | 86 | 45 (1) | -40 | +150 | 5 |
| | 6590/13A | 1.5/8" | — | 38 | 117 | | | | 10 |
| | 6590/M42A | — | 42 | 38 | 117 | | | | 10 |
| | 6590/17A | 2.1/8" | 54 | 50 | 214 | | | | 1 |
| | 6591/M64A | — | 64 | 50 | 214 | | | | 1 |
| | 6591/21A | 2.5/8" | — | 50 | 214 | | | | 1 |
| | 6570/M64A (2) N | — | 64 | 60 | 380 | | | | 45 |
| | 6570/21A (2) N | 2.5/8" | — | 60 | 380 | 1 | | | |
| | 6571/24A (2) N | 3" | 76 | 60 | 380 | 1 | | | |
| | 6571/25A (2) N | 3.1/8" | 80 | 60 | 380 | 1 | | | |
| | 6570/24A (2) N | 3" | 76 | 73 | 550 | 1 | | | |
| | 6570/25A (2) N | 3.1/8" | 80 | 73 | 550 | 1 | | | |
| | 6571/28A (2) N | 3.1/2" | 89 | 73 | 550 | 1 | | | |
| | 6571/29A (2) N | 3.5/8" | 92 | 73 | 550 | 1 | | | |
| | 6570/28A (2) N | 3.1/2" | 89 | 82 | 710 | 1 | | | |
| | 6570/29A (2) N | 3.5/8" | 92 | 82 | 710 | 1 | | | |
| | 6571/33A (2) N | 4.1/8" | 105 | 82 | 660 | 1 | | | |
| | 6571/34A (2) N | 4.1/4" | 108 | 82 | 660 | 1 | | | |

Note:

- (1): MWP = 500 psi per 6570/.. e 6590/.. - MWP = 435 psi per 6571/.. e 6591/.. in conformità a omologazione UL
 (1): MWP = 500 psi for 6570/.. and 6590/.. - MWP = 435 psi for 6571/.. and 6591/.. according to UL approval
 (1): MWP = 500 psi pour 6570/.. et 6590/.. - MWP = 435 psi pour 6571/.. et 6591/.. conformément à homologation UL
 (1): MWP = 500 psi für 6570/.. und 6590/.. - MWP = 435 psi für 6571/.. und 6591/.. in Übereinstimmung zur UL-Zulassung

- (2): non omologato UL
 (2): not UL approved
 (2): Pas approuvé UL
 (2): Ohne UL-Zertifizierung

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Adatto per rubinetto Designed for valve Adaptée pour vanne Passed für ventil | Angolo di manovra Rotation angle Angle de rotation Drehwinkel | Coppia Torque Couple Drehmoment [Nm] | Tempo di marcia Running time Durée de course Laufzeit [sec] | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Potenza Power Puissance Leistung [W] | Temperatura ambiente Ambient temperature Température ambiante Umgebungstemperatur [°C] | | Grado di protezione Degree of protection Degré de protection Schutzgrad | Confezione n° pz Packaging pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------|--------------------------------------------------------------|
| | | | | | | | | | Min | Max | | |
|  | 9700/RA2 (1) | 6570/7; 6570/M28; 6570/9; 6570/7A; 6570/M28A; 6570/9A; 6571/M28; 6571/9; 6571/11 | 90° | 10 | 60 | 24 | 50/60 | 4,8 | -20 | +55 | IP 54 | 1 |
|  | 9700/RA6 (2) | 6570/7; 6570/M28; 6570/9; 6570/7A; 6570/M28A; 6570/9A; 6571/M28; 6571/9; 6571/11 | 90° | 10 | 60 | 230 | 50/60 | 2,9 | -20 | +55 | IP 54 | 1 |
|  | 9720/RA2 (1) | 6590/11; 6590/13; 6590/M42; 6590/11A; 6590/13A; 6590/M42A; 6591/13; 6591/M42; 6591/17 | 90° | 30 | 120 | 24 | 50/60 | 2,4 | -20 | +55 | IP 54 | 1 |
| | 9720/RA6 (2) | 6590/11; 6590/13; 6590/M42; 6590/11A; 6590/13A; 6590/M42A; 6591/13; 6591/M42; 6591/17 | 90° | 30 | 120 | 230 | 50/60 | 3,7 | -20 | +55 | IP 54 | 1 |

(1) Conessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso) oppure uscita in continua (0 ÷ 10V)

(1) Wiring connections : switching output 2 points (open/close) or continuous output (0 ÷ 10V)

(1) Connexions électriques : sortie à contacts à 2 points (ouvert/fermé) ou sortie progressive (0 ÷ 10V)

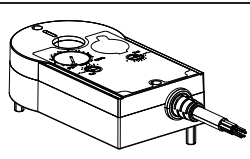
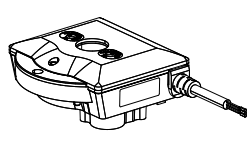
(1) Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen) oder Stetigem Ausgang (0 ÷ 10V)

(2) Conessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso)

(2) Wiring connections : switching output 2 points (open/close)

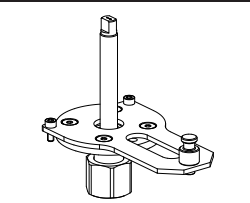
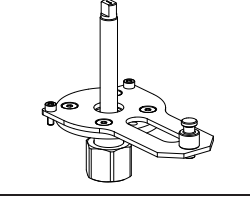
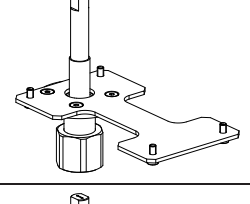
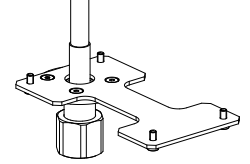
(2) Connexions électriques : sortie à contacts à 2 points (ouvert/fermé)

(2) Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen)

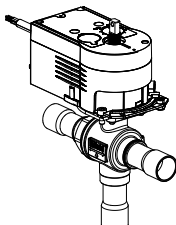
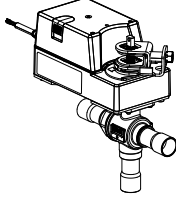
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Adatto per attuatore Designed for actuator Adaptée pour servomoteur Passed für stellantrieb | Tipo contatto Contact type Type contact Kontakt Typ [Nm] | Carico massimo Max loading Charge maximale Belastung [A] | Temperatura ambiente Ambient temperature Température ambiante Umgebungstemperatur | | Grado di protezione Degree of protection Degré de protection Schutzgrad | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------|------------------------------------------------------------|
| | | | | | Min | Max | | |
| | | | | | [°C] | | | |
|  | 9750/X01 | 9700/RA2 | Doppio Double Double Dopplet | 5 | -20 | +55 | IP 54 | 1 |
|  | 9750/X02 | 9700/RA6 ; 9720/RA2 ; 9720/RA6 | Doppio Double Double Dopplet | 5 | -20 | +55 | IP 54 | 1 |

ADATTATORI PER ATTUATORE
SERVOMOTOR ADAPTERS
ADAPTEURS POUR SERVOMOTEUR
LOETADAPTERS FÜR STELLANTRIEB

NEW
2016 

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Adatto per rubinetto Designed for valve Adaptée pour vanne Passed für ventil | Adatto per attuatore Designed for actuator Adaptée pour servomoteur Passed für stellantrieb | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | 9901/X30 | 6570/3 ; 6570/M10 ; 6570/M12 6570/4 ; 6570/M15 ; 6570/5 6570/M18 ; 6570/6 ; 6570/3A 6570/M10A ; 6570/M12A ; 6570/4A 6570/M15A ; 6570/5A ; 6570/M18A 6570/6A ; 6571/5 ; 6571/7 | 9700/RA2 | 1 |
|  | 9901/X27 | 6570/7 ; 6570/M28 ; 6570/9 6570/7A ; 6570/M28A ; 6570/9A 6571/M28 ; 6571/9 ; 6571/11 | 9700/RA2 | 1 |
|  | 9901/X28 | 6570/7 ; 6570/M28 ; 6570/9 6570/7A ; 6570/M28A ; 6570/9A 6571/M28 ; 6571/9 ; 6571/11 | 9700/RA6 | 1 |
|  | 9901/X25 | 6590/11 ; 6590/13 ; 6590/M42 6590/11A ; 6590/13A ; 6590/M42A 6591/13 ; 6591/M42 ; 6591/17 | 9720/RA2 ; 9720/RA6 | 1 |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr (1) | Attacchi Connections Raccords Anschlüsse | | Coppia Torque Couple Drehmoment [Nm] | Tempo di marcia Running time Durée de course Laufzeit [sec] | Potenza Power Puissance Leistung [W] | Foro Sfera Ø Ball port Ø Orifice bille Ø Bohrung Ø [mm] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Packa ge pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------|--------|--------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------|--------------|-------------|------------|------|-------------------------------------------------------------------|
| | | ODS | | | | | | | | min. | max. | |
| | | Ø [in.] | Ø [mm] | | | | | | | | | |

| | | | | | | | | | | | | |
|------------------------------------------------------------------------------------|-----------------|--------|----|----|-----|-----|----|------|----|-----|------|---|
|  | 6690M/7A2 (2) | 7/8" | 22 | 10 | 60 | 4,8 | 19 | 10,7 | 45 | -40 | +150 | 1 |
| | 6690M/7A6 (3) | | | | | 2,9 | | | | | | 1 |
| | 6690M/M28A2 (2) | - | 28 | 10 | 60 | 4,8 | 24 | 15,9 | | | | 1 |
| | 6690M/M28A6 (3) | | | | | 2,9 | | | | | | 1 |
| | 6690M/9A2 (2) | 1.1/8" | - | 10 | 60 | 4,8 | 24 | 15,9 | | | | 1 |
| | 6690M/9A6 (3) | | | | | 2,9 | | | | | | 1 |
|  | 6690M/11A2 (2) | 1.5/8" | 35 | 30 | 120 | 2,4 | 28 | 20,3 | 45 | -40 | +150 | 1 |
| | 6690M/11A6 (3) | | | | | 3,7 | | | | | | 1 |
| | 6690M/13A2 (2) | 1.5/8" | - | 30 | 120 | 2,4 | 37 | 38,5 | | | | 1 |
| | 6690M/13A6 (3) | | | | | 3,7 | | | | | | 1 |
| | 6690M/M42A2 (2) | - | 42 | 30 | 120 | 2,4 | 37 | 38,5 | | | | 1 |
| | 6690M/M42A6 (3) | | | | | 3,7 | | | | | | 1 |

(1): completo di attuatore e piastra di montaggio
(1): with actuator and mounting plate
(1): avec servomoteur et la plaque de montage
(1): mit Stellantrieb und Montageplatte

Nota (2)

- Tensione = 24 V
- Frequenza = 50/60 Hz
- Grado di protezione = IP 54
- Angolo di manovra = 90°
- Connessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso) oppure uscita in continua (0 ÷ 10V)

- Voltage = 24 V
- Frequency = 50/60 Hz
- Degree of protection = IP 54
- Rotation angle = 90°
- Wiring connections : switching output 2 points (open/close) or continous output (0 ÷ 10V)

- Tension = 24 v
- Fréquence = 50/60 Hz
- Degré de protection = IP 54
- Angle de rotation = 90°
- Connexions électriques : sortie à contacts à 2 points (ouvert/fermé) ou sortie progressive (0 ÷ 10V)

- Spannung = 24 V
- Frequenz = 50/60 Hz
- Schutzgrad = IP 54
- Drehwinkel = 90°
- Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen) oder Stetigem Ausgang (0 ÷ 10V)

Nota (3)

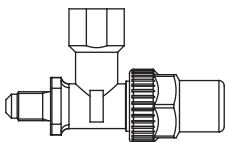
- Tensione = 230 V
- Frequenza = 50/60 Hz
- Grado di protezione = IP 54
- Angolo di manovra = 90°
- Connessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso)

- Voltage = 230 V
- Frequency = 50/60 Hz
- Degree of protection = IP 54
- Rotation angle = 90°
- Wiring connections : switching output 2 points (open/close)

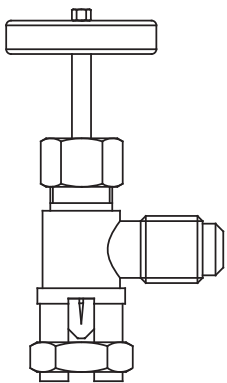
- Tension = 230 V
- Fréquence = 50/60 Hz
- Degré de protection = IP 54
- Angle de rotation = 90°
- Connexions électriques : sortie à contacts à 2 points (ouvert/fermé)

- Spannung = 230 V
- Frequenz = 50/60 Hz
- Schutzgrad = IP 54
- Drehwinkel = 90°
- Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen)

RUBINETTI PORTAMANOMETRO
GAUGE MOUNTING VALVES
VANNES PORTE-MANOMÈTRE
MANOMETERVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|------|-----------|----------|---------|------|------------------------------------------------------------|
| | | SAE Flare | NPT | SAE Flare | | min | max | |
|  | 8320/21 | 1/4" | 1/8" | - | 45 | -40 | +130 | 90 |
| | 8320/22 | 1/4" | 1/4" | - | | | | 45 |
| | 8321/22 | 1/4" | - | 1/4" f | | | | 45 |

RUBINETTO PERFORANTE
LINE PIERCING VALVES
ROBINET PERCE/TUBE
EINSTECHVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------|----------|---------|-----|------------------------------------------------------------|
| | | SAE Flare | Diametro tubo Pipe Diameter Diamètre tuyau Rohrdurchmesser [mm] | | min | max | |
|  | 8330/A | 1/4" | 6 - 10 | 25 | -10 | +70 | 90 |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
|-----------------|-------------|-------------------------------|------|
|-----------------|-------------|-------------------------------|------|

RICAMBI PER VALVOLE SOLENOIDI

| | | | |
|-----------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| G9150/R97 | Ghiera gialla per fissaggio bobina | Tutte le valvole solenoidi con bobine tipo HM2 , CM2 , HM3 e HM4 | |
| | Vite nera per fissaggio bobina | | |
| | O-R ghiera gialla | | |
| 004238 | O-R sotto bobina | Tutte le valvole solenoidi | |
| G9150/R06 | Squadretta | Valvole solenoidi N.C. e N.O. tipo: 1020/.. ; 1028/.. 1064/.. ; 1068/.. 1070/4 - /5 ; 1078/4 - /5 - /M12 ; 1079/7 1034/.. ; 1038/.. 1040/4 - /5 ; 1048/4 - /5 - /M12 ; 1049/7 1164/.. ; 1168/.. 1170/4 - /5 ; 1178/4 - /5 - /M12 1134/.. ; 1138/.. 1140/4 - /5 ; 1148/4 - /5 - /M12 | |
| | Vite | | |
| 9150/R07 | Sottogruppo nucleo | Valvole solenoidi N.C. tipo: 1020/.. ; 1028/.. | |
| | Molla nucleo | | |
| | O-R ghiera/corpo | | |
| 004254 | O-R ghiera/corpo | | confezione da 10 pezzi |
| 9150/R08 | Sottogruppo nucleo | Valvole solenoidi a membrana N.C. tipo: 1064/.. ; 1068/.. 1098/9 ; 1099/11 1078/11 ; 1079/13 - /M42 1078/13 - /M42 ; 1079/17 | |
| | Molla nucleo | | |
| | Sottogruppo membrana | | |
| | O-R ghiera/corpo | | |
| 004259 | O-R ghiera/corpo | | confezione da 10 pezzi |
| 9150/R09 | Sottogruppo nucleo | Valvole solenoidi a membrana N.C. tipo: 1070/4 - /5 ; 1078/4 - /5 - /M12 ; 1079/7 | |
| | Molla nucleo | | |
| | Sottogruppo membrana | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R tappo/corpo | | |
| 004257 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R10 | Sottogruppo nucleo | Valvole solenoidi a membrana N.C. tipo: 1070/6 ; 1078/6 - /7 ; 1079/9 (valvole fuori produzione) | |
| | Molla nucleo | | |
| | Sottogruppo membrana | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R tappo/corpo | | |
| 004266 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9151/R04 | Sottogruppo nucleo | Valvole solenoidi a membrana N.C. tipo: 1090/5 - /6 ; 1098/5 - /6 - /7 ; 1099/9 | sostituisce i ricambi 9150/R38 e 9150/R48 |
| | Molla nucleo | | |
| | Sottogruppo membrana | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R tappo/corpo | | |
| 004251 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R11 | Sottogruppo nucleo | Valvole solenoidi a membrana N.C. tipo: 1078/9 ; 1079/11 | |
| | Molla nucleo | | |
| | Sottogruppo membrana | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R pilota | | |
| | O-R ghiera/tappo | | |
| | O-R tappo/corpo | | |
| 004253 | O-R tappo/corpo | | confezione da 10 pezzi |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
|-----------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 9150/R81 | Sottogruppo nucleo | Valvole solenoidi a pistone N.C. tipo: 1034/.. ; 1038/.. | |
| | Molla nucleo | | |
| | Sottogruppo pistone | | |
| | O-R ghiera/corpo | | |
| 004259 | O-R ghiera/corpo | | confezione da 10 pezzi |
| 9150/R82 | Sottogruppo nucleo | Valvole solenoidi a pistone N.C. tipo: 1040/4 - /5 ; 1048/4 - /5 - /M12 ; 1049/7 | |
| | Molla nucleo | | |
| | Sottogruppo pistone | | |
| | Sottogruppo fascia elastica | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R tappo/corpo | | |
| 004257 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R50 | Sottogruppo nucleo | Valvole solenoidi a pistone N.C. tipo: 1050/5 - /6 ; 1058/5 - /6 - /7 ; 1059/9 | |
| | Molla nucleo | | |
| | Sottogruppo pistone | | |
| | Sottogruppo fascia elastica | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R tappo/corpo | | |
| 004251 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R43 | Sottogruppo pistone | Servocomando principale a pistone per valvole solenoidi a pistone N.C. e N.O. tipo: 1098/9 ; 1099/11 1198/9 | |
| | Sottogruppo fascia elastica | | |
| | Molla pistone | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R pilota | | |
| | O-R tappo/corpo | | |
| 004251 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R39 | Sottogruppo pistone | Servocomando principale a pistone per valvole solenoidi a pistone N.C. e N.O. tipo: 1078/11 ; 1079/13 - /M42 1178/11 | |
| | Sottogruppo fascia elastica | | |
| | Molla pistone | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R pilota | | |
| | O-R tappo/corpo | | |
| 004691 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R83 | Sottogruppo pistone | Servocomando principale a pistone per valvole solenoidi a pistone N.C. e N.O. tipo: 1078/13 - /M42 ; 1079/17 1178/13 - /M42 | |
| | Sottogruppo fascia elastica | | |
| | Molla pistone | | |
| | O-R pilota | | |
| | O-R tappo/corpo | | |
| 008002 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R35 | Operatore N.O. premontato | Valvole solenoidi a membrana N.O. tipo: 1164/.. ; 1168/.. Servocomando pilota a membrana per: 1198/9 1178/11 1178/13 - /M42 | |
| | Sottogruppo membrana | | |
| | O-R sotto bobina | | |
| | O-R ghiera/corpo | | |
| 004259 | O-R ghiera/corpo | | confezione da 10 pezzi |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
|-----------------|-------------|-------------------------------|------|
|-----------------|-------------|-------------------------------|------|

RICAMBI PER VALVOLE SOLENOIDI

| | | | |
|-----------------|-----------------------------|-----------------------------------------------------------------------------|----------------------------------------------|
| 9150/R34 | Sottogruppo canotto N.O. | Valvole solenoidi a membrana N.O. tipo: 1170/4 - /5 ; 1178/4 - /5 - /M12 | |
| | Sottogruppo membrana | | |
| | Viti fissaggio tappo/corpo | | |
| | Ghiera | | |
| | O-R ghiera/tappo | | |
| | O-R sotto bobina | | |
| | O-R tappo/corpo | | |
| 004257 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9151/R05 | Sottogruppo canotto N.O. | Valvole solenoidi a membrana N.O. tipo: 1190/5 - /6 ; 1198/5 - /6 - /7 | sostituisce i ricambi 9150/R40 e 9150/R49 |
| | Sottogruppo membrana | | |
| | Viti fissaggio tappo/corpo | | |
| | Ghiera | | |
| | O-R ghiera/tappo | | |
| | O-R sotto bobina | | |
| | O-R tappo/corpo | | |
| 004251 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R42 | Sottogruppo canotto N.O. | Valvole solenoidi a membrana N.O. tipo: 1178/9 | |
| | Sottogruppo membrana | | |
| | Viti fissaggio tappo/corpo | | |
| | Ghiera | | |
| | O-R pilota | | |
| | O-R ghiera/tappo | | |
| | O-R sotto bobina | | |
| O-R tappo/corpo | | | |
| 004253 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R84 | Operatore N.O. premontato | Valvole solenoidi a pistone N.O. tipo: 1134/.. ; 1138/.. | |
| | Sottogruppo pistone | | |
| | O-R sotto bobina | | |
| | O-R ghiera/corpo | | |
| 004259 | O-R ghiera/corpo | | confezione da 10 pezzi |
| 9150/R85 | Sottogruppo canotto N.O. | Valvole solenoidi a pistone N.O. tipo: 1140/4 - /5 ; 1148/4 - /5 - /M12 | |
| | Sottogruppo pistone | | |
| | Sottogruppo fascia elastica | | |
| | Viti fissaggio tappo/corpo | | |
| | Ghiera | | |
| | O-R ghiera/tappo | | |
| | O-R sotto bobina | | |
| O-R tappo/corpo | | | |
| 004257 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R51 | Sottogruppo canotto N.O. | Valvole solenoidi a pistone N.O. tipo: 1150/5 - /6 ; 1158/5 - /6 - /7 | |
| | Sottogruppo pistone | | |
| | Sottogruppo fascia elastica | | |
| | Viti fissaggio tappo/corpo | | |
| | Ghiera | | |
| | O-R ghiera/tappo | | |
| | O-R sotto bobina | | |
| O-R tappo/corpo | | | |
| 004251 | O-R tappo/corpo | | confezione da 10 pezzi |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
|-----------------|-------------|-------------------------------|------|
|-----------------|-------------|-------------------------------|------|

RICAMBI VALVOLE SOLENOIDI PER IMPIEGHI INDUSTRIALI

| | | | |
|-----------|------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------|
| G9150/R97 | Ghiera gialla per fissaggio bobina | Tutte le valvole solenoidi con bobine tipo HM2 , CM2 , HM3 e HM4 | |
| | Vite nera per fissaggio bobina | | |
| | O-R ghiera gialla | | |
| 004238 | O-R sotto bobina | Tutte le valvole solenoidi | |
| G9150/R06 | Squadretta | Valvole solenoidi tipo: 1512/.. ; 1522/.. ; 1132/03 - /04 | |
| | Vite | | |
| 9150/R15 | Sottogruppo nucleo | Valvole solenoidi tipo: 1512/.. 1522/.. | |
| | Molla nucleo | | |
| | O-R ghiera/corpo | | |
| 9150/R12 | Sottogruppo nucleo | Valvole solenoidi tipo: 1132/03 - /04 | |
| | Molla nucleo | | |
| | Sottogruppo membrana | | |
| | O-R tappo/corpo | | |
| | Viti fissaggio tappo/corpo | | |
| 9150/R13 | Sottogruppo nucleo | Valvole solenoidi Tipo: 1132/06 - /08 | |
| | Molla nucleo | | |
| | Sottogruppo membrana | | |
| | Viti fissaggio tappo/corpo | | |
| 9150/R14 | Sottogruppo nucleo | Valvole solenoidi tipo: 1142/010 - /012 | Valvole fuori produzione |
| | Molla nucleo | | |
| | Sottogruppo membrana | | |
| | N° 2 O-R pilota | | |
| | O-R ghiera/tappo | | |
| | Viti fissaggio tappo/corpo | | |
| 9200/RA2 | 24 VAC - 50 Hz | Valvole solenoidi tipo: 1145/.. - 1245/.. - 1135/.. 1133/03 - /08 1233/03 - /08 1143/03 - /08 | |
| 9200/RA4 | 110 VAC - 50 Hz | | |
| 9200/RA6 | 220/230 VAC - 50 Hz | | |
| 9200/RA7 | 240 VAC - 50 Hz | | |
| 9200/RD1 | 12 VDC | | |
| 9200/RD2 | 24 VDC | | |
| 9220/RA2 | 24 VAC - 50 Hz | | |
| 9220/RA4 | 110 VAC - 50 Hz | | |
| 9220/RA6 | 220/230 VAC - 50 Hz | | |
| 9220/RA7 | 240 VAC - 50 Hz | | |
| 9220/RD1 | 12 VDC | | |
| 9220/RD2 | 24 VDC | | |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
|-----------------|-------------|-------------------------------|------|
|-----------------|-------------|-------------------------------|------|

RICAMBI PER VALVOLE DI RITEGNO

| | | | |
|----------|----------------------------|---------------------------------------------------------------------------------------------------|---------------------------|
| 9150/R16 | Sottogruppo pistone | Valvole di ritegno tipo: 3120/7 - /9 - /M22 - /M28 3140/7 - /9 - /M28 3180/7 - /9 - /M28 | Prodotti fuori produzione |
| | Molla | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R tappo/corpo | | |
| 004251 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R17 | Sottogruppo pistone | Valvole di ritegno tipo: 3120/11 3140/11 3180/11 | Prodotti fuori produzione |
| | Molla | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R tappo/corpo | | |
| 004691 | O-R tappo/corpo | | confezione da 10 pezzi |
| 9150/R18 | Sottogruppo pistone | Valvole di ritegno tipo: 3120/13 - /M42 3140/13 - /M42 | Prodotti fuori produzione |
| | Molla | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R tappo/corpo | | |
| 008002 | O-R tappo/corpo | | confezione da 5 pezzi |
| 9150/R19 | Sottogruppo pistone | Valvole di ritegno tipo: 3120/17 3140/17 - /21 - /25 3160/17 3180/13 - /M42 - /17 | Prodotti fuori produzione |
| | Molla | | |
| | Viti fissaggio tappo/corpo | | |
| | O-R tappo/corpo | | |
| 004261 | O-R tappo/corpo | | confezione da 5 pezzi |
| 9150/R52 | Sottogruppo pistone | Valvole di ritegno tipo: 3122/7 - /9 - /M22 - /M28 3142/7 - /9 - /M28 3182/7 - /9 - /M28 | |
| | Molla | | |
| | Guarnizione tappo/corpo | | |
| | Viti fissaggio tappo/corpo | | |
| 111082 | Guarnizione tappo/corpo | | confezione da 10 pezzi |
| 9150/R53 | Sottogruppo pistone | Valvole di ritegno tipo: 3122/11 3142/11 3182/11 | |
| | Molla | | |
| | Viti fissaggio tappo/corpo | | |
| | Guarnizione tappo/corpo | | |
| 111083 | Guarnizione tappo/corpo | | confezione da 10 pezzi |
| 9150/R54 | Sottogruppo pistone | Valvole di ritegno tipo: 3122/13 - /M42 3142/13 - /M42 | |
| | Molla | | |
| | Viti fissaggio tappo/corpo | | |
| | Guarnizione tappo/corpo | | |
| 111084 | Guarnizione tappo/corpo | | confezione da 5 pezzi |
| 9150/R55 | Sottogruppo pistone | Valvole di ritegno tipo: 3122/17 3142/17 - /21 - /25 3182/13 - /M42 - /17 | |
| | Molla | | |
| | Viti fissaggio tappo/corpo | | |
| | Guarnizione tappo/corpo | | |
| 111085 | Guarnizione tappo/corpo | | confezione da 5 pezzi |

