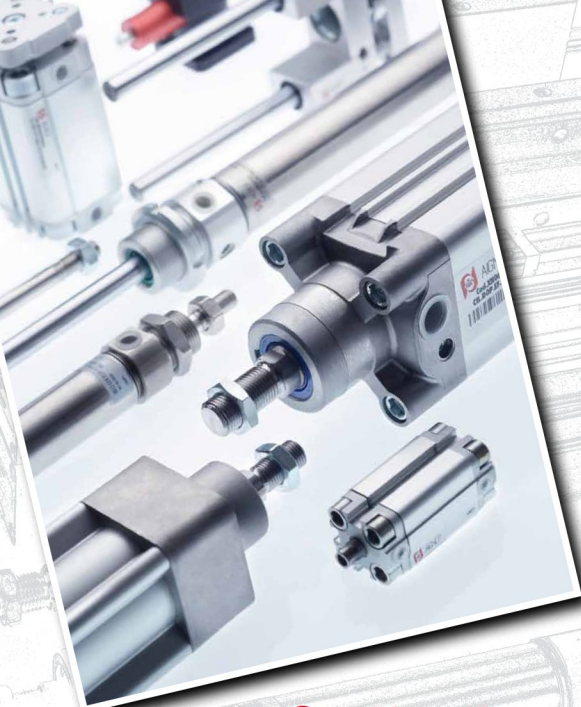




Serie Cylinders

CILINDRI ED ACCESSORI
CYLINDERS AND ACCESSORIES

16.4 Cilindri a cartuccia / Cartridge Cylinders

Stelo filettato
Stelo non filettato
Threaded piston rod
No-threaded piston rod
16.7 Minicilindri / Mini Cylinders

Semplice e doppio effetto
Ammortizzo pneumatico
Stelo singolo o passante
ISO 6432 (Ø8-Ø25)
Single and double-acting
cushioned
Single or Through piston rod
16.13 Bloccastelo / Piston Rod Lock

16.17 Minicilindri Inox / Stainless Steel Mini Cylinders

Doppio Effetto
Double-acting
ISO 6432 (Ø16 - Ø20 - Ø25)
16.21 Cilindri A95 / Cylinders A95

Semplice e Doppio Effetto
Stelo singolo o passante
Ammortizzo pneumatico
(Ø32-Ø63)
Single and Double-acting
Single or Through piston rod
cushioned
16.29 Cilindri Compatti / Compact Cylinders

Semplice e Doppio Effetto
Stelo singolo o passante
Antirotazione
Single and Double-acting
Single or Through piston rod
Anti-rotation
16.41 Cilindri Corsa Breve / Short Stroke Cylinders

Semplice e Doppio Effetto
Stelo singolo o passante
Antirotazione
Single and
Double-acting
Single or Through
piston rod
Anti-rotation
16.54 Cilindri Serie X / Cylinders X Series

ISO 15552
Semplice e Doppio
effetto, Stelo
singolo o passante
Cilindro Tandem
Cilindro
Contrapposto
Single and Double-acting
Single or Through piston rod
Tandem cylinder
Opposed cylinder

16.60 BloccaStelo / Piston Rod Lock

16.62 Cilindri Rotanti / Rotary Cylinders


Versione con pignone maschio
Versione con foro femmina

Model with male pinion
Model with female bore

16.67 Cilindri Serie E / Cylinders E Series


Semplice e Doppio effetto Stelo
singolo o passante
Single and Double-acting
Single or Through piston rod

ISO 6431 (Ø32-Ø320)

16.77 Cilindri Serie V / Cylinders V Series


Semplice e Doppio effetto
Stelo singolo o passante
Single and Double-acting
Single or Through piston rod

ISO 6431 (Ø32-Ø125)

16.78 Cilindri Serie NHA / Cylinders NHA Series


Semplice e Doppio effetto Stelo
singolo o passante
Single and Double-acting
Single or Through piston rod

ISO 15552 Interface (Ø32-Ø100)

16.84 Cilindri Serie P / Cylinders P Series


Semplice e Doppio effetto, Stelo
singolo o passante
Single and Double-acting
Single or Through piston rod

ISO 15552 Interface (Ø32-Ø250)

16.100 Unità di Guida / Guide Units


ISO 6431 VDMA (Ø32-Ø100)
ISO 6432 (Ø12-Ø25)

16.108 Sensori / Sensor


NB

I sensori magnetici non possono essere utilizzati in atmosfera potenzialmente esplosiva secondo la Direttiva ATEX. According to the Directive ATEX, Magnetic Switches cannot be used in potentially explosive environment.

Cilindri a Cartuccia / Cartridge Cylinders

I cilindri a Cartuccia a semplice effetto sono stati progettati per l'utilizzo in piccoli spazi. La filettatura esterna permette un facile montaggio.

The single-acting cartridge cylinders have been studied and designed to be used in reduced spaces. The external thread ensures an easy assembly.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 2 bar (0.2 MPa)
Pressione massima / Maximum pressure: 7 bar (0.7 MPa)

Funzionamento / Functioning

Semplice effetto, Stelo Filettato e non filettato.
Single-acting. Threaded piston rod and No-threaded piston rod.

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
 (-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Alesaggi / Bores

6 - 10 - 16 mm.

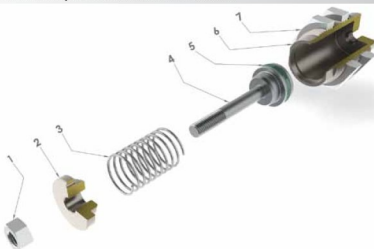
Fluidi compatibili / Fluids

Aria compressa filtrata lubrificata e non lubrificata.
Filtered and lubricated compressed air as well as non lubricated air.

Corse / Strokes

Corse Standard / Standard Strokes
5 - 10 - 15 mm.

Caratteristiche Tecniche / Technical Characteristics



Materiali e Componenti / Component Parts and Materials

- | | |
|---|-----------------------------------|
| 1 Dado asta in acciaio zincato | 1 Zinc-plated steel Nut |
| 2 Boccola in ottone nichelato | 2 Nickel plated brass Bush |
| 3 Molla in acciaio | 3 Steel Spring |
| 4 Asta pistone acciaio AISI 303 | 4 Steel Piston rod AISI 303 |
| 5 Guarnizione pistone in poliuretano | 5 Polyurethane Rod seal |
| 6 Camicia cilindro in ottone nichelato | 6 Nickel plated brass Shape body |
| 7 Dadi di fissaggio cilindro in acciaio zincato | 7 Zinc-plated steel Locking screw |

Esempio D'ordine / How to Order



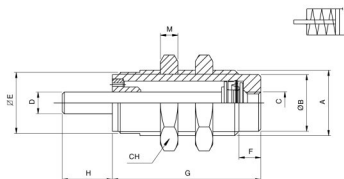
Ø mm.	CORSE - STROKES		
	5	10	15
6	10 gr	12.5 gr	15 gr
10	27 gr	32 gr	36 gr
16	71 gr	78 gr	87 gr

CORSE STANDARD mm. - STD STROKES

Ø mm.	5	10	15
6	▲ ■	▲ ■	▲ ■
10	▲ ■	▲ ■	▲ ■
16	▲ ■	▲ ■	▲ ■



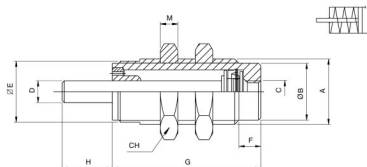
SEMPLICE EFFETTO NON FILETTATO - SINGLE-ACTING NO-THREADED PISTON ROD
SEMPLICE EFFETTO FILETTATO - SINGLE-ACTING THREADED PISTON ROD



CA

SEMPLICE EFFETTO NON FILETTATO - SINGLE-ACTING NO-THREADED PISTON ROD

Ø mm.	A	B	C	D	E	F	s	G - CORSA	15	H	M	CH
6	M10x1	8.5	M5	3	9	5	18.5	25.5	32.5	9	3	14
10	M15x1.5	13	M5	5	14	5	20.5	27	34	11.5	4	19
16	M22x1.5	19	M5	5	20	6	23.5	29.5	36	14	5	27



CAF

SEMPLICE EFFETTO FILETTATO - SINGLE-ACTING THREADED PISTON ROD

Ø mm.	A	B	C	D	E	F	s	G - CORSA	15	H	M	CH
6	M10x1	8.5	M5	M3	9	5	18.5	25.5	32.5	9	3	14
10	M15x1.5	13	M5	M4	14	5	20.5	27	34	11.5	4	19
16	M22x1.5	19	M5	M5	20	6	23.5	29.5	36	14	5	27

Minicilindri Iso 6432 / Mini Cylinders Iso 6432

I cilindri di questa serie realizzati secondo la norma DIN ISO 6432, sono adatti all'impiego in qualsiasi settore industriale, le elevate caratteristiche di scorrimento assicurano la massima produttività degli impianti. Funzionalità e resistenza sono garantite da una particolare operazione di montaggio denominata "a doppia rullatura" con la quale le testate sono unite al tubo.

The cylinders included in this range, manufactured in conformity with the Standards DIN ISO 6432 can be used in any industrial fields. The high sliding characteristics guarantee the maximum productivity of the system.

*By using a special assembling operation called "double rolling" to join the end covers to the barrel, functionality and resistance are ensured.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)
Pressione massima / Maximum pressure: 10 bar (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
 (-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata lubrificata e non lubrificata.
 Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Semplice e doppio effetto ammortizzato, Stelo singolo e passante Magnetico e non Magnetico.
 Single and Double-acting cushioned, Single or through piston rod, Magnetic and no-magnetic

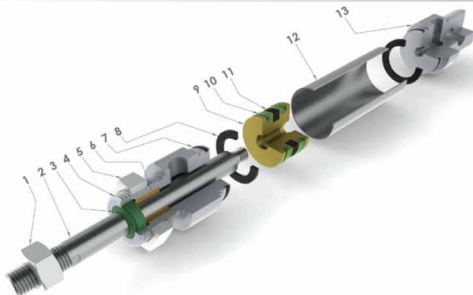
Alesaggi / Bores

8 - 10 - 12 - 16 - 20 - 25 mm.

Corse / Strokes

Corse Standard / Standard Strokes
 Da 10 a 320 mm / From 10 to 320 mm

Caratteristiche Tecniche / Technical Characteristics



Materiali e Componenti / Component Parts and Materials

- | | |
|--|--|
| 1 Dado in acciaio zincato | 1 Zinc-plated steel Nut |
| 2 Asta in acciaio AISI 303 | 2 Steel AISI 303 Piston rod |
| 3 Guarnizione asta in poliuretano | 3 Polyurethane Rod seal |
| 4 Testata anteriore in alluminio anodizzato | 4 Anodised aluminium Front cover |
| 5 Ghiera in acciaio zincato | 5 Zinc-plated steel Nut |
| 6 Bronzina in bronzo sinterizzato | 6 Sintered bronze Bearing |
| 7 Guarnizioni O-RING in NBR | 7 NBR O-RING Seals |
| 8 Paracolpi in neoprene | 8 Neoprene Bumper |
| 9 Pistone in ottone | 9 Brass Piston |
| 10 Guarnizione pistone in poliuretano | 10 Polyurethane Piston seal |
| 11 Magnete in plastroferrite | 11 Bonded Ferrite Magnet |
| 12 Camicia minicilindro in acciaio INOX AISI 304 | 12 Stainless Steel AISI 304 Mini cylinder shape body |
| 13 Testata posteriore in alluminio anodizzato | 13 Anodised aluminium Back cover |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
			Forza sviluppata in N Output force in N									
Ø8	4	Spinta / Thrust = 50,2	5	10	15	20	25	30	35	40	45	50
		Trazione / Traction = 37,7	3	6	9	12	15	18	21	24	27	30
Ø10	4	Spinta / Thrust = 78,5	7	14	21	28	35	42	49	56	63	70
		Trazione / Traction = 66	6	12	18	24	30	36	42	48	54	60
Ø12	6	Spinta / Thrust = 113	10	20	30	40	50	60	70	80	90	100
		Trazione / Traction = 85	7,5	15	22	30	37	45	52	60	68	75
Ø16	6	Spinta / Thrust = 200	18	36	54	72	90	108	126	144	162	180
		Trazione / Traction = 173	16	32	48	64	80	96	112	128	144	160
Ø20	8	Spinta / Thrust = 314	28	56	84	112	140	168	196	224	252	280
		Trazione / Traction = 264	24	48	72	96	120	144	168	192	216	240
Ø25	10	Spinta / Thrust = 490	44	88	132	176	220	264	308	352	396	440
		Trazione / Traction = 412	36	72	108	144	180	216	252	288	324	360

FORZE DELLA MOLLA - SPRING TRACTION FORCES

Ø Cilindri Ø Cylinder	Carico Molla Load Spring	Corso / Stroke		
		10	25	50
		Forza sviluppata in N Output force in N		
Ø8	Carico Molla a Riposo / Load of spring at rest	4,1	3,5	2,6
	Carico Molla Compressa / Load of compressed spring	4,5	4,5	4,5
Ø10	Carico Molla a Riposo / Load of spring at rest	4,1	3,5	2,6
	Carico Molla Compressa / Load of compressed spring	4,5	4,5	4,5
Ø12	Carico Molla a Riposo / Load of spring at rest	5,5	4,8	3,5
	Carico Molla Compressa / Load of compressed spring	6	6	6
Ø16	Carico Molla a Riposo / Load of spring at rest	16,5	13,7	9
	Carico Molla Compressa / Load of compressed spring	18,3	18,3	18,3
Ø20	Carico Molla a Riposo / Load of spring at rest	19	15,5	9,5
	Carico Molla Compressa / Load of compressed spring	21,5	21,5	21,5
Ø25	Carico Molla a Riposo / Load of spring at rest	27	24	13,5
	Carico Molla Compressa / Load of compressed spring	29	29	29

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

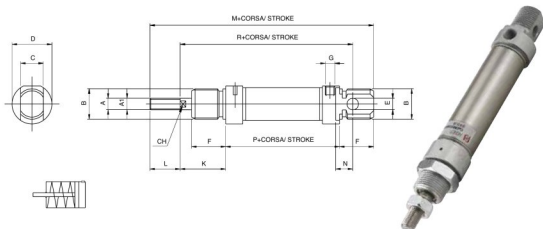
Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø8	4	Spinta / Thrust = 50,2	0,001	0,002	0,002	0,003	0,003	0,004	0,004	0,005	0,005	0,006
		Trazione / Traction = 37,7	0,001	0,001	0,002	0,002	0,002	0,003	0,003	0,003	0,004	0,004
Ø10	4	Spinta / Thrust = 78,5	0,002	0,002	0,003	0,004	0,005	0,005	0,006	0,007	0,008	0,009
		Trazione / Traction = 66	0,001	0,002	0,003	0,003	0,004	0,005	0,005	0,006	0,007	0,007
Ø12	6	Spinta / Thrust = 113	0,002	0,003	0,005	0,006	0,007	0,008	0,009	0,010	0,011	0,012
		Trazione / Traction = 85	0,002	0,003	0,003	0,004	0,005	0,006	0,007	0,008	0,009	0,009
Ø16	6	Spinta / Thrust = 200	0,004	0,006	0,008	0,010	0,012	0,014	0,016	0,018	0,020	0,022
		Trazione / Traction = 173	0,003	0,005	0,007	0,009	0,010	0,012	0,014	0,016	0,017	0,019
Ø20	8	Spinta / Thrust = 314	0,006	0,009	0,013	0,016	0,019	0,022	0,025	0,028	0,031	0,035
		Trazione / Traction = 264	0,005	0,008	0,011	0,013	0,016	0,018	0,021	0,024	0,026	0,029
Ø25	10	Spinta / Thrust = 490	0,010	0,015	0,020	0,025	0,029	0,034	0,039	0,044	0,049	0,054
		Trazione / Traction = 412	0,008	0,012	0,016	0,021	0,025	0,029	0,033	0,037	0,041	0,045

Esempio D'ordine / How to Order

CORSE STANDARD mm. - STD STROKES

Ø mm.	10	25	50	80	100	125	160	200	250	320
8	▲●	▲●	▲●	●	●	●				
10	▲●	▲●	▲●	●	●	●				
12	▲●	▲●	▲●	●	●	●	●	●	●	
16	▲■●○	▲■●○	▲■●○	●○	●○	●○	●○	●○	●○	●○
20	▲■●○	▲■●○	▲■●○	●○	●○	●○	●○	●○	●○	●○
25	▲■●○	▲■●○	▲■●○	●○	●○	●○	●○	●○	●○	●○

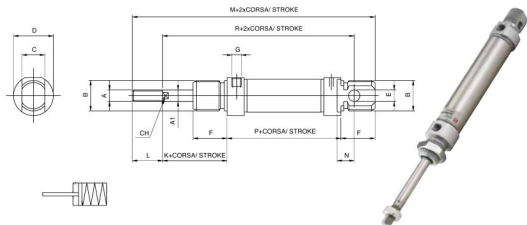
- ▲ MB **SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC**
- MD **SEMPLICE EFFETTO MAGNETICO - MOLLA IN SPINTA - SINGLE-ACTING MAGNETIC - SPRING THRUST**
- MF **DOPPIO EFFETTO MAGNETICO - DOUBLE ACTING MAGNETIC**
- MFN **DOPPIO EFFETTO MAGNETICO TESTATA TRONCA ALIMENTAZIONE 90° - DOUBLE ACTING MAGNETIC HEAD CUT, FEED AT 90°**
- MFX **DOPPIO EFFETTO MAGNETICO TESTATA TRONCA ALIMENTAZIONE IN ASSE - DOUBLE ACTING MAGNETIC HEAD CUT, FEED ON AXIS**
- ◆ MH **DOPPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC**
- MJ **DOPPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END**
- ◆ ML **DOPPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END**



MB

SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC

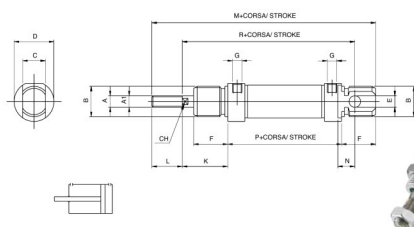
Ø mm.	A	A'	B	C	D	E	F	G	K	L	M	N	P	R	CH
8	M4	4	M12x1.25	8	16	4	12	M5	16	12	86	6	46	64	-
10	M4	4	M12x1.25	8	16	4	12	M5	16	12	86	6	46	64	-
12	M6	6	M16x1.5	12	19	6	18	M5	22	16	104	9	48	75	5
16	M6	6	M16x1.5	12	19	6	18	M5	22	16	109	9	53	82	5
20	M8	8	M22x1.5	16	27	8	20	1/8G	24	20	131	12	67	95	7
25	M10x1.25	10	M22x1.5	16	30	8	22	1/8G	28	22	140	12	68	104	9



MD

SEMPLICE EFFETTO MAGNETICO - MOLLA IN SPINTA - SINGLE-ACTING MAGNETIC - SPRING THRUST

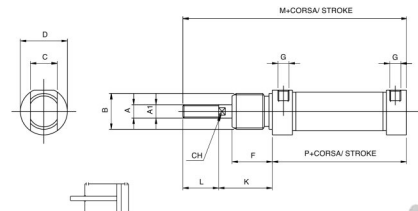
Ø mm.	A	A'	B	C	D	E	F	G	K	L	M	N	P	R	CH
16	M6	6	M16x1.5	12	19	6	18	M5	22	16	134.5	9	78.5	107.5	5
20	M8	8	M22x1.5	16	27	8	20	1/8G	24	20	154	12	90	118	7
25	M10x1.25	10	M22x1.5	16	30	8	22	1/8G	28	22	166	12	94	130	9



MF

DOPPIO EFFETTO MAGNETICO - DOUBLE ACTING MAGNETIC

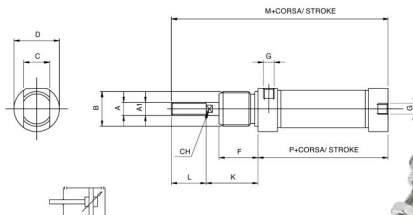
Ø mm.	A	A'	B	C	D	E	F	G	K	L	M	N	P	R	CH
8	M4	4	M12x1.25	8	16	4	12	M5	16	12	86	6	46	64	-
10	M4	4	M12x1.25	8	16	4	12	M5	16	12	86	6	46	64	-
12	M6	6	M16x1.5	12	19	6	18	M5	22	16	104	9	48	75	5
16	M6	6	M16x1.5	12	19	6	18	M5	22	16	109	9	53	82	5
20	M8	8	M22x1.5	16	27	8	20	1/8G	24	20	131	12	67	95	7
25	M10x1.25	10	M22x1.5	16	30	8	22	1/8G	28	22	140	12	68	104	9



MFN

DOPPIO EFFETTO MAGNETICO TESTATA TRONCA ALIMENTAZIONE 90° - DOUBLE ACTING MAGNETIC HEAD TCUT FEED AT 90°

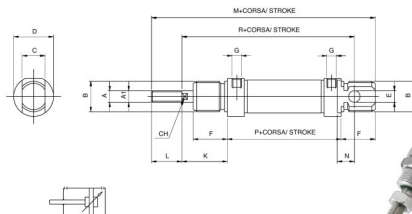
Ø mm.	A	A'	B	C	D	G	K	L	M	P
16	M6	6	M16x1.5	12	19	M5	22	16	109	53
20	M8	8	M22x1.5	16	27	1/8G	24	20	131	67
25	M10x1.25	10	M22x1.5	16	30	1/8G	28	22	140	68



MFX

DOPIO EFFETTO MAGNETICO TESTATA TRONCA ALIMENTAZIONE IN ASSE - DOUBLE ACTING MAGNETIC HEAD CUT FEED ON AXIS

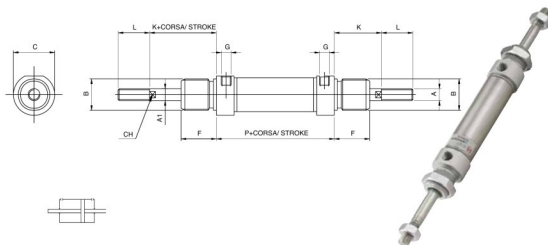
Ø mm.	A	A'	B	C	D	G	K	L	M	P
16	M6	6	M16x1.5	12	21	M5	22	16	109	53
20	M8	8	M22x1.5	16	27	1/8G	24	20	131	67
25	M10x1.25	10	M22x1.5	16	30	1/8G	28	22	140	68



MH

DOPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC

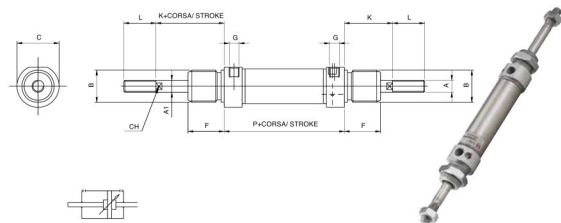
Ø mm.	A	A'	B	C	D	E	F	G	K	L	M	N	P	R	CH
16	M6	6	M16x1.5	12	21	6	18	M5	22	16	109	9	53	8	25
20	M8	8	M22x1.5	16	27	8	20	1/8G	24	20	131	12	67	95	7
25	M10x1.25	10	M22x1.5	16	30	8	22	1/8G	28	22	140	12	68	104	9



MJ

DOPPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END

Ø mm.	A	A'	B	C	F	G	K	L	P	CH
16	M6	6	M16x1.5	19	18	M5	22	16	53	5
20	M8	8	M22x1.5	27	20	1/8G	24	20	67	7
25	M10x1.25	10	M22x1.5	30	22	1/8G	28	22	68	9



ML

DOPPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END

Ø mm.	A	A'	B	C	F	G	K	L	P	CH
16	M6	6	M16x1.5	21	18	M5	22	16	53	5
20	M8	8	M22x1.5	27	20	1/8G	24	20	67	7
25	M10x1.25	10	M22x1.5	30	22	1/8G	28	22	68	9

Bloccastelo per cilindri Iso 6432 / Piston Rod Lock for cylinders Iso 6432

Il bloccastelo è un'unità di serraggio che serve per bloccare lo stelo in qualsiasi posizione in caso di caduta di pressione. In assenza di alimentazione pneumatica al dispositivo di blocco, lo stelo del cilindro è meccanicamente bloccato con una forza superiore alla spinta del cilindro alimentato a 10 bar. E' importante ricordare che l'unità di serraggio dello stelo può essere sbloccata solo quando entrambe le camere sono in pressione.

The piston rod lock is a locking unit, which blocks the piston rod in any position in case of pressure drop. In case of lack of air to the locking device, the cylinder piston rod is mechanically blocked with a bigger force than the thrust made by the cylinder fed at 10 bar. It is important to remember that the locking unit of the piston rod can be released only when both the chambers are under pressure.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima di sbloccaggio: 2,5 bar (0,25 Mpa) per pressione cilindro da 0 a 7 bar (da 0 a 0,7 Mpa)
3 bar (0,3 Mpa) per pressione cilindro da 7 a 10 bar (da 0,7 a 1 Mpa)

Minimum release pressure: 2,5 bar (0,25 Mpa) cylinder supply pressure from 0 to 7 bar (from 0 to 0,7 Mpa)
3 bar (0,3 Mpa) cylinder supply pressure from 7 to 10 bar (from 0,7 to 1 Mpa)

In assenza di Pressione / Without Pressures

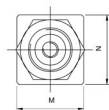
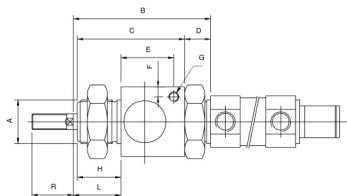
Bloccato / Locked

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
(-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.
Filtered and lubricated compressed air as well as non lubricated air.



MRL

BLOCCASTELO

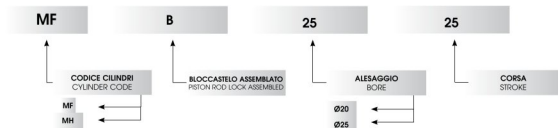
PISTON ROD LOCK

Ø mm.	A	B	C	D	E	F	G	H	L	M	N	R
20	M22x1.5	68.5	54	13	27	5	M5	22	23.5	34	35	23
25	M22x1.5	69.5	54	13	27	5	M5	22	24.5	34	35	26

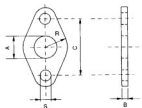
Come ordinare / How to order

Il bloccastelo può essere assemblato solo su cilindri ISO 6432 Ø 20 o 25 mm con stelo prolungato. Per identificare il cilindro con stelo prolungato e bloccastelo assemblato è necessario indicare dopo il codice del cilindro la lettera "B".

The piston rod lock can be assembled only with cylinders ISO 6432 Ø 20 or 25 mm produced with an extended piston rod. To identify the cylinder with extended piston rod and piston rod lock assembled, it is necessary to mention after the article code of the cylinder the letter "B".



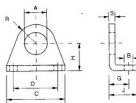
Componenti di fissaggio / Mounting Accessories



MFL

FLANGIA - FLANGE

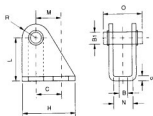
Ø mm.	A	B	C	R	S
8-10	12	3	30	9	4.5
12-16	16	4	40	13	5.5
20-25	22	5	50	19	6.6



MPD

PIEDINO - FOOT

Ø mm.	A	B	C	D	G	H	J	R	S
8-10	12	4.5	35	25	11	16	16	10	3
12-16	16	5.5	42	32	14	20	20	13.5	4
20-25	22	6.6	54	40	17	25	25	18	5



MCC

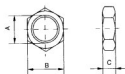
CERNIERA - CLEVIS BRACKET

Ø mm.	B	B1	C	H	L	M	N	O	R	S
8-10	4.5	4	12.5	20	24	12.5	8.1	17	5	2.5
12-16	5.5	6	15	25	27	15	12.1	23	7	3
20-25	6.6	8	20	32	30	20	16.1	29.5	10	4

DA

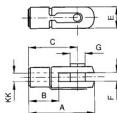
DADO PER TESTATE - NUT FOR COVERS

Cod.	Ø mm.	A	B	C
0DA00005ID5Z1	8-10	M12x1.25	19	7
0DA000051E3Z1	12-16	M16x1.5	22	6
0DA000051F6Z1	20-25	M22x1.5	27	8



DADO PER STELI - NUT FOR RODS

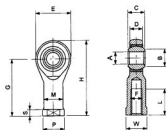
Cod.	Ø mm.	A	B	C
0DA000051B1Z1	8-10	M4	7	3.2
0DA000051B8Z1	12-16	M6	10	5
0DA000051C3Z1	20	M8x1.25	13	6.5
0DA000051C9Z1	25	M10x1.25	17	8



FC

FORCELLA CON CLIPS IN ACCIAIO ZINCATO - YOKE WITH LOCABLE PIN

Ø mm.	A	B	C	E	F	G	KK
8-10	21	8	16	8	4	4	M4
12-16	31	12	24	12	6	6	M6
20	42	16	32	16	8	8	M8
25 - 32	52	20	40	20	10	10	M10x1.25



TF

TESTE DI BIELLA AUTOLUBRIFICANTI - ROD ENDS SELF-LUBRICATING

Ø mm.	A	B	C	Ø	D	E	F	G	H	L	M	P	S	W	Carico radiale Dinamico	Carico radiale Statico	Peso
8-10	5	7,7	8	11,11	6	18	M4x0,7	27	36	10	9	11	4	9	-	-	-
12-16	6	8,9	9	12,7	6,75	20	M6x1	30	40	9	10	13	5	11	470	1.100	19
20	8	10,4	12	15,88	9	24	M8x1,25	36	48	12	12,5	16	5	14	780	1.900	36
25 - 32	10	12,9	14	19,05	10,5	28	M10x1,25	43	57	15	15	19	6,5	17	1.200	3.100	88

Minicilindri Inox / Mini Cylinders Inox

I minicilindri INOX realizzati secondo norme ISO 6432 sono particolarmente adatti per impieghi in ambienti aggressivi, corrosivi e con alte temperature. Funzionalità e resistenza sono garantite da una particolare operazione di montaggio denominata "a doppia rullatura" con la quale le testate sono unite al tubo.

A richiesta: Guarnizioni in FKM.

The cylinders included in this range can be used in any industrial fields where it is required a safety and constant functionality without particular maintenance. Mini cylinders are manufactured in conformity with standard ISO 6432. They are particularly suitable to be used in corrosive and high temperatures environments.

On request: FKM seals.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: **2 bar** (0.2 MPa)
Pressione massima / Maximum pressure: **10 bar** (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: **0 °C**
(-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: **+80 °C**

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.
Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Doppio effetto magnetico, Doppio effetto non magnetico.
Double-acting magnetic Double-acting without magnet.

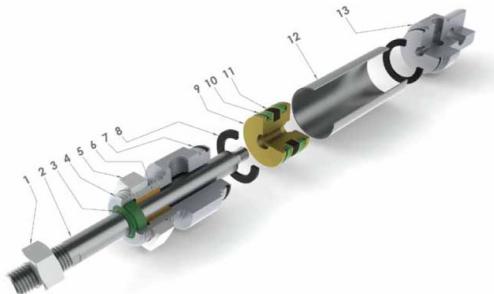
Alesaggi / Bores

16 - 20 - 25 mm.

Corse / Strokes

Corse Standard / Standard Strokes
Da 10 a 320 mm / From 10 to 320 mm

Caratteristiche Tecniche / Technical Characteristics



Materiali e Componenti / Component Parts and Materials

- | | |
|---|--|
| 1 Dado in acciaio AISI 304 | 1 Steel AISI 304 Nut |
| 2 Asta in Acciaio AISI 316 | 2 Steel AISI 316 Piston rod |
| 3 Guarnizione asta in poliuretano | 3 Polyurethane Rod seal |
| 4 Testata anteriore in Acciaio AISI 304 | 4 Steel AISI 304 Front cover |
| 5 Ghiera in acciaio AISI 304 | 5 Steel AISI 304 Nut |
| 6 Bronzina in bronzo sinterizzato | 6 Sintered bronze Bearing |
| 7 Guarnizioni O-RING in NBR | 7 NBR O-RING Seals |
| 8 Paracolpi in neoprene | 8 Neoprene Bumper |
| 9 Pistone in ottone | 9 Brass Piston |
| 10 Guarnizione pistone in poliuretano | 10 Polyurethane Piston seal |
| 11 Magnete in piastoferrite | 11 Plastoferite Magnet |
| 12 Camicia minicilindro in acciaio AISI 304 | 12 Steel AISI 304 Mini cylinder shape body |
| 13 Testata posteriore in Acciaio AISI 304 | 13 Steel AISI 304 Back cover |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm ² Working Surface in mm ²	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Forza sviluppata in N Output force in N												
Ø16	6	Spinta / Thrust = 200	18	36	54	72	90	108	126	144	162	180
		Trazione / Traction = 173	16	32	48	64	80	96	112	128	144	160
Ø20	8	Spinta / Thrust = 314	28	56	84	112	140	168	196	224	252	280
		Trazione / Traction = 264	24	48	72	96	120	144	168	192	216	240
Ø25	10	Spinta / Thrust = 490	44	88	132	176	220	264	308	352	396	440
		Trazione / Traction = 412	36	72	108	144	180	216	252	288	324	360

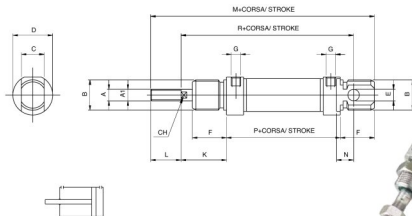
CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm ² Working Surface in mm ²	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø16	6	Spinta / Thrust = 200	0.004	0.006	0.008	0.010	0.012	0.014	0.016	0.018	0.020	0.022
		Trazione / Traction = 173	0.003	0.005	0.007	0.009	0.010	0.012	0.014	0.016	0.017	0.019
Ø20	8	Spinta / Thrust = 314	0.006	0.009	0.013	0.016	0.019	0.022	0.025	0.028	0.031	0.035
		Trazione / Traction = 264	0.005	0.008	0.011	0.013	0.016	0.018	0.021	0.024	0.026	0.029
Ø25	10	Spinta / Thrust = 490	0.010	0.015	0.020	0.025	0.029	0.034	0.039	0.044	0.049	0.054
		Trazione / Traction = 412	0.008	0.012	0.016	0.021	0.025	0.029	0.033	0.037	0.041	0.045

Esempio D'ordine / How to Order

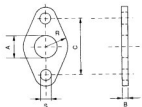
CORSE STANDARD mm. - STD STROKES

Ø mm.	10	25	50	80	100	125	160	200	250	320
16	●	●	●	●	●	●	●	●	●	●
20	●	●	●	●	●	●	●	●	●	●
25	●	●	●	●	●	●	●	●	●	●


MFI
DOPIO EFFETTO MAGNETICO INOX - DOUBLE ACTING MAGNETIC INOX

Ø mm.	A	A'	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	CH
16	M6	6	M16x1.5	12	19	6	18	M5	22	16	109	9	53	82	5			
20	M8	8	M22x1.5	16	27	8	20	1/8G	24	20	131	12	67	95	7			
25	M10x1.25	10	M22x1.5	16	30	8	22	1/8G	28	22	140	12	68	104	9			

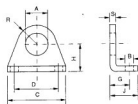
Componenti di fissaggio / Mounting Accessories



MFLI

FLANGIA - FLANGE

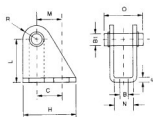
Ø mm.	A	B	C	R	S
16	16	4	40	13	5.5
20-25	22	5	50	19	6.6



MPDI

PIEDINO - FOOT

Ø mm.	A	B	C	D	G	H	J	R	S
16	16	5.5	42	32	14	20	20	13.5	4
20-25	22	6.6	54	43	17	25	25	18	5



MCCI

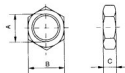
CERNIERA - CLEVIS BRACKET

Ø mm.	B	B1	C	H	L	M	N	O	R	S
16	5.5	6	15	25	27	15	12.1	23	7	3
20-25	6.6	8	20	32	30	20	16.1	29.5	10	4

DAI

DADO PER TESTATE - NUT FOR COVERS

Cod.	Ø mm.	A	B	C
0DA000043E300	16	M16x1.5	22	6
0DA000043F600	20-25	M22x1.5	27	8



DADO PER STELI - NUT FOR RODS

Cod.	Ø mm.	A	B	C
0DA000043B800	16	M6	10	5
0DA000043C300	20	M8x1.25	13	6.5
0DA000043C900	25	M10x1.25	17	8

Cilindri A95 / Cylinders A95

I cilindri A95 realizzati con profilo pulito, lineare e dimensioni d'ingombro contenute sono particolarmente adatti per impieghi in spazi ristretti. Funzionalità e resistenza sono garantite da una particolare operazione di montaggio denominata "a doppia rullatura" con la quale le testate sono unite alla canna.

The cylinders A95 manufactured with a clean, linear profile and reduced overall dimensions are particularly suitable to be used in reduced spaces. By using a special assembling operation called "double rolling" to join the end covers to the barrel, functionality and resistance are ensured.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)
Pressione massima / Maximum pressure: 10 bar (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
 (-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.
 Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Semplice e doppio effetto ammortizzato Magnetico e non Magnetico, Stelo singolo e passante.
 Single and Double-acting cushioned Magnetic and no-Magnetic. Single or through piston rod

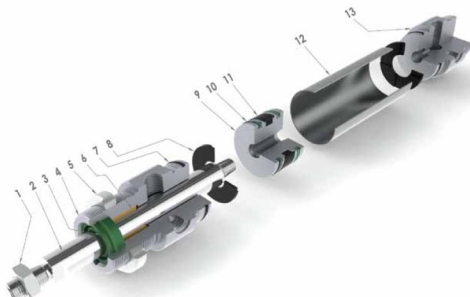
Alesaggi / Bores

32 - 40 - 50 - 63 mm.

Corse / Strokes

Corse Standard / Standard Strokes
Da 10 a 500 mm / From 10 to 500 mm

Caratteristiche Tecniche / Technical Characteristics



Materiali e Componenti / Component Parts and Materials

- | | |
|---|---------------------------------------|
| 1 Dado in acciaio zincato | 1 Zinc-plated steel Nut |
| 2 Asta pistone acciaio C40 cromato | 2 Chrome steel C40 Piston rod |
| 3 Guarnizione asta in poliuretano | 3 Polyurethane Rod seal |
| 4 Testata anteriore in alluminio anodizzato | 4 Anodised aluminium Front cover |
| 5 Ghiera testata in acciaio zincato | 5 Zinc-plated steel Nut |
| 6 Bronzina in bronzo sinterizzato | 6 Sintered bronze Bearing |
| 7 Guarnizioni O-RING in NBR | 7 NBR O-RING Seals |
| 8 Paracolpi in neoprene | 8 Neoprene Bumper |
| 9 Pistone in alluminio anodizzato | 9 Anodised aluminium Piston |
| 10 Guarnizione pistone in poliuretano | 10 Polyurethane Piston Seal |
| 11 Magnete in plastoferrite | 11 Bonded ferrite Magnet |
| 12 Camicia cilindro in acciaio AISI 304 | 12 Steel AISI 304 Cylinder shape body |
| 13 Testata posteriore in alluminio anodizzato | 13 Anodised aluminium Back cover |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Forza sviluppata in N Output force in N												
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	72 62	144 124	216 186	288 248	360 310	432 372	504 434	576 496	648 558	720 620
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction = 1056	110 95	220 190	330 285	440 380	550 475	660 570	770 665	880 760	990 855	1100 950
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	175 148	350 296	525 444	700 592	875 740	1050 888	1225 1036	1400 1184	1575 1332	1750 1480
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	280 250	560 500	840 750	1120 1000	1400 1250	1680 1500	1960 1750	2240 2000	2520 2250	2800 2500

FORZE DELLA MOLLA - SPRING TRACTION FORCES

Ø Cilindri Ø Cylinder	Carico Molla Load Spring	Corso / Stroke		
		10	25	50
		Forza sviluppata in N Output force in N		
Ø32	Carico Molla a Riposo / Load of spring at rest	56	51	42
	Carico Molla Compressa / Load of compressed spring	60	60	60
Ø40	Carico Molla a Riposo / Load of spring at rest	60	55	44
	Carico Molla Compressa / Load of compressed spring	65	65	65
Ø50	Carico Molla a Riposo / Load of spring at rest	64	57	46
	Carico Molla Compressa / Load of compressed spring	68	68	68
Ø63	Carico Molla a Riposo / Load of spring at rest	65	58	47
	Carico Molla Compressa / Load of compressed spring	70	70	70

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

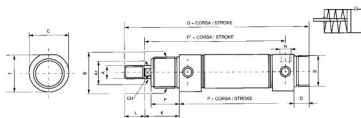
Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø32	12	Spinta / Thrust = 804	0.016	0.024	0.032	0.040	0.048	0.056	0.064	0.072	0.080	0.088
		Trazione / Traction = 691	0.014	0.021	0.028	0.035	0.041	0.048	0.055	0.062	0.069	0.076
Ø40	16	Spinta / Thrust = 1257	0.025	0.038	0.050	0.063	0.075	0.088	0.101	0.113	0.126	0.138
		Trazione / Traction = 1056	0.021	0.032	0.042	0.053	0.063	0.074	0.084	0.095	0.106	0.116
Ø50	20	Spinta / Thrust = 1963	0.039	0.059	0.079	0.098	0.118	0.137	0.157	0.177	0.196	0.216
		Trazione / Traction = 1649	0.033	0.049	0.066	0.082	0.099	0.115	0.132	0.148	0.165	0.181
Ø63	20	Spinta / Thrust = 3117	0.062	0.094	0.125	0.156	0.187	0.218	0.249	0.281	0.312	0.343
		Trazione / Traction = 2803	0.056	0.084	0.112	0.140	0.168	0.196	0.224	0.252	0.280	0.308

Esempio D'ordine / How to Order

CORSE STANDARD mm. - STD STROKES

Ø mm.	10	25	50	80	100	125	160	200	250	320	400	500
32	▲ ■ ● ◆	▲ ■ ● ◆	▲ ■ ● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆
40	▲ ■ ● ◆	▲ ■ ● ◆	▲ ■ ● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆
50	▲ ■ ● ◆	▲ ■ ● ◆	▲ ■ ● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆
63	▲ ■ ● ◆	▲ ■ ● ◆	▲ ■ ● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆	● ◆

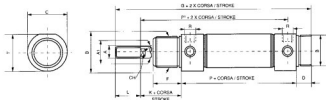
- ▲ **AB** SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC
- **AD** SEMPLICE EFFETTO MAGNETICO - MOLLA IN SPINTA - SINGLE-ACTING MAGNETIC - SPRING THRUST
- **AF** DOPPIO EFFETTO MAGNETICO - DOUBLE ACTING MAGNETIC
- ◆ **AH** DOPPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC
- **AJ** DOPPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END
- ◆ **AL** DOPPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO
DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END



AB

SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC

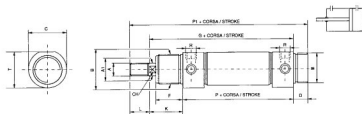
Ø mm.	A	A'	B	T	C	D	F	G	K	L	P	P'	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	14	30	168	38	20	96	125	10	1/8" GAS
40	M12x1.25	16	M38x1.5	44	46	16	35	196	45	24	111	144	12	1/4" GAS
50	M16x1.5	20	M45x1.5	55	57	18	38	220	50	32	120	158	16	1/4" GAS
63	M16x1.5	20	M45x1.5	67.5	70	18	38	224	50	32	124	161	16	3/8" GAS



AD

SEMPLICE EFFETTO MAGNETICO - MOLLA IN SPINTA - SINGLE-ACTING MAGNETIC - SPRING THRUST

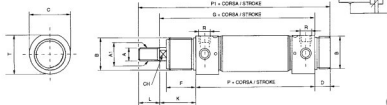
Ø mm.	A	A'	B	T	C	D	F	G	K	L	P	P'	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	14	30	168	38	20	96	125	10	1/8" GAS
40	M12x1.25	16	M38x1.5	44	46	16	35	196	45	24	111	144	12	1/4" GAS
50	M16x1.5	20	M45x1.5	55	57	18	38	220	50	32	120	158	16	1/4" GAS
63	M16x1.5	20	M45x1.5	67.5	70	18	38	224	50	32	124	161	16	3/8" GAS



AF

DOPPIO EFFETTO MAGNETICO - DOUBLE ACTING MAGNETIC

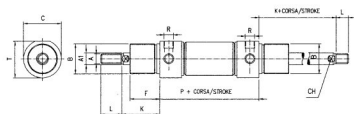
Ø mm.	A	A'	B	T	C	D	F	G	K	L	P	PI	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	14	30	134	38	20	96	168	10	1/8" GAS
40	M12x1.25	16	M38x1.5	44	46	16	35	156	45	24	111	196	12	1/4" GAS
50	M16x1.5	20	M45x1.5	55	57	18	38	170	50	32	120	220	16	1/4" GAS
63	M16x1.5	20	M45x1.5	67.5	70	18	38	174	50	32	124	224	16	3/8" GAS



AH

DOPPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC

Ø mm.	A	A'	B	T	C	D	F	G	K	L	P	PI	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	14	30	134	38	20	96	168	10	1/8" GAS
40	M12x1.25	16	M38x1.5	44	46	16	35	156	45	24	111	196	12	1/4" GAS
50	M16x1.5	20	M45x1.5	55	57	18	38	170	50	32	120	220	16	1/4" GAS
63	M16x1.5	20	M45x1.5	67.5	70	18	38	174	50	32	124	224	16	3/8" GAS



AJ

DOPPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END

Ø mm.	A	A'	B	T	C	F	K	L	P	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	30	38	20	96	10	1/8G
40	M12x1.25	16	M38x1.5	44	46	35	45	24	111	12	1/4G
50	M16x1.5	20	M45x1.5	55	57	38	50	32	120	16	1/4G
63	M16x1.5	20	M45x1.5	67.5	70	38	50	32	124	16	3/8G

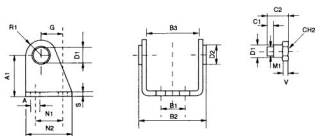


AL

DOPPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END

Ø mm.	A	A'	B	T	C	F	K	L	P	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	30	38	20	96	10	1/8G
40	M12x1.25	16	M38x1.5	44	46	35	45	24	111	12	1/4G
50	M16x1.5	20	M45x1.5	55	57	38	50	32	120	16	1/4G
63	M16x1.5	20	M45x1.5	67.5	70	38	50	32	124	16	3/8G

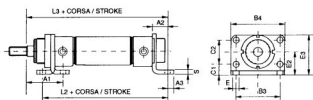
Componenti di fissaggio / Mounting Accessories



ACC

KIT CERNIERA CON VITI DI SERRAGGIO - CLEVIS BRACKET

Ø mm.	D1	D2	A	A1	G	M1	N1	N2	R1	S	CH2	B1	B2	B3	V	C1	C2
32	10	16	7	35	20	M8x1	24	40	12	4	13	20	50.1	38.1	4	6	18
40	12	18	9	40	27	M10x1	30	50	13	5	17	28	60.1	46.1	5	7	21.6
50	14	23	9	45	30	M12x1.5	34	54	14	6	19	36	74.1	57.1	6	9	26.4
63	16	24	9	50	34	M14x1.5	35	65	16	6	19	42	88.1	70.1	6	15	34



APD

PIEDINO FLANGIA - FOOT FLANGE

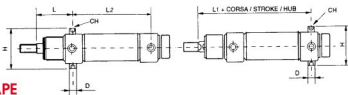
Ø mm.	E	E2	E3	C1	C2	L2	L3	B3	B4	S	A1	A2	A3
32	7	28	49	14	28	124	148	52	66	4	48	14	7
40	9	33	58	18	30	151	176	60	80	5	60	20	10
50	9	40	70	20	40	160	190	70	90	6	64	20	10
63	9	45	80	20	50	164	194	76	96	6	65	20	10



AGT

GHIERA - NUT

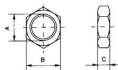
Ø mm.	B	D	H
32	M30x1.5	45	7
40	M38x1.5	50	8
50 - 63	M45x1.5	58	9



APE

FISSAGGIO CON 2 PERNI - PIVOT

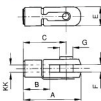
Ø mm.	D	H	L1	L2	L	CH
32	10	51	125	78	47	5
40	12	61	144	87	57	6
50	14	75	158	96	62	6
63	16	90	161	98	63	8



DA

DADO PER STELI - NUT FOR RODS

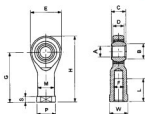
Cod.	Ø mm.	A	B	C
0DA000051C9ZI	32	M10x1.25	17	8
0DA000051D5ZI	40	M12x1.25	19	7
0DA000051E3ZI	50 - 63	M16x1.5	22	6



FC

FORCELLA CON CLIPS IN ACCIAIO ZINCATO - YOKE WITH LOCABLE PIN

Ø mm.	A	B	C	E	F	G	KK
25 - 32	52	20	40	20	10	10	M10x1.25
40	62	24	48	24	12	12	M12x1.25
50-63	83	32	64	32	16	16	M16x1.5



TF

TESTE DI BIELLA AUTOLUBRIFICANTI - ROD ENDS SELF-LUBRICATING

Ø mm.	A	B	C	Ø	D	E	F	G	H	L	M	P	S	W	Carico radiale Dinamico	statico	Peso
H7	0	+0.13	-0.13	SF8RA	±0.13	±0.8		±0.5		±0.7	±0.7	±0.5	+0.2 -0.7	±0.25	kg	kg	g
25 - 32	10	12.9	14	19.05	11.5	30	M10x1.25	43	58	15	15	19	6.5	16	1.200	3.100	88
40	12	15.4	16	22.23	12.5	34	M12x1.25	50	67	18	17.5	22	6.5	18	1.400	3.700	120
50-63	16	19.3	21	28.58	15.5	42	M16x1.5	64	85	24	22	27	8	24	2.500	6.300	240

Cilindri Compatti / Compact Cylinders

I cilindri compatti sono stati realizzati con un ingombro inferiore del 50% rispetto ad un cilindro a norme di forze equivalenti, la particolare struttura costruttiva offre una buona resistenza assiale. Il nuovo design innovativo è stato dotato sui tre lati di apposite guide sulle quali è possibile utilizzare sensori a scomparsa e paracolpi elastici a fine corsa. Gli interassi di fissaggio da 20 a 100 mm sono conformi alla norma UNITOP.

The overall dimensions of these compact cylinders are 50% smaller compared to a classic equivalent cylinder; the particular manufacturing structure ensures a good axial resistance. The new innovative design has been equipped on three sides with guides on whom it is possible to assembly the disappearance switches and elastic bumpers at the stroke end. The fixing distances between cylinder's centers from diameter 20 to 100 mm are in conformity with the standard UNITOP.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)
Pressione massima / Maximum pressure: 10 bar (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
 (-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.
 Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Semplice effetto magnetico, Doppio effetto magnetico
Stelo singolo e passante magnetico, Antirrotazione magnetico.
 Single and Double-acting magnetic. Single or through piston rod magnetic. Antirrotation magnetic.