RICAMBI PER INDICATORI

| | | | |
|----------|-------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 9150/R20 | Sottogruppo ghiera | Indicatori di liquido tipo: 3610/.. ; 3620/.. ; 3640/.. ; 3650/.. | 3610/.. ; 3640/.. ; 3650/.. Prodotti fuori produzione |
| | Cappuccio di protezione | | |
| | O-R ghiera/corpo | | |
| 9150/R21 | Sottogruppo ghiera | Indicatori di liquido e umidità tipo. 3710/.. ; 3720/.. ; 3740/.. ; 3750/.. 3770/.. ; 3771/.. ; 3780/.. ; 3781/.. | 3710/.. ; 3740/.. ; 3750/.. Prodotti fuori produzione |
| | Cappuccio di protezione | | |
| | O-R ghiera/corpo | | |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
|-----------------|-------------|-------------------------------|------|
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RICAMBI PER FILTRI

| | | | |
|-----------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------|--|
| 69150/R05 | Attacco di carica | Filtri a cartuccia ricambiabile tipo: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. 4421/.. ; 4423/.. ; 4424/.. | |
| | Cappuccio | | |
| | Meccanismo molla interna | | |
| 7520/2 | Tappo 1/4 NPT | Filtri a cartuccia ricambiabile tipo: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. 4421/.. ; 4423/.. ; 4424/.. | |
| 003319 | Molla | Tutti i filtri serie 44 | |
| 112160 | Controflangia alluminio, filettata 1/4" NPT | Filtri a cartuccia ricambiabile tipo: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. | |
| 112162 | Controflangia alluminio, cieca | Filtri a cartuccia ricambiabile tipo: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. | |
| 111758 | Guarnizione controflangia | Filtri a cartuccia ricambiabile tipo: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. | |
| | | Filtri a cartuccia ricambiabile di altri costruttori: DANFOSS, ALCO, PARKER, SPORLAN, KMP, CARLY, HENRY | |
| 69150/R59 | N° 8 viti M8x30 | Filtri a cartuccia ricambiabile tipo: 4411/..A-B-AF ; 4412/..A-B-AF ; 4413/..A-B-AF ; 4414/..A-B-AF | |
| 69150/R60 | N° 8 viti inox M8x30 | Filtri a cartuccia ricambiabile tipo: 4411/..C | |
| 009406 | Coperchio per solid core | Filtri a cartuccia ricambiabile tipo: 4411/..A-B-AF ; 4412/..A-B-AF ; 4413/..A-B-AF ; 4414/..A-B-AF | |
| 003324 | Fondello per solid core | | |
| 007677 | Tubo filtrante per un solid core | | |
| 007678 | Tubo filtrante per due solid core | | |
| 9150/R57 | Coperchio per cartuccia meccanica | Filtri a cartuccia ricambiabile tipo: 4411/..C | |
| | Fondello per cartuccia meccanica | | |
| 008338 | Controflangia forata 1/4" NPT | Filtri a cartuccia ricambiabile tipo: 4421/.. ; 4423/.. ; 4424/.. | |
| 111018 | Guarnizione controflangia | Filtri a cartuccia ricambiabile tipo: 4421/.. ; 4423/.. ; 4424/.. | |
| 69150/R93 | N° 10 viti inox M12x40 | Filtri a cartuccia ricambiabile tipo: 4421/..A-C ; 4423/..A ; 4424/..A | |
| 008304 | Coperchio per solid core | Filtri a cartuccia ricambiabile tipo: 4421/..A ; 4423/..A ; 4424/..A | |
| 008305 | Fondello per solid core | | |
| 008307 | Vite per solid core | | |
| 008403 | Tubo filtrante per solid core | Filtri a cartuccia ricam. tipo 4421/..A | |
| 008345 | Tubo filtrante per solid core | Filtri a cartuccia ricam. tipo 4423/..A | |
| 008344 | Tubo filtrante per solid core | Filtri a cartuccia ricam. tipo 4424/..A | |
| 9150/R58 | Coperchio per cartuccia meccanica | Filtri a cartuccia ricambiabile tipo: 4421/..C | |
| | Fondello per cartuccia meccanica | | |

RICAMBI PER SEPARATORI

| | | | |
|--------|-------------------------------|------------------------------------|--|
| 003879 | Guarnizione attacchi rotalock | Separatore d'olio 5520/C | |
| 003870 | Guarnizione attacchi rotalock | Separatore d'olio 5520/D | |
| 003965 | Guarnizione attacchi rotalock | Separatore d'olio 5520/E | |
| 110968 | Guarnizione controflangia | Separatori d'olio 5520/C ; /D , /E | |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
|-----------------|-------------|-------------------------------|------|
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RICAMBI PER RUBINETTI DI SCAMBIO

| | | | |
|----------|-------------------------------------------|-------------------------------------------------|--|
| 9150/R24 | Premistoppa | Rubinetti di scambio 3032/33 ; /44 ; /64 ; / 66 | |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |
| 9150/R25 | Premistoppa | Rubinetti di scambio 3032/88/ ; 108 | |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |
| 3039/3 | N° 2 attacchi 3/8"NPT femmina std | Rubinetti di scambio 3032/33 | |
| 3039/30T | N° 2 attacchi 3/8"NPT femmina inox/ottone | | |
| 3039/4 | N° 2 attacchi 1/2"NPT femmina std | | |
| 3039/40T | N° 2 attacchi 1/2"NPT femmina inox/ottone | Rubinetti di scambio 3032/44 | |
| 004260 | O-R attacco/corpo | Rubinetti di scambio 3032/33; /44 | |
| 008281 | Cappello | | |
| 009490 | Cappello | Rubinetti di scambio 3032/64 - /66 | |

RICAMBI PER RUBINETTI D'INTERCETTAZIONE

| | | | |
|--------|-----------------|-------------------------------------|--|
| 009035 | Cappello forato | Rubinetti d'intercettazione 3033/.. | |
| 009256 | Cappello forato | Rubinetti d'intercettazione 3063/.. | |

RICAMBI PER RUBINETTI PER SISTEMI FRIGORIFERI ERMETICI

| | | | |
|-----------|-------------------------|----------------------------------------------------------------------------------------|---------------------------------------|
| 9150/R23 | Premistoppa | Tutti i rubinetti ermetici tipo: 6010/.. ; 6012/.. ; 6020/.. ; 6060/.. ; 6070/.. | 6060/.. ; 6070/.. Fuori produzione |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |
| 007486 | Cappello | | |
| 000913 | Asta | Rubinetti ermetici tipo 6010/2 ; 6012/22 | |
| G9150/R33 | Vite | Rubinetti ermetici tipo 6020/.. | |
| | Rosetta | | |

RICAMBI PER RUBINETTI PER SERBATOI

| | | | |
|----------|-------------------------|---------------------------------------------------------------------------------------------------------------------|--|
| 9150/R23 | Premistoppa | Rubinetti per serbatoio tipo: 6110/21 - /22 - /23 - /32 - /33 6120/22 - /23 - /33 6132/.. 6140/22 - /23 | |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |
| 007486 | Cappello | | |
| 000913 | Asta | Rubinetti per serbatoio tipo: 6110/21 - /22 ; 6120/22 ; 6140/22 - /23 | |
| 001641 | Asta | Rubinetti per serbatoio tipo: 6110/23 - /32 - /33 ; 6120/23 - /33 | |
| 9150/R24 | Premistoppa | Rubinetti per serbatoio tipo: 6110/43 - /44 - /54 6120/43 - /44 - /54 | |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |
| 009036 | Cappello | | |
| 001647 | Asta | | |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
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RICAMBI PER RUBINETTI PER SERBATOI - *CONTINUA*

| | | | |
|----------|-------------------------|-----------------------------------------------------|--|
| 9150/R25 | Premistoppa | Rubinetti per serbatoio tipo: 6110/66 6120/66 | |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |
| 008282 | Cappello | | |
| 001038 | Asta | | |

RICAMBI PER RUBINETTI PER CONDIZIONATORI SPLIT

| | | | |
|----------|-------------------------|-----------------------------------------------------------|--|
| 9150/R26 | Premistoppa | Rubinetti per condizionatori split tipo: 6170/66 - /77 | |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |

RICAMBI PER RUBINETTI ROTALOCK

| | | | |
|----------|----------------------------------------------|------------------------------------------------|---------------------------|
| 9150/R23 | Premistoppa | Rubinetti rotalock tipo: 6310/.. 6320/.. | Da ordinare separatamente |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |
| 7910/6 | Raccordo a saldare in acciaio 3/4" UNF-16 | | |
| 7990/6 | Guarnizioni in PTFE per 7910/6 | | |
| 7910/8 | Raccordo a saldare in acciaio 1" UNS-16 | | |
| 7990/8 | Guarnizioni in PTFE per 7910/8 | | |

RICAMBI PER RUBINETTI A CAPPELLOTTA

| | | | |
|----------|-------------------------|---------------------------------------------------------------------------------------------------------|--|
| 9150/R23 | Premistoppa | Rubinetti a cappello tipo: 6410/.. 6420/.. 6460/.. | |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |
| 007486 | Cappello | | |
| 002337 | Asta | Rubinetti a cappello tipo: 6410/2 - /3 - /4 - /5 6420/2 - /3 - /M10 - /M12 - /4 - /5 6460/22A. | |
| 005174 | O-R nipplo/corpo | | |
| 007619 | Asta | Rubinetti a cappello tipo: 6410/6 6420/M18 - /6 - /M22 - /7 | |
| 007676 | O-R nipplo/corpo | | |

RICAMBI PER RUBINETTI A GLOBO

| | | | |
|----------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 9150/R24 | Premistoppa | Rubinetti a globo tipo: (1) 6510/M22 - /7 - /M28 - /9 - /11 6512/M22 - /7 - /M28 - /9 - /11 (1) 6520/7 - /9 - /11 (1) 6530/M22 - /7 - /M28 - /9 - /11 6532/M22 - /7 - /M28 - /9 - /11 | (1) prodotti fuori produzione |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |
| 001635 | Cappello | | |
| 004296 | Guarnizione cappello | | |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
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RICAMBI PER RUBINETTI A GLOBO - *CONTINUA*

| | | | | |
|----------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------|
| 9150/R27 | Sottogruppo asta/piattello | Rubineti a globo tipo: (1) 6510/M22 - /7 - /M28 - /9 6512/M22 - /7 - /M28 - /9 | (1) prodotti fuori produzione | |
| 004299 | Viti fissaggio tappo/corpo | (1) 6520/7 - /9 (1) 6530/M22 - /7 - /M28 - /9 6532/M22 - /7 - /M28 - /9 | | |
| 004251 | O-R tappo/corpo | Rubineti a globo tipo: (1) 6510/M22 - /7 - /M28 - /9 (1) 6520/7 - /9 (1) 6530/M22 - /7 - /M28 - /9 | confezione da 10 pezzi | |
| 111082 | Guarnizione tappo/corpo | Rubineti a globo tipo: 6512/M22 - /7 - /M28 - /9 6532/M22 - /7 - /M28 - /9 | confezione da 10 pezzi | |
| 9150/R28 | Sottogruppo asta/piattello | Rubineti a globo tipo: (1) 6510/11 6512/11 | (1) prodotti fuori produzione | |
| 004692 | Viti fissaggio tappo/corpo | (1) 6520/11 (1) 6530/11 6532/11 | | |
| 004691 | O-R tappo/corpo | Rubineti a globo tipo: (1) 6510/11 (1) 6520/11 (1) 6530/11 | confezione da 10 pezzi | |
| 111083 | Guarnizione tappo/corpo | Rubinetto a globo tipo: 6512/11 6532/11 | confezione da 10 pezzi | |
| 9150/R26 | Premistoppa | Rubineti a globo tipo: (1) 6510/13 - /M42 - /17 6512/13 - /M42 - /17 (1) 6520/13 - /M42 - /17 (1) 6530/13 - /M42 - /17 6532/13 - /M42 - /17 | (1) prodotti fuori produzione | |
| | Guarnizioni premistoppa | | | |
| | Guarnizioni premistoppa | | | |
| | Ranella | | | |
| | 001228 | | | Cappello |
| | 000830 | | | Guarnizione cappello |
| 004302 | Viti fissaggio tappo/corpo | | | |
| 9150/R29 | Sottogruppo asta/piattello | Rubineti a globo tipo: (1) 6510/13 - /M42 6512/13 - /M42 (1) 6520/13 - /M42 | | |
| 008002 | O-R tappo/corpo | Rubineti a globo tipo: (1) 6510/13 - /M42 (1) 6520/13 - /M42 | confezione da 5 pezzi | |
| 111084 | Guarnizione tappo/corpo | Rubineti a globo tipo: 6512/13 - /M42 | confezione da 5 pezzi | |
| 9150/R30 | Sottogruppo asta/piattello | Rubineti a globo tipo: (1) 6510/17 6512/17 (1) 6520/17 (1) 6530/13 - /M42 - /17 6532/13 - /M42 - /17 | (1) prodotti fuori produzione | |
| 004261 | O-R tappo/corpo | Rubineti a globo tipo: (1) 6510/17 (1) 6520/17 (1) 6530/13 - /M42 - /17 | confezione da 5 pezzi | |
| 111085 | Guarnizione tappo/corpo | Rubineti a globo tipo: 6512/17 6532/13 - /M42 - /17 | confezione da 5 pezzi | |

| Numero catalogo | Descrizione | Utilizzabile per: Prodotti | Note |
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RICAMBI PER RUBINETTI A SFERA

| | | | |
|--------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 111602 | Cappello d'ottone | Rubinetto a sfera tipo: 6570/M6 - /M6A - /2 - /2A - /3 - /3A - /M10 - /M10A - /M12 - /M12A - /4 - /4A 6571/5 6570/M15 - M15A - 5 - /5A - /M18 - /M18A - /6 - /6A 6571/7 | |
| 111635 | Cappello d'ottone | Rubinetto a sfera tipo: 6570/7 - /7A 6571/M28 - /9 6570/M28 - /M28A - /9 - /9A 6571/11 | |
| 009750 | Cappello d'ottone | Rubinetto a sfera tipo: 6590/M6 - /2 - /3 - /3A - /M10 - /M10A - /M12 - /M12A - /4 - /4A 6591/5 | prodotti fuori produzione |
| 003752 | Guarnizione per cappello d'ottone | 6590/M15 - M15A - 5 - /5A - /M18 - /M18A - /6 - /6A 6591/7 | |
| 009751 | Cappello d'ottone | Rubinetto a sfera tipo: 6590/7 - /7A 6591/M28 - /9 | prodotti fuori produzione |
| 004296 | Guarnizione per cappello d'ottone | 6590/M28 - /M28A - /9 - /9A 6591/11 | |
| 112348 | Cappello d'ottone | Rubinetto a sfera tipo: 6590/11 - /11A 6591/13 - /M42 | |
| 000530 | Guarnizione per cappello d'ottone | 6590/13 - /13A - /M42 - /M42A 6591/17 | |
| 112350 | Cappello d'ottone | Rubinetto a sfera tipo: 6590/17 - /17A 6591/21 - /21A | |
| 009754 | Guarnizione per cappello d'ottone | 6591/M64 - /M64A | |
| 112820 | Cappello d'ottone con guarnizione | Rubinetto a sfera tipo: 6570/M64A - /21A 6571/24A - /25A | |
| 112821 | Cappello d'ottone con guarnizione | Rubinetto a sfera tipo: 6570/24A - /25A 6571/28A - /29A 6570/28A - /29A 6571/33A - /34A | |
| 009207 | Cappello d'ottone | Rubinetto a sfera tipo: 6590/M64A - /21A 6591/24A - /25A | prodotti fuori produzione |
| 009208 | Guarnizione per cappello d'ottone | 6590/25A 6591/28A - /29A - /33A - /34A | |

RICAMBI PER RUBINETTI PER COMPRESSORI

| | | | |
|----------|-------------------------|-------------------------------------|---------------------------|
| 9150/R23 | Premistoppa | Rubinetto per compressori tipo 6640 | prodotti fuori produzione |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |

RICAMBI PER RUBINETTI PORTAMANOMETRO

| | | | |
|----------|-------------------------|----------------------------------------|--|
| 9150/R23 | Premistoppa | Rubinetto portamanometri 8320/21 - /22 | |
| | Guarnizioni premistoppa | | |
| | Guarnizioni premistoppa | | |
| | Ranella | | |

RICAMBI PER GIUNTI A FLANGIA

| | | | |
|--------|-------------|-------------------------------------|------------------------|
| 000581 | Guarnizione | Giunto a flangia 7630/7 - 7630/9 | confezione da 10 pezzi |
| 000618 | Guarnizione | Giunto a flangia 7630/11 | confezione da 10 pezzi |
| 000624 | Guarnizione | Giunto a flangia 7630/13 - 7630/M42 | confezione da 10 pezzi |
| 000630 | Guarnizione | Giunto a flangia 7630/17 | confezione da 10 pezzi |

| Catalogue Number | Description | Suitable for: | Note |
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ACCESSORIES AND SPARE PARTS FOR SOLENOID VALVES

| | | | |
|-----------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| G9150/R97 | Yellow nut for fixing coil | All the solenoid valves with coils type HM2 , CM2 , HM3 e HM4 | |
| | Black screw for fixing coil | | |
| | O Ring for yellow nut | | |
| 004238 | O Ring under coil | All the solenoid valves | |
| G9150/R06 | Bracket | N.C.and N.O. solenoid valves type: 1020/.. ; 1028/.. 1064/.. ; 1068/.. 1070/4 - /5 ; 1078/4 - /5 - /M12 ; 1079/7 1034/.. ; 1038/.. 1040/4 - /5 ; 1048/4 - /5 - /M12 ; 1049/7 1164/.. ; 1168/.. 1170/4 - /5 ; 1178/4 - /5 - /M12 1134/.. ; 1138/.. 1140/4 - /5 ; 1148/4 - /5 - /M12 | |
| | Screw | | |
| 9150/R07 | Plunger | N.C. solenoid valves type: 1020/.. ; 1028/.. | |
| | Plunger spring | | |
| | Nut/body O Ring | | |
| 004254 | Nut/body O Ring | | Package pcs 10 |
| 9150/R08 | Plunger | N.C. diaphragm solenoid valves type: 1064/.. ; 1068/.. Diaphragm pilot operated for 1098/9 ; 1099/11; 1078/11; 1079/13 - /M42; 1078/13 - /M42 ; 1079/17 | |
| | Plunger spring | | |
| | Diaphragm | | |
| | Nut/body O Ring | | |
| 0042549 | Nut/body O Ring | | Package pcs 10 |
| 9150/R09 | Plunger | N.C. diaphragm solenoid valves type: 1070/4 - /5 ; 1078/4 - /5 - /M12 ; 1079/7 | |
| | Plunger spring | | |
| | Diaphragm | | |
| | Cover/body screws | | |
| | Cover/body O Ring | | |
| 004257 | Cover/body O Ring | | Package pcs 10 |
| 9150/R10 | Plunger | N.C. diaphragm solenoid valves type: 1070/6 ; 1078/6 - /7 ; 1079/9 | Valves out of stock |
| | Plunger spring | | |
| | Diaphragm | | |
| | Cover/body screws | | |
| | Cover/body O Ring | | |
| 0042266 | Cover/body O Ring | | Package pcs 10 |
| 9151/R04 | Plunger | N.C. diaphragm solenoid valves type: 1090/5 - /6 ; 1098/5 - /6 - /7 ; 1099/9 | It replaces spare parts 9150/R38 e 9150/R48 |
| | Plunger spring | | |
| | Diaphragm | | |
| | Cover/body screws | | |
| | Cover/body O Ring | | |
| 004251 | Cover/body O Ring | | Package pcs 10 |
| 9150/R11 | Plunger | N.C. diaphragm solenoid valves type: 1078/9 ; 1079/11 | |
| | Plunger spring | | |
| | Diaphragm | | |
| | Pilot O Ring | | |
| | Nut/cover O Ring | | |
| | Cover/body O Ring | | |
| 004253 | Cover/body O Ring | | Package pcs 10 |

| Catalogue Number | Description | Suitable for: | Note |
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ACCESSORIES AND SPARE PARTS FOR SOLENOID VALVES

| | | | |
|----------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------|
| 9150/R81 | Plunger | N.C. piston solenoid valves type: 1034/.. ; 1038/.. | |
| | Plunger spring | | |
| | Piston | | |
| | Nut/body O Ring | | |
| 004259 | Nut/body O Ring | | Package pcs 10 |
| 9150/R82 | Plunger | N.C. piston solenoid valves type: 1040/4 - /5 ; 1048/4 - /5 - /M12 ; 1049/7 | |
| | Plunger spring | | |
| | Piston | | |
| | Piston ring | | |
| | Cover/body screws | | |
| | Cover/body O Ring | | |
| 004257 | Cover/body O Ring | | Package pcs 10 |
| 9150/R50 | Plunger | N.C. piston solenoid valves type: 1050/5 - /6 ; 1058/5 - /6 - /7 ; 1059/9 | |
| | Plunger spring | | |
| | Piston | | |
| | Piston ring | | |
| | Cover/body screws | | |
| | Cover/body O Ring | | |
| 004251 | Cover/body O Ring | | Package pcs 10 |
| 9150/R43 | Piston | Main piston pilot operated for N.C.and N.O. solenoid valves type: 1098/9 ; 1099/11 1198/9 | |
| | Piston ring | | |
| | Piston spring | | |
| | Cover/body screws | | |
| | Pilot O Ring | | |
| | Cover/body O Ring | | |
| 004251 | Cover/body O Ring | | Package pcs 10 |
| 9150/R39 | Piston | Main piston pilot operated for N.C.and N.O. solenoid valves type: 1078/11 ; 1079/13 - /M42 1178/11 | |
| | Piston ring | | |
| | Piston spring | | |
| | Cover/body screws | | |
| | Pilot O Ring | | |
| | Cover/body O Ring | | |
| 004691 | Cover/body O Ring | | Package pcs 10 |
| 9150/R83 | Piston | Main piston pilot operated for N.C.and N.O. solenoid valves type: 1078/13 - /M42 ; 1079/17 1178/13 - /M42 | |
| | Piston ring | | |
| | Piston spring | | |
| | Cover/body screws | | |
| | Pilot O Ring | | |
| | Cover/body O Ring | | |
| 008002 | Cover/body O Ring | | Package pcs 10 |
| 9150/R35 | Pre-assembled armature with nuts | N.O. diaphragm solenoid valves type: 1164/.. ; 1168/.. Diaphragm pilot operated for: 1198/9 1178/11 1178/13 - /M42 | |
| | Diaphragm | | |
| | O Ring under coil | | |
| | Nut/body O Ring | | |
| 004259 | Nut/body O Ring | | Package pcs 10 |

| Catalogue Number | Description | Suitable for: | Note |
|------------------|-------------|---------------|------|
|------------------|-------------|---------------|------|

ACCESSORIES AND SPARE PARTS FOR SOLENOID VALVES

| | | | |
|----------|---------------------|--------------------------------------------------------------------------|------------------------------------------------|
| 9150/R34 | N.O. armature group | N.O. diaphragm solenoid valves type: 1170/4 - /5 ; 1178/4 - /5 - /M12 | |
| | Diaphragm | | |
| | Cover/body screws | | |
| | Nut | | |
| | Nut/cover O Ring | | |
| | O Ring under coil | | |
| | Cover/body O Ring | | |
| 004257 | Cover/body O Ring | | Package pcs 10 |
| 9151/R05 | N.O. armature group | N.O. diaphragm solenoid valves type: 1190/5 - /6 ; 1198/5 - /6 - /7 | It replaces spare parts 9150/R40 e 9150/R49 |
| | Diaphragm | | |
| | Cover/body screws | | |
| | Nut | | |
| | Nut/cover O Ring | | |
| | O Ring under coil | | |
| | Cover/body O Ring | | |
| 004251 | Cover/body O Ring | | Package pcs 10 |
| 9150/R42 | N.O. armature group | N.O. diaphragm solenoid valves type: 1178/9 | |
| | Diaphragm | | |
| | Cover/body screws | | |
| | Nut | | |
| | Pilot O Ring | | |
| | Nut/cover O Ring | | |
| | O Ring under coil | | |
| | Cover/body O Ring | | |
| 004253 | Cover/body O Ring | | Package pcs 10 |
| 9150/R84 | N.O. armature group | N.O. piston solenoid valves type: 1134/.. ; 1138/.. | |
| | Piston | | |
| | O Ring under coil | | |
| | Nut/body O Ring | | |
| 004259 | Nut/body O Ring | | Package pcs 10 |
| 9150/R85 | N.O. armature group | N.O. piston solenoid valves type: 1140/4 - /5 ; 1148/4 - /5 - /M12 | |
| | Piston | | |
| | Piston ring | | |
| | Cover/body screws | | |
| | Nut | | |
| | Nut/cover O Ring | | |
| | O Ring under coil | | |
| | Cover/body O Ring | | |
| 004257 | Cover/body O Ring | | Package pcs 10 |
| 9150/R51 | N.O. armature group | N.O. piston solenoid valves type: 1150/5 - /6 ; 1158/5 - /6 - /7 | |
| | Piston | | |
| | Piston ring | | |
| | Cover/body screws | | |
| | Nut | | |
| | Nut/cover O Ring | | |
| | O Ring under coil | | |
| | Cover/body O Ring | | |
| 004251 | Cover/body O Ring | | Package pcs 10 |

| Catalogue Number | Description | Suitable for: | Note |
|------------------|-------------|---------------|------|
|------------------|-------------|---------------|------|

ACCESSORIES AND SPARE PARTS FOR SOLENOID VALVES FOR INDUSTRIAL PURPOSE

| | | | |
|-----------|-----------------------------|----------------------------------------------------------------------------------------------------------------|---------------------|
| G9150/R97 | Yellow nut for fixing coil | All the solenoid valves with coils type HM2 , CM2 , HM3 e HM4 | |
| | Black screw for fixing coil | | |
| | O Ring for yellow nut | | |
| 004238 | O Ring under coil | All the solenoid valves | |
| G9150/R06 | Bracket | Solenoid valves type: 1512/.. ; 1522/.. ; 1132/03 - /04 | |
| | Screw | | |
| 9150/R15 | Plunger | Solenoid valves type: 1512/.. 1522/.. | |
| | Plunger spring | | |
| | Nut/body O Ring | | |
| 9150/R12 | Plunger | Solenoid valves type: 1132/03 - /04 | |
| | Plunger spring | | |
| | Diaphragm | | |
| | Cover/body O Ring | | |
| | Cover/body screws | | |
| 9150/R13 | Plunger | Solenoid valves type: 1132/06 - /08 | |
| | Plunger spring | | |
| | Diaphragm | | |
| | Cover/body screws | | |
| 9150/R14 | Plunger | Solenoid valves type: 1142/010 - /012 | Valves out of stock |
| | Plunger spring | | |
| | Diaphragm | | |
| | No 2 pilot O Rings | | |
| | Nut/cover O Ring | | |
| | Cover/body screws | | |
| 9200/RA2 | 24 VAC - 50 Hz | Solenoid valves type: 1145/.. - 1245/.. - 1135/.. 1133/03 - /08 1233/03 - /08 1143/03 - /08 | |
| 9200/RA4 | 110 VAC - 50 Hz | | |
| 9200/RA6 | 220/230 VAC - 50 Hz | | |
| 9200/RA7 | 240 VAC - 50 Hz | | |
| 9200/RD1 | 12 VDC | | |
| 9200/RD2 | 24 VDC | | |
| 9220/RA2 | 24 VAC - 50 Hz | Solenoid valves type:: 1146/.. - 1246/.. - 1136/.. 1133/010 - /024 1233/010 - /024 1143/010 - /024 | |
| 9220/RA4 | 110 VAC - 50 Hz | | |
| 9220/RA6 | 220/230 VAC - 50 Hz | | |
| 9220/RA7 | 240 VAC - 50 Hz | | |
| 9220/RD1 | 12 VDC | | |
| 9220/RD2 | 24 VDC | | |

| Catalogue Number | Description | Suitable for: | Note |
|------------------|-------------|---------------|------|
|------------------|-------------|---------------|------|

ACCESSORIES AND SPARE PARTS FOR CHECK VALVES

| | | | |
|----------|-------------------|---------------------------------------------------------------------------------------------|---------------------|
| 9150/R16 | Piston | Check valves type: 3120/7 - /9 - /M22 - /M28 3140/7 - /9 - /M28 3180/7 - /9 - /M28 | Valves out of stock |
| | Spring | | |
| | Cover/body screws | | |
| | Cover/body O Ring | | |
| 004251 | Cover/body O Ring | | Package pcs 10 |
| 9150/R17 | Piston | Check valves type: 3120/11 3140/11 3180/11 | Valves out of stock |
| | Spring | | |
| | Cover/body screws | | |
| | Cover/body O Ring | | |
| 004691 | Cover/body O Ring | | Package pcs 10 |
| 9150/R18 | Piston | Check valves type: 3120/13 - /M42 3140/13 - /M42 | Valves out of stock |
| | Spring | | |
| | Cover/body screws | | |
| | Cover/body O Ring | | |
| 008002 | Cover/body O Ring | | Package pcs 10 |
| 9150/R19 | Piston | Check valves type: 3120/17 3140/17 - /21 - /25 3160/17 3180/13 - /M42 - /17 | Valves out of stock |
| | Spring | | |
| | Cover/body screws | | |
| | Cover/body O Ring | | |
| 004261 | Cover/body O Ring | | Package pcs 10 |
| 9150/R52 | Piston | Check valves type: 3122/7 - /9 - /M22 - /M28 3142/7 - /9 - /M28 3182/7 - /9 - /M28 | |
| | Spring | | |
| | Cover/body screws | | |
| | Cover/body gasket | | |
| 111082 | Cover/body gasket | | Package pcs 10 |
| 9150/R53 | Piston | Check valves type: 3122/11 3142/11 3182/11 | |
| | Spring | | |
| | Cover/body screws | | |
| | Cover/body gasket | | |
| 111083 | Cover/body gasket | | Package pcs 10 |
| 9150/R54 | Piston | Check valves type: 3122/13 - /M42 3142/13 - /M42 | |
| | Spring | | |
| | Cover/body screws | | |
| | Cover/body gasket | | |
| 111084 | Cover/body gasket | | Package pcs 10 |
| 9150/R55 | Piston | Check valves type: 3122/17 3142/17 - /21 - /25 3182/13 - /M42 - /17 | |
| | Spring | | |
| | Cover/body screws | | |
| | Cover/body gasket | | |
| 111085 | Cover/body gasket | | Package pcs 10 |

ACCESSORIES AND SPARE PARTS FOR INDICATORS

| | | | |
|----------|-----------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 9150/R20 | Nut | Liquid indicators type: 3610/.. ; 3620/.. ; 3640/.. ; 3650/.. | 3610/.. ; 3640/.. ; 3650/.. out of stock |
| | Protection cap | | |
| | Nut/body O Ring | | |
| 9150/R21 | Nut | Moisture - liquid indicators type: 3710/.. ; 3720/.. ; 3740/.. ; 3750/.. ; 3770/.. ; 3771/.. ; 3780/.. ; 3781/.. | 3710/.. ; 3740/.. ; 3750/.. out of stock |
| | Protection cap | | |
| | Nut/body O Ring | | |

| Catalogue Number | Description | Suitable for: | Note |
|------------------|-------------|---------------|------|
|------------------|-------------|---------------|------|