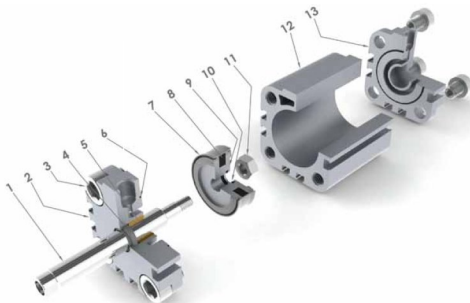
Alesaggi / Bores

Da 12 a 100 mm / From 10 to 100 mm

Corse / Strokes

Corse Standard / Standard Strokes
Da 5 a 80 mm / From 5 to 80 mm

Caratteristiche Tecniche / Technical Characteristics



Materiali e Componenti / Component Parts and Materials

- | | |
|---|---|
| 1 Asta pistone acciaio cromato
(AISI 303 da 12 a 25) (C40 da 32 a 100) | 1 Chrome steel Piston rod
(AISI 303 from 12 to 25)(C40 from 32 to 100) |
| 2 Testata anteriore in alluminio anodizzato | 2 Anodised aluminium Front cover |
| 3 Vite in acciaio zincato | 3 Zinc-plated steel Screw |
| 4 Guarnizione asta in poliuretano | 4 Polyurethane Rod Seal |
| 5 Bronzina in bronzo sinterizzato | 5 Sintered bronze Bearing |
| 6 Guarnizione O-RING in NBR | 6 NBR O-RING Seals |
| 7 Guarnizione pistone in poliuretano | 7 Polyurethane Piston Seal |
| 8 Magnete in piastoferrite | 8 Bonded ferrite Magnet |
| 9 Pistone in alluminio | 9 Aluminium Piston |
| 10 Guarnizione O-RING in NBR | 10 NBR O-RING Seals |
| 11 Dado fissaggio pistone in acciaio zincato | 11 Zinc-plated steel Piston nut |
| 12 Camicia cilindro in alluminio anodizzato | 12 Anodised aluminium Cylinder shape body |
| 13 Testata posteriore in alluminio anodizzato | 13 Anodised aluminium Back cover |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
			Forza sviluppata in N Output force in N									
Ø12	6	Spinta / Thrust = 113 Trazione / Traction = 85	10 7,5	20 15	30 22	40 30	50 37	60 45	70 52	80 60	90 68	100 75
Ø16	8	Spinta / Thrust = 200 Trazione / Traction = 150	18 13	35 26	53 40	70 53	90 65	105 80	125 95	145 105	160 120	180 130
Ø20	10	Spinta / Thrust = 314 Trazione / Traction = 235	28 21	55 42	85 60	110 85	140 105	170 125	195 150	220 170	250 190	280 210
Ø25	10	Spinta / Thrust = 490 Trazione / Traction = 412	44 36	88 72	132 108	176 144	220 180	264 216	308 252	352 288	396 324	440 360
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	72 62	144 124	216 186	288 248	360 310	432 372	504 434	576 496	648 558	720 620
Ø40	12	Spinta / Thrust = 1257 Trazione / Traction = 1144	110 100	220 200	330 300	440 400	550 500	660 600	770 700	880 800	990 900	1100 1000
Ø50	16	Spinta / Thrust = 1963 Trazione / Traction = 1762	175 155	350 310	525 465	700 620	875 775	1050 930	1225 1085	1400 1240	1575 1395	1750 1550
Ø63	16	Spinta / Thrust = 3117 Trazione / Traction = 2916	280 260	560 520	840 780	1120 1040	1400 1300	1680 1560	1960 1820	2240 2080	2520 2340	2800 2600
Ø80	20	Spinta / Thrust = 5027 Trazione / Traction = 4712	450 420	900 840	1350 1260	1800 1680	2250 2100	2700 2520	3150 2940	3600 3360	4050 3780	4500 4200
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	700 660	1400 1320	2100 1980	2800 2640	3500 3300	4200 3960	4900 4620	5650 5280	6360 5940	7000 6600

FORZE DELLA MOLLA - SPRING TRACTION FORCES

Ø Cilindri Ø Cylinder	Carico Molla Load Spring	5	10	Corsa / Stroke 15 20 25		
		Forza sviluppata in N Output force in N				
Ø12	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	7,5 8	6,8 8			
Ø16	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	12,3 13,3	10,8 13,3	9,5 13,3	7,8 13,3	6,5 13,3
Ø20	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	15,7 17,4	14 17,4	12,2 17,4	10,4 17,4	8,7 17,4
Ø25	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	19,5 22	18,5 22	17,3 22	16 22	15 22
Ø32	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	27,8 30	25,3 30	22,8 30	20,2 30	17,7 30
Ø40	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	36,4 36	34 36	31,7 36	29,5 36	27 36
Ø50	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	32 35	30,5 35	29 35	27,8 35	26,5 35
Ø63	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	61 64,8	58,5 64,8	56,3 64,8	53,5 64,8	51,5 64,8
Ø80	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	91,3 94	88 94	85 94	82 94	78,7 94
Ø100	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	150 156	145 156	140 156	134 156	129 156

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

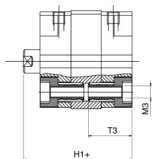
Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø12	6	Spinta / Thrust = 113 Trazione / Traction = 85	0.002 0.002	0.003 0.003	0.005 0.003	0.006 0.004	0.007 0.005	0.008 0.006	0.009 0.007	0.010 0.008	0.011 0.009	0.012 0.009
Ø16	8	Spinta / Thrust = 200 Trazione / Traction = 150	0.004 0.003	0.006 0.005	0.008 0.006	0.010 0.008	0.012 0.009	0.014 0.011	0.016 0.012	0.018 0.014	0.020 0.015	0.022 0.017
Ø20	10	Spinta / Thrust = 314 Trazione / Traction = 235	0.006 0.005	0.009 0.007	0.013 0.009	0.016 0.012	0.019 0.014	0.022 0.016	0.025 0.019	0.028 0.021	0.031 0.024	0.035 0.026
Ø25	10	Spinta / Thrust = 490 Trazione / Traction = 412	0.010 0.008	0.015 0.012	0.020 0.016	0.025 0.021	0.029 0.025	0.034 0.029	0.039 0.033	0.044 0.037	0.049 0.041	0.054 0.045
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	0.016 0.014	0.024 0.021	0.032 0.028	0.040 0.035	0.048 0.041	0.056 0.048	0.064 0.055	0.072 0.062	0.080 0.069	0.088 0.076
Ø40	12	Spinta / Thrust = 1257 Trazione / Traction = 1144	0.025 0.023	0.038 0.034	0.050 0.046	0.063 0.057	0.075 0.069	0.088 0.080	0.101 0.092	0.113 0.103	0.126 0.114	0.138 0.126
Ø50	16	Spinta / Thrust = 1963 Trazione / Traction = 1762	0.039 0.035	0.059 0.053	0.079 0.070	0.098 0.088	0.118 0.106	0.137 0.123	0.157 0.141	0.177 0.159	0.196 0.176	0.216 0.194
Ø63	16	Spinta / Thrust = 3117 Trazione / Traction = 2916	0.062 0.058	0.094 0.087	0.125 0.117	0.156 0.146	0.187 0.175	0.218 0.204	0.249 0.233	0.281 0.262	0.312 0.292	0.343 0.321
Ø80	20	Spinta / Thrust = 5027 Trazione / Traction = 4712	0.101 0.094	0.151 0.141	0.201 0.188	0.251 0.236	0.302 0.283	0.352 0.330	0.402 0.377	0.452 0.424	0.503 0.471	0.553 0.518
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	0.157 0.147	0.236 0.221	0.314 0.295	0.393 0.368	0.471 0.442	0.550 0.515	0.628 0.589	0.707 0.663	0.785 0.736	0.864 0.810

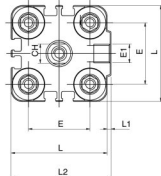
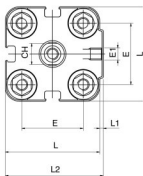
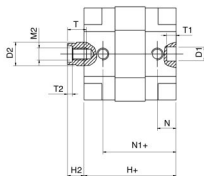
Esempio D'ordine / How to Order

CORSE STANDARD mm. - STD STROKES

Ø mm.	5	10	15	20	25	30	40	50	60	80	100	125	150	200
12	▲#	▲●#	●#	●#	●#	●#	●#							
16	▲●#	▲●#	▲●#	▲●#	▲●#	●#	●#							
20	▲●#	▲●#	▲●#	▲●#	▲●#	●#	●#	●#						
25	▲●#	▲●#	▲●#	▲●#	▲●#	●#	●#	●#						
32	▲●#	▲●#	▲●#	▲●#	▲●#	●#	●#	●#	●#	●#	●	●	●	
40	▲●#	▲●#	▲●#	▲●#	▲●#	●#	●#	●#	●#	●#	●	●	●	●
50	▲●#	▲●#	▲●#	▲●#	▲●#	●#	●#	●#	●#	●#	●	●	●	●
63	▲●#	▲●#	▲●#	▲●#	▲●#	●#	●#	●#	●#	●#	●	●	●	●
80	▲●#	▲●#	▲●#	▲●#	▲●#	●#	●#	●#	●#	●#	●	●	●	●
100	▲●#	▲●#	▲●#	▲●#	▲●#	●#	●#	●#	●#	●#	●	●	●	●

- ▲ QB **SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC**
- ▲ QD **SEMPLICE EFFETTO MAGNETICO - MOLLA IN SPINTA - SINGLE-ACTING MAGNETIC - SPRING THRUST**
- QF **DOPPIO EFFETTO MAGNETICO - DOUBLE ACTING MAGNETIC**
- QJ **DOPPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END**
- # QFA **DOPPIO EFFETTO MAGNETICO ANTIROTAZIONE - DOUBLE-ACTING MAGNETIC ANTIROTATION**


D12-16-20-25

D32-40-50-63-80-100


+= aggiungere la corsa

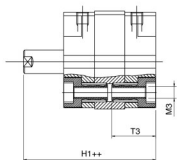
+= add stroke

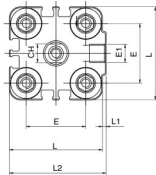
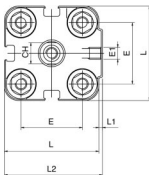
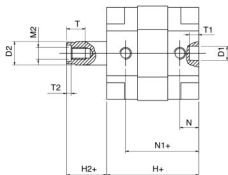


QB

SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC

Ø mm.	T	T1	T2	D1	L	E1	M3	T3	M2	H	H2	D2	N	N1	L2	E	L1	H1	CH
12	6	4	1.5	6	29	M5	M4	16	M3	35	7.5	6	6.5	28.5	30	18	1	42.5	5
16	8	4	2	6	29	M5	M4	16	M4	35	8.5	8	6.5	28.5	30	18	1	43.5	7
20	8	4	2	6	36	M5	M5	18.5	M5	39	7	10	8	31	37.5	22	1.5	46	9
25	8	4	2	6	40	M5	M5	18.5	M5	39	7	10	8	31	41.5	26	1.5	46	9
32	10	4	2.8	6	50	G1/8	M6	21.5	M6	42	7	12	6.5	35.5	52	32	2	49	10
40	10	4	2.8	6	60	G1/8	M6	21.5	M6	45.5	8.5	12	7.5	38	62.5	42	2.5	54	10
50	12	4	3.5	6	68	G1/8	M8	23.5	M8	45.5	10	16	7.5	38	71	50	3	55.5	13
63	12	4	3.5	8	87	G1/8	M10	28.5	M8	51	10.5	16	7.5	43.5	91	62	4	61.5	13
80	16	4	4.5	8	107	G1/8	M10	28.5	M10	62	12	20	9.5	52.5	111	82	4	75	17
100	20	4	6	8	128	G1/4	M10	28.5	M12	68	15.5	25	10.5	57.5	133	103	5	83.5	22


Ø12-16-20-25

Ø32-40-50-63-80-100


+= aggiungere la corsa

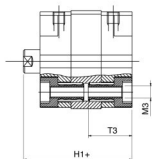
+= add stroke

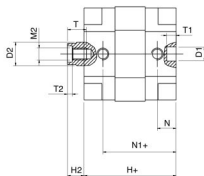
++= aggiungere 2 volte la corsa

++= double stroke dimension and add it


QD
SEMPLICE EFFETTO MAGNETICO - MOLLA IN SPINTA - SINGLE ACTING MAGNETIC - SPRING THRUST

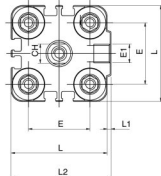
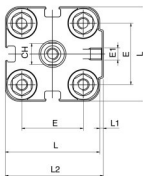
Ø mm.	T	T1	T2	D1	L	E1	M3	T3	M2	H	H2	D2	N	N1	L2	E	L1	H1	CH
12	6	4	1.5	6	29	M5	M4	16	M3	35	7.5	6	6.5	28.5	30	18	1	42.5	5
16	8	4	2	6	29	M5	M4	16	M4	35	8.5	8	6.5	28.5	30	18	1	43.5	7
20	8	4	2	6	36	M5	M5	18.5	M5	39	7	10	8	31	37.5	22	1.5	46	9
25	8	4	2	6	40	M5	M5	18.5	M5	39	7	10	8	31	41.5	26	1.5	46	9
32	10	4	2.8	6	50	G1/8	M6	21.5	M6	42	7	12	6.5	35.5	52	32	2	49	10
40	10	4	2.8	6	60	G1/8	M6	21.5	M6	45.5	8.5	12	7.5	38	62.5	42	2.5	54	10
50	12	4	3.5	6	68	G1/8	M8	23.5	M8	45.5	10	16	7.5	38	71	50	3	55.5	13
63	12	4	3.5	8	87	G1/8	M10	28.5	M8	51	10.5	16	7.5	43.5	91	62	4	61.5	13
80	16	4	4.5	8	107	G1/8	M10	28.5	M10	62	12	20	9.5	52.5	111	82	4	76	17
100	20	4	6	8	128	G1/4	M10	28.5	M12	68	15.5	25	10.5	57.5	133	103	5	83.5	22


D12-16-20-25

D32-40-50-63-80-100


+= aggiungere la corsa

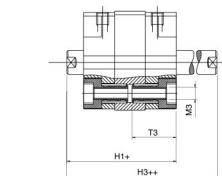
+= add stroke

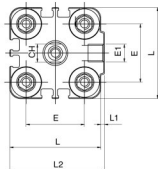
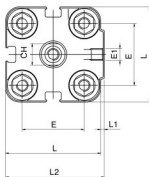
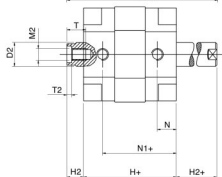


QF

DOPPIO EFFETTO MAGNETICO - DOUBLE-ACTING MAGNETIC

Ø mm.	T	T1	T2	D1	L	E1	M3	T3	M2	H	H2	D2	N	N1	L2	E	L1	H1	CH
12	6	4	1.5	6	29	M5	M4	16	M3	35	7.5	6	6.5	28.5	30	18	1	42.5	5
16	8	4	2	6	29	M5	M4	16	M4	35	8.5	8	6.5	28.5	30	18	1	43.5	7
20	8	4	2	6	36	M5	M5	18.5	M5	39	7	10	8	31	37.5	22	1.5	46	9
25	8	4	2	6	40	M5	M5	18.5	M5	39	7	10	8	31	41.5	26	1.5	46	9
32	10	4	2.8	6	50	G1/8	M6	21.5	M6	42	7	12	6.5	35.5	52	32	2	49	10
40	10	4	2.8	6	60	G1/8	M6	21.5	M6	45.5	8.5	12	7.5	38	62.5	42	2.5	54	10
50	12	4	3.5	6	68	G1/8	M8	23.5	M8	45.5	10	16	7.5	38	71	50	3	55.5	13
63	12	4	3.5	8	87	G1/8	M10	28.5	M8	51	10.5	16	7.5	43.5	91	62	4	61.5	13
80	16	4	4.5	8	107	G1/8	M10	28.5	M10	62	12	20	9.5	52.5	111	82	4	75	17
100	20	4	6	8	128	G1/4	M10	28.5	M12	68	15.5	25	10.5	57.5	133	103	5	83.5	22


D12-16-20-25

D32-40-50-63-80-100


+= aggiungere la corsa

+++ aggiungere 2 volte la corsa

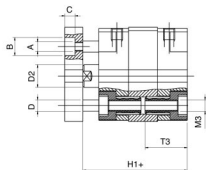
+ = add stroke

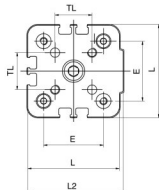
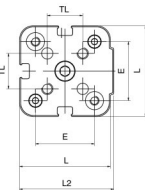
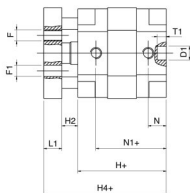
++ = double stroke dimension and add it


QJ

DOPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END

Ø mm.	T	M2	T2	D2	L	E1	M3	T3	CH	H	H2	H3	N	N1	L2	E	L1	H1
12	6	M3	1.5	6	29	M5	M4	16	5	35	7.5	50	6.5	28.5	30	18	1	42.5
16	8	M4	2	8	29	M5	M4	16	7	35	8.5	52	6.5	28.5	30	18	1	43.5
20	8	M5	2	10	36	M5	M5	18.5	9	39	7	53	8	31	37.5	22	1.5	46
25	8	M5	2	10	40	M5	M5	18.5	9	39	7	53	8	31	41.5	26	1.5	46
32	10	M6	2.8	12	50	G1/8	M6	21.5	10	42	7	56	6.5	35.5	52	32	2	49
40	10	M6	2.8	12	60	G1/8	M6	21.5	10	45.5	8.5	62.5	7.5	38	62.5	42	2.5	54
50	12	M8	3.5	16	68	G1/8	M8	23.5	13	45.5	10	65.5	7.5	38	71	50	3	55.5
63	12	M8	3.5	16	87	G1/8	M10	28.5	13	51	10.5	72	7.5	43.5	91	62	4	61.5
80	16	M10	4.5	20	107	G1/8	M10	28.5	17	62	12	86	9.5	52.5	111	82	4	76
100	20	M12	6	25	128	G1/4	M10	28.5	22	68	15.5	99	10.5	57.5	133	103	5	83.5


D12-16-20-25

D32-40-50-63-80-100


+ = aggiungere la
* = per corsa corta filetto passante

+ = add stroke
* = Through threads only on small strokes



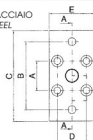
QFA

DOPIO EFFETTO MAGNETICO ANTIROTAZIONE - DOUBLE-ACTING MAGNETIC ANTIROTATION

Ø mm.	A	B	C	D	D1	D2	E	F	F1	H	H1	H2	H4	L	L1	L2	M3	N	N1	T1	T3	TL
12	M3	6	3.5	4	6	6	18	M3	3	35	42.5	7.5	47.5	29	5	30	M4	6.5	28.5	4	16	9.9
16	M3	6	3.5	4	6	8	18	M3	3	35	43.5	8.5	48.5	29	5	30	M4	6.5	28.5	4	16	9.9
20	M3	6	3.5	6	6	10	22	M4	4	39	46	7	54	36	8	37.5	M5	8	31	4	18.5	12
25	M4	8	4.5	6	6	10	26	M5	5	39	46	7	54	40	8	41.5	M5	8	31	4	18.5	15.6
32	M4	8	5.5	6	6	12	32	M5	5	42	49	7	59	50	10	52	M6	6.5	35.5	4	21.5	19.8
40	M4	8	5.5	6	6	12	42	M5	5	45.5	54	8.7	64	60	10	62.5	M6	7.5	38	4	21.5	23.3
50	M6	11	7	8	6	16	50	M6	6	45.5	55.5	10.2	67.5	68	12	71	M8	7.5	38	4	23.5	29.7
63	M6	11	7	8	8	16	62	M6	6	51	61.5	10.5	73.5	87	12	91	M10	7.5	43.5	4	28.5	35.4
80	M8	14	9	12	8	20	82	M8	8	62	75	12	89	107	14	111	M10	9.5	52.5	4	28.5	46
100	M8	14	9	12	8	25	103	M10	10	68	83.5	15.5	97.5	128	14	133	M10	10.5	57.5	4	28.5	56.6

Componenti di fissaggio / Mounting Accessories

MATERIALE: ACCIAIO
MATERIAL: STEEL

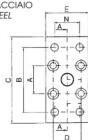


QFL

FLANGIA - FLANGE

Ø mm.	A	B	C	D	E	F	G	H	I	L	M
12 - 16	18	43	55	18	29	4.5	9	5.5	10	5.4	10
20	22	55	70	22	36	5.5	10	6.6	10	5.4	12
25	26	60	76	26	40	5.5	10	6.6	10	5.4	12

MATERIALE: ACCIAIO
MATERIAL: STEEL

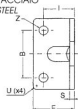


QFL

FLANGIA - FLANGE

Ø mm.	A	B	C	D	E	F	G	H	I	L	M	N
32	32	65	80	32	50	6.6	11	7	10	6.4	14	32
40	42	82	102	42	60	6.6	11	9	10	6.4	14	36
50	50	90	110	50	68	9	15	9	12	8.6	18	45
63	62	110	130	62	87	11	15	9	15	10.6	18	50
80	82	135	160	82	107	11	18	12	15	10.6	23	63
100	103	163	190	103	128	11	18	14	15	10.6	28	75

MATERIALE: ACCIAIO
MATERIAL: STEEL

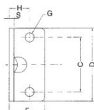
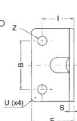


QCP

PIEDINO BASSO - LOW-RISE PEDESTAL

Ø mm.	C	B	D	E	F	G	H	I	S	T	R	U	Z
12 - 16	18	18	30	17.5	17.5	4.4	13	13	3	15	9	2	5.5
20	22	22	36	22	22	5.4	16	16	4	17	10	2	6.6
25	26	26	40	22	23	5.4	17	16	4	19	11	2	6.6
32	32	32	50	26	24	6.6	16	18	5	20	12	2	6.6

MATERIALE: ACCIAIO
MATERIAL: STEEL

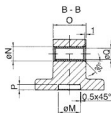
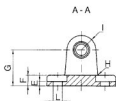
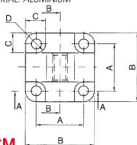


QCP

PIEDINO BASSO- LOW-RISE PEDESTAL

Ø mm.	C	B	D	E	F	G	H	I	S	U	Z
40	42	42	60	28	29.5	6.6	21.5	20	5	5	9
50	50	50	68	32	30	9	22	24	6	5	9
63	62	62	84	39	39	9	28.5	27	6	5	11
80	82	82	102	36.5	36.5	11	24.5	30	8	5	11
100	103	103	123	38.5	38.5	11	26.5	33	8	5	13.5

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

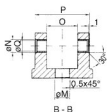
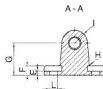
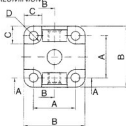


QCM

CERNIERA MASCHIO CON BOCCOLE AUTOLUBRIFICANTI - MALE HINGE SELF-LUBRICATING

Ø mm.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q
12 - 16	18	27	10	4.5	2.6	6	16	2	6	4.5	10	8	12	3	6
20	22	34	11	5	2.6	6	20	2	8	5.5	12	10	16	3	8
25	26	38	11	5	2.6	6	20	2	8	5.5	12	10	16	3	8

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

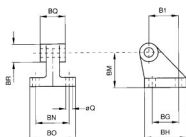


QCF

CERNIERA FEMMINA CON BOCCOLE AUTOLUBRIFICANTI - FEMALE HINGE SELF-LUBRICATING

Ø mm.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q
32	32	48	13.5	5.5	5.5	9	22	2.5	10	6.6	14	12	26	45	10
40	42	58	13.5	5.5	5.5	9	25	2.5	12.5	6.6	14	14	28	52	12
50	50	66	15.5	7.5	6.5	11	27	2.5	12.5	9	18	14	32	60	12
63	62	83	18	7.5	6.5	11	32	4	15	11	18	18	40	70	16
80	82	102	19	9	10	13	36	4	15	11	23	18	50	90	16
100	103	123	19	9	10	15	41	4	20	11	28	23	60	110	20

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

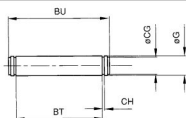


VAS

ARTICOLAZIONE A SQUADRA - SQUARE JOINT

Ø mm.	Q	BG	BH	BI	BM	BN	BO	BQ	BR
32	6.6	18	31	21	32	38	51	26	20
40	6.6	22	35	24	36	41	54	28	22
50	9	30	45	33	45	50	65	32	26
63	9	35	50	37	50	52	67	40	30
80	11	40	60	47	63	66	86	50	30
100	11	50	70	55	71	76	96	60	38

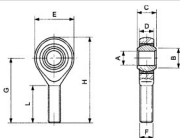
MATERIALE: ACCIAIO
MATERIAL: STEEL



VPE

PERNO PER CERNIERA CON SEEGER - PIN WITH SEEGER

Ø mm.	G	BT	BU	CG	CH
32	10	46	53	9.6	1.1
40	12	53	60	11.5	1.1
50	12	61	68	11.5	1.1
63	16	71	78	15.2	1.1
80	16	91	98	15.2	1.1
100	20	111	118	19	1.3



TM

TESTA DI BIELLA MASCHIO - MALE ROD ENDS

Ø mm.	A	B	C	Ø	D	E	F	G	H	L	CARICO RADIALE DINAMICO	STASCO	PESO
20 - 25	5	7.5	8	11.11	7.5	18	M5x0.8	33	42	19	430	1000	13
32 - 40	6	8.9	9	12.7	7.5	20	M6x1	36	46	21	470	1100	15
50 - 63	8	10.4	12	15.88	9.5	24	M8x1.25	42	54	25	780	1900	34
80	10	12.9	14	19.05	11.5	30	M10x1.5	48	63	28	1200	3100	70
100	12	15.4	16	22.23	12.5	34	M12x1.75	54	71	32	1400	3700	110

Cilindri Corsa Breve / Short Stroke Cylinders

Le dimensioni d'ingombro dei cilindri a corsa breve sono per eccellenza le più contenute, questa caratteristica li rende particolarmente adatti per l'impiego in spazi ridotti. Il profilo adottato è quello dell'ultima generazione, grazie alle apposite guide ricavate sui tre lati permette l'utilizzo dei sensori a scomparsa. Gli interassi di fissaggio per gli alesaggi 20 e 25 mm sono a norma UNITOP mentre dal 32 al 100 mm sono quelli dei cilindri classe VDMA ISO 6431.

The overall dimensions of the short stroke cylinders are absolutely the smallest, this characteristic identify this line as the most suitable to be used in reduced spaces. Over the last generation outside profile, on three sides, it has been obtained the guides on whom it is possible to assembly the disappearance switches and elastic bumpers at the stroke end. The fixing distance between cylinder's centers for diameter 20 and 25 mm are in conformity with the standard UNITOP, from 32 to 100 mm match the VDMA ISO 6431 standards.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)
Pressione massima / Maximum pressure: 10 bar (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
 (-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.
 Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Semplice effetto magnetico, Doppio effetto magnetico
Stelo singolo e passante magnetico, Antirrotazione magnetico.
 Single and Double-acting magnetic. Single or through piston rod magnetic Antirrotation magnetic.

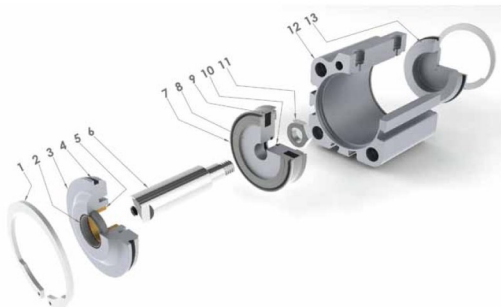
Alesaggi / Bores

Da 12 a 100 mm / From 12 to 100 mm

Corse / Strokes

Corse Standard / Standard Strokes
Da 5 a 100 mm / From 5 to 100 mm

Caratteristiche Tecniche / Technical Characteristics



Materiali e Componenti / Component Parts and Materials

- | | |
|---|---|
| 1 Seeger in acciaio | 1 Steel Seeger |
| 2 Guarnizione asta in poliuretano | 2 Polyurethane Rod Seal |
| 3 Testata anteriore in alluminio anodizzato | 3 Anodised aluminium Front cover |
| 4 Guarnizioni in NBR | 4 NBR Seals |
| 5 Bronzina in bronzo sinterizzato | 5 Sintered bronze Bearing |
| 6 Asta pistone acciaio cromato
(AISI 303 da 12 a 25) (C40 da 32 a 100) | 6 Chrome steel Piston rod
(AISI 303 from 12 to 25)(C40 from 32 to 100) |
| 7 Guarnizione pistone in poliuretano | 7 Polyurethane Piston Seal |
| 8 Pistone in alluminio | 8 Aluminium Piston |
| 9 Magnete in plastroferrite | 9 Plastroferrite Magnet |
| 10 O-Ring in NBR | 10 O-Ring in NBR |
| 11 Dado pistone in acciaio zincato | 11 Zinc-plated steel Piston Nut |
| 12 Camicia cilindro in alluminio anodizzato | 12 Anodised aluminium Cylinder shape body |
| 13 Testata posteriore in alluminio anodizzato | 13 Anodised aluminium Back cover |

NB: LE TESTATE ANTERIORI E POSTERIORI Ø12 Ø16 Ø20 Ø25 SONO IN OTTONE GIALLO

NB: FRONT AND BACK COVER Ø12 Ø16 Ø20 Ø25 ARE MADE IN BRASS

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Forza sviluppata in N Output force in N												
Ø12	6	Spinta / Thrust = 113 Trazione / Traction = 85	10 7,5	20 15	30 22	40 30	50 37	60 45	70 52	80 60	90 68	100 75
Ø16	8	Spinta / Thrust = 200 Trazione / Traction = 150	18 13	35 26	53 40	70 53	90 65	105 80	125 95	145 105	160 120	180 130
Ø20	10	Spinta / Thrust = 314 Trazione / Traction = 235	28 21	55 42	85 60	110 85	140 105	170 125	195 150	220 170	250 190	280 210
Ø25	10	Spinta / Thrust = 490 Trazione / Traction = 412	44 36	88 72	132 108	176 144	220 180	264 216	308 252	352 288	396 324	440 360
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	72 62	144 124	216 186	288 248	360 310	432 372	504 434	576 496	648 558	720 620
Ø40	12	Spinta / Thrust = 1257 Trazione / Traction = 1144	110 100	220 200	330 300	440 400	550 500	660 600	770 700	880 800	990 900	1100 1000
Ø50	16	Spinta / Thrust = 1963 Trazione / Traction = 1762	175 155	350 310	525 465	700 620	875 775	1050 930	1225 1085	1400 1240	1575 1395	1750 1550
Ø63	16	Spinta / Thrust = 3117 Trazione / Traction = 2916	280 260	560 520	840 780	1120 1040	1400 1300	1680 1560	1960 1820	2240 2080	2520 2340	2800 2600
Ø80	20	Spinta / Thrust = 5027 Trazione / Traction = 4712	450 420	900 840	1350 1260	1800 1680	2250 2100	2700 2520	3150 2940	3600 3360	4050 3780	4500 4200
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	700 660	1400 1320	2100 1980	2800 2640	3500 3300	4200 3960	4900 4620	5650 5280	6360 5940	7000 6600

FORZE DELLA MOLLA - SPRING TRACTION FORCES

Ø Cilindri Ø Cylinder	Carico Molla Load Spring	5	10	15	20	25	30	40	50
Forza sviluppata in N Output force in N									
Ø12	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	7,5 8	6,8 8	6 8	5,2 8	4,5 8			
Ø16	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	12,3 13,3	10,8 13,3	9,5 13,3	7,8 13,3	6,5 13,3			
Ø20	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	15,7 17,4	14 17,4	12,2 17,4	10,4 17,4	8,7 17,4			
Ø25	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	19,5 22	18,5 22	17,3 22	16 22	15 22			
Ø32	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	27,8 30	25,3 30	22,8 30	20,2 30	17,7 30			
Ø40	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	36,4 36	34 36	31,7 36	29,5 36	27 36			
Ø50	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	32 35	30,5 35	29 35	27,8 35	26,5 35			
Ø63	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	61 64,8	58,5 64,8	56,3 64,8	53,5 64,8	51,5 64,8			
Ø80	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	91,3 94	88 94	85 94	82 94	78,7 94			
Ø100	Carico Molla a Riposo / Load of spring at rest Carico Molla Compressa / Load of compressed spring	150 156	145 156	140 156	134 156	129 156			

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

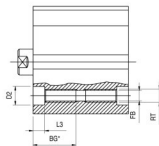
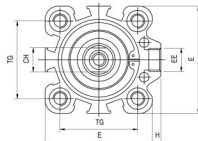
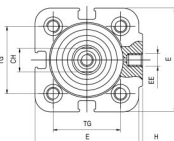
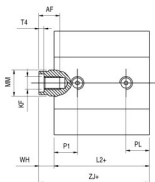
Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø12	6	Spinta / Thrust = 113 Trazione / Tracction = 85	0,002 0,002	0,003 0,003	0,005 0,003	0,006 0,004	0,007 0,005	0,008 0,006	0,009 0,007	0,010 0,008	0,011 0,009	0,012 0,009
Ø16	8	Spinta / Thrust = 200 Trazione / Tracction = 150	0,004 0,003	0,006 0,005	0,008 0,006	0,010 0,008	0,012 0,009	0,014 0,011	0,016 0,012	0,018 0,014	0,020 0,015	0,022 0,017
Ø20	10	Spinta / Thrust = 314 Trazione / Tracction = 235	0,006 0,005	0,009 0,007	0,013 0,009	0,016 0,012	0,019 0,014	0,022 0,016	0,025 0,019	0,028 0,021	0,031 0,024	0,035 0,026
Ø25	10	Spinta / Thrust = 490 Trazione / Tracction = 412	0,010 0,008	0,015 0,012	0,020 0,016	0,025 0,021	0,029 0,025	0,034 0,029	0,039 0,033	0,044 0,037	0,049 0,041	0,054 0,045
Ø32	12	Spinta / Thrust = 804 Trazione / Tracction = 691	0,016 0,014	0,024 0,021	0,032 0,028	0,040 0,035	0,048 0,041	0,056 0,048	0,064 0,055	0,072 0,062	0,080 0,069	0,088 0,076
Ø40	12	Spinta / Thrust = 1257 Trazione / Tracction = 1144	0,025 0,023	0,038 0,034	0,050 0,046	0,063 0,057	0,075 0,069	0,088 0,080	0,101 0,092	0,113 0,103	0,126 0,114	0,138 0,126
Ø50	16	Spinta / Thrust = 1963 Trazione / Tracction = 1762	0,039 0,035	0,059 0,053	0,079 0,070	0,098 0,088	0,118 0,106	0,137 0,123	0,157 0,141	0,177 0,159	0,196 0,176	0,216 0,194
Ø63	16	Spinta / Thrust = 3117 Trazione / Tracction = 2916	0,062 0,058	0,094 0,087	0,125 0,117	0,156 0,146	0,187 0,175	0,218 0,204	0,249 0,233	0,281 0,262	0,312 0,292	0,343 0,321
Ø80	20	Spinta / Thrust = 5027 Trazione / Tracction = 4712	0,101 0,094	0,151 0,141	0,201 0,188	0,251 0,236	0,302 0,283	0,352 0,330	0,402 0,377	0,452 0,424	0,503 0,471	0,553 0,518
Ø100	25	Spinta / Thrust = 7854 Trazione / Tracction = 7363	0,157 0,147	0,236 0,221	0,314 0,295	0,393 0,368	0,471 0,442	0,550 0,515	0,628 0,589	0,707 0,663	0,785 0,736	0,864 0,810

Esempio D'ordine / How to Order

CORSE STANDARD mm. - STD STROKES

Ø mm.	5	10	15	20	25	30	40	50	75	100
12	▲●	▲●	▲●	▲●	▲●	●	●			
16	▲●	▲●	▲●	▲●	▲●	●	●			
20	▲●	▲●	▲●	▲●	▲●	●	●	●		
25	▲●	▲●	▲●	▲●	▲●	●	●	●		
32	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●
40	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●
50	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●
63	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●
80	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●
100	▲●	▲●	▲●	▲●	▲●	▲●	▲●	▲●	●	●

- ▲ **BB** SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC
- ▲ **BD** SEMPLICE EFFETTO MAGNETICO - MOLLA IN SPINTA - SINGLE-ACTING MAGNETIC - SPRING THRUST
- **BF** DOPPIO EFFETTO MAGNETICO - DOUBLE ACTING MAGNETIC
- **BJ** DOPPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END
- **BFA** DOPPIO EFFETTO MAGNETICO ANTIROTAZIONE - DOUBLE-ACTING MAGNETIC ANTIROTATION


D12-16-20-25
D32-40-50-63-80-100


+ = aggiungere la corsa

+ = add stroke

* = per corsa corta filetto passante

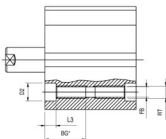
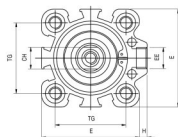
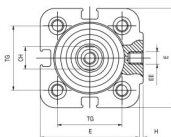
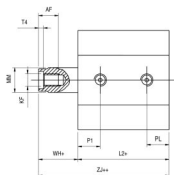
* = Through threads only on small strokes



BB

SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC

Ø mm.	AF	RT	BG*	D2Ø	E	EE	FBØ	H	KF	L2+	L3	MMØ	P1	PL	T4	TG	WH	ZJ+	CH
12	6	M4	12.5	5.5	29	M5	3.3	1	M3	28	3.5	6	7.5	7.5	1.5	18	6	34	5
16	8	M4	14.5	5.5	29	M5	3.3	1	M4	30.5	3.5	8	8.5	8.5	2	18	6	36.5	7
20	8	M5	16.5	7.2	36	M5	4.2	1.5	M5	31.5	4.5	10	9	9	2	22	6	37.5	9
25	8	M5	16.5	7.2	40	M5	4.2	1.5	M5	31.5	4.5	10	9	9	2	26	6	37.5	9
32	10	M6	21.7	8.5	45	G1/8	5	3.5	M6	32	5.7	12	10	10	2.8	32.5	7	39	10
40	10	M6	21.7	8.5	52	G1/8	5	5	M6	38.5	5.7	12	11	11	2.8	38	7.2	45.7	10
50	12	M8	22.8	10	63.5	G1/8	6.8	7	M8	39	6.8	16	11	11	3.5	46.5	8.5	47.5	13
63	12	M8	22.8	10	77	G1/8	6.8	7	M8	46	6.8	16	11.5	11.5	3.5	56.5	8	54	13
80	16	M10	25	13	92	G1/8	8.5	10	M10	54	9	20	14	14	4.5	72	11	65	17
100	20	M10	25	13	113	G1/4	8.5	13	M12	65	9	25	17.5	17.5	6	89	12	77	22


D12-16-20-25
D32-40-50-63-80-100


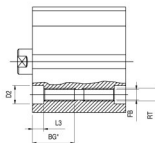
++ aggiungere la corsa += add stroke
 +++ aggiungere 2 volte la corsa ++ = double stroke dimension and add it
 * = per corsa corta filetto passante * = Through threads only on small strokes

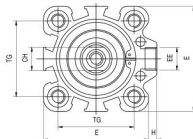
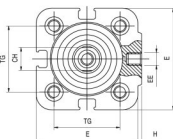
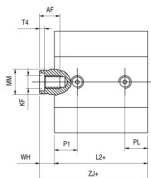


BD

SEMPLICE EFFETTO MAGNETICO - MOLLA IN SPINTA - SINGLE ACTING MAGNETIC - SPRING THRUST

Ø mm.	AF	RT	BG*	D2Ø	E	EE	FBØ	H	KF	L2+	L3	MMØ	P1	PL	T4	TG	WH+	ZJ++	CH
12	6	M4	12.5	5.5	29	M5	3.3	1	M3	28	3.5	6	7.5	7.5	1.5	18	6	34	5
16	8	M4	14.5	5.5	29	M5	3.3	1	M4	30.5	3.5	8	8.5	8.5	2	18	6	36.5	7
20	8	M5	16.5	7.2	36	M5	4.2	1.5	M5	31.5	4.5	10	9	9	2	22	6	37.5	9
25	8	M5	16.5	7.2	40	M5	4.2	1.5	M5	31.5	4.5	10	9	9	2	26	6	37.5	9
32	10	M6	21.7	8.5	45	G1/8	5	3.5	M6	32	5.7	12	10	10	2.8	32.5	7	39	10
40	10	M6	21.7	8.5	52	G1/8	5	5	M6	38.5	5.7	12	11	11	2.8	38	7.2	45.7	10
50	12	M8	22.8	10	63.5	G1/8	6.8	7	M8	39	6.8	16	11	11	3.5	46.5	8.5	47.5	13
63	12	M8	22.8	10	77	G1/8	6.8	7	M8	46	6.8	16	11.5	11.5	3.5	56.5	8	54	13
80	16	M10	25	13	92	G1/8	8.5	10	M10	54	9	20	14	14	4.5	72	11	65	17
100	20	M10	25	13	113	G1/4	8.5	13	M12	65	9	25	17.5	17.5	6	89	12	77	22


D12-16-20-25

D32-40-50-63-80-100


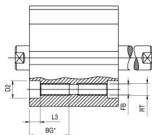
+= aggiungere la corsa += add stroke
 * = per corsa corta filetto passante * = Through threads only on small strokes

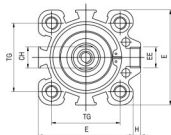
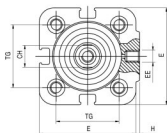
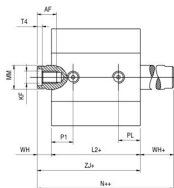


BF

DOPPIO EFFETTO MAGNETICO - DOUBLE-ACTING MAGNETIC

Ø mm.	AF	RT	BG*	D2Ø	E	EE	FBØ	H	KF	L2+	L3	MMØ	P1	PL	T4	TG	WH	ZJ+	CH
12	6	M4	12.5	5.5	29	M5	3.3	1	M3	28	3.5	6	7.5	7.5	1.5	18	6	34	5
16	8	M4	14.5	5.5	29	M5	3.3	1	M4	30.5	3.5	8	8.5	8.5	2	18	6	36.5	7
20	8	M5	16.5	7.2	36	M5	4.2	1.5	M5	31.5	4.5	10	9	9	2	22	6	37.5	9
25	8	M5	16.5	7.2	40	M5	4.2	1.5	M5	31.5	4.5	10	9	9	2	26	6	37.5	9
32	10	M6	21.7	8.5	45	G1/8	5	3.5	M6	32	5.7	12	10	10	2.8	32.5	7	39	10
40	10	M6	21.7	8.5	52	G1/8	5	5	M6	38.5	5.7	12	11	11	2.8	38	7.2	45.7	10
50	12	M8	22.8	10	63.5	G1/8	6.8	7	M8	39	6.8	16	11	11	3.5	46.5	8.5	47.5	13
63	12	M8	22.8	10	77	G1/8	6.8	7	M8	46	6.8	16	11.5	11.5	3.5	56.5	8	54	13
80	16	M10	25	13	92	G1/8	8.5	10	M10	54	9	20	14	14	4.5	72	11	65	17
100	20	M10	25	13	113	G1/4	8.5	13	M12	65	9	25	17.5	17.5	6	89	12	77	22


D12-16-20-25

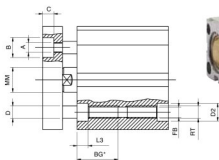
D32-40-50-63-80-100


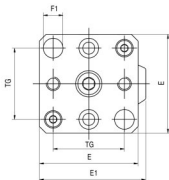
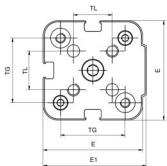
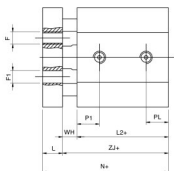
+= aggiungere la corsa += add stroke
 ++ aggiungere 2 volte la corsa ++ = double stroke dimension and add it
 * = per corsa corta filetto passante * = Through threads only on small strokes

BJ

DOPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END

Ø mm.	AF	RT	BG*	D2Ø	E	EE	FBO	H	KF	CH	L2	L3	MMØ	P1	PL	T4	TG	N++	WH/WH+	ZJ+
12	6	M4	12.5	5.5	29	M5	3.3	1	M3	5	28	3.5	6	7.5	7.5	1.5	18	40	6	34
16	8	M4	14.5	5.5	29	M5	3.3	1	M4	7	30.5	3.5	8	8.5	8.5	2	18	42.5	6	36.5
20	8	M5	16.5	7.2	36	M5	4.2	1.5	M5	9	31.5	4.5	10	9	9	2	22	43.5	6	37.5
25	8	M5	16.5	7.2	40	M5	4.2	1.5	M5	9	31.5	4.5	10	9	9	2	26	43.5	6	37.5
32	10	M6	21.7	8.5	45	G1/8	5	3.5	M6	10	32	5.7	12	10	10	2.8	32.5	46	7	39
40	10	M6	21.7	8.5	52	G1/8	5	5	M6	10	38.5	5.7	12	11	11	2.8	38	53	7.2	45.7
50	12	M8	22.8	10	63.5	G1/8	6.8	7	M8	13	39	6.8	16	11	11	3.5	46.5	56	8.5	47.5
63	12	M8	22.8	10	77	G1/8	6.8	7	M8	13	46	6.8	16	11.5	11.5	3.5	56.5	62	8	54
80	16	M10	25	13	92	G1/8	8.5	10	M10	17	54	9	20	14	14	4.5	72	76	11	65
100	20	M10	25	13	113	G1/4	8.5	13	M12	22	65	9	25	17.5	17.5	6	89	89	12	77


D12-16-20-25

D32-40-50-63-80-100


++ aggiungere la corsa += add stroke
 * = per corsa corta filetto passante * = Through threads only on small strokes

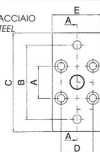
BFA

DOPIO EFFETTO MAGNETICO ANTIROTAZIONE - DOUBLE-ACTING MAGNETIC ANTIROTATION

Ø mm.	A	BØ	C	DØ	E	E1	F	F1Ø	FBØ	RT	BG*	D2Ø	L	L2+	L3	MMØ	P1	PL	TG	TL	WH	ZJ+	N+
12	M3	6	3.5	4	29	30	M3	3	3.5	M4	12.5	5.5	5	28	3.5	6	7.5	7.5	18	9.9	6	34	39
16	M3	6	3.5	4	29	30	M3	3	3.5	M4	14.5	5.5	5	30.5	3.5	8	8.5	8.5	18	9.9	6	36.5	41.5
20	M3	6	3.5	6	36	37.5	M4	4	4.2	M5	16.5	7	8	31.5	4.5	10	9	9	22	12	6	37.5	45.5
25	M4	8	4.5	6	40	41.5	M5	5	4.2	M5	16.5	7	8	31.5	4.5	10	9	9	26	15.6	6	37.5	45.5
32	4.5	8	4.5	6	45	48.5	M5	9	5	M6	21.7	8.5	10	32	5.7	12	10	10	32.5	-	7	39	48
40	4.5	8	4.5	6	52	57	M5	9	5	M6	21.7	8.5	10	38.5	5.7	12	11	11	38	-	7.2	45.7	55.5
50	5.5	9	5.5	8	63.5	70.5	M6	10	6.8	M8	22.8	10	12	39	6.8	16	11	11	46.5	-	8.5	47.5	59
63	5.5	9	5.5	8	77	84	M6	14	6.8	M8	22.8	10	12	46	6.8	16	11.5	11.5	56.5	-	8	54	66
80	8.5	14	9	12	92	102	M8	14	8.5	M10	25	13	14	54	9	20	14	14	72	-	11	66	79
100	8.5	14	9	12	113	126	M8	17	8.5	M10	25	13	14	65	9	25	17.5	17.5	89	-	12	77	91

Componenti di fissaggio / Mounting Accessories

MATERIALE: ACCIAIO
MATERIAL: STEEL

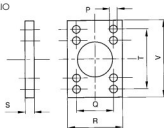


QFL

FLANGIA - FLANGE

Ø mm.	A	B	C	D	E	F	G	H	I	L	M
12 - 16	18	43	55	18	29	4.5	9	5.5	10	5.4	10
20	22	55	70	22	36	5.5	10	6.6	10	5.4	12
25	26	60	76	26	40	5.5	10	6.6	10	5.4	12

MATERIALE: ACCIAIO
MATERIAL: STEEL

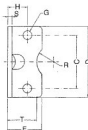
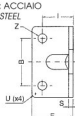


VFL

FLANGIA - FLANGE

Ø mm.	P	Q	R	S	T	V
32	7	32	10	45	64	80
40	9	36	10	52	72	90
50	9	45	12	65	90	110
63	9	50	12	75	100	120
80	12	63	16	95	126	150
100	14	75	16	115	150	170

MATERIALE: ACCIAIO
MATERIAL: STEEL

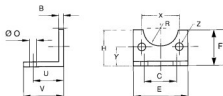


QCP

PIEDINO BASSO - LOW-RISE PEDESTAL

Ø mm.	C	B	D	E	F	G	H	I	S	T	R	U	Z
12 - 16	18	18	30	17.5	17.5	4.4	13	13	3	15	9	2	5.5
20	22	22	36	22	22	5.4	16	16	4	17	10	2	6.6
25	26	26	40	22	23	5.4	17	16	4	19	11	2	6.6

MATERIALE: ACCIAIO
MATERIAL: STEEL

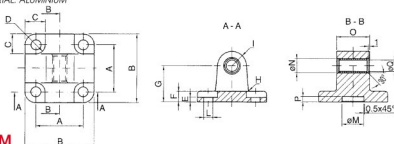


VCP

PIEDINO BASSO - LOW - RISE PEDESTAL

Ø mm.	B	C	E	F	ØO	U	V	R	Z	X	Y	H
32	4	32	45	30	7	24	35	15	7	32.5	15.75	32
40	4	36	52	30	10	28	36	17.5	7	38	17	36
50	5	45	65	36	10	32	47	20	9	46.5	21.75	45
63	5	50	75	35	10	32	45	22.5	9	56.5	21.75	50
80	6	63	95	47	12	41	55	22.5	11	72	27	63
100	6	75	115	53	14.5	41	57	27.5	11	89	26.5	71

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

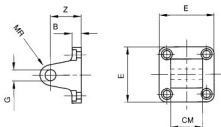


QCM

CERNIERA MASCHIO CON BOCCOLE AUTOLUBRIFICANTI - MALE HINGE SELF-LUBRICATING

Ø mm.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q
12 - 16	18	27	10	4.5	2.6	6	16	2	6	4.5	10	8	12	3	6
20	22	34	11	5	2.6	6	20	2	8	5.5	12	10	16	3	8
25	26	38	11	5	2.6	6	20	2	8	5.5	12	10	16	3	8

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

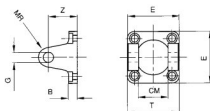


VCM

CERNIERA MASCHIO - MALE CLEVIS BRACKET

Ø mm.	B	E	G	Z	CM	MR
32	9	45	10	22	26	10
40	9	52	12	25	28	12
50	11	65	12	27	32	12
63	11	75	16	32	40	16
80	14	95	16	36	50	16
100	14	115	20	41	60	20

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

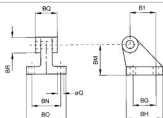


VCF

CERNIERA FEMMINA CON BOCCOLE AUTOLUBRIFICANTI - FEMALE CLEVIS BRACKET SELF-LUBRICATING

Ø mm.	B	E	G	T	Z	CM	MR
32	9	45	10	45	22	26	10
40	9	52	12	52	25	28	12
50	11	65	12	60	27	32	12
63	11	75	16	70	32	40	16
80	14	95	16	90	36	50	16
100	14	115	20	110	41	60	20

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

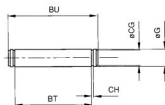


VAS

ASSEMBLAMENTO A QUADRO CON BOCCOLE AUTOLUBRIFICANTI - SQUARE JOINT SELF-LUBRICATING

Ø mm.	Q	BG	BH	BI	BM	BN	BO	BQ	BR
32	6.6	18	31	21	32	38	51	26	20
40	6.6	22	35	24	36	41	54	28	22
50	9	30	45	33	45	50	65	32	26
63	9	35	50	37	50	52	67	40	30
80	11	40	60	47	63	66	86	50	30
100	11	50	70	55	71	76	96	60	38

MATERIALE: ACCIAIO
MATERIAL: STEEL

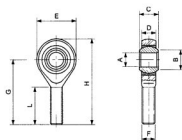


VPE

PERNO PER CERNIERA CON SEEGER - PIN WITH SEEGER

Ø mm.	G	BT	BU	CG	CH
32	10	46	53	9.6	1.1
40	12	53	60	11.5	1.1
50	12	61	68	11.5	1.1
63	16	71	78	15.2	1.1
80	16	91	98	15.2	1.1
100	20	111	118	19	1.3

MATERIALE: ACCIAIO
MATERIAL: STEEL



TM

TESTA DI BIELLA MASCHIO - MALE ROD ENDS

Ø mm.	A	B	C	Ø	D	E	F	G	H	L	CARICO RADIALE		PESO
											DINAMICO	STATICO	
20 - 25	5	7.5	8	11.11	7.5	18	M5x0.8	33	42	19	430	1000	13
32 - 40	6	8.9	9	12.7	7.5	20	M6x1	36	46	21	470	1100	15
50 - 63	8	10.4	12	15.88	9.5	24	M8x1.25	42	54	25	780	1900	34
80	10	12.9	14	19.05	11.5	30	M10x1.5	48	63	28	1200	3100	70
100	12	15.4	16	22.23	12.5	34	M12x1.75	54	71	32	1400	3700	110

Cilindri Serie X ISO 15552 / Cylinder X Serie ISO 15552

I nuovi cilindri serie X sono stati realizzati secondo le norme ISO 15552. La principale caratteristica che contraddistingue questi cilindri è la robustezza, grazie alla particolare struttura costruttiva rispondono alle massime esigenze per quanto riguarda prestazioni di scorrimento e carichi ammissibili. Questa gamma è fornita con ammortizzatori di fine corsa regolabili ricavati all'interno delle testate.

These cylinders have been manufactured in conformity with Standards ISO 15552. The main characteristic of these cylinders is the solidity, thanks to the particular manufacturing structure they satisfy the maximum needs in terms of sliding performances and admitted loads. They are supplied with adjustable cushioning, which is produced inside of the cover ends.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)
Pressione massima / Maximum pressure: 10 bar (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
 (-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.
 Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Doppio effetto ammortizzato magnetico, Semplice effetto magnetico, Stelo singolo e passante ammortizzato magnetico, Tandem.

Double-acting cushioned magnetic, Single-acting magnetic, Single or through piston rod magnetic, Tandem.

Alesaggi / Bores

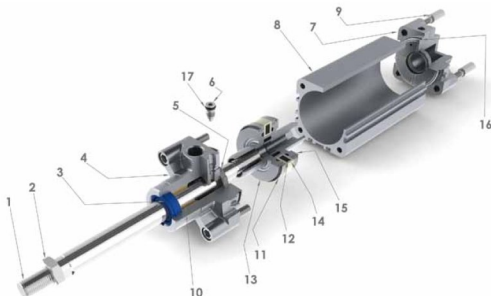
Da 32 a 125 mm.
 From 32 to 125 mm.

Corse / Strokes

Corse Standard / Standard Strokes
Da 25 a 1000 mm / From 25 to 1000 mm

Corse a Richiesta / Stroke on Demand
Fino a 2700 mm / Up to 2700 mm

Caratteristiche Tecniche / Technical Characteristics



A Richiesta Guarnizioni In Fkm
A Richiesta Raschiatore Metallico
If Required Fkm Seals
If Required Metal Scraper
for cleaning of the piston rod

Materiali e Componenti / Component Parts and Materials

- | | |
|---|--|
| 1 Asta pistone acciaio C40 Cromato | 1 Chrome steel C40 piston rod |
| 2 Dado in acciaio zincato | 2 Zinc-plated steel Nut |
| 3 Guarnizione asta in poliuretano o FKM | 3 Polyurethane Rod Seal or FKM |
| 4 Testata anteriore in alluminio | 4 Aluminium Front cover |
| 5 Guarnizioni ammortizzo in poliuretano o FKM | 5 Polyurethane Cushioning seals or FKM |
| 6 Vite ammortizzo in acciaio zincato | 6 Zinc-plated steel Screw cushioning |
| 7 Testata posteriore in alluminio | 7 Aluminium Back cover |
| 8 Camicia cilindro in alluminio anodizzato | 8 Anodised aluminium cylinder shape body |
| 9 Vite di serraggio in acciaio zincato | 9 Zinc-plated steel Screw |
| 10 Bronzina in bronzo sinterizzato | 10 Sintered bronze Bearing |
| 11 Guarnizioni pistone in poliuretano o FKM | 11 Polyurethane Piston seals or FKM |
| 12 Magnete in plastoferrite | 12 Plastoferrite Magnet |
| 13 Pistone anteriore in alluminio | 13 Front Aluminium Piston |
| 14 Anello portamagnete | 14 Support Magnet |
| 15 Pistone posteriore in alluminio | 15 Rear Aluminium Piston |
| 16 O-Ring in NBR o FKM | 16 O-Ring in NBR or FKM |
| 17 O-Ring in NBR o FKM | 17 O-Ring in NBR or FKM |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Forza sviluppata in N Output force in N												
Ø32	12	Spinta / Thrust= 804	72	144	216	288	360	432	504	576	648	720
		Trazione / Traction = 691	62	124	186	248	310	372	434	496	558	620
Ø40	16	Spinta / Thrust = 1257	110	220	330	440	550	660	770	880	990	1100
		Trazione / Traction =1056	95	190	285	380	475	570	665	760	855	950
Ø50	20	Spinta / Thrust = 1963	175	350	525	700	875	1050	1225	1400	1575	1750
		Trazione / Traction = 1649	148	296	444	592	740	888	1036	1184	1332	1480
Ø63	20	Spinta / Thrust = 3117	280	560	840	1120	1400	1680	1960	2240	2520	2800
		Trazione / Traction = 2803	250	500	750	1000	1250	1500	1750	2000	2250	2500
Ø80	25	Spinta / Thrust = 5027	450	900	1350	1800	2250	2700	3150	3600	4050	4500
		Trazione / Traction = 4536	405	810	1215	1620	2025	2430	2835	3240	3645	4050
Ø100	25	Spinta / Thrust = 7854	700	1400	2100	2800	3500	4200	4900	5650	6360	7000
		Trazione / Traction = 7363	660	1320	1980	2640	3300	3960	4620	5280	5940	6600
Ø125	32	Spinta / Thrust = 12270	1104	2208	3312	4416	5520	6624	7728	8832	9936	11040
		Trazione / Traction = 11468	1032	2064	3096	4128	5160	6192	7224	8256	9288	10320

FORZE DELLA MOLLA - SPRING TRACTION FORCES

Ø Cilindri Ø Cylinder	Carico Molla Load Spring	25	50	75	80	100
Forza sviluppata in N Output force in N						
Ø32	Carico Molla a Riposo / Load of spring at rest	50	41	33	31,5	24,5
	Carico Molla Compressa / Load of compressed spring	58	58	58	58	58
Ø40	Carico Molla a Riposo / Load of spring at rest	52	43	34	32	25
	Carico Molla Compressa / Load of compressed spring	61	61	61	61	61
Ø50	Carico Molla a Riposo / Load of spring at rest	92	77	64	60	49
	Carico Molla Compressa / Load of compressed spring	110	110	110	110	110
Ø63	Carico Molla a Riposo / Load of spring at rest	92	77	64	60	49
	Carico Molla Compressa / Load of compressed spring	110	110	110	110	110
Ø80	Carico Molla a Riposo / Load of spring at rest	117	98	79	75	59
	Carico Molla Compressa / Load of compressed spring	138	138	138	138	138
Ø100	Carico Molla a Riposo / Load of spring at rest	117	98	79	75	59
	Carico Molla Compressa / Load of compressed spring	138	138	138	138	138

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	0.016 0.014	0.024 0.021	0.032 0.028	0.040 0.035	0.048 0.041	0.056 0.048	0.064 0.055	0.072 0.062	0.080 0.069	0.088 0.076
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction = 1066	0.025 0.021	0.038 0.032	0.050 0.042	0.063 0.053	0.075 0.063	0.088 0.074	0.101 0.084	0.113 0.095	0.126 0.106	0.138 0.116
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	0.039 0.033	0.059 0.049	0.079 0.066	0.098 0.082	0.118 0.099	0.137 0.115	0.157 0.132	0.177 0.148	0.196 0.165	0.216 0.181
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	0.062 0.056	0.094 0.084	0.125 0.112	0.156 0.140	0.187 0.168	0.218 0.196	0.249 0.224	0.281 0.252	0.312 0.280	0.343 0.308
Ø80	25	Spinta / Thrust = 5027 Trazione / Traction = 4536	0.101 0.091	0.151 0.136	0.201 0.181	0.251 0.227	0.302 0.272	0.352 0.318	0.402 0.363	0.452 0.408	0.503 0.454	0.553 0.499
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	0.157 0.147	0.236 0.221	0.314 0.295	0.393 0.368	0.471 0.442	0.550 0.515	0.628 0.589	0.707 0.663	0.785 0.736	0.864 0.810
Ø125	32	Spinta / Thrust = 12270 Trazione / Traction = 11468	0.245 0.229	0.368 0.344	0.491 0.459	0.614 0.573	0.736 0.688	0.859 0.803	0.982 0.917	1.104 1.032	1.227 1.147	1.350 1.261

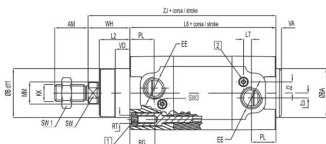
Tabella dei codici di ordinazione - Ordering codes

X	H	0 3 2	0 0 2 5	I S
Varianti / Choices VS= Solo guarnizioni stelo in FKM VS= Only rod seal in FKM IS= Stelo inox IS= Stainless steel rod V= Tutte le guarnizioni in FKM V= All FKM seals R= Raschiatore metallico R= Metal scraper				
Corsa mm. Cilindri a semplice effetto - Corse standard mm. = 25-50-75-80-100 Cilindri a doppio effetto ammortizzato - Corse standard mm.: 25-50-75-80-100-125-150-160-200-250-300- 320-350-400-450-500-600-700-800-900-1000 A richiesta corse intermedie o superiori - Corse massima 2700 mm.				
Stroke mm. Single acting cylinders - Standard strokes mm. = 25-50-75-80-100 Double acting cylinders cushioned - Standard strokes mm.: 25-50-75-80-100-125-150-160-200-250-300- 320-350-400-450-500-600-700-800-900-1000 Intermediate or higher strokes are available upon request. - Maximum stroke 2700 mm.				
Diametro mm. / Diameter mm. 32-40-50-63-80-100-125				
Esecuzione / Execution B= Semplice effetto molla anteriore magnetico / Single acting front spring magnetic (D.32-100) H= Doppio effetto ammortizzato magnetico / Double acting single rod cushioned magnetic L= Doppio effetto ammortizzato stelo passante magnetico / Double acting double rod cushioned magnetic				

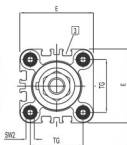
SERIE X
CORSE STANDARD mm. - STD STROKES

Ø mm.	25	50	75	80	100	125	150	160	200	250	300	320	350	400	450	500	600	700	800	900	1000
32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
63	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
80	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
100	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
125	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

- ▲ **XB** SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC
 ● **XH** DOPPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC
 ● **XJ** DOPPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END



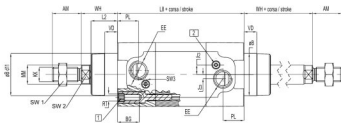
- 1 Vite ad esagono incassato con filetto femmina per montaggio degli elementi di fissaggio e per il montaggio diretto
 2 Viti per la regolazione dei deceleratori
 3 Scanalatura per montaggio sensore
- 1 Socket head screw with female thread for mounting attachments
 2 Regulating screw for adjustable end-position cushioning
 3 Slot for proximity sensor



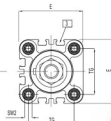
XH

DOPPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC

Ø mm.	ØB d11	VD	VA	L2	WH	ØMM	SW	KK	AM	SW1	ZJ	L8	BG	RT	SW2	E	TG	EE	PL	J3	J2	L7	SW3
32	30	10	4	20	26	12	10	M10X1.25	22	17	120	94	18	M6	6	46	32.5	G1/8	18	4	6.5	2	2.5
40	35	10.5	4	22	30	16	13	M12X1.25	24	19	135	105	18	M6	6	54	38	G1/4	17.5	3.5	8	5.8	2.5
50	40	11.5	4	28	37	20	17	M16X1.5	32	22	143	106	20	M8	8	64	46.5	G1/4	20.5	7	10	2	4
63	45	15	4	29	37	20	17	M16X1.5	32	22	158	121	20	M8	8	74	56.5	G3/8	22	11	8.5	4	4
80	45	15.7	4	35	46	25	22	M20X1.5	40	30	174	128	19	M10	6	94	72	G3/8	22	11	8.5	4	4
100	55	19.2	4	38	51.5	25	22	M20X1.5	40	30	189.5	138	19	M10	6	111	89	G1/2	26	9	12.5	5	4
125	60	20	6	50	65	32	27	M27X2	54	41	225	160	21	M12	8	135	110	G1/2	30	9	12.5	2.5	4



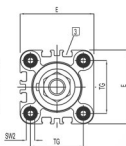
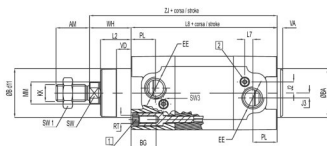
- 1 Vite ad esagono incassato con filetto femmina per montaggio degli elementi di fissaggio e per il montaggio diretto
 2 Viti per la regolazione dei deceleratori
 3 Scanalatura per montaggio sensore
- 1 Socket head screw with female thread for mounting attachments
 2 Regulating screw for adjustable end-position cushioning
 3 Slot for proximity sensor



XL

DOPPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO-DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END

Ø mm.	ØB d11	VD	VA	L2	WH	ØMM	SW	KK	AM	SW1	ZJ	L8	BG	RT	SW2	E	TG	EE	PL	J3	J2	L7	SW3
32	30	10	4	20	26	12	10	M10X1.25	22	17	120	94	18	M6	6	46	32.5	G1/8	18	4	6.5	2	2.5
40	35	10.5	4	22	30	16	13	M12X1.25	24	19	135	105	18	M6	6	54	38	G1/4	17.5	3.5	8	5.8	2.5
50	40	11.5	4	28	37	20	17	M16X1.5	32	22	143	106	20	M8	8	64	46.5	G1/4	20.5	7	10	2	4
63	45	15	4	29	37	20	17	M16X1.5	32	22	158	121	20	M8	8	74	56.5	G3/8	22	11	8.5	4	4
80	45	15.7	4	35	46	25	22	M20X1.5	40	30	174	128	19	M10	6	94	72	G3/8	22	11	8.5	4	4
100	55	19.2	4	38	51.5	25	22	M20X1.5	40	30	189.5	138	19	M10	6	111	89	G1/2	26	9	12.5	5	4
125	60	20	6	50	65	32	27	M27X2	54	41	225	160	21	M12	8	135	110	G1/2	30	9	12.5	2.5	4



- | | |
|---|--|
| <p>1 Vite ad incastro incassato con fileto femmina per montaggio degli elementi di fissaggio e per il montaggio diretto</p> <p>2 Viti per la regolazione dei decalcani</p> <p>3 Scanalatura per montaggio sensore</p> | <p>1 Socket head screw with female thread for mounting attachments</p> <p>2 Regulating screw for adjustable end-position cushioning</p> <p>3 Slot for proximity sensor</p> |
|---|--|

XB

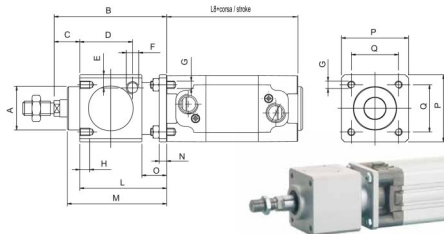
SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC

Ø mm.	ØB Ø11	VD	VA	L2	WH	ØMM	SW	KK	AM	SW1	ZJ	L8	BG	RT	SW2	E	TG	EE	PL	J3
32	30	10	4	20	26	12	10	M10X1.25	22	17	145	119	18	M6	6	46	32.5	G1/8	18	4
40	35	10.5	4	22	30	16	13	M12X1.25	24	19	160	130	18	M6	6	54	38	G1/4	17.5	3.5
50	40	11.5	4	28	37	20	17	M16X1.5	32	22	168	131	20	M8	8	64	46.5	G1/4	20.5	7
63	45	15	4	29	37	20	17	M16X1.5	32	22	183	146	20	M8	8	74	56.5	G3/8	22	8
80	45	15.7	4	35	46	25	22	M20X1.5	40	30	199	153	19	M10	6	94	72	G3/8	22	11
100	55	19.2	4	38	51.5	25	22	M20X1.5	40	30	214.5	163	19	M10	6	111	89	G1/2	26	9

Cilindri Iso 15552 con Bloccastelo / Cylinders Iso 15552 with Piston Rod Lock

Il bloccastelo è un'unità di serraggio che serve per bloccare lo stelo in qualsiasi posizione in caso di caduta di pressione. In assenza di alimentazione pneumatica al dispositivo di blocco, lo stelo del cilindro è meccanicamente bloccato con una forza superiore alla spinta del cilindro alimentato a 10 bar. E' importante ricordare che l'unità di serraggio dello stelo può essere sbloccata solo quando entrambe le camere sono in pressione.

The piston rod lock is a locking unit, which blocks the piston rod in any positions in case of pressure drop. In case of lack of air to the locking device, the cylinder piston rod is mechanically blocked with a bigger force that the thrust made by the cylinder fed at 10 bar. It is important to remember that the locking unit of the piston rod can be released only when both the barrels are under pressure.



XHB

DOPIO EFFETTO AMMORTIZZATO MAGNETICO CON BLOCCASTELO - DOUBLE ACTING CUSHIONED MAGNETIC WITH PISTON ROD LOCK

Ø mm.	A	B	C	D	E	F	G	H	L	M	N	O	P	Q	R
32	30	86	26	33.25	9	1/8" G	M6	8	60	67.5	6	20	47	32.5	94
40	34.5	100	30	42.5	9	1/8" G	M6	8	70	80	6	20	54	38	106
50	40	127	37	58	12.5	1/8" G	M8	12	90	100	8	24	65	46.5	106
63	45	127	37	59	17.5	1/8" G	M8	12	90	100	8	24	75	56.5	121
80	45	156	46	69	17.5	1/4" G	M10	16	110	120	12	32	95	72	128
100	55	161	51	69	20	1/4" G	M10	16	110	120	12	32	114	89	138
125	60	205	65	84.5	19	1/4" G	M12	20	140	156	20	45	138	110	160

XLB DISPONIBILE ANCHE NELLA VERSIONE STELO PASSANTE CON BLOCCASTELO - XLB AVAILABLE DOUBLE ROD END WITH PISTON ROD LOCK

Caratteristiche Tecniche / Technical Characteristics

Pressione min. di Sbloccaggio/Min. Release pressure In assenza di Pressione / In absence of Pressure

2.5 bar pressione cilindro da 0 a 7 bar;
3 bar pressione cilindro da 7 a 10 bar.

2.5 bar cylinder supply pressure from 0 to 7 bar;
3 bar cylinder supply pressure from 7 to 10 bar.

Bloccato.
Locked.

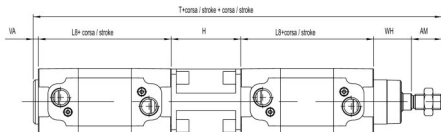
Fluidi compatibili / Fluids

Aria compressa filtrata lubrificata e non lubrificata.
Filtered and lubricated compressed air as well as non lubricated air.

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
(-20 °C con aria secca / with dry air)

Temperatura massima / Maximum temperature: +80 °C



XHT

TANDEM DOPPIO EFFETTO MAGNETICO - TANDEM DOUBLE-ACTING MAGNETIC

Ø mm.	VA	WH	AM	LB	H	T
32	4	26	22	94	55	295
40	4	30	24	105	55	323
50	4	37	32	106	68	353
63	4	37	32	121	68	383
80	4	46	40	128	92	438
100	4	51.5	40	138	92	463.5
125	6	65	54	160	120	565

* PER ULTERIORI INFORMAZIONI CONTATTARE L'UFFICIO TECNICO

* FOR FURTHER INFORMATION PLEASE CONTACT OUR TECHNICAL DEPARTMENT

Cilindri Rotanti Serie X ISO 15552 / Rotary Cylinders X Serie ISO 15552

I cilindri rotanti sono concepiti per trasformare il moto rettilineo, caratteristico dei cilindri pneumatici, in moto rotatorio attraverso un ingranaggio cremagliera-pignone. I cilindri adottano lo stesso sistema di ammortizzo pneumatico di fine corsa dei cilindri tradizionali e possono avere una regolazione meccanica sull'arresto che permette di regolare l'angolazione di $\pm 5^\circ$.

The rotary cylinders are designed to translate the rectilinear motion, which is the characteristic motion of the pneumatic cylinders, into rotational motion by means of a gear, rack-pinion. The cylinders adopt the same pneumatic cushioning end position system typical of the traditional cylinders and they can have a mechanical adjust on the stop, which allows regulating the angulation of $\pm 5^\circ$.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)
Pressione massima / Maximum pressure: 10 bar (1 MPa)

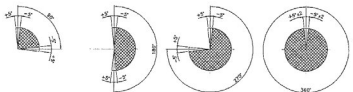
Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
 (-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata lubrificata e non lubrificata.
 Filtered and lubricated compressed air as well as non lubricated air.

Campi di regolazione angolo / Adjustable angle



Funzionamento / Functioning

Doppio effetto ammortizzato magnetico con pignone maschio
Doppio effetto ammortizzato magnetico con attacco femmina
 Double-acting cushioned and magnetic with male pinion
 Double-acting cushioned and magnetic with female connection.

Alesaggi / Bores

Da 32 a 100 mm.
 From 32 to 100 mm.



Ø mm.	Nm
32	1.2
40	2.25
50	3.9
63	7.3
80	15.7
100	26.35

CILINDRO ROTANTE MASCHIO CON REGOLAZIONE DELL'ANGOLO +/- 5°
MALE ROTARY CYLINDER WITH ANGLE REGULATION +/- 5°

DIMENSIONI L E L1 PER ROTAZIONI - DIMENSIONS L AND L1 FOR ROTATIONS

	ROTAZIONE 90° 90° ROTATION		ROTAZIONE 180° 180° ROTATION		ROTAZIONE 270° 270° ROTATION		ROTAZIONE 360° 360° ROTATION	
Ø mm.	L	L1	L	L1	L	L1	L	L1
32	232	213	279	260	326	307	373	354
40	274	254	330	310	387	367	464	424
50	301	276	364	339	427	402	489	464
63	343	320	418	395	493	470	567	544
80	416	386	515	485	614	584	713	683
100	469	418	566	525	662	631	769	738

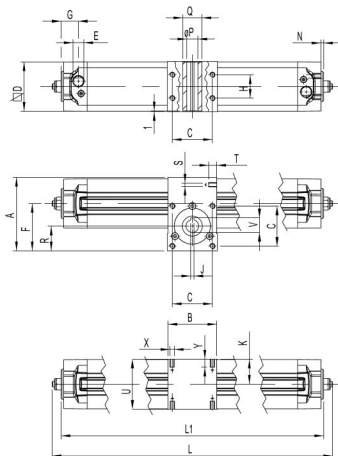
DIMENSIONI - DIMENSIONS

Ø mm.	A	B	C	D	E	F	G	H	J	K	N	P	Q	R	S	T	U	V	W	X	Y	Z
32	71.5	50	33	46	1/8 G	46.5	22	18	M5	25	4	14	25	25	M5	9	50	81	25	M6	10	5
40	82	60	40	54	1/4G	54.5	21.5	22	M5	30	4	14	25	30	M5	10	60	91	25	M6	10	5
50	94	70	50	64	1/4G	60.5	24.5	25	M6	32.5	4	19	30	32.5	M6	8	65	106	35	M8	13	6
63	110	75	60	74	3/8G	70.8	26	35	M8	37.5	4	24	30	37	M8	10	75	116	35	M8	13	8
80	142	99	80	94	3/8 G	93.5	26	50	M8	49.5	4	28	45	50	M9	12	99	150	45	M10	16	8
100	156.5	115	80	111	1/2 G	99	30	60	M10	57.5	4	38	50	54	M9	17	115	166	45	M10	16	10

ROTAZIONE STANDARD - STANDARD ROTATION

Ø mm.	90°	180°	270°	360°
32 - 40 - 50 - 63 - 80 - 100	X	X	X	X

Esempio D'ordine / How to Order

MOMENTO TORCENTE AD 1 BAR
TORQUE AT 1 BAR

Ø mm.	Nm
32	1.2
40	2.25
50	3.9
63	7.3
80	15.7
100	26.35

XRF

CILINDRO ROTANTE FEMMINA CON REGOLAZIONE DELL'ANGOLO +/- 5°
FEMALE ROTARY CYLINDER WITH ANGLE REGULATION +/- 5°

DIMENSIONI L E L1 PER ROTAZIONI - DIMENSIONS L AND L1 FOR ROTATIONS

Ø mm.	ROTAZIONE 90° 90° ROTATION		ROTAZIONE 180° 180° ROTATION		ROTAZIONE 270° 270° ROTATION		ROTAZIONE 360° 360° ROTATION	
	L	L1	L	L1	L	L1	L	L1
32	232	213	279	260	326	307	373	354
40	274	254	330	310	387	367	464	424
50	301	276	364	339	427	402	489	464
63	343	320	418	395	493	470	567	544
80	416	386	515	485	614	584	713	683
100	449	418	556	525	662	631	769	738

DIMENSIONI - DIMENSIONS

Ø mm.	A	B	C	D	E	F	G	H	J	K	N	øP	Q	R	S	T	U	V	X	Y
32	71.5	50	33	46	1/8 G	46.5	22	18	5	25	4	14	25	25	M5	9	50	16.3	M6	10
40	82	60	40	54	1/4 G	54.5	21.5	22	5	30	4	14	25	30	M5	10	60	16.3	M6	10
50	94	70	50	64	1/4 G	60.5	24.5	25	6	32.5	4	19	30	32.5	M6	8	65	21.8	M8	13
63	110	75	60	74	3/8 G	70.8	26	35	6	37.5	4	19	30	37	M8	10	75	21.8	M8	13
80	142	99	80	94	3/8 G	93.5	26	50	8	49.5	4	24	45	50	M9	12	99	27.3	M10	16
100	156.5	115	80	111	1/2 G	99	30	60	8	57.5	4	28	50	54	M9	17	115	31.3	M10	16

ROTAZIONE STANDARD - STANDARD ROTATION

Ø mm.	90°	180°	270°	360°
32 - 40 - 50 - 63 - 80 - 100	X	X	X	X

Esempio D'ordine / How to Order


Cilindri Serie E ISO 6431 / Cylinder E Serie ISO 6431

I cilindri di questa serie sono realizzati secondo la norma DIN ISO 6431.

Sono adatti per l'impiego in qualsiasi settore industriale. Le elevate caratteristiche di scorrimento assicurano la massima produttività degli impianti.

Le testate sono realizzate in alluminio pressofuso dal Ø32 al Ø125, mentre sono fuse in conchiglia dal Ø160 al Ø320.

I cilindri della serie E possono essere forniti con camicia di alluminio in due configurazioni:

- Dal Ø32 al Ø125 Camicia in alluminio denominata "G" con cave longitudinali per l'inserimento a scomparsa del sensore.

- Dal Ø32 al Ø320 Camicia in alluminio dal profilo tondo con tiranti.

The cylinders of this series are manufactured according to DIN ISO 6431.

They are suitable for use in any sector of industrial property.

The high flow characteristics ensure maximum productivity of the plants.

The heads are made from cast aluminum Ø32 to Ø125, while gravity casting from Ø160 to Ø320.

The cylinders of the E series can be supplied with aluminum tube in two configurations:

- From Ø32 to Ø125 Shirt aluminum called "G" with longitudinal slots for the insertion of the retractable sensor.

- From Ø32 to Ø320 shirt from aluminum rods with rounded profile.



Dal Ø32 al Ø125.

Camicia in alluminio denominata "G" con cave longitudinali per l'inserimento a scomparsa del sensore.

From Ø32 to Ø125.

Aluminum jacket called "G" with longitudinal slots for the insertion of the retractable sensor.



Dal Ø32 al Ø320.

Camicia in alluminio a profilo tondo con tiranti.

From Ø32 to Ø320.

Shirt aluminum rods with rounded profile.

Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)

Pressione massima / Maximum pressure: 10 bar (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C

(-20 °C con aria secca / with dry air)

Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.
Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Doppio effetto ammortizzato magnetico, Semplice effetto magnetico, Stelo singolo e passante ammortizzato magnetico.
Double-acting cushioned magnetic, Single-acting magnetic, Single or through piston rod magnetic.

Alesaggi / Bores

Da 32 a 320 mm.

From 32 to 320mm.

Corse / Strokes

Corse Standard / Standard Strokes

Da 25 a 1000 mm / From 25 to 1000 mm

Corse a Richiesta / Stroke on Demand

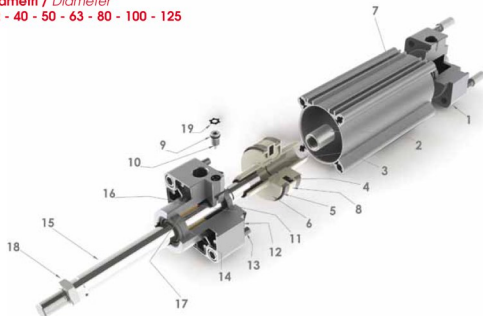
Fino a 2700 mm / Up to 2700 mm

Caratteristiche Tecniche / Technical Characteristics

Materiali impiegati per cilindro serie E con camicia in alluminio anodizzato sagomata con cave.
Used Materials for cylinders Serie E with anodized aluminium Mikey-mouse profile and slots.

Diametri / Diameter

32 - 40 - 50 - 63 - 80 - 100 - 125



Materiali e Componenti / Component Parts and Materials

- | | |
|---|---|
| 1 Testata posteriore Alluminio Pressofuso Sabbiato | 1 Rear head Die-casted Sandblasted aluminium |
| 2 Dado in Acciaio zincato e anodizzato | 2 Zinc-plated steel Nut |
| 3 O-ring in Nbr o FKM | 3 O-ring Nbr or FKM |
| 4 Magnete in Plastroferrite | 4 Magnet Bonded ferrite |
| 5 Guarnizione pistone in Poliuretano o FKM | 5 Piston seal in Polyurethane or FKM |
| 6 Pistone in Alluminio | 6 Piston in Aluminium |
| 7 Camicia in Alluminio anodizzato | 7 Tube Anodized aluminium |
| 8 Guida pistone in Resina acetaleica | 8 Piston guide in Acetal resin |
| 9 O-ring in Nbr o FKM | 9 O-ring in Nbr or FKM |
| 10 Spillo ammortizzatore in Acciaio zincato | 10 Cushioning screw Galvanized steel |
| 11 Guarnizione ammortizzatore in Poliuretano o FKM | 11 Cushioning seal in Polyurethane or FKM |
| 12 Testata anteriore in Alluminio Pressofuso Sabbiato | 12 Front head Die-casted Sandblasted aluminium |
| 13 Vite di fissaggio in Acciaio zincato | 13 Fixing screw Galvanized steel |
| 14 Guarnizione stelo in Poliuretano o FKM | 14 Rod seal in Polyurethane or FKM |
| 15 Stelo in Acciaio cromato o Acciaio inox | 15 Rod Chromium plated steel or Stainless steel |
| 16 O-ring in Nbr o FKM | 16 O-ring in Nbr or FKM |
| 17 Bronzina in Bronzo sinterizzato | 17 Bush in Sintered bronze |
| 18 Dado stelo in Acciaio zincato | 18 Rod nut Galvanized steel |
| 19 Anello elastico in Acciaio | 19 Elastic ring made in steel |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Forza sviluppata in N Output force in N												
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	72 62	144 124	216 186	288 248	360 310	432 372	504 434	576 496	648 558	720 620
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction = 1056	110 95	220 190	330 285	440 380	550 475	660 570	770 665	880 760	990 855	1100 950
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	175 148	350 296	525 444	700 592	875 740	1050 888	1225 1036	1400 1184	1575 1332	1750 1480
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	280 250	560 500	840 750	1120 1000	1400 1250	1680 1500	1960 1750	2240 2000	2520 2250	2800 2500
Ø80	25	Spinta / Thrust = 5027 Trazione / Traction = 4536	450 405	900 810	1350 1215	1800 1620	2250 2025	2700 2430	3150 2835	3600 3240	4050 3645	4500 4050
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	700 660	1400 1320	2100 1980	2800 2640	3500 3300	4200 3960	4900 4620	5650 5280	6360 5940	7000 6600
Ø125	32	Spinta / Thrust = 12270 Trazione / Traction = 11468	1104 1032	2208 2064	3312 3096	4416 4128	5520 5160	6624 6192	7728 7224	8832 8256	9936 9288	11040 10320

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	0.016 0.014	0.024 0.021	0.032 0.028	0.040 0.035	0.048 0.041	0.056 0.048	0.064 0.055	0.072 0.062	0.080 0.069	0.088 0.076
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction = 1056	0.025 0.021	0.038 0.032	0.050 0.042	0.063 0.053	0.075 0.063	0.088 0.074	0.101 0.084	0.113 0.095	0.126 0.106	0.138 0.116
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	0.039 0.033	0.059 0.049	0.079 0.066	0.098 0.082	0.118 0.099	0.137 0.115	0.157 0.132	0.177 0.148	0.196 0.165	0.216 0.181
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	0.062 0.056	0.094 0.084	0.125 0.112	0.156 0.140	0.187 0.168	0.218 0.196	0.249 0.224	0.281 0.252	0.312 0.280	0.343 0.308
Ø80	25	Spinta / Thrust = 5027 Trazione / Traction = 4536	0.101 0.091	0.151 0.136	0.201 0.181	0.251 0.227	0.302 0.272	0.352 0.318	0.402 0.363	0.452 0.408	0.503 0.454	0.553 0.499
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	0.157 0.147	0.236 0.221	0.314 0.295	0.393 0.368	0.471 0.442	0.550 0.515	0.628 0.589	0.707 0.663	0.785 0.736	0.864 0.810
Ø125	32	Spinta / Thrust = 12270 Trazione / Traction = 11468	0.245 0.229	0.368 0.344	0.491 0.459	0.614 0.573	0.736 0.688	0.859 0.803	0.982 0.917	1.104 1.032	1.227 1.147	1.350 1.261

FORZE DELLA MOLLA - SPRING TRACTION FORCES

Ø Cilindri Ø Cylinder	Carico Molla Load Spring	25	Corsa / Stroke			
			50	75	80	100
Forza sviluppata in N Output force in N						
Ø32	Carico Molla a Riposo / Load of spring at rest	50	41	33	31,5	24,5
	Carico Molla Compressa / Load of compressed spring	58	58	58	58	58
Ø40	Carico Molla a Riposo / Load of spring at rest	52	43	34	32	25
	Carico Molla Compressa / Load of compressed spring	61	61	61	61	61
Ø50	Carico Molla a Riposo / Load of spring at rest	92	77	64	60	49
	Carico Molla Compressa / Load of compressed spring	110	110	110	110	110
Ø63	Carico Molla a Riposo / Load of spring at rest	92	77	64	60	49
	Carico Molla Compressa / Load of compressed spring	110	110	110	110	110
Ø80	Carico Molla a Riposo / Load of spring at rest	117	98	79	75	59
	Carico Molla Compressa / Load of compressed spring	138	138	138	138	138
Ø100	Carico Molla a Riposo / Load of spring at rest	117	98	79	75	59
	Carico Molla Compressa / Load of compressed spring	138	138	138	138	138

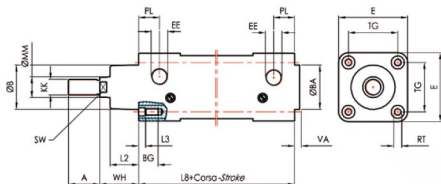
Tabella dei codici di ordinazione - Ordering codes

E	H	0 3 2	0 0 2 5	G	I S
					Varianti / Choices VS= Solo guarnizioni stelo in FKM VS= Only rod seal in FKM IS= Stelo inox IS= Stainless steel rod V= Tutte le guarnizioni in FKM V= All FKM seals R= Raschiatore metallico R= Metal scraper
					Tipo di montaggio / Mounting style G= Camicia in alluminio profilo sagomato G= Anodized aluminium tube Mickey-mouse profile with slots (32/125)
			Corsa mm. Cilindri a semplice effetto - Corse standard mm. = 25-50-75-80-100 Cilindri a doppio effetto ammortizzato - Corse standard mm.: 25-50-75-80-100-125-150-160-200-250-300- 320-350-400-450-500-600-700-800-900-1000 A richiesta corse intermedie o superiori - Corse massima 2700 mm.	Stroke mm. Single acting cylinders - Standard strokes mm. = 25-50-75-80-100 Double acting cylinders cushioned - Standard strokes mm.: 25-50-75-80-100-125-150-160-200-250-300- 320-350-400-450-500-600-700-800-900-1000 Intermediate or higher strokes are available upon request. - Maximum stroke 2700 mm.	
			Diametro mm. / Diameter mm. 32-40-50-63-80-100-125		
Esecuzione / Execution B= Semplice effetto molla anteriore magnetico / Single acting front spring magnetic (D.32-100) H= Doppio effetto ammortizzato magnetico / Double acting single rod cushioned magnetic L= Doppio effetto ammortizzato stelo passante magnetico / Double acting double rod cushioned magnetic					

SERIE E
CORSE STANDARD mm. - STD STROKES

Ø mm.	25	50	75	80	100	125	150	160	200	250	300	320	350	400	450	500	600	700	800	900	1000
32	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
50	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
63	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
80	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
100	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
125	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

▲ EB SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC
● EH DOPPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC
● EL DOPPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END

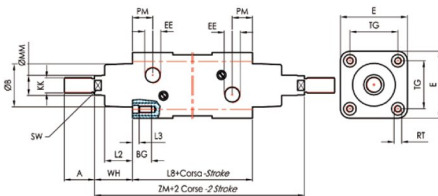


EH-----G

Camicia in alluminio a profilo sagomato con cave.
Anodized aluminium tube Mickey-mouse profile with slots.

DOPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC

Ø mm.	ØB d11	VA	L2	WH	ØMM	SW	KK	A	L8	BG	RT	E	TG	EE	PL	L3	ZM
32	30	4	20	26	12	10	M10x1.2522	94	16	M6	47	32.5	G1/8	14	5	146	
40	35	4	22	30	16	13	M12x1.2524	105	16	M6	53	38	G1/4	16	5	165	
50	40	4	28	37	20	17	M16x1.532	106	16	M8	65	46.5	G1/4	21	5	180	
63	45	4	28	37	20	17	M16x1.532	121	16	M8	75	56.5	G3/8	22	5	195	
80	45	4	34	46	25	22	M20x1.540	128	17	M10	95	72	G3/8	23	6.5	220	
100	55	4	38	51.5	25	22	M20x1.540	138	17	M10	115	89	G1/2	26	6.5	240	
125	60	5	50	65	32	27	M27x2.54	160	20	M12	140	110	G1/2	30	6	290	

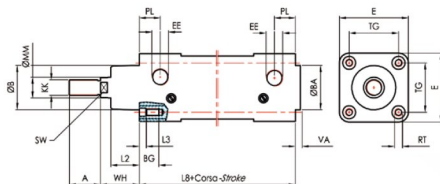


EL-----G

Camicia in alluminio a profilo sagomato con cave.
Anodized aluminium tube Mickey-mouse profile with slots.

DOPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO-DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END

Ø mm.	ØBA #11	VA	L2	WH	ØMM	SW	KK	A	L8	BG	RT	E	TG	EE	PM	L3	ZM
32	30	4	20	26	12	10	M10X1.2522	94	16	M6	47	32.5	G1/8	14	5	146	
40	35	4	22	30	16	13	M12X1.2524	105	16	M6	53	38	G1/4	16	5	165	
50	40	4	28	37	20	17	M16X1.532	106	16	M8	65	46.5	G1/4	21	5	180	
63	45	4	28	37	20	17	M16X1.532	121	16	M8	75	56.5	G3/8	22	5	195	
80	45	4	34	46	25	22	M20X1.540	128	17	M10	95	72	G3/8	23	6.5	220	
100	55	4	38	51.5	25	22	M20X1.540	138	17	M10	115	89	G1/2	26	6.5	240	
125	60	5	50	65	32	27	M27X2.54	160	20	M12	140	110	G1/2	30	6	290	



EB-----G

Camicia in alluminio a profilo sagomato con cave.
Anodized aluminium tube Mickey-mouse profile with slots.

SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC

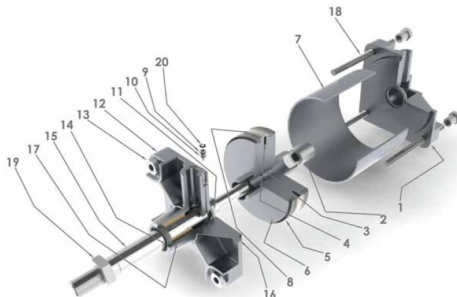
Ø mm.	ØB d11	VA	L2	WH	ØMM	SW	KK	A	L8	BG	RT	E	TG	EE	PL	L3	ZM
32	30	4	20	26	12	10	M10X1.2522	94	16	M6	47	32.5	G1/8	14	5	146	
40	35	4	22	30	16	13	M12X1.2524	105	16	M6	53	38	G1/4	16	5	165	
50	40	4	28	37	20	17	M16X1.532	106	16	M8	65	46.5	G1/4	21	5	180	
63	45	4	28	37	20	17	M16X1.532	121	16	M8	75	56.5	G3/8	22	5	195	
80	45	4	34	46	25	22	M20X1.540	128	17	M10	95	72	G3/8	23	6.5	220	
100	55	4	38	51.5	25	22	M20X1.540	138	17	M10	115	89	G1/2	26	6.5	240	

Caratteristiche Tecniche / Technical Characteristics

Materiali impiegati per cilindro serie E con camicia in alluminio anodizzato a profilo tondo con tiranti
Used Materials for cylinders Serie E with anodized aluminium tube profile and tie rods.

Diametri / Diameter

32 - 40 - 50 - 63 - 80 - 100 - 125 - 160 - 200 - 250 - 320



Materiali e Componenti / Component Parts and Materials

- | | |
|---|---|
| 1 Testata posteriore Alluminio Pressofuso Sabbiato | 1 Rear head Die-casted Sandblasted aluminium |
| 2 Dado in Acciaio zincato e anodizzato | 2 Zinc-plated steel Nut |
| 3 O-ring in Nbr o FKM | 3 O-ring Nbr or FKM |
| 4 Magnete in Plastoferite | 4 Magnet Bonded ferrite |
| 5 Guarnizione pistone in Poliuretano o FKM | 5 Piston seal in Polyurethane or FKM |
| 6 Pistone in Alluminio | 6 Piston in Aluminium |
| 7 Camicia in Alluminio anodizzato | 7 Tube Anodized aluminium |
| 8 Guida pistone in Resina acetica | 8 Piston guide in Acetal resin |
| 9 O-ring in Nbr o FKM | 9 O-ring in Nbr or FKM |
| 10 Spillo ammortizzatore in Acciaio zincato | 10 Cushioning screw Galvanized steel |
| 11 Guarnizione ammortizzatore in Poliuretano o FKM | 11 Cushioning seal in Polyurethane or FKM |
| 12 Testata anteriore in Alluminio Pressofuso Sabbiato | 12 Front head Die-casted Sandblasted aluminium |
| 13 Vite di fissaggio in Acciaio zincato | 13 Fixing screw Galvanized steel |
| 14 Guarnizione stelo in Poliuretano o FKM | 14 Rod seal in Polyurethane or FKM |
| 15 Stelo in Acciaio cromato o Acciaio inox | 15 Rod Chromium plated steel or Stainless steel |
| 16 O-ring in Nbr o FKM | 16 O-ring in Nbr or FKM |
| 17 Bronzina in Bronzo sinterizzato | 17 Bush in Sintered bronze |
| 18 Tirante in acciaio zincato | 18 Tie rod Galvanized steel |
| 19 Dado stelo in Acciaio zincato | 19 Rod nut Galvanized steel |
| 20 Anello elastico in Acciaio | 20 Elastic ring made in steel |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Forza sviluppata in N Output force in N												
Ø32	12	Spinta / Thrust= 804 Trazione / Traction = 691	72 62	144 124	216 186	288 248	360 310	432 372	504 434	576 496	648 558	720 620
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction =1056	110 95	220 190	330 285	440 380	550 475	660 570	770 665	880 760	990 855	1100 950
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	175 148	350 296	525 444	700 592	875 740	1050 888	1225 1036	1400 1184	1575 1332	1750 1480
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	280 250	560 500	840 750	1120 1000	1400 1250	1680 1500	1960 1750	2240 2000	2520 2250	2800 2500
Ø80	25	Spinta / Thrust = 5027 Trazione / Traction = 4536	450 405	900 810	1350 1215	1800 1620	2250 2025	2700 2430	3150 2835	3600 3240	4050 3645	4500 4050
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	700 660	1400 1320	2100 1980	2800 2640	3500 3300	4200 3960	4900 4620	5650 5280	6360 5940	7000 6600
Ø125	32	Spinta / Thrust = 12270 Trazione / Traction = 11468	1104 1032	2208 2064	3312 3096	4416 4128	5520 5160	6624 6192	7728 7224	8832 8256	9936 9288	11040 10320
Ø160	40	Spinta / Thrust = 20096 Trazione / Traction = 18840	1774 1663	3548 3326	5322 4990	7097 6653	8871 8316	10645 9980	12419 11643	14194 13307	15968 14970	17742 16633
Ø200	40	Spinta / Thrust = 31440 Trazione / Traction = 30144	2772 2661	5544 5322	8316 7984	11089 10645	13861 13307	16633 15968	19406 18629	22178 21291	24950 23952	27723 26614
Ø250	50	Spinta / Thrust = 48750 Trazione / Traction = 46800	4331 4158	8663 8316	12995 12475	17326 16663	21658 20792	25990 24950	30322 29109	34653 33267	38985 37426	43317 41584
Ø320	63	Spinta / Thrust = 78872 Trazione / Traction = 76776	7097 6822	14194 13644	21291 20466	28388 27288	35485 34110	42582 40932	49679 47574	56776 54576	63873 61398	70971 68220

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	0.016 0.021	0.024 0.021	0.032 0.028	0.040 0.035	0.048 0.041	0.056 0.048	0.064 0.055	0.072 0.062	0.080 0.069	0.088 0.076
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction = 1056	0.025 0.021	0.038 0.032	0.050 0.042	0.063 0.053	0.075 0.063	0.088 0.074	0.101 0.084	0.113 0.095	0.126 0.106	0.138 0.116
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	0.039 0.033	0.059 0.049	0.079 0.066	0.098 0.082	0.118 0.099	0.137 0.115	0.157 0.132	0.177 0.148	0.196 0.165	0.216 0.181
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	0.062 0.056	0.094 0.084	0.125 0.112	0.156 0.140	0.187 0.168	0.218 0.196	0.249 0.224	0.281 0.252	0.312 0.280	0.343 0.308
Ø80	25	Spinta / Thrust = 5027 Trazione / Traction = 4536	0.101 0.091	0.151 0.136	0.201 0.181	0.251 0.227	0.302 0.272	0.352 0.318	0.402 0.363	0.452 0.408	0.503 0.454	0.553 0.499
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	0.157 0.147	0.236 0.221	0.314 0.295	0.393 0.368	0.471 0.442	0.550 0.515	0.628 0.589	0.707 0.663	0.785 0.736	0.864 0.810
Ø125	32	Spinta / Thrust = 12270 Trazione / Traction = 11468	0.245 0.229	0.368 0.344	0.491 0.459	0.614 0.573	0.736 0.688	0.859 0.803	0.982 0.917	1.104 1.032	1.227 1.147	1.350 1.261
Ø160	40	Spinta / Thrust = 20096 Trazione / Traction = 18840	0.402 0.377	0.603 0.565	0.804 0.754	1.005 0.942	1.206 1.130	1.407 1.319	1.608 1.507	1.809 1.696	2.010 1.884	2.211 2.072
Ø200	40	Spinta / Thrust = 31440 Trazione / Traction = 30144	0.628 0.603	0.942 0.904	1.256 1.206	1.570 1.507	1.884 1.809	2.198 2.110	2.512 2.412	2.826 2.713	3.140 3.014	3.454 3.316
Ø250	50	Spinta / Thrust = 48750 Trazione / Traction = 46800	0.981 0.942	1.472 1.413	1.963 1.884	2.453 2.355	2.948 2.826	3.434 3.297	3.925 3.768	4.415 4.239	4.906 4.710	5.400 5.181
Ø320	63	Spinta / Thrust = 78872 Trazione / Traction = 76776	1.610 1.545	2.411 2.320	3.215 3.100	4.020 3.863	4.820 4.630	5.626 5.408	6.430 6.181	7.234 6.954	8.038 7.726	8.843 8.450

FORZE DELLA MOLLA - SPRING TRACTION FORCES

Ø Cilindri Ø Cylinder	Carico Molla Load Spring	25	50	75	80	100
			Forza sviluppata in N Output force in N			
Ø32	Carico Molla a Riposo / Load of spring at rest	50	41	33	31,5	24,5
	Carico Molla Compressa / Load of compressed spring	58	58	58	58	58
Ø40	Carico Molla a Riposo / Load of spring at rest	52	43	34	32	25
	Carico Molla Compressa / Load of compressed spring	61	61	61	61	61
Ø50	Carico Molla a Riposo / Load of spring at rest	92	77	64	60	49
	Carico Molla Compressa / Load of compressed spring	110	110	110	110	110
Ø63	Carico Molla a Riposo / Load of spring at rest	92	77	64	60	49
	Carico Molla Compressa / Load of compressed spring	110	110	110	110	110
Ø80	Carico Molla a Riposo / Load of spring at rest	117	98	79	75	59
	Carico Molla Compressa / Load of compressed spring	138	138	138	138	138
Ø100	Carico Molla a Riposo / Load of spring at rest	117	98	79	75	59
	Carico Molla Compressa / Load of compressed spring	138	138	138	138	138

Tabella dei codici di ordinazione - Ordering codes

E	H	0 3 2	0 0 2 5	G	I S
					Varianti / Choices VS= Solo guarnizioni stelo in FKM VS= Only rod seal in FKM IS= Stelo inox IS= Stainless steel rod V= Tutte le guarnizioni in FKM V= All FKM seals R= Raschiatore metallico R= Metal scraper
					Tipo di montaggio / Mounting style T= Camicia alluminio profilo tondo T= Anodized aluminium tube round profile con tiranti (32/320) with tie rods (32/320) mm.
					Corso mm. Cilindri a semplice effetto - Corse standard mm. = 25-50-75-80-100 Cilindri a doppio effetto ammortizzato - Corse standard mm.: 25-50-75-80-100-125-150-160-200-250-300- 320-350-400-450-500-600-700-800-900-1000 A richiesta corse intermedie o superiori - Corse massima 2700 mm.
					Stroke mm. Single acting cylinders - Standard strokes mm. = 25-50-75-80-100 Double acting cylinders cushioned - Standard strokes mm.: 25-50-75-80-100-125-150-160-200-250-300- 320-350-400-450-500-600-700-800-900-1000 Intermediate or higher strokes are available upon request. - Maximum stroke 2700 mm.
					Diametro mm. / Diameter mm. 32-40-50-63-80-100-125-160-200-250-320
					Esecuzione / Execution B= Semplice effetto molla anteriore magnetico / Single acting front spring magnetic (D.32-100) H= Doppio effetto ammortizzato magnetico / Double acting single rod cushioned magnetic L= Doppio effetto ammortizzato stelo passante magnetico / Double acting double rod cushioned magnetic

SERIE E

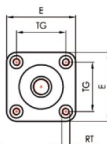
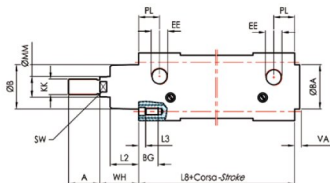
CORSE STANDARD mm. - STD STROKES

Ø mm.	25	50	75	80	100	125	150	160	200	250	300	320	350	400	450	500	600	700	800	900	1000
32	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
50	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
63	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
80	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
100	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
125	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
160	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
200	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
250	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
320	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

▲ **EB** SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC

▲ **EH** DOPPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC

● **EL** DOPPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END

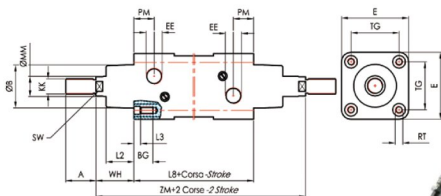


EH-----T

Camicia in alluminio a profilo tondo con tiranti.
Anodized aluminium tube round profile with tie rods

DOPPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC

Ø mm.	ØB ø11	VA	L2	WH	ØMM	SW	KK	A	L8	BG	RT	E	TG	EE	PL	L3	ZM
32	30	4	20	26	12	10	M10X1.2522	94	16	M6	47	32.5	G1/8	14	5	146	
40	35	4	22	30	16	13	M12X1.2524	105	16	M6	53	38	G1/4	16	5	165	
50	40	4	28	37	20	17	M16X1.532	106	16	M8	65	46.5	G1/4	21	5	180	
63	45	4	28	37	20	17	M16X1.532	121	16	M8	75	56.5	G3/8	22	5	195	
80	45	4	34	46	25	22	M20X1.540	128	17	M10	95	72	G3/8	23	6.5	220	
100	55	4	38	51.5	25	22	M20X1.540	138	17	M10	115	89	G1/2	26	6.5	240	
125	60	5	50	65	32	27	M27X2.54	160	20	M12	140	110	G1/2	30	6	290	
160	65	6	55	80	40	36	M36X2.72	180	24	M16	180	140	G3/4	29	0	340	
200	75	6	60	95	40	36	M36X2.72	180	24	M16	220	175	G3/4	29	0	370	
250	90	10	75	105	50	46	M42X2.84	200	25	M20	275	220	G1"	31	0	410	
320	110	10	90	120	63	55	M48X2.96	220	28	M24	350	270	G1"	31	0	460	

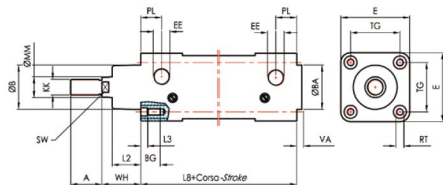


EL-----T

Camicia in alluminio a profilo tondo con tiranti.
Anodized aluminium tube round profile with tie rods

DOPPIO EFFETTO STELO PASSANTE AMMORTIZZATO MAGNETICO-DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END

Ø mm.	ØBA d11	VA	L2	WH	ØMM	SW	KK	A	L8	BG	RT	E	TG	EE	PM	L3	ZM
32	30	4	20	26	12	10	M10X1.2522	94	16	M6	47	32.5	G1/8	14	5	146	
40	35	4	22	30	16	13	M12X1.2524	105	16	M6	53	38	G1/4	16	5	165	
50	40	4	28	37	20	17	M16X1.532	106	16	M8	65	46.5	G1/4	21	5	180	
63	45	4	28	37	20	17	M16X1.532	121	16	M8	75	56.5	G3/8	22	5	195	
80	45	4	34	46	25	22	M20X1.540	128	17	M10	95	72	G3/8	23	6.5	220	
100	55	4	38	51.5	25	22	M20X1.540	138	17	M10	115	89	G1/2	26	6.5	240	
125	60	5	50	65	32	27	M27X2.54	160	20	M12	140	110	G1/2	30	6	290	
160	65	6	55	80	40	36	M36X2.72	180	24	M16	180	140	G3/4	29	0	340	
200	75	6	60	95	40	36	M36X2.72	180	24	M16	220	175	G3/4	29	0	370	
250	90	10	75	105	50	46	M42X2.84	200	25	M20	275	220	G1"	31	0	410	
320	110	10	90	120	63	55	M48X2.96	220	28	M24	350	270	G1"	31	0	460	



EB-----T

Camicia in alluminio a profilo tondo con tiranti.
Anodized aluminium tube round profile with tie rods

SEMPLICE EFFETTO MAGNETICO - SINGLE-ACTING MAGNETIC

Ø mm.	ØB d11	VA	L2	WH	ØMM	SW	KK	A	L8	BG	RT	E	TG	EE	PL	L3	ZM
32	30	4	20	26	12	10	M10x1.2522	94	16	M6	47	32.5	G1/8	14	5	146	
40	35	4	22	30	16	13	M12x1.2524	105	16	M6	53	38	G1/4	16	5	165	
50	40	4	28	37	20	17	M16x1.532	106	16	M8	65	46.5	G1/4	21	5	180	
63	45	4	28	37	20	17	M16x1.532	121	16	M8	75	56.5	G3/8	22	5	195	
80	45	4	34	46	25	22	M20x1.540	128	17	M10	95	72	G3/8	23	6.5	220	
100	55	4	38	51.5	25	22	M20x1.540	138	17	M10	115	89	G1/2	26	6.5	240	

Cilindri INOX Serie V Iso 15552 / INOX Cylinder V Serie Iso 15552

I cilindri di questa serie sono realizzati completamente in acciaio INOX e rispettano la normativa ISO 15552. Nello specifico sono costruiti con le testate e camicia in acciaio INOX AISI 304, mentre lo stelo, i tiranti, le viti di fissaggio e le viti dell'ammortizzatore sono in acciaio INOX AISI 316. Questi cilindri sono adatti ad essere impiegati in ambienti particolarmente aggressivi quali chimico, farmaceutico, petrolchimico, navale, agro-alimentare, zootecnico, e all'aperto.

These cylinders are entirely made of stainless steel and follow ISO 15552 normative. They are specifically manufactured with AISI 304 stainless steel heads and tube, while rod, tie rods, fixing screws and cushioning screws are made of AISI 316 stainless steel. These cylinders are suitable for particularly aggressive environments such as chemical, pharmaceutical, petrol chemical, navy, agro-food, zoo technical and outside employment.



Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)
Pressione massima / Maximum pressure: 10 bar (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
 (-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.
 Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Doppio effetto ammortizzato magnetico, Semplice effetto magnetico, Stelo singolo e passante ammortizzato magnetico, Tandem.
 Double-acting cushioned magnetic, Single-acting magnetic, Single or through piston rod magnetic, Tandem.

Alesaggi / Bores

Da 32 a 125 mm.
 From 32 to 125 mm.

Corse / Strokes

Corse Standard / Standard Strokes
Da 25 a 1000 mm / From 25 to 1000 mm

Corse a Richiesta / Stroke on Demand
Da 1000 a 2700 mm / From 1000 to 2700 mm

Tabella dei codici di ordinazione - Ordering codes

V	H	I	0 3 2	0 0 2 5	V S
			Diametro mm. Diameter mm. 32-40-50-63-80-100-125	Corse mm. Cilindri a doppio effetto ammortizzato - Corse standard mm.: 25-50-75-80-100-125-150-160-200-250-300- 320-350-400-450-500-600-700-800-900-1000 A richiesta corse intermedie o superiori - Corse massima 2700 mm.	Varianti / Choices VS= Solo guarnizioni stelo in FKM VS= Only rod seal in FKM V= Tutte le guarnizioni in FKM V= All FKM seals
		I= INOX I= STAINLESS STEEL			Stroke mm. Double acting cylinders cushioned - Standard strokes mm.: 25-50-75-80-100-125-150-160-200-250-300- 350-400-450-500-600-700-800-900-1000 Intermediate or higher strokes are available upon request. - Maximum stroke 2700 mm.
		Esecuzione / Execution G= Doppio effetto ammortizzato non magnetico / Double acting single rod cushioned without magnet H= Doppio effetto ammortizzato magnetico / Double acting single rod cushioned magnetic L= Doppio effetto ammortizzato stelo passante magnetico / Double acting double rod cushioned magnetic K= Doppio effetto ammortizzato stelo passante non magnetico / Double acting double rod cushioned without magnet			

Cilindri a steli gemellati Serie NHA Iso 15552 / Twin piston rod Cylinder NHA Serie Iso 15552

I cilindri a steli gemellati antirotazione a interfaccia e dimensioni ISO 15552. Essi permettono di posizionare pezzi con orientamento ben definito e con buona precisione perché la flangia di attacco è rigidamente collocata su due steli, i quali sono guidati da boccole teflonate autolubrificanti in PTFE molto precise. Questo concetto costruttivo non consente la rotazione durante la traslazione e stabilisce una buona rigidità alla flangia di attacco permettendo l'applicazione di piccoli carichi. Le testate si presentano molto robuste e di gradevole aspetto estetico e sono realizzate in alluminio pressofuso verniciato. Tutte le guarnizioni dinamiche sono in poliuretano, quindi a differenza dell'NBR garantiscono maggiori performance e maggiore durata nel tempo. La camicia è in alluminio anodizzato interno-esterno. A profilo sagomato con cave longitudinali per l'inserimento a scomparsa del sensore magnetico (D.32-100); Gli steli sono previsti nella versione standard in acciaio cromato, mentre sono disponibili su richiesta anche in acciaio inox. Nella versione standard gli ammortizzatori di fine corsa sono regolabili su ambo i lati e il pistone è magnetico.



ISO 15552 twin rods antirotation cylinders. These cylinders allow any parts positioning with good precision and well defined orientation because the junction flange is strictly placed on two rods, guided by very precise PTFE self lubricating Teflon bushes. This constructive concept don't allows rotation during translation and grants a good rigidity to the flange, allowing small loads application. Heads are very strong and have a good looking, they are realized from die casted painted aluminum. Important is the whole dynamic seals in polyurethane, unlike NBR seals, they grant better performances and longer lasting. Tube inside-outside is made of anodized aluminum and may be supplied as follows: Profile with longitudinal slots, for magnetic sensor total insertion (D.32-100); Standard version rod is made of chromed steel; upon request stainless steel rods are also available. End stroke cushioning is adjustable on both sides for standard version and piston is magnetic.

Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)
Pressione massima / Maximum pressure: 10 bar (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C
 (-20 °C con aria secca / with dry air)
Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.
 Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Doppio effetto ammortizzato magnetico, Stelo singolo e passante ammortizzato magnetico.
 Double-acting cushioned magnetic
 Single or through piston rod magnetic.

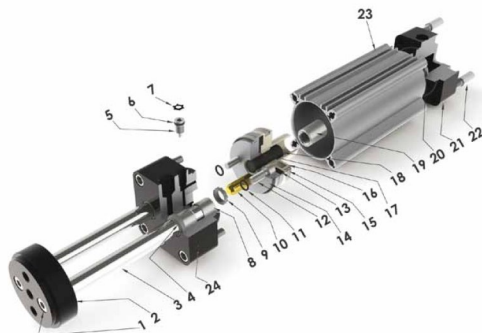
Allesaggi / Bores

Da 32 a 320 mm.
 From 32 to 320mm.

Corse / Strokes

Corse Standard / Standard Strokes
Da 25 a 1000 mm / From 25 to 1000 mm
Corse a Richiesta / Stroke on Demand

Caratteristiche Tecniche / Technical Characteristics



Materiali e Componenti / Component Parts and Materials

- | | |
|---|---|
| 1 Vite a brugola in acciaio zincato | 1 Fixing screw Galvanized steel |
| 2 Flangia in alluminio anodizzato | 2 Anodized Aluminium Flange |
| 3 Steli in Acciaio cromato o Acciaio inox | 3 Rods Chromium plated steel or Stainless steel |
| 4 Guarnizione steli in Poliuretano | 4 Rod seal in Polyurethane |
| 5 Spillo ammortizzatore in Acciaio zincato | 5 Cushioning screw Galvanized steel |
| 6 O-ring in Nbr | 6 O-ring Nbr |
| 7 Anello elastico in Acciaio | 7 Elastic ring made in steel |
| 8 Boccole in acciaio teflonato PTFE | 8 Steel with PTFE Bearing |
| 9 Guarnizione ammortizzatore in Poliuretano | 9 Cushioning seal in Polyurethane |
| 10 Cono ammortizzatore in ottone | 10 Brass cushioning cone |
| 11 O-ring in Nbr | 11 O-ring Nbr |
| 12 Vite a brugola in acciaio zincato | 12 Fixing screw Galvanized steel |
| 13 Magnete in Plastoferite | 13 Magnet Bonded ferrite |
| 14 Pistone anteriore in Alluminio | 14 Aluminium Front Piston |
| 15 Guarnizione pistone in Poliuretano | 15 Piston seal in Polyurethane |
| 16 Pistone posteriore in resina acetaleica | 14 Acetal resin rear Piston |
| 17 O-ring in Nbr | 17 O-ring Nbr |
| 18 Grano in acciaio | 18 Steel Grub screw |
| 19 Dado in acciaio zincato | 19 Galvanized steel nut |
| 20 Guarnizione ammortizzatore in Poliuretano | 20 Cushioning seal in Polyurethane |
| 21 Testata Posteriore in Alluminio Pressofuso | 21 Rear head Die-casted aluminium |
| 22 Vite di fissaggio in acciaio zincato | 22 Fixing screw Galvanized steel |
| 23 Camicia in Alluminio anodizzato | 23 Tube Anodized aluminium |
| 24 Testata Anteriore in Alluminio Pressofuso | 24 Front head Die-casted aluminium |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Forza sviluppata in N Output force in N												
Ø32	12	Spinta / Thrust= 804 Trazione / Traction = 691	72 62	144 124	216 186	288 248	360 310	432 372	504 434	576 496	648 558	720 620
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction = 1056	110 95	220 190	330 285	440 380	550 475	660 570	770 665	880 760	990 855	1100 950
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	175 148	350 296	525 444	700 592	875 740	1050 888	1225 1036	1400 1184	1575 1332	1750 1480
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	280 250	560 500	840 750	1120 1000	1400 1250	1680 1500	1960 1750	2240 2000	2520 2250	2800 2500
Ø80	25	Spinta / Thrust = 5027 Trazione / Traction = 4536	450 405	900 810	1350 1215	1800 1620	2250 2025	2700 2430	3150 2835	3600 3240	4050 3645	4500 4050
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	700 660	1400 1320	2100 1980	2800 2640	3500 3300	4200 3960	4900 4620	5650 5280	6360 5940	7000 6600

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	0.016 0.014	0.024 0.021	0.032 0.028	0.040 0.035	0.048 0.041	0.056 0.048	0.064 0.055	0.072 0.062	0.080 0.069	0.088 0.076
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction = 1056	0.025 0.021	0.038 0.032	0.050 0.042	0.063 0.053	0.075 0.063	0.088 0.074	0.101 0.084	0.113 0.095	0.126 0.106	0.138 0.116
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	0.039 0.033	0.059 0.049	0.079 0.066	0.098 0.082	0.118 0.099	0.137 0.115	0.157 0.132	0.177 0.148	0.196 0.165	0.216 0.181
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	0.062 0.056	0.094 0.084	0.125 0.112	0.156 0.140	0.187 0.168	0.218 0.196	0.249 0.224	0.281 0.252	0.312 0.280	0.343 0.308
Ø80	25	Spinta / Thrust = 5027 Trazione / Traction = 4536	0.101 0.091	0.151 0.136	0.201 0.181	0.251 0.227	0.302 0.272	0.352 0.318	0.402 0.363	0.452 0.408	0.503 0.454	0.553 0.499
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	0.157 0.147	0.236 0.221	0.314 0.295	0.393 0.368	0.471 0.442	0.550 0.515	0.628 0.589	0.707 0.663	0.785 0.736	0.864 0.810

Tabella dei codici di ordinazione - Ordering codes

N	H	A	0 3 2	0 0 2 5	G	I S	Varianti / Choices										
			Diametro mm. Diameter mm.				IS= Stelo inox IS= Stainless steel rod										
			32-40-50-63-80-100				Tipo di montaggio / Mounting style										
							G= Camicia in alluminio profilo sagomato G= Anodized aluminium tube Mickey-mouse profile with slots (32/100)										
				Corsa mm. / Stroke mm.													
				Ø mm.	25	50	80	100	125	160	200	250	320	350	400	500	600
				32	*	*	*	*	*	*	*	*	*	*	*	*	*
				40	*	*	*	*	*	*	*	*	*	*	*	*	*
				50	*	*	*	*	*	*	*	*	*	*	*	*	*
				63	*	*	*	*	*	*	*	*	*	*	*	*	*
				80	*	*	*	*	*	*	*	*	*	*	*	*	*
				100	*	*	*	*	*	*	*	*	*	*	*	*	*
			Varianti / Choices														
			A= Antirrotazione A= anti-rotation														
			Esecuzione / Execution														
			H= Doppio effetto ammortizzato magnetico / Double acting single rod cushioned magnetic														
			L= Doppio effetto ammortizzato stelo passante ISO magnetico / Double acting double rod ISO cushioned magnetic														
			G= Doppio effetto ammortizzato magnetico con steli gemellati passanti / Double acting double twin rods cushioned magnetic														

SERIE N

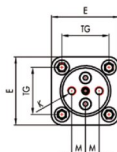
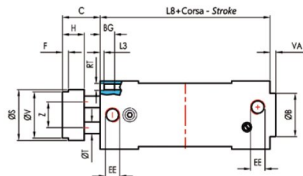
CORSE STANDARD mm. - STD STROKES

Ø mm.	25	50	80	100	125	160	200	250	320	350	400	500	600
32	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		
40	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	
50	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	
63	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
80	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
100	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

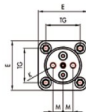
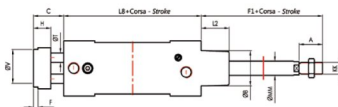
▲ **NHA** **DOPPIO EFFETTO AMMORTIZZATO MAGNETICO** - DOUBLE ACTING CUSHIONED MAGNETIC

▲ **NLA** **DOPPIO EFFETTO STELO PASSANTE ISO AMMORTIZZATO MAGNETICO** - DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END ISO

● **NQA** **DOPPIO EFFETTO AMMORTIZZATO MAGNETICO CON STELI PASSANTI** - DOUBLE ACTING DOUBLE TWIN RODS CUSHIONED MAGNETIC


NHA
DOPPIO EFFETTO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC

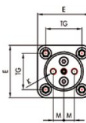
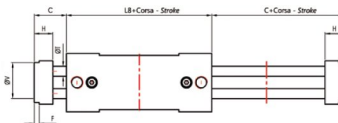
Ø mm.	Ø8 d11	C	E	F	H	K	M	S	T	V	Z	F1	VA	L2	WH	ØMM	SW	KK	L8	BG	RT	E	TG	EE	PL	L3	ZM
32	30	26	47	4	15	M6	9.5	35	8	32	18	48	4	20	26	12	10	M10X1.25	94	16	M6	47	32.5	G1/8	14	5	146
40	35	30	53	4	15	M8	11.25	45	10	40	22	54	4	22	30	16	13	M12X1.25	105	16	M6	53	38	G1/4	16	5	165
50	40	37	65	5	18	M8	15	55	12	50	26	69	4	28	37	20	17	M16X1.5	106	16	M8	65	46.5	G1/4	21	5	180
63	45	37	75	5	22	M10	19	70	16	63	35	69	4	28	37	20	17	M16X1.5	121	16	M8	75	56.5	G3/8	22	5	195
80	45	46	95	5	22	M12	25	85	20	80	40	86	4	34	46	25	22	M20X1.5	128	17	M10	95	72	G3/8	23	6.5	220
100	55	51	115	5	22	M12	35	105	20	100	50	91	4	38	51.5	25	22	M20X1.5	138	17	M10	115	89	G1/2	26	6.5	240



NLA

DOPIO EFFETTO STELO PASSANTE ISO AMMORTIZZATO MAGNETICO - DOUBLE ACTING CUSHIONED MAGNETIC WITH DOUBLE ROD END ISO

Ø mm.	A	ØB d11	C	E	F	H	K	M	S	T	V	Z	F1	VA	L2	WH	ØMM	SW	KK	L8	BG	RT	E	TG	EE	PL	L3	ZM
32	22	30	26	47	4	15	M6	9.5	35	8	32	18	48	4	20	26	12	10	M10X1.25	94	16	M6	47	32.5	G1/8	14	5	146
40	24	35	30	53	4	15	M8	11.25	45	10	40	22	54	4	22	30	16	13	M12X1.25	105	16	M6	53	38	G1/4	16	5	165
50	32	40	37	65	5	18	M8	15	55	12	50	26	69	4	28	37	20	17	M16X1.5	106	16	M8	65	46.5	G1/4	21	5	180
63	32	45	37	75	5	22	M10	19	70	16	63	35	69	4	28	37	20	17	M16X1.5	121	16	M8	75	56.5	G3/8	22	5	195
80	40	45	46	95	5	22	M12	25	85	20	80	40	86	4	34	46	25	22	M20X1.5	128	17	M10	95	72	G3/8	23	6.5	220
100	40	55	51	115	5	22	M12	35	105	20	100	50	91	4	38	51.5	25	22	M20X1.5	138	17	M10	115	89	G1/2	26	6.5	240



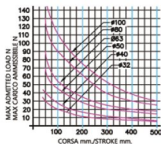
NQA

DOPIO EFFETTO AMMORTIZZATO MAGNETICO CON STELI PASSANTI - DOUBLE ACTING DOUBLE TWIN RODS CUSHIONED MAGNETIC

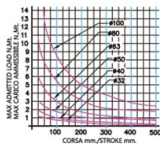
Ø mm.	ØB d11	C	E	F	H	K	M	S	T	V	Z	F1	VA	L2	WH	ØMM	SW	KK	L8	BG	RT	E	TG	EE	PL	L3	ZM
32	30	26	47	4	15	M6	9.5	35	8	32	18	48	4	20	26	12	10	M10X1.25	94	16	M6	47	32.5	G1/8	14	5	146
40	35	30	53	4	15	M8	11.25	45	10	40	22	54	4	22	30	16	13	M12X1.25	105	16	M6	53	38	G1/4	16	5	165
50	40	37	65	5	18	M8	15	55	12	50	26	69	4	28	37	20	17	M16X1.5	106	16	M8	65	46.5	G1/4	21	5	180
63	45	37	75	5	22	M10	19	70	16	63	35	69	4	28	37	20	17	M16X1.5	121	16	M8	75	56.5	G3/8	22	5	195
80	45	46	95	5	22	M12	25	85	20	80	40	86	4	34	46	25	22	M20X1.5	128	17	M10	95	72	G3/8	23	6.5	220
100	55	51	115	5	22	M12	35	105	20	100	50	91	4	38	51.5	25	22	M20X1.5	138	17	M10	115	89	G1/2	26	6.5	240

Grafici Cylinders NHA / Charts NHA Cylinders

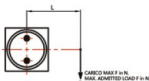
Momento Flettente / Flexion Moment



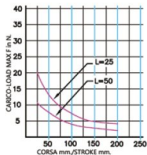
Momento Torcente / Torsion Moment



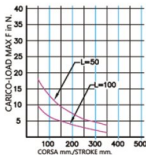
FlessoTorsione / Flexion-Torsion



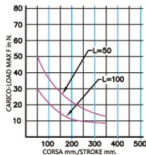
CILINDRO-CYLINDER Ø32



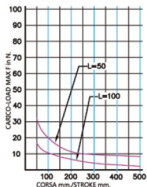
CILINDRO-CYLINDER Ø40



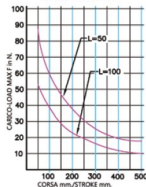
CILINDRO-CYLINDER Ø50



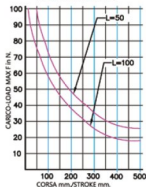
CILINDRO-CYLINDER Ø63



CILINDRO-CYLINDER Ø80



CILINDRO-CYLINDER Ø100



Cilindri Serie P ISO 15552 / Cylinder P Serie ISO 15552

I cilindri Compatti a interfaccia Iso 15552 hanno le testate in alluminio anodizzato e hanno una linea molto pulita; gli ammortizzatori elastici fissi consentono uno scorrimento lineare e silenzioso. I cilindri dal Ø32 al Ø100 ed il Ø250 hanno tutte le guarnizioni dinamiche in poliuretano. I cilindri Ø125 160 200 montano un pistone integrale in NBR.