ACCESSORIES AND SPARE PARTS FOR FILTERS

| | | | |
|-----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------|--|
| 69150/R05 | Access fitting | Filters with replaceable block type: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. 4421/.. ; 4423/.. ; 4424/.. | |
| | Cap with gasket | | |
| | Valve core | | |
| 7520/2 | nut 1/4 NPT | Filters with replaceable block type: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. 4421/.. ; 4423/.. ; 4424/.. | |
| 003319 | Spring | All the filters series 44 | |
| 112160 | 1/4 " NPT aluminium threaded cover | Filters with replaceable block type: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. | |
| 112162 | Aluminium blind cover | Filters with replaceable block type: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. | |
| 111758 | Cover gasket | Filters with replaceable block type: 4411/.. ; 4412/.. ; 4413/.. ; 4414/.. | |
| | | Filters with replaceable block of other manufactures: DANFOSS, ALCO, PARKER, SPORLAN, KMP, CARLY, HENRY | |
| 69150/R59 | N° 8 screws M8x30 | Filters with replaceable block type: 4411/..A-B-AF ; 4412/..A-B-AF ; 4413/..A-B-AF ; 4414/..A-B-AF | |
| 69150/R60 | N° 8 stainless steel screws M8x30 | Filters with replaceable block type: 4411/..C | |
| 009406 | Dehydrating block top | Filters with replaceable block type: 4411/..A-B-AF ; 4412/..A-B-AF 4413/..A-B-AF ; 4414/..A-B-AF | |
| 003324 | Dehydrating block bottom | | |
| 007677 | Filtering tube for one block | | |
| 007678 | Filtering tube for two blocks | | |
| 9150/R57 | Mechanical block top | Filters with replaceable block type: 4411/..C | |
| | Mechanical block bottom | | |
| 008338 | 1/4 " NPT threaded cover | Filters with replaceable block type: 4421/.. ; 4423/.. ; 4424/.. | |
| 111018 | Cover gasket | Filters with replaceable block type: 4421/.. ; 4423/.. ; 4424/.. | |
| 69150/R93 | N° 10 stainless steel screws M12x40 | Filters with replaceable block type: 4421/..A-C ; 4423/..A ; 4424/..A | |
| 008304 | Dehydrating block top | Filters with replaceable block type: 4421/..A ; 4423/..A ; 4424/..A | |
| 008305 | Dehydrating block bottom | | |
| 008307 | Screw for filtering tube | | |
| 008403 | Filtering tube | Filters with replaceable block type 4421/..A | |
| 008345 | Filtering tube | Filters with replaceable block type 4423/..A | |
| 008344 | Filtering tube | Filters with replaceable block type 4424/..A | |
| 9150/R58 | Mechanical block top | Filters with replaceable block type 4421/..C | |
| | Mechanical block bottom | | |

SPARE PARTS FOR SEPARATORS

| | | | |
|--------|---------------------------------|---------------------------------|--|
| 003879 | Gasket for rotalock connections | Oil separator 5520/C | |
| 003870 | Gasket for rotalock connections | Oil separator 5520/D | |
| 003965 | Gasket for rotalock connections | Oil separator 5520/E | |
| 110968 | Cover gasket | Oil separators 5520/C ; /D , /E | |

| Catalogue Number | Description | Suitable for: | Note |
|------------------|-------------|---------------|------|
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ACCESSORIES AND SPARE PARTS FOR CHANGEOVER VALVES

| | | | |
|----------|----------------------------------------------------------|------------------------------------------------|--|
| 9150/R24 | Gland | Changeover valve 3032/33 ; /44 ; /64 ; / 66 | |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 9150/R25 | Gland | Changeover valve 3032/88/ ; 108 | |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 3039/3 | Pair of std connections 3/8"NPT female | Changeover valve 3032/33 | |
| 3039/30T | Pair of brass/stainless steel connections 3/8"NPT female | | |
| 3039/4 | Pair of std connections 1/2"NPT female | | |
| 3039/40T | Pair of brass/stainless steel connections 1/2"NPT female | Changeover valve 3032/44 | |
| 004260 | Connection/body O Ring | Changeover valve 3032/33 ; /44 | |
| 008281 | Cap | | |
| 009490 | Cap | Changeover valve 3032/64; /66 | |

ACCESSORIES AND SPARE PARTS FOR BALL SHUT-OFF VALVES

| | | | |
|--------|-----|-----------------------------|--|
| 009035 | Cap | Ball shut-off valve 3033/.. | |
| 009256 | Cap | Ball shut-off valve 3063/.. | |

ACCESSORIES AND SPARE PARTS FOR HERMETIC VALVES

| | | | |
|-----------|--------------------|-------------------------------------------------------------------------------------|-----------------------------------|
| 9150/R23 | Gland | All the hermetic valves type: 6010/.. ; 6012/.. ; 6020/.. ; 6060/.. ; 6070/.. | 6060/.. ; 6070/.. out of stock |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 007486 | Cap | | |
| 000913 | Spindle | Hermetic valves type 6010/2 ; 6012/22 | |
| G9150/R33 | Screw | Hermetic valves type 6020/.. | |
| | Spring washer | | |

ACCESSORIES AND SPARE PARTS FOR RECEIVER VALVES

| | | | |
|----------|--------------------|-------------------------------------------------------------------------------------------------------------|--|
| 9150/R23 | Gland | Receiver valves type: 6110/21 - /22 - /23 - /32 - /33 6120/22 - /23 - /33 6132/.. 6140/22 - /23 | |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 007486 | Cap | | |
| 000913 | Spindle | Receiver valves type: 6110/21 - /22 ; 6120/22 ; 6140/22 - /23 | |
| 001641 | Spindle | Receiver valves type: 6110/23 - /32 - /33 ; 6120/23 - /33 | |
| 9150/R24 | Gland | Receiver valves type: 6110/43 - /44 - /54 6120/43 - /44 - /54 | |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 009036 | Cap | | |
| 001647 | Spindle | | |

| Catalogue Number | Description | Suitable for: | Note |
|------------------|-------------|---------------|------|
|------------------|-------------|---------------|------|

ACCESSORIES AND SPARE PARTS FOR RECEIVER VALVES

| | | | |
|----------|--------------------|---------------------------------------------|--|
| 9150/R25 | Gland | Receiver valves type: 6110/66 6120/66 | |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 008282 | Cap | | |
| 001038 | Spindle | | |

ACCESSORIES AND SPARE PARTS FOR STOP VALVES

| | | | |
|----------|--------------------|------------------------------------|--|
| 9150/R26 | Gland | Stop valves type: 6170/66 - /77 | |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |

ACCESSORIES AND SPARE PARTS FOR ROTALOCK VALVES

| | | | |
|----------|----------------------------------------|----------------------------------------------|--------------------------|
| 9150/R23 | Gland | Rotalock valves types: 6310/.. 6320/.. | To be ordered separately |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 7910/6 | Steel solder connection 3/4" UNF-16 | | |
| 7990/6 | PTFE gasket for 7910/6 | | |
| 7910/8 | Steel solder connection 1" UNS-16 | | |
| 7990/8 | PTFE gasket for 7910/8 | | |

ACCESSORIES AND SPARE PARTS FOR CAPPED VALVES

| | | | |
|----------|--------------------|--------------------------------------------------------------------------------------------------|--|
| 9150/R23 | Gland | Capped valves type: 6410/.. ; 6420/.. ; 6460/.. | |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 007486 | Cap | | |
| 002337 | Spindle | Capped valves type: 6410/2 - /3 - /4 - /5 6420/2 - /3 - /M10 - /M12 - /4 - /5 6460/22A. | |
| 005174 | Nipple/body O Ring | | |
| 007619 | Spindle | Capped valves type: 6410/6 6420/M18 - /6 - /M22 - /7 | |
| 007676 | Nipple/body O Ring | | |

ACCESSORIES AND SPARE PARTS FOR GLOBE VALVES

| | | | |
|----------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| 9150/R24 | Gland | Globe valves type: (1) 6510/M22 - /7 - /M28 - /9 - /11 6512/M22 - /7 - /M28 - /9 - /11 (1) 6520/7 - /9 - /11 (1) 6530/M22 - /7 - /M28 - /9 - /11 6532/M22 - /7 - /M28 - /9 - /11 | (1) Valves out of stock |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 001635 | Cap | | |
| 004296 | Cap gasket | | |

| Catalogue Number | Description | Suitable for: | Note |
|------------------|-------------|---------------|------|
|------------------|-------------|---------------|------|

ACCESSORIES AND SPARE PARTS FOR GLOBE VALVES

| | | | |
|----------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| 9150/R27 | Spindle/plate group | Globe valves type: (1) 6510/M22 - /7 - /M28 - /9 6512/M22 - /7 - /M28 - /9 | (1) Valves out of stock |
| 004299 | Cover/body screws | (1) 6520/7 - /9 (1) 6530/M22 - /7 - /M28 - /9 6532/M22 - /7 - /M28 - /9 | |
| 004251 | Cover/body O Ring | Globe valves type: (1) 6510/M22 - /7 - /M28 - /9 (1) 6520/7 - /9 (1) 6530/M22 - /7 - /M28 - /9 | Package pcs 10 |
| 111082 | Cover/body gasket | Globe valves type: 6512/M22 - /7 - /M28 - /9 6532/M22 - /7 - /M28 - /9 | Package pcs 10 |
| 9150/R28 | Spindle/plate group | Globe valves type: (1) 6510/11 6512/11 | (1) Valves out of stock |
| 004692 | Cover/body screws | (1) 6520/11 (1) 6530/11 6532/11 | |
| 004691 | Cover/body O Ring | Globe valves type: (1) 6510/11 (1) 6520/11 (1) 6530/11 | Package pcs 10 |
| 111083 | Cover/body gasket | Globe valves type: 6512/11 6532/11 | Package pcs 10 |
| 9150/R26 | Gland | Globe valves type: (1) 6510/13 - /M42 - /17 6512/13 - /M42 - /17 (1) 6520/13 - /M42 - /17 (1) 6530/13 - /M42 - /17 6532/13 - /M42 - /17 | (1) Valves out of stock |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |
| 001228 | Cap | | |
| 000830 | Cap gasket | | |
| 004302 | Cover/body screws | | |
| 9150/R29 | Spindle/plate group | Globe valves type: (1) 6510/13 - /M42 6512/13 - /M42 (1) 6520/13 - /M42 | |
| 008002 | Cover/body O Ring | Globe valves type: (1) 6510/13 - /M42 (1) 6520/13 - /M42 | Package pcs 5 |
| 111084 | Cover/body gasket | Globe valves type: 6512/13 - /M42 | Package pcs 5 |
| 9150/R30 | Spindle/plate group | Globe valves type: (1) 6510/17 6512/17 (1) 6520/17 (1) 6530/13 - /M42 - /17 6532/13 - /M42 - /17 | (1) Valves out of stock |
| 004261 | Cover/body O Ring | Globe valves type: (1) 6510/17 (1) 6520/17 (1) 6530/13 - /M42 - /17 | Package pcs 5 |
| 111085 | Cover/body gasket | Globe valves type: 6512/17 6532/13 - /M42 - /17 | Package pcs 5 |

| Catalogue Number | Description | Suitable for: | Note |
|------------------|-------------|---------------|------|
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ACCESSORIES AND SPARE PARTS FOR BALL VALVES

| | | | |
|--------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 111602 | Brass cap | Ball valves type: 6570/M6 - /2 - /3 - /3A - /M10 - /M10A - /M12 - /M12A - /4 - /4A 6571/5 6570/M15 - M15A - 5 - /5A - /M18 - /M18A - /6 - /6A 6571/7 | |
| 111635 | Brass cap | Ball valves type: 6570/7 - /7A 6571/M28 - /9 6570/M28 - /M28A - /9 - /9A 6571/11 | |
| 009750 | Brass cap | Ball valves type: 6590/M6 - /2 - /3 - /3A - /M10 - /M10A - /M12 - /M12A - /4 - /4A 6591/5 | Valves out of stock |
| 003752 | Gasket for brass cap | 6590/M15 - M15A - 5 - /5A - /M18 - /M18A - /6 - /6A 6591/7 | |
| 009751 | Brass cap | Ball valves type: 6590/7 - /7A 6591/M28 - /9 | Valves out of stock |
| 004296 | Gasket for brass cap | 6590/M28 - /M28A - /9 - /9A 6591/11 | |
| 112348 | Brass cap | Ball valves type: 6590/11 - /11A 6591/13 - /M42 | |
| 000530 | Gasket for brass cap | 6590/13 - /13A - /M42 - /M42A 6591/17 | |
| 112350 | Brass cap | Ball valves type: 6590/17 - /17A 6591/21 - /21A | |
| 009754 | Gasket for brass cap | 6591/M64 - /M64A | |
| 112820 | Brass cap with gasket | Ball valves type: 6570/M64A - /21A 6571/24A - /25A | |
| 112821 | Brass cap with gasket | Ball valves type: 6570/24A - /25A 6571/28A - /29A 6570/28A - /29A 6571/33A - /34A | |
| 009207 | Brass cap | Ball valves type: 6590/M64A - /21A 6591/24A - /25A | Valves out of stock |
| 009208 | Gasket for brass cap | 6590/25A 6591/28A - /29A - /33A - /34A | |

ACCESSORIES AND SPARE PARTS FOR COMPRESSOR VALVES

| | | | |
|----------|--------------------|-----------------------------|---------------------|
| 9150/R23 | Gland | Compressor valves type 6640 | Valves out of stock |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |

ACCESSORIES AND SPARE PARTS FOR GAUGE MOUNTING VALVES

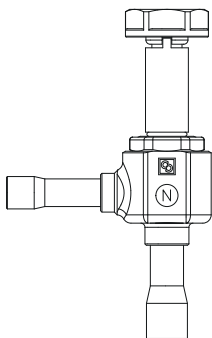
| | | | |
|----------|--------------------|-------------------------------------|--|
| 9150/R23 | Gland | Gauge mounting valves 8320/21 - /22 | |
| | Gland seal gaskets | | |
| | Gland seal gaskets | | |
| | Washer | | |

ACCESSORIES AND SPARE PARTS FOR FLANGED JOINTS

| | | | |
|--------|--------|-----------------------------------|----------------|
| 000581 | Gasket | Flanged joints 7630/7 - 7630/9 | Package pcs 10 |
| 000618 | Gasket | Flanged joint 7630/11 | Package pcs 10 |
| 000624 | Gasket | Flanged joints 7630/13 - 7630/M42 | Package pcs 10 |
| 000630 | Gasket | Flanged joint 7630/17 | Package pcs 10 |

**REFRIGERANTI HC
HC REFRIGERANTS
FLUIDES FRIGORIGENES HC
HC KALTEMITTEL**

(R290, R600, R600a)

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo orificio Orifice type Type d'orifice Düseneinsatz Typ | Attacchi Connections Raccords Anschlüsse | | | | Kv [m ³ /h] | Potenzialità nominali Rated capacity Capacités nominales Nennleistungen (1) [kW] | | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|---------------------------|-------------------------------------------------------------------------------------------------|------|-------|-------------|---------|------|---------------------------------------------------------------|
| | | | In | | Out | | | R290 | R600 | R600a | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | | | | |
|  | 2028N/3S01 | 01 | 3/8" | - | 1/2" | - | 0.010 | 1.1 | 0.6 | 0.7 | 45 | -40 | +100 | 17 |
| | 2028N/M10S01 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028N/3S02 | 02 | 3/8" | - | 1/2" | - | 0.017 | 2.2 | 1.3 | 1.5 | | | | 17 |
| | 2028N/M10S02 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028N/3S03 | 03 | 3/8" | - | 1/2" | - | 0.023 | 2.7 | 1.5 | 1.7 | | | | 17 |
| | 2028N/M10S03 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028N/3S04 | 04 | 3/8" | - | 1/2" | - | 0.043 | 4.3 | 2.3 | 2.6 | | | | 17 |
| | 2028N/M10S04 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028N/3S05 | 05 | 3/8" | - | 1/2" | - | 0.065 | 7.5 | 4.1 | 4.6 | | | | 17 |
| | 2028N/M10S05 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028N/3S06 | 06 | 3/8" | - | 1/2" | - | 0.113 | 10.3 | 6.5 | 7.4 | | | | 17 |
| | 2028N/M10S06 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028N/4S07 | 07 | 1/2" | - | 5/8" | - | 0.200 | 16.5 | 10.4 | 11.3 | | | | 17 |
| | 2028N/M12S07 | | - | 12 | - | 16 | | | | | | | | 17 |

Note:

(1) Le potenzialità nominali sono riferite a:

- Temperatura d'evaporazione T_{evap} = + 5 °C
- Temperatura di condensazione T_{cond} = + 32 °C
- Temperatura del liquido all'ingresso della valvola T_{liq} = + 28 °C

(1) Rated capacities are based on:

- Evaporating temperature T_{evap} = + 5 °C
- Condensing temperature T_{cond} = + 32 °C
- Refrigerant liquid temperature ahead of valve T_{liq} = + 28 °C

(1) Les capacités nominales se basent sur :

- Température d'évaporation T_{evap} = +5 °C
- Température de condensation T_{cond} = +32 °C
- Température du liquide frigorigène en amont du détendeur T_{liq} = +28 °C

(1) Nennleistungen basieren auf:

- Verdampfungstemperatur T_{verd} = +5 °C
- Kondensationstemperatur T_{kond} = +32 °C
- Temperatur des flüssigen Kältemittels vor dem Ventil T_{flü} = +28 °C

Valvole 2028V/.. in esaurimento scorte

Valves 2028V/.. running out of stock

Vannes 2028V/.. en épuisement du stock

Ventile 2028V/.. bis zum Ende der Vorräte erhältlich

VALVOLE D'ESPANSIONE A SOLENOIDE CON ORIFIZIO INTERCAMBIABILE - Conformità ATEX per uso in EX zona 2

SOLENOID EXPANSION VALVES WITH INTERCHANGEABLE ORIFICE - ATEX conformity for use in EX Zone 2

DÉTENDEURS À COMMANDE ÉLECTRIQUES AVEC ENSEMBLE ORICE INTERCHANGEABLE - Conformité ATEX pour utilisation en zone Ex 2

ELEKTRISCHE EXPANSIONSVENTILE MIT AUSTAUSCHBAREM DÜSENEINSATZ - ATEX-Konformität für den Einsatz in EX-Zone 2

NEW
2016



| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo orificio Orifice type Type d'orifice Düseneinsatz Typ | Attacchi Connections Raccords Anschlüsse | | | | Kv [m³/h] | Potenzialità nominali Rated capacity Capacités nominales Nennleistungen (1) [kW] | | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|--------------|-------------------------------------------------------------------------------------------------|------|-------|-------------|---------|------|---------------------------------------------------------------|
| | | | In | | Out | | | R290 | R600 | R600a | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | | | | |
| | 2028EX/3A601 | 01 | 3/8" | - | 1/2" | - | 0,010 | 1.1 | 0.6 | 0.7 | 45 | -40 | +100 | 17 |
| | 2028EX/M10A601 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028EX/3A602 | 02 | 3/8" | - | 1/2" | - | 0,017 | 2.2 | 1.3 | 1.5 | | | | 17 |
| | 2028EX/M10A602 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028EX/3A603 | 03 | 3/8" | - | 1/2" | - | 0,023 | 2.7 | 1.5 | 1.7 | | | | 17 |
| | 2028EX/M10A603 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028EX/3A604 | 04 | 3/8" | - | 1/2" | - | 0,043 | 4.3 | 2.3 | 2.6 | | | | 17 |
| | 2028EX/M10A604 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028EX/3A605 | 05 | 3/8" | - | 1/2" | - | 0,065 | 7.5 | 4.1 | 4.6 | | | | 17 |
| | 2028EX/M10A605 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028EX/3A606 | 06 | 3/8" | - | 1/2" | - | 0,113 | 10.3 | 6.5 | 7.4 | | | | 17 |
| | 2028EX/M10A606 | | - | 10 | - | 12 | | | | | | | | 17 |
| | 2028EX/4A607 | 07 | 1/2" | - | 5/8" | - | 0,200 | 16.5 | 10.4 | 11.3 | | | | 17 |
| | 2028EX/M12A607 | | - | 12 | - | 16 | | | | | | | | 17 |

Note:

(1) Le potenzialità nominali sono riferite a:

- Temperatura d'evaporazione T_{evap} = + 5 °C
- Temperatura di condensazione T_{cond} = + 32 °C
- Temperatura del liquido all'ingresso della valvola T_{liq} = + 28 °C

(1) Rated capacities are based on:

- Evaporating temperature T_{evap} = + 5 °C
- Condensing temperature T_{cond} = + 32 °C
- Refrigerant liquid temperature ahead of valve T_{liq} = + 28 °C

(1) Les capacités nominales se basent sur :

- Température d'évaporation T_{evap} = +5 °C
- Température de condensation T_{cond} = +32 °C
- Température du liquide frigorigène en amont du détendeur T_{liq} = +28 °C

(1) Nennleistungen basieren auf:

- Verdampfungstemperatur T_{verd} = +5 °C
- Kondensationstemperatur T_{kond} = +32 °C
- Temperatur des flüssigen Kältemittels vor dem Ventil T_{flü} = +28 °C

GRUPPI ORIFICI

ORIFICE ASSEMBLIES

ENSEMBLES ORIFICE

DÜSENEINSATZ

NEW
2016



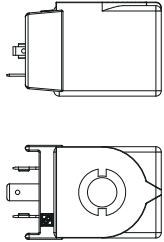
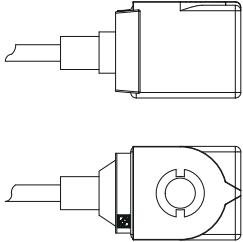
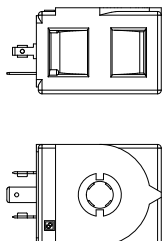
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo orificio Orifice type Type d'orifice Düseneinsatz Typ | Potenzialità nominali (1) Rated capacity (1) Capacités nominales (1) Nennleistungen (1) [kW] | | | Confezione n° pz Package pcs. Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------|
| | | | R134a | R22 | R32 | |
| | 9150N/R63 | 01 | 1.0 | 0.6 | 0.7 | 10 |
| | 9150N/R64 | 02 | 2.2 | 1.3 | 1.5 | |
| | 9150N/R65 | 03 | 2.7 | 1.5 | 1.7 | |
| | 9150N/R66 | 04 | 4.3 | 2.3 | 2.6 | |
| | 9150N/R67 | 05 | 7.5 | 4.1 | 4.6 | |
| | 9150N/R68 | 06 | 10.3 | 6.5 | 7.4 | |
| | 9150N/R69 | 07 | 16.5 | 10.4 | 11.3 | |

Gruppi orifici 9150V.. in esaurimento scorte

Orifice assemblies 9150V.. running out of stock

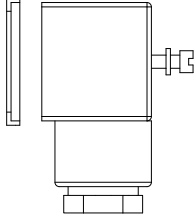
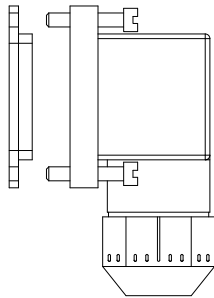
Ensembles orifice 9150V.. en épuisement du stock

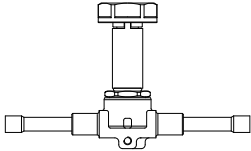
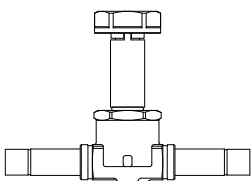
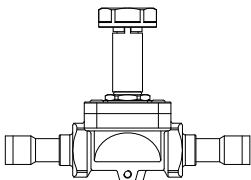
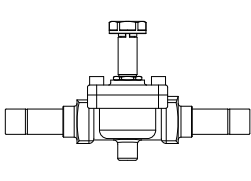
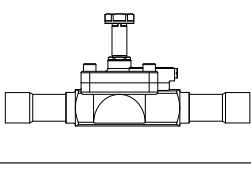
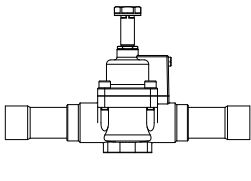
Düseneinsatz 9150V.. bis zum Ende der Vorräte erhältlich

| Disegno Drawing Dessin Zeichnung | Tipo Bobina Coil Type Type bobine Spulentyp | N° catalogo Part number N° Catalogue Katalog Nr | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Potenza Power Puissance Leistung [W] | Connettori Connections Raccordeme Anschlüsse | | Note Note Notes Hinweise | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| | | | | | | Grado di protezione Degree of protection Degré de protection Schutz - Klasse | | | |
| | | | | | | IP 65 | IP 68 | | |
|  | HM2 | 9100EX/RA2 | 24 | 50/60 | 8 | 9150/R02 9900/X66 | - | Omologazione ATEX per uso in EX zona 2 ATEX approval for use in EX Zone 2 Homologation ATEX pour utilisation en zone Ex 2 ATEX-Zulassung für den Einsatz in EX- Zone 2 | 90 |
| | | 9100EX/RA4 | 110 | | | | | | |
| | | 9100EX/RA6 | 220/230 | | | | | | |
| | | 9100EX/RA7 | 240 | | | | | | |
|  | CM2 (1) | 9110EX/RA2 | 24 | 50/60 | 8 | - | - | Omologazione ATEX per uso in EX zona 2 ATEX approval for use in EX Zone 2 Homologation ATEX pour utilisation en zone Ex 2 ATEX-Zulassung für den Einsatz in EX- Zone 2 | 10 |
| | | 9110EX/RA4 | 110 | | | | | | |
| | | 9110EX/RA6 | 220/230 | | | | | | |
| | | 9110EX/RA7 | 240 | | | | | | |
|  | HM4 | 9160/RA2 | 24 A.C. | 50/60 | 8 | 9150/R02 9900/X66 | 9155/R01 9155/R02 | - | 90 |
| | | 9160/RA4 | 110 A.C. | | | | | | |
| | | 9160/RA6 | 220/230 A.C. | | | | | | |
| | | 9160/RD1 | 12 D.C. | - | 17 | | | | |
| | | 9160/RD2 | 24 D.C. | - | 15.5 | | | | |
| | | | | | | | | | |

Note:

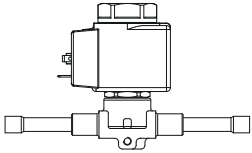
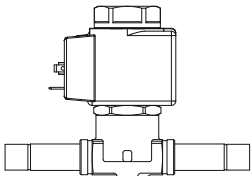
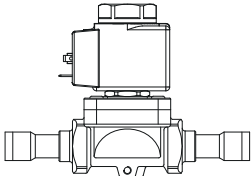
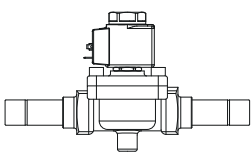
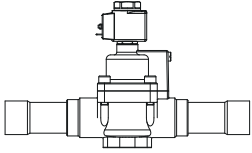
- (1) Lunghezza cavo 1 mm
- (1) Cable length 1 mm
- (1) Longueur du câble 1 mm
- (1) Kabellänge 1 mm

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Grado di protezione Degree of protection Degré de protection Schutz - klasse | Lunghezza cavo Cable lenght Longueur du câble Kabellänge | Note Note Notes Hinweise | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | 9150EX/R02 | IP 65 | - | Omologazione ATEX per uso in EX zona 2 ATEX approval for use in EX Zone 2 Homologation ATEX pour utilisation en zone Ex 2 ATEX-Zulassung für den Einsatz in EX-Zone 2 | 240 |
| | 9150/R02 | IP 65 | - | - | 240 |
| | 9900/X66 | | 1 | - | 100 |
| | | | | | |
|  | 9155/R01 | IP 65 / IP 68 | - | - | 120 |
| | 9155/R02 | | 1 | - | 1 |
| | | | | | |

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | [in.] | [mm] | | | Min | Max | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1028N/2S | HF2 | 1/4" | - | 0,15 | 45 | -40 | +130 | 24 |
| | | 1028N/2S.E | HF3 | 1/4" | - | 0,23 | | | | |
| | | 1028N/3S | HM2 | 3/8" | - | | | | | |
| | | 1028N/M10S | HM3 HM4 CM2 | - | 10 | | | | | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membranantrieb |  | 1068N/3S | | 3/8" | - | 0,80 | 45 | -40 | +120 | 24 |
| | | 1068N/M10S | | - | 10 | | | | | |
| | | 1068N/M12S | | - | 12 | | | | | |
| | | 1068N/4S | | 1/2" | - | | | | | |
| |  | 1078N/M12S | | - | 12 | 2,20 | | | | |
| | | 1078N/4S | | 1/2" | - | | | | | |
| | | 1078N/5S | | 5/8" | 16 | | | | | 2,61 |
| |  | 1079N/7S | HF2 HF3 HM2 HM3 HM4 CM2 | 7/8" | 22 | 2,61 | | | | |
| | | 1098N/7S | | 7/8" | 22 | 5,70 | | | | |
| | | 1099N/9S | | 1.1/8" | - | 5,70 | | | | |
| | | 1078N/9S | | 1.1/8" | - | 10 | | | | |
| |  | 1079N/11S | | 1.3/8" | 35 | 10 | | | | |
| | | | | | | | | | | |
| Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | 1098N/9S | HF2 HF3 HM2 HM3 HM4 CM2 | 1.1/8" | - | 10 | 45 | -40 | +120 | 1 |
| | | 1099N/11S | | 1.3/8" | 35 | 10 | | | | |

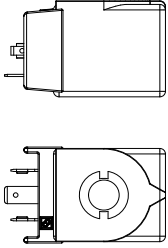
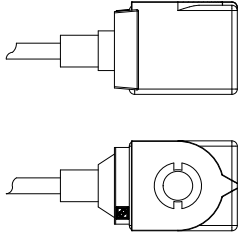
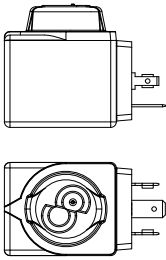
(1) : bobine che possono essere montate sulle valvole
 (1) : coils that can be fit the valves
 (1) : bobines qui peuvent être montées sur les vannes
 (1) : Spulen, die an den Ventilen montiert werden können

Valvole 1028V/.. ; 1068V/.. ; 1078V/.. ; 1079V/.. ; 1098V/.. ; 1099V/.. in esaurimento scorte
 Valves 1028V/.. ; 1068V/.. ; 1078V/.. ; 1079V/.. ; 1098V/.. ; 1099V/.. running out of stock
 Vannes 1028V/.. ; 1068V/.. ; 1078V/.. ; 1079V/.. ; 1098V/.. ; 1099V/.. en épuisement du stock
 Ventile 1028V/.. ; 1068V/.. ; 1078V/.. ; 1079V/.. ; 1098V/.. ; 1099V/.. bis zum Ende der Vorräte erhältlich

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | [in.] | [mm] | | | Min | Max | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1028EX/2A6 | HM2(EX) | 1/4" | - | 0,15 | 45 | -40 | +130 | 24 |
| | | 1028EX/2A6.E | | 1/4" | - | 0,23 | | | | |
| | | 1028EX/3A6 | | 3/8" | - | | | | | |
| | | 1028EX/M10A6 | | - | 10 | | | | | |
| Servocomando a membrana Diaphragm pilot operated Servocommande à membrane Membranantrieb |  | 1068EX/3A6 | HM2(EX) | 3/8" | - | 0,80 | 45 | -40 | +120 | 24 |
| | | 1068EX/M10A6 | | - | 10 | | | | | |
| | | 1068EX/M12A6 | | - | 12 | | | | | |
| | | 1068EX/4A6 | | 1/2" | - | | | | | |
| |  | 1078EX/M12A6 | | - | 12 | 2,20 | | | | |
| | | 1078EX/4A6 | | 1/2" | - | | | | | |
| | | 1078EX/5A6 | | 5/8" | 16 | 2,61 | | | | |
| |  | 1079EX/7A6 | | 7/8" | 22 | 2,61 | | | | |
| | | 1098EX/7A6 | | 7/8" | 22 | 5,70 | | | | 14 |
| | | 1099EX/9A6 | | 1.1/8" | - | 5,70 | | | | |
| 1078EX/9A6 | | 1.1/8" | - | 10 | 1 | | | | | |
| 1079EX/11A6 | 1.3/8" | 35 | 10 | | | | | | | |
| Servocomando a pistone Piston pilot operated Servocommande à piston Kolbenantrieb |  | 1098EX/9A6 | HM2(EX) | 1.1/8" | - | 10 | 45 | -40 | +120 | 1 |
| | | 1099EX/11A6 | | 1.3/8" | 35 | 10 | | | | |

(1) : bobine montate sulle valvole
 (1) : coils mounted on valves
 (1) : Bobines montées sur des vannes
 (1) : An den Ventilen montierte Spulen

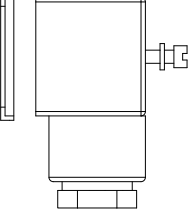
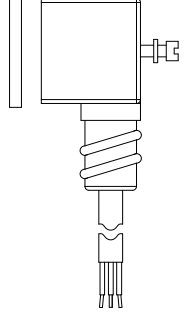
Valvole 1028V/.. ; 1068V/.. ; 1078V/.. ; 1079V/.. ; 1098V/.. ; 1099V/.. in esaurimento scorte
 Valves 1028V/.. ; 1068V/.. ; 1078V/.. ; 1079V/.. ; 1098V/.. ; 1099V/.. running out of stock
 Vannes 1028V/.. ; 1068V/.. ; 1078V/.. ; 1079V/.. ; 1098V/.. ; 1099V/.. en épuisement du stock
 Ventile 1028V/.. ; 1068V/.. ; 1078V/.. ; 1079V/.. ; 1098V/.. ; 1099V/.. bis zum Ende der Vorräte erhältlich

| Disegno Drawing Dessin Zeichnung | Tipo Bobina Coil Type Type bobine Spulentyp | N° catalogo Part number N° Catalogue Katalog Nr | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Potenza Power Puissance Leistung [W] | Note Notes Hinweise | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
|  | HM2 | 9100/RA2 | 24 | 50/60 | 8 | - | 90 |
| | | 9100/RA4 | 110 | | | | |
| | | 9100/RA6 | 220/230 | | | | |
| | | 9100/RA7 | 240 | | | | |
| | | 9100EX/RA2 | 24 | 50/60 | 8 | Omologazione ATEX per uso in EX zona 2 ATEX approval for use in EX Zone 2 Homologation ATEX pour utilisation en zone Ex 2 ATEX-Zulassung für den Einsatz in EX-Zone 2 | 90 |
| | | 9100EX/RA4 | 110 | | | | |
| | | 9100EX/RA6 | 220/230 | | | | |
| | | 9100EX/RA7 | 240 | | | | |
|  | CM2 (1) | 9110/RA2 | 24 | 50/60 | 8 | - | 10 |
| | | 9110/RA4 | 110 | | | | |
| | | 9110/RA6 | 220/230 | | | | |
| | | 9110/RA7 | 240 | | | | |
| | | 9110EX/RA2 | 24 | 50/60 | 8 | Omologazione ATEX per uso in EX zona 2 ATEX approval for use in EX Zone 2 Homologation ATEX pour utilisation en zone Ex 2 ATEX-Zulassung für den Einsatz in EX-Zone 2 | 10 |
| | | 9110EX/RA4 | 110 | | | | |
| | | 9110EX/RA6 | 220/230 | | | | |
| | | 9110EX/RA7 | 240 | | | | |
|  | HF2 | 9300/RA2 | 24 | 50/60 | 8 | - | 30 |
| | | 9300/RA4 | 110 | | | | |
| | | 9300/RA6 | 220/230 | | | | |
| | | 9300/RA7 | 240 | | | | |
| | | | | | | | |

Note:

- (1) Lunghezza cavo 1 mm
- (1) Cable length 1 mm
- (1) Longueur du câble 1 mm
- (1) Kabellänge 1 mm

CONNETTORI
CONNECTORS
CONNECTEURS
STECKER

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Grado di protezione Degree of protection Degré de protection Schutz - klasse | Lunghezza cavo Cable length Longueur du câble Kabellänge | Note Note Notes Hinweise | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | 9150/R02 | IP 65 | - | | 240 |
| | 9150EX/R02 | IP 65 | - | Omologazione ATEX per uso in EX zona 2 ATEX approval for use in EX Zone 2 Homologation ATEX pour utilisation en zone Ex 2 ATEX-Zulassung für den Einsatz in EX-Zone 2 | 240 |
|  | 9900/X66 | IP 65 | 1 | - | 100 |
| | 9900/X84 | | 1,5 | - | 1 |
| | 9900/X73 | | 2 | - | 80 |
| | 9900/X55 | | 3 | - | 80 |
| | 9900/X54 | | 5 | - | 50 |
| | | | | | |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Kv [m ³ /h] | Pressione differenziale Differential pressure Pression différentielle Differenzial Druck (1) [bar] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|---------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | | | | min | max | |
| | | Ø [in.] | Ø [mm] | | | | | | |

IN LINEA CON ATTACCHI ODS DI RAME / STRAIGHT WITH COPPER ODS CONNECTIONS / CONNEXIONS DROITES ODS CUIVRE / DURCHFLOSS VERBINDUNG ODS KUPFER

| | | | | | | | | | | | | | |
|---------|-----------|--------|----|------|------|----|-----|------|-----|----|-----|------|----|
| | 3132N/2 | 1/4" | - | 0,5 | 0,1 | 45 | -40 | +150 | 25 | | | | |
| | 3132N/3 | 3/8" | - | 1,5 | | | | | 25 | | | | |
| | 3132N/M10 | - | 10 | 1,5 | | | | | 25 | | | | |
| | 3132N/M12 | - | 12 | 1,8 | | | | | 16 | | | | |
| | 3132N/4 | 1/2" | - | 1,8 | | | | | 16 | | | | |
| | 3132N/5 | 5/8" | 16 | 3,3 | | | | | 16 | | | | |
| | 3132N/M18 | - | 18 | 5 | | | | | 21 | | | | |
| | 3132N/6 | 3/4" | - | 5 | | | | | 21 | | | | |
| | 3132N/7 | 7/8" | 22 | 5 | | | | | 21 | | | | |
| | 3133N/2 | 1/4" | - | 0,5 | | | | | 0,3 | 45 | -40 | +150 | 25 |
| | 3133N/3 | 3/8" | - | 1,5 | | | | | | | | | 25 |
| | 3133N/M10 | - | 10 | 1,5 | | | | | | | | | 25 |
| | 3133N/M12 | - | 12 | 1,8 | | | | | | | | | 16 |
| | 3133N/4 | 1/2" | - | 1,8 | | | | | | | | | 16 |
| | 3133N/5 | 5/8" | 16 | 3,3 | | | | | | | | | 16 |
| | 3133N/M18 | - | 18 | 5 | | | | | | | | | 21 |
| | 3133N/6 | 3/4" | - | 5 | | | | | | | | | 21 |
| 3133N/7 | 7/8" | 22 | 5 | 21 | | | | | | | | | |
| | 3144N/7 | 7/8" | 22 | 8,1 | 0,04 | 45 | -40 | +150 | | | | | 15 |
| | 3144N/M28 | - | 28 | 10,4 | | | | | 14 | | | | |
| | 3144N/9 | 1.1/8" | - | 10,4 | | | | | 14 | | | | |
| | 3145N/7 | 7/8" | 22 | 8,1 | 0,3 | 45 | -40 | +150 | 15 | | | | |
| | 3145N/M28 | - | 28 | 10,4 | | | | | 14 | | | | |
| | 3145N/9 | 1.1/8" | - | 10,4 | | | | | 14 | | | | |


A SQUADRA CON ATTACCHI ODS DI RAME / RIGHT ANGLE WITH COPPER ODS CONNECTIONS / ANGLE DROIT AVEC CONNEXION CUIVRE ODS / WINKELANSCHLUSS MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG

| | | | | | | | | | |
|--|-----------|--------|----|----|------|----|-----|------|----|
| | 3184N/7 | 7/8" | 22 | 9 | 0,04 | 45 | -40 | +150 | 14 |
| | 3184N/M28 | - | 28 | 19 | | | | | 1 |
| | 3184N/9 | 1.1/8" | - | 19 | | | | | 1 |
| | 3185N/7 | 7/8" | 22 | 9 | 0,3 | 45 | -40 | +150 | 14 |
| | 3185N/M28 | - | 28 | 19 | | | | | 1 |
| | 3185N/9 | 1.1/8" | - | 19 | | | | | 1 |

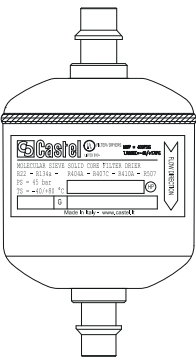
(1) Minima pressione a cui la valvola è completamente aperta
(1) Minimum pressure at which the valve is completely open
(1) Pression minimale à laquelle la vanne est entièrement ouverte
(1) Mindestdruck, bei dem das Ventil vollständig offen ist

Valvole 3132V/.. in esaurimento scorte
Valves 3132V/.. running out of stock
Vannes 3132V/.. en épuisement du stock
Ventile 3132V/.. bis zum Ende der Vorräte erhältlich

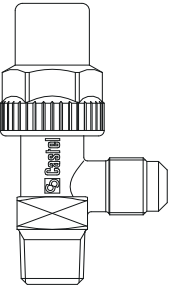
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | | min | max | |
| | | Ø [in.] | Ø [mm] | | | | |

| | | | | | | | |
|-----------------------------------------------------------------------------------|----------|--------|----|----|-----|------|----|
|  | 3940/2 | 1/4" | - | 45 | -40 | +120 | 42 |
| | 3940/3 | 3/8" | - | | | | 42 |
| | 3940/M10 | - | 10 | | | | 42 |
| | 3940/M12 | - | 12 | | | | 42 |
| | 3940/4 | 1/2" | - | | | | 42 |
| | 3940/5 | 5/8" | 16 | | | | 42 |
| | 3940/M18 | - | 18 | | | | 42 |
| | 3940/6 | 3/4" | - | | | | 42 |
| | 3940/7 | 7/8" | 22 | | | | 42 |
| | 3940/9 | 1.1/8" | - | | | | 11 |

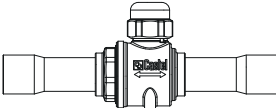
Indicatori 3740V/.. in esaurimento scorte
 Indicators 3740V/.. running out of stock
 Indicateurs 3740V/.. en épuisement du stock
 Indikatoren 3740V/.. bis zum Ende der Vorräte erhältlich

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | Cubatura nominale Nominal volume Cubature nominale Nominaler Rauminhalt [cm ³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|--------------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | ODS | | ODM | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 4303EX/2S | 032S | 1/4" | - | 3/8" | - | 50 | 45 | -40 | +80 | 45 |
| | 4305EX/3S | 053S | 3/8" | - | 1/2" | - | 80 | | | | 34 |
| | 4305EX/M10S | - | - | 10 | - | 12 | 80 | | | | 34 |
| | 4308EX/3S | 083S | 3/8" | - | 1/2" | - | 130 | | | | 24 |
| | 4308EX/M10S | - | - | 10 | - | 12 | 130 | | | | 24 |
| | 4308EX/M12S | - | - | 12 | - | 14 | 130 | | | | 24 |
| | 4308EX/4S | 084S | 1/2" | - | 5/8" | 16 | 130 | | | | 24 |
| | 4316EX/3S | 163S | 3/8" | - | 1/2" | - | 250 | | | | 28 |
| | 4316EX/M10S | - | - | 10 | - | 12 | 250 | | | | 28 |
| | 4316EX/M12S | - | - | 12 | - | 14 | 250 | | | | 28 |
| | 4316EX/4S | 164S | 1/2" | - | 5/8" | 16 | 250 | | | | 28 |
| | 4316EX/5S | 165S | 5/8" | 16 | 3/4" | - | 250 | | | | 28 |
| | 4330EX/4S | 304S | 1/2" | - | 5/8" | 16 | 500 | | | | 12 |
| | 4330EX/5S | 305S | 5/8" | 16 | 3/4" | - | 500 | | | | 12 |
| | 4330EX/7S | 307S | 7/8" | - | 1.1/8" | - | 500 | | | | 12 |
| | 4330EX/9S | 309S | 1.1/8" | - | 1.3/8" | - | 500 | | | | 12 |
| | 4375EX/7S | 757S | 7/8" | - | 1.1/8" | - | 1340 | | | | 1 |
| | 4375EX/9S | 759S | 1.1/8" | - | 1.3/8" | - | 1340 | | | | 1 |

Filtri disidratatori 4303V/.. ; 4305V/.. ; 4308V/.. ; 4316V/.. ; 4330V/.. ; 4375V/.. in esaurimento scorte
 Filter driers 4303V/.. ; 4305V/.. ; 4308V/.. ; 4316V/.. ; 4330V/.. ; 4375V/.. running out of stock
 Filtres déshydrateurs 4303V/.. ; 4305V/.. ; 4308V/.. ; 4316V/.. ; 4330V/.. ; 4375V/.. en épuisement du stock
 Filtertrockner 4303V/.. ; 4305V/.. ; 4308V/.. ; 4316V/.. ; 4330V/.. ; 4375V/.. bis zum Ende der Vorräte erhältlich

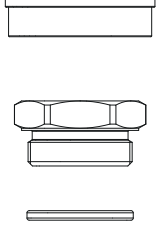
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|------|--------------|----------|---------|------|---------------------------------------------------------------|
| | | SAE Flare | NPT | | | min | max | |
| | | | | | | | | |
|  | 6110N/22 | 1/4" | 1/4" | 0,44 | 45 | -40 | +150 | 20 |
| | 6110N/33 | 3/8" | 3/8" | 1,35 | | | | 20 |
| | 6110N/43 | 1/2" | 3/8" | 2,4 | | | | 20 |

Valvole 6110V/.. in esaurimento scorte
Valves 6110V/.. running out of stock
Vannes 6110V/.. en épuisement du stock
Ventile 6110V/.. bis zum Ende der Vorräte erhältlich

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Foro Sfera Ø Ball port Ø Orifice bille Ø Bohrung Ø [mm] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|---------------------------------------------------------------------|--------------|----------|---------|------|------------------------------------------------------------|
| | | ODS | | | | | min | max | |
| | | Ø [in.] | Ø [mm] | | | | | | |
|  | 6570N/M6 | — | 6 | 10 | 0,8 | 45 | -40 | +150 | 25 |
| | 6570N/2 | 1/4" | — | 10 | 0,8 | | | | 25 |
| | 6570N/3 | 3/8" | — | 10 | 3 | | | | 25 |
| | 6570N/M10 | — | 10 | 10 | 3 | | | | 25 |
| | 6570N/M12 | — | 12 | 10 | 5 | | | | 25 |
| | 6570N/4 | 1/2" | — | 10 | 5 | | | | 25 |
| | 6570N/5 | 5/8" | 16 | 15 | 14,5 | | | | 16 |
| | 6570N/M18 | — | 18 | 15 | 14,5 | | | | 16 |
| | 6570N/6 | 3/4" | — | 15 | 14,5 | | | | 16 |
| | 6570N/7 | 7/8" | 22 | 19 | 24 | | | | 21 |
| | 6570N/M28 | — | 28 | 25 | 40 | | | | 16 |
| | 6570N/9 | 1.1/8" | — | 25 | 40 | | | | 16 |

Valvole 6590V/.. in esaurimento scorte
Valves 6590V/.. running out of stock
Vannes 6590V/.. en épuisement du stock
Ventile 6590V/.. bis zum Ende der Vorräte erhältlich

RICAMBI PER INDICATORI DI UMIDITÀ
 ACCESSORIES AND SPARE PARTS FOR MOISTURE INDICATORS
 PARTS POUR VOYANT LIQUIDE AVEC INDICATEURS D'HUMIDITE
 ERSATZTEILE FÜR FLÜSSIGKEITSINDIKATOREN

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° Catalogue Katalog Nr | Descrizione Description Description Beschreibung | Utilizzabile per: Suitable for: Utilisable pour Geeignet für | Note Note Notes Hinweise |
|-----------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------|
|  | 9150/R87 | Sottogruppo ghiera | Indicatori di liquido-umidità tipo 3740V/.. | in esaurimento scorte |
| | | Cappuccio di protezione | | |
| | | O-R ghiera/corpo | | |
| | | Pre-assembled nut | Moisture-liquid indicators type 3740V/.. | running out of stock |
| | | Protection cap | | |
| | | Nut/body O Ring | | |
| | | Écrou pré-assemblé | Voyant liquide avec indicateurs d'humidite' type 3740V/.. | en épuisement du stock |
| | | Bouchon de protection | | |
| | | Joint écrou/corps | | |
| | | Unterbaugruppe Ringmutter | Flüssigkeitsindikatoren typ 3740V/.. | bis zum Ende der Vorräte erhältlich |
| | | Schutzkappe | | |
| | | O-R Ringmutter/Korpus | | |

REFRIGERANTE CO₂
CO₂ REFRIGERANTS
FLUIDE FRIGORIGENE CO₂
CO₂ KALTEMITTEL

(R744)



CO₂

VALVOLE D'ESPANSIONE A SOLENOIDE CON ORIFIZIO INTERCAMBIABILE
SOLENOID EXPANSION VALVES WITH INTERCHANGEABLE ORIFICE
DÉTENDEURS À COMMANDE ÉLECTRIQUES AVEC ENSEMBLE ORICE INTERCHANGEABLE
ELEKTRISCHE EXPANSIONSVENTILE MIT AUSTAUSCHBAREM DÜSENEINSATZ



| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo orificio Orifice type Type d'orifice Düseineinsatz Typ | Attacchi Connections Raccords Anschlüsse | | | | Kv [m³/h] | Potenzialità nominali Rated capacity Capacités nominales Nennleistungen (1) [kW] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|--------------|-------------------------------------------------------------------------------------------------|-------------|---------|------|---------------------------------------------------------------|
| | | | In | | Out | | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | R744 | | | | |
| | 2028E/3S01 | 01 | 3/8" | - | 1/2" | - | 0,010 | 2,4 | 80 | -40 | +100 | 17 |
| | 2028E/M10S01 | | - | 10 | - | 12 | | | | | | 17 |
| | 2028E/3S02 | 02 | 3/8" | - | 1/2" | - | 0,017 | 4,1 | | | | 17 |
| | 2028E/M10S02 | | - | 10 | - | 12 | | | | | | 17 |
| | 2028E/3S03 | 03 | 3/8" | - | 1/2" | - | 0,023 | 5,3 | | | | 17 |
| | 2028E/M10S03 | | - | 10 | - | 12 | | | | | | 17 |
| | 2028E/3S04 | 04 | 3/8" | - | 1/2" | - | 0,043 | 8,3 | | | | 17 |
| | 2028E/M10S04 | | - | 10 | - | 12 | | | | | | 17 |
| | 2028E/3S05 | 05 | 3/8" | - | 1/2" | - | 0,065 | 14,5 | | | | 17 |
| | 2028E/M10S05 | | - | 10 | - | 12 | | | | | | 17 |
| | 2028E/3S06 | 06 | 3/8" | - | 1/2" | - | 0,113 | 19,7 | | | | 17 |
| | 2028E/M10S06 | | - | 10 | - | 12 | | | | | | 17 |
| | 2028E/4S07 | 07 | 1/2" | - | 5/8" | - | 0,200 | 31,5 | | | | 17 |
| | 2028E/M12S07 | | - | 12 | - | 16 | | | | | | 17 |

Note:

(1) Le potenzialità nominali sono riferite a:

- Temperatura d'evaporazione T_{evap} = -25 °C
- Temperatura di condensazione T_{cond} = +0 °C
- Temperatura del liquido all'ingresso della valvola T_{liq} = -4 °C

(1) Les capacités nominales se basent sur :

- Température d'évaporation T_{evap} = -25 °C
- Température de condensation T_{cond} = +0 °C
- Température du liquide frigorigène en amont du détendeur T_{liq} = -4 °C

(1) Rated capacities are based on:

- Evaporating temperature T_{evap} = -25 °C
- Condensing temperature T_{cond} = +0 °C
- Refrigerant liquid temperature ahead of valve T_{liq} = -4 °C

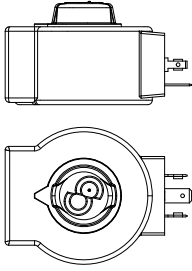
(1) Nennleistungen basieren auf:

- Verdampfungstemperatur T_{verd} = -25 °C
- Kondensationstemperatur T_{kond} = +0 °C
- Temperatur des flüssigen Kältemittels vor dem Ventil T_{flü} = -4 °C

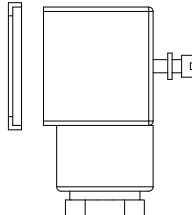
GRUPPI ORIFICI
ORIFICE ASSEMBLIES
ENSEMBLES ORIFICE
DÜSENEINSATZ



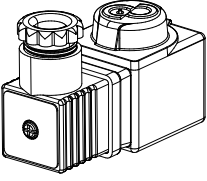
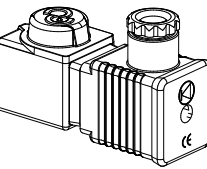
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tipo orificio Orifice type Type d'orifice Düseineinsatz Typ | Potenzialità nominali (1) Rated capacity (1) Capacités nominales (1) Nennleistungen (1) [kW] | Confezione n° pz Package pcs. Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| | | | R744 | |
| | 9150E/R63 | 01 | 2,4 | 10 |
| | 9150E/R64 | 02 | 4,1 | |
| | 9150E/R65 | 03 | 5,3 | |
| | 9150E/R66 | 04 | 8,3 | |
| | 9150E/R67 | 05 | 14,5 | |
| | 9150E/R68 | 06 | 19,7 | |
| | 9150E/R69 | 07 | 31,5 | |
| | | | | |

| Disegno Drawing Dessin Zeichnung | Tipo Bobina Coil Type Type bobine Spulentyp | N° catalogo Part number N° catalogue Katalog Nr. | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Potenza Power Puissance Leistung [W] | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------|
|  | HF3 | 9320/RA6 | 220/230 | 50/60 | 12 | 18 |
| | | 9320/RD1 | 12 D.C. | - | 20 | 18 |
| | | 9320/RD2 | 24 D.C. | | | 18 |

**CONNETTORI
CONNECTORS
CONNECTEURS
STECKER**

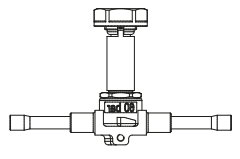
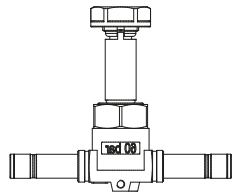
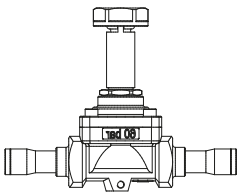
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Grado di protezione Degree of protection Degré de protection Schutzklasse | Lunghezza cavo Cable lenght Longueur du câble Kabellänge | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------|
|  | 9150/R02 | IP 65 | - | 240 |
| | 9900/X66 | | 1 | 100 |



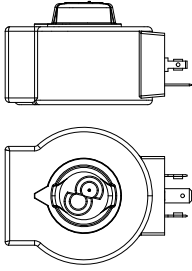
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | T boost [msec] | Potenza Power Puissance Leistung | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|-------------------|--------------------------------------------------|------------------------------------------|------------------------------------------------------------|
| | | | | | esercizio working travail Arbeit [W] | avvio start début Anfang [W] | |
|  | 9910/RD1 | 12 VDC | - | 130 | 3 | 50 | 12 |
| | 9910/RD2 | 24 VDC | - | 130 | 5 | 50 | 12 |
|  | 9910/RA2 | 24VAC | 50/60 | 200 | 7 | 50 | 12 |
| | 9910/RA6 | 220VAC | 50/60 | 200 | 7 | 50 | 12 |
| | 9910/RA7 | 240VAC | 50/60 | 200 | 7 | 50 | 12 |
| | | | | | | | |

VALVOLE SOLENOIDE N.C. ATTACCHI ODS SENZA BOBINA
N.C. SOLENOID VALVES ODS CONNECTIONS WITHOUT COILS
VANNES ELECTROMAGNETIQUES N.F. ODS RACCORDS SANS BOBINE
N.G. MAGNETVENTILE ODS ANSCHLÜSSE OHNE SPULE

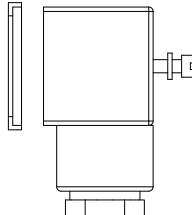
**NEW
2016**

| Principio di funzionamento Operating principle Principe de fonctionnement Funtionsprinzip | Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Tipo Bobina Coil Type Type bobine Spulentyp (1) | Attacchi ODS Ø Connections ODS Ø Raccords ODS Ø Anschlüsse ODS Ø | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | [in.] | [mm] | | | Min | Max | |
| Azione diretta Direct acting Action directe Direkte Aktion |  | 1028EL/2S | HF3 (HM3) | 1/4" | - | 0.15 | 60 | -40 | +130 | 24 |
| | | 1028EL/2S.E | | 1/4" | - | 0.23 | | | | 24 |
| | | 1028EL/3S | | 3/8" | - | | | | | 24 |
| | | 1028EL/M10S | | - | 10 | | | | | 24 |
| Servocomando a pistone Piston pilot operated |  | 1038EL/3S | HF3 (HM3) | 3/8" | - | 1.00 | 60 | -40 | +130 | 24 |
| | | 1038EL/M10S | | - | 10 | | | | | 24 |
| | | 1038EL/M12S | | - | 12 | | | | | 24 |
| | | 1038EL/4S | | 1/2" | - | | | | | 24 |
| Servocomanda à piston Kolbenantrieb |  | 1048EL/M12S | HF3 (HM3) | - | 12 | 2.40 | 60 | -40 | +130 | 14 |
| | | 1048EL/4S | | 1/2" | - | | | | | 14 |
| | | 1048EL/5S | | 5/8" | 16 | | | | | 3.00 |

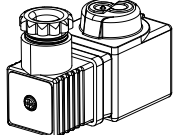
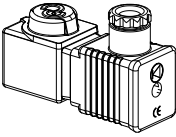
(1) : bobine che possono essere montate sulle valvole
 (1) : coils that can be fit the valves
 (1) : bobines qui peuvent être montées sur les vannes
 (1) : Spulen, die an den Ventilen montiert werden können

| Disegno Drawing Dessin Zeichnung | Tipo Bobina Coil Type Type bobine Spulentyp | N° catalogo Part number N° catalogue Katalog Nr. | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Potenza Power Puissance Leistung [W] | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------|
|  | HF3 | 9320/RA6 | 220/230 | 50/60 | 12 | 18 |
| | | 9320/RD1 | 12 D.C. | - | 20 | 18 |
| | | 9320/RD2 | 24 D.C. | | | 18 |

CONNETTORI
CONNECTORS
CONNECTEURS
STECKER

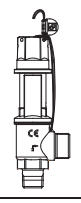
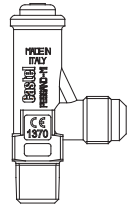
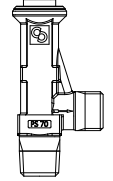
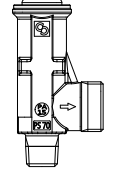
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Grado di protezione Degree of protection Degré de protection Schutzklasse | Lunghezza cavo Cable lenght Longueur du câble Kabellänge | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------|
|  | 9150/R02 | IP 65 | - | 240 |
| | 9900/X66 | | 1 | 100 |



| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | T boost [msec] | Potenza Power Puissance Leistung | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|-------------------|--------------------------------------------------|------------------------------------------|------------------------------------------------------------|
| | | | | | esercizio working travail Arbeit [W] | avvio start début Anfang [W] | |
|  | 9910/RD1 | 12 VDC | - | 130 | 3 | 50 | 12 |
| | 9910/RD2 | 24 VDC | - | 130 | 5 | 50 | 12 |
|  | 9910/RA2 | 24VAC | 50/60 | 200 | 7 | 50 | 12 |
| | 9910/RA6 | 220VAC | 50/60 | 200 | 7 | 50 | 12 |
| | 9910/RA7 | 240VAC | 50/60 | 200 | 7 | 50 | 12 |
| | | | | | | | |

VALVOLE DI SICUREZZA
 SAFETY VALVES
 SOUPAPES DE SURETE
 SICHERHEITSVENTILE

**NEW
2016**

| Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Attacchi Connections Raccords Anschlüsse | | Sezione orificio Orifice section Section orifice Öffnungs- querschnitt [mm²] | Coefficiente d'efflusso Kd Discharge coefficient Kd Coefficient d'écoulement Kd Ausströmungsfaktor Kd | Campo taratura Set pressure range Champ de tarage Einstellbereich [bar] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|----------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------|---------|------|------------------------------------------------------------------|
| | | IN | OUT | | | | | Min | Max | |
|  | 3030/88C | 1" NPT | 1.1/4" G | 298 | 0,85 | 8→50 | 55 | -40 | +150 | 8 |
| | 3030/66C | 3/4" NPT | 3/4" G | 113 | 0,9 | | | | | 15 |
| | 3030/44C | 1/2" NPT | 3/4" G | 113 | 0,9 | | | | | 15 |
| | 3030/44G (1) | 1/2" G | 3/4" G | 113 | 0,9 | 8→50 | | | | 15 |
|  | 3060/46C | 1/2" NPT | 3/4" G | 78,5 | 0,93 | 9→50 | 55 | -40 | +120 | 24 |
| | 3060/36C | 3/8" NPT | 3/4" G | 78,5 | 0,92 | | | | | 24 |
| | 3060/45C | 1/2" NPT | 5/8" SAE | 70,9 | 0,45 | | | | | 45 |
| | 3060/34C | 3/8" NPT | 1/2" SAE | 38,5 | 0,69 | | | | | 45 |
| | 3060/33C | 3/8" NPT | 3/8" SAE | 38,5 | 0,63 | | | | | 45 |
| | 3060/24C | 1/4" NPT | 1/2" SAE | 38,5 | 0,69 | | | | | 45 |
| | 3060/23C | 1/4" NPT | 3/8" SAE | 38,5 | 0,63 | | | | | 45 |
|  | 3061/2C N | 1/4" NPT | 3/8" G | 44,2 | -- | 10→60 | 70 | -40 | +150 | 18 |
| | 3061/3C N | 3/8" NPT | 1/2" G | 44,2 | -- | | | | | 18 |
| | 3061/4C N | 1/2" NPT | 1/2" G | 44,2 | -- | | | | | 18 |
|  | 3065/4C N | 1/2" NPT | 1" G | 143,1 | -- | 10→60 | 70 | -40 | +120 | 24 |
| | 3065/6C N | 3/4" NPT | 1" G | 143,1 | -- | | | | | 24 |

(1) Prodotto a richiesta.
 (1) Product on request.
 (1) Produit sur demande.
 (1) Produkt auf Anfrage.