I cilindri della serie P sono forniti con camicia in alluminio in due configurazioni:

- Dal Ø32 al Ø100 Camicia in alluminio a profilo quadrato denominata "H" con cave longitudinali per l'inserimento a scomparsa del sensore.

- Dal Ø125 al Ø250 Camicia in alluminio dal profilo tondo con tiranti.

Compact cylinders to ISO 15552 interfaces have their heads in anodized aluminum and have a very clean line, fixed elastic dampers allow a linear shift and silently. The cylinders from Ø32 to Ø100 and Ø250 have all of the dynamic seals in polyurethane. The cylinders are fitted with a Ø125 160 200 complete piston NBR. The P series cylinders are supplied with aluminum jacket in two configurations:

- From Ø32 to Ø100 shirt aluminum square profile called "H" with longitudinal slots for the insertion in the disappearance of the sensor.

- From Ø125 to Ø250 shirt from aluminum rods with rounded profile.



Dal Ø32 al Ø100.

Camicia in alluminio a profilo quadrato denominata "H" con cave longitudinali per l'inserimento a scomparsa del sensore.

From Ø32 to Ø100.

Aluminum jacket square profile called "H" with longitudinal slots for the insertion of the retractable sensor.



Dal Ø125 al Ø250.

Camicia in alluminio a profilo tondo con tiranti.

From Ø125 to Ø250.

Shirt aluminum rods with rounded profile.

Caratteristiche Tecniche / Technical Characteristics

Pressioni / Pressures

Pressione minima / Minimum pressure: 1 bar (0.1 MPa)

Pressione massima / Maximum pressure: 10 bar (1 MPa)

Temperature / Temperatures

Temperatura minima / Minimum temperature: 0 °C

(-20 °C con aria secca / with dry air)

Temperatura massima / Maximum temperature: +80 °C

Fluidi compatibili / Fluids

Aria compressa filtrata e lubrificata e non lubrificata.

Filtered and lubricated compressed air as well as non lubricated air.

Funzionamento / Functioning

Doppio effetto ammortizzato magnetico, Semplice effetto magnetico, Stelo singolo e passante ammortizzato magnetico.
Double-acting cushioned magnetic, Single-acting magnetic, Single or through piston rod magnetic.

Alesaggi / Bores

Da 32 a 250 mm.

From 32 to 250mm.

Corse / Strokes

Corse Standard / Standard Strokes

Da 5 a 500 mm / From 5 to 500 mm

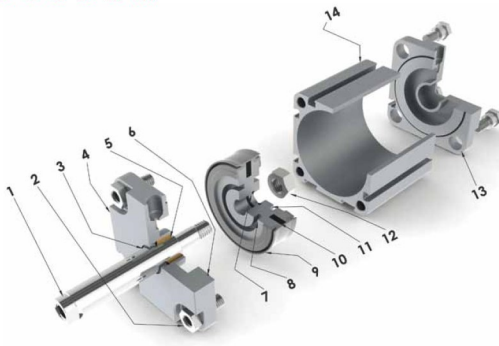
Corse a Richiesta / Stroke on Demand

Caratteristiche Tecniche / Technical Characteristics

Materiali impiegati per cilindro serie P con camicia in alluminio anodizzato quadrata.
Used Materials for cylinders Serie P with anodized aluminium square profile.

Diametri / Diameter

32 - 40 - 50 - 63 - 80 - 100



Materiali e Componenti / Component Parts and Materials

- | | |
|---|--|
| 1 Stelo in Acciaio cromato o Acciaio inox | 1 Rod Chromium plated steel or Stainless steel |
| 2 Vite di fissaggio in Acciaio zincato | 2 Fixing screw Galvanized steel |
| 3 Guarnizione stelo in Poliuretano | 3 Rod seal in Polyurethane |
| 4 Testata anteriore in Alluminio Anodizzato | 4 Front head in anodized aluminium |
| 5 Bronzina in Bronzo sinterizzato | 5 Bush in Sintered bronze |
| 6 O-ring in Nbr | 6 O-ring in Nbr |
| 7 O-ring in Nbr | 7 O-ring in Nbr |
| 8 Pistone Anteriore in Alluminio | 8 Front Piston in Aluminium |
| 9 Guarnizione pistone in Poliuretano | 9 Piston seal in Polyurethane |
| 10 Magnete in Plastoferrite | 10 Magnet Bonded ferrite |
| 11 Pistone Posteriore in Alluminio | 11 Rear Piston in Aluminium |
| 12 Dado in Acciaio zincato | 12 Nut Galvanized steel |
| 13 Testata posteriore Alluminio Pressofuso Sabbiato | 13 Rear head Die-casted Sandblasted aluminium |
| 14 Camicia in Alluminio anodizzato | 14 Tube Anodized aluminium |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Forza sviluppata in N Output force in N												
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	72 62	144 124	216 186	288 248	360 310	432 372	504 434	576 496	648 558	720 620
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction = 1056	110 95	220 190	330 285	440 380	550 475	660 570	770 665	880 760	990 855	1100 950
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	175 148	350 296	525 444	700 592	875 740	1050 888	1225 1036	1400 1184	1575 1332	1750 1480
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	280 250	560 500	840 750	1120 1000	1400 1250	1680 1500	1960 1750	2240 2000	2520 2250	2800 2500
Ø80	25	Spinta / Thrust = 5027 Trazione / Traction = 4536	450 405	900 810	1350 1215	1800 1620	2250 2025	2700 2430	3150 2835	3600 3240	4050 3645	4500 4050
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	700 660	1400 1320	2100 1980	2800 2640	3500 3300	4200 3960	4900 4620	5650 5280	6360 5940	7000 6600

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø32	12	Spinta / Thrust = 804 Trazione / Traction = 691	0.016 0.014	0.024 0.021	0.032 0.028	0.040 0.035	0.048 0.041	0.056 0.048	0.064 0.055	0.072 0.062	0.080 0.069	0.088 0.076
Ø40	16	Spinta / Thrust = 1257 Trazione / Traction = 1056	0.025 0.021	0.038 0.032	0.050 0.042	0.063 0.053	0.075 0.063	0.088 0.074	0.101 0.084	0.113 0.095	0.126 0.106	0.138 0.116
Ø50	20	Spinta / Thrust = 1963 Trazione / Traction = 1649	0.039 0.033	0.059 0.049	0.079 0.066	0.098 0.082	0.118 0.099	0.137 0.115	0.157 0.132	0.177 0.148	0.196 0.165	0.216 0.181
Ø63	20	Spinta / Thrust = 3117 Trazione / Traction = 2803	0.062 0.056	0.094 0.084	0.125 0.112	0.156 0.140	0.187 0.168	0.218 0.196	0.249 0.224	0.281 0.252	0.312 0.280	0.343 0.308
Ø80	25	Spinta / Thrust = 5027 Trazione / Traction = 4536	0.101 0.091	0.151 0.136	0.201 0.181	0.251 0.227	0.302 0.272	0.352 0.318	0.402 0.363	0.452 0.408	0.503 0.454	0.553 0.499
Ø100	25	Spinta / Thrust = 7854 Trazione / Traction = 7363	0.157 0.147	0.236 0.221	0.314 0.295	0.393 0.368	0.471 0.442	0.550 0.515	0.628 0.589	0.707 0.663	0.785 0.736	0.864 0.810

FORZE DELLA MOLLA - SPRING TRACTION FORCES

Ø Cilindri Ø Cylinder	Carico Molla Load Spring	25	Corsa / Stroke			
			50	75	80	100
Forza sviluppata in N Output force in N						
Ø32	Carico Molla a Riposo / Load of spring at rest	50	41	33	31,5	24,5
	Carico Molla Compresa / Load of compressed spring	58	58	58	58	58
Ø40	Carico Molla a Riposo / Load of spring at rest	52	43	34	32	25
	Carico Molla Compresa / Load of compressed spring	61	61	61	61	61
Ø50	Carico Molla a Riposo / Load of spring at rest	92	77	64	60	49
	Carico Molla Compresa / Load of compressed spring	110	110	110	110	110
Ø63	Carico Molla a Riposo / Load of spring at rest	92	77	64	60	49
	Carico Molla Compresa / Load of compressed spring	110	110	110	110	110
Ø80	Carico Molla a Riposo / Load of spring at rest	117	98	79	75	59
	Carico Molla Compresa / Load of compressed spring	138	138	138	138	138
Ø100	Carico Molla a Riposo / Load of spring at rest	117	98	79	75	59
	Carico Molla Compresa / Load of compressed spring	138	138	138	138	138

Tabella dei codici di ordinazione - Ordering codes

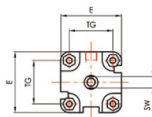
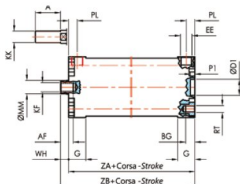
P	F	M	0 3 2	0 0 2 5	H	I S	Varianti / Choices IS= Stelo inox IS= Stainless steel rod
Tipo di montaggio / Mounting style H= Camicia in alluminio profilo quadrato H= Anodized aluminium tube square profile (32/100)							
Corsa mm. / Stroke mm. 5 - 10 - 15 - 20 - 25 - 30 - 35 - 40 - 45 - 50 - 55 - 60 - 65 - 70 - 75-80-100 -125 -150 -160 - 200 - 250 - 300 - 320 - 350 - 400 - 450 - 500 A richiesta corse intermedie o superiori Intermediate or higher strokes are available upon request.							
Diametro mm. / Diameter mm. 32-40-50-63-80-100							
Versioni / Version = Standard Stelo femmina / Standard female rod M= Stelo Maschio / Male rod							
Esecuzione / Execution B= Semplice effetto molla anteriore magnetico (corsa max. 25) / Single acting front spring magnetic (corsa max. 25) D= Semplice effetto molla posteriore magnetico (corsa max. 25) / Single acting rear spring magnetic (corsa max. 25) F= Doppio effetto magnetico / Double acting single rod magnetic J= Doppio effetto stelo passante magnetico / Double acting double rod magnetic							

SERIE P

CORSE STANDARD mm. - STD STROKES

Ø mm.	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	100	125	150	160	200	250	300	320	350	400	450	500
32	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
50	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
63	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
80	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
100	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

- ▲ **PB** SEMPLICE EFFETTO MAGNETICO MOLLA ANTERIORE - SINGLE-ACTING FRONT SPRING MAGNETIC
- ▲ **PD** SEMPLICE EFFETTO MAGNETICO MOLLA POSTERIORE - SINGLE-ACTING REAR SPRING MAGNETIC
- **PF** DOPPIO EFFETTO MAGNETICO - DOUBLE ACTING MAGNETIC
- **PJ** DOPPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END

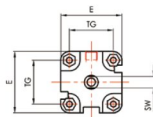
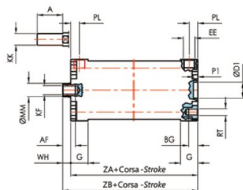


PB-----H

Camicia in alluminio a profilo quadrato.
Anodized aluminium tube square profile.

SEMPLICE EFFETTO MAGNETICO MOLLA ANTERIORE - SINGLE-ACTING FRONT SPRING MAGNETIC

Ø mm.	A	E	G	TG	AF	BG	D1	EE	KF	KK	MM	P1	PL	RT	SW	WH	ZA	ZB
32	22	47	14.7	32.5	12	9	14	1/8" G	M8	M10X1.25	12	2.5	7.5	M6	10	7	44	51
40	22	53	15	38	12	9	14	1/8" G	M8	M10X1.25	12	2.5	7.5	M6	10	7	45	52
50	24	65	15	46.5	16	9	18	1/8" G	M10	M12X1.25	16	2.5	7.5	M8	13	8	45	53
63	24	75	14.5	56.5	16	9	18	1/8" G	M10	M12X1.25	16	2.5	7	M8	13	8	49	57
80	32	95	15.5	72	20	9	23	1/8" G	M12	M16X1.5	20	3	8.5	M10	16	10	54	64
100	40	115	20	89	20	9	28	1/4" G	M12	M20X1.5	25	3	9.5	M10	22	10	67	77

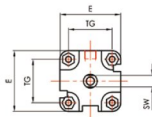
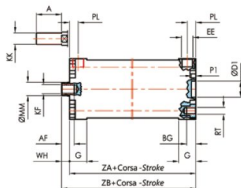


PD-----H

Camicia in alluminio a profilo quadrato.
Anodized aluminium tube square profile.

SEMPLICE EFFETTO MAGNETICO MOLLA POSTERIORE - SINGLE-ACTING REAR SPRING MAGNETIC

Ø mm.	A	E	G	TG	AF	BG	D1	EE	KF	KK	MM	P1	PL	RT	SW	WH	ZA	ZB
32	22	47	14.7	32.5	12	9	14	1/8" G	M8	M10X1.25	12	2.5	7.5	M6	10	7	44	51
40	22	53	15	38	12	9	14	1/8" G	M8	M10X1.25	12	2.5	7.5	M6	10	7	45	52
50	24	65	15	46.5	16	9	18	1/8" G	M10	M12X1.25	16	2.5	7.5	M8	13	8	45	53
63	24	75	14.5	56.5	16	9	18	1/8" G	M10	M12X1.25	16	2.5	7	M8	13	8	49	57
80	32	95	15.5	72	20	9	23	1/8" G	M12	M16X1.5	20	3	8.5	M10	16	10	54	64
100	40	115	20	89	20	9	28	1/4" G	M12	M20X1.5	25	3	9.5	M10	22	10	67	77

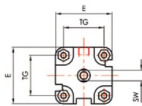
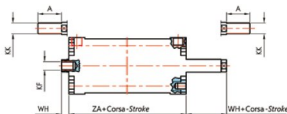


PF-----H

DOPPIO EFFETTO MAGNETICO - DOUBLE ACTING MAGNETIC

Camicia in alluminio a profilo quadrato.
Anodized aluminium tube square profile.

Ø mm.	A	E	G	TG	AF	BG	D1	EE	KF	KK	MM	P1	PL	RT	SW	WH	ZA	ZB
32	22	47	14.7	32.5	12	9	14	1/8"G	M8	M10X1.25	12	2.5	7.5	M6	10	7	44	51
40	22	53	15	38	12	9	14	1/8"G	M8	M10X1.25	12	2.5	7.5	M6	10	7	45	52
50	24	65	15	46.5	16	9	18	1/8"G	M10	M12X1.25	16	2.5	7.5	M8	13	8	45	53
63	24	75	14.5	56.5	16	9	18	1/8"G	M10	M12X1.25	16	2.5	7	M8	13	8	49	57
80	32	95	15.5	72	20	9	23	1/8"G	M12	M16X1.5	20	3	8.5	M10	16	10	54	64
100	40	115	20	89	20	9	28	1/4"G	M12	M20X1.5	25	3	9.5	M10	22	10	67	77



PJ-----H

DOPPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END

Camicia in alluminio a profilo quadrato.
Anodized aluminium tube square profile.

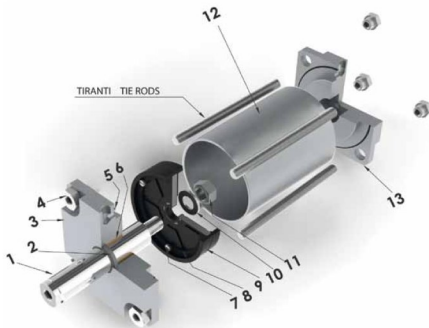
Ø mm.	A	E	G	TG	AF	BG	D1	EE	KF	KK	MM	P1	PL	RT	SW	WH	ZA	ZB
32	22	47	14.7	32.5	12	9	14	1/8"G	M8	M10X1.25	12	2.5	7.5	M6	10	7	44	51
40	22	53	15	38	12	9	14	1/8"G	M8	M10X1.25	12	2.5	7.5	M6	10	7	45	52
50	24	65	15	46.5	16	9	18	1/8"G	M10	M12X1.25	16	2.5	7.5	M8	13	8	45	53
63	24	75	14.5	56.5	16	9	18	1/8"G	M10	M12X1.25	16	2.5	7	M8	13	8	49	57
80	32	95	15.5	72	20	9	23	1/8"G	M12	M16X1.5	20	3	8.5	M10	16	10	54	64
100	40	115	20	89	20	9	28	1/4"G	M12	M20X1.5	25	3	9.5	M10	22	10	67	77

Caratteristiche Tecniche / Technical Characteristics

Materiali impiegati per cilindro serie P con camicia in alluminio anodizzato a profilo tondo con tiranti
Used Materials for cylinders Serie P with anodized aluminium tube profile and tie rods.

Diametri / Diameter

125 - 160 - 200 - 250



Materiali e Componenti / Component Parts and Materials

- | | |
|---|--|
| 1 Stelo in Acciaio cromato o Acciaio inox | 1 Rod Chromium plated steel or Stainless steel |
| 2 Guarnizione stelo in Poliuretano | 2 Rod seal in Polyurethane |
| 3 Testata anteriore in Alluminio Anodizzato | 3 Front head In anodized aluminium |
| 4 Vite di fissaggio in Acciaio zincato | 4 Fixing screw Galvanized steel |
| 5 O-ring in Nbr | 5 O-ring in Nbr |
| 6 Bronzina in Bronzo sinterizzato | 6 Bush in Sintered bronze |
| 7 Vite di fissaggio in Acciaio zincato | 7 Fixing screw Galvanized steel |
| 8 Magnete in Plastroferrite | 8 Magnet Bonded ferrite |
| 9 Pistone NBR-(Ø250 Pistone in Alluminio e poliuretano) | 9 NBR Piston (Ø250 Aluminium and polyurethane) |
| 10 Rondella in acciaio zincato | 10 Washer Galvanized steel |
| 11 Dado in Acciaio zincato | 11 Nut Galvanized steel |
| 12 Camicia in Alluminio anodizzato | 12 Tube Anodized aluminium |
| 13 Testata posteriore in Alluminio Anodizzato | 13 Rear head In anodized aluminium |

Forze e Consumi / Forces And Consumptions

FORZE DI SPINTA E TIRO - THRUST AND TRACTION FORCES

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Forza sviluppata in N Output force in N												
Ø125	32	Spinta / Thrust = 12270 Trazione / Traction = 11458	1104	2208	3312	4416	5520	6624	7728	8832	9936	11040
			1032	2064	3096	4128	5160	6192	7224	8256	9288	10320
Ø160	40	Spinta / Thrust = 20096 Trazione / Traction = 18840	1774	3548	5322	7097	8871	10645	12419	14194	15968	17742
			1663	3326	4990	6653	8316	9980	11643	13307	14970	16633
Ø200	40	Spinta / Thrust = 31440 Trazione / Traction = 30144	2772	5544	8316	11089	13861	16633	19406	22178	24950	27723
			2661	5322	7984	10645	13307	15968	18629	21291	23952	26614
Ø250	50	Spinta / Thrust = 48750 Trazione / Traction = 46800	4331	8663	12995	17326	21658	25990	30322	34653	38985	43317
			4158	8316	12475	16663	20792	24950	29109	33267	37426	41584

CONSUMI CILINDRO - CYLINDER AIR CONSUMPTION

Ø Cilindro Ø Cylinder	Ø Stelo Ø Rod	Superficie utile in mm2 Working Surface in mm2	Pressione di lavoro in bar Operating pressure in bar									
			1	2	3	4	5	6	7	8	9	10
Consumo aria in NL per ogni 10mm. di corsa Air consumption in NL for each 10mm. of stroke												
Ø125	32	Spinta / Thrust = 12270	0.245	0.368	0.491	0.614	0.736	0.859	0.982	1.104	1.227	1.350
		Trazione / Traction = 11458	0.229	0.344	0.459	0.573	0.688	0.803	0.917	1.032	1.147	1.261
Ø160	40	Spinta / Thrust = 20096	0.402	0.603	0.804	1.005	1.206	1.407	1.608	1.809	2.010	2.211
		Trazione / Traction = 18840	0.377	0.565	0.754	0.942	1.130	1.319	1.507	1.696	1.884	2.072
Ø200	40	Spinta / Thrust = 31440	0.628	0.942	1.256	1.570	1.884	2.198	2.512	2.826	3.140	3.454
		Trazione / Traction = 30144	0.603	0.904	1.206	1.507	1.809	2.110	2.412	2.713	3.014	3.316
Ø250	50	Spinta / Thrust = 48750	0.981	1.472	1.963	2.453	2.948	3.434	3.925	4.415	4.906	5.400
		Trazione / Traction = 46800	0.942	1.413	1.884	2.355	2.826	3.297	3.768	4.239	4.710	5.181

Tabella dei codici di ordinazione - Ordering codes

P	F	M	0 3 2	0 0 2 5	H	I S	Varianti / Choices
							IS= Stelo inox IS= Stainless steel rod
							Tipo di montaggio / Mounting style
							T= Camicia alluminio profilo tondo con tiranti T= Anodized aluminium tube round profile with tie rods (125/250) mm.
							Corsa mm. / Stroke mm.
							5 - 10 - 15 - 20 - 25 - 30 - 35 - 40 - 45 - 50 - 55 - 60 - 65 - 70 - 75-80-100-125-150-160 - 200 - 250 - 300 - 320 - 350 - 400 - 450 - 500
							A richiesta corse intermedie o superiori Intermediate or higher strokes are available upon request.
							Diametro mm. / Diameter mm.
							32-40-50-63-80-100-125-160-200-250
							Versioni / Version
							= Standard Stelo femmina / Standard female rod M= Stelo Maschio / Male rod
							Esecuzione / Execution
							F= Doppio effetto magnetico / Double acting single rod magnetic J= Doppio effetto stelo passante magnetico / Double acting double rod magnetic

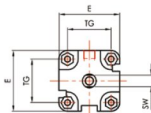
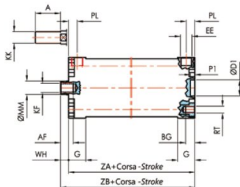
SERIE P

CORSE STANDARD mm. - STD STROKES

Ø mm.	25	50	75	80	100	125	150	160	200	250	300	320	350	400	450	500	600	700	800	900	1000
125	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
160	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
200	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
250	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

▲ **PF** **DOPIO EFFETTO MAGNETICO** - DOUBLE ACTING MAGNETIC

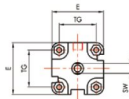
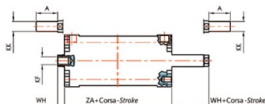
▲ **PJ** **DOPIO EFFETTO STELO PASSANTE MAGNETICO** - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END


PF-----T

Camicia in alluminio a profilo tondo.
Anodized aluminium tube round profile with tie rods.

DOPIO EFFETTO MAGNETICO - DOUBLE ACTING MAGNETIC

Ø mm.	A	E	G	TG	AF	BG	D1	EE	KF	KK	MM	P1	PL	RT	SW	WH	ZA	ZB
125	54	140	22.5	110	25	12	-	1/4"G	M14	M27X2	32	-	10	M12	27	10	78	88
160	72	180	26.5	140	30	13	-	3/8"G	M20	M36X2	40	-	12	M16	36	12	87	99
200	72	220	26.5	175	30	13	-	3/8"G	M20	M36X2	40	-	12	M16	36	12	87	99
250	84	270	35	220	30	16	-	1/2"G	M24X2	M42X2	50	-	16	M20	46	15	125	140


PJ-----T

Camicia in alluminio a profilo tondo.
Anodized aluminium tube round profile with tie rods.

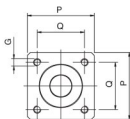
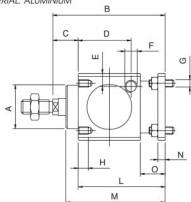
DOPIO EFFETTO STELO PASSANTE MAGNETICO - DOUBLE ACTING MAGNETIC WITH DOUBLE ROD END

Ø mm.	A	E	G	TG	AF	BG	D1	EE	KF	KK	MM	P1	PL	RT	SW	WH	ZA	ZB
125	54	140	22.5	110	25	12	-	1/4"G	M14	M27X2	32	-	10	M12	27	10	78	88
160	72	180	26.5	140	30	13	-	3/8"G	M20	M36X2	40	-	12	M16	36	12	87	99
200	72	220	26.5	175	30	13	-	3/8"G	M20	M36X2	40	-	12	M16	36	12	87	99
250	84	270	35	220	30	16	-	1/2"G	M24X2	M42X2	50	-	16	M20	46	15	125	140

Componenti di fissaggio per cilindri ISO6431 e ISO15552

Mounting Accessories for cylinders ISO6431 and ISO 15552

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

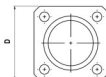


VRL

BLOCCASTELLO - PISTON ROD LOCK

Ø mm.	A	B	C	D	E	F	G	H	L	M	N	O	P	Q
32	30	86	26	33.25	9	1/8"G	M6	8	60	67.5	6	20	47	32.5
40	34.5	100	30	42.5	9	1/8"G	M6	8	70	80	6	20	54	38
50	40	127	37	58	12.5	1/8"G	M8	12	90	100	8	24	65	46.5
63	45	127	37	59	17.5	1/8"G	M8	12	90	100	8	24	75	56.5
80	45	156	46	69	17.5	1/4"G	M10	16	110	120	12	32	95	72
100	55	161	51	69	20	1/4"G	M10	16	110	120	12	32	114	89
125	60	205	65	84.5	19	1/4"G	M12	20	140	156	20	45	138	110

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

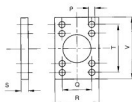


VFT

FLANGIA PER CILINDRO CONTRAPPOSTO - JOINING FLANGE

Codice / Code	Ø mm.	H	D
VFT032	32	55	45
VFT040	40	55	52
VFT050	50	68	65
VFT063	63	68	75
VFT080	80	92	95
VFT100	100	92	115
VFT125	125	120	140

MATERIALE: ACCIAIO
MATERIAL: STEEL

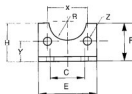
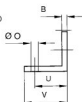


VFL

FLANGIA - FLANGE

Codice / Code	Ø mm.	P	Q	S	R	T	V
VFL032	32	7	32	10	45	64	80
VFL040	40	9	36	10	52	72	90
VFL050	50	9	45	12	65	90	110
VFL063	63	9	50	12	75	100	120
VFL080	80	12	63	16	95	126	150
VFL100	100	14	75	16	115	150	170
VFL125	125	16	90	20	140	180	205
VFL160	160	18	115	20	180	230	260
VFL200	200	22	135	25	220	270	300
VFL250	250	26	165	25	285	330	400
VFL320	320	33	200	30	350	400	470

MATERIALE: ACCIAIO
MATERIAL: STEEL

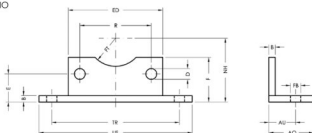


VCP

PIEDINO BASSO - LOW - RISE PEDESTAL

Codice / Code	Ø mm.	B	C	E	F	O	U	V	R	Z	X	Y	H
VCP032	32	4	32	45	30	7	24	35	15	7	32.5	15.75	32
VCP040	40	4	36	52	30	10	28	36	17.5	7	38	17	36
VCP050	50	5	45	65	36	10	32	47	20	9	46.5	21.75	45
VCP063	63	5	50	75	35	10	32	45	22.5	9	56.5	21.75	50
VCP080	80	6	63	95	47	12	41	55	22.5	11	72	27	63
VCP100	100	6	75	115	53	14.5	41	57	27.5	11	89	26.5	71
VCP125	125	8	90	140	70	16.5	45	70	30	14	110	35	90
VCP160	160	9	115	180	115	18	60	75	32.5	18	140	45	115
VCP200	200	12	135	220	135	21	70	100	37.5	18	175	47.5	135
VCP250	250	14	165	270	165	26	75	100	45	22	220	55	165

MATERIALE: ACCIAIO
MATERIAL: STEEL

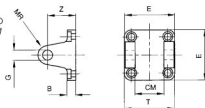


VCB

PIEDINO BASSO LARGO - LARGE LOW - RISE PEDESTAL

Codice / Code	Ø mm.	US	ED	F	AO	B	TR	E	D	FT	NH	R	AU	FB
VCB032	32	79	45	30	30	5	65	15.75	6.5	15	32	32.5	18	6.5
VCB040	40	90	55	30	30	5	75	17	6.5	17.5	36	38	18	6.5
VCB050	50	110	65	35	35	5	90	21.75	8.5	22.5	50	56.5	21	8.5
VCB063	63	120	75	35	35	5	100	21.75	8.5	22.5	50	56.5	21	8.5
VCB080	80	153	95	45	45	6	128	26.5	10.5	22.5	63	72	27	10.5
VCB100	100	178	115	45	45	6	148	27	10.5	27.5	71	89	27	10.5

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

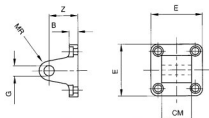


VCF

CERNIERA FEMMINA CON BOCCOLE AUTOLUBRIFICANTI - FEMALE CLEVIS BRACKET SELF-LUBRICATING

Codice / Code	Ø mm.	B	E	G	T	Z	CM	MR
VCF032	32	9	45	10	45	22	26	10
VCF040	40	9	52	12	52	25	28	12
VCF050	50	11	65	12	60	27	32	12
VCF063	63	11	75	16	70	32	40	16
VCF080	80	14	95	16	90	36	50	16
VCF100	100	14	115	20	110	41	60	20
VCF125	125	20	140	25	130	50	70	25
VCF160	160	20	180	30	170	55	90	25
VCF200	200	25	220	30	170	60	90	25

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

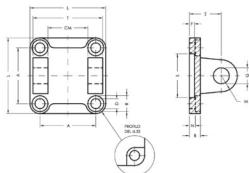


VCM

CERNIERA MASCHIO - MALE CLEVIS BRACKET

Codice / Code	Ø mm.	B	E	G	Z	CM	MR
VCM032	32	9	45	10	22	26	10
VCM040	40	9	52	12	25	28	12
VCM050	50	11	65	12	27	32	12
VCM063	63	11	75	16	32	40	16
VCM080	80	14	95	16	36	50	16
VCM100	100	14	115	20	41	60	20
VCM125	125	20	140	25	50	70	25
VCM160	160	20	180	30	55	90	25
VCM200	200	25	220	30	60	90	25
VCM250	250	25	270	40	70	110	40

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

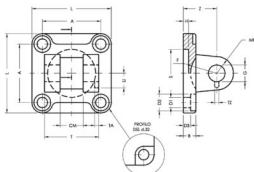


VCH

CERNIERA FEMMINA - FEMALE CLEVIS BRACKET

Codice / Code	Ø mm.	A	L	D	R	N	B	S	F	Z	G	M	CM	T
VCH032	32	32.5	45	6.6	11	5.5	9	30	5	22	10	10	26	45
VCH040	40	38	52	6.6	11	5.5	9	35	5	25	12	12	28	52
VCH050	50	46.5	65	9	15	6.5	11	40	5	27	12	12	32	60
VCH063	63	56.5	75	9	15	6.5	11	45	5	32	16	16	40	70
VCH080	80	72	95	11	18	10	14	45	5	36	16	16	50	90
VCH100	100	89	115	11	18	10	14	55	5	41	20	20	60	110
VCH125	125	110	140	14	20	10	20	60	7	50	25	25	70	130
VCH160	160	140	180	18	26	10	20	65	7	55	30	25	90	170
VCH200	200	175	220	18	26	11	25	75	7	60	30	25	90	170
VCH250	250	220	270	22	33	11	25	90	-	70	40	40	110	200

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

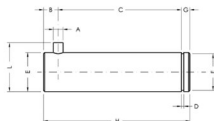


VCD

CERNIERA FEMMINA STRETTA PER ARTICOLAZIONE A SQUADRA CON TESTINA SNODATA DIN648K
NARROW FEMALE HINGE FOR SQUARE JOINT WITH ARTICULATED HEAD DIN648K

Codice / Code	Ø mm.	L	T	CM	A	Z	H	B	D3	S	G	MR	D1	D22	TA	TZ	LI	F
VCD032	32	45	34	14	32.5	22	5	9	5.5	30	10	10	6.6	11	3	3.3	11.5	17
VCD040	40	52	40	16	38	25	5	9	5.5	35	12	12	6.6	11	4	4.3	12	20
VCD050	50	65	45	21	46.5	27	5	11	6.5	40	16	14	9	15	4	4.3	14	22
VCD063	63	75	51	21	56.5	32	5	11	6.5	45	16	18	9	15	4	4.3	14	25
VCD080	80	95	65	25	72	36	5	14	10	45	20	20	11	18	4	4.3	16	30
VCD100	100	115	75	25	89	41	5	14	10	55	20	22	11	18	4	6.3	16	32
VCD125	125	140	97	37	110	50	7	20	10	60	30	25	14	20	6	6.3	24	42
VCD160	160	180	122	43	140	55	7	20	10	65	35	30	18	26	6	6.3	26.5	46
VCD200	200	220	122	43	175	60	7	25	11	75	35	30	18	26	6	6.3	26.5	49

MATERIALE: ACCIAIO
MATERIAL: STEEL

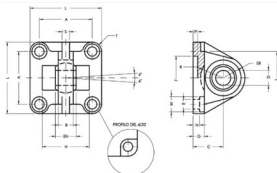


VPS

PERNO ANTIROTAZIONE PER CERNIERA FEMMINA STRETTA VCD - PIN ANTI-ROTATION FOR NARROW FEMALE HINGE VCD

Codice / Code	Ø mm.	A	C	D	E	F	G	H	L	B
VPS032	32	3	32.5	1.1	10	9.6	4	41	14	4.5
VPS040	40	4	38	1.1	12	11.5	4	48	16	6
VPS050	50	4	43	1.1	16	15.2	5	60	20	6
VPS063	63	4	49	1.1	16	15.2	5	60	20	6
VPS080	80	4	63	1.3	20	19	6	75	24	6
VPS100	100	4	73	1.3	20	19	6	85	24	6
VPS125	125	6	94	1.6	30	28.6	7	110	36	9
VPS160	160	6	119	1.6	35	33	7	135	41	9
VPS200	200	6	119	1.6	35	33	7	135	41	9

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM



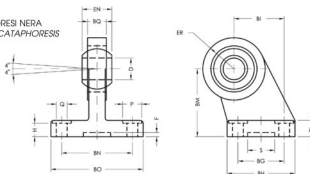
VCS

CERNIERA MASCHIO STRETTA CON TESTINA SNODATA DIN648K - NARROW MALE HINGE WITH ARTICULATED HEAD DIN648K

Codice / Code	Ø mm.	A	B	C	D	EN	ER	F	G	E	L	M	N	P	H	R	S	Z	T
VCS032	32	32.5	10.5	22	10	14	16	30	9	6.6	45	11	5.5	5	-	-	4	32.5	6.25
VCS040	40	38	12	25	12	16	19	35	9	6.6	52	11	5.5	5	-	-	6	39	7
VCS050	50	46.5	15	27	16	21	21	40	11	9	65	15	6.5	5	51	18	8	47	9.25
VCS063	63	56.5	15	32	16	21	24	45	11	9	75	15	6.5	5	-	-	8	52	9.25
VCS080	80	72	18	36	20	25	28.5	45	14	11	95	18	10	5	72	24	10	67	11.5
VCS100	100	89	18	41	20	25	30	55	14	11	115	18	10	8	-	-	10	77	13
VCS125	125	110	25	50	30	37	40	60	20	13.5	140	20	10	7	-	-	13	98	15
VCS160	160	140	28	55	35	43	45	65	20	18	180	26	10	7	-	-	14	130	20
VCS200	200	175	28	60	35	43	48	75	25	18	220	26	11	7	-	-	14	155	22.5

MATERIALE: ACCIAIO
MATERIAL: STEEL

TRATTAMENTO: CATAFORESI NERA
TRATTAMENTO: BLACK CATHOPHORESIS

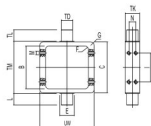


VAD

ARTICOLAZIONE A QUADRA CON TESTINA SNODATA DIN648K - SQUADRE JOINT WITH ARTICULATED HEAD DIN648K

Codice / Code	Ø mm.	Q	P	BG	BH	BI	BL	BM	BN	BO	EN	ER	BQ	D	H	S	F
VAD032	32	6.6	11	18	31	21	10	32	38	51	14	15	10.5	10	8.5	20	3
VAD040	40	6.6	11	22	35	24	10	36	41	54	16	18	12	12	8.5	20	3
VAD050	50	9	15	30	45	33	12	45	50	65	21	20	15	16	10.5	20	3
VAD063	63	9	15	35	50	37	12	50	52	67	21	23	15	16	10.5	20	3
VAD080	80	11	18	40	60	47	14	63	66	86	25	27	18	20	11.5	20	3
VAD100	100	11	18	50	70	55	15	71	76	96	25	30	18	20	12.5	20	3
VAD125	125	13.5	20	60	90	70	20	90	94	124	37	40	25	30	17	20	3

MATERIALE: ACCIAIO
MATERIAL: STEEL

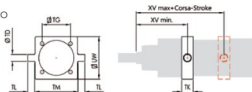


XCN

CERNIERA INTERMEDIA - INTERMEDIATE HINGE

Codice / Code	Ø mm.	UW	B	C	TD	E	F	G	TK	I	TL	M	N	TM
XCN032	32	70	45	50	12	-	5	4	18	28	12	M5	7	50
XCN040	40	78	53	62	16	20	5	5	20	32	16	M5	8	63
XCN050	50	91	64	74	16	20	6	6	20	40	16	M6	8	75
XCN063	63	94	74	88	20	25	6	6	25	50	20	M6	12	90
XCN080	80	130	93	109	20	25	7	7	25	64	20	M8	12	110
XCN100	100	145	110	130	25	30	8	8	30	80	25	M8	15	132
XCN125	125	154	134	155	25	32	8	8	32	100	25	M10	15	160

MATERIALE: ACCIAIO
MATERIAL: STEEL

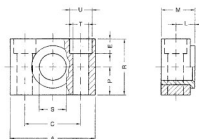


VCNT

CERNIERA INTERMEDIA - INTERMEDIATE HINGE

Codice / Code	Ø mm.	TD	TG	TK	TL	TM	UW	XV min	XV max
VCNT032	32	12	32.5	15	12	50	46	61.5	84.5
VCNT040	40	16	38	20	16	63	59	71.5	93.5
VCNT050	50	16	46.5	20	16	75	69	78.5	101.5
VCNT063	63	20	56.5	25	20	90	84	84.5	110.5
VCNT080	80	20	72	25	20	110	102	94.5	126.5
VCNT100	100	25	89	30	25	132	125	107	133
VCNT125	125	25	110	32	25	160	155	126	163
VCNT160	160	32	140	40	32	200	190	149	191
VCNT200	200	32	175	40	32	250	240	164	206
VCNT250	250	40	220	50	40	320	296	187	223

MATERIALE: ACCIAIO
MATERIAL: STEEL

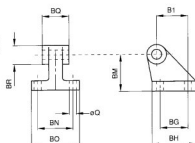


VSI

SUPPORTO CERNIERA INTERMEDIA - SUPPORT FOR INTERMEDIATE HINGE

Codice / Code	Ø mm.	A	M	R	P	C	S	L	U	T	E
VSI032	32	46	18	30	15	32	12	10.5	11	6.6	7
VSI040	40 - 50	55	21	36	18	36	16	12	15	9	9
VSI063	63 - 80	65	23	40	20	42	20	13	18	11	11
VSI100	100 - 125	75	28.5	50	25	50	25	16	20	14	13
VSI160	160 - 200	92	40	60	30	60	32	22.5	26	18	17
VSI250	250	140	56	70	35	90	40	31	33	22	20

MATERIALE: ALLUMINIO
MATERIAL: ALUMINIUM

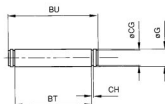


VAS

ARTICOLAZIONE A SQUADRA - SQUARE JOINT

Codice / Code	Ø mm.	Q	BQ	BH	B1	BM	BN	BO	BQ	BR
VAS032	32	6.6	18	31	21	32	38	51	26	20
VAS040	40	6.6	22	35	24	36	41	54	28	22
VAS050	50	9	30	45	33	45	50	65	32	26
VAS063	63	9	35	50	37	50	52	67	40	30
VAS080	80	11	40	60	47	63	66	86	50	30
VAS100	100	11	50	70	55	71	76	96	60	38
VAS125	125	14	60	90	70	90	94	124	70	45
VAS160	160	14	88	126	97	115	118	156	90	63
VAS200	200	18	90	130	105	135	122	162	90	63

MATERIALE: ACCIAIO
MATERIAL: STEEL

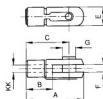


VPE

PERNO PER CERNIERA CON SEEGER - PIN WITH SEEGER

Codice / Code	Ø mm.	G	BT	BU	CG	CH
VPE032	32	10	46	53	9.6	1.1
VPE040	40	12	53	60	11.5	1.1
VPE050	50	12	61	68	11.5	1.1
VPE063	63	16	71	78	15.2	1.1
VPE080	80	16	91	98	15.2	1.1
VPE100	100	20	111	118	19	1.3
VPE125	125	25	132	139	23.9	1.3
VPE160	160	30	171.5	178	28.6	1.6
VPE200	200	30	171.5	178	28.6	1.6
VPE250	250	40	202	211	37.5	1.85
VPE320	320	45	222	236	42.5	1.85

MATERIALE: ACCIAIO
MATERIAL: STEEL



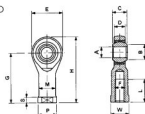
FC

FORCELLA CON CLIPS IN ACCIAIO ZINCATO - YOKE WITH LOCABLE PIN

Codice / Code	Ø mm.	A	B	C	E	F	G	KK
FC025	25 - 32	52	20	40	20	10	10	M10x1.25
FC040	40	62	24	48	24	12	12	M12x1.25
FC050	50 - 63	83	32	64	32	16	16	M16x1.5
FC080	80 - 100	105	40	80	40	20	20	M20x1.5
FC125	*125	148	56	110	55	30	30	M27x2
FC160	160 - 200	188	72	144	70	35	35	M36x2
FC250	250	232	84	168	85	42	42	M42x2
FC320	320	265	96	192	96	50	50	M48x2

* Con perno e seeger - With pin and seeger

MATERIALE: ACCIAIO
MATERIAL: STEEL

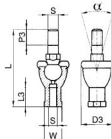


TF

TESTE DI BIELLA AUTOLUBRIFICANTI - ROD ENDS SELF-LUBRICATING

Codice Code	ø mm.	A	B	C	Ø	D	E	F	G	H	L	M	P	S	W	Carico radiale Dinamico	Statico	Peso
		H7	g	h	SPERA	±0.13	±0.5		±0.5		±0.7	±0.7	±0.5	±0.7	±0.2 ±0.25	kg	kg	g
TF025	25 - 32	10	12.9	14	19.05	11.5	30	M10x1.25	43	58	15	15	19	6.5	16	1.200	3.100	88
TF040	40	12	15.4	16	22.23	12.5	34	M12x1.25	50	67	18	17.5	22	6.5	18	1.400	3.700	120
TF050	50 - 63	16	19.3	21	28.58	15.5	42	M16x1.5	64	85	24	22	27	8	24	2.500	6.300	240
TF080	80 - 100	20	24.4	25	34.93	18.5	50	M20x1.5	77	102	30	27.5	34	10	30	3.700	8.300	430
TF125	125	28	32.3	35	47.59	26	66	M27x2	103	136	41	37	46	14	41	7.100	14.200	1.120
TF160	160 - 200	35	-	43	-	-	-	M36x2	125	-	56	-	58	-	-	-	-	1.600
TF250	250	40	-	49	-	-	-	M42x2	142	-	60	-	65	-	-	-	-	2.800
TF320	320	50	-	60	-	-	-	M48x2	162	-	65	-	75	-	-	-	-	5.000

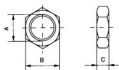
MATERIALE: ACCIAIO
MATERIAL: STEEL



TS

FORCELLA SNODABILE - SNODABLE YOKE

Codice / Code	Ø mm.	S	L	L3	W	P3	D3	α°
TS025	25 - 32	M10x1.25	74.5	18	17	15	28	30°
TS040	40	M12x1.25	84	20	19	17	32	30°
TS050	50 - 63	M16x1.5	112	27	22	23	40	22°
TS080	80 - 100	M20x1.5	133	38	30	25	45	15°



DA

DADO PER STELI - NUT FOR RODS

Codice / Code	Ø mm.	A	B	C
ODA000051C9Zl	25	M10x1,25	17	8
ODA000051C9Zl	32	M10x1,25	17	8
ODA000051D5Zl	40	M12x1,25	19	7
ODA000051E3Zl	50	M16x1,5	22	6
ODA000051E3Zl	63	M16x1,5	22	6
ODA000051F2Zl	80 - 100	M20x1,5	30	9
ODA000051G6Zl	125	M27x2	41	12
EDA000051H6Zl	160 - 200	M36x2	55	18
EDA000051L0Zl	250	M42x2	65	20
EDA000051DGZl	320	M48x2	75	24

Unità di Guida / Guide Units

Le unità di guida sono accessori per i cilindri a norme ISO 6431 VDMA e ISO 6432. Sono da utilizzare nel caso in cui si abbia la necessità di movimentare carichi elevati ad alte velocità di traslazione con posizionamenti di precisione. Grazie a questa precisione, le guide sono particolarmente adatte a comporre sistemi per il caricamento delle macchine utensili, per l'imballaggio e la realizzazione di manipolatori in genere. Le unità di guida sono disponibili per i seguenti cilindri:

Alesaggi: Da 12 a 100 mm
Corse: Da 50 a 500 mm

ISO 6431 VDMA (Ø32-Ø100)
ISO 6432 (Ø12-Ø25)

The guide units are accessories for cylinders ISO 6431 VDMA and ISO 6432. They have to be used in case high loads have to be moved at high translation speed with precision locating. Thanks to this precision, the guide units are particularly suitable to create loading system for tooling machines, for packaging operations and generally speaking to realise manipulations units. The guide units are available for the following cylinders:

Bores: From 12 to 100 mm
Strokes: From 50 to 500 mm

ISO 6431 VDMA (Ø32-Ø100)
ISO 6432 (Ø12-Ø25)

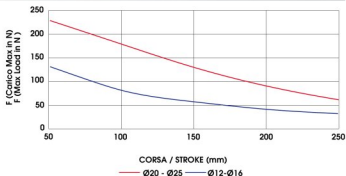


Esempio D'ordine / How to Order

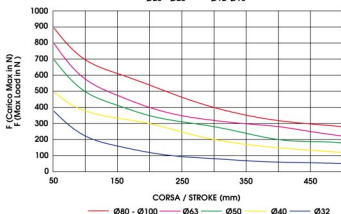


Grafici Unità di Guida / Charts Guide Units

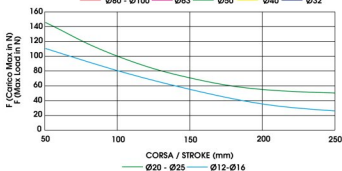
Art. MLCHB
Unità di guida con bussole
in bronzo
Guide units with self
lubricating sintered bush



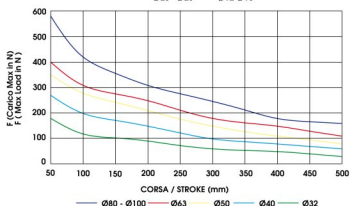
Art. VLCHB
Unità di guida con bussole
in bronzo
Guide units with self
lubricating sintered bush

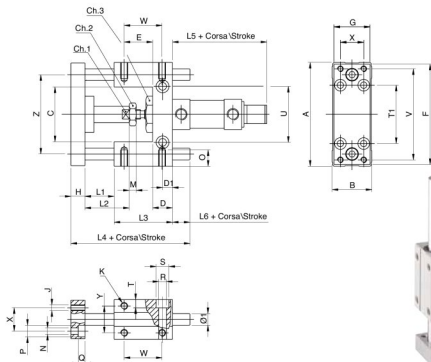


Art. MLCHC
Unità di guida con cuscinetti
a ricircolo di sfere
Guide units with recirculating
ball bearing



Art. VLCHC
Unità di guida con cuscinetti
a ricircolo di sfere
Guide units with recirculating
ball bearing





Ø mm.	A	B	C	Ch1	Ch2	Ch3	D	D1	E	F	G	H	Ø1	J	K	L1	L2	L3	L4	L5	L6
12 - 16	69	30	30	8	10	24	12	5.5	19.5	66	29	10	10	M4	M4	3	15	38	66.5	73	15.5
20	79	34	37	12	13	27	17	8.75	24.25	78	32	12	12	M5	M6	5	18	48	83	87	18
25	79	34	37	12	17	27	17	8.75	24.25	78	32	12	12	M5	M6	5	18	48	83	91	18
Ø mm.	M	N	O	P	Q	R	S	T	T1	U	V	W	X	Y	Z						
12 - 16	6	4.5	6	7.5	4.5	5.5	9	5.5	32	24	58	25	18	22	49.5						
20	8	5.5	9	10	7.5	6.5	11	6.5	38	38	68	32.5	20	23	58						
25	8	5.5	9	10	7.5	6.5	11	6.5	38	38	68	32.5	20	23	58						

MLCUB

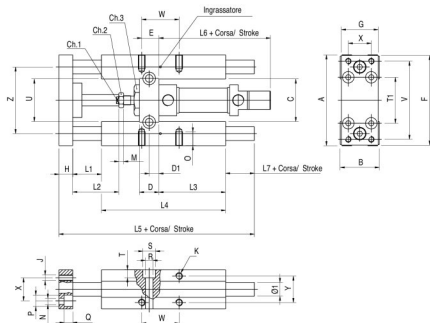
UNITA' DI GUIDA AD "U" CON BUSSELE IN BRONZO

GUIDE UNIT "U" WITH SELF LUBRICATING SINTERED BRONZE

ISO6432

CORSE STANDARD mm. - STD STROKES

Ø mm.	50	100	160	200
12 - 16	X	X	X	X
20	X	X	X	X
25	X	X	X	X



Ø mm.	A	B	C	Ch1	Ch2	Ch3	D	D1	E	F	G	H	Ø1	J	K	L1	L2	L3	L4	L5	L6
12 - 16	69	30	30	8	10	24	12	6	8	66	29	10	10	M4	M4	25	18	46	68	123.5	73
20	79	34	37	12	13	27	17	8.5	15	78	32	12	12	M5	M6	25	40	58	108	166	87
25	79	34	37	12	17	27	17	8.5	15	78	32	12	12	M5	M6	25	40	58	108	166	91

Ø mm.	L7	M	N	O	P	Q	R	S	T	T1	U	V	W	X	Y	Z
12 - 16	12	6	4.5	6	8	4.5	5.5	9	5.5	32	24	58	18	18	22	49.5
20	10	8	5.5	9	10	7.5	6.5	11	6.5	38	38	68	32.5	20	23	58
25	10	8	5.5	9	10	7.5	6.5	11	6.5	38	38	68	32.5	20	23	58

MLCHB

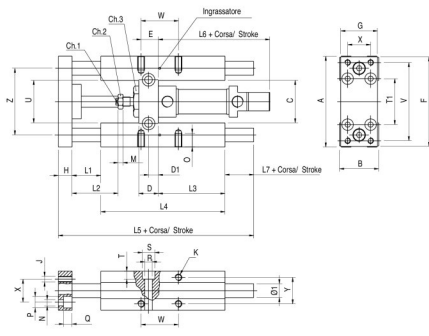
UNITÀ DI GUIDA AD "H" CON BUSSE IN BRONZO

GUIDE UNIT "H" WITH SELF LUBRICATING SINTERED BRONZE

ISO6432

CORSE STANDARD mm. - STD STROKES

Ø mm.	50	100	160	200	250
12 - 16	X	X	X	X	X
20	X	X	X	X	X
25	X	X	X	X	X



Ø mm.	A	B	C	Ch1	Ch2	Ch3	D	D1	E	F	G	H	Ø1	J	K	L1	L2	L3	L4	L5	L6
12 - 16	69	30	30	8	10	24	12	6	8	66	29	10	10	M4	M4	25	18	46	68	123.5	73
20	79	34	37	12	13	27	17	8.5	15	78	32	12	12	M5	M6	25	40	58	108	166	87
25	79	34	37	12	17	27	17	8.5	15	78	32	12	12	M5	M6	25	40	58	108	166	91

Ø mm.	L7	M	N	O	P	Q	R	S	T	T1	U	V	W	X	Y	Z
12 - 16	12	6	4.5	6	8	4.5	5.5	9	5.5	32	24	58	18	18	22	49.5
20	10	8	5.5	9	10	7.5	6.5	11	6.5	38	38	68	32.5	20	23	58
25	10	8	5.5	9	10	7.5	6.5	11	6.5	38	38	68	32.5	20	23	58

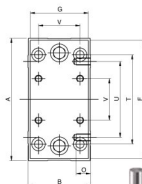
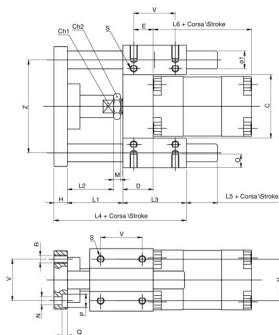
MLCHC

UNITÀ DI GUIDA AD "H" CON CUSCINETTI A RICIRCOLO DI SFERE
GUIDE UNIT "H" WITH RECIRCULATING BALL SLEEVES

ISO6432

CORSE STANDARD mm. - STD STROKES

Ø mm.	50	100	160	200	250
12 - 16	X	X	X	X	X
20	X	X	X	X	X
25	X	X	X	X	X



Ø mm.	A	B	C	Ch1	Ch2	D	E	F	G	H	Ø1	L1	L2	L3	L4	L5	L6	M	N	O
32	97	49	51	15	17	17	9.25	93	45	12	12	42	25	48	102	18	97	8	6.6	12
40	115	58	58.5	15	19	21	11	112	55	12	16	43	24	58	113	17	109	7	6.6	12
50	137	70	70.2	20	24	25	18.8	134	65	15	20	49	30	59	123	20	110	6	9	16
63	152	85	85.2	20	24	25	15.3	147	80	15	20	49	30	76	140	21	125	6	9	16

Ø mm.	P	Q	R	S	T	U	V	Z
32	11	6.5	M6	M6	78	61	32.5	74
40	11	6.5	M6	M6	84	69	38	87
50	15	8.5	M8	M8	100	85	46.5	104
63	15	9	M8	M8	105	100	56.5	119

VLCUB

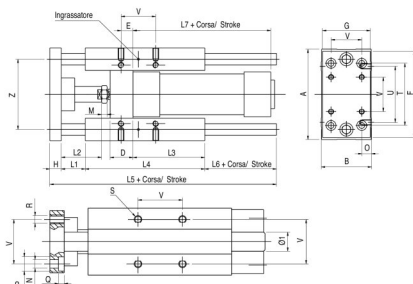
UNITÀ DI GUIDA AD "U" CON BUSSOLE IN BRONZO

GUIDE UNIT "U" WITH SELF LUBRICATING SINTERED BRONZE

ISO6431

CORSE STANDARD mm. - STD STROKES

Ø mm.	50	100	160	200	250	320	400	500
32	X	X	X	X	X	X	X	X
40	X	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X	X
63	X	X	X	X	X	X	X	X



Ø mm.	A	B	C	Ch1	Ch2	D	E	F	G	H	Ø1	L1	L2	L3	L4	L5	L6	L7	M	N	O
32	97	49	51	15	17	24	4.3	93	45	12	12	25	42	75	125	187	25	97	8	6.6	12
40	115	58	58.2	15	19	28	11	112	55	12	16	25	42	80	140	207	30	109	7	6.6	12
50	137	70	70.2	20	24	34	18.8	134	65	15	20	25	50	78	148	223	35	110	6	9	16
63	152	85	85.2	20	24	34	15.3	147	80	15	20	25	50	106	178	243	25	125	6	9	16
80	189	105	105.5	26	30	50	25	180	100	20	25	25	50	111	195	267	27	133	9	11	20
100	213	130	130.5	26	30	55	30	206	120	20	25	25	50	128	218	290	27	144	9	11	20

Ø mm.	P	Q	R	S	T	U	V	Z
32	11	6.5	M6	M6	78	61	32.5	74
40	11	6.5	M6	M6	84	69	38	87
50	15	8.5	M8	M8	100	85	46.5	104
63	15	9	M8	M8	105	100	56.5	116
80	18	11	M10	M10	130	130	72	148
100	16.5	11	M10	M10	150	150	89	173

VLCHB

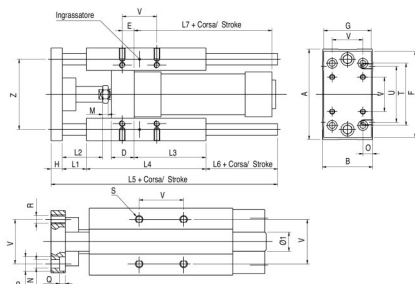
UNITA' DI GUIDA AD "H" CON BUSSOLE IN BRONZO

GUIDE UNIT "H" WITH SELF LUBRICATING SINTERED BRONZE

ISO6431

CORSE STANDARD mm. - STD STROKES

Ø mm.	50	100	160	200	250	320	400	500
32	X	X	X	X	X	X	X	X
40	X	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X	X
63	X	X	X	X	X	X	X	X
80	X	X	X	X	X	X	X	X
100	X	X	X	X	X	X	X	X