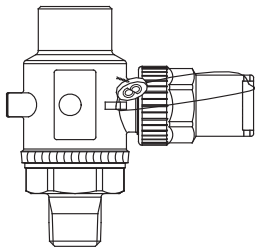
RUBINETTI DI SCAMBIO
CHANGEOVER VALVES
VANNE D'ECHANGE
WECHSELHAHN

| Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Raccordi forniti Supplied connections Raccords Fournis Mitgelieferte Anschlüsse | Adatto per valvola Designed for valve Adaptée pour vanne Passed für Ventil | Attacchi Connections Raccords Anschlüsse | | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------|----------|--------------|-------------|---------|------|------------------------------------------------------------|
| | | | | IN | OUT | | | Min | Max | |
| | 3032E/33 | 3039/3 | 3060/33C 3060/34C 3060/36C | 3/8" NPT | 3/8" NPT | 2,5 | 120 | -40 | +150 | 14 |
| | 3032E/44 | 3039/4 | 3060/45C 3060/46C | 1/2" NPT | 1/2" NPT | 3,3 | | | | 14 |
| | 3032E/64 | - | 3030/44C | 3/4" NPT | 1/2" NPT | 9 | 120 | -40 | +150 | 15 |
| | 3032E/66 | - | 3030/66C | 3/4" NPT | 3/4" NPT | 9 | | | | 15 |
| | 3032E/88 | - | 3030/88C | 1" NPT | 1" NPT | 14,5 | | | | 1 |
| | 3032E/108 | - | | 1.1/4" NPT | 1" NPT | 20 | | | | 1 |

COPPIE DI ATTACCHI PER RUBINETTI DI SCAMBIO
COUPLE OF CONNECTIONS FOR CHANGEOVER VALVES
COUPLE DE CONNECTIONS POUR VANNE D'ECHANGE
LÖTFITTING-PAR FÜR WECHSELHAHN

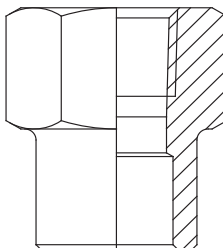
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacco Connection Raccord Anschl.üs | Materiali Materials Matériaux Werkstoffe | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------|
| | 3039/3 | 3/8" NPT-F | Ferro zincato Zinc plated steel Acier galvanisé Stahl verzinkt | 25 |
| | 3039/4 | 1/2" NPT-F | | 25 |
| | 3039/30T | 3/8" NPT-F | Acciaio inox/Ottone Stainless steel/Brass Inox / Laiton Edelstahl / Messing | 25 |
| | 3039/40T | 1/2" NPT-F | | 25 |



| Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Attacchi Connections Raccords Anschlüsse | | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|-----|------------------------|----------|---------|-----|------------------------------------------------------------|
| | | NPT | | | | Min | Max | |
|  | 3064E/22 | 1/4" | 2,5 | 80 | -40 | +150 | 20 | |
| | 3064E/33 | 3/8" | 5 | | | | 20 | |
| | 3064E/44 | 1/2" | 10 | | | | 24 | |
| | 3064E/88 | 1" | 20 | | | | 14 | |


Valvole 3033E/.. ; 3063E/.. in esaurimento scorte
 Valves 3033E/.. ; 3063E/.. running out of stock
 Vannes 3033E/.. ; 3063E/.. en épuisement du stock
 Ventile 3033E/.. ; 3063E/.. bis zum Ende der Vorräte erhältlich

**RACCORDI
 UNIONS
 RACCORDS
 ANSCHLÜSSE**


| Disegno Drawing Dessin Zeichnung | N° Catalogo Part Number N° Catalogue Katalog Nr | Attacchi Connections Raccords Anschlüsse | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|------------|----------|------------------------------------------------------------|
| | | NPT | ODS Ø [mm] | | |
|  | 3035/2 | 1/4" | 12 | 120 | 100 |
| | 3035/3 | 3/8" | 18 | | 100 |
| | 3035/4 | 1/2" | 22 | | 60 |
| | 3035/6 | 3/4" | 28 | | 30 |
| | 3035/8 | 1" | 35 | | 20 |
| | 3035/10 | 1.1/4" | 42 | | 6 |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Pressione differenziale minima d'apertura Minimum Opening Pressure Differential Pression différentielle d'ouverture Minimum Minimale Differentialdruck zum Öffnen [bar] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | W | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [mm] | | | | | | |


CON ATTACCHI ODS DI RAME / WITH COPPER ODS CONNECTIONS / CONNEXIONS ODS CUIVRE / VERBINDUNG ODS KUPFER

| | | | | | | | | | | |
|-----------------------------------------------------------------------------------|-----------|------|----|-----|-----|-----|----|-----|------|----|
|  | 3132E/2 | 1/4" | - | - | 0,1 | 0,5 | 80 | -40 | +140 | 25 |
| | 3132E/3 | 3/8" | - | - | | 1,5 | | | | 25 |
| | 3132E/M10 | - | 10 | - | | 1,5 | | | | 25 |
| | 3132E/M12 | - | 12 | - | | 1,8 | | | | 16 |
| | 3132E/4 | 1/2" | - | - | | 1,8 | | | | 16 |
| | 3132E/5 | 5/8" | 16 | - | | 3,3 | | | | 16 |
| | 3132E/M18 | - | 18 | - | | 5 | | | | 21 |
| | 3132E/6 | 3/4" | - | - | | 5 | | | | 21 |
| | 3132E/7 | 7/8" | 22 | - | | 5 | | | | 21 |
| | 3133E/2 | 1/4" | - | - | | 0,5 | | | | 25 |
| | 3133E/3 | 3/8" | - | - | | 1,5 | | | | 25 |
| | 3133E/M10 | - | 10 | - | | 1,5 | | | | 25 |
| | 3133E/M12 | - | 12 | - | | 1,8 | | | | 16 |
| | 3133E/4 | 1/2" | - | - | | 1,8 | | | | 16 |
| 3133E/5 | 5/8" | 16 | - | 3,3 | 16 | | | | | |
| 3133E/M18 | - | 18 | - | 5 | 21 | | | | | |
| 3133E/6 | 3/4" | - | - | 5 | 21 | | | | | |
| 3133E/7 | 7/8" | 22 | - | 5 | 21 | | | | | |

CON ATTACCHI ODS DI RAME RINFORZATO (K65) / WITH REINFORCED COPPER ODS CONNECTIONS (K65) / AVEC CONNEXION CUIVRE ODS RENFORCÉES (K65) / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG (K65)

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|------------------|------|----|---|-----|-----|-----|-----|------|----|
|  | 3137E/2 N | 1/4" | - | - | 0,3 | 0,5 | 120 | -40 | +140 | 25 |
| | 3137E/3 N | 3/8" | - | - | | 1,5 | | | | 25 |
| | 3137E/4 N | 1/2" | - | - | | 1,8 | | | | 16 |
| | 3137E/5 N | 5/8" | 16 | - | | 3,3 | | | | 16 |

CON ATTACCHI D'ACCIAIO INOSSIDABILE / WITH STAINLESS STEEL CONNECTIONS / AVEC CONNEXION EN ACIER INOXYDABLE / MIT ANSCHLÜSSEN AUS ROSTFREIEM STAHL

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|--------------------|---|---|----|-----|-----|-----|-----|------|----|
|  | 3138E/M10 N | - | - | 10 | 0,3 | 1,5 | 140 | -40 | +140 | 25 |
| | 3138E/M12 N | - | - | 12 | | 1,8 | | | | 16 |
| | 3138E/M16 N | - | - | 16 | | 3,3 | | | | 16 |

(1): minima pressione a cui la valvola è completamente aperta

(1): minimum pressure at which the valve is completely open.

(1): pression minimum à laquelle le clapet est complètement ouvert

(1): minimaler Druck, bei dem das Ventil vollständig geöffnet ist

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Pressione differenziale minima d'apertura Minimum Opening Pressure Differential Pression différentielle d'ouverture Minimum Minimaler Differentialdruck zum Öffnen [bar] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | W | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [mm] | | | | | | |

CON ATTACCHI ODS DI RAME / WITH COPPER ODS CONNECTIONS / CONNEXIONS ODS CUIVRE / VERBINDUNG ODS KUPFER

| | | | | | | | | | | |
|--|------------|--------|----|---|-----|------|----|-----|------|----|
| | 3145EL/7 | 7/8" | 22 | - | 0,3 | 8,1 | 60 | -40 | +140 | 15 |
| | 3145EL/M28 | - | 28 | | | 10,4 | | | | 14 |
| | 3145EL/9 | 1.1/8" | - | | | 10,4 | | | | 14 |
| | 3145EL/11 | 1.3/8" | 35 | | | 15,6 | | | | 5 |
| | 3145E/7 | 7/8" | 22 | - | 0,3 | 8,1 | 80 | -40 | +140 | 15 |
| | 3145E/M28 | - | 28 | | | 10,4 | | | | 14 |
| | 3145E/9 | 1.1/8" | - | | | 10,4 | | | | 14 |
| | 3145E/11 | 1.3/8" | 35 | | | 15,6 | | | | 5 |

CON ATTACCHI ODS DI RAME RINFORZATO (K65) / WITH REINFORCED COPPER ODS CONNECTIONS (K65) / AVEC CONNEXION CUIVRE ODS RENFORCÉES (K65) / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG (K65)

| | | | | | | | | | | |
|--|----------|--------|----|---|-----|------|-----|-----|------|----|
| | 3147E/7 | 7/8" | 22 | - | 0,3 | 8,1 | 120 | -40 | +140 | 15 |
| | 3147E/9 | 1.1/8" | - | | | 10,4 | | | | 14 |
| | 3147E/11 | 1.3/8" | 35 | | | 15,6 | | | | 5 |

CON ATTACCHI D'ACCIAIO INOSSIDABILE / WITH STAINLESS STEEL CONNECTIONS / AVEC CONNEXION EN ACIER INOXYDABLE / MIT ANSCHLÜSSEN AUS ROSTFREIEM STAHL

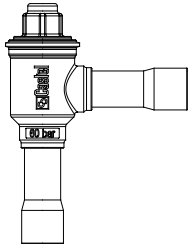
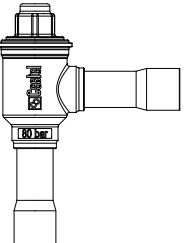
| | | | | | | | | | | |
|--|-----------|---|---|------|-----|------|-----|-----|------|----|
| | 3148E/M22 | - | - | 22 | 0,3 | 8,1 | 140 | -40 | +140 | 15 |
| | 3148E/M28 | - | - | 28 | | 10,4 | | | | 14 |
| | 3148E/M35 | - | - | 33,4 | | 15,6 | | | | 5 |

- (1): minima pressione a cui la valvola è completamente aperta
 (1): minimum pressure at which the valve is completely open.
 (1): pression minimum à laquelle le clapet est complètement ouvert
 (1): minimaler Druck, bei dem das Ventil vollständig geöffnet ist

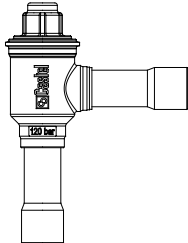
VALVOLE DI RITEGNO A SQUADRA
RIGHT-ANGLE CHECK VALVES
CLAPETS ANTI-RETOUR ANGLE DROIT
WINKELANSCHLUSS RÜCKSCHLAGVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Pressione differenziale minima d'apertura Minimum Opening Pressure Differential Pression différentielle d'ouverture Minimum Minimale Differentialdruck zum Öffnen [bar] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | W | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [mm] | | | | | | |

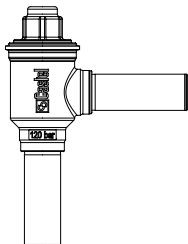
CON ATTACCHI ODS DI RAME / WITH COPPER ODS CONNECTIONS / AVEC CONNEXION CUIVRE ODS / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG

| | | | | | | | | | | |
|------------------------------------------------------------------------------------|------------|--------|----|---|---------|----|----|-----|-----|----|
|  | 3185EL/7 | 7/8" | 22 | – | 0,3 (1) | 9 | 60 | -40 | 150 | 14 |
| | 3185EL/M28 | – | 28 | – | | 19 | | | | 1 |
| | 3185EL/9 | 1.1/8" | – | – | | 19 | | | | 1 |
| | 3185EL/11 | 1.3/8" | 35 | – | | 29 | | | | 1 |
|  | 3185E/7 | 7/8" | 22 | – | 0,3 (1) | 9 | 80 | -40 | 150 | 14 |
| | 3185E/M28 | – | 28 | – | | 19 | | | | 1 |
| | 3185E/9 | 1.1/8" | – | – | | 19 | | | | 1 |
| | 3185E/11 | 1.3/8" | 35 | – | | 29 | | | | 1 |

CON ATTACCHI ODS DI RAME RINFORZATO (K65) / WITH REINFORCED COPPER ODS CONNECTIONS (K65) / AVEC CONNEXION CUIVRE ODS RENFORCÉES (K65) / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG (K65)

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|--------|----|---|---------|----|-----|-----|-----|----|
|  | 3187E/7 | 7/8" | 22 | – | 0,3 (1) | 9 | 120 | -40 | 150 | 14 |
| | 3187E/9 | 1.1/8" | – | – | | 19 | | | | 1 |
| | 3187E/11 | 1.3/8" | 35 | – | | 29 | | | | 1 |

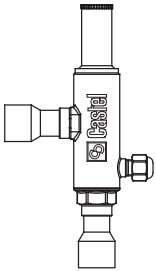
CON ATTACCHI D'ACCIAIO INOSSIDABILE / WITH STAINLESS STEEL CONNECTIONS / AVEC CONNEXION EN ACIER INOXYDABLE / MIT ANSCHLÜSSEN AUS ROSTFREIEM STAHL

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|-----------|---|---|------|---------|----|-----|-----|-----|----|
|  | 3188E/M22 | – | – | 22 | 0,3 (1) | 9 | 120 | -40 | 150 | 14 |
| | 3188E/M28 | – | – | 28 | | 19 | | | | 1 |
| | 3188E/M35 | – | – | 33,4 | | 29 | | | | 1 |

- (1): minima pressione a cui la valvola è completamente aperta
(1): minimum pressure at which the valve is completely open.
(1): pression minimum à laquelle le clapet est complètement ouvert
(1): minimaler Druck, bei dem das Ventil vollständig geöffnet ist




REGOLATORI DELLA PRESSIONE D'EVAPORAZIONE
 EVAPORATING PRESSURE REGULATORS
 RÉGULATEURS DE PRESSION D'ÉVAPORATION
 VERDAMPFUNGSDRUCKREGLER

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Campo di regolazione Regulation range Plage de régulation Regelbereich [bar] | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------------|-------------|------------------------------------------------------------------------------------------|---------------------------|-------------|---------|-------|------------------------------------------------------------|
| | | SAE Flare | ODS [in.] | ODS [mm] | | | | min | max | |
|  | 3335EL/M12S | - | - | 12 | 12 - 30 | 2,7 | 45 | -40 | + 110 | 15 |
| | 3335EL/4S | - | 1/2" | - | | | | | | 15 |
| | 3335EL/5S | - | 5/8" | 16 | | | | | | 15 |
| | 3335EL/7S | - | 7/8" | 22 | | | | | | 8 |

INDICATORI DI UMIDITÀ
 MOISTURE INDICATORS
 VOYANT LIQUIDE AVEC INDICATEURS D' HUMIDITE
 FLUESSIGKEITSINDIKATOREN


| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | W | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [mm] | | | | |

CON ATTACCHI ODS DI RAME / WITH COPPER ODS CONNECTIONS / AVEC CONNEXION CUIVRE ODS / MIT LÖTANSCHLUSS IN KUPFERAUFÜHRUNG



| | | | | | | | | |
|-------------------------------------------------------------------------------------|------------|--------|----|---|----|-----|------|----|
|  | 3940EL/M6 | - | 6 | - | 60 | -40 | +120 | 42 |
| | 3940EL/2 | 1/4" | - | - | | | | 42 |
| | 3940EL/3 | 3/8" | - | - | | | | 42 |
| | 3940EL/M10 | - | 10 | - | | | | 42 |
| | 3940EL/M12 | - | 12 | - | | | | 42 |
| | 3940EL/4 | 1/2" | - | - | | | | 42 |
| | 3940EL/5 | 5/8" | 16 | - | | | | 42 |
| | 3940EL/M18 | - | 18 | - | | | | 42 |
| | 3940EL/6 | 3/4" | - | - | | | | 42 |
| | 3940EL/7 | 7/8" | 22 | - | | | | 42 |
| | 3940EL/M28 | - | 28 | - | | | | 17 |
| | 3940EL/9 | 1.1/8" | - | - | | | | 17 |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | W | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [mm] | | | | |


CON ATTACCHI ODS DI RAME / WITH COPPER ODS CONNECTIONS / AVEC CONNEXION CUIVRE ODS / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG

| | | | | | | | | |
|-----------------------------------------------------------------------------------|-----------|--------|----|---|----|-----|------|----|
|  | 3740E/M6 | - | 6 | - | 80 | -40 | +120 | 42 |
| | 3740E/2 | 1/4" | - | - | | | | 42 |
| | 3740E/3 | 3/8" | - | - | | | | 42 |
| | 3740E/M10 | - | 10 | - | | | | 42 |
| | 3740E/M12 | - | 12 | - | | | | 42 |
| | 3740E/4 | 1/2" | - | - | | | | 42 |
| | 3740E/5 | 5/8" | 16 | - | | | | 42 |
| | 3740E/M18 | - | 18 | - | | | | 42 |
| | 3740E/6 | 3/4" | - | - | | | | 42 |
| | 3740E/7 | 7/8" | 22 | - | | | | 42 |
| | 3740E/M28 | - | 28 | - | | | | 17 |
| | 3740E/9 | 1.1/8" | - | - | | | | 17 |

CON ATTACCHI ODS DI RAME RINFORZATO (K65) / WITH REINFORCED COPPER ODS CONNECTIONS (K65) / AVEC CONNEXION CUIVRE ODS RENFORCÉES (K65) / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG (K65)

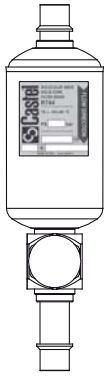
| | | | | | | | | |
|-------------------------------------------------------------------------------------|-------------------|--------|----|---|-----|-----|------|----|
|  | 3747E/2 | 1/4" | - | - | 120 | -40 | +120 | 42 |
| | 3747E/3 | 3/8" | - | - | | | | 42 |
| | 3747E/4 | 1/2" | - | - | | | | 42 |
| | 3747E/5 | 5/8" | 16 | - | | | | 42 |
| | 3747E/6 | 3/4" | - | - | | | | 42 |
| | 3747E/7 | 7/8" | 22 | - | | | | 42 |
| | 3747E/9 | 1.1/8" | - | - | | | | 17 |
|  | 3777E/11 N | 1.3/8" | 35 | - | | | | 17 |

CON ATTACCHI D'ACCIAIO INOSSIDABILE / WITH STAINLESS STEEL CONNECTIONS / AVEC CONNEXION EN ACIER INOXYDABLE / MIT ANSCHLÜSSEN AUS ROSTFREIEM STAHL


| | | | | | | | | |
|-------------------------------------------------------------------------------------|-----------|---|---|----|-----|-----|------|----|
|  | 3748E/M6 | - | - | 6 | 120 | -40 | +120 | 42 |
| | 3748E/M10 | - | - | 10 | | | | 42 |
| | 3748E/M12 | - | - | 12 | | | | 42 |
| | 3748E/M16 | - | - | 16 | | | | 42 |
| | 3748E/M18 | - | - | 18 | | | | 42 |
| | 3748E/M22 | - | - | 22 | | | | 42 |
| | 3748E/M28 | - | - | 28 | | | | 17 |



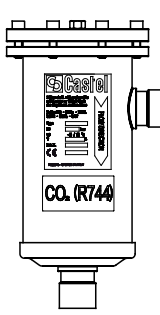
FILTRI DISIDRATATORI A CARTUCCIA SOLIDA 100% SETACCIO MOLECOLARE, CON INDICATORE D'UMIDITÀ - ATTACCHI A SALDARE
 SOLID CORE FILTER DRIERS 100% MOLECULAR SIEVES, WITH MOISTURE INDICATOR - SOLDER CONNECTIONS
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 100% TAMIS MOLECUCLAIR, ET INDICATEUR D' HUMIDITE - RACCORDS A SOUDER
 FILTERTROCKNER 100% MOLEKULARSIEB, MIT FLUESSIGKEITSINDIKATOREN - LÖTANSCHLÜSSE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler code | Attacchi Connections Raccords Anschlüsse | | | | Cubatura nominale Nominal volume Cubature nominale Nominaler rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|-------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | ODS | | ODM | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 4108E/3S | 083S | 3/8" | - | 1/2" | - | 52 | -40 | +80 | 24 | |
| | 4108E/M10S | - | - | 10 | - | 12 | | | | 24 | |
| | 4108E/M12S | - | - | 12 | - | 14 | | | | 24 | |
| | 4108E/4S | 084S | 1/2" | - | 5/8" | 16 | | | | 24 | |
| | 4116E/M12S | - | - | 12 | - | 14 | 250 | -40 | +80 | 14 | |
| | 4116E/4S | 164S | 1/2" | - | 5/8" | 16 | | | | 14 | |
| | 4116E/5S | 165S | 5/8" | 16 | 3/4" | - | | | | 14 | |

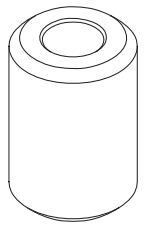
FILTRI DISIDRATATORI A CARTUCCIA SOLIDA 100% SETACCIO MOLECOLARE
 SOLID CORE FILTER DRIERS 100% MOLECULAR SIEVES
 FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE 100% TAMIS MOLECUCLAIR
 FILTERTROCKNER MIT 100% MOLEKULARSIEB

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler code | Attacchi Connections Raccords Anschlüsse | | | | Cubatura nominale Nominal volume Cubature nominale Nominaler rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------|---------|--------|-------------------------------------------------------------------------------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | | ODS | | ODM | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | |
|  | 4303E/2S | 032S | 1/4" | - | 3/8" | - | 60 | -40 | +80 | 45 | |
| | 4303E/3S | 032S | 1/4" | - | 3/8" | - | | | | 45 | |
| | 4305E/2S | 053S | 3/8" | - | 1/2" | - | | | | 34 | |
| | 4305E/3S | 053S | 3/8" | - | 1/2" | - | | | | 34 | |
| | 4305E/M10S | - | - | 10 | - | 12 | | | | 34 | |

FILTRI DISIDRATATORI A CARTUCCIA SOLIDA RICAMBIABILE - ATTACCHI D'ACCIAIO
FILTER DRIERS WITH REPLACEABLE SOLID CORE - STEEL CONNECTIONS
FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE REMPLAÇABLE - RACCORDS EN ACIER
FILTERTROCKNER FÜR UNIVERSAL BLOCKEINSATZ - STAHL-ANSCHLÜSSE

| Disegno Drawing Dessin Zeichnung | N° Catalogo Part number N° Catalogue Katalog Nr | | Attacchi Connections Raccords Anschlüsse | | | Tipo cartucce Cores type Type cartouches Patronentyp | N° cartucce N° of cores N° cartouches Patronenanzahl | Cubatura nominale Nominal volume Cubature nominale Nominaler rauminhalt [cm³] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------|--------|------|------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------|---------|-----|---------------------------------------------------------------|
| | Coperchio filettato Threaded cover Couvercle fileté Schraubkappe | Coperchio cieco Blind cover Couvercle borgne Blindkappe | ODS | | W | | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | | | | | | | | |
|  | 4411E/5AF | 4411E/5BF | 5/8" | 16 | 21,3 | 4490/B | 1 | 800 | 62 | -40 | +80 | 1 |
| | 4411E/7AF | 4411E/7BF | 7/8" | 22 | 26,9 | | | | | | | 1 |
| | 4411E/9AF | 4411E/9BF | 1.1/8" | - | 33,7 | | | | | | | 1 |
| | 4411E/11AF | 4411E/11BF | 1.3/8" | 35 | 42,4 | | | | | | | 1 |
| | 4411E/13AF | 4411E/13BF | 1.5/8" | - | 48,3 | | | | | | | 1 |
| | 4411E/M42AF | 4411E/M42BF | - | 42 | 48,3 | | | | | | | 1 |
| | 4411E/17AF | 4411E/17BF | 2.1/8" | 54 | 60,3 | | | | | | | 1 |
| | 4412E/7AF | 4412E/7BF | 7/8" | 22 | 26,9 | 2 | 1600 | 62 | -40 | +80 | 1 | |
| | 4412E/9AF | 4412E/9BF | 1.1/8" | - | 33,7 | | | | | | 1 | |
| | 4412E/11AF | 4412E/11BF | 1.3/8" | 35 | 42,4 | | | | | | 1 | |
| | 4412E/13AF | 4412E/13BF | 1.5/8" | - | 48,3 | | | | | | 1 | |
| | 4412E/M42AF | 4412E/M42BF | - | 42 | 48,3 | | | | | | 1 | |
| | 4412E/17AF | 4412E/17BF | 2.1/8" | 54 | 60,3 | | | | | | 1 | |

CARTUCCE PER FILTRI DISIDRATATORI
CARTRIDGES
CARTOUCHE SOLIDE
BLOCKEINSÄTZE

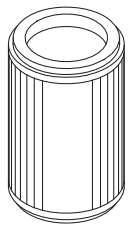
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Carica disidratante Dehydrating charge Charge déshydratant Bindemittel | N° cartucce N° of cores N° cartouches Patronenanzahl | Adatta per filtri Suitable for filter Adapté pour filtre Passend für filter | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | 4490/B (1) | 100 % Setaccio molecolare | 800 | 4411E/_AF-BF 4412E/_AF_BF | 15 |
| | | 100% Molecular sieve | | | |
| | | 100% Tamis moleculaire | | | |
| | | 100% Molekularsieb | | | |
| | 4490/AB (1) | 80% Setaccio molecolare + 20% allumina attivata | 800 | 4411E/_AF-BF 4412E/_AF_BF | 15 |
| | | 80% Molecular sieve + 20% activated alumina | | | |
| | | 80% Tamis moleculaire + 20% alumine activee | | | |
| | | 80% molekularsieb + 20% aktivem aluminium | | | |

Note:

- (1) Fornita senza guarnizione di ricambio del coperchio del filtro
- (1) Supplied without cover gasket as spare part
- (1) Fournie sans joint de rechange du couvercle du filtre
- (1) Ohne Ersatzdichtung für Filtergegenflansch geliefert

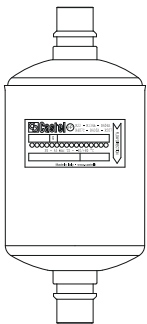


CARTUCCE PER FILTRI MECCANICI
MECHANICAL BLOCKS
CARTOUCHE POUR FILTRES MÉCANIQUE
FILTEREINSATZ FUER MECHANISCHE FILTER

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Superficie filtrante Filtering surface Surface filtrante Filterflaeche [cm ²] | Per filtri Suitable for filter Pour filtre Für filter | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------|
|  | 4495/C | 820 | 4411E/_CF | 15 |

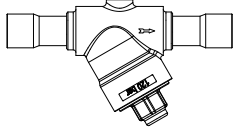
FILTRI A RETE
STRAINERS
FILTRES AVEC TAMIS MÉTALLIQUE
NETZFILTER

**NEW
2016**

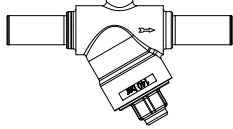
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | Superficie filtrante Filtering surface Surface filtrante Filterflaeche [cm ²] | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|---------|--------|-------------------------------------------------------------------------------------------------------|---------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | ODM | | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | | | | | | |
|  | 4520E/M10 | - | 10 | - | 12 | 58 | 60 | -40 | +80 | 34 | |
| | 4520E/M12 | - | 12 | - | 14 | | | | | 34 | |
| | 4520E/5 | 5/8" | 16 | 3/4" | - | | | | | 34 | |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Superficie filtrante Filtering surface Surface filtrante Filterflaeche [cm ²] | Luce maglia Mesh-opening Entraxe mailles Maschenweite [mm] | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | | | | | min | max | |
| | | Ø [in.] | Ø [mm] | | | | | | | |

CON ATTACCHI ODS DI RAME RINFORZATO (K65) / WITH REINFORCED COPPER ODS CONNECTIONS (K65) / AVEC CONNEXION CUIVRE ODS RENFORCÉES (K65) / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG (K65)

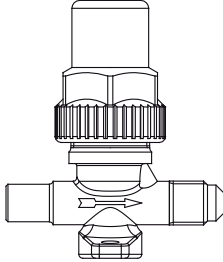
| | | | | | | | | | | |
|-----------------------------------------------------------------------------------|----------|--------|---|----|-------|---|-----|-----|------|----|
|  | 4727E/7 | 7/8" | - | 27 | 0,200 | 6 | 120 | -40 | +140 | 15 |
| | 4727E/9 | 1.1/8" | - | 27 | | 6 | | | | 14 |
| | 4727E/11 | 1.3/8" | - | 48 | | 7 | | | | 5 |

CON ATTACCHI D'ACCIAIO INOSSIDABILE / WITH STAINLESS STEEL CONNECTIONS / AVEC CONNEXION EN ACIER INOXYDABLE / MIT ANSCHLÜSSEN AUS ROSTFREIEM STAHL

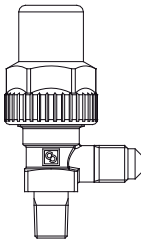
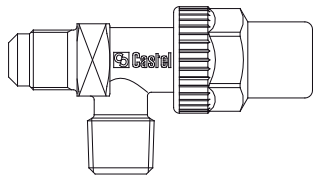
| | | | | | | | | | | |
|------------------------------------------------------------------------------------|-----------|---|----|----|-------|---|-----|-----|------|----|
|  | 4728E/M22 | - | 22 | 27 | 0,200 | 6 | 140 | -40 | +140 | 15 |
| | 4728E/M28 | - | 28 | 27 | | 6 | | | | 14 |
| | 4728E/M35 | - | 35 | 48 | | 7 | | | | 5 |



RUBINETTI PER SISTEMI FRIGORIFERI ERMETICI
 VALVES FOR HERMETIC SYSTEMS
 VANNES POUR INSTALLATIONS DE GROUPES HERMÉTIQUES
 KLEINVENTILE FUER HERMETISCHE KÄELTEANLAGEN

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Att. Carica Acces fitting Raccord chargement Fullanschluss SAE Flare | Attacchi Connections Raccords Anschlüsse | | | | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------|---------|--------|------|---------------------------|-------------|---------|----|------------------------------------------------------------|
| | | | SAE Flare | ODS | | min | | | max | | |
| | | | | Ø [in.] | Ø [mm] | | | | | | |
|  | 6010E/2 | - | 1/4" | 1/4" | - | 0,27 | 120 | -40 | +130 | 45 | |
| | 6012E/22 | - | 1/4" | - | 1/4" | | | | | - | 72 |

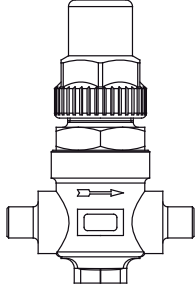
RUBINETTI PER SERBATOIO
 RECEIVER VALVES
 VANNES POUR RÉSERVOIR
 SAMMLER VENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|------|---------------------------|-------------|---------|------|------------------------------------------------------------|
| | | SAE Flare | NPT | | | min | max | |
|  | 6110E/22 | 1/4" | 1/4" | 0,44 | 120 | -40 | +130 | 90 |
| | 6110E/33 | 3/8" | 3/8" | 1,35 | | | | 90 |
| | 6110E/44 | 1/2" | 1/2" | 3,4 | | | | 90 |
|  | 6120E/22 | 1/4" | 1/4" | 0,44 | 120 | -40 | +130 | 90 |
| | 6120E/33 | 3/8" | 3/8" | 1,35 | | | | 90 |
| | 6120E/44 | 1/2" | 1/2" | 3,4 | | | | 90 |



CO₂

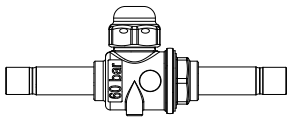
RUBINETTI A CAPPELLOTTO
 CAPPED VALVES
 VANNES A CAPUCHON
 KAPPENVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|-----------|--------|---------------------------|-------------|---------|------|------------------------------------------------------------|
| | | SAE FLARE | ODS | | | | min | max | |
| | | | Ø [in.] | Ø [mm] | | | | | |
|  | 6420E/2 | - | 1/4" | - | 0,4 | 120 | -40 | +130 | 45 |
| | 6420E/3 | - | 3/8" | - | 1 | | | | 45 |
| | 6420E/3S3 | 3/8" - OUT | 3/8" - IN | - | 1 | | | | 45 |
| | 6420E/4 | - | 1/2" | - | 1,45 | | | | |



| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Foro Sfera Ø Ball port Ø Orifice bille Ø Bohrung Ø [mm] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------|---------------------------------------------------------------------|--------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | W | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [mm] | | | | | | |

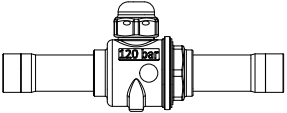
CON ATTACCHI ODS DI RAME / WITH COPPER ODS CONNECTIONS / AVEC CONNEXION CUIVRE ODS / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG

| | | | | | | | | | | | |
|-----------------------------------------------------------------------------------|-------------------|--------|----|----|-----|-----|-----|------|------|----|-----|
|  | 6570EL/M6 | — | 6 | — | 10 | 0,8 | 60 | -40 | +150 | 25 | |
| | 6570EL/2 | 1/4" | — | — | | | | | | 3 | 25 |
| | 6570EL/3 | 3/8" | — | — | | | | | | | 25 |
| | 6570EL/M10 | — | 10 | — | | 5 | | | | 25 | |
| | 6570EL/M12 | — | 12 | — | | | | | | 25 | |
| | 6570EL/4 | 1/2" | — | — | | 15 | | | | 17 | 25 |
| | 6570EL/5 | 5/8" | 16 | — | 16 | | | | | | |
| | 6570EL/M18 | — | 18 | — | 16 | | | | | | |
| | 6570EL/6 | 3/4" | — | — | 19 | 29 | 21 | | | | |
| | 6570EL/7 | 7/8" | 22 | — | | | 16 | | | | |
| | 6570EL/M28 | — | 28 | — | | | 16 | | | | |
| | 6570EL/9 | 1.1/8" | — | — | 25 | 51 | 16 | | | | |
| | 6590EL/11 | 1.3/8" | 35 | — | 32 | 86 | 60 | -40 | -150 | 5 | |
| | 6590EL/13 | 1.5/8" | — | — | 38 | 117 | | | | 10 | |
| | 6590EL/M42 | — | 42 | — | | | | | | 10 | |
| | 6590EL/17 | 2.1/8" | 54 | — | 50 | 214 | | | | 1 | |
| | 6570E/M6 N | — | 6 | — | 10 | 0,8 | | | | 80 | -40 |
| 6570E/2 N | 1/4" | — | — | 3 | | | 25 | | | | |
| 6570E/3 N | 3/8" | — | — | | | | 25 | | | | |
| 6570E/M10 N | — | 10 | — | 5 | | 25 | | | | | |
| 6570E/M12 N | — | 12 | — | | | 25 | | | | | |
| 6570E/4 N | 1/2" | — | — | 15 | | 17 | 25 | | | | |
| 6570E/5 N | 5/8" | 16 | — | | 16 | | | | | | |
| 6570E/M18 N | — | 18 | — | | 16 | | | | | | |
| 6570E/6 N | 3/4" | — | — | 19 | 29 | 16 | | | | | |
| 6570E/7 N | 7/8" | 22 | — | | | 21 | | | | | |
| 6570E/M28 N | — | 28 | — | | | 16 | | | | | |
| 6570E/9 N | 1.1/8" | — | — | 25 | 51 | 16 | | | | | |
| 6590E/11 | 1.3/8" | 35 | — | 32 | 86 | 80 | -40 | -150 | 5 | | |
| 6590E/13 | 1.5/8" | — | — | 38 | 117 | | | | 10 | | |
| 6590E/M42 | — | 42 | — | | | | | | 10 | | |
| 6590E/17 | 2.1/8" | 54 | — | 50 | 214 | | | | 1 | | |

Rubineti da 6590E/M6 a 6590E/9 in esaurimento scorte
Valves from 6590E/M6 up to 6590E/9 running out of stock
Vannes de 6590E/M6 jusqu'à 6590E/9 en épuisement du stock
Ventile von 6590E/M6 bis 6590E/9 bis zum Ende der Vorräte erhältlich

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | Foro Sfera Ø Ball port Ø Orifice bille Ø Bohrung Ø [mm] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------|---------------------------------------------------------------------|--------------|-------------|---------|-----|------------------------------------------------------------|
| | | ODS | | W | | | | min | max | |
| | | Ø [in.] | Ø [mm] | Ø [mm] | | | | | | |

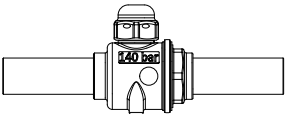
CON ATTACCHI ODS DI RAME RINFORZATO (K65) / WITH REINFORCED COPPER ODS CONNECTIONS (K65) / AVEC CONNEXION CUIVRE ODS RENFORCÉES (K65) / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG (K65)

| | | | | | | | | | | | |
|-----------------------------------------------------------------------------------|----------|---|--------|----|---|----|-----|-----|-----|------|----|
|  | 6577E/2 | N | 1/4" | – | – | 10 | 0,8 | 120 | -40 | +150 | 25 |
| | 6577E/3 | N | 3/8" | – | – | | 3 | | | | 25 |
| | 6577E/4 | N | 1/2" | – | – | | 5 | | | | 25 |
| | 6577E/5 | N | 5/8" | 16 | – | 15 | 17 | | | | 16 |
| | 6577E/6 | N | 3/4" | – | – | | | | | | 16 |
| | 6597E/7 | | 7/8" | 22 | – | 19 | 29 | | | | 17 |
| | 6597E/9 | | 1.1/8" | – | – | 25 | 51 | | | | 14 |
| | 6597E/11 | | 1.3/8" | 35 | – | 32 | 86 | | | | 5 |
| | 6597E/13 | | 1.5/8" | – | – | 38 | 117 | | | | 5 |
| | 6597E/17 | | 2.1/8" | 54 | – | 50 | 214 | | | | 1 |

Rubinetti da 6597E/3 a 6597E/6 in esaurimento scorte
Valves from 6597E/3 up to 6597E/6 running out of stock

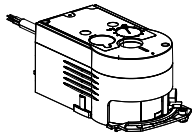
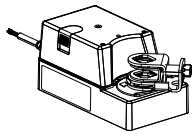
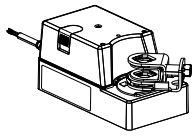
Vannes de 6597E/3 jusqu'à 6597E/6 en épuisement du stock
Ventile von 6597E/3 bis 6597E/6 bis zum Ende der Vorräte erhältlich

CON ATTACCHI D'ACCIAIO INOSSIDABILE / WITH STAINLESS STEEL CONNECTIONS / AVEC CONNEXION EN ACIER INOXYDABLE / MIT ANSCHLÜSSEN AUS ROSTFREIEM STAHL

| | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|-----------|---|---|---|------|----|-----|-----|-----|------|----|
|  | 6578E/M6 | N | – | – | 6 | 10 | 0,8 | 140 | -40 | +150 | 25 |
| | 6578E/M10 | N | – | – | 10 | | 3 | | | | 25 |
| | 6578E/M12 | N | – | – | 12 | | 5 | | | | 25 |
| | 6578E/M16 | N | – | – | 16 | 15 | 17 | | | | 16 |
| | 6578E/M18 | N | – | – | 18 | | | | | | 16 |
| | 6598E/M22 | | – | – | 22 | 19 | 29 | | | | 17 |
| | 6598E/M28 | | – | – | 28 | 25 | 51 | | | | 14 |
| | 6598E/M35 | | – | – | 33,4 | 32 | 86 | | | | 5 |
| | 6598E/M42 | | – | – | 42,2 | 38 | 117 | | | | 5 |

Rubinetti da 6598E/M6 a 6598E/M18 in esaurimento scorte
Valves from 6598E/M6 up to 6598E/M18 running out of stock

Vannes de 6598E/M6 jusqu'à 6598E/M18 en épuisement du stock
Ventile von 6598E/M6 bis 6598E/M18 bis zum Ende der Vorräte erhältlich

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Adatto per rubinetto Designed for valve Adaptée pour vanne Passed für ventil | Angolo di manovra Rotation angle Angle de rotation Drehwinkel | Coppia Torque Couple Drehmo- ment [Nm] | Tempo di marcia Running time Durée de course Laufzeit [sec] | Tensione Voltage Tension Spannung [V] | Frequenza Frequency Fréquence Frequenz [Hz] | Potenza Power Puissance Leistung [W] | Temperatura ambiente Ambient temperature Température ambiante Umgebungstem- peratur [°C] | | Grado di protezione Degree of protection Degré de protection Schutzgrad | Confezione n° pz Packa ge pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| | | | | | | | | | Min | Max | | |
|  | 9700/RA2 (1) | 6570EL/3; 6570EL/M10 6570EL/M12; 6570EL/4 6570EL/5; 6570EL/M18 6570EL/6; 6570EL/7 6570EL/M28; 6570EL/9 6570E/3; 6570E/M10 6570E/M12; 6570E/4; 6570E/5; 6570E/M18 6570E/6; 6570E/7 6570E/M28; 6570E/9 6577E/3; 6577E/4 6577E/5; 6577E/6 6578E/M10 6578E/M12; 6578E/M16 6578E/M18 6590E/3; 6590E/M10 6590E/M12; 6590E/4 6590E/5; 6590E/M18 6590E/6; 6590E/7 6590E/M28; 6590E/9 6597E/3; 6597E/4 6597E/5; 6597E/6 6597E/7; 6597E/9 6598E/M10; 6598E/M12 6598E/M16; 6598E/M18 6598E/M22; 6598E/M28 | 90° | 10 | 60 | 24 | 50/60 | 4,8 | -20 | +55 | IP 54 | 1 |
|  | 9700/RA6 (2) | 6570EL/7; 6570EL/M28 6570EL/9 6570E/7; 6570E/M28 6570E/9 6590E/7; 6590E/M28; 6590E/9 6597E/7; 6597E/9 6598E/M22; 6598E/M28 | 90° | 10 | 60 | 230 | 50/60 | 2,9 | -20 | +55 | IP 54 | 1 |
|  | 9720/RA2 (1) | 6590EL/11 ; 6590EL/13 6590EL/M42 6590E/11; 6590E/13; 6590E/M42 6597E/11; 6597E/13 6598E/M35; 6598E/M42 | 90° | 30 | 120 | 24 | 50/60 | 2,4 | -20 | +55 | IP 54 | 1 |
| | 9720/RA6 (2) | 6590EL/11; 6590EL/13 6590EL/M42 6590E/11; 6590E/13 6590E/M42 6597E/11; 6597E/13 6598E/M35; 6598E/M42 | 90° | 30 | 120 | 230 | 50/60 | 3,7 | -20 | +55 | IP 54 | 1 |

(1) Connessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso) oppure uscita in continua (0 ÷ 10V)

(1) Wiring connections : switching output 2 points (open/close) or continuous output (0 ÷ 10V)

(1) Connexions électriques : sortie à contacts à 2 points (ouvert/fermé) ou sortie progressive (0 ÷ 10V)

(1) Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen) oder Stetigem Ausgang (0 ÷ 10V)

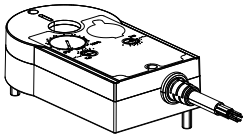
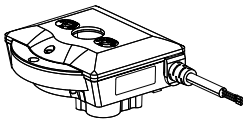
(2) Connessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso)

(2) Wiring connections : switching output 2 points (open/close)

(2) Connexions électriques : sortie à contacts à 2 points (ouvert/fermé)

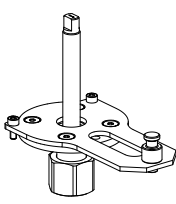
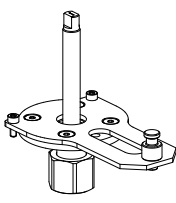
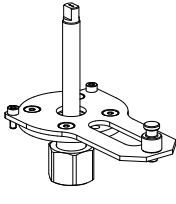
(2) Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen)

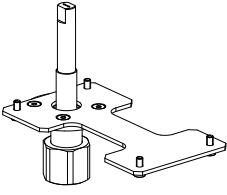
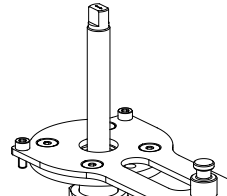
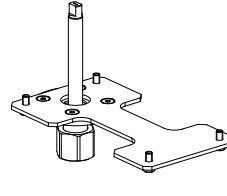
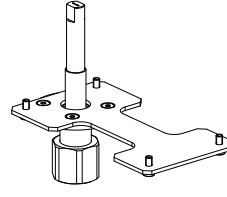


| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Adatto per attuatore Designed for actuator Adaptée pour servomoteur Passed für stellantrieb | Tipo contatto Contact type Type contact Kontakt Typ [Nm] | Carico massimo Max loading Charge maximale Belastung [A] | Temperatura ambiente Ambient temperature Température ambiante Umgebungstemperatur [°C] | | Grado di protezione Degree of protection Degré de protection Schutzgrad | Confezione n° pz Package pcs Emballage Verpackung |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------|------------------------------------------------------------|
| | | | | | Min | Max | | |
|  | 9750/X01 | 9700/RA2 | Doppio Double Double Dopplet | 5 | -20 | +55 | IP 54 | 1 |
|  | 9750/X02 | 9700/RA6 9720/RA2 9720/RA6 | Doppio Double Double Dopplet | 5 | -20 | +55 | IP 54 | 1 |

ADATTATORI PER ATTUATORE
SERVOMOTOR ADAPTERS
ADAPTEURS POUR SERVOMOTEUR
LOETADAPTERS FÜR STELLANTRIEB

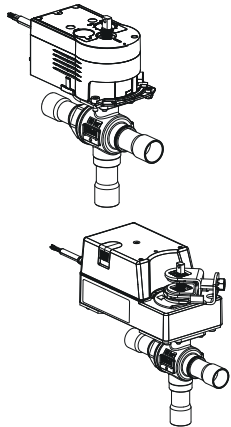
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| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Adatto per attuatore Designed for actuator Adaptée pour servomoteur Passed für stellantrieb | Adatto per rubinetto Designed for valve Adaptée pour vanne Passed für ventil | Note Note Note Notiz | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | 9901/X30 | 9700/RA2 (10 Nm ; 24 V) | 6570EL/3; 6570EL/M10; 6570EL/M12 6570EL/4; 6570EL/5; 6570EL/M18 6570EL/6 6570E/3; 6570E/M10; 6570E/M12 6570E/4; 6570E/5; 6570E/M18 6570E/6 6577E/3; 6577E/4; 6577E/5; 6577E/6 6578E/M10; 6578E/M12; 6578E/M16 6578E/M18 | - | 1 |
|  | 9901/X29 | 9700/RA2 (10 Nm ; 24 V) | 6590E/3 ; 6590E/M10 ; 6590E/M12 6590E/4; 6590E/5; 6590E/M18; 6590E/6 6597E/3; 6597E/4; 6597E/5; 6597E/6 6598E/M10; 6598E/M12; 6598E/M16; 6598E/M18 | Rubinetto in esaurimento scorte Valves running out of stock Vannes en épuisement du stoc Ventile bis zum Ende der Vorräte erhältlich | 1 |
|  | 9901/X27 | 9700/RA2 (10 Nm ; 24 V) | 6570EL/7; 6570EL/M28; 6570EL/9 6570E/7; 6570E/M28; 6570E/9 | - | 1 |

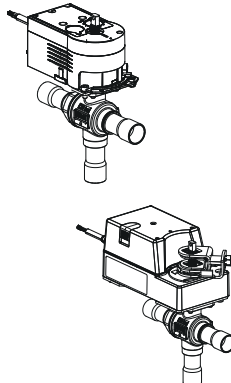
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Adatto per attuatore Designed for actuator Adaptée pour servomoteur Passed für stellantrieb | Adatto per rubinetto Designed for valve Adaptée pour vanne Passed für ventil | Note Note Note Notiz | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | 9901/X28 | 9700/RA6 (10 Nm ; 230 V) | 6570EL/7; 6570EL/M28; 6570EL/9 6570E/7; 6570E/M28; 6570E/9 | - | 1 |
|  | 9901/X21 | 9700/RA2 (10 Nm ; 24 V) | 6590E/7; 6590E/M28; 6590E/9 (1) 6597E/7; 6597E/9 6598E/M22; 6598E/M28 | (1) Rubinetti in esaurimento scorte (1) Valves running out of stock (1) Vannes en épuisement du stoc (1) Ventile bis zum Ende der Vorräte erhältlich | 1 |
|  | 9901/X22 | 9700/RA6 (10 Nm ; 230 V) | 6590E/7; 6590E/M28; 6590E/9 (1) 6597E/7; 6597E/9 6598E/M22; 6598E/M28 | (1) Rubinetti in esaurimento scorte (1) Valves running out of stock (1) Vannes en épuisement du stoc (1) Ventile bis zum Ende der Vorräte erhältlich | 1 |
|  | 9901/X23 | 9720/RA2 ; 9720/RA6 (30 Nm ; 230 V) | 6590EL/11; 6590EL/13; 6590EL/M42 6590E/11; 6590E/13; 6590E/M42 6597E/11; 6597E/13 6598E/M35; 6598E/M42 | - | 1 |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Coppia Torque Couple Drehmoment [Nm] | Tempo di marcia Running time Durée de course Laufzeit [sec] | Potenza Power Puissance Leistung [W] | Foro Siera Ø Ball port Ø Orifice bille Ø Bohrung Ø [mm] | Kv [m ³ /h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------|---------------------------|-------------|---------|-----|------------------------------------------------------------------|
| | | ODS | | | | | | | | min | max | |
| | | Ø [in.] | Ø [mm] | | | | | | | | | |

CON ATTACCHI ODS DI RAME / WITH COPPER ODS CONNECTIONS / AVEC CONNEXION CUIVRE ODS / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG

| | | | | | | | | | | | | |
|-----------------------------------------------------------------------------------|------------------|--------|----|----|-----|-----|----|------|----|-----|------|---|
|  | 6690EM/7A2 (2) | 7/8" | 22 | 10 | 60 | 4,8 | 19 | 10,7 | 80 | -40 | +150 | 1 |
| | 6690EM/7A6 (3) | | | | | 2,9 | | | | | | 1 |
| | 6690EM/M28A2 (2) | - | 28 | 10 | 60 | 4,8 | 24 | 15,9 | | | | 1 |
| | 6690EM/M28A6 (3) | | | | | 2,9 | | | | | | 1 |
| | 6690EM/9A2 (2) | 1.1/8" | - | 10 | 60 | 4,8 | 24 | 15,9 | | | | 1 |
| | 6690EM/9A6 (3) | | | | | 2,9 | | | | | | 1 |
| | 6690EM/11A2 (2) | 1.3/8" | 35 | 30 | 120 | 2,4 | 28 | 20,3 | | | | 1 |
| | 6690EM/11A6 (3) | | | | | 3,7 | | | | | | 1 |
| | 6690EM/13A2 (2) | 1.5/8" | - | 30 | 120 | 2,4 | 37 | 38,5 | | | | 1 |
| | 6690EM/13A6 (3) | | | | | 3,7 | | | | | | 1 |
| | 6690EM/M42A2 (2) | - | 42 | 30 | 120 | 2,4 | 37 | 38,5 | | | | 1 |
| | 6690EM/M42A6 (3) | | | | | 3,7 | | | | | | 1 |

CON ATTACCHI ODS DI RAME RINFORZATO (K65) / WITH REINFORCED COPPER ODS CONNECTIONS (K65) / AVEC CONNEXION CUIVRE ODS RENFORCÉES (K65) / MIT LÖTANSCHLUSS IN KUPFERAUSFÜHRUNG (K65)

| | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|-----------------|--------|----|----|-----|-----|----|------|-----|-----|------|---|
|  | 6697EM/7A2 (2) | 7/8" | 22 | 10 | 60 | 4,8 | 19 | 10,7 | 120 | -40 | +150 | 1 |
| | 6697EM/7A6 (3) | | | | | 2,9 | | | | | | 1 |
| | 6697EM/9A2 (2) | 1.1/8" | - | 10 | 60 | 4,8 | 24 | 15,9 | | | | 1 |
| | 6697EM/9A6 (3) | | | | | 2,9 | | | | | | 1 |
| | 6697EM/11A2 (2) | 1.3/8" | 35 | 30 | 120 | 2,4 | 28 | 20,3 | | | | 1 |
| | 6697EM/11A6 (3) | | | | | 3,7 | | | | | | 1 |
| | 6697EM/13A2 (2) | 1.5/8" | - | 30 | 120 | 2,4 | 37 | 38,5 | | | | 1 |
| | 6697EM/13A6 (3) | | | | | 3,7 | | | | | | 1 |

(1): completo di attuatore e piastra di montaggio

(1): with actuator and mounting plate

(1): avec servomoteur et la plaque de montage

(1): mit Stellantrieb und Montageplatte

Nota (2)

- Tensione = 24 V

- Frequenza = 50/60 Hz

- Grado di protezione = IP 54

- Angolo di manovra = 90°

- Connessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso)
oppure uscita in continua (0 ÷ 10V)

- Voltage = 24 V

- Frequency = 50/60 Hz

- Degree of protection = IP 54

- Rotation angle = 90°

- Wiring connections : switching output 2 points (open/close) or continuous output (0 ÷ 10V)

- Tension = 24 v

- Fréquence = 50/60 Hz

- Degré de protection = IP 54

- Angle de rotation = 90°

- Connexions électriques : sortie à contacts à 2 points (ouvert/fermé) ou sortie progressive (0 ÷ 10V)

- Spannung = 24 V

- Frequenz = 50/60 Hz

- Schutzgrad = IP 54

- Drehwinkel = 90°

- Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen) oder Stetigem Ausgang (0 ÷ 10V)

Nota (3)

- Tensione = 230 V

- Frequenza = 50/60 Hz

- Grado di protezione = IP 54

- Angolo di manovra = 90°

- Connessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso)

- Voltage = 230 V

- Frequency = 50/60 Hz

- Degree of protection = IP 54

- Rotation angle = 90°

- Wiring connections : switching output 2 points (open/close)