Ø mm.	A	B	C	Ch1	Ch2	D	E	F	G	H	Ø1	L1	L2	L3	L4	L5	L6	L7	M	N	O
32	97	49	51	15	17	24	4.3	93	45	12	12	25	42	75	125	187	25	97	8	6.6	12
40	115	58	58.2	15	19	28	11	112	55	12	16	25	42	80	140	207	30	109	7	6.6	12
50	137	70	70.2	20	24	34	18.8	134	65	15	20	25	50	78	148	223	35	110	6	9	16
63	152	85	85.2	20	24	34	15.3	147	80	15	20	25	50	106	178	243	25	125	6	9	16
80	189	105	105.5	26	30	50	25	180	100	20	25	25	50	111	195	267	27	133	9	11	20
100	213	130	130.5	26	30	55	30	206	120	20	25	25	50	128	218	290	27	144	9	11	20

Ø mm.	P	Q	R	S	T	U	V	Z
32	11	6.5	M6	M6	78	61	32.5	74
40	11	6.5	M6	M6	84	69	38	87
50	15	8.5	M8	M8	100	85	46.5	104
63	15	9	M8	M8	105	100	56.5	116
80	18	11	M10	M10	130	130	72	148
100	16.5	11	M10	M10	150	150	89	173

VLCHC

UNITÀ DI GUIDA AD "H" CON CUSCINETTI A RICIRCOLO DI SFERE

GUIDE UNIT "H" WITH RECIRCULATING BALL SLEEVES

ISO6431

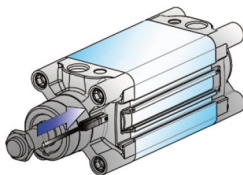
CORSE STANDARD mm. - STD STROKES

Ø mm.	50	100	160	200	250	320	400	500
32	X	X	X	X	X	X	X	X
40	X	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X	X
63	X	X	X	X	X	X	X	X
80	X	X	X	X	X	X	X	X
100	X	X	X	X	X	X	X	X

Sensori Magnetici Serie DSL / Magnetic Switches DSL Serie

Sensori DSL con inserimento longitudinale per i seguenti modelli di cilindri:

DSL sensor lengthwise assembly for the following models of cylinders:



Minicilindri / Mini Cylinders



Minicilindri Inox / Mini Cylinders Inox



Cilindri A95 / Cylinders A95



Cilindri Compatti / Compact Cylinders



Cilindri Corsa Breve / Short Stroke



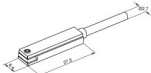
Cilindri Serie X / Cylinders X Series

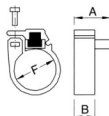


Cilindri Serie X / Cylinders X Series



Caratteristiche tecniche / Technical data

DESCRIZIONE DESCRIPTION	VERSIONE REED - REED VERSION		VERSIONE HALL - HALL VERSION	
	CODICE CODE: DSL1C225	CODICE CODE: DSL1M8	CODICE CODE: DSL4C225	CODICE CODE: DSL4M8
				
Connessione Connection	Cavo Cable	Connettore M8 M8 Connection	Cavo Cable	Connettore M8 M8 Connection
Tensione d'esercizio Voltage range	3-130 V AC/DC	3-130 V AC/DC	10-30 V DC	10-30 V DC
Corrente max a 25°C Max current at 25°C	50 mA	50 mA	200 mA	200 mA
Potenza max/carico resistivo Max power/resistive load	10W	10W	6W	6W
Caduta di tensione max Max voltage drop	3.2V	3.2V	0.8V	0.8V
Contatto d'uscita Contact type	N.O.	N.O.	N.O.	N.O.
Segnalazione di commutazione Output status indicator	LED giallo/yellow	LED giallo/yellow	LED giallo/yellow	LED giallo/yellow
Tempo di inserzione Response time	0.5 ms max	0.5 ms max	0.2 ms max	0.2 ms max
Tempo di rilascio Decay time	0.1 ms max	0.1 ms max	0.1 ms max	0.1 ms max
Vita elettrica cicli (carico resistivo) Electric life (resistive load)	4x10 ⁷	4x10 ⁷	4x10 ⁷	4x10 ⁷
Tipo di cavo Cable type	PVC	PVC	PVC	PVC
Temperatura d'esercizio Working temperature	-20 +70°C	-20 +70°C	-20 +70°C	-20 +70°C
Grado di protezione Protection degree	IP 68	IP 68	IP 68	IP 68
Lunghezza cavo Cable length	2.5mt.	0.3mt.	2.5mt.	0.3mt.
USCITA OUTPUT	-	-	PNP	PNP
Colore cavo Cable colour	nero black	nero black	nero black	nero black
Fill Wires	2	2	3	3
Transitori extracorrente Overcurrent transients	Si-Yes	Si-Yes	No	No
Transitori extra tensione Overvoltage transients	No	No	No	No
Inversione di polarità Polarity reversal	Si-Yes	Si-Yes	Si-Yes	Si-Yes
Corto circuito Short circuit	No	No	No	No
Resistenza alla corrosione Corrosion resistance	3	3	3	3
Esplosione Alex explosion Alex	No	No	No	No
Tipo di cavo Slot type	T	T	T	T
Tipo di montaggio al cilindro Type of mounting to the cylinder	Solo longitudinale Longitudinal only	Solo longitudinale Longitudinal only	Solo longitudinale Longitudinal only	Solo longitudinale Longitudinal only
Schema circuito Circuit diagram				
DISEGNO DRAW				

Staffa per sensori DSL da usare con minicilindro ISO 6432 e cilindri serie A95
Bracket for DSL to use with minicylinders ISO 6432 and Cylinders A95 Serie


Codice / Code	Ø mm.	F = Ø	A	B
MF008	8	9.4 mm	14	8
MF010	10	11.3 mm	14	8
MF012	12	13.3 mm	14	8
MF016	16	17.3 mm	14	8
MF020	20	21.3 mm	14	8
MF025	25	26.3 mm	14	8
AFX032	32	33.5 mm	14	8
AFX040	40	41.5 mm	14	8
AFX050	50	52 mm	14	8
AFX063	63	65 mm	14	8

Prolunga a Tre fili / Three Wires Extension

PX

CODE	LUNGHEZZA / LENGTH
PX3000	3000 mm
PX5000	5000 mm

Sensori Magnetici Serie DSH / Magnetic Switches DSH Serie

Sensori DSH con montaggio dall'alto
per i seguenti modelli di cilindri:
*DSH sensor above assembly for the
following models of cylinders:*

Minicilindri / Mini Cylinders



Minicilindri Inox / Mini Cylinders Inox



Cilindri Corsa Breve / Short Stroke



Cilindri Serie X / Cylinders X Series



Cilindri Serie NHA / Cylinders NHA Series



Cilindri Compatti / Compact Cylinders



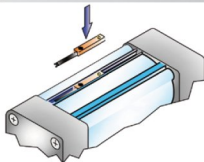
Cilindri Serie X / Cylinders X Series



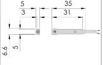
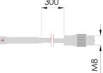
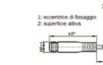
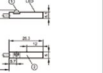
Cilindri Serie E / Cylinders E Series



Cilindri Serie P / Cylinders P Series



Caratteristiche tecniche / Technical data

DESCRIZIONE DESCRIPTION	VERSIONE REED - REED VERSION		VERSIONE ELETTRONICO ELECTRONIC VERSION	
	CODICE CODE : DSH2R2F20	CODICE CODE : DSH2R2FM8	CODICE CODE : DSH4H3F20	CODICE CODE : DSH4H3FM8
				
Connessione Connection	Cavo Cable	Connettore M8 M8 Connection	Cavo Cable	Connettore M8 M8 Connection
Tensione d'esercizio Voltage range	5-120 V AC/DC	5-120 V AC/DC	10-30 V DC	10-30 V DC
Corrente max a 25°C Max current at 25°C	100 mA	100 mA	100 mA	100 mA
Potenza max/carico resistivo Max power/resistive load	10W	10W	-	-
Caduta di tensione max Max voltage drop	<5V	<5V	<2.5V	<2.5V
Contatto d'uscita Contact type	N.O.	N.O.	N.O. PNP	N.O. PNP
Segnalazione di commutazione Output status indicator	LED giallo/yellow	LED giallo/yellow	LED giallo/yellow	LED giallo/yellow
Tempo di inserzione Response time	0.5 ms max	0.5 ms max	-	-
Tempo di rilascio Decay time	0.1 ms max	0.1 ms max	<30 ms	<30 ms
Vita elettrica cicli (carico resistivo) Electric life (resistive load)	10 ⁷	10 ⁷	INFINITA	INFINITA
Tipo di cavo Cable type	PVC	PVC	PUR	PUR
Temperatura d'esercizio Working temperature	-20 +70°C	-20 +70°C	-25 +85°C	-25 +85°C
Grado di protezione Protection degree	IP 67 II	IP 67 II	IP 67	IP 67
Lunghezza cavo Cable length	2.5mt.	0.3mt.	2 mt.	0.3mt.
USCITA OUTPUT	-	-	-	-
Colore cavo Cable colour	nero black	nero black	nero black	nero black
Fili Wires	2	2	3	3
Transitori extracorrente Overcurrent transients	Si-Yes	Si-Yes	No	No
Transitori extra tensione Overvoltage transients	No	No	No	No
Inversione di polarità Polarity reversal	Si-Yes	Si-Yes	Si-Yes	Si-Yes
Corto circuito Short circuit	No	No	No	No
Resistenza alla corrosione Corrosion resistance	3	3	3	3
Esplosione ATEX explosion ATEX	No	No	No	No
Tipo di cavo Slot type	T	T	T	T
Tipo di montaggio al cilindro Type of mounting to the cylinder	Assiale e longitudinale Axial and Longitudinal	Assiale e longitudinale Axial and Longitudinal	Assiale e longitudinale Axial and Longitudinal	Assiale e longitudinale Axial and Longitudinal
Schema circuito Circuit diagram				
DISEGNO DRAW				

Staffa per sensori DSH per minicilindri ISO 6432
Bracket for DSH sensors to use with minicylinders ISO 6432


Codice / Code	Ø mm.	F = Ø
MFH012	12	13.3 mm
MFH016	16	17.3 mm
MFH020	20	21.3 mm
MFH025	25	26.3 mm

Prolunga a Tre fili / Three Wires Extension

PX

CODE	LUNGHEZZA / LENGTH
PX3000	3000 mm
PX5000	5000 mm

Sensori Magnetici Serie DSN / Magnetic Switches DSH Serie

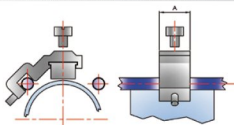
Caratteristiche tecniche / Technical data

DESCRIZIONE DESCRIPTION	VERSIONE REED REED VERSION CODICE CODE: DSNR2F20	VERSIONE HALL HALL VERSION CODICE CODE: DSN1H3F20
		
Connessione Connection	Cavo Cable	Cavo Cable
Tensione d'esercizio Voltage range	3-250 V AC/DC	10-30 V DC
Corrente max a 25°C Max current at 25°C	1000 mA	200 mA
Potenza max/carico resistivo Max power/resistive load	50W	6W
Caduta di tensione max Max voltage drop	2.7V	0.5V
Contatto d'uscita Contact type	N.O.	N.O. PNP
Segnalazione di commutazione Output status indicator	LED Rosso/red	LED Rosso/red
Tempo di inserzione Response time	0.5 ms max	0.2 ms max
Tempo di rilascio Decay time	0.1 ms max	0.1 ms max
Vita elettrica cicli (carico resistivo) Electric life (resistive load)	10 ⁷	10 ⁷
Tipo di cavo Cable type	PVC CEI 2022	PVC
Temperatura d'esercizio Working temperature	-20 +70°C	-20 +70°C
Grado di protezione Protection degree	IP 65	IP 67
Lunghezza cavo Cable length	2 mt.	3 mt.
Colore cavo Cable colour	nero black	nero black
Fil Wires	2	3
Transitori extracorrente Overcurrent transients	Si-Yes	Si-Yes
Transitori extra tensione Overvoltage transients	No	No
Inversione di polarità Polarity reversal	Si-Yes	Si-Yes
Corto circuito Short circuit	No	No
Resistenza alla corrosione Corrosion resistance	3	3
Esplosione ATEX explosion ATEX	No	No
Tipo di montaggio al cilindro Type of mounting to the cylinder	Con Staffa With bracket	Con Staffa With bracket
Schema circuito Circuit diagram		
DISEGNO DRAW		



Sensori DSN per cilindri con tiranti
DSN sensor for cylinders with tie rods

Staffa per sensori DSN per cilindri con tiranti / Bracket for DSN sensors to use with cylinders with tie rods



Codice / Code	Ø mm.	A
DSN2XF032T	32-100	12
DSN2XF125T	125-160	12
DSN2XF200T	200-250	12



Serie **FRL**

COMPONENTI PER IL TRATTAMENTO DELL'ARIA COMPRESSA
AIR TREATMENT UNIT

17.5
T010 Mini
Filtro
Filter

17.6
T015 Mini
Filtro a Coalescenza
Coalescer Filter

17.7
T020 Mini
Regolatore
Regulator

17.8
T070 Mini
Regolatore Scarico Rapido
Quick Exhaust Regulator

17.9
T080 Mini
Regolatore Acqua
Water Regulator

17.10
T030 Mini
Filtro Regolatore
Filter Regulator

17.11
T040 Mini
Lubrificatore
Lubricator

17.12
T100 - T200 Mini
FR+L
F+R+L

17.13
T400 Mini
F+FC

17.14
T450 Mini
FR+FC

17.18
T010
Filtro
Filter

17.20
T015
Filtro a Coalescenza
Coalescer Filter


17.22

T020

Regolatore
Regulator


17.24

T030

Filtro Regolatore
Filter Regulator


17.26

T040

Lubrificatore
Lubricator


17.28

T050

Valvola Sezionatrice
Shut Off Valve


17.30

T060

Avviatore Progressivo
Soft Start Valve


17.32

T100

FR+L



17.34

T110

V+FR+L



17.36

T200

F+R+L



17.38

T210

V+F+R+L



17.40

T300

F+L



17.42-44

T400 - T450

F+FC
FR+FC

T400



T450



17.46

Accessori / Accessories



Istruzioni Tecniche Mini / Mini Technical Instruction

L'assemblaggio dei componenti della serie FRL deve seguire, in linea di massima, questo ordine: Filtro, Regolatore, Lubrificatore. L'accoppiamento dei componenti deve avvenire facendo in modo che l'aria fluisca nella direzione indicata dalle frecce poste sulla superficie superiore dei componenti.

Generally the assembling of FRL components has to follow this order: Filter, Regulator, Lubricator. While connecting the components, be sure that the air flows towards the direction of the arrows located on the upper surface of the components.

L'assemblaggio dei componenti si effettua facilmente seguendo le seguenti fasi:

- Inserire le piastrelle nelle apposite sedi ricavate nei corpi.
- Accostare i componenti da assemblare, verificando la presenza delle OR nelle apposite sedi.
- Serrare le viti sulle piastrelle.

The setting up of the parts has to be done as follows:

- Put the plates in the proper places of the bodies.
- Put the assembling parts together, making sure that the o-ring are in their proper seats.
- Tighten the screws on the plates.



Per l'impostazione della pressione si devono seguire queste indicazioni:

- sollevare la manopola nella posizione di regolazione;
- impostare la pressione voluta sempre in salita;
- premere la manopola nella posizione di blocco.

L'applicazione del manometro deve avvenire manualmente e con l'utilizzo di sigillanti liquidi. Il regolatore a scarico rapido permette di scaricare rapidamente il circuito a valle all'annullarsi della pressione a monte.

To regulate the pressure follow these suggestions:

- raise the knob to the regulating position;
- fix up the required pressure always upgrade then press the knob to the block position. The manometer has to be assembled manually with the addition of liquid sealant. The mini quick exhaust regulator allows the circuit downstream to exhaust rapidly when upstream pressure is interrupted.



Lo scarico della condensa Manuale Semiautomatico è normalmente nella posizione aperta cioè scarica automaticamente la condensa quando è assente la pressione nella tazza, premendo la manopola è possibile scaricare la condensa in presenza di pressione, ruotando la manopola in senso antiorario lo scarico è nella posizione chiusa.

The manual/semi-automatic condensate exhaust is normally in the open position; i.e. it exhausts automatically the condensate when there is no pressure inside the bowl. Pressing the knob it is possible to exhaust the condensate even if it is on pressure, turning the knob in anticlockwise sense the exhaust is in the close position.



L'inserimento dell'olio nel lubrificatore si effettua svitando il tappo posto sulla superficie superiore oppure smontando la tazza accertandosi prima che non vi sia pressione nell'impianto. La regolazione dell'olio nel circuito si effettua agendo con un cacciavite sullo spillo e impostando una goccia di olio ogni 300-600 NI/min.

To insert the oil into the lubricator unscrew the plug located on the upper surface or disassemble the bowl making sure that there is no pressure in the system. To regulate the oil into the circuit act with a screwdriver on the needle and adjust 1 oil drop every 300/600 NI/min.

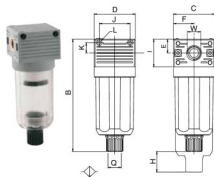


Per lo smontaggio della tazza utilizzare una chiave a compasso. La tazza trasparente permette il controllo del livello della condensa per il filtro o dell'olio per il lubrificatore.

To disassemble the bowl use a calliper face spanners. The transparent bowl permits the control of the condensate level in the filter and the oil level in the lubricator.

T010 MINI

FILTRO / FILTER


CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Portata Flow Rate
T010002201000	FIL 0	1/8	20 µm	800 Nl/min
T010003201000	FIL 0	1/4	20 µm	800 Nl/min

Dimensioni - Dimensions

B	C	D	E	F	H	I	J	K	L	W	Q
109	40	40	13.5	20	11	27	30	10	Ø X M3	1/8 - 1/4	1/8

Tabella dei codici di ordinazione - Article codes to be used for ordering

T 0 1 0 0 0 3 2 0 1 0 0 0

Filetto / Thread:
02= G1/8
03= G1/4

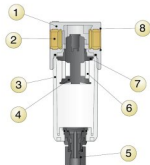
Grado di Filtrazione:
Filtration Grade:
1= 5µm
2= 20µm
3= 50µm

Tipologia di scarico
condensa:
Condensate exhaust
System
1= Semiautomatico
Manuale / Semiautomat
Manual

Caratteristiche Tecniche - Technical Characteristics

FLUIDO / FLUID
ATTACCO FILETTATO / THREADED FASTENING
GRADO DI FILTRAZIONE / FILTRATION GRADE
PORTATA A 6 BAR CON Δp1 bar
6 bar FLOW RATE WITH Δp1 bar
PRESSIONE MAX / MAXIMUM PRESSURE
TEMPERATURA / TEMPERATURE
POSIZIONE DI MONTAGGIO / ASSEMBLY POSITION
CAPACITÀ TAZZA / BOWL CAPACITY
SCARICO CONDENSA / CONDENSATE EXHAUST

ARIA COMPRESSA / COMPRESSED AIR
1/8" - 1/4"
5µm - 20µm STANDARD 50µm
800 Nl/min
15 bar
-10 / 50°C
VERTICALE / VERTICAL
17.5 cm3
MANUALE - SEMIAUTOMATICO
MANUAL - SEMI AUTOMATIC

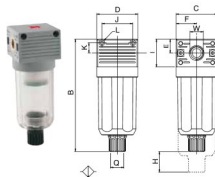
Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Inserto filettato in ottone
- 3 Tazza in tecnopolimero
- 4 Portafiltro in tecnopolimero
- 5 Scarico condensa in tecnopolimero
- 6 Cartuccia filtrante in PE
- 7 Centrifugatore in tecnopolimero
- 8 O-Ring in NBR

- 1 Technopolymeric Body
- 2 Brass Threaded insert
- 3 Technopolymeric Bowl
- 4 Technopolymeric Filter ring
- 5 Technopolymeric Condensate exhaust
- 6 PE Filtering cartridge
- 7 Technopolymeric Slinger
- 8 NBR O-Ring

T015 Mini

Filtro a coalescenza / Coalescer Filter



CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Portata Flow Rate
T015002401000	FC 0	1/8	0.01 µm	450 Nl/min
T015003401000	FC 0	1/4	0.01 µm	450 Nl/min

Dimensioni - Dimensions

B	C	D	E	F	H	I	J	K	L	W	Q
109	40	40	13.5	20	11	27	30	10	Ø X M3	1/8 - 1/4	1/8

NB: A MONTE DEL FILTRO A COALESCENZA E' CONSIGLIATO MONTE UN FILTRO DA 5 µm
NB: WITH COALESCER FILTER T015 WE RECOMMEND TO INSTALL A 5 µm FILTER UPSTREAM.

Tabella dei codici di ordinazione - Article codes to be used for ordering

T	0	1	5	0	0	3	4	0	1	0	0	0
Filetto / Thread: 02= G1/8 03= G1/4						Grado di Filtrazione: Filtration Grade: 4= 0.01µm			Tipologia di scarico: condensa: Condensate exhaust System: 1= Semiautomatico Manuale / Semiautomatic Manual			

Caratteristiche Tecniche - Technical Characteristics

FLUIDO / FLUID

ATTACCO FILETTATO / THREADED FASTENING
GRADO DI FILTRAZIONE / FILTRATION GRADE
PORTATA A 6 BAR CON Δp 1 bar
6 bar FLOW RATE WITH Δp 1 bar
PRESSIONE MAX. / MAXIMUM PRESSURE
TEMPERATURA / TEMPERATURE
POSIZIONE DI MONTAGGIO / ASSEMBLY POSITION
CAPACITA' TAZZA / BOWL CAPACITY
SCARICO CONDENSA / CONDENSATE EXHAUST

ARIA COMPRESSA FILTRATA A 5 µm / 5 µm FILTRED COMPRESSED AIR

1/8" - 1/4"
0.01µm
450 Nl/min
15 bar
-10 / 50°C
VERTICALE / VERTICAL
17.5 cm3
MANUALE - SEMIAUTOMATICO
MANUAL - SEMI AUTOMATIC

Scheda Materiali - Specifications



- 1 Corpo in tecnopolimero
- 2 Inserto filettato in ottone
- 3 Tazza in tecnopolimero
- 4 Scarico condensa in tecnopolimero
- 5 Cartuccia a coalescenza
- 6 O-Ring in NBR

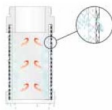
- 1 Technopolymeric Body
- 2 Brass Threaded Insert
- 3 Technopolymeric Bowl
- 4 Technopolymeric Condensate exhaust
- 5 Coalescer cartridge
- 6 NBR O-Ring

Informazioni - Informations

La cartuccia a coalescenza è costituita da uno strato di microfibre sorrette da una struttura esterna in acciaio inox. La cartuccia a coalescenza, sfruttando i principi dell'impatto iniziale, dell'intercettazione e della coalescenza, obbliga le particelle di liquido che l'attraversano ad unirsi formando microgocce più grandi che, per gravità, precipitano sul fondo del contenitore.

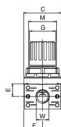
Il filtro a coalescenza usato come disoleatore permette di ottenere un'aria in uscita priva di olio. Si consiglia di montare a monte del filtro a coalescenza un filtro da 5 µm che trattenga le particelle solide evitando così l'intasamento della cartuccia a coalescenza.

Coalescer cartridge is made of microfibre layer with external stainless steel structure. Coalescing cartridge uses inertial impact, interception and coalescence to gather liquid particles into drops. These drops will fall into bowl bottom. Coalescing Filter is used as Oil Separator which removes oil-vapours from air output. We recommend to install a 5 µm Filter upstream to protect coalescing filter from choking of cartridge.



T020 Mini

Regolatore / Regulator


CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Regolazione Regulation	Portata Flow Rate
T020002030000	REG 0	1/8"	0 - 8 bar	600 Nl/min
T020003030000	REG 0	1/4"	0 - 8 bar	600 Nl/min

Dimensioni - Dimensions

B	C	D	E	F	G	I	M	W
74	40	40	13.5	20	27.5	27	M30X1.5	1/8 - 1/4

Tabella dei codici di ordinazione - Article codes to be used for ordering

T 0 2 0 0 0 0 3 0 3 0 0 0 0

Filetto / Thread:
02= G1/8
03= G1/4

Campo di Regolazione:
Regulation Range:
1= 0-2 bar
2= 0-4 bar
3= 0-8 bar
4= 0-12 bar

Caratteristiche Tecniche - Technical Characteristics

FLUIDO / FLUID

ATTACCO FILETTATO / THREADED FASTENING

CAMPO DI REGOLAZIONE / REGULATION RANGE

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE MAX. / MAXIMUM PRESSURE

TEMPERATURA / TEMPERATURE

POSIZIONE DI MONTAGGIO / ASSEMBLY POSITION

ATTACCO MANOMETRO / MANOMETER FASTENING

ARIA COMPRESSA / COMPRESSED AIR

1/8" - 1/4"

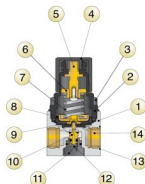
0-2 bar 0-4 bar 0-8 bar STANDARD 0-12 bar
600 Nl/min

15 bar

-10 / 50°C

VERTICALE / VERTICAL

G 1/8

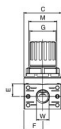
Scheda Materiali - Specifications


- Corpo in tecnopolimero
- Campana in tecnopolimero
- Ghiera di fissaggio in tecnopolimero
- Manopola in tecnopolimero
- Vite di registro in ottone
- Chiocciola in ottone
- Molla di registro in acciaio
- Membrana a rotolamento
- Guarnizione relieving in NBR
- Otturatore con guarnizione vulcanizzata in NBR
- Tappo in tecnopolimero
- Molla premiotfuratore in acciaio inox
- O-Ring in NBR
- Inserto filettato in ottone

- Technopolymeric Body
- Technopolymeric Bell
- Technopolymeric Fixing nut
- Technopolymeric Knob
- Brass Register screw
- Brass Female screw
- Steel Register spring
- Membrane Rolling
- NBR Relieving diaphragm
- Shutter with NBR vulcanized seal
- Technopolymeric Plug
- Stainless steel Push-shutter spring
- NBR O-Ring
- Brass Threaded insert

T070 Mini

Regolatore Scarico Rapido Quick Exhaust Regulator


CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Regolazione Regulation	Portata Flow Rate
T070002030000	REG.S.RAP. 0	1/8	0 - 8 bar	600 Nl/min
T070003030000	REG.S.RAP. 0	1/4	0 - 8 bar	600 Nl/min

Dimensioni - Dimensions

B	C	D	E	F	G	I	M	W
74	40	40	13.5	20	27.5	27	M30X1.5	1/8 - 1/4

Tabella dei codici di ordinazione - Article codes to be used for ordering

T 0 7 0 0 0 0 3 0 3 0 0 0 0

Filetto / Thread:
02= G1/8
03= G1/4

Campo di Regolazione:
Regulation Range:
1= 0-2 bar
2= 0-4 bar
3= 0-8 bar
4= 0-12 bar

Caratteristiche Tecniche - Technical Characteristics

FLUIDO / FLUID

ATTACCO FILETTATO / THREADED FASTENING

CAMPO DI REGOLAZIONE / REGULATION RANGE

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE MAX / MAXIMUM PRESSURE

TEMPERATURA / TEMPERATURE

POSIZIONE DI MONTAGGIO / ASSEMBLY POSITION

ATTACCO MANOMETRO / MANOMETER FASTENING

ARIA COMPRESSA / COMPRESSED AIR

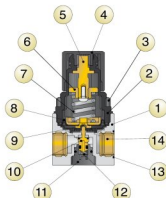
1/8" - 1/4"
0-2 bar 0-4 bar 0-8 bar STANDARD 0-12 bar
600 Nl/min

15 bar

-10 / 50°C

VERTICALE / VERTICAL

G 1/8

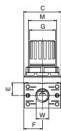
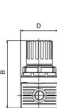
Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Campana in tecnopolimero
- 3 Ghiera di fissaggio in tecnopolimero
- 4 Manopola in tecnopolimero
- 5 Vite di registro in ottone
- 6 Chiocciola in ottone
- 7 Molla di registro in acciaio
- 8 Membrana a rotolamento
- 9 Guarnizione relieving in NBR
- 10 Otturatore con guarnizione vulcanizzata in NBR
- 11 Tappo in tecnopolimero
- 12 Molla premioturatore in acciaio inox
- 13 O-Ring in NBR
- 14 Inserto filettato in ottone

- 1 Technopolymeric Body
- 2 Technopolymeric Bell
- 3 Technopolymeric Fixing nut
- 4 Technopolymeric Knob
- 5 Brass Register screw
- 6 Brass Female screw
- 7 Steel Register spring
- 8 Rolling membrane
- 9 NBR Relieving diaphragm
- 10 Shutter with NBR vulcanized seal
- 11 Technopolymeric Plug
- 12 Stainless steel Push-shutter spring
- 13 NBR O-Ring
- 14 Brass Threaded insert

T080 Mini

Regolatore per Acqua Water Regulator


CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Regolazione Regulation
T080002030000	REG.ACQUA 0	1/8	0 - 8 bar
T080003030000	REG.ACQUA 0	1/4	0 - 8 bar

Dimensioni - Dimensions

B	C	D	E	F	G	I	M	W
74	40	40	13.5	20	27.5	27	M30X1.5	1/8 - 1/4

Tabella dei codici di ordinazione - Article codes to be used for ordering

T 0 8 0 0 0 0 3 0 3 0 0 0 0

Filetto / Thread:
02= G1/8
03= G1/4

Campo di Regolazione:
Regulation Range:
1= 0-2 bar
2= 0-4 bar
3= 0-8 bar
4= 0-12 bar

Caratteristiche Tecniche - Technical Characteristics

FLUIDO / FLUID

ATTACCO FILETTATO / THREADED FASTENING

CAMPO DI REGOLAZIONE / REGULATION RANGE

PRESSIONE MAX / MAXIMUM PRESSURE

TEMPERATURA / TEMPERATURE

POSIZIONE DI MONTAGGIO / ASSEMBLY POSITION

ATTACCO MANOMETRO / MANOMETER FASTENING

ACQUA / WATER

1/8" - 1/4"

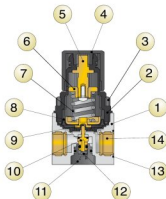
0-2 bar 0-4 bar 0-8 bar STANDARD 0-12 bar

15 bar

5° / 50°C

VERTICALE / VERTICAL

G 1/8

Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Campana in tecnopolimero
- 3 Ghiera di fissaggio in tecnopolimero
- 4 Manopola in tecnopolimero
- 5 Vite di registro in ottone
- 6 Chiocciola in ottone
- 7 Molla di registro in acciaio
- 8 Membrana a rotolamento
- 9 Guarnizione relieving in NBR
- 10 Otturatore con guarnizione vulcanizzata in NBR
- 11 Tappo in tecnopolimero
- 12 Molla premiatuttore in acciaio inox
- 13 O-Ring in NBR
- 14 Inserto filettato in ottone

- 1 Technopolymeric Body
- 2 Technopolymeric Bell
- 3 Technopolymeric Fixing nut
- 4 Technopolymeric Knob
- 5 Brass Register screw
- 6 Brass Female screw
- 7 Steel Register spring
- 8 Rolling membrane
- 9 NBR Relieving diaphragm
- 10 Shutter with NBR vulcanized seal
- 11 Technopolymeric Plug
- 12 Stainless steel Push-shutter spring
- 13 NBR O-Ring
- 14 Brass Threaded insert

T030 Mini

Filtroregolatore / Filter Regulator



CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Regolazione Regulation	Portata Flow Rate
T030002231000	FR 0	1/8	20µm	0 - 8 bar	600 Nl/min
T030003231000	FR 0	1/4	20µm	0 - 8 bar	600 Nl/min

Dimensioni - Dimensions

B	C	D	E	F	G	H	I	M	N	W
156	40	40	13.5	20	27.5	11	27	M30X1.5	40	1/8 - 1/4

Tabella dei codici di ordinazione - Article codes to be used for ordering

T 0 3 0 0 0 3 2 3 1 0 0 0

Filetto / Thread:
02= G1/8
03= G1/4

Grado di Filtrazione:
Filtration Grade:
1= 5µm
2= 20µm
3= 50µm

Campo di Regolazione:
Regulation Range:
1= 0-2 bar
2= 0-4 bar
3= 0-8 bar
4= 0-12 bar

Tipologia di scarico
condensa:
Condensate exhaust
System
1= Semiautomatico
Manuale / Semiautomatic
Manual

Caratteristiche Tecniche - Technical Characteristics

FLUIDO / FLUID

ATTACCO FILETTATO / THREADED FASTENING

CAMPO DI REGOLAZIONE / REGULATION RANGE

GRADO DI FILTRAZIONE / FILTRATION GRADE

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE MAX. / MAXIMUM PRESSURE

TEMPERATURA / TEMPERATURE

POSIZIONE DI MONTAGGIO / ASSEMBLY POSITION

CAPACITA' TAZZA / BOWL CAPACITY

SCARICO CONDENSA / CONDENSATE EXHAUST

ATTACCO MANOMETRO / MANOMETER FASTENING

ARIA COMPRESSA / COMPRESSED AIR

1/8" - 1/4"

0-2 bar 0-4 bar 0-8 bar STANDARD 0-12 bar

5µm - 20µm STANDARD - 50µm

600 Nl/min

15 bar

-10 / 50°C

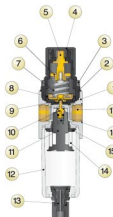
VERTICALE / VERTICAL

17.5 cm3

MANUALE - SEMIAUTOMATICO / MANUAL - SEMI AUTOMATIC

G 1/8

Scheda Materiali - Specifications

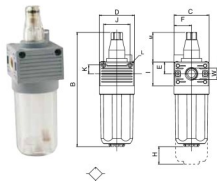


- 1 Corpo in tecnopolimero
- 2 Campana in tecnopolimero
- 3 Ghiera di fissaggio in tecnopolimero
- 4 Manopola in tecnopolimero
- 5 Vite di registro in ottone
- 6 Chiocciola in ottone
- 7 Molla di registro in acciaio
- 8 Membrana a rotolamento
- 9 Guarnizione relieving in NBR
- 10 Otturatore con guarnizione vulcanizzata in NBR
- 11 Portafiltro in tecnopolimero
- 12 Tazza in tecnopolimero
- 13 Scarico condensa in tecnopolimero
- 14 Cartuccia filtrante in PE
- 15 Centrifugatore in tecnopolimero
- 16 O-Ring in NBR
- 17 Inserto filettato in ottone

- 1 Technopolymeric Body
- 2 Technopolymeric Bell
- 3 Technopolymeric Fixing nut
- 4 Technopolymeric Knob
- 5 Brass Register screw
- 6 Brass Female screw
- 7 Register spring made in steel
- 8 Rolling membrane
- 9 NBR Relieving diaphragm
- 10 Shutter with NBR vulcanized seal
- 11 Technopolymeric Filter ring
- 12 Technopolymeric Bowl
- 13 Technopolymeric Condensate exhaust
- 14 PE Filtering cartridge
- 15 Technopolymeric Slinger
- 16 NBR O-Ring
- 17 Brass Threaded insert

T040 Mini

Lubrificatore / Lubricator


CODICI DEI PRODOTTI STANDARD A MAGAZZINO-STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Portata Flow Rate
T040002000100	LUB 0	1/8	700 Nl/min
T040003000100	LUB 0	1/4	700 Nl/min

Dimensioni - Dimensions

B	C	D	E	F	H	I	J	K	L	M	W
130	40	40	13.5	20	11	27	30	10	Ø X M3	33.5	1/8 - 1/4

Tabella dei codici di ordinazione - Article codes to be used for ordering

T 0 4 0 0 0 0 2 0 0 0 1 0 0

Filetto / Thread:
02= G 1/8
03= G 1/4

Tipologia di
caricamento olio:
Oil load system:
1= Manuale / Manual

Caratteristiche Tecniche - Technical Characteristics
FLUIDO / FLUID

ATTACCO FILETTATO / THREADED FASTENING

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE MAX / MAXIMUM PRESSURE

TEMPERATURA / TEMPERATURE

VITI DI FISSAGGIO / WALL CLAMPING SCREWS

POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION

CAPACITÀ TAZZA / BOWL CAPACITY

OLII CONSIGLIATI / RECOMMENDED OILS

ARIA COMPRESSA / COMPRESSED AIR

1/8" - 1/4"

700 Nl/min

15 bar

-10 / 50°C

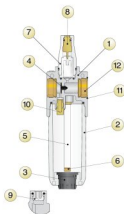
M3

VERTICALE / VERTICAL

28 cm³

CLASSE ISO VG 22A NORMA ISO 3448

ISO VG 22A CLASS ISO 3448 NORMA

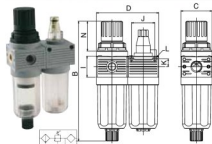
Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Tazza in tecnopolimero
- 3 Tappo in tecnopolimero
- 4 Membrana dispositivo Venturi
- 5 Tubo aspirazione olio in PA11
- 6 Filtro
- 7 Cupola visiva in tecnopolimero trasparente
- 8 Spillo regolazione portata olio in ottone
- 9 Tappo caricamento olio in ottone
- 10 Diffusore aria in ottone
- 11 O-Ring in NBR
- 12 Inserto filettato in ottone

- 1 Technopolymeric Body
- 2 Technopolymeric Bowl
- 3 Technopolymeric Plug
- 4 Membrane Venturi device
- 5 Oil aspiration tube made in PA11
- 6 Small filter
- 7 Transparent technopolymeric Visual dome
- 8 Brass Oil regulating capacity pin
- 9 Brass Oil loading plug
- 10 Brass Air diffuser
- 11 NBR O-Ring
- 12 Brass Threaded insert

T100 Mini

FR + L


CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Regolazione Regulation	Portata Flow Rate
T100002231100	FR=L 0	1/8	20µm	0-8 bar	260 Nl/min
T100003231100	FR=L 0	1/4	20µm	0-8 bar	260 Nl/min

Dimensioni - Dimensions

B	C	D	I	J	K	L	N	W
156	40	80	27	30	10	Ø X M3	40	1/8 - 1/4

Tabella dei codici di ordinazione - Article codes to be used for ordering

T	1	0	0	0	0	3	2	3	1	1	0	0
Filetto / Thread: 02= G 1/8 03= G 1/4		Grado di Filtrazione: Filtration Grade: 1= 5µm 2= 20µm 3= 50µm		Campo di Regolazione: Regulation Range: 1= 0-2 bar 2= 0-4 bar 3= 0-8 bar 4= 0-12 bar		Tipologia di scarico condensato: Condensate exhaust System 1= Semiautomatico Manuale / Semiautomatic Manual		Tipologia di caricamento olio: Oil load system: 1= Manuale / Manual				

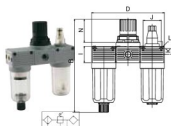
Caratteristiche Tecniche - Technical Characteristics

FLUIDO / FILITATO / THREADED FASTENING
 ATTACCO DI FILTRAZIONE / FILTRATION GRADE
 CAMPO DI REGOLAZIONE / REGULATION RANGE
 PORTATA A 6 BAR CON Δp 1 bar
 6 bar FLOW RATE WITH Δp 1 bar
 PRESSIONE MAX / MAXIMUM PRESSURE
 TEMPERATURA / TEMPERATURE
 VITI DI FISSAGGIO / WALL CLAMPING SCREWS
 POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION
 OLII CONSIGLIATI / RECOMMENDED OILS

ARIA COMPRESSA / COMPRESSED AIR
 1/8" - 1/4"
 5µm - 20µm STANDARD - 50µm
 0-2 bar 0-4 bar 0-8 bar STANDARD 0-12 bar
 260 Nl/min
 15 bar
 -10 / 50°C
 M3
 VERTICALE / VERTICAL
 CLASSE ISO VG 22A NORMA ISO 3448

T200 Mini

F + R + L


CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Regolazione Regulation	Portata Flow Rate
T200002231100	F+R+L 0	1/8	20µm	0-8 bar	280 Nl/min
T200003231100	F+R+L 0	1/4	20µm	0-8 bar	280 Nl/min

Dimensioni - Dimensions

B	C	D	I	J	K	L	N	W
156	40	120	27	30	10	Ø X M3	40	1/8 - 1/4

Tabella dei codici di ordinazione / Article codes to be used for ordering

T	2	0	0	0	0	3	2	3	1	1	0	0
Filetto / Thread: 02= G 1/8 03= G 1/4		Grado di Filtrazione: Filtration Grade: 1= 5µm 2= 20µm 3= 50µm		Campo di Regolazione: Regulation Range: 1= 0-2 bar 2= 0-4 bar 3= 0-8 bar 4= 0-12 bar		Tipologia di scarico condensato: Condensate exhaust System 1= Semiautomatico Manuale / Semiautomatic Manual		Tipologia di caricamento olio: Oil load system: 1= Manuale / Manual				

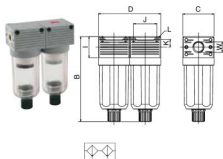
Caratteristiche Tecniche - Technical Characteristics

FLUIDO / FLUID
 ATTACCO FILETTATO / THREADED FASTENING
 GRADO DI FILTRAZIONE / FILTRATION GRADE
 CAMPO DI REGOLAZIONE / REGULATION RANGE
 PORTATA A 6 BAR CON Δp 1 bar
 6 bar FLOW RATE WITH Δp 1 bar
 PRESSIONE MAX / MAXIMUM PRESSURE
 TEMPERATURA / TEMPERATURE
 VITI DI FISSAGGIO / WALL CLAMPING SCREWS
 POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION
 OLII CONSIGLIATI / RECOMMENDED OILS

ARIA COMPRESSA / COMPRESSED AIR
 1/8" - 1/4"
 5µm - 20µm STANDARD - 50µm
 0-2 bar 0-4 bar 0-8 bar STANDARD 0-12 bar
 280 Nl/min
 15 bar
 -10 / 50°C
 M3
 VERTICALE / VERTICAL
 CLASSE ISO VG 22A NORMA ISO 3448

T400 Mini

FIL + FC


CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Portata Flow Rate
T400002401000	FIL+FC 0	1/8	5µm + 0.01µm	370 Nl/min
T400003401000	FIL+FC 0	1/4	5µm + 0.01µm	370 Nl/min

Dimensioni - Dimensions

B	C	D	I	J	K	L	W
109	40	80	27	30	10	Ø X M3	1/8 - 1/4


Tabella dei codici di ordinazione - Article codes to be used for ordering

T 4 0 0 0 0 3 4 0 1 0 0 0

Filetto / Thread:
02= G1/8
03= G1/4

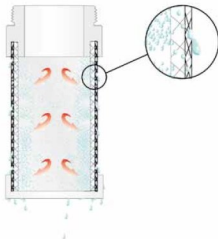
Grado di Filtrazione:
Filtration Grade:
4= 0.01µm

Tipologia di scarico
condensa:
Condensate exhaust
System:
1= Semiautomatico
Manuale / Semiautomatic
Manual

Caratteristiche Tecniche - Technical Characteristics

FLUIDO / FLUID
ATTACCO FILETTATO / THREADED FASTENING
GRADO DI FILTRAZIONE / FILTRATION GRADE
PORTATA A 6 BAR CON Δp 1 bar
6 bar FLOW RATE WITH Δp 1 bar
PRESSIONE MAX / MAXIMUM PRESSURE
TEMPERATURA / TEMPERATURE
VITI DI FISSAGGIO / WALL CLAMPING SCREWS
POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION

ARIA COMPRESSA / COMPRESSED AIR
1/8" - 1/4"
5µm + 0.01µm
370 Nl/min
15 bar
-10 / 50°C
M3
VERTICALE / VERTICAL

Informazioni - Informations
**CARTUCCIA COALESCENTE
COALESCER CARTRIDGE**
**MICROFIBRE INCROCIATE
INTERLACED MICROFIBERS**


La cartuccia a coalescenza è costituita da uno strato di microfibre sovrapposte da una struttura esterna in acciaio inox.

La cartuccia a coalescenza, sfruttando i principi dell'impatto inerziale, dell'intercettazione e della coalescenza, obbliga le particelle di liquido che l'attraversano ad unirsi formando microgocce più grandi che, per gravità, precipitano sul fondo del contenitore.

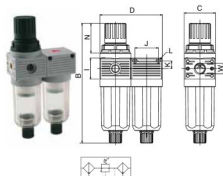
Il filtro a coalescenza usato come disoleiatore permette di ottenere un'aria in uscita priva di olio.

Si consiglia di montare a monte del filtro a coalescenza un filtro da 5 µm che trattenga le particelle solide evitando così l'intasamento della cartuccia a coalescenza.

Coalescer cartridge is made of microfiber layer with external stainless steel structure. Coalescing cartridge uses inertial impact, interception and coalescence to gather liquid particles into drops. These drops will fall into bowl bottom.

Coalescing Filter is used as Oil Separator which removes oil-vapours from air output. We recommend to install a 5 µm Filter upstream to protect coalescing filter from choking of cartridge.

T450 Mini

FR + FC

CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Regolazione Regulation	Filtrazione Filtration	Portata Flow Rate
T450002431000	FR+FC 0	1/8	0 - 8 bar	5µm + 0.01µm	370 Nl/min
T450003431000	FR+FC 0	1/4	0 - 8 bar	5µm + 0.01µm	370 Nl/min

Dimensioni - Dimensions

B	C	D	I	J	K	L	N	W
156	40	80	27	30	10	Ø X M3	40	1/8 - 1/4

Tabella dei codici di ordinazione - Article codes to be used for ordering

T	4	5	0	0	0	3	4	3	1	0	0	0
Filetto / Thread: 02= G1/8 03= G1/4			Grado di Filtrazione: Filtration Grade: 4= 0.01µm			Campo di Regolazione: Regulation Range: 3= 0-8 bar			Tipologia di scarico condensa: Condensate exhaust System: 1= Semiautomatico Manuale / Semiautomatic Manual			

Caratteristiche Tecniche - Technical Characteristics

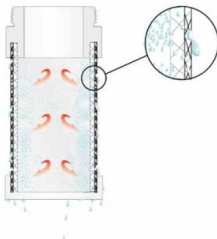
FLUIDO / FLUID
ATTACCO FILETTATO / THREADED FASTENING
GRADO DI FILTRAZIONE / FILTRATION GRADE
CAMPO DI REGOLAZIONE / REGULATION RANGE
PORTATA A 6 BAR CON Δp 1 bar
6 bar FLOW RATE WITH Δp 1 bar
PRESSIONE MAX / MAXIMUM PRESSURE
TEMPERATURA / TEMPERATURE
VITI DI FISSAGGIO / WALL CLAMPING SCREWS
POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION

ARIA COMPRESSA / COMPRESSED AIR
1/8" - 1/4"
5µm + 0.01µm
0-8 bar
370 Nl/min
15 bar
-10 / 50°C
M3
VERTICALE / VERTICAL

Informazioni - Informations

CARTUCCIA COALESCENTE
COALESCER CARTRIDGE

MICROFIBRE INCROCIATE
INTERLACED MICROFIBERS



La cartuccia a coalescenza è costituita da uno strato di microfibre sovrapposte da una struttura esterna in acciaio inox.

La cartuccia a coalescenza, sfruttando i principi dell'impatto inerziale, dell'intercettazione e della coalescenza, obbliga le particelle di liquido che l'attraversano ad unirsi formando microgocce più grandi che, per gravità, precipitano sul fondo del contenitore.

Il filtro a coalescenza usato come disoleatore permette di ottenere un'aria in uscita priva di olio.

Si consiglia di montare a monte del filtro a coalescenza un filtro da 5 µm che trattiene le particelle solide evitando così l'intasamento della cartuccia a coalescenza.

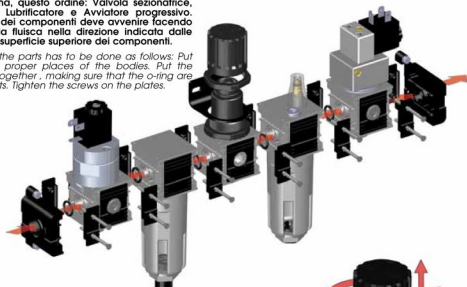
Coalescer cartridge is made of microfiber layer with external stainless steel structure. Coalescing cartridge uses inertial impact, interception and coalescence to gather liquid particles into drops. These drops will fall into bowl bottom.

Coalescing Filter is used as Oil Separator which removes oil-vapours from air output. We recommend to install a 5 µm Filter upstream to protect coalescing filter from choking of cartridge.

Istruzioni Tecniche Frl 1-2-3 / Technical Instruction Frl 1-2-3

L'assemblaggio dei componenti della serie FRL deve seguire, in linea di massima, questo ordine: Valvola sezionatrice, Filtro, Regolatore, Lubrificatore e Avviatore progressivo. L'accoppiamento dei componenti deve avvenire facendo in modo che l'aria fluisca nella direzione indicata dalle frecce poste sulla superficie superiore dei componenti.

The setting up of the parts has to be done as follows: Put the plates in the proper places of the bodies. Put the assembling parts together, making sure that the o-ring are in their proper seats. Tighten the screws on the plates.



Per l'impostazione della pressione si devono seguire queste indicazioni:

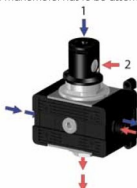
- sollevare la manopola nella posizione di regolazione;
- impostare la pressione voluta sempre in salita;
- premere la manopola nella posizione di blocco.

L'applicazione del manometro deve avvenire manualmente e con l'utilizzo di sigillanti liquidi.

To regulate the pressure follow these suggestions:

- raise the knob to the regulating position;
- fix up the required pressure always upgrade then press the knob to the block position.

The manometer has to be assembled manually with the addition of liquid sealant.



L'azionamento della valvola sezionatrice avviene nelle seguenti fasi: premendo il pulsante di azionamento 1 si apre il circuito primario verso l'utilizzo, premendo il pulsante 2 si chiude il circuito primario e si mette a scarico quello secondario. Quest'ultima posizione può essere bloccata mediante lucchetto.

The driving of the shut off valve follows these steps: pressing the start push button 1 you open the primary circuit towards the use; pressing the push button 2 you close the primary circuit and put the secondary one in exhaust. A padlock can lock this last operation.



L'inserimento dell'olio nel lubrificatore si effettua svitando il tappo posto sulla superficie superiore oppure smontando la tazza accertandosi prima che non vi sia pressione nell'impianto. La regolazione dell'olio nel circuito si effettua agendo con un cacciavite sullo spillo e impostando una goccia di olio ogni 300-600 NI/min.

To insert the oil into the lubricator, unscrew the plug on the upper surface or disassemble the bowl making sure that no pressure is in the system. To regulate the oil into the circuit act the needle with a screwdriver and adjust 1 oil drop every 300/600NI/min.

PUSHING START BUTTON
FOR PRIMING OF OIL



PRIMING OF OIL

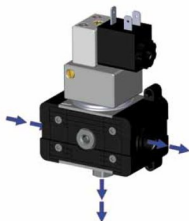
Il caricamento dell'olio a depressione consente il riempimento in automatico di olio nella tazza. Il sistema si attiva mediante l'azionamento di un pulsante e l'olio prelevato da un serbatoio posto anche a quote più basse rispetto al lubrificatore fluisce nella tazza grazie ad un attacco G1/4 posto sotto di essa. Il caricamento deve essere interrotto quando l'olio raggiunge il livello massimo consentito corrispondente alle aperture trasparenti della tazza.

The priming of vacuum permits the automatic filling in the bowl. Pushing the start button starts the driving of the system. The oil, collected from a level lower than lubricator, flows into the bowl thanks to a fitting G1/4 located under the bowl. Stop the priming when the oil has reached the maximum level allowed. This level corresponds with the transparent windows in the bowl.



Lo scarico della condensa Manuale / Semiautomatico è normalmente nella posizione aperta cioè scarica automaticamente la condensa quando è assente la pressione nella tazza, premendo la manopola è possibile scaricare la condensa in presenza di pressione, ruotando la manopola in senso antiorario lo scarico è nella posizione chiusa.

The automatic/semiautomatic condensate exhaust is normally in the open position: i.e. it exhausts automatically the condensate when there is no pressure inside of the bowl. Pressing the knob it is possible to exhaust the condensate even if it is on pressure, turning the knob in anticlockwise sense the exhaust is in the close position.



L'avviatore progressivo è un dispositivo pneumatico che consente di pressurizzare gradualmente e in modo regolabile gli impianti pneumatici. Lo scarico rapido è una funzione integrata presente nel nostro avviatore progressivo quindi è possibile interrompere l'afflusso di aria, interrompendo il segnale elettrico del pilota, e scaricare rapidamente l'aria residua nell'impianto di valle nell'ambiente esterno. La regolazione del tempo dell'incremento della pressione avviene mediante la registrazione di un'apposita vite che interviene sulla regolazione del flusso. Il comando di pilotaggio è elettropneumatico: il funzionamento dell'avviatore progressivo avviene mediante un impulso elettrico. L'avviatore progressivo con scarico rapido va posizionato nella linea dell'impianto dopo tutti i componenti di trattamento dell'aria compressa.

The soft start valve is a pneumatic valve that permits to pressurize gradually and constantly the pneumatic systems. The quick exhaust is present on our soft starter; by switching off the electrical signal it stops the air-intake, exhusting the remaining air downstream. To regulate the pressure increasing time use a screw. An electrical impulse gives power to the starter. Install the starter on the system just after the components for air treatment.



Lo scarico di condensa automatico è disponibile per le misure FRL2 e FRL3. Il suo funzionamento è di tipo a galleggiante cioè scarica la condensa quando questa raggiunge il livello impostato indipendentemente dalla pressione di utilizzo.

The condensate exhaust is available for the sizes FRL2 and FRL3. It works as a float that exhausts the condensate when this reaches the programmed level without any relation to the pressure used.

FISSAGGIO STANDARD.
STANDARD FIXING.



FISSAGGIO CON DISTANZIALE.
FIXING WITH DISTANCE.



L'elemento utilizzato per il fissaggio dei gruppi di trattamento dell'aria a parete può svolgere la funzione di distanziale: è sufficiente svitare tale elemento, ruotarlo e riavvitarlo. Il distanziale permette così il fissaggio dei gruppi di trattamento dell'aria sulle superfici non perfettamente piane e disconnesse.

The part used to fix the FRL on the wall can be used as a distance spacer as well. It is enough to unscrew this part, turn it and screw it again. The distance spacer permits in this way the fixing of the treatment of compressed air on surfaces not properly smooth and flat.



Per lo smontaggio della tazza utilizzare una chiave esagonale a tubo. Le aperture trasparenti sulla tazza permettono il controllo del livello della condensa per il filtro o dell'olio per il lubrificatore.

To disassembly the bowl use an hexagon tube wrench. The bowl has got transparent windows which permit to check the lubricator oil level or the filter condensate level.



T010

Filtro / Filter



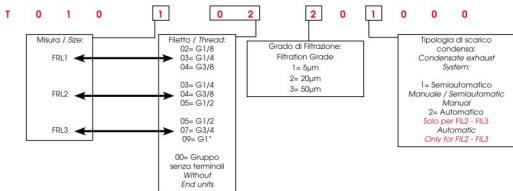
CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Portata Flow Rate	Scarico Exhaust
T010103201000	FIL 1	1/4	20 µm	1900 NI/min	S/M
T010104201000	FIL 1	3/8	20 µm	1900 NI/min	S/M
T010204201000	FIL 2	3/8	20 µm	3750 NI/min	S/M
T010205201000	FIL 2	1/2	20 µm	3750 NI/min	S/M
T010205202000	FIL 2	1/2	20 µm	3750 NI/min	A
T010307201000	FIL 3	3/4	20 µm	6250 NI/min	S/M
T010309201000	FIL 3	1"	20 µm	6250 NI/min	S/M
T010309202000	FIL 3	1"	20 µm	6250 NI/min	A

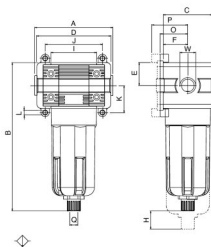
S/M: Semiautomatico / Manuale
Semi Automatic / Manual

A: Automatico / Automatic

Tabella dei codici di ordinazione - Article codes to be used for ordering

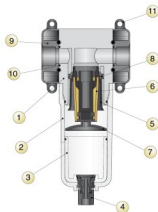


Dimensioni - Dimensions



FRL 1 FRL 2 FRL 3

A	72	89	100
B	146	178.5	197.5
C	45	59	70
D	75.5	89	106
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
E	21	27.5	32.5
F	22.5	28.5	35
H	39	48	50
I	43	55	65
J	54	69	79
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45
Q	1/8	1/8	1/8

Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Tazza in tecnopolimero
- 3 Bicchieri in tecnopolimero trasparente
- 4 Scarico condensa in tecnopolimero
- 5 Portafiltri in tecnopolimero
- 6 Cartuccia filtrante in bronzo sinterizzato
- 7 Deflettore in tecnopolimero
- 8 Centrifugatore in tecnopolimero
- 9 Terminale in zama
- 10 O-Ring in NBR
- 11 Elemento di fissaggio / distanziale

- 1 Technopolymeric Body
- 2 Technopolymeric Bowl
- 3 Transparent technopolymeric Glass
- 4 Technopolymeric Condensate exhaust
- 5 Technopolymeric Filter ring
- 6 Sintered bronze Filtering cartridge
- 7 Technopolymeric Deflector
- 8 Technopolymeric Slinger
- 9 Zama End part
- 10 NBR O-Ring
- 11 Fixing with distance

Dati tecnici - Technical data

ATTACCO FILETTATO / THREADED FASTENING

PORTATA A 6 BAR CON ap 1 bar

6 bar FLOW RATE WITH ap 1 bar

VITI DI FISSAGGIO / WALL CLAMPING SCREWS

CAPACITÀ TAZZA / BOWL CAPACITY

GRADO DI FILTRAZIONE / FILTRATION GRADE

FLUIDO / FLUID

PRESSIONE MAX / MAXIMUM PRESSURE

TEMPERATURA / TEMPERATURE

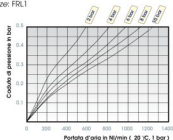
POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION

SCARICO CONDENZA / CONDENSATE EXHAUST

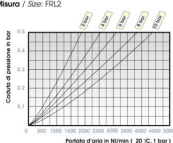
FRL 1	FRL 2	FRL 3
1/8"-1/4"-3/8"	1/4" ~3/8"-1/2"	1/2"-3/4"-1"
1900 Nl/min	3750 Nl/min	6250 Nl/min
M4X14	M5X18	M6X20
22 cm ³	46 cm ³	89.5 cm ³
5 µm	20 µm STANDARD	50 µm
ARIA COMPRESSA / COMPRESSED AIR		
15 bar		
Min -10 / Max +50°C a/t 10 bar		
VERTICALE / VERTICAL		
SEMIAUTOMATICO - MANUALE / SEMI AUTOMATIC - MANUAL		
AUTOMATICO / AUTOMATIC		

Caratteristiche di flusso - Flow Characteristics

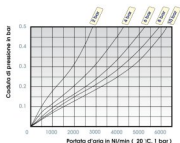
Misura / Size: FRL1



Misura / Size: FRL2



Misura / Size: FRL3



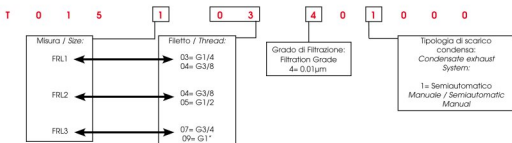
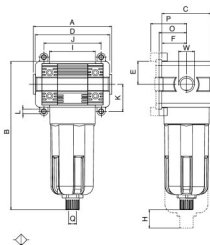
T015
Filtro a coalescenza / Coalescer Filter

CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

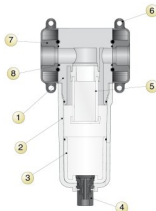
Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Portata Flow Rate	Scarico Exhaust
T015103401000	FC 1	1/4	0.01 µm	700 NI/min	S/M
T015104401000	FC 1	3/8	0.01 µm	700 NI/min	S/M
T015204401000	FC 2	3/8	0.01 µm	725 NI/min	S/M
T015205401000	FC 2	1/2	0.01 µm	725 NI/min	S/M
T015307401000	FC 3	3/4	0.01 µm	920 NI/min	S/M
T015309401000	FC 3	1"	0.01 µm	920 NI/min	S/M

S/M: Semiautomatico / Manuale
 Semi Automatic / Manual

NB: A MONTE DEL FILTRO A COALESCENZA E' CONSIGLIATO MONTARE UN FILTRO DA 5 µm
 NB: WITH COALESCE FILTER T015 WE RECOMMEND TO INSTALL A 5 µm FILTER UPSTREAM.

Tabella dei codici di ordinazione - Article codes to be used for ordering

Dimensioni - Dimensions


	FRL 1	FRL 2	FRL 3
A	72	89	100
B	146	178.5	197.5
C	45	59	70
D	75.5	89	106
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
E	21	27.5	32.5
F	22.5	28.5	35
H	39	48	50
I	43	55	65
J	54	69	79
K	26	32	38.5
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45
Q	1/8	1/8	1/8

Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Tazza in tecnopolimero
- 3 Bicchieri in tecnopolimero trasparente
- 4 Scarico condensa in tecnopolimero
- 5 Cartuccia a coalescenza
- 6 Elemento di fissaggio / distanziale
- 7 Terminale in zama
- 8 O-Ring in NBR

- 1 Technopolymeric Body
- 2 Technopolymeric Bowl
- 3 Transparent technopolymeric Glass
- 4 Technopolymeric Condensate exhaust
- 5 Coalescer cartridge
- 6 Fixing with distance
- 7 Zama End part
- 8 NBR O-Ring

Dati tecnici - Technical data

ATTACCO FILETTATO / THREADED FASTENING

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

VITI DI FISSAGGIO / WALL CLAMPING SCREWS

CAPACITÀ TAZZA / BOWL CAPACITY

GRADO DI FILTRAZIONE / FILTRATION GRADE

FLUIDO / FLUID

PRESSIONE MAX / MAXIMUM PRESSURE

TEMPERATURA / TEMPERATURE

POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION

SCARICO CONDENSE / CONDENSATE EXHAUST

FRL 1	FRL 2	FRL 3
1/4"-3/8"	3/8"-1/2"	3/4"-1"
700 Nl/min	725 Nl/min	920 Nl/min
M4X14	M5X18	M6X20
22 cm ³	46 cm ³	89.5 cm ³
	0.01 μ m	

ARIA COMPRESSA FILTRATA A 5 μ m / 5 μ m FILTRED COMPRESSED AIR

15 bar

Min -10 / Max +50°C a/a 10 bar

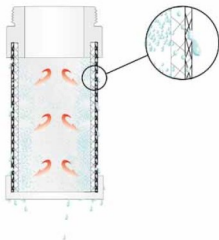
VERTICALE / VERTICAL

SEMI AUTOMATICO - MANUALE / SEMI AUTOMATIC - MANUAL

Informazioni - Informations

CARTUCCIA COALESCENTE
COALESCER CARTRIDGE

MICROFIBRE INCROCIATE
INTERLACED MICROFIBERS



La cartuccia a coalescenza è costituita da uno strato di microfibre sorrette da una struttura esterna in acciaio inox.

La cartuccia a coalescenza, sfruttando i principi dell'impatto inerziale, dell'intercettazione e della coalescenza, obbliga le particelle di liquido che l'attraversano ad unirsi formando microgocce più grandi che, per gravità, precipitano sul fondo del contenitore.

Il filtro a coalescenza usato come disoleatore permette di ottenere un'aria in uscita priva di olio.

Si consiglia di montare a monte del filtro a coalescenza un filtro da 5 μ m che trattiene le particelle solide evitando così l'intasamento della cartuccia a coalescenza.

Coalescing cartridge is made of microfiber layer with external stainless steel structure. Coalescing cartridge uses inertial impact, interception and coalescence to gather liquid particles into drops. These drops will fall into bowl bottom.

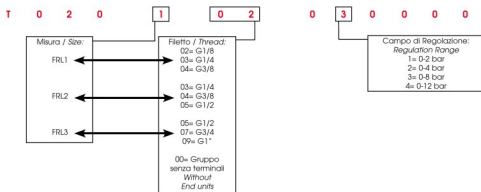
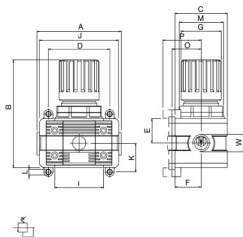
Coalescing Filter is used as Oil Separator which removes oil-vapours from air output. We recommend to install a 5 μ m Filter upstream to protect coalescing filter from choking of cartridge.

T020

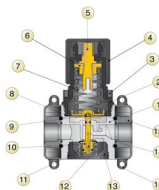
Regolatore / Regulator


CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Regolazione Regulation	Portata Flow Rate
T020103030000	REG 1	1/4	0 - 8 bar	2050 NI/min
T020104030000	REG 1	3/8	0 - 8 bar	2050 NI/min
T020204030000	REG 2	3/8	0 - 8 bar	3200 NI/min
T020205030000	REG 2	1/2	0 - 8 bar	3200 NI/min
T020307030000	REG 3	3/4	0 - 8 bar	6200 NI/min
T020309030000	REG 3	1"	0 - 8 bar	6200 NI/min

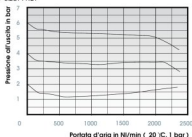
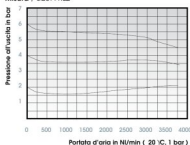
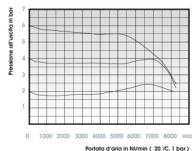
Tabella dei codici di ordinazione - Article codes to be used for ordering

Dimensioni - Dimensions


	FRL 1	FRL 2	FRL 3
A	72	89	100
B	97	121	140.5
C	45	59	70
D	75.5	89	106
E	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
F	21	27.5	32.5
G	22.5	28.5	35
H	36	45	50.5
I	43	55	65
J	54	69	79
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45

Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Campana in tecnopolimero
- 3 Ghiera di fissaggio in tecnopolimero
- 4 Manopola in tecnopolimero
- 5 Vite di registro in ottone
- 6 Chiocciola in ottone
- 7 Molla di registro in acciaio
- 8 Membrana a rotolamento
- 9 Guarnizione relieving in NBR
- 10 Otturatore con guarnizione vulcanizzata in NBR
- 11 Asta in ottone
- 12 Molla premioffuttore in acciaio inox
- 13 Tappo in tecnopolimero
- 14 O-Ring in NBR
- 15 Terminale in zama
- 16 Elemento di fissaggio / distanziale

- 1 Technopolymeric Body
- 2 Technopolymeric Bell
- 3 Technopolymeric Fixing nut
- 4 Technopolymeric Knob
- 5 Brass Register screw
- 6 Brass Female screw
- 7 Steel Register spring
- 8 Rolling membrane
- 9 NBR seal Relieving diaphragm
- 10 NBR Shutter with vulcanized
- 11 Brass Rod
- 12 Stainless steel Push - shutter spring
- 13 Technopolymeric Plug
- 14 NBR O-Ring
- 15 Zama End part
- 16 Fixing with distance

Dati tecnici - Technical data
ATTACCO FILETTATO / THREADED FASTENING
PORTATA A 6 BAR CON Δp 1 bar
6 bar FLOW RATE WITH Δp 1 bar
VITI DI FISSAGGIO / WALL CLAMPING SCREWS
ATTACCO MANOMETRO / MANOMETER FASTENING
CAMPO DI REGOLAZIONE / REGULATION RANGE
FLUIDO / FLUID
PRESSIONE MAX. / MAXIMUM PRESSURE
TEMPERATURA / TEMPERATURE
POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION
FRL 1
1/8"-1/4"-3/8"
2050 Nl/min
M4X14
0 ÷ 2 bar
FRL 2
1/4"-3/8"-1/2"
3200 Nl/min
M5X18
G 1/8"
0 ÷ 4 bar
0 ÷ 8 bar **Standard**
ARIA COMPRESSA / COMPRESSED AIR
15 bar
Min -10 / Max +50°C a/t 10 bar
VERTICALE / VERTICAL
FRL 3
1/2"-3/4"-1"
6200 Nl/min
M6X20
0 ÷ 12 bar
Caratteristiche di flusso - Flow Characteristics
Misura / Size: FRL1

Misura / Size: FRL2

Misura / Size: FRL3


T030

Filtroregolatore / Filter Regulator



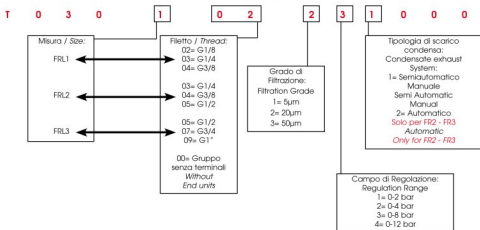
CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filto Thread	Filtrazione Filtration	Regolazione Regulation	Portata Flow Rate	Scarico Exhaust
T030103231000	FR 1	1/4	20 µm	0 - 8 bar	1650 Nl/min	S/M
T030104231000	FR 1	3/8	20 µm	0 - 8 bar	1650 Nl/min	S/M
T030204231000	FR 2	3/8	20 µm	0 - 8 bar	3000 Nl/min	S/M
T030205231000	FR 2	1/2	20 µm	0 - 8 bar	3000 Nl/min	S/M
T030205232000	FR 2	1/2	20 µm	0 - 8 bar	3000 Nl/min	A
T030307231000	FR 3	3/4	20 µm	0 - 8 bar	4500 Nl/min	S/M
T030309231000	FR 3	1"	20 µm	0 - 8 bar	4500 Nl/min	S/M
T030309232000	FR 3	1"	20 µm	0 - 8 bar	4500 Nl/min	A

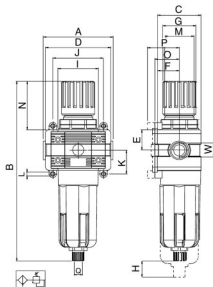
S/M: Semiautomatico / Manuale
Semi Automatic / Manual

A: Automatico / Automatic

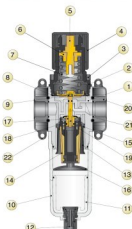
Tabella dei codici di ordinazione - Article codes to be used for ordering



Dimensioni - Dimensions



	FRL 1	FRL 2	FRL 3
A	72	89	100
B	198	244.5	273
C	45	59	70
D	75.5	89	106 106 111
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
E	21	27.5	32.5
F	22.5	28.5	35
G	36	45	50.5
H	39	48	50
I	43	55	65
J	54	69	79
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
M	M32 X 1.5	M40 X 1.5	M47 X 1.5
N	52	66	75.5
O	26	32	38.5
P	32.5	38.5	45
Q	1/8	1/8	1/8

Scheda Materiali - Specifications


- | | |
|---|--|
| 1 Corpo in tecnopolimero | 1 Technopolymeric Body |
| 2 Campana in tecnopolimero | 2 Technopolymeric Bell |
| 3 Ghiera di fissaggio in tecnopolimero | 3 Technopolymeric Fixing nut |
| 4 Manopola in tecnopolimero | 4 Technopolymeric Knob |
| 5 Vite di registro in ottone | 5 Brass Register screw |
| 6 Chiocciola in ottone | 6 Brass Female screw |
| 7 Molla di registro in acciaio | 7 Steel Register spring |
| 8 Membrana a rotolamento | 8 Rolling membrane |
| 9 Guarnizione relieving in NBR | 9 NBR "Relieving" diaphragm |
| 10 Tazza in tecnopolimero | 10 Technopolymeric Bowl |
| 11 Bicchieri in tecnopolimero trasparente | 11 Transparent Technopolymeric Glass |
| 12 Scarico condensa in tecnopolimero | 12 Technopolymeric Condensate exhaust |
| 13 Portafiltro in tecnopolimero | 13 Technopolymeric Filter ring |
| 14 Cartuccia filtrante in bronzo sinterizzato | 14 Sintered bronze Filtering cartridge |
| 15 Centrifugatore in tecnopolimero | 15 Technopolymeric Slinger |
| 16 Deflettore in tecnopolimero | 16 Technopolymeric Deflector |
| 17 Otturatore con guarnizione vulcanizzata in NBR | 17 NBR Shutter with vulcanised diaphragm |
| 18 Asta in ottone | 18 Brass Rod |
| 19 Molla premiotuttore in acciaio inox | 19 Stainless steel Push - shutter spring |
| 20 Terminale in zama | 20 Zama End part |
| 21 O-Ring in NBR | 21 NBR O-Ring |
| 22 Elemento di fissaggio / distanziale | 22 Fixing with distance |

Dati tecnici - Technical data

ATTACCO FILETTATO / THREADED FASTENING
 PORTATA A 6 BAR CON Δp 1 bar
 6 bar FLOW RATE WITH Δp 1 bar
 VITI DI FISSAGGIO / WALL CLAMPING SCREWS
 CAPACITÀ TAZZA / BOWL CAPACITY
 GRADO DI FILTRAZIONE / FILTRATION GRADE
 CAMPO DI REGOLAZIONE / REGULATION RANGE

FLUIDO / FLUID

PRESSIONE MAX / MAXIMUM PRESSURE

TEMPERATURA / TEMPERATURE

POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION

ATTACCO MANOMETRO / MANOMETER FASTENING

SCARICO CONDENSATI / CONDENSATE EXHAUST

FRL 1

1/8"-1/4"-3/8"

1650 Nl/min

M4X14

22 cm³

5µm

0 + 2 bar

FRL 2

1/4"-3/8"-1/2"

3000 Nl/min

M5X18

46 cm³

20µm **Standard**

0 + 4 bar

0 + 8 bar **Standard**

AIR COMPRESSA / COMPRESSED AIR

15 bar

Min -10 / Max +50°C a/rto 10 bar

VERTICALE / VERTICAL

G 1/8"

SEMI AUTOMATICO - MANUALE / SEMI AUTOMATIC - MANUAL

AUTOMATICO / AUTOMATIC

FRL 3

1/2"-3/4"-1"

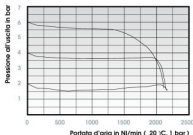
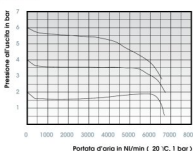
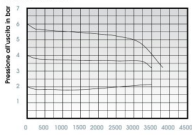
4500 Nl/min

M6X20

89.5 cm³

50µm

0 + 12 bar

Caratteristiche di flusso - Flow Characteristics
Misura / Size: FRL1

Misura / Size: FRL3

Misura / Size: FRL2


T040

Lubrificatore / Lubricator

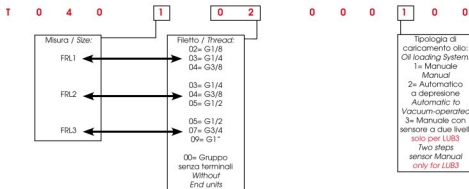
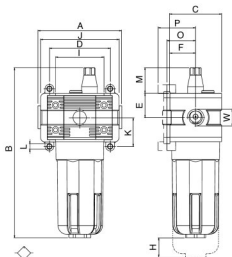

CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Portata Flow Rate	Carico Olio Oil Load
T040103000100	LUB 1	1/4"	2600 NI/min	M
T040104000100	LUB 1	3/8"	2600 NI/min	M
T040104000200	LUB 1	3/8"	2600 NI/min	A
T040204000100	LUB 2	3/8"	5600 NI/min	M
T040205000100	LUB 2	1/2"	5600 NI/min	M
T040205000200	LUB 2	1/2"	5600 NI/min	A
T040307000100	LUB 3	3/4"	8200 NI/min	M
T040309000100	LUB 3	1"	8200 NI/min	M
T040309000200	LUB 3	1"	8200 NI/min	A
T040309000300	LUB 3	1"	8200 NI/min	M2L

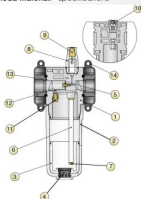
M: Manuale
Manual

M2L: Manuale con sensore a due livelli
Two steps sensor Manual

A: Automatico a Depressione
Automatic to Vacuum-operated

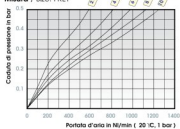
Tabella dei codici di ordinazione - Article codes to be used for ordering

Dimensioni - Dimensions


	FRL 1	FRL 2	FRL 3
A	72	89	100
B	162	195	214
C	45	59	70
D	75.5	89	106 106 111
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
E	21	27.5	32.5
F	22.5	28.5	35
H	39	48	50
I	43	55	65
J	48.5	69	79
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
M	29	29	29
O	26	32	38.5
P	32.5	38.5	45

Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Tazza in tecnopolimero
- 3 Bicchieri in tecnopolimero trasparente
- 4 Tappo in tecnopolimero
- 5 Membrana dispositivo Venturi
- 6 Tubo aspirazione olio in PA11
- 7 Filtro
- 8 Cupola visiva in tecnopolimero trasparente
- 9 Spillo regolazione portata olio in ottone
- 10 Tappo caricamento olio in ottone
- 11 Diffusore aria in ottone
- 12 Terminale in zama
- 13 O-Ring in NBR
- 14 Elemento di fissaggio / distanziale

- 1 Technopolymeric Body
- 2 Technopolymeric Bowl
- 3 Transparent technopolymeric Glass
- 4 Technopolymeric Plug
- 5 Membrane Venturi device
- 6 PA11 Oil aspiration tube
- 7 Small filter
- 8 Transparent technopolymeric Visual dome
- 9 Brass Oil regulating capacity pin
- 10 Brass Oil loading plug
- 11 Brass Air diffuser
- 12 Zama End part
- 13 NBR O-Ring
- 14 Fixing with distance

Dati tecnici - Technical data
ATTACCO FILETTATO / THREADED FASTENING
PORTATA A 6 BAR CON Δp 1 bar
6 bar FLOW RATE WITH Δp 1 bar
VITI DI FISSAGGIO / WALL CLAMPING SCREWS
CAPACITÀ TAZZA / BOWL CAPACITY
FLUIDO / FLUID
PRESSIONE MAX / MAXIMUM PRESSURE
TEMPERATURA / TEMPERATURE
POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION
OLII CONSIGLIATI / RECOMMENDED OILS
CARICAMENTO OLIO / OIL LOADING
FRL 1
1/8"-1/4"-3/8"
2500 Nl/min
M4X14
22 cm³
FRL 2
1/4"-3/8"-1/2"
5600 Nl/min
M5X18
46 cm³
FRL 3
1/2"-3/4"-1"
8200 Nl/min
M6X20
89.5 cm³
ARIA COMPRESSA / COMPRESSED AIR
15 bar
Min -10 / Max +50°C a/o 10 bar
VERTICALE / VERTICAL
Classe ISO 22 a Norma ISO 3448
MANUALE - AUTOMATICO A DEPRESSIONE
MANUAL - AUTOMATIC VACUUM-OPERATED
**MANUALE CON
SENSORE A DUE LIVELLI
TWO STEPS
SENSOR MANUAL**
Caratteristiche di flusso - Flow Characteristics
Misura / Size: FRL1


T050

Valvola Sezionatrice / Shut off Valve

CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK



Codice Code	Misura Size	Filetto Thread	Portata Flow Rate	Comando Drive
T050103000010	V3V 1	1/4	1850 Nl/min	M
T050104000010	V3V 1	3/8	1850 Nl/min	M
T050104000020	V3V 1	3/8	1850 Nl/min	EP
T050104000030	V3V 1	3/8	1850 Nl/min	P
T050204000010	V3V 2	3/8	3000 Nl/min	M
T050205000010	V3V 2	1/2	3000 Nl/min	M
T050205000020	V3V 2	1/2	3000 Nl/min	EP
T050205000030	V3V 2	1/2	3000 Nl/min	P
T050307000010	V3V 3	3/4	5200 Nl/min	M
T050309000010	V3V 3	1"	5200 Nl/min	M
T050309000020	V3V 3	1"	5200 Nl/min	EP
T050309000030	V3V 3	1"	5200 Nl/min	P

M: Manuale / Manual

P: Pneumatico / Pneumatic

Lucchetto in dotazione / Padlock included in the packing

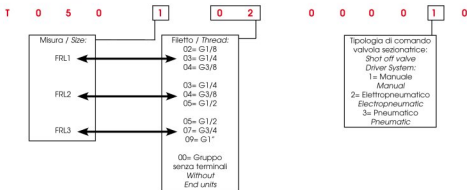
*EP: Elettropneumatico / Electropneumatic

NB: STANDARD SENZA SOLENOIDE VEDI PAG. 17.48 - STANDARD WITHOUT SOLENOID SEE PAG. 17.48

NB: La valvola sezionatrice elettropneumatica non può essere utilizzato in atmosfera potenzialmente esplosiva secondo la Direttiva ATEX.

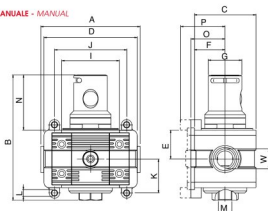
NB: According to the Directive ATEX Shut off valves cannot be used in potentially explosive environment.

Tabella dei codici di ordinazione - Article codes to be used for ordering

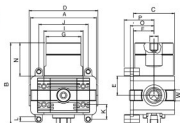
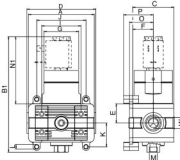


Dimensioni - Dimensions

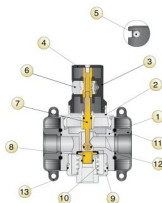
MANUALE - MANUAL



	FRL 1	FRL 2	FRL 3
A	72	89	100
B	106.5	119.5	131.5
C	45	59	70
D	75.5	89	106
E	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
F	21	27.5	32.5
G	22.5	28.5	35
H	32	32	32
I	43	55	65
J	54	69	79
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
M	1/8"	1/4"	3/8"
N	52.5	52.5	52.5
O	26	32	38.5
P	32.5	38.5	45

Dimensioni - Dimensions
PNEUMATICO - PNEUMATIC

**ELETTROPNEUMATICO
ELECTROPNEUMATIC**


	FRL 1	FRL 2	FRL 3
A	72	89	100
B	89.5	100.15	108
B1	126.5	137.15	144.9
C	45	59	70
D	75.4	89	106 - 106 - 111
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
E	21	27.5	32.5
F	22.5	29.5	35
G	38	38	38
I	43	55	65
J	54	69	79
K	16	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
M	1/8"	1/4"	3/8"
N	36.5	32.7	29
N1	73.5	69.6	65.9
O	26	32	38.5
P	32.5	38.5	45
Q	1/8"	1/8"	1/8"

Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Tappo superiore in ottone
- 3 Manopola in tecnopolimero
- 4 Pulsante per l'apertura del circuito
- 5 Asola di inserimento lucchetto di sicurezza
- 6 Pulsante per la chiusura del circuito
- 7 Stelo in ottone
- 8 Otturatore con guarnizione vulcanizzata in NBR
- 9 Tappo inferiore in ottone
- 10 Molla premiflutatore in acciaio inox
- 11 Terminale in zama
- 12 O-Ring in NBR
- 13 Elemento di fissaggio / distanziale

- 1 Technopolymeric Body
- 2 Brass Upper plug
- 3 Technopolymeric Knob
- 4 Push button to open the circuit
- 5 Slotted hole to insert the security lock
- 6 Push button to close the circuit
- 7 Stem made in Brass
- 8 NBR Shutter with vulcanized seal
- 9 Brass Lower plug
- 10 Stainless steel Push - shutter spring
- 11 Zama End part
- 12 NBR O-Ring
- 13 Fixing with distance

Dati tecnici - Technical data
ATTACCO FILETTATO / THREADED FASTENING
PORTATA A 6 BAR CON Δp 1 bar
6 bar FLOW RATE WITH Δp 1 bar
VITI DI FISSAGGIO / WALL CLAMPING SCREWS
FLUIDO / FLUID
PRESSIONE MAX / MAXIMUM PRESSURE
TEMPERATURA / TEMPERATURE
POSIZIONE DI MONTAGGIO / ASSEMBLING POSITION
TIPO DI COMANDO / DRIVE SYSTEM
SOLENOIDE / SOLENOID

FRL 1	FRL 2	FRL 3
1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
1850 Nl/min	3000 Nl/min	5200 Nl/min
M4X14	M5X18	M6X20

AIRIA COMPRESSA / COMPRESSED AIR
15 bar (da 2 a 10 bar per Elettropneumatico - From 2 to 10 bar for Electropneumatic)
Min -10 / Max +50°C a/tto 10 bar
VERTICALE / VERTICAL
MANUALE / MANUAL
PNEUMATICO / PNEUMATIC
ELETTROPNEUMATICO - ELECTROPNEUMATIC
24V DC 3W - 220V AC 5VA

T060

Avviatore progressivo con scarico rapido *Soft start valve with quick exhaust*

CODICI DEI PRODOTTI STANDARD A MAGAZZINO - STANDARD PRODUCTS AVAILABLE IN STOCK

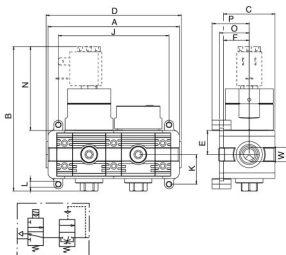
Codice Code	Misura Size	Filetto Thread	Comando Drive
T060104000002	APE 1	3/8	EP
T060204000002	APE 2	3/8	EP
T060205000002	APE 2	1/2	EP
T060307000002	APE 3	3/4	EP
T060309000002	APE 3	1"	EP

EP: Elettropneumatico - Electropneumatic

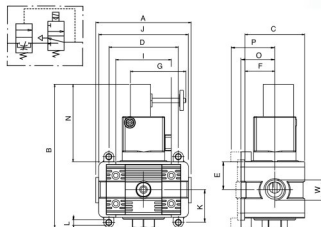
NB: STANDARD SENZA SOLENOIDE VEDI PAG. 17.48 - STANDARD WITHOUT SOLENOID SEE PAG. 17.48
NB: L'avviatore progressivo non può essere utilizzato in atmosfera potenzialmente esplosiva secondo la Direttiva ATEX.
NB: According to the Directive ATEX soft start valves cannot be used in potentially explosive environment.

Tabella dei codici di ordinazione - Article codes to be used for ordering

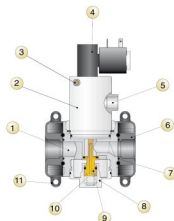
T	0	6	0	2	0	4	0	0	0	0	0	2
Misura / Size:				Filetto / Thread:				Tipologia di comando Driver System: 2 = Elettropneumatico Electropneumatic				
FRL1				02= G1/8								
FRL2				03= G1/4								
				04= G3/8								
				05= G1/2								
				06= G3/4								
				07= G1"								
				08= G1 1/2								
				09= G2"								
				00= Gruppo senza terminali Without End units								

Dimensioni - Dimensions

FRL 1

A	115
B	126.5
C	45
D	118.4
E	1/8 - 1/4 - 3/8
F	21
G	22.5
H	97
I	26
J	ØxM5
K	73.5
L	32.5
M	26



	FRL 2	FRL 3
A	104	115
B	142	131.5
C	59	70
D	89	106 106 111
E	1/4 - 3/8 - 1/2	1/2 - 3/4 - 1
F	27.5	32.5
G	28.5	35
H	55.5	55.5
I	55	65
J	97	109
K	32.5	38
L	ØxM5	ØxM5
M	76.5	76.5
N	32	38.5
O	38.5	45
P		

Scheda Materiali - Specifications


- 1 Corpo in tecnopolimero
- 2 Gruppo di comando in ottone
- 3 Vite di regolazione del flusso in ottone
- 4 Elettropilota
- 5 Uscita dello scarico rapido
- 6 Terminali in zama
- 7 O-Ring in NBR
- 8 Tappo inferiore in ottone
- 9 Otturatore in ottone con O-Ring integrata
- 10 Molla premioturatore in acciaio inox
- 11 Elemento di fissaggio / distanziale

- 1 Technopolymeric Body
- 2 Brass Impulse group
- 3 Brass Adjusting screw
- 4 Electronic pilot
- 5 Exit of the quick exhaust
- 6 Zamac End part
- 7 NBR O-ring
- 8 Brass Lower plug
- 9 Brass Shutter with integrated O-ring
- 10 Stainless steel Shutter spring
- 11 Fixing with distance

Dati tecnici - Technical data

ATTACCO FILETTATO / THREADED FASTENING
 VITI DI FISSAGGIO / WALL CLAMPING SCREWS
 PRESSIONE MAX D'INGRESSO / MAXIMUM INLET PRESSURE
 FLUIDO / FLUID

ATTACCO FILETTATO USCITA SCARICO RAPIDO / FASTENING QUICK EXHAUST

TEMPERATURA / TEMPERATURE

POSIZIONE DI MONTAGGIO / ASSEMBLY POSITION

POSIZIONE IN LINEA / LINE POSITION

TIPO DI COMANDO / DRIVE SYSTEM

SOLENOIDE / SOLENOID

FRL 1	FRL 2	FRL 3
1/4"-3/8"-1/2"	1/4"-3/8"-1/2"	1/2"-3/4"-1"
M5X18	M5X18	M6X20
4-10 bar	4-10 bar	3-10 bar
ARIA COMPRESSA / COMPRESSED AIR		
1/8"	1/4"	
Min -10 / Max +50°C a/fo 10 bar		
VERTICALE / VERTICAL		
IN CODA AI COMPONENTI FRL		
END OF ALL FRL COMPONENTS		
ELETTROPNEUMATICO / ELECTROPNEUMATIC		
24V DC 3W - 220V AC 5VA		

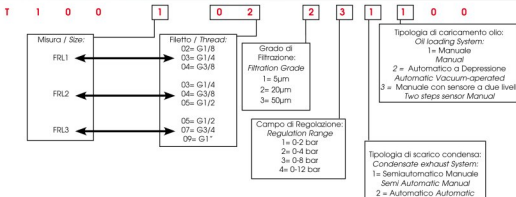
T100
FR + L

FR + L
CODICI DEI PRODOTTI STANDARD A MAGAZZINO
 STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Regolazione Regulation	Portata Flow Rate	Scarico Exhaust
T100103231100	FR+L1	1/4	20 µm	0 - 8 bar	1100 NI/min	S/M
T100104231100	FR+L1	3/8	20 µm	0 - 8 bar	1100 NI/min	S/M
T100204231100	FR+L2	3/8	20 µm	0 - 8 bar	2500 NI/min	S/M
T100205231100	FR+L2	1/2	20 µm	0 - 8 bar	2500 NI/min	S/M
T100205232100	FR+L2	1/2	20 µm	0 - 8 bar	2500 NI/min	A
T100307231100	FR+L3	3/4	20 µm	0 - 8 bar	4300 NI/min	S/M
T100309231100	FR+L3	1"	20 µm	0 - 8 bar	4300 NI/min	S/M
T100309232100	FR+L3	1"	20 µm	0 - 8 bar	4300 NI/min	A

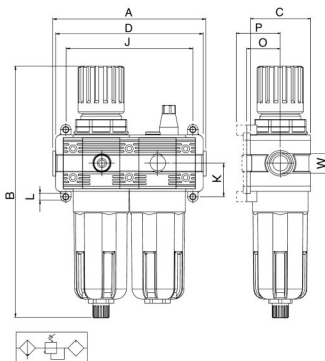
 S/M: Semiautomatico/ Manuale
 Semi Automatic / Manual

A: Automatico / Automatic

Tabella dei codici di ordinazione - Article codes to be used for ordering


Dati tecnici - Technical data

	FRL 1	FRL 2	FRL 3
ATTACCO FILETTATO / THREADED FASTENING	1/8"-1/4"-3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
PORTATA A 6 BAR CON Δp 1 bar	1100 Nl/min	2500 Nl/min	4300 Nl/min
6 bar FLOW RATE WITH Δp 1 bar			
VITI DI FISSAGGIO / WALL CLAMPING SCREWS	M4X14	MSX18	M6X20
CAPACITA' TAZZA / BOWL CAPACITY	22 cm ³	46 cm ³	89.5 cm ³
CAMPO DI REGOLAZIONE / REGULATION RANGE	0 ÷ 2 bar	0 ÷ 4 bar	0 ÷ 12 bar
		0 ÷ 8 bar Standard	
GRADO DI FILTRAZIONE / FILTRATION GRADE	5µm	20µm Standard	50µm
FLUIDO / FLUID		ARIA COMPRESSA / COMPRESSED AIR	
PRESSIONE MAX / MAXIMUM PRESSURE		15 bar	
TEMPERATURA / TEMPERATURE		Min -10 / Max +50°C a/fo 10 bar	
ATTACCO MANOMETRO / MANOMETER FASTENING		G 1/8"	
SCARICO CONDENSA / CONDENSATE EXHAUST		SEMI AUTOMATICO - MANUALE / SEMI AUTOMATIC - MANUAL AUTOMATICO / AUTOMATIC	

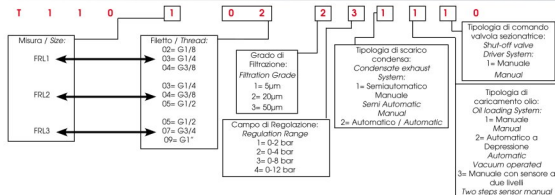

Dimensioni - Dimensions

	FRL 1	FRL 2	FRL 3
A	115	144	165
B	198	244.5	273
C	45	59	70
D	119	144	171 171 176
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
J	124.5	152	174
K	17.25	22	27
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45

T110
V +FR + L

V + FR + L
CODICI DEI PRODOTTI STANDARD A MAGAZZINO
 STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Regolazione Regulation	Portata Flow Rate
T110103231110	V+FR+L 1	1/4	20 µm	0 - 8 bar	800 NI/min
T110104231110	V+FR+L 1	3/8	20 µm	0 - 8 bar	800 NI/min
T110204231110	V+FR+L 2	3/8	20 µm	0 - 8 bar	2100 NI/min
T110205231110	V+FR+L 2	1/2	20 µm	0 - 8 bar	2100 NI/min
T110307231110	V+FR+L 3	3/4	20 µm	0 - 8 bar	3500 NI/min
T110309231110	V+FR+L 3	1"	20 µm	0 - 8 bar	3500 NI/min

Tabella dei codici di ordinazione - Article codes to be used for ordering


Dati tecnici - Technical data

ATTACCO FILETTATO / **THREADED FASTENING**
 PORTATA A 6 BAR CON Δp 1 bar
 6 bar **FLOW RATE WITH Δp 1 bar**
 VITI DI FISSAGGIO / **WALL CLAMPING SCREWS**
 CAPACITÀ TAZZA / **BOWL CAPACITY**
 CAMPO DI REGOLAZIONE / **REGULATION RANGE**

GRADO DI FILTRAZIONE / **FILTRATION GRADE**

FLUIDO / **FLUID**

PRESSIONE MAX / **MAXIMUM PRESSURE**

TEMPERATURA / **TEMPERATURE**

ATTACCO MANOMETRO / **MANOMETER FASTENING**

SCARICO CONDENSA / **CONDENSATE EXHAUST**

FRL 1

1/8" - 1/4" - 3/8"

800 Nl/min

M4X14

22 cm³

0 ÷ 2 bar

5µm

FRL 2

1/4" - 3/8" - 1/2"

2100 Nl/min

M5X18

46 cm³

0 ÷ 4 bar

0 ÷ 8 bar **Standard**

20µm **Standard**

ARIA COMPRESSA / **COMPRESSED AIR**

15 bar

Min -10 / Max +50°C a/to 10 bar

G 1/8"

SEMIAUTOMATICO - MANUALE / **SEMI AUTOMATIC - MANUAL**
 AUTOMATICO / **AUTOMATIC**

FRL 3

1/2" - 3/4" - 1"

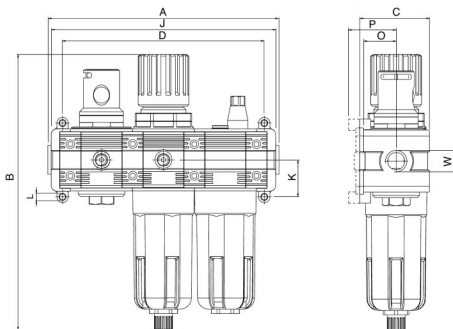
3500 Nl/min

M6X20

89.5 cm³

0 ÷ 12 bar

50µm


Dimensioni - Dimensions
FRL 1
FRL 2
FRL 3

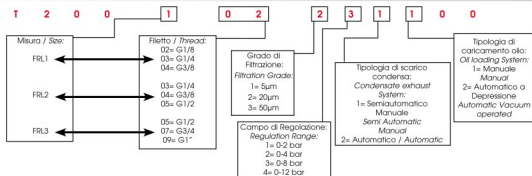
A	115	144	165
B	198	244.5	273
C	45	59	70
D	118.5	199	236 236 241
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
J	97	124	144
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45

T200
F + R + L

F + R + L
CODICI DEI PRODOTTI STANDARD A MAGAZZINO
 STANDARD PRODUCTS AVAILABLE IN STOCK

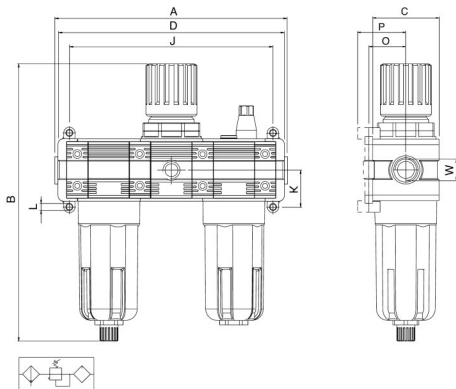
Code Codice	Misura Size	Filetto Thread	Filtrazione Filtration	Regolazione Regulation	Portata Flow Rate
T200103231100	F+R+L 1	1/4	20 µm	0 - 8 bar	1000 Nl/min
T200104231100	F+R+L 1	3/8	20 µm	0 - 8 bar	1000 Nl/min
T200204231100	F+R+L 2	3/8	20 µm	0 - 8 bar	2400 Nl/min
T200205231100	F+R+L 2	1/2	20 µm	0 - 8 bar	2400 Nl/min
T200307231100	F+R+L 3	3/4	20 µm	0 - 8 bar	4250 Nl/min
T200309231100	F+R+L 3	1"	20 µm	0 - 8 bar	4250 Nl/min

Tabella dei codici di ordinazione - Article codes to be used for ordering



Dati tecnici - Technical data

	FRL 1	FRL 2	FRL 3
ATTACCO FILETTATO / THREADED FASTENING	1/8"-1/4"-3/8"	1/4"-3/8"-1/2"	1/2"-3/4"-1"
PORTATA A 6 BAR CON Δp 1 bar	1000 Nl/min	2400 Nl/min	4250 Nl/min
6 bar FLOW RATE WITH Δp 1 bar			
VITI DI FISSAGGIO / WALL CLAMPING SCREWS	M4X14	M5X18	M6X20
CAPACITÀ TAZZA / BOWL CAPACITY	22 cm ³	46 cm ³	89.5 cm ³
CAMPO DI REGOLAZIONE / REGULATION RANGE	0 ÷ 2 bar	0 ÷ 4 bar	0 ÷ 12 bar
		0 ÷ 8 bar Standard	
GRADO DI FILTRAZIONE / FILTRATION GRADE	5µm	20µm Standard	50µm
FLUIDO / FLUID		ARIA COMPRESSA / COMPRESSED AIR	
PRESSIONE MAX / MAXIMUM PRESSURE		15 bar	
TEMPERATURA / TEMPERATURE		Min -10 / Max +50°C a/to 10 bar	
ATTACCO MANOMETRO / MANOMETER FASTENING		G 1/8"	
SCARICO CONDENSA / CONDENSATE EXHAUST		SEMIAUTOMATICO - MANUALE / SEMI AUTOMATIC - MANUAL AUTOMATICO / AUTOMATIC	

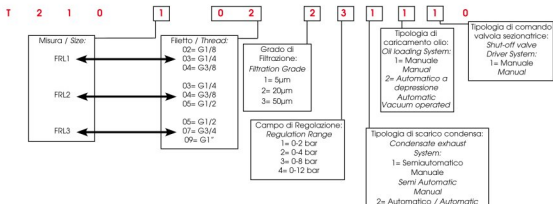

Dimensioni - Dimensions

	FRL 1	FRL 2	FRL 3
A	158	199	230
B	198	244.5	273
C	45	59	70
D	161.5	199	236 236 241
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
J	140	179	209
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45

T210
V + F + R + L

V + F + R + L
CODICI DEI PRODOTTI STANDARD A MAGAZZINO
 STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Regolazione Regulation	Portata Flow Rate
T210103231110	V+F+R+L 1	1/4	20 µm	0 - 8 bar	1000 Nl/min
T210104231110	V+F+R+L 1	3/8	20 µm	0 - 8 bar	1000 Nl/min
T210204231110	V+F+R+L 2	3/8	20 µm	0 - 8 bar	2200 Nl/min
T210205231110	V+F+R+L 2	1/2	20 µm	0 - 8 bar	2200 Nl/min
T210307231110	V+F+R+L 3	3/4	20 µm	0 - 8 bar	3900 Nl/min
T210309231110	V+F+R+L 3	1"	20 µm	0 - 8 bar	3900 Nl/min

Tabella dei codici di ordinazione - Article codes to be used for ordering


Dati tecnici - Technical data

ATTACCO FILETTATO / *THREADED FASTENING*
 PORTATA A 6 BAR CON Δp 1 bar
 6 bar *FLOW RATE WITH Δp 1 bar*
 VITI DI FISSAGGIO / *WALL CLAMPING SCREWS*
 CAPACITÀ TAZZA / *BOWL CAPACITY*
 CAMPO DI REGOLAZIONE / *REGULATION RANGE*

GRADO DI FILTRAZIONE / *FILTRATION GRADE*

FLUIDO / *FLUID*

PRESSIONE MAX / *MAXIMUM PRESSURE*

TEMPERATURA / *TEMPERATURE*

ATTACCO MANOMETRO / *MANOMETER FASTENING*

SCARICO CONDENSA / *CONDENSATE EXHAUST*

FRL 1

1/8" - 1/4" - 3/8"

1000 Nl/min

M4X14

22 cm³

0 ÷ 2 bar

5µm

FRL 2

1/4" - 3/8" - 1/2"

2200 Nl/min

M5X18

46 cm³

0 ÷ 4 bar

0 ÷ 8 bar **Standard**

20µm **Standard**

ARIA COMPRESSA / *COMPRESSED AIR*

15 bar

Min -10 / Max +50°C a/to 10 bar

G 1/8"

FRL 3

1/2" - 3/4" - 1"

3900 Nl/min

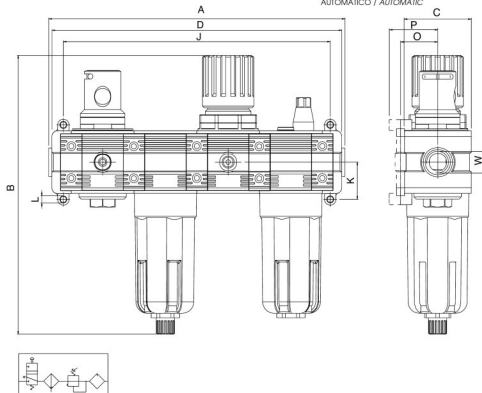
M6X20

89.5 cm³

0 ÷ 12 bar

50µm

MANUALE - SEMIAUTOMATICO / *MANUAL SEMI AUTOMATIC*
 AUTOMATICO / *AUTOMATIC*


Dimensioni - Dimensions
FRL 1
FRL 2
FRL 3

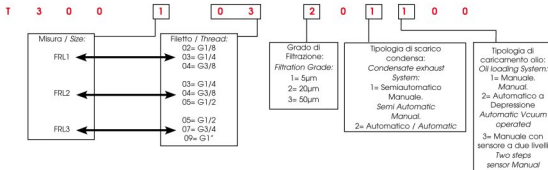
A	201	254	295
B	198	244.5	273
C	45	59	70
D	204.5	254	301
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
J	183	234	274
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45

T300
F + L

F + L
CODICI DEI PRODOTTI STANDARD A MAGAZZINO
 STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Portata Flow Rate
T300103201100	F+L 1	1/4	20 µm	1350 NI/min
T300104201100	F+L 1	3/8	20 µm	1350 NI/min
T300204201100	F+L 2	3/8	20 µm	3200 NI/min
T300205201100	F+L 2	1/2	20 µm	3200 NI/min
T300307201100	F+L 3	3/4	20 µm	5000 NI/min
T300309201100	F+L 3	1"	20 µm	5000 NI/min

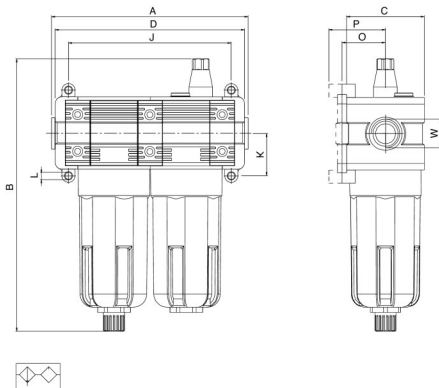
Tabella dei codici di ordinazione - Article codes to be used for ordering



Dati tecnici - Technical data

ATTACCO FILETTATO / THREADED FASTENING
 PORTATA A 6 BAR CON Δp A 1 bar
 6 bar FLOW RATE WITH Δp AT 1 bar
 VITI DI FISSAGGIO / WALL CLAMPING SCREWS
 CAPACITÀ TAZZA / BOWL CAPACITY
 GRADO DI FILTRAZIONE / FILTRATION GRADE
 FLUIDO / FLUID
 PRESSIONE MAX / MAXIMUM PRESSURE
 TEMPERATURA / TEMPERATURE
 SCARICO CONDENSA / CONDENSATE EXHAUST

FRL 1	FRL 2	FRL 3
1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
1350 Nl/min	3200 Nl/min	5000 Nl/min
M4X14	M5X18	M6X20
22 cm ³	46 cm ³	89.5 cm ³
5µm	20µm Standard	50µm
ARIA COMPRESSA / COMPRESSED AIR		
15 bar		
Min -10 / Max +50°C a/tto 10 bar		
MANUALE - SEMIAUTOMATICO / MANUAL SEMI AUTOMATIC		
AUTOMATICO / AUTOMATIC		


Dimensioni - Dimensions

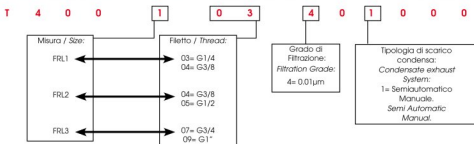
	FRL 1	FRL 2	FRL 3
A	115	144	165
B	175	207.5	226.5
C	45	59	70
D	118.5	144	171
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
J	97	124	144
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45

T400
FIL + FC

FIL + FC
CODICI DEI PRODOTTI STANDARD A MAGAZZINO
 STANDARD PRODUCTS AVAILABLE IN STOCK

Codice Code	Misura Size	Filetto Thread	Filtrazione Filtration	Portata Flow Rate
T400103401000	FIL+FC 1	1/4	5 μ m + 0.01 μ m	600 NI/min
T400104401000	FIL+FC 1	3/8	5 μ m + 0.01 μ m	600 NI/min
T400204401000	FIL+FC 2	3/8	5 μ m + 0.01 μ m	660 NI/min
T400205401000	FIL+FC 2	1/2	5 μ m + 0.01 μ m	660 NI/min
T400307401000	FIL+FC 3	3/4	5 μ m + 0.01 μ m	910 NI/min
T400309401000	FIL+FC 3	1"	5 μ m + 0.01 μ m	910 NI/min

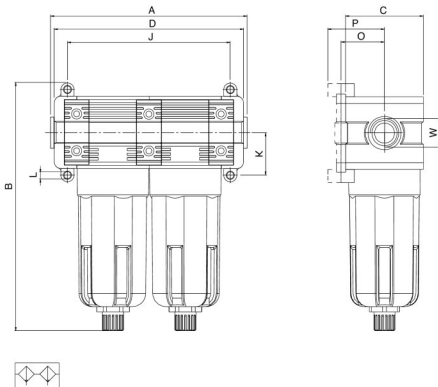
Tabella dei codici di ordinazione - Article codes to be used for ordering



Dati tecnici - Technical data

ATTACCO FILETTATO / THREADED FASTENING
 PORTATA A 6 BAR CON Δp A 1 bar
 6 bar FLOW RATE WITH Δp AT 1 bar
 VITI DI FISSAGGIO / WALL CLAMPING SCREWS
 CAPACITÀ TAZZA / BOWL CAPACITY
 GRADO DI FILTRAZIONE / FILTRATION GRADE
 FLUIDO / FLUID
 PRESSIONE MAX / MAXIMUM PRESSURE
 TEMPERATURA / TEMPERATURE
 SCARICO CONDENSA / CONDENSATE EXHAUST

FRL 1	FRL 2	FRL 3
1/4"-3/8"	3/8"-1/2"	3/4"-1"
600 Nl/min	660 Nl/min	910 Nl/min
M4X14	M5X18	M6X20
22 cm ³	46 cm ³	89.5 cm ³
5µm + 0.01µm		
ARIA COMPRESSA / COMPRESSED AIR		
15 bar		
Min -10 / Max +50°C a/to 10 bar		
MANUALE - SEMIAUTOMATICO / MANUAL SEMI AUTOMATIC		


Dimensioni - Dimensions

	FRL 1	FRL 2	FRL 3
A	115	144	165
B	146	178.5	197.5
C	45	59	70
D	118.5	144	171 171 176
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
J	97	124	144
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45

T450

FR + FC

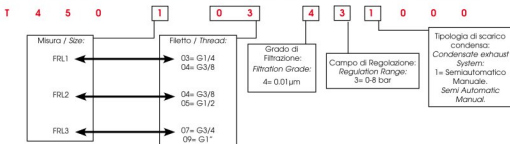


FR + FC

CODICI DEI PRODOTTI STANDARD A MAGAZZINO
STANDARD PRODUCTS AVAILABLE IN STOCK

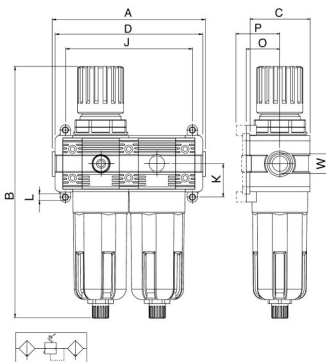
Codice Code	Misura Size	Filetto Thread	Regolazione Regulation	Filtrazione Filtration	Portata Flow Rate
T450103431000	FR+FC 1	1/4	0 - 8 bar	5 µm + 0.01 µm	600 NI/min
T450104431000	FR+FC 1	3/8	0 - 8 bar	5 µm + 0.01 µm	600 NI/min
T450204431000	FR+FC 2	3/8	0 - 8 bar	5 µm + 0.01 µm	660 NI/min
T450205431000	FR+FC 2	1/2	0 - 8 bar	5 µm + 0.01 µm	660 NI/min
T450307431000	FR+FC 3	3/4	0 - 8 bar	5 µm + 0.01 µm	910 NI/min
T450309431000	FR+FC 3	1"	0 - 8 bar	5 µm + 0.01 µm	910 NI/min

Tabella dei codici di ordinazione - Article codes to be used for ordering



Dati tecnici - Technical data

	FRL 1	FRL 2	FRL 3
ATTACCO FILETTATO / THREADED FASTENING	1/4"-3/8"	3/8"-1/2"	3/4"-1"
PORTATA A 6 BAR CON Δp A 1 bar	600 Nl/min	660 Nl/min	910 Nl/min
6 bar FLOW RATE WITH Δp AT 1 bar			
VITI DI FISSAGGIO / WALL CLAMPING SCREWS	M4X14	M5X18	M6X20
CAPACITÀ TAZZA / BOWL CAPACITY	22 cm ³	46 cm ³	89.5 cm ³
GRADO DI FILTRAZIONE / FILTRATION GRADE		5 μ m + 0.01 μ m	
CAMPO DI REGOLAZIONE / REGULATION RANGE		0-8 bar	
FLUIDO / FLUID		ARIA COMPRESSA / COMPRESSED AIR	
PRESSIONE MAX / MAXIMUM PRESSURE		15 bar	
TEMPERATURA / TEMPERATURE		Min -10 / Max +50°C a/to 10 bar	
SCARICO CONDENSATE / CONDENSATE EXHAUST		MANUALE - SEMIAUTOMATICO / MANUAL SEMI AUTOMATIC	


Dimensioni - Dimensions

	FRL 1	FRL 2	FRL 3
A	115	144	165
B	146	178.5	197.5
C	45	59	70
D	118.5	144	171 171 176
W	1/8" - 1/4" - 3/8"	1/4" - 3/8" - 1/2"	1/2" - 3/4" - 1"
J	97	124	144
K	26	32.5	38
L	Ø X M4	Ø X M5	Ø X M6
O	26	32	38.5
P	32.5	38.5	45

T500
Piastrina di Collegamento
Connection Plate


Codice	Code
T50000000000	FRL 0
T500100000000	FRL 1
T500200000000	FRL 2
T500300000000	FRL 3

T505
Gruppo Terminali
Ends Unit


Codice	Code
T505102000000	FRL 1 1/8
T505103000000	FRL 1 1/4
T505104000000	FRL 1 3/8
T505203000000	FRL 2 1/4
T505204000000	FRL 2 3/8
T505205000000	FRL 2 1/2
T505305000000	FRL 3 1/2
T505307000000	FRL 3 3/4
T505309000000	FRL 3 1"

T510
Gruppo di Collegamento
Connection Unit


Codice	Code
T510102000000	FRL 1 1/8
T510103000000	FRL 1 1/4
T510104000000	FRL 1 3/8
T510203000000	FRL 2 1/4
T510204000000	FRL 2 3/8
T510205000000	FRL 2 1/2
T510305000000	FRL 3 1/2
T510307000000	FRL 3 3/4
T510309000000	FRL 3 1"

T540
Gruppo Portafiltro
Filter Ring Device


Codice	Code
T540000100000	FRL 0 5 µm
T540000200000	FRL 0 20 µm
T540000300000	FRL 0 50 µm
T540100100000	FRL 1 5 µm
T540100200000	FRL 1 20 µm
T540100300000	FRL 1 50 µm
T540200100000	FRL 2 5 µm
T540200200000	FRL 2 20 µm
T540200300000	FRL 2 50 µm
T540300100000	FRL 3 5 µm
T540300200000	FRL 3 20 µm
T540300300000	FRL 3 50 µm

T545
Filtro a Coalescenza
Coalescer Filter


Codice	Code
T545000000000	FRL 0
T545100000000	FRL 1
T545200000000	FRL 2
T545300000000	FRL 3

MAN01
Manometro
Manometer


Codice	Code
MAN01N2040000	240 0-12 bar R1/8

REG06
Molla di Registro
Register Spring


Codice	Code
REG060054015C	FRL 0 0-2 BAR
REG060054025C	FRL 0 0-4 BAR
REG060054035C	FRL 0 0-8 BAR
REG060054045C	FRL 0 0-12 BAR
REG061054015C	FRL 1 0-2 BAR
REG061054025C	FRL 1 0-4 BAR
REG061054035C	FRL 1 0-8 BAR
REG061054045C	FRL 1 0-12 BAR
REG062054015C	FRL 2 0-2 BAR
REG062054025C	FRL 2 0-4 BAR
REG062054035C	FRL 2 0-8 BAR
REG062054045C	FRL 2 0-12 BAR
REG063054015C	FRL 3 0-2 BAR
REG063054025C	FRL 3 0-4 BAR
REG063054035C	FRL 3 0-8 BAR
REG063054045C	FRL 3 0-12 BAR

REG09
Gruppo Membrana
Membrane Unit


Codice	Code
REG090017005C	FRL 0
REG091017005C	FRL 1
REG092017005C	FRL 2
REG093017005C	FRL 3

T550
Gruppo Venturi
Venturi Unit

T560
Gruppo Dosatore Olio
Oil Feeding Device


Codice	Code
T550000000000	FRL 0
T550100000000	FRL 1
T550200000000	FRL 2
T550300000000	FRL 3



Codice	Code
T560100000000	FRL 0
T560100000000	FRL 1
T560100000000	FRL 2
T560100000000	FRL 3

T570
Gruppo di Regolazione
Regulating Device

T580
Gruppo Tappo Regolatore
Regulating Plug Unit


Codice	Code
T570000010000	FRL 0 0-2 BAR
T570000020000	FRL 0 0-4 BAR
T570000030000	FRL 0 0-8 BAR
T570000040000	FRL 0 0-12 BAR
T570100010000	FRL 1 0-2 BAR
T570100020000	FRL 1 0-4 BAR
T570100030000	FRL 1 0-8 BAR
T570100040000	FRL 1 0-12 BAR
T570200010000	FRL 2 0-2 BAR
T570200020000	FRL 2 0-4 BAR
T570200030000	FRL 2 0-8 BAR
T570200040000	FRL 2 0-12 BAR
T570300010000	FRL 3 0-2 BAR
T570300020000	FRL 3 0-4 BAR
T570300030000	FRL 3 0-8 BAR
T570300040000	FRL 3 0-12 BAR



Codice	Code
T580000000000	FRL 0
T580100000000	FRL 1
T580200000000	FRL 2
T580300000000	FRL 3

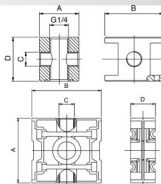
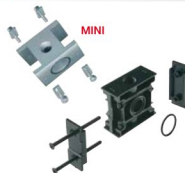
T590
Gruppo Otturatore + Filtro
Shutter + Filter Unit

FIL04
Filtro Sinterizzato
Sintered Filter


Codice	Code
T590000100000	FRL 0 5 µm
T590000200000	FRL 0 20 µm
T590000300000	FRL 0 50 µm
T590100100000	FRL 1 5 µm
T590100200000	FRL 1 20 µm
T590100300000	FRL 1 50 µm
T590200100000	FRL 2 5 µm
T590200200000	FRL 2 20 µm
T590200300000	FRL 2 50 µm
T590300100000	FRL 3 5 µm
T590300200000	FRL 3 20 µm
T590300300000	FRL 3 50 µm



Codice	Code
FIL040038055C	FRL 0 5 µm
FIL040038205C	FRL 0 20 µm
FIL040038505C	FRL 0 50 µm
FIL041010055C	FRL 1 5 µm
FIL041010205C	FRL 1 20 µm
FIL041010505C	FRL 1 50 µm
FIL042010055C	FRL 2 5 µm
FIL042010205C	FRL 2 20 µm
FIL042010505C	FRL 2 50 µm
FIL043010055C	FRL 3 5 µm
FIL043010205C	FRL 3 20 µm
FIL043010505C	FRL 3 50 µm