- Tension = 230 V

- Fréquence = 50/60 Hz

- Degré de protection = IP 54

- Angle de rotation = 90°

- Connexions électriques : sortie à contacts à 2 points (ouvert/fermé)

- Spannung = 230 V

- Frequenz = 50/60 Hz

- Schutzgrad = IP 54

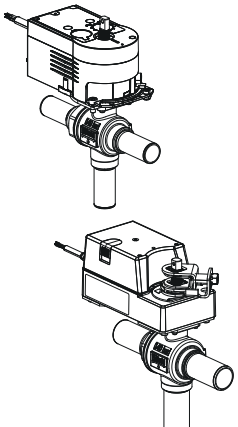
- Drehwinkel = 90°

- Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen)



| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Coppia Torque Couple Drehmoment [Nm] | Tempo di marcia Running time Durée de course Laufzeit [sec] | Potenza Power Puissance Leistung [W] | Foro Sfera Ø Ball port Ø Orifice bille Ø Bohrung Ø [mm] | Kv [m³/h] | PS [bar] | TS [°C] | | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|--------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------|--------------|-------------|---------|-----|------------------------------------------------------------------|
| | | W | Ø [mm] | | | | | | | min | max | |

CON ATTACCHI D'ACCIAIO INOSSIDABILE / WITH STAINLESS STEEL CONNECTIONS / AVEC CONNEXION EN ACIER INOXYDABLE / MIT ANSCHLÜSSEN AUS ROSTFREIEM STAHL

| | | | | | | | | | | | |
|-----------------------------------------------------------------------------------|------------------|------|----|-----|-----|----|------|-----|-----|------|---|
|  | 6698EM/M22A2 (2) | 22 | 10 | 60 | 4,8 | 19 | 10,7 | 140 | -40 | +150 | 1 |
| | 6698EM/M22A6 (3) | | | | 2,9 | | | | | | 1 |
| | 6698EM/M28A2 (2) | 28 | 10 | 60 | 4,8 | 24 | 15,9 | 140 | -40 | +150 | 1 |
| | 6698EM/M28A6 (3) | | | | 2,9 | | | | | | 1 |
| | 6698EM/M35A2 (2) | 33,4 | 30 | 120 | 2,4 | 28 | 20,3 | 140 | -40 | +150 | 1 |
| | 6698EM/M35A6 (3) | | | | 3,7 | | | | | | 1 |
| | 6698EM/M42A2 (2) | 42,2 | 30 | 120 | 2,4 | 37 | 38,5 | 140 | -40 | +150 | 1 |
| | 6698EM/M42A6 (3) | | | | 3,7 | | | | | | 1 |

(1): completo di attuatore e piastra di montaggio
 (1): with actuator and mounting plate
 (1): avec servomoteur et la plaque de montage
 (1): mit Stellantrieb und Montageplatte

Nota (2)

- Tensione = 24 V
 - Frequenza = 50/60 Hz
 - Grado di protezione = IP 54
 - Angolo di manovra = 90 °
 - Connessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso) oppure uscita in continua (0 ÷ 10V)

- Voltage = 24 V
 - Frequency = 50/60 Hz
 - Degree of protection = IP 54
 - Rotation angle = 90°
 - Wiring connections : switching output 2 points (open/close) or continuous output (0 ÷ 10V)

- Tension = 24 v
 - Fréquence = 50/60 Hz
 - Degré de protection = IP 54
 - Angle de rotation = 90°
 - Connexions électriques : sortie à contacts à 2 points (ouvert/fermé) ou sortie progressive (0 ÷ 10V)

- Spannung = 24 V
 - Frequenz = 50/60 Hz
 - Schutzgrad = IP 54
 - Drehwinkel = 90°
 - Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen) oder Stetigem Ausgang (0 ÷ 10V)

Nota (3)

- Tensione = 230 V
 - Frequenza = 50/60 Hz
 - Grado di protezione = IP 54
 - Angolo di manovra = 90 °
 - Connessioni elettriche : uscita in commutazione a 2 punti (aperto/chiuso)

- Voltage = 230 V
 - Frequency = 50/60 Hz
 - Degree of protection = IP 54
 - Rotation angle = 90°
 - Wiring connections : switching output 2 points (open/close)

- Tension = 230 V
 - Fréquence = 50/60 Hz
 - Degré de protection = IP 54
 - Angle de rotation = 90°
 - Connexions électriques : sortie à contacts à 2 points (ouvert/fermé)

- Spannung = 230 V
 - Frequenz = 50/60 Hz
 - Schutzgrad = IP 54
 - Drehwinkel = 90°
 - Anschlussplan : Schaltendem Ausgang 2 Punkt (offen/geschlossen)

RICAMBI PER INDICATORI DI UMIDITÀ
 ACCESSORIES AND SPARE PARTS FOR MOISTURE INDICATORS
 PARTS POUR VOYANT LIQUIDE AVEC INDICATEURS D'HUMIDITE
 ERSATZTEILE FÜR FLÜSSIGKEITSINDIKATOREN

| N° catalogo Part number N° Catalogue Katalog Nr | Descrizione Description Description Beschreibung | Utilizzabile per: Suitable for: Utilisable pour Geeignet für | Note Note Notes Hinweise |
|----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------|
| 9150/R88 | Sottogruppo ghiera | Indicatori tipo 3740E/.. ; 3747E/.. ; 3748E/.. ; 3777E/11 | |
| | Cappuccio di protezione | | |
| | O-R ghiera/corpo | | |
| | Pre-assembled nut | Indicators type 3740E/.. ; 3747E/.. ; 3748E/.. ; 3777E/11 | |
| | Protection cap | | |
| | Nut/body O Ring | | |
| | Écrou pré-assemblé | Voyant type 3740E/.. ; 3747E/.. ; 3748E/.. ; 3777E/11 | |
| | Bouchon de protection | | |
| | Joint écrou/corps | | |
| | Unterbaugruppe Ringmutter | Indikatoren typ 3740E/.. ; 3747E/.. ; 3748E/.. ; 3777E/11 | |
| | Schutzkappe | | |
| | O-R Ringmutter/Korpus | | |

RICAMBI PER FILTRI DISIDRATATORI A CARTUCCIA SOLIDA RICAMBIABILE
 ACCESSORIES AND SPARE PARTS FOR FILTER DRIERS WITH REPLACEABLE SOLID CORE
 PARTS POUR FILTRES DÉSHYDRATEURS AVEC CARTOUCHE SOLIDE REMPLAÇABLE
 ERSATZTEILE FÜR FILTERTROCKNER FÜR UNIVERSAL BLOCKEINSAT

| N° catalogo Part number N° Catalogue Katalog Nr | Descrizione Description Description Beschreibung | Utilizzabile per: Suitable for: Utilisable pour Geeignet für | Note Note Notes Hinweise | | | | |
|----------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|--|
| 003319 | Molla | Filtri tipo: Filters type: Filtres type: Filtertrockner typ: 4411E/_ ; 4412E/_ | | | | | |
| | Spring | | | | | | |
| | Ressort | | | | | | |
| | Feder | | | | | | |
| 111134 | Controflangia filettata 1/4" NPT | | | Filtri tipo: Filters type: Filtres type: Filtertrockner typ: 4411E/_ AF ; 4412E/_ AF | | | |
| | 1/4 " NPT threaded cover | | | | | | |
| | Couvercle fileté 1/4" NPT | | | | | | |
| | Schraubdeckel 1/4" NPT | | | | | | |
| 111135 | Guarnizione controflangia | | | | | Filtri tipo: Filters type: Filtres type: Filtertrockner typ: 4411E/_ AF ; 4412E/_ AF | |
| | Cover gasket | | | | | | |
| | Joint de couvercle | | | | | | |
| | Deckeldichtung | | | | | | |
| 9150/R92 | Confezione 8 viti M8 x 35 | Filtri tipo: Filters type: Filtres type: Filtertrockner typ: 4411E/_ AF ; 4412E/_ AF | | | | | |
| | Package 8 screws M8 x 35 | | | | | | |
| | Emballege 8 vis M8x35 | | | | | | |
| | Verpackung 8 Schrauben M8x35 | | | | | | |
| 009406 | Coperchio per solid core | | | Filtri tipo: Filters type: Filtres type: Filtertrockner typ: 4411E/_ AF ; 4412E/_ AF | | | |
| | Dehydrating block top | | | | | | |
| | Couvercle pour cartouche solide | | | | | | |
| 003324 | Deckel für blockeinsätze | | | | | | |
| | Fondello per solid core | | | | | | |
| | Dehydrating block bottom | | | | | | |
| | Fond pour cartouche solide | | | | | | |
| 007677 | Unterseite für blockeinsätze | | | | | Filtri tipo: Filters type: Filtres type: Filtertrockner typ: 4411E/_ AF ; 4412E/_ AF | |
| | Tubo filtrante per un solid core | | | | | | |
| | Filtering tube for one block | | | | | | |
| | Tube de filtrage pour 1 cartouche solide | | | | | | |
| 9150/R57 | Filterrohr für 1 blockeinsätze | Filtri tipo: Filters type: Filtres type: Filtertrockner typ: 4411E/_ CF | | | | | |
| | Coperchio e fondello per cartuccia meccanica | | | | | | |
| | Top and bottom for mechanical block | | | | | | |
| | Couvercle et fond pour cartouche mécanique | | | | | | |
| 9150/R57 | Deckel und Unterseite für Mechanische Filteriersatz | | | Filtri tipo: Filters type: Filtres type: Filtertrockner typ: 4411E/_ CF | | | |
| | | | | | | | |






CO₂

REFRIGERANTE HFC / HFO / HC / CO₂
HFC / HFO / HC / CO₂ REFRIGERANTS
FLUIDE FRIGORIGENE HFC / HFO / HC / CO₂
HFKW / HFO / HC / CO₂ KALTEMITTEL

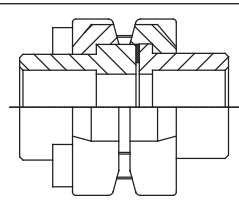
(R134a, R22, R32, R404A, R407C, R410A, R507)
(R1234yf, R1234ze, R448A, R449A, R450A, R452A)
(R290, R600, R600a)
(R744)

ANTIVIBRANTI
VIBRATION ABSORBERS
ÉLIMINATEURS DE VIBRATIONS
SCHWINGUNGSDÄMPFER

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | PS [bar] | | | Confezione n° pz Package pcs Emballage Verpackung |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|---------------------|-----------------|-----------------|------------------------------------------------------------|
| | | ODS | | TS [°C] -80/+100 | TS [°C] +120 | TS [°C] +140 | |
| | | Ø [in.] | Ø [mm] | | | | |
|  | 7690/3 (1) | 3/8" | - | 45 | 44 | 43,5 | 100 |
| | 7690/M10 (1) | - | 10 | 45 | 44 | 43,5 | 100 |
| | 7690/M12 (1) | - | 12 | 45 | 44 | 43,5 | 100 |
| | 7690/4 (1) | 1/2" | - | 45 | 44 | 43,5 | 100 |
| | 7690/M15 (1) | - | 15 | 45 | 44 | 43,5 | 50 |
| | 7690/5 (1) | 5/8" | 16 | 45 | 44 | 43,5 | 50 |
| | 7690/M18 (1) | - | 18 | 45 | 44 | 43,5 | 50 |
| | 7690/6 (1) | 3/4" | - | 45 | 44 | 43,5 | 50 |
| | 7690/7 (1) | 7/8" | 22 | 45 | 44 | 43,5 | 25 |
| | 7690/M28 (1) | - | 28 | 45 | 44 | 43,5 | 25 |
| | 7690/9 (1) | 1.1/8" | - | 45 | 44 | 43,5 | 25 |
| | 7690/11 (2) | 1.3/8" | 35 | 45 | 44 | 43,5 | 10 |
| | 7690/13 (2) | 1.5/8" | - | 45 | 44 | 43,5 | 10 |
| | 7690/M42 (2) | - | 42 | 45 | 44 | 43,5 | 10 |
| | 7690/17 (2) | 2.1/8" | 54 | 40 | 39 | 38,5 | 5 |
| | 7690/M64 (2) | - | - | 35 | 34,5 | 34 | 1 |
| | 7690/21 (2) | 2.5/8" | 67 | 35 | 34,5 | 34 | 1 |
| | 7690/24 (2) | 3" | 76 | 35 | 34,5 | 34 | 1 |
| | 7690/25 (2) | 3.1/8" | 80 | 35 | 34,5 | 34 | 1 |
| | 7690/28 (2) | 3.1/2" | 89 | 25 | 24,5 | 24 | 1 |
| 7690/34 (2) | 4.1/4" | 108 | 25 | 24,5 | 24 | 1 | |

- (1) Refrigeranti : Gruppo 1 e 2 secondo Direttiva 2014/68/UE, Art. 13 punto 1.a e 1.b (Rif. Regolamento CE n° 1272/2008)
(1) Refrigerants : Group 1 and 2 according to Directive 2014/68/EU, Art. 13 part 1.a and 1.b (Ref. to Regulation EC No 1272/2008)
(1) Réfrigérants : Groupe 1 et 2 seconde Directive 2014/68/UE, Art. 13 point 1.a et 1.b (Réf. Règlement CE n° 1272/2008)
(1) Kältemittel: Gruppe 1 und 2 gemäß der Richtlinie 2014/68/EU, Art. 13 Punkt 1.a und 1.b (Bezug zu Verordnung EG Nr. 1272/2008)
- (2) Refrigeranti : Gruppo 2 secondo Direttiva 2014/68/UE, Art. 13 punto 1.b (Rif. Regolamento CE n° 1272/2008)
(2) Refrigerants : Group 2 according to Directive 2014/68/EU, Art. 13 part 1.b (ref. to Regulation EC No 1272/2008)
(2) Réfrigérants : Groupe 2 seconde Directive 2014/68/UE, Art. 13 point 1.b (Réf. Règlement CE n° 1272/2008)
(2) Kältemittel: Gruppe 2 gemäß der Richtlinie 2014/68/EU, Art. 13 Punkt 1.b (Bezug zu Verordnung EG Nr. 1272/2008)

GIUNTI A FLANGIA
FLANGE JOINTS
JOINTS À BRIDE
FLANSCHVERBINDUNG

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------|----------|------------------------------------------------------------|
| | | ODS | | | |
| | | Ø [in.] | Ø [mm] | | |
|  | 7630/7 | 7/8" | - | 45 | 18 |
| | 7630/9 | 1.1/8" | - | | 18 |
| | 7630/11 | 1.3/8" | 35 | | 14 |
| | 7630/13 | 1.5/8" | - | | 14 |
| | 7630/M42 | - | 42 | | 14 |
| | 7630/17 | 2.1/8" | 54 | | 14 |

RACCORDI D'OTTONE FILETTATI
THREADED BRASS FITTINGS
RACCORDS FILETES EN LAITON
MESSINGFITTINGE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | SAE Flare | Tubo di rame Copper Pipe Tuyau en cuivre Kupferrohr | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------|--------|-------------|---------------------------------------------------------------|
| | | | | Ø [in.] | Ø [mm] | | |

BOCCHETTONI SAE FLARE PER TUBI IN POLLICI / SAE FLARE NUTS FOR INCH TUBING / RACCORDS SAE FLARE POUR TUYAUX EN POUCES / BÖRDELMUTTER FÜR ZOLLROHR

| | | | | | | | |
|--|---------|--------|------|------|----|----|-----|
| | 7010/22 | NS4-4 | 1/4" | 1/4" | 6 | 45 | 500 |
| | 7010/33 | NS4-6 | 3/8" | 3/8" | - | | 250 |
| | 7010/44 | NS4-8 | 1/2" | 1/2" | - | | 200 |
| | 7010/55 | NS4-10 | 5/8" | 5/8" | 16 | | 150 |
| | 7010/66 | NS4-12 | 3/4" | 3/4" | - | | 75 |
| | 7010/77 | NS4-14 | 7/8" | 7/8" | 22 | | 40 |
| | 7010/88 | NS4-16 | 1" | 1" | - | | 1 |

BOCCHETTONI SAE FLARE CIECHI / SAE FLARE CAP NUTS / RACCORDS SAE FLARE BORGNE / BLINDHUTMUTTER

| | | | | | | | |
|--|----------|--------------|-------|---|---|-----|-----|
| | 7020/20 | N5-4 CAP NUT | 1/4" | - | - | 120 | 500 |
| | 7020/X02 | N5-5 CAP NUT | 5/16" | - | - | | 500 |
| | 7020/30 | N5-6 CAP NUT | 3/8" | - | - | | 250 |
| | 7020/40 | N5-8 CAP NUT | 1/2" | - | - | | 200 |

BOCCHETTONI SAE FLARE RIDOTTI PER TUBI IN POLLICI / SAE FLARE REDUCING NUTS FOR INCH TUBING / RACCORDS SAE FLARE RÉDUITS POUR TUYAUX EN POUCES / REDUZIER-BÖRDELMUTTER FÜR ZOLLROHR

| | | | | | | | |
|--|---------|-----------|------|------|----|----|-----|
| | 7020/32 | NRS4-64 | 3/8" | 1/4" | 6 | 45 | 250 |
| | 7020/43 | NRS4-86 | 1/2" | 3/8" | - | | 200 |
| | 7020/54 | NRS4-108 | 5/8" | 1/2" | - | | 150 |
| | 7020/65 | NRS4-1210 | 3/4" | 5/8" | 16 | | 75 |
| | 7020/87 | NRS4-1614 | 1" | 7/8" | 22 | | 10 |

BOCCHETTONI SAE FLARE PER TUBI IN MILLIMETRI / SAE FLARE NUTS FOR METRIC TUBING / RACCORDS SAE FLARE POUR TUYAUX EN MILLIMÈTRES / BÖRDELMUTTER FÜR ROHRE IN MILLIMETER

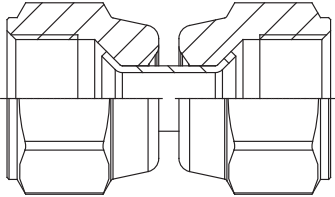
| | | | | | | | |
|--|--------------|---|------|---|----|----|-----|
| | 7030/2M5 | - | 1/4" | - | 5 | 45 | 250 |
| | 7030/3M8 | - | 3/8" | - | 8 | | 250 |
| | 7030/3M10 | - | 3/8" | - | 10 | | 250 |
| | 7030/4M10 | - | 1/2" | - | 10 | | 200 |
| | 7030/4M12 | - | 1/2" | - | 12 | | 200 |
| | 7030/X04 (1) | - | 1/2" | - | 12 | | 200 |
| | 7030/4M14 | - | 1/2" | - | 14 | | 200 |
| | 7030/5M12 | - | 5/8" | - | 12 | | 150 |
| | 7030/5M14 | - | 5/8" | - | 14 | | 150 |
| | 7030/6M14 | - | 3/4" | - | 14 | | 75 |
| | 7030/6M18 | - | 3/4" | - | 18 | | 75 |

(1) : ribassato / shortened length / réduit / Reduzierung

RACCORDI D'OTTONE FILETTATI
THREADED BRASS FITTINGS
RACCORDS FILETES EN LAITON
MESSINGFITTINGE

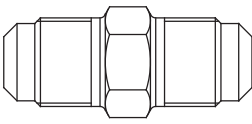
| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | SAE Flare | Tubo di rame Copper Pipe Tuyau en cuivre Kupferrohr | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------|--------|-------------|---------------------------------------------------------------|
| | | | | Ø [in.] | Ø [mm] | | |

MANICOTTI GIREVOLI / SAE FLARE TWIN NUTS / MANCHONS PIVOTANTS / DOPPELMUTTER

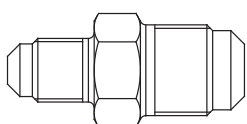
|  | 7050/2 | US4-4 | 1/4" | - | - | 45 | 250 |
|-----------------------------------------------------------------------------------|--------|--------|------|---|---|----|-----|
| | 7050/3 | US4-6 | 3/8" | - | - | | 150 |
| | 7050/4 | US4-8 | 1/2" | - | - | | 100 |
| | 7050/5 | US4-10 | 5/8" | - | - | | 75 |
| | | | | | | | |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|-----|----------|------------------------------------------------------------|
| | | | SAE Flare | NPT | | |

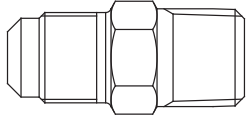
GIUNTI SAE FLARE / SAE FLARE UNIONS / JOINTS SAE FLARE / DOPPELNIPPEL

|  | 7110/2 | U2-4 | 1/4" | - | 120 | 500 |
|-------------------------------------------------------------------------------------|--------|-------|------|---|-----|-----|
| | 7110/3 | U2-6 | 3/8" | - | | 200 |
| | 7110/4 | U2-8 | 1/2" | - | | 150 |
| | 7110/5 | U2-10 | 5/8" | - | | 75 |
| | 7110/6 | U2-12 | 3/4" | - | | 10 |
| | 7110/8 | U2-16 | 1" | - | | 10 |
| | | | | | | |

GIUNTI SAE FLARE RIDOTTI / REDUCING SAE FLARE UNIONS / JOINTS SAE FLARE RÉDUITS / REDUZIERNIPPEL

|  | 7120/23 | UR2-64 | 1/4" x 3/8" | - | 120 | 25 |
|-------------------------------------------------------------------------------------|---------|----------|-------------|---|-----|----|
| | 7120/24 | UR2-84 | 1/4" x 1/2" | - | | 25 |
| | 7120/34 | UR2-86 | 3/8" x 1/2" | - | | 25 |
| | 7120/35 | UR2-106 | 3/8" x 5/8" | - | | 25 |
| | 7120/45 | UR2-108 | 1/2" x 5/8" | - | | 25 |
| | 7120/46 | UR2-128 | 1/2" x 3/4" | - | | 10 |
| | 7120/56 | UR2-1210 | 5/8" x 3/4" | - | | 10 |
| | | | | | | |

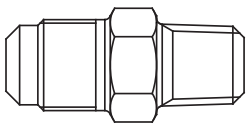
GIUNTI SAE FLARE - NPT / SAE FLARE - NPT UNIONS / JOINTS SAE FLARE - NPT / SAE BÖRDEL - NPT NIPPEL

|  | 7130/2 | U1-4B | 1/4" | 1/4" | 45 | 400 |
|-------------------------------------------------------------------------------------|--------|--------|------|------|----|-----|
| | 7130/3 | U1-6C | 3/8" | 3/8" | | 200 |
| | 7130/4 | U1-8D | 1/2" | 1/2" | | 100 |
| | 7130/6 | U1-12F | 3/4" | 3/4" | | 10 |
| | 7130/8 | U1-16H | 1" | 1" | | 10 |
| | | | | | | |

RACCORDI D'OTTONE FILETTATI
THREADED BRASS FITTINGS
RACCORDS FILETES EN LAITON
MESSINGFITTINGE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|-----|----------|------------------------------------------------------------|
| | | | SAE Flare | NPT | | |

GIUNTI SAE FLARE - NPT RIDOTTO / SAE FLARE - NPT REDUCING UNIONS / JOINTS SAE FLARE - NPT RÉDUIT / SAE BÖRDEL - NPT REDUZIERNIPPEL

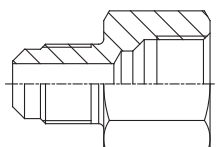
| | | | | | | |
|-----------------------------------------------------------------------------------|---------|--------|------|------|----|-----|
|  | 7140/21 | U1-4A | 1/4" | 1/8" | 45 | 500 |
| | 7140/32 | U1-6B | 3/8" | 1/4" | | 100 |
| | 7140/34 | U1-6D | 3/8" | 1/2" | | 50 |
| | 7140/43 | U1-8C | 1/2" | 3/8" | | 50 |
| | 7140/54 | U1-10D | 5/8" | 1/2" | | 25 |

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung | |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|---|-----|-----|---------|----------|------------------------------------------------------------|--------|
| | | | SAE Flare | | NPT | GAS | ODS | | | |
| | | | M | F | | | Ø [in.] | | | Ø [mm] |

RIDUZIONE MASCHIO - FEMMINA (FEMMINA RIDOTTA) / MALE - FEMALE REDUCING UNIONS (REDUCED FEMALE) / RÉDUCTION MÂLE - FEMELLE (FEMELLE RÉDUITE) / REDUZIERNIPPEL INNEN-AUSSEN (INNENGEWINDE REDUZIERT)

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|---------|----------|------|------|--------|---|---|---|-----|-----|
|  | 7150/21 | U3-4A | 1/4" | - | 1/8" f | - | - | - | 45 | 500 |
| | 7150/32 | UR3-46 | 3/8" | 1/4" | - | - | - | - | 120 | 250 |
| | 7150/42 | UR3-48 | 1/2" | 1/4" | - | - | - | - | | 150 |
| | 7150/43 | UR3-68 | 1/2" | 3/8" | - | - | - | - | | 150 |
| | 7150/54 | UR3-810 | 5/8" | 1/2" | - | - | - | - | | 150 |
| | 7150/64 | UR3-812 | 3/4" | 1/2" | - | - | - | - | | 100 |
| | 7150/65 | UR3-1012 | 3/4" | 5/8" | - | - | - | - | | 10 |

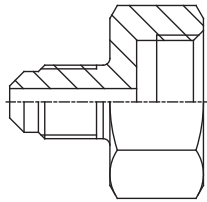

RIDUZIONE MASCHIO - FEMMINA (MASCHIO RIDOTTO) / MALE - FEMALE REDUCING UNIONS (REDUCED MALE) / RÉDUCTION MÂLE - FEMELLE (MALE RÉDUITE) / REDUZIERNIPPEL INNEN-AUSSEN (AUSSENGEWINDE REDUZIERT)

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|----------|------|------|------|---|---|---|-----|-----|
|  | 7150/X29 | - | - | 1/4" | 1/8" | - | - | - | 45 | 25 |
| | 7150/X27 | - | - | 1/4" | 1/4" | - | - | - | | 25 |
| | 7150/23 | UR3-64 | 1/4" | 3/8" | - | - | - | - | 120 | 200 |
| | 7150/24 | UR3-84 | 1/4" | 1/2" | - | - | - | - | | 25 |
| | 7150/34 | UR3-86 | 3/8" | 1/2" | - | - | - | - | | 25 |
| | 7150/45 | UR3-108 | 1/2" | 5/8" | - | - | - | - | | 200 |
| | 7150/46 | UR3-128 | 1/2" | 3/4" | - | - | - | - | | 10 |
| | 7150/56 | UR3-1210 | 5/8" | 3/4" | - | - | - | - | | 100 |

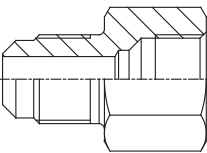
RACCORDI D'OTTONE FILETTATI
THREADED BRASS FITTINGS
RACCORDS FILETES EN LAITON
MESSINGFITTINGE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|---|-----|-----|---------|--------|-------------|------------------------------------------------------------|
| | | | SAE Flare | | NPT | GAS | ODS | | | |
| | | | M | F | | | Ø [in.] | Ø [mm] | | |

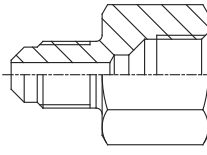
RIDUZIONE PER BOMBOLE FREON / CYLINDER ADAPTORS / RÉDUCTIONS PUOR BOUTEILLES DE FRÉON / KAEITEMITTEL FLASCHENANSCHLUSSTÜCK

| | | | | | | | | | | |
|-----------------------------------------------------------------------------------|--------|---|------|---------------------------------|--|--|--|--|----|-----|
|  | 7154/2 | - | 1/4" | 20 - 14 filetti sx. femmina | | | | | 45 | 25 |
| | | | | 20-14 left thread, female | | | | | | |
| | | | | 20-14 filets gauche femelle | | | | | | |
| | | | | 20-14 innengewinde LI | | | | | | |
|  | 7156/2 | - | 1/4" | W 21,8 - 14 filetti dx. femmina | | | | | 45 | 150 |
| | | | | W 21,8-14 right thread, female | | | | | | |
| | | | | W 21,8-14 filets droite femelle | | | | | | |
| | | | | W 21,8-14 Innengewinde RE | | | | | | |

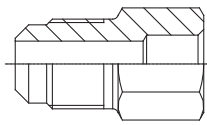
PROLUNGHE MASCHIO - FEMMINA / MALE - FEMALE UNIONS / RALLONGES MÂLE - FEMELLE / VERLÄNGERUNGSTÜCKE AUSSENGEWINDE - INNENGEWINDE

| | | | | | | | | | | |
|------------------------------------------------------------------------------------|--------|---|------|------|---|---|---|---|----|-----|
|  | 7160/2 | - | 1/4" | 1/4" | - | - | - | - | 45 | 10 |
| | 7160/3 | - | 3/8" | 3/8" | - | - | - | - | | 100 |
| | 7160/4 | - | 1/2" | 1/2" | - | - | - | - | | 10 |

PROLUNGHE DI CONVERSIONE / UNIONS SAE FLARE TO BSP / RALLONGES DE CONVERSION / UMKEHRVERLÄNGERUNGSTÜCKE

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|--------|---|------|------|---|---------|---|---|----|-----|
|  | 7164/2 | - | 1/4" | - | - | G1/4" f | - | - | 45 | 300 |
| | 7166/2 | - | - | 1/4" | - | G1/4" m | - | - | | 25 |

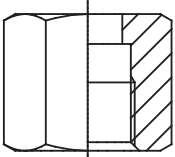
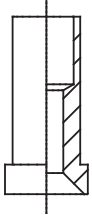