DIS00
Distributore d'Aria
Air Distributor


Codice	Code	A	B	C	D
DIS00001100NE	FRL 0	27	40	1/8	30
DIS00108000NE	FRL 1	42	45	1/4	24
DIS00208000NE	FRL 2	55	59	1/4	24
DIS00308000NE	FRL 3	65	70	3/8	32

T520
MINI

Gruppo Tazza Filtro
Bowl for Filter Unit

Codice	Code
T520000001000	FRL 0
T520100001000	FRL 1
T520200001000	FRL 2
T520300001000	FRL 3

T525
Gruppo Tazza Scarico Condensa Automatico
Bowl for Automatic Condensed Exhaust


Codice	Code
T525200002000	FRL 2
T525300002000	FRL 3

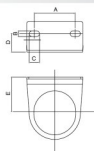
T530
MINI

Gruppo Tazza Lubrificatore
Bowl for Lubricator Unit

Codice	Code
T530000000100	FRL 0
T530100000100	FRL 1
T530200000100	FRL 2
T530300000100	FRL 3

T535
Gruppo Tazza Caricamento automatico olio
Bowl for Automatic oil loading system


Codice	Code
T535100000200	FRL 1
T535200000200	FRL 2
T535300000200	FRL 3

REG16

Staffa di Fissaggio
Clamp Bracket

Codice	Code	A	B	C	D	E
REG16005000NE	FRL 0	21.5	5.5	12	15	31
REG16105000NE	FRL 1	28	5.5	10	15	29
REG16205000NE	FRL 2	40	5.5	10	18	35
REG16305000NE	FRL 3	50	5.5	10	20	39

SOL01

Solenoide
Solenoid

Codice	Code
SOL01024C1000	24V DC 3W
SOL01220A2000	220V AC 5VA

ALPHA
FITTINGS &
ACCESSORIES



GENERAL CATALOG



With over a century of experience Alpha Technologies and our partner Aignep spa have become worldwide leaders in the production and marketing of fittings and accessories for industrial applications in addition to a wide variety of specialty products employed in agriculture, irrigation, medical, pest control, plumbing and countless other industry segments. To maintain our role as industry leaders and to achieve optimal productivity, we invest in a highly skilled workforce and incorporate the most advanced equipment available in our manufacturing, production and processing procedures. This investment in personnel and equipment results in unparalleled customer service and the highest quality products offered at a very competitive price. Customer service, quality product, competitive price..... That's ALPHA





TABLE OF CONTENTS

SWIFT-FIT			
Inch Tube	Push-To-Connect Fittings Inch Tube X Universal Thread	5	
Inch Fitting Kits	Assortments Push-To-Connect Fittings Inch Tube X Universal Thread	17	
Metric Tube	Push-To-Connect Fittings Metric Tube X Universal Thread	18	
Metric Fitting Kits	Assortments Push-To-Connect Fittings Metric Tube X Universal Thread	24	
PUSH-FIT			
NPTF Thread & Inch Tube	Push-To-Connect Fittings Inch Tube X NPTF Thread	27	
BSPP Thread & Metric Tube	Push-To-Connect Fittings Metric Tube X BSPT/BSPP Thread	30	
QUICK-DISCONNECT COUPLERS			
Safety Couplers	Lightweight Compact Safety Couplers NPTF Thread	33	
MULTI-SOCKET	Universal Quick Disconnect Couplers NPTF Thread	36	
AC Couplers	Mini Couplers NPTF Thread	42	
Industrial Interchange	1/4 & 3/8 Industrial Interchange NPTF Thread	43	
CONTROL VALVES			
Swift-Fit Inch Tube	Push-To-Connect Flow Controls Inch Tube X Universal Thread	46	
Inline Flow Controls	Push-To-Connect Inch Tube & NPTF	53	
Swift-Fit Metric Tube	Push-To-Connect Flow Controls Metric Tube X Universal Thread	55	
MINI-BALL VALVES			
Inch	Chrome Plated Brass Ball Valves Inch Tube NPTF Ports	59	
Metric	Chrome Plated Brass Ball Valves Metric Tube BSPT BSPP G Thread Ports	62	
ACCESSORIES			
Quick Exhaust Valves	Nickel Plated Quick Exhaust Valves NPTF Ports	66	
Slide Valves	Nickle Plated Brass Core Aluminium Sleeve Slide Valves	66	
Check Valves	Male & Female NPTF & Inch Tube x Tube Check Valves	67	
Inline Filters	Inline Filter With Replaceable Element	68	
Nickel-plated Pipe Fittings	Nipples, Tee, Adaptors, Tees, Elbows	68	
Banjo Assemblies	Inch & Metric Banjo Bodies & Stems	71	
Hose & Tubing	Recoil Fittings & Hose / Nylon Tubing	76	
SPECIALTY MANUFACTURING			
Custom Products	Specialty Products Manufactured To Customer Specifications	78	
TECHNICAL SPECIFICATIONS			
Flow Controls		80	
Ball Valves		81	
Quick Exhaust Valves		84	
Coupler Cross Reference		85	





SWIFT-FIT
UNIVERSAL THREAD SYSTEM



SWIFT-FIT

UNIVERSAL THREAD SYSTEM



ONE FITTING....ENDLESS POSSIBILITIES

NPTF • BSPP • BSPT • ISO 7 • ISO 228 • G Thread • J Thread

COMPONENT SPECIFICATIONS

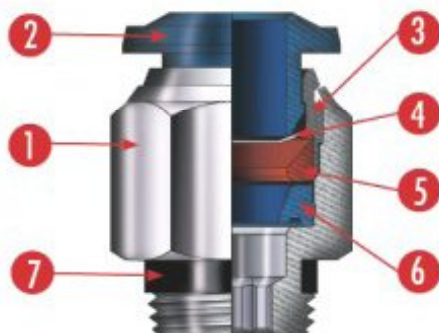
Pressure Rating: Vacuum-250 PSI

Temperature Rating: 0-160° F

Tubing Compatibility: Nylon*
Polyethylene*
Polyurethane*
Copper

Media: Compressed Air
Water

*98 Durometer for best results



- | | |
|--------------------------|----------------------------------|
| 1. Body | Nickel Plated Brass |
| 2. Thrust Ring | Nickel Plated Brass or Composite |
| 3. Sleeve | Nickel Plated Brass |
| 4. Gripper Collet | Stainless steel |
| 5. Safety Ring | Technopolymer |
| 6. Lip Seal | NBR 70 |
| 7. Thread Seal | NBR 70 |

SWIFT-FIT
Metallic

Push-To-Connect Fittings Inch or
Metric Tube Nickel Plated Release x
Universal Thread System

SWIFT-FIT
Inch Tube

Push-To-Connect Fittings with Inch Tube
Composite Release x Universal Thread System

SWIFT-FIT
Metric Tube

Push-To-Connect Fittings with Metric Tube.
Composite Release x Universal Thread System

SWIFT-FIT
Control Valves

Inch & Metric Tube Flow Controls & Needle
Valves With Composite Release x Universal
Thread System

TUBE SIZES:

Inch	Metric
1/8	3mm
5/32 (4mm)	4mm (5/32)
1/4	5mm
5/16 (8mm)	6mm
3/8	8mm (5/16)
1/2	10mm
	12mm
	14mm

THREAD SIZES:

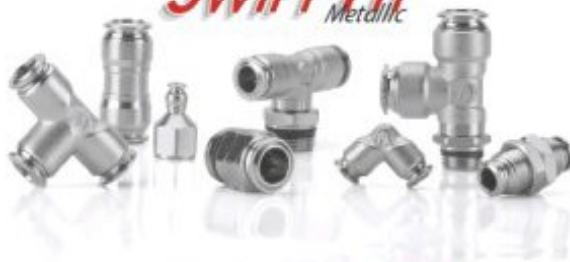
10-32
M5
1/8
1/4
3/8
1/2

TORQUE SPECIFICATIONS

Threads	1/8	1/4	3/8	1/2
Min torque	(Nm) 5	5	5	5
	(Ft lbs) 3.7	3.7	3.7	3.7
Max torque	(Nm) 7	7	7	7
	(Ft lbs) 5.2	5.2	5.2	5.2

SAVE TIME.. SAVE MONEY.. USE SWIFT-FIT

- No Stripped Fittings
- Quick Installation
- No Stripped Ports
- No Pitch Identification
- Completely Reusable
- Reduce Inventory



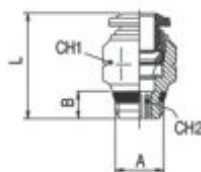
SAVE TIME.. SAVE MONEY.. USE SWIFT-FIT

- No Stripped Fittings
- No Stripped Ports
- Completely Reusable
- Quick Installation
- No Pitch Identification
- Reduce Inventory

STRAIGHT MALE

NEW

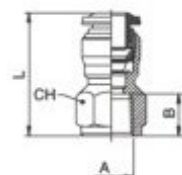
SWIFT-FIT
Metallic



Part No.	Tube	A SWIFT	B	L	CH1	CH2
89000-02-32	1/8	10-32	.197 (5)	.748 (19)	.315 (8)	.079 (2)
89000-02-02	1/8	1/8	.217 (5.5)	.660 (16.5)	.433 (11)	.079 (2)
89000-02-04	1/8	1/4	.276 (7)	.728 (18.5)	.551 (14)	.079 (2)
89000-53-32	5/32	10/32	.197 (5)	.827 (21)	.394 (10)	.079 (2)
89000-53-02	5/32	1/8	.217 (5.5)	.708 (17.5)	.433 (11)	.118 (3)
89000-53-04	5/32	1/4	.276 (7)	.748 (19)	.551 (14)	.118 (3)
89000-04-32	1/4	10/32	.197 (5)	.966 (24.5)	.512 (13)	.079 (2)
89000-04-02	1/4	1/8	.217 (5.5)	.846 (21.5)	.512 (13)	.167 (4)
89000-04-04	1/4	1/4	.276 (7)	.807 (20.5)	.551 (14)	.167 (4)
89000-04-06	1/4	3/8	.295 (7.5)	.906 (23)	.669 (17)	.167 (4)
89000-05-02	5/16	1/8	.217 (5.5)	.945 (24)	.551 (14)	.197 (5)
89000-05-04	5/16	1/4	.276 (7)	.846 (21.5)	.551 (14)	.236 (6)
89000-05-06	5/16	3/8	.295 (7.5)	.885 (22.5)	.669 (17)	.236 (6)
89000-06-02	3/8	1/8	.217 (5.5)	1.062 (27.5)	.669 (17)	.197 (5)
89000-06-04	3/8	1/4	.276 (7)	1.062 (27.5)	.669 (17)	.276 (7)
89000-06-06	3/8	3/8	.295 (7.5)	1.023 (26.5)	.669 (17)	.276 (7)
89000-06-08	3/8	1/2	.354 (9)	1.023 (26.5)	.827 (21)	.276 (7)
89000-08-04	1/2	1/4	.276 (7)	1.222 (31)	.787 (20)	.276 (7)
89000-08-06	1/2	3/8	.295 (7.5)	1.222 (31)	.787 (20)	.354 (9)
89000-08-08	1/2	1/2	.354 (9)	1.222 (31)	.827 (21)	.394 (10)

STRAIGHT FEMALE

NEW



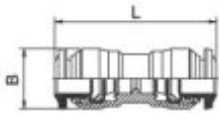
Part No.	Tube	A NPTF	B	L	CH
89030-02-02	1/8	1/8	.374 (9.5)	.925 (24)	.512 (13)
89030-02-04	1/8	1/4	.531 (13.5)	1.142 (29)	.630 (16)
89030-53-02	5/32	1/8	.374 (9.5)	.965 (24.5)	.512 (13)
89030-53-04	5/32	1/4	.531 (13.5)	1.181 (29.5)	.630 (16)
89030-04-02	1/4	1/8	.374 (9.5)	1.093 (28)	.512 (13)
89030-04-04	1/4	1/4	.531 (13.5)	1.222 (31)	.630 (16)
89030-06-04	3/8	1/4	.531 (13.5)	1.358 (34.5)	.709 (18)
89030-06-06	3/8	3/8	.531 (13.5)	1.358 (34.5)	.787 (20)



INCH TUBE

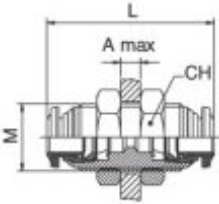
UNION NEW



	Part No.	Tube	Tube	B	L
	89040-02	1/8		.335 (8.6)	1.023 (26)
	89040-04-53	5/32		.413 (10.6)	1.200 (30.5)
	89040-04	1/4	5/32	.492 (12.5)	1.299 (33)
	89040-06-04	1/4		.492 (12.5)	1.338 (34)
	89040-06	5/16		.371 (14.5)	1.417 (36)
	89040-08	3/8	1/4	.689 (17.5)	1.614 (41)
	89040-06-08	3/8	1/2	.807 (20.6)	1.614 (41)
	89040-06	3/8		.689 (17.5)	1.614 (41)
	89040-08	1/2		.807 (20.6)	1.850 (47)

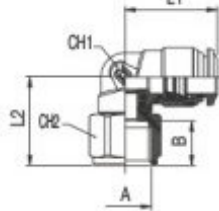
BULKHEAD UNION NEW



	Part No.	Tube	M	L	CH	Amax
	89050-02	1/8	M10X1	1.023 (26)	.551 (14)	.197 (5)
	89050-53	5/32	M12X1	1.240 (31.5)	.669 (17)	.276 (7)
	89050-04	1/4	M14X1	1.378 (35)	.669 (17)	.374 (9.5)
	89050-05	5/16	M16X1	1.457 (37)	.748 (19)	.413 (10.5)
	89050-06	3/8	M20X1	1.693 (42)	.945 (24)	.492 (12.5)
	89050-08	1/2	M22X1	1.890 (48)	1.024 (26)	.650 (16.5)

SWIVEL ELBOW FEMALE NEW

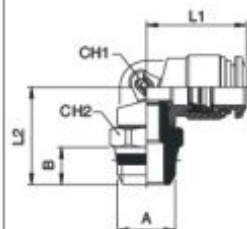


	Part No.	Tube	A NPTF	B	L1	L2	CH1	CH2
	89105-53-02	5/32	1/8	.374 (9.5)	.668 (17.5)	.668 (17.5)	.354 (9)	.511 (13)
	89105-53-04	5/32	1/4	.531 (13.5)	.668 (17.5)	.787 (20)	.354 (9)	.629 (16)
	89105-04-02	1/4	1/8	.374 (9.5)	.846 (21.5)	.748 (19)	.433 (11)	.511 (13)
	89105-04-04	1/4	1/4	.531 (13.5)	.846 (21.5)	.846 (21.5)	.433 (11)	.629 (16)
	89105-06-02	3/8	1/8	.374 (9.5)	1.062 (27)	.906 (23)	.511 (13)	.511 (13)
	89105-06-04	3/8	1/4	.531 (13.5)	1.062 (27)	.944 (24)	.629 (16)	.629 (16)



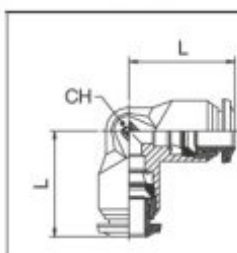
SWIVEL ELBOW MALE **NEW**

SWIFT-FIT
Metallic



Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
89110-02-32	1/8	10/32	.187 (5)	.708 (18)	.787 (20)	.354 (9)	.315 (8)
89110-02-02	1/8	1/8	.276 (7)	.708 (18)	.304 (8)	.304 (8)	.011 (13)
89110-02-04	1/8	1/4	.334 (8.5)	.708 (18)	.771 (19.6)	.354 (9)	.591 (15)
89110-53-32	5/32	10/32	.187 (5)	.708 (18)	.787 (20)	.354 (9)	.315 (8)
89110-53-02	5/32	1/8	.276 (7)	.826 (21)	.708 (18)	.354 (9)	.511 (13)
89110-53-04	5/32	1/4	.334 (8.5)	.826 (21)	.768 (19.5)	.354 (9)	.591 (15)
89110-04-32	1/4	10/32	.187 (5)	.826 (21)	.886 (22)	.433 (11)	.315 (8)
89110-04-02	1/4	1/8	.276 (7)	.886 (22.5)	.776 (19.7)	.433 (11)	.511 (13)
89110-04-04	1/4	1/4	.334 (8.5)	.886 (22.5)	.776 (19.7)	.433 (11)	.591 (15)
89110-04-06	1/4	3/8	.364 (9)	.886 (22.5)	.776 (19.7)	.433 (11)	.669 (17)
89110-05-02	5/16	1/8	.276 (7)	1.043 (26.5)	.882 (22.4)	.472 (12)	.511 (13)
89110-05-02	5/16	1/4	.334 (8.5)	1.043 (26.5)	.882 (22.4)	.472 (12)	.591 (15)
89110-05-06	5/16	3/8	.364 (9)	1.043 (26.5)	.882 (22.4)	.472 (12)	.669 (17)
89110-06-02	3/8	1/8	.276 (7)	1.043 (26.5)	1.024 (26)	.551 (14)	.551 (14)
89110-06-04	3/8	1/4	.334 (8.5)	1.051 (26.7)	1.024 (26)	.551 (14)	.591 (15)
89110-06-06	3/8	3/8	.364 (9)	.972 (24.7)	1.024 (26)	.551 (14)	.669 (17.5)
89110-06-08	3/8	1/2	.413 (8.5)	1.070 (26.7)	1.024 (26)	.551 (14)	.827 (15)
89110-08-04	1/2	1/4	.334 (8.5)	1.201 (30.5)	1.130 (28.7)	.630 (16)	.591 (15)
89110-08-06	1/2	3/8	.364 (9)	1.201 (30.5)	1.051 (26.7)	.630 (16)	.669 (17)
89110-08-08	1/2	1/2	.413 (10.5)	1.201 (30.5)	1.150 (29.2)	.630 (16)	.827 (32)

UNION ELBOW **NEW**



Part No.	Tube	L	CH
89130-02	1/8	.549 (14.5)	.354 (9)
89130-53	5/32	.669 (17)	.354 (9)
89130-04	1/4	.826 (21)	.433 (11)
89130-05	5/16	.886 (22.5)	.512 (13)
89130-06	3/8	1.024 (26)	.630 (16)
89130-08	1/2	1.200 (30.5)	.748 (19)



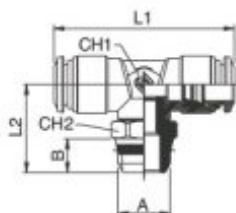


INCH TUBE

SWIVEL BRANCH TEE

NEW

SWIFT-FIT
Metallic

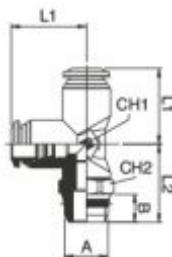


Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
89210-02-32	1/8	10/32	.157 (4)	1.339 (34)	.669 (17)	.354 (9)	.315 (8)
89210-02-02	1/8	1/8	.216 (5.5)	1.338 (34)	.708 (18)	.354 (9)	.511 (13)
89210-02-04	1/8	1/4	.275 (7)	1.338 (34)	.787 (20)	.354 (9)	.591 (15)
89210-53-32	5/32	10/32	.157 (4)	1.339 (34)	.709 (18)	.354 (9)	.315 (8)
89210-53-02	5/32	1/8	.216 (5.5)	1.338 (34)	.886 (22.5)	.354 (9)	.511 (13)
89210-53-04	5/32	1/4	.275 (7)	1.338 (34)	1.062 (27)	.354 (9)	.629 (16)
89210-04-32	1/4	10/32	.157 (4)	1.437 (36.5)	.768 (19.5)	.433 (11)	.433 (11)
89210-04-02	1/4	1/8	.216 (5.5)	1.574 (40)	.787 (20)	.433 (11)	.511 (13)
89210-04-04	1/4	1/4	.275 (7)	1.574 (40)	.846 (21.5)	.433 (11)	.629 (16)
89210-04-06	1/4	3/8	.295 (7.5)	1.574 (40)	.866 (22)	.433 (11)	.669 (17)
89210-06-02	3/8	1/8	.216 (5.5)	2.047 (52)	1.043 (26.5)	.551 (14)	.551 (14)
89210-06-04	3/8	1/4	.275 (7)	2.047 (52)	1.141 (29)	.551 (14)	.630 (16)
89210-06-06	3/8	3/8	.295 (7.5)	2.047 (52)	1.062 (27)	.551 (14)	.669 (17)
89210-06-08	3/8	1/2	.354 (9)	2.047 (52)	1.220 (31)	.551 (14)	.827 (21)
89210-08-04	1/2	1/4	.275 (7)	2.402 (61)	1.240 (31.5)	.630 (16)	.591 (15)
89210-08-06	1/2	3/8	.295 (7.5)	2.402 (61)	1.161 (29.5)	.630 (16)	.669 (17)
89210-08-08	1/2	1/2	.354 (9)	2.402 (61)	1.259 (32)	.630 (16)	.827 (21)

SWIVEL RUN TEE

NEW

SWIFT-FIT
Metallic



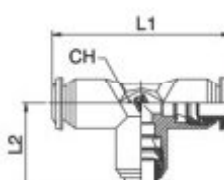
Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
89222-02-32	1/8	10/32	.157 (4)	.649 (16.5)	.669 (17)	.354 (9)	.315 (8)
89222-02-02	1/8	1/8	.216 (5.5)	.649 (16.5)	.728 (18.5)	.354 (9)	.511 (13)
89222-02-04	1/8	1/4	.334 (7)	.649 (16.5)	.807 (20.5)	.354 (9)	.591 (15)
89222-53-32	5/32	10/32	.157 (4)	.669 (17)	.709 (18)	.354 (9)	.315 (8)
89222-53-02	5/32	1/8	.216 (5.5)	.649 (16.5)	.728 (18.5)	.354 (9)	.511 (13)
89222-53-04	5/32	1/4	.275 (7)	.649 (16.5)	.807 (20.5)	.354 (9)	.591 (15)
89222-04-32	1/4	10/32	.157 (4)	.827 (21)	.768 (19.5)	.433 (11)	.433 (11)
89222-04-02	1/4	1/8	.216 (5.5)	.846 (21.5)	.787 (20)	.433 (11)	.511 (13)
89222-04-04	1/4	1/4	.275 (7)	.846 (21.5)	.846 (21.5)	.433 (11)	.591 (15)
89222-04-06	1/4	3/8	.295 (7.5)	.846 (21.5)	.866 (22)	.433 (11)	.669 (17)
89222-06-02	3/8	1/8	.275 (7)	1.062 (27)	1.023 (26)	.551 (14)	.551 (14)
89222-06-04	3/8	1/4	.275 (7)	1.062 (27)	1.043 (26.5)	.551 (14)	.630 (16)
89222-06-06	3/8	3/8	.295 (7.5)	1.062 (27)	1.062 (27)	.551 (14)	.669 (17)
89222-06-08	3/8	1/2	.354 (9)	1.062 (27)	1.141 (29)	.551 (14)	.827 (21)
89222-08-04	1/2	1/4	.275 (7)	1.240 (31.5)	1.240 (31.5)	.630 (16)	.591 (15)
89222-08-06	1/2	3/8	.295 (7.5)	1.240 (31.5)	1.240 (31.5)	.630 (16)	.669 (17)
89222-08-08	1/2	1/2	.354 (9)	1.240 (31.5)	1.279 (32.5)	.630 (16)	.827 (21)



UNION TEE

NEW

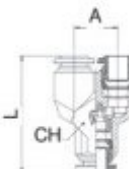


					
	Part No.	Tube	L1	L2	CH
	89230-02	1/8	1.299 (33)	.669 (17)	.354 (9)
	89230-53	5/32	1.309 (34)	.669 (17)	.354 (9)
	89230-04	1/4	1.664 (42)	.827 (21)	.433 (11)
	89230-05	5/16	1.772 (45)	.868 (22.5)	.512 (13)
	89230-06	3/8	2.067 (53)	1.043 (26.5)	.630 (16)
	89230-08	1/2	2.402 (61)	1.201 (30.5)	.748 (19)

UNION Y

NEW

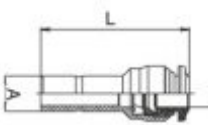


					
	Part No.	Tube	A	L	CH
	89310-02	1/8	.394 (10)	1.142 (29)	.433 (11)
	89310-53	5/32	.433 (11)	1.260 (32)	.433 (11)
	89310-04	1/4	.531 (13.5)	1.437 (36.5)	.511 (13)
	89310-05	5/16	.610 (15.5)	1.514 (41)	.511 (13)
	89310-06	3/8	.726 (18.5)	1.690 (43)	.706 (18)

TUBE REDUCER

NEW



				
	Part No.	A	B	L
	89700-04-02	1/4	1/8	1.181 (30)
	89700-04-53	1/4	5/32	1.181 (30)
	89700-06-04	3/8	1/4	1.397 (35.5)
	89700-08-04	1/2	1/4	1.693 (43)
	89700-08-04	1/2	3/8	1.693 (43)



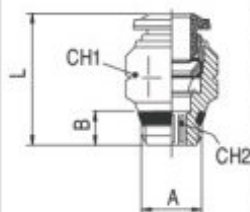
STAINLESS STEEL PUSH TO CONNECT FITTINGS PIPE FITTINGS



INCH TUBE

STRAIGHT MALE

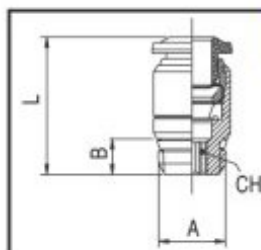
SWIFT-FIT
Inch Tube



Part No.	Tube	A SWIFT	B	L	CH1	CH2
88020-02-32	1/8	10/32	.157 (4)	.787 (18)	.315 (8)	.079 (2)
87000-02-02	1/8	1/8	.217 (5.5)	.650 (16.5)	.433 (11)	.079 (2)
87000-02-04	1/8	1/4	.276 (7)	.728 (18.5)	.551 (14)	.079 (2)
88020-53-32	5/32	10/32	.157 (4)	.827 (21)	.394 (10)	.079 (2)
87000-53-02	5/32	1/8	.217 (5.5)	.708 (18)	.433 (11)	.118 (3)
87000-53-04	5/32	1/4	.276 (7)	.767 (19.5)	.551 (14)	.118 (3)
88020-04-32	1/4	10/32	.157 (4)	.925 (23.5)	.512 (13)	.079 (2)
87000-04-02	1/4	1/8	.217 (5.5)	.866 (22)	.512 (13)	.157 (4)
87000-04-04	1/4	1/4	.276 (7)	.826 (21)	.551 (14)	.157 (4)
87000-04-06	1/4	3/8	.296 (7.5)	.826 (21)	.669 (17)	.157 (4)
87000-05-02	5/16	1/8	.217 (5.5)	.964 (24.5)	.551 (14)	.197 (5)
87000-05-04	5/16	1/4	.276 (7)	.866 (22)	.551 (14)	.236 (6)
87000-05-06	5/16	3/8	.296 (7.5)	.905 (23)	.669 (17)	.236 (6)
87000-06-02	3/8	1/8	.217 (5.5)	1.122 (28.5)	.669 (17)	.197 (5)
87000-06-04	3/8	1/4	.276 (7)	1.122 (28.5)	.669 (17)	.276 (7)
87000-06-06	3/8	3/8	.296 (7.5)	1.043 (26.5)	.669 (17)	.276 (7)
87000-06-08	3/8	1/2	.364 (9)	1.043 (26.5)	.827 (21)	.276 (7)
87000-08-02	1/2	1/8	.217 (5.5)	1.299 (33)	.787 (20)	.197 (5)
87000-08-04	1/2	1/4	.276 (7)	1.299 (33)	.787 (20)	.197 (5)
87000-08-06	1/2	3/8	.296 (7.5)	1.269 (32)	.787 (20)	.364 (9)
87000-08-08	1/2	1/2	.364 (9)	1.269 (32)	.827 (21)	.394 (10)

STRAIGHT MALE INTERNAL HEX

SWIFT-FIT
Inch Tube



Part No.	Tube	A SWIFT	B	L	CH
87010-02-32	1/8	10/32	.157 (4)	.709 (18)	.098 (2.5)
87010-53-32	5/32	10/32	.157 (4)	.787 (20)	.098 (2.5)
87010-53-02	5/32	1/8	.217 (5.5)	.709 (18)	.118 (3)
87010-04-32	1/4	10/32	.157 (4)	.925 (23.5)	.098 (2.5)
87010-04-02	1/4	1/8	.217 (5.5)	.846 (21.5)	.157 (4)
87010-04-04	1/4	1/4	.267 (7)	.846 (21.5)	.157 (4)





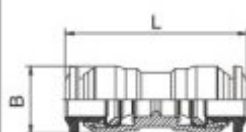
STRAIGHT FEMALE

NPTF THREAD



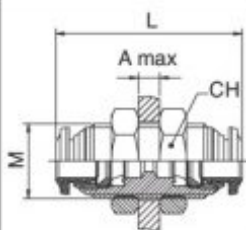
Part No.	Tube	A NPTF	B	L	CH
88030-02-02	1/8	1/8	.374 (9.5)	.945 (24)	.512 (13)
88030-02-04	1/8	1/4	.531 (13.5)	1.142 (29)	.630 (16)
88030-53-02	5/32	1/8	.374 (9.5)	.984 (25)	.512 (13)
88030-53-04	5/32	1/4	.531 (13.5)	1.181 (30)	.630 (16)
88030-04-02	1/4	1/8	.374 (9.5)	1.062 (27.5)	.512 (13)
88030-04-04	1/4	1/4	.512 (13)	1.279 (32.5)	.630 (16)
88030-06-04	3/8	1/4	.531 (13.5)	1.397 (35.5)	.709 (18)
88030-06-06	3/8	3/8	.531 (13.5)	1.397 (35.5)	.787 (20)

UNION



Part No.	Tube	Tube	B	L
88040-02	1/8		.335 (8.5)	1.024 (26)
88040-53	5/32		.413 (10.5)	1.181 (30)
88040-04-53	1/4	5/32	.492 (12.5)	1.279 (32.5)
88040-04	1/4		.492 (12.5)	1.378 (35)
88040-05	5/16		.571 (14.5)	1.456 (37)
88040-06-04	3/8	1/4	.688 (17.5)	1.555 (39.5)
88040-06-08	3/8	1/2	.807 (20.5)	1.850 (47)
88040-06	3/8		.689 (17.5)	1.693 (43)
88040-08	1/2		.807 (20.5)	1.909 (48.5)

BULKHEAD UNION



Part No.	Tube	M	L	CH	Amax
88050-02	1/8	M10X1	1.024 (26)	.551 (14)	.197 (5)
88050-53	5/32	M12X1	1.220 (32)	.689 (17)	.276 (7)
88050-04	1/4	M14X1	1.378 (35)	.689 (17)	.374 (9.5)
88050-05	5/16	M16X1	1.476 (37.5)	.748 (19)	.413 (10.5)
88050-06	3/8	M20X1	1.732 (44)	.945 (24)	.492 (12.5)
88050-08	1/2	M22X1	1.929 (49)	1.024 (26)	.650 (16.5)

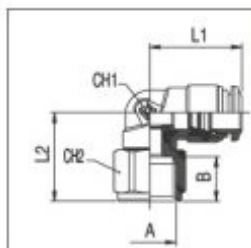




INCH TUBE

FEMALE ELBOW

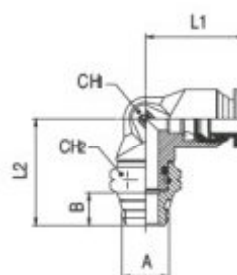
NPTF THREAD



Part No.	Tube	A NPTF	B	L1	L2	CH1	CH2
88105-53-02	5/32	1/8	.374 (9.5)	.669 (17)	.984 (25)	.354 (9)	.511 (13)
88105-53-04	5/32	1/4	.531 (13.5)	.669 (17)	1.240 (31.5)	.354 (9)	.629 (16)
88105-04-02	1/4	1/8	.374 (9.5)	.846 (21.5)	1.062 (27)	.433 (11)	.511 (13)
88105-04-04	1/4	1/4	.531 (13.5)	.826 (21)	1.279 (32.5)	.433 (11)	.629 (16)
88105-06-02	3/8	1/8	.374 (9.5)	1.062 (27)	1.220 (31)	.511 (13)	.511 (13)
88105-06-04	3/8	1/4	.531 (13.5)	1.062 (27)	1.397 (35.5)	.629 (16)	.629 (16)

SWIVEL ELBOW

SWIFT-FIT
Inch Tube



Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
88115-02-32	1/8	10/32	.157 (4)	.660 (16.5)	.768 (19.5)	.354 (9)	.315 (8)
87110-02-02	1/8	1/8	.217 (5.5)	.660 (16.5)	.846 (21.5)	.354 (9)	.512 (13)
87110-02-04	1/8	1/4	.276 (7)	.669 (17)	1.003 (25.5)	.354 (9)	.591 (15)
88115-53-32	5/32	10/32	.157 (4)	.669 (17)	.768 (19.5)	.354 (9)	.315 (8)
87110-53-02	5/32	1/8	.217 (5.5)	.669 (17)	.846 (21.5)	.354 (9)	.512 (13)
87110-53-04	5/32	1/4	.276 (7)	.669 (17)	1.003 (25.5)	.354 (9)	.591 (15)
88115-04-32	1/4	10/32	.157 (4)	.827 (21)	.866 (22)	.433 (11)	.315 (8)
87110-04-02	1/4	1/8	.217 (5.5)	.846 (21.5)	.925 (23.5)	.433 (11)	.512 (13)
87110-04-04	1/4	1/4	.276 (7)	.846 (21.5)	.925 (23.5)	.433 (11)	.591 (15)
87110-04-06	1/4	3/8	.295 (7.5)	.846 (21.5)	1.082 (27.5)	.433 (11)	.669 (17)
87110-05-02	5/16	1/8	.217 (5.5)	.905 (23)	.984 (25)	.512 (13)	.512 (13)
87110-05-04	5/16	1/4	.276 (7)	.905 (23)	1.082 (27.5)	.512 (13)	.591 (15)
87110-05-06	5/16	3/8	.295 (7.5)	.886 (22.5)	1.102 (28)	.512 (13)	.669 (17)
87110-06-02	3/8	1/8	.217 (5.5)	1.062 (27)	1.082 (27.5)	.630 (16)	.512 (13)
87110-06-04	3/8	1/4	.276 (7)	1.062 (27)	1.181 (29.5)	.630 (16)	.591 (15)
87110-06-06	3/8	3/8	.295 (7.5)	1.062 (27)	1.181 (30)	.630 (16)	.669 (17)
87110-06-08	3/8	1/2	.354 (9)	1.062 (27)	1.299 (33)	.630 (16)	.827 (21)
87110-08-04	1/2	1/4	.276 (7)	1.240 (31.5)	1.299 (33)	.748 (19)	.591 (15)
87110-08-06	1/2	3/8	.295 (7.5)	1.240 (31.5)	1.299 (33)	.748 (19)	.669 (17)
87110-08-08	1/2	1/2	.354 (9)	1.240 (31.5)	1.417 (36)	.748 (19)	.827 (21)



ALPHA
FITTINGS &
ACCESSORIES

INCH TUBE

UNION ELBOW



	Part No.	Tube	L	CH
	88130-02	1/8	.669 (17)	.354 (9)
	88130-53	5/32	.669 (17)	.354 (9)
	88130-04	1/4	.827 (21)	.433 (11)
	88130-05	5/16	.906 (23)	.512 (13)
	88130-06	3/8	1.043 (26.5)	.630 (16)
	88130-08	1/2	1.201 (30.5)	.748 (19)

SWIVEL BRANCH TEE

SWIFT-FIT
Inch Tube



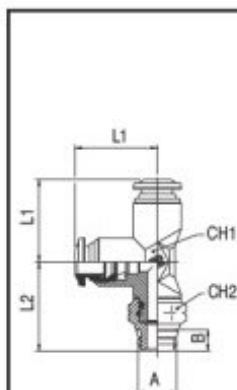
	Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
	88215-02-32	1/8	10/32	.197 (5)	1.299 (33)	.787 (20)	.354 (9)	.315 (8)
	87210-02-02	1/8	1/8	.217 (5.5)	1.299 (33)	.787 (21.5)	.354 (9)	.512 (13)
	87210-02-04	1/8	1/4	.276 (7)	1.299 (33)	1.003 (25.5)	.354 (9)	.591 (15)
	88215-53-32	5/32	10/32	.197 (5)	1.299 (33)	.787 (20)	.354 (9)	.315 (8)
	87210-53-02	5/32	1/8	.217 (5.5)	1.339 (34)	.787 (21.5)	.354 (9)	.512 (13)
	87210-53-04	5/32	1/4	.276 (7)	1.299 (33)	1.003 (25.5)	.354 (9)	.591 (15)
	88215-04-32	1/4	10/32	.197 (5)	1.299 (33)	.866 (22)	.433 (11)	.315 (8)
	87210-04-02	1/4	1/8	.217 (5.5)	1.673 (42.5)	.926 (23.5)	.433 (11)	.512 (13)
	87210-04-04	1/4	1/4	.276 (7)	1.673 (42.5)	1.062 (27)	.433 (11)	.591 (15)
	87210-04-06	1/4	3/8	.295 (7.5)	2.067 (53)	1.102 (28)	.630 (16)	.669 (17)
	87210-06-02	3/8	1/8	.215 (5.5)	2.047 (52)	1.062 (27.5)	.630 (16)	.590 (15)
	87210-06-04	3/8	1/4	.275 (7)	2.067 (53)	1.181 (30)	.630 (16)	.511 (13)
	87210-06-06	3/8	3/8	.295 (7.5)	2.067 (53)	1.181 (30)	.630 (16)	.669 (17)
	87210-06-08	3/8	1/2	.354 (9)	2.067 (53)	1.299 (33)	.630 (16)	.827 (21)
	87210-08-04	1/2	1/4	.276 (7)	2.402 (61)	1.240 (31.5)	.748 (19)	.591 (15)
	87210-08-06	1/2	3/8	.295 (7.5)	2.402 (61)	1.299 (33)	.748 (19)	.669 (17)
	87210-08-08	1/2	1/2	.354 (9)	2.402 (61)	1.417 (36)	.748 (19)	.827 (21)



INCH TUBE

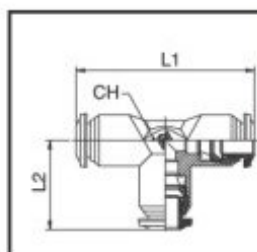
SWIVEL RUN TEE

SWIFT-FIT
Inch Tube



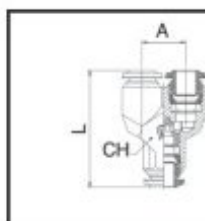
Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
88225-02-32	1/8	10-32	.197 (5)	.669 (17)	.787 (20)	.354 (9)	.315 (8)
87222-02-02	1/8	1/8	.295 (7.5)	.669 (17)	.807 (20.5)	.354 (9)	.512 (13)
87222-02-04	1/8	1/4	.511 (13)	.669 (17)	.945 (24)	.354 (9)	.591 (15)
88225-53-32	5/32	10-32	.197 (5)	.669 (17)	.787 (20)	.354 (9)	.315 (8)
87222-53-02	5/32	1/8	.295 (7.5)	.669 (17)	.787 (20)	.354 (9)	.512 (13)
87222-53-04	5/32	1/4	.511 (13)	.669 (17)	.945 (24)	.354 (9)	.591 (15)
88225-04-32	1/4	10-32	.197 (5)	.827 (21)	.866 (22)	.433 (11)	.315 (8)
87222-04-02	1/4	1/8	.295 (7.5)	.827 (21)	.866 (22)	.433 (11)	.512 (13)
87222-04-04	1/4	1/4	.511 (13)	.827 (21)	.964 (25)	.433 (11)	.591 (15)
87222-04-06	1/4	3/8	.511 (13)	.827 (21)	1.102 (28)	.433 (11)	.591 (15)
87222-06-04	3/8	1/4	.511 (13)	1.043 (26.5)	1.102 (28)	.630 (16)	.591 (15)
87222-06-06	3/8	3/8	.511 (13)	1.043 (26.5)	1.181 (30)	.630 (16)	.669 (17)
87222-06-08	3/8	1/2	.669 (17)	1.043 (26.5)	1.299 (33)	.630 (16)	.827 (21)
87222-08-04	1/2	1/4	.511 (13)	1.201 (30.5)	1.240 (31.5)	.748 (19)	.591 (15)
87222-08-06	1/2	3/8	.511 (13)	1.201 (30.5)	1.299 (33)	.748 (19)	.669 (17)
87222-08-08	1/2	1/2	.669 (17)	1.201 (30.5)	1.417 (36)	.748 (19)	.827 (21)

UNION TEE



Part No.	Tube	L1	L2	CH
88230-02	1/8	1.299 (33)	.669 (17)	.354 (9)
88230-53	5/32	1.339 (34)	.669 (17)	.354 (9)
88230-04	1/4	1.654 (42)	.827 (21)	.433 (11)
88230-05	5/16	1.772 (45)	.866 (22.5)	.512 (13)
88230-06	3/8	2.087 (53)	1.043 (26.5)	.630 (16)
88230-08	1/2	2.402 (61)	1.201 (30.5)	.748 (19)

UNION Y



Part No.	Tube	A	L	CH
88310-02	1/8	.394 (10)	1.142 (29)	.433 (11)
88310-53	5/32	.433 (11)	1.260 (32)	.433 (11)
88310-04	1/4	.531 (13.5)	1.437 (36.5)	.511 (13)
88310-05	5/16	.610 (15.5)	1.514 (41)	.511 (13)
88310-06	3/8	.728 (18.5)	1.890 (48)	.708 (18)

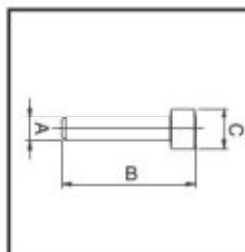




ALPHA
FITTINGS &
ACCESSORIES

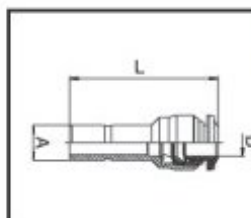
INCH TUBE

PLUG



Part No.	A	B	C
88610-02	1/8	.708 (18)	.236 (6)
88610-53	5/32	.925 (23.5)	.315 (8)
88610-04	1/4	.984 (24.5)	.413 (10.5)
88610-05	5/16	1.023 (26)	.511 (13)
88610-06	3/8	1.122 (28.5)	.689 (17)
88610-08	1/2	1.122 (28.5)	.787 (20)

TUBE REDUCER



Part No.	A	B	L
88700-04-02	1/4	1/8	1.181 (30)
88700-04-53	1/4	5/32	1.181 (30)
88700-06-04	3/8	1/4	1.377 (35)
88700-08-04	1/2	1/4	1.693 (43)
88700-08-06	1/2	3/8	1.693 (43)



Premium Air Distribution System

Air distribution simplified. No more heavy corrosive iron pipe to run air. The Infinity Air Distribution is a Push-To-Connect system assembled to aluminum tube. Infinity is a modular system suitable for OEM applications to piping an entire manufacturing facility.





INCH TUBE

SWIFT-FIT

Fitting Kits

**87861-04****1/4" TUBE FITTING KIT**

Part No.	Description	Qty
87000-04-02	Straight 1/4 Tube x 1/8 Male Swift-Fit	5
87000-04-04	Straight 1/4 Tube x 1/4 Male Swift-Fit	5
87000-04-06	Straight 1/4 Tube x 3/8 Male Swift-Fit	5
87110-04-02	Swivel Elbow 1/4 Tube x 1/8 Male Swift-Fit	5
87110-04-04	Swivel Elbow 1/4 Tube x 1/4 Male Swift-Fit	5
87110-04-06	Swivel Elbow 1/4 Tube x 3/8 Male Swift-Fit	5
87210-04-02	Branch Tee 1/4 Tube x 1/8 Male Swift-Fit	5
87210-04-04	Branch Tee 1/4 Tube x 1/4 Male Swift-Fit	5
87210-04-06	Branch Tee 1/4 Tube x 3/8 Male Swift-Fit	5
88040-04	Union 1/4 Tube	5
88130-04	Union Elbow 1/4 Tube	5
88230-04	Union Tee 1/4 Tube	5

87861-08**1/2" TUBE FITTING KIT**

Part No.	Description	Qty
87000-08-04	Straight 1/2 Tube x 1/4 Male Swift-Fit	3
87000-08-06	Straight 1/2 Tube x 3/8 Male Swift-Fit	3
87000-08-08	Straight 1/2 Tube x 1/2 Male Swift-Fit	3
87110-08-04	Swivel Elbow 1/2 Tube x 1/4 Male Swift-Fit	3
87110-08-06	Swivel Elbow 1/2 Tube x 3/8 Male Swift-Fit	3
87110-08-08	Swivel Elbow 1/2 Tube x 1/2 Male Swift-Fit	3
87210-08-04	Branch Tee 1/2 Tube x 1/4 Male Swift-Fit	3
87210-08-06	Branch Tee 1/2 Tube x 3/8 Male Swift-Fit	3
87210-08-08	Branch Tee 1/2 Tube x 1/2 Male Swift-Fit	3
88040-08	Union 1/2 Tube	3
88130-08	Union Elbow 1/2 Tube	3
88230-08	Union Tee 1/2 Tube	3

87861-06**3/8" TUBE FITTING KIT**

Part No.	Description	Qty
87000-06-04	Straight 3/8 Tube x 1/4 Male Swift-Fit	5
87000-06-06	Straight 3/8 Tube x 3/8 Male Swift-Fit	5
87000-06-08	Straight 3/8 Tube x 1/2 Male Swift-Fit	5
87110-06-04	Swivel Elbow 3/8 Tube x 1/4 Male Swift-Fit	5
87110-06-06	Swivel Elbow 3/8 Tube x 3/8 Male Swift-Fit	5
87110-06-08	Swivel Elbow 3/8 Tube x 1/2 Male Swift-Fit	5
87210-06-04	Branch Tee 3/8 Tube x 1/4 Male Swift-Fit	5
87210-06-06	Branch Tee 3/8 Tube x 3/8 Male Swift-Fit	5
87210-06-08	Branch Tee 3/8 Tube x 1/2 Male Swift-Fit	5
88040-06	Union 3/8 Tube	5
88130-06	Union Elbow 3/8 Tube	5
88230-06	Union Tee 3/8 Tube	5

87861-90**MIXED TUBE FITTING KIT**

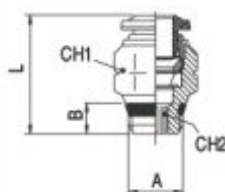
Part No.	Description	Qty
87000-04-04	Straight 1/4 Tube x 1/4 Male Swift-Fit	5
87000-06-06	Straight 3/8 Tube x 3/8 Male Swift-Fit	5
87000-08-08	Straight 1/2 Tube x 1/2 Male Swift-Fit	3
87110-04-04	Swivel Elbow 1/4 Tube x 1/4 Male Swift-Fit	5
87110-06-06	Swivel Elbow 3/8 Tube x 3/8 Male Swift-Fit	5
87110-08-08	Swivel Elbow 1/2 Tube x 1/2 Male Swift-Fit	3
87210-04-04	Branch Tee 1/4 Tube x 1/4 Male Swift-Fit	5
87210-06-06	Branch Tee 3/8 Tube x 3/8 Male Swift-Fit	5
87210-08-08	Branch Tee 1/2 Tube x 1/2 Male Swift-Fit	3
88040-04	Union 1/4 Tube	5
88040-06	Union 3/8 Tube	5
88040-08	Union 1/2 Tube	3
88130-04	Union Elbow 1/4 Tube	5
88130-06	Union Elbow 3/8 Tube	5
88130-08	Union Elbow 1/2 Tube	3
88230-04	Union Tee 1/4 Tube	5
88230-06	Union Tee 3/8 Tube	5
88230-08	Union Tee 1/2 Tube	3



STRAIGHT MALE

METRIC TUBE

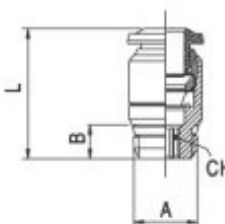
SWIFT-FIT
Metric Tube



Part No.	Tube	A SWIFT	B	L	CH1	CH2
50000N-4-1/8	4	1/8	.214 (5.5)	.702 (18)	.429 (11)	.117 (3)
50000N-4-1/4	4	1/4	.273 (7)	.780 (19.5)	.546 (14)	.117 (3)
50000N-5-1/8	5	1/8	.214 (5.5)	.780 (20)	.429 (11)	.156 (4)
50000N-5-1/4	5	1/4	.273 (7)	.780 (20)	.546 (14)	.156 (4)
50000N-6-1/8	6	1/8	.273 (7)	.780 (20)	.511 (13)	.156 (4)
50000N-6-1/4	6	1/4	.273 (7)	.819 (21)	.546 (14)	.156 (4)
50000N-8-1/8	8	1/8	.214 (5.5)	.855 (24.5)	.546 (14)	.185 (5)
50000N-8-1/4	8	1/4	.273 (7)	.856 (22)	.546 (14)	.236 (6)
50000N-8-3/8	8	3/8	.292 (7.5)	.897 (23)	.663 (17)	.234 (6)
50000N-8-1/2	8	1/2	.354 (9)	.897 (23)	.826 (21)	.234 (6)
50000N-10-1/4	10	1/4	.273 (7)	1.092 (28)	.663 (17)	.273 (7)
50000N-10-3/8	10	3/8	.273 (7)	1.092 (28)	.663 (17)	.314 (8)
50000N-10-1/2	10	1/2	.354 (9)	1.014 (26)	.826 (21)	.312 (8)
50000N-12-1/4	12	1/4	.273 (7)	1.267 (32.5)	.780 (20)	.273 (7)
50000N-12-3/8	12	3/8	.273 (7)	1.267 (32.5)	.780 (20)	.354 (9)
50000N-12-1/2	12	1/2	.354 (9)	1.209 (31)	.826 (21)	.393 (10)
50000N-14-3/8	14	3/8	.292 (7.5)	1.267 (33)	.826 (21)	.354 (9)
50000N-14-1/2	14	1/2	.351 (9)	1.248 (32)	.826 (21)	.393 (10)

STRAIGHT MALE WITH INTERNAL HEX

SWIFT-FIT
Metric Tube



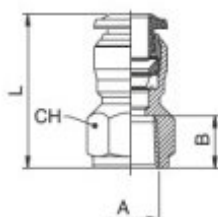
Part No.	Tube	A SWIFT	B	L	CH
50010N-3-M5	3	M5	.168 (4)	.312 (8)	.314 (8)
50010N-4-M5	4	M5	.168 (4)	.390 (10)	.393 (10)
50010N-4-1/8	4	1/8	.214 (5.5)	.429 (11)	.393 (10)
50010N-6-M5	6	M5	.168 (4)	.468 (12)	.511 (13)
50010N-6-1/8	6	1/8	.214 (5.5)	.468 (12)	.511 (13)
50010N-6-1/4	6	1/4	.273 (7)	.546 (14)	.511 (13)
50010N-8-1/8	8	1/8	.214 (5.5)	.546 (14)	.551 (14)
50010N-8-1/4	8	1/4	.273 (7)	.546 (14)	.551 (14)



METRIC TUBE

STRAIGHT FEMALE

BSPP THREAD



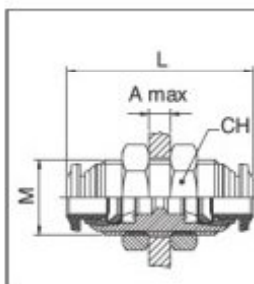
Part No.	Tube	A	B	L	CH
50030N-3-M5	3	M5	.216 (5.5)	.728 (18.5)	.354 (9)
50030N-4-M5	4	M5	.216 (5.5)	.826 (21)	.433 (11)
50030N-4-1/8	4	1/8	.334 (8.5)	.944 (24)	.511 (13)
50030N-4-1/4	4	1/4	.433 (11)	1.082 (27.5)	.629 (16)
50030N-5-1/8	5	1/8	.334 (8.5)	1.043 (26.5)	.511 (13)
50030N-6-1/8	6	1/8	.334 (8.5)	1.023 (26)	.511 (13)
50030N-6-1/4	6	1/4	.433 (11)	1.161 (29.5)	.629 (16)
50030N-8-1/8	8	1/8	.334 (8.5)	1.062 (27)	.690 (15)
50030N-8-1/4	8	1/4	.433 (11)	1.161 (29.5)	.669 (17)
50030N-8-3/8	8	3/8	.472 (12)	1.259 (32)	.748 (19)
50030N-10-1/4	10	1/4	.433 (11)	1.259 (32)	.708 (18)
50030N-10-3/8	10	3/8	.472 (12)	1.318 (33.5)	.748 (19)
50030N-10-1/2	10	1/2	.590 (15)	1.535 (39)	.944 (24)
50030N-12-3/8	12	3/8	.472 (12)	1.417 (36)	.826 (21)
50030N-12-1/2	12	1/2	.590 (15)	1.614 (41)	.944 (24)

UNION



Part No.	Tube	Tube	L	B
50040N-3	3		1.014 (26)	.334 (8.5)
50040N-4	4		1.190 (30.5)	.413 (10.5)
50040N-5	5		1.287 (33)	.462 (11.5)
50040N-6-4	6	4	1.248 (32)	.492 (12.5)
50040N-6	6		1.326 (34)	.492 (12.5)
50040N-6-6	8	6	1.365 (35)	.570 (14.5)
50040N-8	8		1.404 (36)	.570 (14.5)
50040N-10-8	10	8	1.638 (42)	.688 (17.5)
50040N-10	10		1.638 (42)	.688 (17.5)
50040N-12-10	12	10	1.833 (47)	.807 (20.5)
50040N-12	12		1.833 (47)	.807 (20.5)
50040N-14	14		1.911 (49)	.846 (21.5)

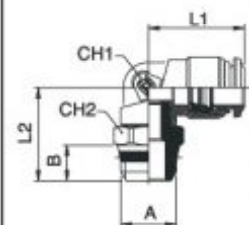
BULKHEAD UNION



Part No.	Tube	M	L	CH	Amax
50050N-3	3	M10X1	1.014 (20)	.648 (16)	.195 (5)
50050N-4	4	M12X1	1.229 (31.5)	.663 (17)	.273 (7)
50050N-5	5	M14X1	1.287 (33)	.663 (17)	.273 (7)
50050N-6	6	M14X1	1.386 (35)	.663 (17)	.371 (9.5)
50050N-8	8	M16X1	1.443 (37)	.741 (19)	.410 (10.5)
50050N-10	10	M20X1	1.677 (43)	.936 (24)	.488 (12.5)
50050N-12	12	M22X1	1.872 (48)	1.014 (26)	.644 (16.5)

SWIVEL MALE ELBOW

SWIFT-FIT
Metric Tube

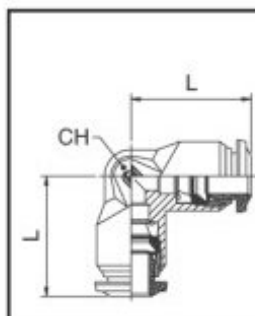


Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
50110N-4-1/8	4	1/8	.216 (5.5)	.709 (18)	.766 (19.5)	.354 (9)	.511 (13)
50110N-4-1/4	4	1/4	.276 (7)	.709 (18)	.827 (21)	.354 (9)	.591 (15)
50110N-5-1/8	5	1/8	.216 (5.5)	.787 (20)	.866 (21.5)	.433 (11)	.511 (13)
50110N-5-1/4	5	1/4	.216 (5.5)	.831 (21)	.866 (21.5)	.433 (11)	.511 (13)
50110N-6-1/8	6	1/8	.276 (7)	.831 (21)	.906 (23)	.433 (11)	.591 (15)
50110N-6-1/4	6	1/4	.276 (7)	.831 (21)	.906 (23)	.433 (11)	.591 (15)
50110N-8-1/8	8	1/8	.216 (5.5)	.882 (22.5)	.866 (22.5)	.472 (12)	.511 (13)
50110N-8-1/4	8	1/4	.276 (7)	.882 (22.5)	.866 (22.5)	.472 (12)	.591 (15)
50110N-8-3/8	8	3/8	.296 (7.5)	.882 (22.5)	.906 (23)	.472 (12)	.669 (17)
50110N-8-1/2	8	1/2	.374 (9)	.882 (22.5)	1.004 (25.5)	.472 (12)	.831 (21)
50110N-10-1/4	10	1/4	.276 (7)	1.051 (26.5)	1.043 (26.5)	.551 (14)	.669 (17)
50110N-10-3/8	10	3/8	.296 (7.5)	1.051 (26.5)	.966 (24.5)	.551 (14)	.669 (17)
50110N-10-1/2	10	1/2	.374 (9)	1.051 (26.5)	1.063 (27)	.551 (14)	.787 (20)
50110N-12-3/8	12	3/8	.296 (7.5)	1.240 (31.5)	1.043 (26.5)	.630 (16)	.787 (20)
50110N-12-1/2	12	1/2	.374 (9)	1.240 (31.5)	1.142 (29)	.630 (16)	.827 (21)
50110N-14-3/8	14	3/8	.296 (7.5)	1.240 (31.5)	1.063 (27)	.630 (16)	.787 (20)
50110N-14-1/2	14	1/2	.374 (9)	1.240 (31.5)	1.161 (29.5)	.630 (16)	.827 (21)



METRIC TUBE

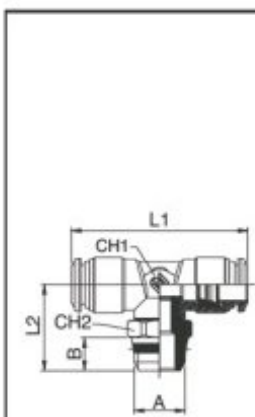
UNION ELBOW



Part No.	Tube	L	CH
50130N-3	3	.663 (17)	.351 (9)
50130N-4	4	.663 (17)	.351 (9)
50130N-5	5	.780 (20)	.429 (11)
50130N-6	6	.780 (20)	.429 (11)
50130N-8	8	.878 (22.5)	.507 (13)
50130N-10	10	1.034 (26.5)	.624 (16)
50130N-12	12	1.190 (30.5)	.741 (19)
50130N-14	14	1.268 (32.5)	.741 (19)