GIUNTI A SALDARE / MALE SAE FLARE - SOLDER UNIONS / JOINTS À SOUDER / SCHWEISSVERBINDUNGEN

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|-----------|----------|------|----|---|---|------|------|-----|-----|
|  | 7170/22 | US3-44 | 1/4" | - | - | - | 1/4" | - | 120 | 750 |
| | 7170/2M8 | - | 1/4" | - | - | - | - | 8 | | 750 |
| | 7170/33 | US3-66 | 3/8" | - | - | - | 3/8" | - | | 300 |
| | 7170/3M8 | - | 3/8" | - | - | - | - | 8 | | 250 |
| | 7170/3M10 | - | 3/8" | - | - | - | - | 10 | | 250 |
| | 7170/34 | - | 3/8" | - | - | - | 1/2" | - | | 200 |
| | 7170/44 | US3-88 | 1/2" | - | - | - | 1/2" | - | | 200 |
| | 7170/4M12 | - | 1/2" | - | - | - | - | 12 | | 50 |
| | 7170/55 | US3-1010 | 5/8" | - | - | - | 5/8" | 16 | | 100 |
| | 7170/6M18 | - | 3/4" | - | - | - | - | 18 | | 10 |
| | 7170/65 | - | 3/4" | - | - | - | 5/8" | 16 | | 10 |
| | 7170/87 | - | - | 1" | - | - | - | 7/8" | | 22 |

RACCORDI D'OTTONE FILETTATI
THREADED BRASS FITTINGS
RACCORDS FILETES EN LAITON
MESSINGFITTINGE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Posizione componente Item position Position composant Position Komponente | Attacchi Connections Raccords Anschlüsse | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------|---------|--------|-------------|------------------------------------------------------------|
| | | | SAE Flare | ODS | | | |
| | | | | Ø [in.] | Ø [mm] | | |

ADATTATORI FLARE - ODS / FLARE - ODS ADAPTERS / ADAPTEURS FLARE - ODS / LÖTADAPTER BÖRDEL - ODS

| | | | | | | | |
|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------|------|------|----|-----|--------------|
|  <p>POS.1</p> | 9901/X11 | 1 + 2 + 3 | 1/4" | - | 6 | 120 | 10 + 10 + 10 |
| | 9901/X12 | 1 + 2 + 3 | 3/8" | - | 10 | | 10 + 10 + 10 |
| | 9901/X13 | 1 + 2 + 3 | 1/2" | - | 12 | | 10 + 10 + 10 |
| | 9901/X14 | 1 + 2 + 3 | 5/8" | 5/8" | 16 | | 5 + 5 + 5 |
| | 9901/X15 | 1 + 2 + 3 | 3/4" | - | 18 | | 5 + 5 + 5 |
| | 9901/X16 | 1 + 2 + 3 | 1/4" | 1/4" | - | | 10 + 10 + 10 |
| | 9901/X17 | 1 + 2 + 3 | 3/8" | 3/8" | - | | 10 + 10 + 10 |
| | 9901/X18 | 1 + 2 + 3 | 1/2" | 1/2" | - | | 10 + 10 + 10 |
| | 9901/X19 | 1 + 2 + 3 | 3/4" | 3/4" | - | | 5 + 5 + 5 |
| |  <p>POS.2</p> | | | | | | |
|  <p>POS.3</p> | | | | | | | |

RACCORDI D'OTTONE FILETTATI
THREADED BRASS FITTINGS
RACCORDS FILETES EN LAITON
MESSINGFITTINGE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|---|-----|-------------|---------------------------------------------------------------|
| | | | SAE Flare | | NPT | | |
| | | | M | F | | | |

ANGOLI SAE FLARE / SAE FLARE ELBOWS / ANGLES SAE FLARE / WINKELSTÜCKE SAE BÖRDEL

| | | | | | | | |
|--|--------|-------|------|---|---|-----|-----|
| | 7210/2 | E2-4 | 1/4" | - | - | 120 | 400 |
| | 7210/3 | E2-6 | 3/8" | - | - | | 50 |
| | 7210/4 | E2-8 | 1/2" | - | - | | 50 |
| | 7210/5 | E2-10 | 5/8" | - | - | | 25 |
| | 7210/6 | E2-12 | 3/4" | - | - | | 10 |

ANGOLI SAE FLARE - NPT / SAE FLARE - NPT ELBOWS / ANGLES SAE FLARE - NPT / WINKELSTÜCKE SAE BÖRDEL - NPT

| | | | | | | | |
|--|--------|--------|------|---|------|----|-----|
| | 7220/2 | E1-4B | 1/4" | - | 1/4" | 45 | 400 |
| | 7220/3 | E1-6C | 3/8" | - | 3/8" | | 50 |
| | 7220/4 | E1-8D | 1/2" | - | 1/2" | | 25 |
| | 7220/6 | E1-12F | 3/4" | - | 3/4" | | 10 |

ANGOLI SAE FLARE - NPT RIDOTTO / SAE FLARE - REDUCED NPT ELBOWS / ANGLES SAE FLARE - NPT RÉDUIT / WINKELSTÜCKE SAE BÖRDEL - NPT REDUZIERT

| | | | | | | | |
|--|---------|--------|------|---|------|----|-----|
| | 7230/21 | E1-4A | 1/4" | - | 1/8" | 45 | 400 |
| | 7230/32 | E1-6B | 3/8" | - | 1/4" | | 50 |
| | 7230/43 | E1-8C | 1/2" | - | 3/8" | | 50 |
| | 7230/54 | E1-10D | 5/8" | - | 1/2" | | 25 |

ANGOLI SAE FLARE MASCHIO - FEMMINA / MALE - FEMALE SAE FLARE ELBOWS / ANGLES SAE FLARE MÂLE - FEMELLE / WINKELSTÜCKE SAE BÖRDEL AUSSENGEWINDE - INNENGEWINDE

| | | | | | | | |
|--|--------|---|------|------|---|-----|-----|
| | 7240/2 | - | 1/4" | 1/4" | - | 120 | 200 |
| | 7240/3 | - | 3/8" | 3/8" | - | | 25 |
| | 7240/4 | - | 1/2" | 1/2" | - | | 10 |

RACCORDI D'OTTONE FILETTATI
THREADED BRASS FITTINGS
RACCORDS FILETES EN LAITON
MESSINGFITTINGE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code International Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|-----|-----|-----|-----|-------------|------------------------------------------------------------|
| | | | SAE Flare | | | | NPT | | |
| | | | (1) | (2) | (3) | (4) | (3) | | |

TEE SAE FLARE / SAE FLARE TEE / TEE SAE FLARE / T-STÜCK BÖRDEL

| | | | | | | | | | |
|--|--------|-------|------|------|------|---|---|-----|-----|
| | 7310/2 | T2-4 | 1/4" | 1/4" | 1/4" | - | - | 120 | 300 |
| | 7310/3 | T2-6 | 3/8" | 3/8" | 3/8" | - | - | | 50 |
| | 7310/4 | T2-8 | 1/2" | 1/2" | 1/2" | - | - | | 25 |
| | 7310/5 | T2-10 | 5/8" | 5/8" | 5/8" | - | - | | 10 |
| | 7310/6 | T2-12 | 3/4" | 3/4" | 3/4" | - | - | | 10 |

TEE SAE FLARE RIDOTTI (ATTACCHI LATERALI RIDOTTI) / SAE FLARE REDUCING TEE (REDUCED SIDE CONNECTIONS) / TEE SAE FLARE RÉDUITS (EMBOUS LATÉRAUX RÉDUITS) / REDUZIERTES T-STÜCK BÖRDEL (REDUZIERTSEITENSCHLÜSSE)

| | | | | | | | | | |
|--|----------|----------|------|------|------|---|---|-----|----|
| | 7320/223 | TR2-46 | 1/4" | 1/4" | 3/8" | - | - | 120 | 25 |
| | 7320/334 | TR2-68 | 3/8" | 3/8" | 1/2" | - | - | | 50 |
| | 7320/445 | TR2-810 | 1/2" | 1/2" | 5/8" | - | - | | 25 |
| | 7320/556 | TR2-1012 | 5/8" | 5/8" | 3/4" | - | - | | 10 |

TEE SAE FLARE RIDOTTI (ATTACCO CENTRALE RIDOTTO) / SAE FLARE REDUCING TEE (REDUCED CENTRAL CONNECTION) / TEE SAE FLARE RÉDUITS (EMBOUS CENTRAL RÉDUITS) / REDUZIERTES T-STÜCK BÖRDEL (REDUZIERTER MITTELANSCHLUSS)

| | | | | | | | | | |
|--|----------|----------|------|------|------|---|---|-----|----|
| | 7320/332 | TR2-64 | 3/8" | 3/8" | 1/4" | - | - | 120 | 25 |
| | 7320/443 | TR2-86 | 1/2" | 1/2" | 3/8" | - | - | | 25 |
| | 7320/554 | TR2-108 | 5/8" | 5/8" | 1/2" | - | - | | 10 |
| | 7320/665 | TR2-1210 | 3/4" | 3/4" | 5/8" | - | - | | 10 |

TEE SAE FLARE /NPT (ATTACCO CENTRALE CONICO) / SAE FLARE - NPT TEE (TAPER CENTRAL CONNECTION) / TEE SAE FLARE - NPT (EMBOUS CENTRAL CONIQUE) / T-STÜCK BÖRDEL - NPT (KONISCHER MITTELANSCHLUSS)

| | | | | | | | | | |
|--|----------|-------|------|------|---|---|------|----|-----|
| | 7330/221 | T1-4A | 1/4" | 1/4" | - | - | 1/8" | 45 | 300 |
| | 7330/222 | T1-4B | 1/4" | 1/4" | - | - | 1/4" | | 25 |
| | 7330/332 | T1-6B | 3/8" | 3/8" | - | - | 1/4" | | 25 |

TEE SAE FLARE MASCHIO /FEMMINA (ATTACCO CENTRALE FEMMINA) / MALE - FEMALE SAE FLARE TEE (FEMALE CENTRAL CONNECTION) / TEE SAE FLARE MÂLE - FEMELLE (EMBOUS CENTRAL FEMELLE) / BÖRDEL T-STÜCK INNEN-AUSSENGEWINDE (MITTELANSCHLUSS MIT INNENGEWINDE)

| | | | | | | | | | |
|--|----------|------|------|------|------|---|---|-----|-----|
| | 7340/222 | T6-4 | 1/4" | 1/4" | 1/4" | - | - | 120 | 150 |
|--|----------|------|------|------|------|---|---|-----|-----|

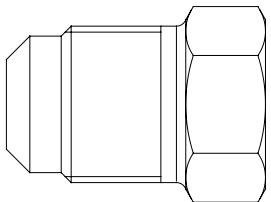
CROCE SAE FLARE / SAE FLARE CROSS / CROIX SAE FLARE / KREUZSTÜCK BÖRDEL

| | | | | | | | | | |
|--|--------|------|------|------|------|------|---|-----|-----|
| | 7410/2 | C1-4 | 1/4" | 1/4" | 1/4" | 1/4" | - | 120 | 150 |
|--|--------|------|------|------|------|------|---|-----|-----|

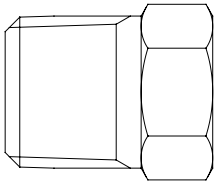
RACCORDI D'OTTONE FILETTATI
THREADED BRASS FITTINGS
RACCORDS FILETES EN LAITON
MESSINGFITTINGE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Codice internazionale International code Code international Internationaler Code | Attacchi Connections Raccords Anschlüsse | | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|-----|---------|--------|-------------|---------------------------------------------------------------|
| | | | SAE Flare | NPT | ODS | | | |
| | | | | | Ø [in.] | Ø [mm] | | |

TAPPI SAE FLARE / SAE FLARE PLUGS / BOUCHON SAE FLARE / SAE FLARE VERSCHLÜSSE

| | | | | | | | | |
|-----------------------------------------------------------------------------------|--------|------|------|---|---|---|-----|----|
|  | 7510/2 | P2-4 | 1/4" | - | - | - | 120 | 25 |
| | 7510/3 | P2-6 | 3/8" | - | - | - | | 25 |
| | 7510/4 | P2-8 | 1/2" | - | - | - | | 10 |
| | | | | | | | | |

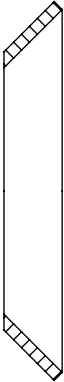
TAPPI NPT / NPT PLUGS / BOUCHONS NPT / NPT VERSCHLÜSSE

| | | | | | | | | |
|-----------------------------------------------------------------------------------|--------|----------|---|------|---|---|----|----|
|  | 7520/1 | 121-B-02 | - | 1/8" | - | - | 45 | 50 |
| | 7520/2 | 121-B-04 | - | 1/4" | - | - | | 25 |
| | 7520/3 | 121-B-06 | - | 3/8" | - | - | | 25 |
| | 7520/4 | 121-B-08 | - | 1/2" | - | - | | 10 |
| | 7520/6 | 121-B-12 | - | 3/4" | - | - | | 10 |
| | 7520/8 | 121-B-16 | - | 1" | - | - | | 5 |
| | | | | | | | | |

CAPPUCCI IN RAME / COPPER SEAL CAPS / CAUCHONS EN CUIVRE / KUPFERKAPPEN

| | | | | | | | | |
|-------------------------------------------------------------------------------------|--------|-------|------|---|---|---|----|-----|
|  | 7560/2 | B1-4 | 1/4" | - | - | - | 45 | 100 |
| | 7560/3 | B1-6 | 3/8" | - | - | - | | 100 |
| | 7560/4 | B1-8 | 1/2" | - | - | - | | 100 |
| | 7560/5 | B1-10 | 5/8" | - | - | - | | 100 |
| | 7560/6 | B1-12 | 3/4" | - | - | - | | 100 |
| | 7560/7 | B1-14 | 7/8" | - | - | - | | 50 |
| | | | | | | | | |

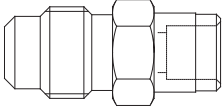
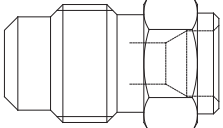
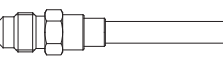
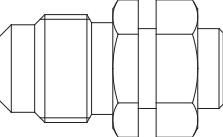
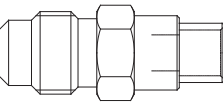
GUARNIZIONI TRONCOCONICHE IN RAME / COPPER GASKETS / GARNITURES TRONCOCONIQUES EN CUIVRE / KUPFERDICHTUNG

| | | | | | | | | |
|-------------------------------------------------------------------------------------|--------|-------|------|---|---|---|----|-----|
|  | 7580/2 | B2-4 | 1/4" | - | - | - | 45 | 100 |
| | 7580/3 | B2-6 | 3/8" | - | - | - | | 100 |
| | 7580/4 | B2-8 | 1/2" | - | - | - | | 100 |
| | 7580/5 | B2-10 | 5/8" | - | - | - | | 100 |
| | 7580/6 | B2-12 | 3/4" | - | - | - | | 100 |
| | | | | | | | | |

ATTACCHI DI CARICA
ACCESS FITTINGS
RACCORD D'INTERVENTION
SCHRADERVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | | | | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|---|---|-----|---------|--------|---------|--------|--------|-------------|------------------------------------------------------------|
| | | SAE Flare | | | NPT | ODS | | IDS | | | | |
| | | Meccanismo Valve core Mécanisme Ventileinsatz | M | F | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | L [mm] | | |

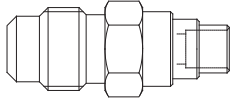
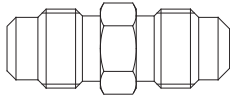
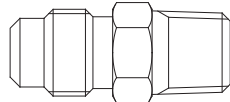
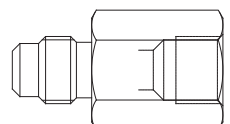
ATTACCHI DI CARICA DRITTI / STRAIGHT ACCESS FITTINGS / RACCORDS DE CHARGE DROITS / LÖTSCHRADER

| | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|-------|---|---|---|------|---|------|---------|-----|-----|------|
|  | 8350/22 | 1/4" | - | - | - | 1/4" | - | 3/8" | - | - | 120 | 1000 |
| | 8350/X10 | 1/4" | - | - | - | 1/4" | - | - | 10 | - | | |
|  | 8350/X01 | 1/4" | - | - | - | - | 6 | - | - | - | 120 | 1200 |
| | | | | | | | | | | | | |
|  | 8350/X03 | 1/4" | - | - | - | - | - | - | 6 | 90 | 45 | 300 |
| | 8350/X06 | 1/4" | - | - | - | - | - | 1/4" | - | 126 | | 300 |
| | 8350/X07 | 1/4" | - | - | - | - | - | 1/4" | - | 326 | | 100 |
| | 8350/X12 | 1/4" | - | - | - | - | - | - | 6 | 180 | | 100 |
|  | 8350/X09 | 5/16" | - | - | - | 1/4" | - | - | - | - | 45 | 50 |
| | | | | | | | | | | | | |
|  | 8351/2 | 1/4" | - | - | - | - | 6 | - | 8 10 | - | 120 | 900 |
| | 8351/X04 | 1/4" | - | - | - | - | - | - | 6 | - | | 1000 |
| | 8351/X05 | 5/16" | - | - | - | - | - | 3/8" | 7 | - | 45 | 500 |
| | 8351/X07 | 5/16" | - | - | - | - | - | 3/8" | 6 | - | | 500 |

ATTACCHI DI CARICA
ACCESS FITTINGS
RACCORD D'INTERVENTION
SCHRADERVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | | | | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|---|---|-----|---------|--------|---------|--------|--------|-------------|------------------------------------------------------------|
| | | SAE Flare | | | NPT | ODS | | IDS | | | | |
| | | Meccanismo Valve core Mécanisme Ventileinsatz | M | F | | Ø [in.] | Ø [mm] | Ø [in.] | Ø [mm] | L [mm] | | |

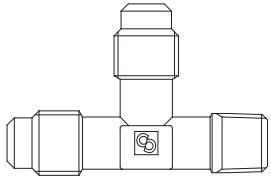
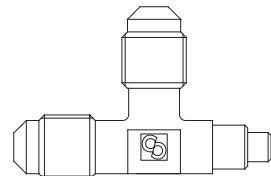
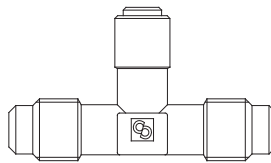
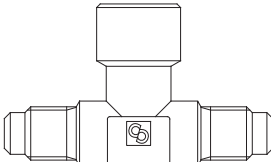
ATTACCHI DI CARICA DRITTI / STRAIGHT ACCESS FITTINGS / RACCORDS DE CHARGE DROITS / SCHRADER

| | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|------|------|------|------|---|------|-----------------------|--------------|---|-----|------|
|  | 8351/X01 | 1/4" | - | - | - | - | 1/8" | - | 6 | - | 120 | 800 |
| | 8351/X02 | 1/4" | - | - | - | - | 5 | 1/4" 5/16" 3/8" | - | - | | 1000 |
| | 8351/X06 | 1/4" | - | - | - | - | - | - | 6 8 10 | - | | 1000 |
|  | 8352/22 | 1/4" | 1/4" | - | - | - | - | - | - | - | 120 | 800 |
| | | | | | | | | | | | | |
|  | 8354/21 | 1/4" | - | - | 1/8" | - | - | - | - | - | 120 | 800 |
| | 8354/22 | 1/4" | - | - | 1/4" | - | - | - | - | - | | 500 |
| | 8354/23 | 1/4" | - | - | 3/8" | - | - | - | - | - | | 200 |
|  | 8362/22 | 1/4" | - | 1/4" | - | - | - | - | - | - | 120 | 400 |
| | | | | | | | | | | | | |

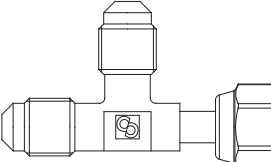
ATTACCHI DI CARICA
ACCESS FITTINGS
RACCORD D'INTERVENTION
SCHRADERVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|---|-----|---------|--------|-------------|------------------------------------------------------------|
| | | SAE Flare | | NPT | IDS | | | |
| | | Meccanismo Valve core Mécanisme Ventileinsatz | F | | Ø [in.] | Ø [mm] | | |

ATTACCHI DI CARICA A TEE / TEE ACCESS FITTINGS / RACCORDS DE CHARGEMENT EN TEE / BÖRDEL T-STÜCK

| | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|------|------|------|---|---|-----|-----|
|  | 8380/122 | 1/4" | - | 1/8" | - | - | 120 | 300 |
| | 8380/222 | 1/4" | - | 1/4" | - | - | | |
|  | 8380/X01 | 1/4" | - | - | - | 6 | 120 | 300 |
| | | | | | | | | |
|  | 8380/X02 | 1/4" | - | - | - | 7 | 120 | 300 |
| | | | | | | | | |
|  | 8380/X09 | 1/4" | 1/4" | - | - | - | 120 | 25 |
| | | | | | | | | |

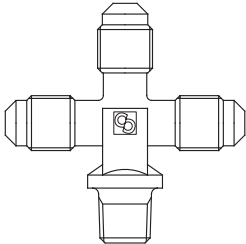
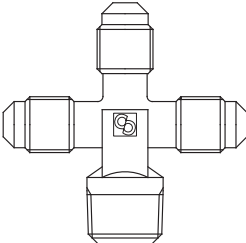
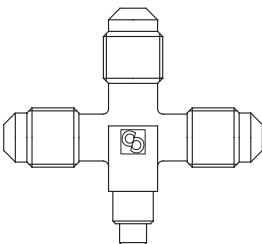
ATTACCHI DI CARICA A TEE CON BOCCHETTONE GIREVOLE / TEE ACCESS FITTINGS WITH SWIVEL NUTS / RACCORDS DE CHARGE EN TEE AVEC RACCORD PIVOTANT / BÖRDEL T-STÜCK MIT EINSEITIGER BÖRDELMUTTER

| | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|------|------|---|---|---|----|-----|
|  | 8380/X06 | 1/4" | 1/4" | - | - | - | 45 | 450 |
| | 8380/X08 | 1/4" | 1/4" | - | - | - | | |
| | | | | | | | | |

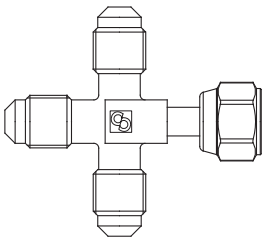
ATTACCHI DI CARICA
ACCESS FITTINGS
RACCORD D'INTERVENTION
SCHRADERVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | | | | PS [bar] | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|---|-----|---------|--------|-------------|------------------------------------------------------------|
| | | SAE Flare | | NPT | IDS | | | |
| | | Meccanismo Valve core Mécanisme Ventileinsatz | F | | Ø [in.] | Ø [mm] | | |

ATTACCHI DI CARICA A CROCE / CROSS ACCESS FITTINGS / RACCORDS DE CHARGE EN CROIX / KREUZFÜLLANSCHLUSS

| | | | | | | | | |
|-------------------------------------------------------------------------------------|-----------|------|---|------|---|------|-----|-----|
|  | 8382/1222 | 1/4" | - | 1/8" | - | - | 120 | 150 |
| | | | | | | | | |
|  | 8382/X02 | 1/4" | - | 1/4" | - | - | 120 | 150 |
| | | | | | | | | |
|  | 8382/X01 | 1/4" | - | - | - | 7-10 | 120 | 200 |
| | 8382/X03 | 1/4" | - | - | - | 6 | | 200 |
| | | | | | | | | |

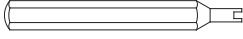
ATTACCHI DI CARICA A CROCE CON BOCCHETTONE GIREVOLE / CROSS ACCESS FITTINGS WITH SWIVEL NUT / RACCORDS DE CHARGE EN CROIX AVEC RACCORD PIVOTANT / KREUZFÜLLANSCHLUSS MIT DREHBAREM STUTZEN

| | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|------|------|---|---|---|----|----|
|  | 8382/X04 | 1/4" | 1/4" | - | - | - | 45 | 10 |
| | | | | | | | | |

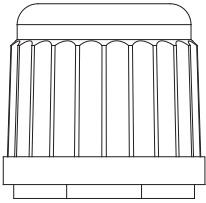
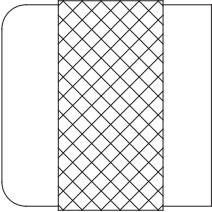
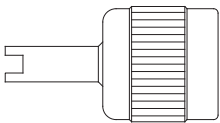
ATTACCHI DI CARICA
ACCESS FITTINGS
RACCORD D'INTERVENTION
SCHRADERVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Pressione statica Static pressure Pression statique Statischer Druck [bar] | Pressione operativa Working pressure Pression fonctionnement Betriebsdruck [bar] | PS [bar] | TS [°C] | | Utilizzo Use Usage Nutzung | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------|---------|-----|-------------------------------------|------------------------------------------------------------|
| | | SAE Flare | | | | | min | max | | |
| | | M | F | | | | | | | |

**CHIAVE MONTAGGIO MECCANISMO VALVOLA / CORE REMOVER (FOR ALL TYPES) / CLÉ MONTAGE MÉCANISME APPAREIL DE ROBINETTERIE /
 SCHLÜSSEL F. SCHRADERVENTIL-MONTAGE**

| | | | | | | | | | | |
|-----------------------------------------------------------------------------------|--------|---|---|---|---|---|---|---|---|----|
|  | 8390/A | - | - | - | - | - | - | - | - | 10 |
|-----------------------------------------------------------------------------------|--------|---|---|---|---|---|---|---|---|----|

CAPPUCCI / CAPS WITH GASKET / CAPUCHONS / KAPPEN

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|------------|---|------|---|---|----|-----|------|---|------|
|  | 8391/A | - | 1/4" | - | - | 35 | -20 | +100 | - | 200 |
|  | 8392/A | - | 1/4" | - | - | 45 | -20 | +100 | - | 1300 |
|  | 8392/B (1) | - | 1/4" | - | - | 45 | -20 | +100 | - | 2000 |

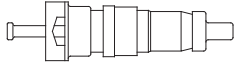
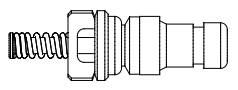
Note:

- (1) La chiave serve per il montaggio del meccanismo
- (1) The key needs to remove the valve core
- (1) La clé sert pour le montage du mécanisme
- (1) Der Schlüssel dient zur Montage des Ventilsatzes

ATTACCHI DI CARICA
ACCESS FITTINGS
RACCORD D'INTERVENTION
SCHRADERVENTILE

| Disegno Drawing Dessin Zeichnung | N° catalogo Part number N° catalogue Katalog Nr. | Attacchi Connections Raccords Anschlüsse | | Pressione statica Static pressure Pression statique Statischer Druck [bar] | Pressione operativa Working pressure Pression fonctionnement Betriebsdruck [bar] | PS [bar] | TS [°C] | | Utilizzo Use Usage Nutzung | Confezione n° pz Package pcs Emballage Verpackung |
|-------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------|---------|-----|-------------------------------------|------------------------------------------------------------|
| | | SAE Flare | | | | | min | max | | |
| | | M | F | | | | | | | |

MECCANISMI VALVOLA / SPARE VALVE CORES / MÉCANISMES / VENTILEINSATZ

| | | | | | | | | | | |
|-----------------------------------------------------------------------------------|-----------------|---|---|-----|----|---|-----|------|--------------------------------------------|------|
|  | 8394/B (1) | - | - | 40 | 28 | - | -30 | +90 | R22 HFC (4) | 5000 |
|  | 8395/A1 (2) | - | - | 140 | 60 | - | -32 | +100 | R22 HFC (4) HFO (5) | 5000 |
| | 8395/A3 (2) (3) | - | - | 140 | 60 | - | -25 | +130 | HFC (4) HFO (5) R290, R600, R600a | 5000 |
| | 8395/A4 (2) | - | - | 140 | 80 | - | -35 | +120 | R744 | 5000 |

Note:

(1) Molla interna
(2) Molla esterna

(3) NB: Non impiegare con R22 , oli minerali e alchilbenzenici

(1) Ressort intérieur
(2) Ressort extérieur

(3) NB: Incompatible avec R22 , Huiles minérales alkylbenzènes

(4) : R134a, R32, R404A, R407C,
R410A, R507

(5) : R1234yf, R1234ze, R448A, R449A,
R450A, R452A

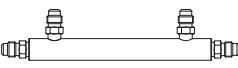
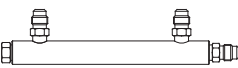
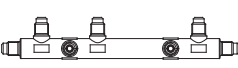
(1) Inside spring
(2) Outside spring

(3) NB: No use with R22 , mineral and alkylbenzene oils

(1) Innenfeder
(2) Aussenfeder

(3) NB: Nicht mit R22 verwendbar , Mineralölen und Alkylbenzol

COLLETTORI CON ATTACCHI DI CARICA / MANIFOLDS WITH ACCESS FITTINGS / COLLECTEURS AVEC RACCORDS DE CHARGE / VERTEILER MIT FÜLLANSCHLÜSSEN

| | | | | | | | | | | |
|-------------------------------------------------------------------------------------|----------|------|---|---|---|----|---|---|---|---|
|  | 9900/X47 | 1/4" | - | - | - | 45 | - | - | - | 1 |
|  | 9900/X87 | 1/4" | - | - | - | 45 | - | - | - | 1 |
|  | 9900/X81 | 1/4" | - | - | - | 45 | - | - | - | 1 |



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Tel. +39 02.957021 Fax +39 02.95745261 - email info@castel.it

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