SWIVEL MALE BRANCH TEE

SWIFT-FIT
Metric Tube



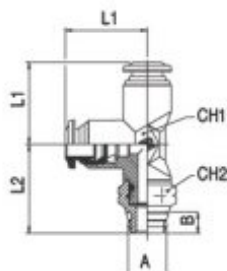
Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
50210N-4-1/8	4	1/8	.216 (5.5)	1.338 (34)	.787 (20)	.354 (9)	.511 (13)
50210N-4-1/4	4	1/4	.276 (7)	1.338 (34)	.846 (21.5)	.354 (9)	.591 (15)
50210N-5-1/8	5	1/8	.216 (5.5)	1.574 (40)	.866 (22)	.433 (11)	.511 (13)
50210N-6-1/8	6	1/8	.216 (5.5)	1.663 (42)	.866 (22)	.433 (11)	.511 (13)
50210N-6-1/4	6	1/4	.276 (7)	1.663 (42)	.926 (23.5)	.433 (11)	.591 (15)
50210N-8-1/8	8	1/8	.216 (5.5)	1.772 (45)	1.004 (25.5)	.472 (12)	.511 (13)
50210N-8-1/4	8	1/4	.276 (7)	1.772 (45)	1.004 (25.5)	.472 (12)	.591 (15)
50210N-8-3/8	8	3/8	.296 (7.5)	1.772 (45)	1.023 (26)	.472 (12)	.669 (17)
50210N-8-1/2	8	1/2	.374 (9)	1.772 (45)	1.122 (28.5)	.472 (12)	.831 (21)
50210N-10-1/4	10	1/4	.276 (7)	2.087 (53)	1.142 (29)	.551 (14)	.669 (17)
50210N-10-3/8	10	3/8	.296 (7.5)	2.087 (53)	1.063 (27)	.551 (14)	.669 (17)
50210N-10-1/2	10	1/2	.374 (9)	2.087 (53)	1.122 (29.5)	.551 (14)	.787 (20)
50210N-12-3/8	12	3/8	.296 (7.5)	2.481 (62.6)	1.122 (29.5)	.630 (16)	.787 (20)
50210N-12-1/2	12	1/2	.374 (9)	2.481 (62.6)	1.260 (32)	.630 (16)	.827 (21)
50210N-14-3/8	14	3/8	.296 (7.5)	2.481 (62.6)	1.122 (29.5)	.630 (16)	.787 (20)
50210N-14-1/2	14	1/2	.374 (9)	2.481 (62.6)	1.260 (32)	.630 (16)	.827 (21)





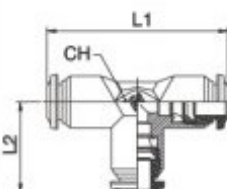
SWIVEL RUN TEE

SWIFT-FIT
Metric Tube



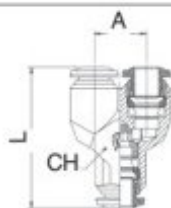
Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
50222N-4-1/8	4	1/8	.216 (5.5)	.551 (14)	.787 (20)	.354 (9)	.511 (13)
50222N-4-1/4	4	1/4	.276 (7)	.846 (21.5)	.846 (21.5)	.354 (9)	.591 (15)
50222N-5-1/8	5	1/8	.216 (5.5)	.787 (20)	.866 (22)	.433 (11)	.511 (13)
50222N-5-1/4	6	1/8	.216 (5.5)	.827 (21)	.866 (22)	.433 (11)	.511 (13)
50222N-5-1/4	6	1/4	.276 (7)	.827 (21)	.925 (23.5)	.433 (11)	.591 (15)
50222N-5-1/8	8	1/8	.216 (5.5)	.886 (22.5)	.945 (24)	.472 (12)	.511 (13)
50222N-5-1/4	8	1/4	.276 (7)	.886 (22.5)	.945 (24)	.472 (12)	.591 (15)
50222N-6-3/8	8	3/8	.295 (7.5)	.886 (22.5)	1.063 (27)	.472 (12)	.669 (17)
50222N-6-1/2	8	1/2	.374 (9)	.886 (22.5)	1.063 (27)	.472 (12)	.831 (21)
50222N-10-1/4	10	1/4	.276 (7)	1.043 (26.5)	1.023 (26)	.551 (14)	.669 (17)
50222N-10-3/8	10	3/8	.295 (7.5)	1.043 (26.5)	1.023 (26)	.551 (14)	.669 (17)
50222N-10-1/2	10	1/2	.374 (9)	1.043 (26.5)	1.122 (28.5)	.551 (14)	.787 (20)
50222N-12-3/8	12	3/8	.295 (7.5)	1.240 (31.5)	1.161 (29.5)	.630 (16)	.787 (20)
50222N-12-1/2	12	1/2	.374 (9)	1.240 (31.5)	1.260 (32)	.630 (16)	.827 (21)

UNION TEE



Part No.	Tube	L1	L2	CH
50230N-3	3	1.326 (34)	.863 (17)	.351 (9)
50230N-4	4	1.326 (34)	.863 (17)	.351 (9)
50230N-5	5	1.590 (40)	.780 (20)	.429 (11)
50230N-6	6	1.638 (42)	.819 (21)	.429 (11)
50230N-8	8	1.795 (45)	.878 (22.5)	.507 (13)
50230N-10	10	2.067 (53)	1.034 (26.5)	.624 (16)
50230N-12	12	2.379 (61)	1.190 (30.5)	.741 (19)
50230N-14	14	2.379 (61)	2.635 (65)	.741 (19)

UNION Y



Part No.	Tube	A	L	CH
50310-3	3	.390 (10)	1.131 (29)	.433 (11)
50310-4	4	.429 (11)	1.248 (32)	.433 (11)
50310-5	5	.527 (13.5)	1.365 (35)	.511 (13)
50310-6	6	.527 (13.5)	1.424 (36.5)	.511 (13)
50310-8	8	.605 (15.5)	1.599 (41)	.590 (15)
50310-10	10	.728 (18.5)	1.890 (48)	.709 (18)

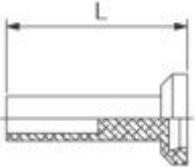




METRIC TUBE

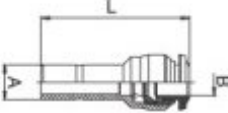
PLUG



	Part No.	Tube	L
	8610 - 4	4	.925 (23.5)
	8610 - 5	5	.964 (24.5)
	8610 - 6	6	.964 (24.5)
	8610 - 8	8	1.023 (26)
	8610 - 10	10	1.122 (28.5)
	8610 - 12	12	1.122 (28.5)

REDUCER



	Part No.	A	B	L
	50700N-4-3	4	3	1.053 (27)
	50700N-5-4	5	4	1.131 (29)
	50700N-6-4	6	4	1.170 (30)
	50700N-6-5	6	5	1.248 (32)
	50700N-8-6	8	6	1.326 (34)
	50700N-10-8	10	8	1.482 (38)
	50700N-12-8	12	8	1.521 (39)

NYLON TUBING



PAGE 76





ALPHA
FITTINGS &
ACCESSORIES

METRIC TUBE

SWIFT-FIT
Fitting Kits



50860N-4

4mm Tube Fitting Kit

Part No.	Description	Qty
50000N-4-1/8	Straight 4mm Tube x 1/8 Male	5
50000N-4-1/4	Straight 4mm Tube x 1/4 Male	5
50110N-4-1/8	Swivel Elbow 4mm Tube x 1/8 Male	5
50110N-4-1/4	Swivel Elbow 4mm Tube x 1/4 Male	5
50210N-4-1/8	Branch Tee 4mm Tube x 1/8 Male	5
50210N-4-1/4	Branch Tee 4mm Tube x 1/4 Male	5
50222N-4-1/8	Run Tee 4mm Tube x 1/8 Male	5
50222N-4-1/4	Run Tee 4mm Tube x 1/4 Male	5
50040N-4	Union 4mm Tube	5
50050N-4	Bulkhead Union 4mm Tube	5
50130N-4	Union Elbow 4mm Tube	5
50230N-4	Union Tee 4mm Tube	5

50860N-6

6mm Tube Fitting Kit

Part No.	Description	Qty
50000N-6-1/8	Straight 6mm Tube x 1/8 Male	5
50000N-6-1/4	Straight 6mm Tube x 1/4 Male	5
50110N-6-1/8	Swivel Elbow 6mm Tube x 1/8 Male	5
50110N-6-1/4	Swivel Elbow 6mm Tube x 1/4 Male	5
50210N-6-1/8	Branch Tee 6mm Tube x 1/8 Male	5
50210N-6-1/4	Branch Tee 6mm Tube x 1/4 Male	5
50222N-6-1/8	Run Tee 6mm Tube x 1/8 Male	5
50222N-6-1/4	Run Tee 6mm Tube x 1/4 Male	5
50040N-6	Union 6mm Tube	5
50050N-6	Bulkhead Union 6mm Tube	5
50130N-6	Union Elbow 6mm Tube	5
50230N-6	Union Tee 6mm Tube	5

50860N-8

8mm Tube Fitting Kit

Part No.	Description	Qty
50000N-8-1/8	Straight 8mm Tube x 1/8 Male	5
50000N-8-1/4	Straight 8mm Tube x 1/4 Male	5
50000N-8-3/8	Straight 8mm Tube x 3/8 Male	5
50110N-8-1/8	Swivel Elbow 8mm Tube x 1/8 Male	5
50110N-8-1/4	Swivel Elbow 8mm Tube x 1/4 Male	5
50110N-8-3/8	Swivel Elbow 8mm Tube x 3/8 Male	5
50210N-8-1/8	Branch Tee 8mm Tube x 1/8 Male	5
50210N-8-1/4	Branch Tee 8mm Tube x 1/4 Male	5
50040N-8	Union 8mm Tube	5
50050N-8	Bulkhead Union 8mm Tube	5
50130N-8	Union Elbow 8mm Tube	5
50230N-8	Union Tee 8mm Tube	5



METRIC TUBE

50860N-10

10mm Tube Fitting Kit

Part No.	Description	Qty
50000N-10-1/4	Straight 10mm Tube x 1/4 Male	3
50000N-10-3/8	Straight 10mm Tube x 3/8 Male	3
50110N-10-1/4	Swivel Elbow 10mm Tube x 1/4 Male	3
50110N-10-3/8	Swivel Elbow 10mm Tube x 3/8 Male	3
50210N-10-1/4	Branch Tee 10mm Tube x 1/4 Male	3
50210N-10-3/8	Branch Tee 10mm Tube x 3/8 Male	3
50222N-10-1/4	Run Tee 10mm Tube x 1/4 Male	3
50222N-10-3/8	Run Tee 10mm Tube x 3/8 Male	3
50040N-10	Union 10mm Tube	3
50050N-10	Bulkhead Union 10mm Tube	3
50130N-10	Union Elbow 10mm Tube	3
50230N-10	Union Tee 10mm Tube	3

50860N-12

12mm Tube Fitting Kit

Part No.	Description	Qty
50000N-12-3/8	Straight 12mm Tube x 3/8 Male	3
50000N-12-1/2	Straight 12mm Tube x 1/2 Male	3
50110N-12-3/8	Swivel Elbow 12mm Tube x 3/8 Male	3
50110N-12-1/2	Swivel Elbow 12mm Tube x 1/2 Male	3
50210N-12-3/8	Branch Tee 12mm Tube x 3/8 Male	3
50210N-12-1/2	Branch Tee 12mm Tube x 1/2 Male	3
50222N-12-3/8	Run Tee 12mm Tube x 3/8 Male	3
50222N-12-1/2	Run Tee 12mm Tube x 1/2 Male	3
50040N-12	Union 12mm Tube	3
50050N-12	Bulkhead Union 12mm Tube	3
50130N-12	Union Elbow 12mm Tube	3
50230N-12	Union Tee 12mm Tube	3

SWIFT-FIT
Metallic



PAGE 6





PUSH-FIT
////////////////





INCH TUBE

STRAIGHT MALE

NPTF THREAD



	Part No.	Tube	A NPTF	B	L	CH	
						CH1	CH2
	88000-02-02	1/8	1/8	.335 (8.5)	.766 (19.5)	.433 (11)	.079 (2)
	88000-02-04	1/8	1/4	.512 (13)	.986 (24.8)	.551 (14)	.079 (2)
	88000-53-02	5/32	1/8	.335 (8.5)	.826 (21)	.433 (11)	.118 (3)
	88000-53-04	5/32	1/4	.512 (13)	.984 (25)	.551 (14)	.118 (3)
	88000-04-02	1/4	1/8	.335 (8.5)	1.023 (26)	.512 (13)	.157 (4)
	88000-04-04	1/4	1/4	.512 (13)	1.062 (27)	.551 (14)	.157 (4)
	88000-04-06	1/4	3/8	.512 (13)	1.141 (29)	.709 (18)	.157 (4)
	88000-05-02	5/16	1/8	.335 (8.5)	1.062 (27)	.551 (14)	.197 (5)
	88000-05-04	5/16	1/4	.512 (13)	1.062 (27.5)	.551 (14)	.236 (6)
	88000-05-06	5/16	3/8	.512 (13)	1.062 (27.5)	.709 (18)	.236 (6)
	88000-06-02	3/8	1/8	.335 (8.5)	1.299 (32)	.669 (17)	.197 (5)
	88000-06-04	3/8	1/4	.512 (13)	1.319 (33.5)	.669 (17)	.276 (7)
	88000-06-06	3/8	3/8	.512 (13)	1.319 (33.5)	.709 (18)	.276 (7)
	88000-06-08	3/8	1/2	.669 (17)	1.319 (33.5)	.866 (22)	.276 (7)
	88000-08-04	1/2	1/4	.512 (13)	1.635 (39)	.787 (20)	.197 (5)
	88000-08-06	1/2	3/8	.512 (13)	1.417 (36)	.787 (20)	.354 (9)
	88000-08-08	1/2	1/2	.669 (17)	1.575 (40)	.866 (22)	.354 (9)

MALE ELBOW

NPTF THREAD



	Part No.	Tube	A NPTF	B	L1	L2	CH1
	88100-04-02	1/4	1/8	.335 (8.5)	.846 (21.5)	.729 (18.5)	.433 (11)
	88100-04-04	1/4	1/4	.512 (13)	.846 (21.5)	.905 (23)	.433 (11)
	88100-06-04	3/8	1/4	.512 (103)	1.062 (27)	1.043 (26.5)	.630 (16)
	88100-06-06	3/8	3/8	.512 (13)	1.062 (27)	1.004 (25.5)	.669 (17)

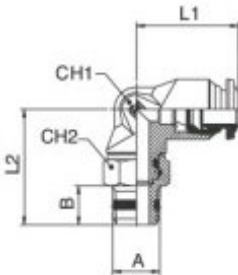




SWIVEL MALE ELBOW

NPTF THREAD

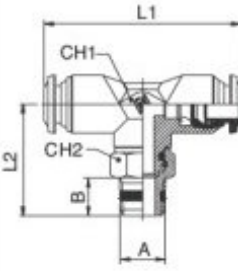


	Part No.	Tube	A NPTF	B	L1	L2	CH1	CH2
	88110-02-02	1/8	1/8	.335 (8.5)	.669 (17)	.906 (23)	.354 (9)	.512 (13)
	88110-02-04	1/8	1/4	.512 (13)	.669 (17)	1.122 (28.5)	.354 (9)	.591 (15)
	88110-53-02	5/32	1/8	.335 (8.5)	.669 (17)	.906 (23)	.354 (9)	.512 (13)
	88110-53-04	5/32	1/4	.512 (13)	.669 (17)	1.181 (30)	.354 (9)	.591 (15)
	88110-04-02	1/4	1/8	.335 (8.5)	.827 (21)	1.023 (26)	.433 (11)	.512 (13)
	88110-04-04	1/4	1/4	.512 (13)	.827 (21)	1.220 (31)	.433 (11)	.591 (15)
	88110-04-06	1/4	3/8	.512 (13)	.827 (21)	1.280 (32.5)	.433 (11)	.709 (18)
	88110-05-02	5/16	1/8	.335 (8.5)	.886 (22.5)	1.043 (26.5)	.512 (13)	.512 (13)
	88110-05-04	5/16	1/4	.512 (13)	.886 (22.5)	1.260 (32)	.512 (13)	.591 (15)
	88110-05-06	5/16	3/8	.512 (13)	.886 (22.5)	1.280 (32.5)	.512 (13)	.709 (18)
	88110-06-02	3/8	1/8	.335 (8.5)	1.043 (26.5)	1.181 (30)	.630 (16)	.512 (13)
	88110-06-04	3/8	1/4	.512 (13)	1.102 (28)	1.337 (35)	.630 (16)	.591 (15)
	88110-06-06	3/8	3/8	.512 (13)	1.023 (26)	1.358 (34.5)	.630 (16)	.709 (18)
	88110-06-08	3/8	1/2	.669 (17)	1.043 (26.5)	1.614 (41)	.630 (16)	.866 (22)
	88110-08-04	1/2	1/4	.512 (13)	1.201 (30.5)	1.555 (39.5)	.748 (19)	.591 (15)
	88110-08-06	1/2	3/8	.512 (13)	1.201 (30.5)	1.476 (37.5)	.748 (19)	.709 (18)
	88110-08-08	1/2	1/2	.669 (17)	1.201 (30.5)	1.732 (44)	.748 (19)	.866 (22)

SWIVEL MALE BRANCH TEE

NPTF THREAD



	Part No.	Tube	A NPTF	B	L1	L2	CH1	CH2
	88210-02-02	1/8	1/8	.295 (7.5)	1.299 (33)	.906 (23)	.354 (9)	.512 (13)
	88210-02-04	1/8	1/4	.512 (13)	1.299 (33)	1.122 (28.5)	.354 (9)	.591 (15)
	88210-53-02	5/32	1/8	.295 (7.5)	1.299 (33)	.906 (23)	.354 (9)	.512 (13)
	88210-53-04	5/32	1/4	.512 (13)	1.299 (33)	1.181 (30)	.354 (9)	.591 (15)
	88210-04-02	1/4	1/8	.295 (7.5)	1.654 (42)	1.023 (26)	.433 (11)	.512 (13)
	88210-04-04	1/4	1/4	.512 (13)	1.654 (42)	1.220 (31)	.433 (11)	.591 (15)
	88210-06-04	3/8	1/4	.512 (13)	2.087 (53)	1.337 (35)	.630 (16)	.591 (15)
	88210-06-06	3/8	3/8	.512 (13)	2.087 (53)	1.358 (34.5)	.630 (16)	.709 (18)
	88210-06-08	3/8	1/2	.669 (17)	2.087 (53)	1.614 (41)	.630 (16)	.866 (22)
	88210-08-04	1/2	1/4	.512 (13)	2.402 (61)	1.555 (39.5)	.748 (19)	.591 (15)
	88210-08-06	1/2	3/8	.512 (13)	2.402 (61)	1.476 (37.5)	.748 (19)	.709 (18)
	88210-08-08	1/2	1/2	.669 (17)	2.402 (61)	1.732 (44)	.748 (19)	.866 (22)

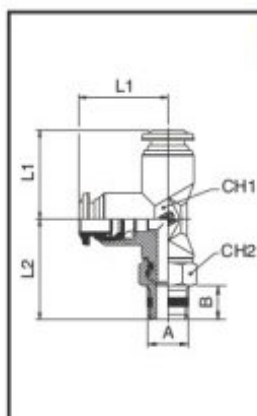




INCH TUBE

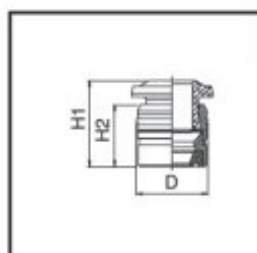
SWIVEL MALE RUN TEE

NPTF THREAD



Part No.	Tube	A NPTF	B	L1	L2	CH1	CH2
88222-02-02	1/8	1/8	.295 (7.5)	.669 (17)	.906 (23)	.354 (9)	.512 (13)
88222-02-04	1/8	1/4	.511 (13)	.669 (17)	1.181 (30)	.354 (9)	.591 (15)
88222-53-02	5/32	1/8	.295 (7.5)	.669 (17)	.906 (23)	.354 (9)	.512 (13)
88222-04-02	1/4	1/8	.295 (7.5)	.827 (21)	.984 (25)	.433 (11)	.512 (13)
88222-04-04	1/4	1/4	.511 (13)	.827 (21)	1.220 (31)	.433 (11)	.591 (15)
88222-06-04	3/8	1/4	.511 (13)	1.043 (26.5)	1.339 (34)	.530 (16)	.591 (15)
88222-06-06	3/8	3/8	.511 (13)	1.043 (26.5)	1.358 (34.5)	.530 (16)	.709 (18)
88222-06-08	3/8	1/2	.669 (17)	1.043 (26.5)	1.614 (41)	.530 (16)	.866 (22)
88222-08-04	1/2	1/4	.512 (13)	1.201 (30.5)	1.478 (37.5)	.748 (19)	.591 (15)
88222-08-06	1/2	3/8	.511 (13)	1.201 (30.5)	1.478 (37.5)	.748 (19)	.709 (18)
88222-08-08	1/2	1/2	.669 (17)	1.2001 (30.5)	1.732 (44)	.748 (19)	.866 (22)

CARTRIDGE FITTING



Part No.	Tube	H1	H2	D
88800-02	1/8	.386 (10)	.290 (7)	.290 (7)
88800-53	5/32	.445 (11.5)	.323 (8)	.338 (8.5)
88800-04	1/4	.520 (13)	.374 (9.5)	.413 (10.5)
88800-05	5/16	.508 (13)	.374 (9.5)	.492 (12.5)
88800-06	3/8	.625 (16)	.472 (12)	.642 (16)
88800-08	1/2	.713 (18)	.543 (14)	.740 (19)

CHECK VALVE
SLIDE VALVE
QUICK EXHAUST
INLINE FILTER
PIPE FITTING



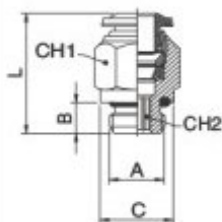
PAGE 66





STRAIGHT MALE

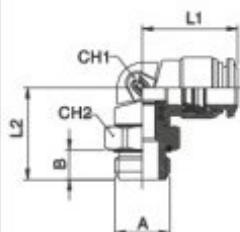
BSPP THREAD



Part No.	Tube	A	B	C	L	CH1	CH2
50020N-3-M5	3	M5	.166 (4)	.312 (8)	.741 (19)	.312 (8)	.078 (2)
50020N-4-M5	4	M5	.166 (4)	.312 (8)	.819 (21)	.390 (10)	.078 (2)
50020N-4-1/8	4	1/8	.234 (6)	.507 (13)	.780 (20)	.390 (10)	.117 (3)
50020N-4-1/4	4	1/4	.312 (8)	.624 (16)	.761 (19.5)	.624 (16)	.117 (3)
50020N-5-M5	5	M5	.166 (4)	.312 (8)	.917 (23.6)	.466 (12)	.078 (2)
50020N-5-1/8	5	1/8	.234 (6)	.507 (13)	.856 (22)	.466 (12)	.166 (4)
50020N-6-M5	6	M5	.166 (4)	.390 (10)	.966 (24.6)	.507 (13)	.078 (2)
50020N-6-1/8	6	1/8	.234 (6)	.507 (13)	.917 (23.6)	.507 (13)	.166 (4)
50020N-6-1/4	6	1/4	.312 (8)	.624 (16)	.917 (23.6)	.507 (13)	.166 (4)
50020N-6-1/4	6	1/4	.312 (8)	.624 (16)	.917 (23.6)	.507 (13)	.166 (4)
50020N-8-1/8	8	1/8	.234 (6)	.507 (13)	.975 (25)	.546 (14)	.196 (5)
50020N-8-1/4	8	1/4	.312 (8)	.624 (16)	.897 (23)	.546 (14)	.234 (6)
50020N-8-3/8	8	3/8	.361 (9)	.780 (20)	.975 (25)	.546 (14)	.234 (6)
50020N-10-1/4	10	1/4	.312 (8)	.624 (16)	1.190 (30.6)	.663 (17)	.234 (6)
50020N-10-3/8	10	3/8	.361 (9)	.780 (20)	1.073 (27.6)	.663 (17)	.312 (8)
50020N-12-3/8	12	3/8	.361 (9)	.780 (20)	1.326 (34)	.780 (20)	.312 (8)
50020N-12-1/2	12	1/2	.390 (10)	.975 (25)	1.209 (31)	.868 (22)	.390 (10)
50020N-14-3/8	14	3/8	.361 (9)	.780 (20)	1.366 (36)	.819 (21)	.390 (10)
50020N-14-1/2	14	1/2	.390 (10)	.975 (25)	1.248 (32)	.868 (22)	.390 (10)

SWIVEL MALE ELBOW

BSPP THREAD



Part No.	Tube	A	B	L1	L2	CH1	CH2
50115N-3-M5	3	M5	.138 (3.5)	.660 (16.5)	.669 (17.5)	.354 (9)	.314 (8)
50115N-4-M5	4	M5	.138 (3.5)	.709 (18)	.669 (17.5)	.354 (9)	.314 (8)
50115N-4-1/8	4	1/8	.216 (5.5)	.709 (18)	.709 (18)	.354 (9)	.511 (13)
50115N-4-1/4	4	1/4	.276 (7)	.709 (18)	.787 (20)	.354 (9)	.630 (16)
50115N-5-M5	5	M5	.138 (3.5)	.787 (20)	.787 (20)	.433 (11)	.433 (11)
50115N-5-1/8	5	1/8	.216 (5.5)	.787 (20)	.787 (20)	.433 (11)	.511 (13)
50115N-6-M5	6	M5	.138 (3.5)	.827 (21)	.787 (20)	.433 (11)	.433 (11)
50115N-6-1/8	6	1/8	.216 (5.5)	.827 (21)	.787 (20)	.433 (11)	.511 (13)
50115N-6-1/4	6	1/4	.276 (7)	.827 (21)	.846 (21.5)	.433 (11)	.630 (16)
50115N-8-1/8	8	1/8	.216 (5.5)	.886 (22.5)	.827 (21)	.472 (12)	.511 (13)
50115N-8-1/4	8	1/4	.276 (7)	.886 (22.5)	.846 (21.5)	.472 (12)	.630 (16)
50115N-8-3/8	8	3/8	.314 (8)	.886 (22.5)	.925 (23.5)	.472 (12)	.787 (20)
50115N-8-1/2	8	1/2	.375 (9.5)	.886 (22.5)	.984 (25)	.472 (12)	.984 (25)
50115N-10-1/4	10	1/4	.276 (7)	1.043 (26.5)	1.004 (25.5)	.551 (14)	.630 (16)
50115N-10-3/8	10	3/8	.314 (8)	1.043 (26.5)	.984 (25)	.551 (14)	.787 (20)
50115N-10-1/2	10	1/2	.375 (9.5)	1.043 (26.5)	1.043 (26.5)	.551 (14)	.984 (25)
50115N-12-1/4	12	1/4	.314 (8)	1.240 (31.5)	1.083 (27.5)	.630 (16)	.787 (20)
50115N-12-3/8	12	3/8	.375 (9.5)	1.240 (31.5)	1.083 (27)	.630 (16)	.984 (25)
50115N-12-1/2	12	1/2	.314 (8)	1.240 (31.5)	1.122 (28.5)	.630 (16)	.787 (20)
50115N-14-3/8	14	3/8	.375 (9.5)	1.240 (31.5)	1.083 (27.5)	.630 (16)	.984 (25)
50115N-14-1/2	14	1/2	.276 (7)	.787 (20)	1.142 (29)	.433 (11)	.630 (16)

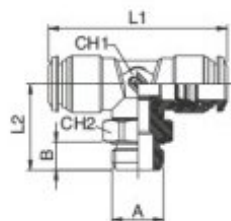




METRIC TUBE

SWIVEL MALE BRANCH TEE

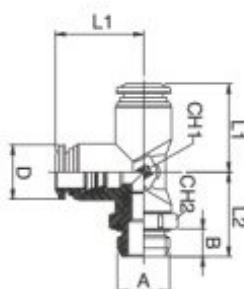
BSPP THREAD



Part No.	Tube	A	B	L1	L2	CH1	CH2
50215N-3-M5	3	M5	.138 (3.5)	1.299 (33)	.669 (17)	.354 (9)	.314 (8)
50215N-4-M5	4	M5	.138 (3.5)	1.338 (34)	.709 (18)	.354 (9)	.314 (8)
50215N-4-1/8	4	1/8	.216 (5.5)	1.338 (34)	.728 (18.5)	.354 (9)	.511 (13)
50215N-4-1/4	4	1/4	.276 (7)	1.338 (34)	.787 (20)	.354 (9)	.630 (16)
50215N-5-M5	5	M5	.138 (3.5)	1.674 (40)	.807 (20.5)	.433 (11)	.433 (11)
50215N-5-1/8	5	1/8	.216 (5.5)	1.674 (40)	.807 (20.5)	.433 (11)	.511 (13)
50215N-6-M5	6	M5	.138 (3.5)	1.663 (42)	.807 (20.5)	.433 (11)	.433 (11)
50215N-6-1/8	6	1/8	.216 (5.5)	1.663 (42)	.807 (20.5)	.433 (11)	.511 (13)
50215N-6-1/4	6	1/4	.276 (7)	1.663 (42)	.866 (22)	.433 (11)	.630 (16)
50215N-8-1/8	8	1/8	.216 (5.5)	1.771 (45)	.925 (23.5)	.472 (12)	.511 (13)
50215N-8-1/4	8	1/4	.276 (7)	1.771 (45)	.945 (24)	.472 (12)	.630 (16)
50215N-8-3/8	8	3/8	.314 (8)	1.771 (45)	1.023 (26)	.472 (12)	.787 (20)
50215N-8-1/2	8	1/2	.375 (9.5)	1.771 (45)	1.083 (27.5)	.472 (12)	.984 (25)
50215N-10-1/4	10	1/4	.276 (7)	1.771 (45)	1.083 (27.5)	.551 (14)	.630 (16)
50215N-10-3/8	10	3/8	.314 (8)	2.066 (53)	1.063 (27)	.551 (14)	.787 (20)
50215N-10-1/2	10	1/2	.375 (9.5)	2.066 (53)	1.122 (28.5)	.551 (14)	.984 (25)
50215N-12-3/8	12	3/8	.375 (9.5)	2.460 (62.5)	1.161 (29.5)	.630 (16)	.984 (25)
50215N-12-1/2	12	1/2	.314 (8)	2.460 (62.5)	1.220 (31)	.630 (16)	.787 (20)
50215N-14-3/8	14	3/8	.375 (9.5)	2.460 (62.5)	1.161 (29.5)	.630 (16)	.984 (25)
50215N-14-1/2	14	1/2	.375 (9.5)	2.460 (62.5)	1.220 (31)	.630 (16)	.984 (25)

SWIVEL MALE RUN TEE

BSPP THREAD



Part No.	Tube	A	B	L1	L2	CH1	CH2
50225N-3-M5	3	M5	.138 (3.5)	.649 (16.5)	.669 (17)	.354 (9)	.314 (8)
50225N-4-M5	4	M5	.138 (3.5)	.669 (17)	.709 (18)	.354 (9)	.314 (8)
50225N-4-1/8	4	1/8	.216 (5.5)	.669 (17)	.728 (18.5)	.354 (9)	.511 (13)
50225N-4-1/4	4	1/4	.276 (7)	.669 (17)	.787 (20)	.354 (9)	.630 (16)
50225N-5-M5	5	M5	.138 (3.5)	.787 (20)	.807 (20.5)	.433 (11)	.433 (11)
50225N-5-1/8	5	1/8	.216 (5.5)	.787 (20)	.807 (20.5)	.433 (11)	.511 (13)
50225N-6-M5	6	M5	.138 (3.5)	.827 (21)	.807 (20.5)	.433 (11)	.433 (11)
50225N-6-1/8	6	1/8	.216 (5.5)	.827 (21)	.807 (20.5)	.433 (11)	.511 (13)
50225N-6-1/4	6	1/4	.276 (7)	.827 (21)	.866 (22)	.433 (11)	.630 (16)
50225N-8-1/8	8	1/8	.216 (5.5)	.866 (22.5)	.866 (22.5)	.472 (12)	.511 (13)
50225N-8-1/4	8	1/4	.276 (7)	.866 (22.5)	.906 (23)	.472 (12)	.630 (16)
50225N-8-3/8	8	3/8	.314 (8)	.866 (22.5)	.984 (25)	.472 (12)	.787 (20)
50225N-8-1/2	8	1/2	.375 (9.5)	.866 (22.5)	1.043 (26.5)	.472 (12)	.984 (25)
50225N-10-1/4	10	1/4	.276 (7)	1.043 (26.5)	1.063 (27)	.551 (14)	.630 (16)
50225N-10-3/8	10	3/8	.314 (8)	1.043 (26.5)	1.043 (26.5)	.551 (14)	.787 (20)
50225N-10-1/2	10	1/2	.375 (9.5)	1.043 (26.5)	1.102 (28)	.551 (14)	.984 (25)
50225N-12-3/8	12	3/8	.375 (9.5)	1.240 (31.5)	1.142 (29.5)	.630 (16)	.984 (25)
50225N-12-1/2	12	1/2	.314 (8)	1.240 (31.5)	1.122 (31)	.630 (16)	.787 (20)





QUICK DISCONNECT
COUPLERS



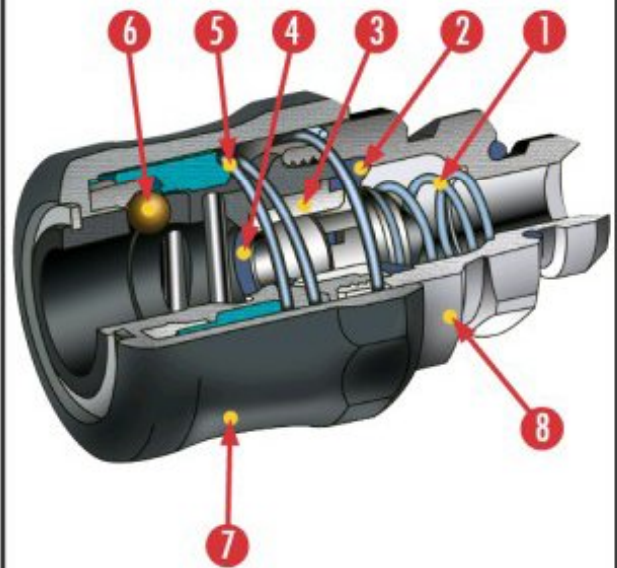
SAFETY COUPLER

Alpha's innovative one-step release and exhaust safety coupler quickly vents system pressure allowing for a safe disconnect. Corrosion resistant stainless steel internal components and nickel plated brass body insure long life and durability. The Alpha simple safety coupler is the most lightweight & compact safety coupler on the market.



COMPONENT SPECIFICATIONS

1. Shutter spring	Stainless steel
2. Seal	NBR 70
3. Ring	Nickel-plated brass
4. O-ring	NBR 70
5. Ring nut thrust spring	Stainless steel
6. Ball	Stainless steel
7. Sleeve	Technopolymer
8. Coupling body	Nickel-plated brass



Temperature rating	0 - 180° F
Media	Compressed air
Pressure rating	0 - 220 psi
Socket type	1/4" Industrial



Slide Sleeve To
Disconnect &
Exhaust Air



Air Exhausts
Plug Is Captured



Safely Remove
Plug From Coupler



SAFETY COUPLER

MALE SAFETY COUPLER **NEW**

NPTF THREAD



	Part No.	A	B	C	D	CH
	80621-04	1/4	.512 (13)	2.173 (55)	1.200 (30.5)	.748 (19)
	80621-06	3/8	.512 (13)	2.173 (55)	1.200 (30.5)	.748 (19)
	80621-08	1/2	.689 (17)	2.322 (59)	1.200 (30.5)	.886 (22)

FEMALE SAFETY COUPLER **NEW**

NPTF THREAD



	Part No.	A	B	C	D	CH
	80622-04	1/4	.531 (13.5)	2.165 (55)	1.200 (30.5)	.889 (17)
	80622-06	3/8	.531 (13.5)	2.146 (54.5)	1.200 (30.5)	.787 (20)
	80622-08	1/2	.689 (17.5)	2.323 (59)	1.200 (30.5)	.945 (24)

MALE SAFETY COUPLER **NEW**

BSPT THREAD



	Part No.	A	B	C	D	CH
	621-04	1/4	.512 (13)	2.173 (55)	1.200 (30.5)	.748 (19)
	621-06	3/8	.512 (13)	2.173 (55)	1.200 (30.5)	.748 (19)
	621-08	1/2	.512 (13)	2.173 (55)	1.200 (30.5)	.748 (19)

FEMALE SAFETY COUPLER **NEW**

BSPP THREAD



	Part No.	A	B	C	D	CH
	622-04	1/4	.531 (13.5)	2.165 (55)	1.200 (30.5)	.889 (17)
	622-06	3/8	.531 (13.5)	2.146 (54.5)	1.200 (30.5)	.787 (20)
	622-08	1/2	.689 (17.5)	2.323 (59)	1.200 (30.5)	.945 (24)



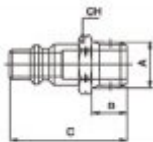


SAFETY COUPLER

1/4" INDUSTRIAL MALE (STEEL)

NPTF THREAD

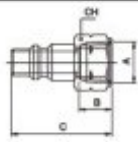


	Part No.	A	B	C	CH
	80221S-04	1/4	.512 (13)	1.634 (41.5)	.669 (17)
	80221S-06	3/8	.512 (13)	1.634 (41.5)	.748 (19)
	80221S-08	1/2	.669 (17)	1.811 (46)	.866 (22)

1/4" INDUSTRIAL FEMALE (STEEL)

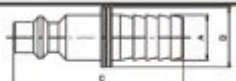
NPTF THREAD



	Part No.	A	B	C	CH
	80222S-04	1/4	.531 (13.5)	1.535 (39)	.669 (17)
	80222S-06	3/8	.531 (13.5)	1.535 (39)	.666 (22)
	80222S-08	1/2	.669 (17.5)	1.693 (43)	.944 (24)

1/4" INDUSTRIAL BARB (STEEL)



	Part No.	A	B	D
	80225S-04	1/4	1.713 (43.5)	.472 (12)



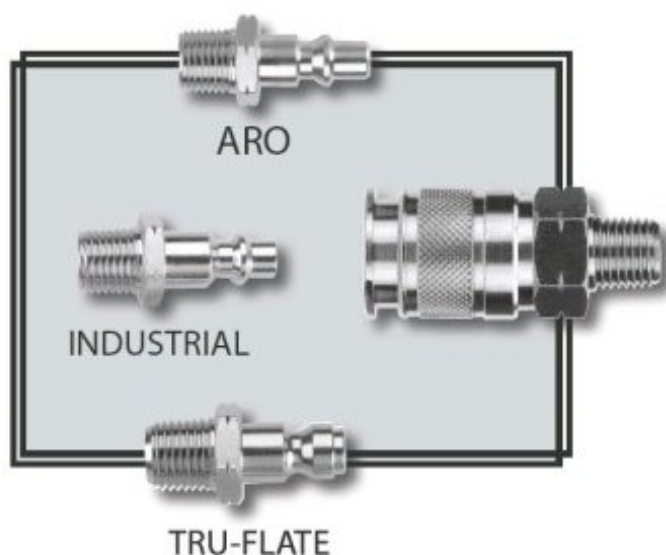


MULTI-SOCKET

UNIVERSAL QUICK DISCONNECT

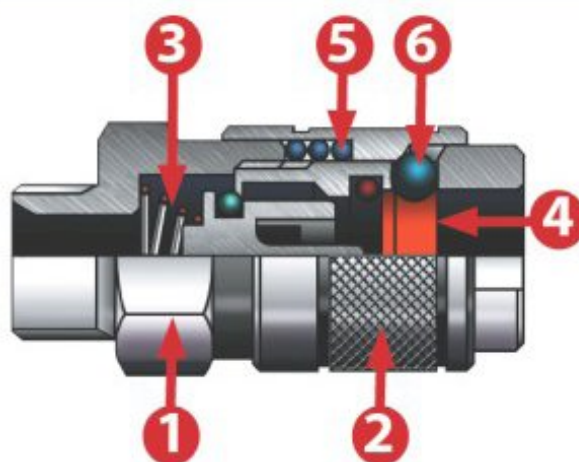


ONE COUPLER....ONLY SOLUTION



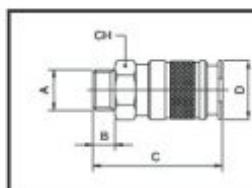
COMPONENT SPECIFICATIONS

- | | |
|------------------|---------------------|
| 1. Body | Nickel-plated brass |
| 2. Sleeve | Nickel-plated brass |
| 3. Spring | Stainless steel |
| 4. Piston | Nickel-plated brass |
| 5. Seals | NBR 70 |
| 6. Locking Balls | Stainless steel |



- | | |
|---------------------|---|
| Pressure: | 0 - 250 psi (17 bar)
Vacuum service |
| Connection: | Male NPTF,
Female NPTF
Barb |
| Temperature: | Min: 0° F (-18° C)
Max: 160° F (70° C) |
| Media: | Compressed Air |

1/4" MALE NPTF



Part No.	A	B	C	D	CH
80191-04	1/4	.512 (13)	2.125 (54)	.945 (24)	.827 (21)
80191-06	3/8	.512 (13)	2.125 (54)	.945 (24)	.827 (21)
80191-08	1/2	.669 (17)	2.303 (58.5)	.945 (24)	.945 (24)

MULTI-SOCKET
UNIVERSAL QUICK DISCONNECT



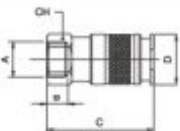


MULTI SOCKET

1/4" FEMALE NPTF

MULTI-SOCKET
UNIVERSAL QUICK DISCONNECT

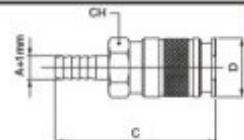


	Part No.	A	B	C	D	CH
	80192-04	1/4	.633 (13.5)	2.126 (54)	.945 (24)	.827 (21)
	80192-06	3/8	.633 (13.5)	2.126 (54)	.945 (24)	.827 (21)
	80192-08	1/2	.689 (17.5)	2.323 (59)	.945 (24)	.945 (24)

1/4" BARB

MULTI-SOCKET
UNIVERSAL QUICK DISCONNECT

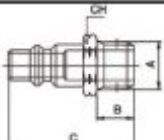


	Part No.	A	C	D	CH
	80193-04	1/4	2.382 (60.5)	.945 (24)	.827 (21)
	80193-06	3/8	2.402 (61)	.945 (24)	.827 (21)
	80193-08	1/2	2.402 (61)	.945 (24)	.866 (22)

1/4" INDUSTRIAL MALE (BRASS)

NPTF THREAD

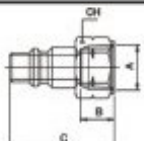


	Part No.	A	B	C	CH
	80221-04	1/4	.612 (13)	1.634 (41.5)	.669 (17)
	80221-06	3/8	.612 (13)	1.634 (41.5)	.748 (19)
	80221-08	1/2	.669 (17)	1.811 (46)	.866 (22)

1/4" INDUSTRIAL FEMALE (BRASS)

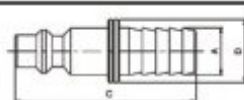
NPTF THREAD



	Part No.	A	B	C	CH
	80222-04	1/4	.531 (13.5)	1.535 (39)	.669 (17)
	80222-06	3/8	.531 (13.5)	1.535 (39)	.787 (20)
	80222-08	1/2	.669 (17.5)	1.693 (43)	.645 (24)

1/4" INDUSTRIAL BARB (BRASS)



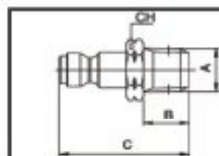
	Part No.	A	B	D
	80225-04	1/4	1.713 (43.5)	.472 (12)
	80225-08	1/2	1.811 (46)	.629 (16)





1/4" TRU-FLATE MALE (BRASS)

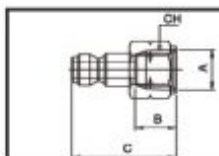
NPTF THREAD



Part No.	A	B	C	CH
80291-04	1/4	.512 (13)	1.457 (37)	.669 (17)
80291-06	3/8	.512 (13)	1.457 (37)	.748 (19)
80291-08	1/2	.669 (17)	1.634 (41.5)	.866 (22)

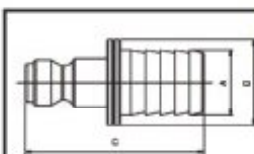
1/4" TRU-FLATE FEMALE (BRASS)

NPTF THREAD



Part No.	A	B	C	CH
80292-04	1/4	.531 (13.5)	1.358 (34.5)	.669 (17)
80292-06	3/8	.531 (13.5)	1.358 (34.5)	.787 (17)
80292-08	1/2	.669 (17.5)	1.516 (38.5)	.945 (24)

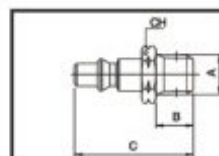
1/4" TRU-FLATE BARB (BRASS)



Part No.	A	B	D
80295-04	1/4	1.834 (41.5)	.472 (12)
80295-06	3/8	1.834 (41.5)	.551 (14)
80295-08	1/2	1.834 (41.5)	.787 (20)

1/4" ARO MALE (BRASS)

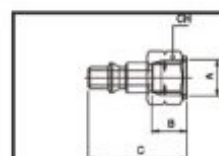
NPTF THREAD



Part No.	A	B	C	CH
80271-04	1/4	.511 (13)	1.574 (40)	.669 (17)
80271-06	3/8	.511 (13)	1.574 (40)	.748 (19)
80271-08	1/2	.669 (17)	1.771 (45)	.866 (22)

1/4" ARO FEMALE (BRASS)

NPTF THREAD



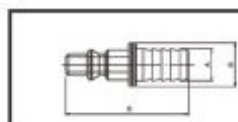
Part No.	A	B	C	CH
80272-04	1/4	.531 (13.5)	1.496 (38)	.669 (17)
80272-06	3/8	.531 (13.5)	1.496 (38)	.787 (20)
80272-08	1/2	.669 (17.5)	1.653 (42)	.945 (24)





MULTI SOCKET

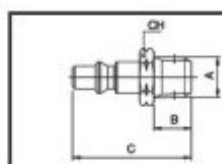
1/4" ARO BARB (BRASS)



Part No.	A	B	D
80275-04	1/4	1.673 (42.5)	.472 (12)
80275-08	1/2	1.791 (45.5)	.787 (20)

1/4" ARO MALE (STEEL)

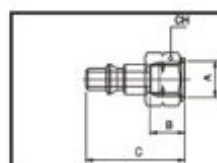
NPTF THREAD



Part No.	A	B	C	CH
80271-04	1/4	.511 (13)	1.574 (40)	.669 (17)

1/4" ARO FEMALE (STEEL)

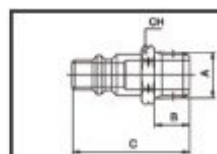
NPTF THREAD



Part No.	A	B	C	CH
80272-04	1/4	.531 (13.5)	1.496 (38)	.669 (17)

1/4" INDUSTRIAL MALE (STEEL)

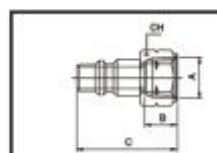
NPTF THREAD



Part No.	A	B	C	CH
80221S-04	1/4	.512 (13)	1.634 (41.5)	.669 (17)
80221S-06	3/8	.512 (13)	1.634 (41.5)	.748 (19)
80221S-08	1/2	.669 (17)	1.811 (46)	.866 (22)

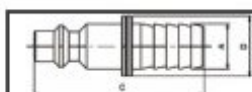
1/4" INDUSTRIAL FEMALE (STEEL)

NPTF THREAD



Part No.	A	B	C	CH
80222S-04	1/4	.531 (13.5)	1.536 (39)	.669 (17)
80222S-06	3/8	.531 (13.5)	1.536 (39)	.787 (20)
80222S-08	1/2	.669 (17.5)	1.693 (43)	.845 (24)

1/4" INDUSTRIAL BARB (STEEL)



Part No.	A	B	D
80225S-04	1/4	1.713 (43.5)	.472 (12)





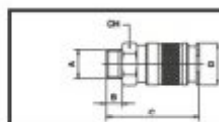
ALPHA
FITTINGS &
ACCESSORIES

MULTI SOCKET

3/8" MALE NPTF

NEW

MULTI-SOCKET
UNIVERSAL QUICK DISCONNECT

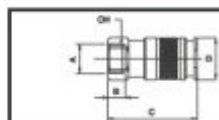


Part No.	A	B	C	D	CH
80197-06	3/8	.512 (13)	2.342 (59.5)	1.102 (28)	.945 (24)
80197-08	1/2	.669 (17)	2.6 (66.5)	1.102 (28)	.945 (24)

3/8" FEMALE NPTF

NEW

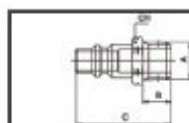
MULTI-SOCKET
UNIVERSAL QUICK DISCONNECT



Part No.	A	B	C	D	CH
80198-06	3/8	.531 (13.5)	2.362 (60)	1.102 (28)	.945 (24)
80198-08	1/2	.669 (17.5)	2.520 (64)	1.102 (28)	.945 (24)

3/8" INDUSTRIAL MALE (BRASS)

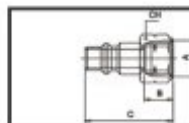
NPTF THREAD



Part No.	A	B	C	CH
80231-06	3/8	.512 (13)	1.732 (44)	.748 (19)
80231-08	1/2	.669 (17)	1.909 (48.5)	.866 (22)

3/8" INDUSTRIAL FEMALE (BRASS)

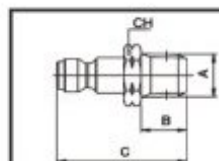
NPTF THREAD



Part No.	A	B	C	CH
80232-06	3/8	.531 (13.5)	1.634 (41.5)	.787 (20)
80232-08	1/2	.669 (17)	1.791 (45.5)	.866 (22)

3/8" TRU-FLATE MALE (BRASS)

NPTF THREAD



Part No.	A	B	C	CH
80297-06	3/8	.512 (13)	1.752 (44.5)	.748 (19)
80297-08	1/2	.669 (17)	1.929 (49)	.866 (22)





MULTI SOCKET

3/8" TRU-FLATE FEMALE (BRASS)

NPTF THREAD



	Part No.	A	B	C	CH
	80298-06	3/8	.531 (13.5)	1.654 (42)	.787 (20)
	80298-08	1/2	.689 (17.5)	1.811 (46)	.866 (22)

3/8" INDUSTRIAL MALE (STEEL)

NPTF THREAD



	Part No.	A	B	C	CH
	80231S-06	3/8	.512 (13)	1.732 (44)	.748 (19)
	80231S-08	1/2	.669 (17)	1.909 (48.5)	.866 (22)

3/8" INDUSTRIAL FEMALE (STEEL)

NPTF THREAD



	Part No.	A	B	C	CH
	80232S-06	3/8	.531 (13.5)	1.634 (41.5)	.787 (20)
	80232S-08	1/2	.689 (17.5)	1.791 (45.5)	.945 (24)

RECOIL ASSEMBLIES

PAGE 76

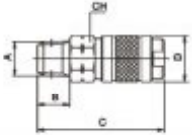




AC MINI MALE

NPTF THREAD

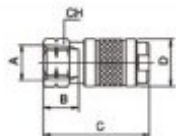


	Part No.	A	B	C	D	CH
	80111-02	1/8	.335 (8.5)	1.496 (38)	.709 (18)	.630 (16)
	80111-04	1/4	.512 (13)	1.673 (42.6)	.709 (18)	.630 (16)
	80111-06	3/8	.512 (13)	1.673 (42.6)	.709 (18)	.761 (19)

AC MINI FEMALE

NPTF THREAD

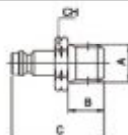


	Part No.	A	B	C	D	CH
	80112-02	1/8	.335 (8.5)	1.457 (37)	.709 (18)	.630 (16)
	80112-04	1/4	.531 (13.5)	1.614 (41)	.709 (18)	.669 (17)
	80112-06	3/8	.531 (13.5)	1.614 (41)	.709 (18)	.787 (20)

AC MINI MALE (BRASS)

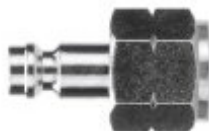
NPTF THREAD

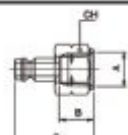


	Part No.	A	B	C	CH
	80211-02	1/8	.335 (8.5)	1.122 (28.5)	.561 (14)
	80211-04	1/4	.512 (13)	1.319 (33.5)	.669 (17)
	80211-06	3/8	.512 (13)	1.319 (33.5)	.748 (19)

AC MINI FEMALE (BRASS)

NPTF THREAD



	Part No.	A	B	C	CH
	80212-02	1/8	.374 (9.5)	1.063 (27)	.561 (14)
	80212-04	1/4	.531 (13.5)	1.220 (31)	.669 (17)
	80212-06	3/8	.531 (13.5)	1.220 (31)	.787 (20)

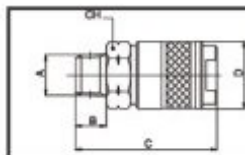




INDUSTRIAL

1/4" INDUSTRIAL MALE

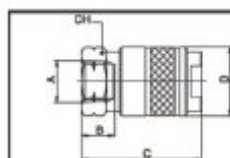
NPTF THREAD



Part No.	A	B	C	D	CH
80121-02	1/4	.512 (13)	2.224 (56.8)	.945 (24)	.827 (21)
80121-04	3/8	.512 (13)	2.224 (56.8)	.945 (24)	.827 (21)
80121-06	1/2	.689 (17)	2.402 (61)	.945 (24)	.945 (24)

1/4" INDUSTRIAL FEMALE

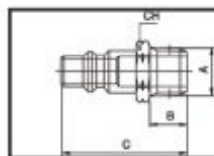
NPTF THREAD



Part No.	A	B	C	D	CH
80122-02	1/4	.531 (13.5)	2.205 (56)	.945 (24)	.827 (21)
80122-04	3/8	.531 (13.5)	2.205 (56)	.945 (24)	.827 (21)
80122-06	1/2	.689 (17.5)	2.421 (61.5)	.945 (24)	.945 (24)

1/4" INDUSTRIAL MALE (BRASS)

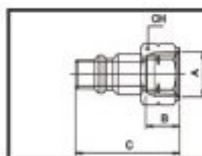
NPTF THREAD



Part No.	A	B	C	CH
80221-02	1/4	.512 (13)	1.634 (41.5)	.669 (17)
80221-04	3/8	.512 (13)	1.634 (41.5)	.748 (19)
80221-06	1/2	.689 (17)	1.811 (46)	.866 (22)

1/4" INDUSTRIAL FEMALE (BRASS)

NPTF THREAD



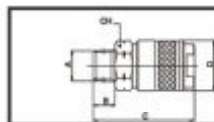
Part No.	A	B	C	CH
80222-02	1/8	.531 (13.5)	1.535 (39)	.669 (17)
80222-04	1/4	.531 (13.5)	1.535 (39)	.787 (20)
80222-06	3/8	.689 (17.5)	1.693 (43)	.845 (24)





3/8" MALE INDUSTRIAL MALE

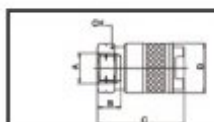
NPTF THREAD



Part No.	A	B	C	D	CH
80131-06	3/8	.512 (13)	2.362 (60)	1.102 (28)	.945 (24)
80131-08	1/2	.660 (17)	2.460 (63)	1.102 (28)	.945 (24)

3/8" INDUSTRIAL FEMALE

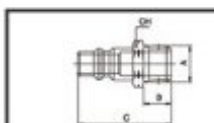
NPTF THREAD



Part No.	A	B	C	D	CH
80132-06	3/8	.531 (13.5)	2.343 (59.5)	1.102 (28)	.945 (24)
80132-08	1/2	.689 (17.5)	2.500 (63.5)	1.102 (28)	.945 (24)

3/8" INDUSTRIAL MALE (BRASS)

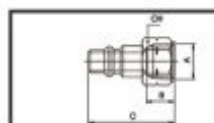
NPTF THREAD



Part No.	A	B	C	CH
80231-06	3/8	.512 (13)	1.732 (44)	.748 (19)
80231-08	1/2	.689 (17.5)	1.909 (48.5)	.806 (22)

3/8" INDUSTRIAL FEMALE (BRASS)

NPTF THREAD



Part No.	A	B	C	CH
80232-06	3/8	.531 (13.5)	1.634 (41.5)	.787 (20)
80232-08	1/2	.689 (17.5)	1.791 (45.5)	.945 (24)



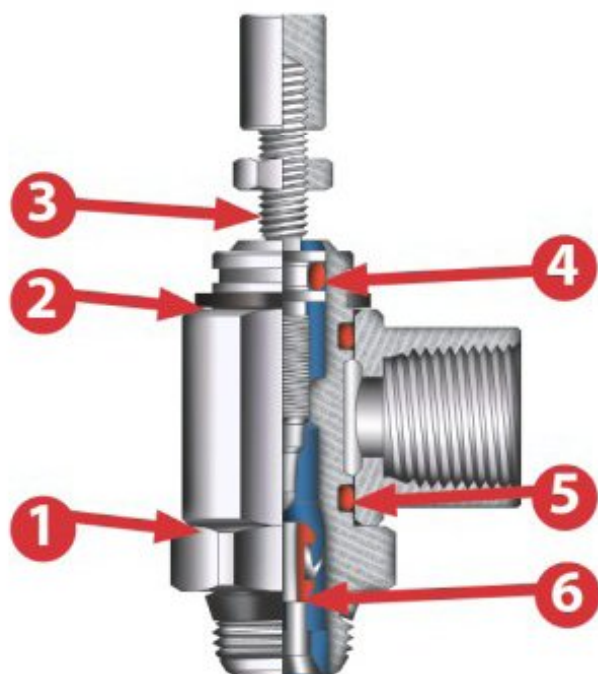


FLOW
CONTROLS



SWIFT-FIT

Control Valves



COMPONENT SPECIFICATIONS

1. Body	Nickel-plated brass
2. Shaft clip	Stainless steel
3. Adjusting mechanism	Nickel-plated brass
4. O-ring	NBR 70
5. O-ring	NBR 70
6. Lip seal	NBR 70

Pressure Rating: Vacuum-250 PSI

Temperature Rating: 0-160° F

Tubing Compatibility: Nylon*
Polyethylene*
Polyurethane*
Copper

*98 Durometer for best results

Media: Compressed Air

CONTROLLED FLOW OUT



CONTROLLED FLOW IN



BIDIRECTIONAL FLOW



INCH TUBE FLOW CONTROL (OUT)

SWIFT-FIT
Metallic Control Valve

NEW



Technical drawing of a mechanical component, likely a valve or fitting. The drawing shows a side view and a cross-sectional view. Key dimensions are labeled: L1 (total length), L2 (height), CH (height of the central part), B (width of the base), and A (width of the base). The component has a threaded section on the right and a flange on the left.

Part No.	Tube	A	SWIFT	B	L1	L2	CH	Code
89953-02-32	1/8	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	C	
89953-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	C	
89953-53-32	5/32	10/32	.157 (4)	.748 (19)	.945 (24)	.215 (8)	C	
89953-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	C	
89953-04-02	1/4	1/8	.217 (5.5)	.866 (22)	1.181 (30.5)	.551 (14)	C	
89953-04-04	1/4	1/4	.275 (7)	.984 (25)	1.417 (36)	.609 (17)	C	
89953-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	C	
89953-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	C	
89953-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	1.614 (41)	.787 (20)	C	
89953-08-08	1/2	1/2	.354 (9)	1.378 (35)	1.850 (47)	.945 (24)	C	

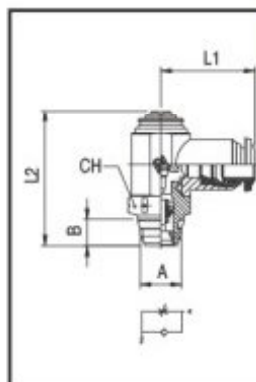


CONTROL VALVE INCH

INCH TUBE FLOW CONTROL (IN)

SWIFT-FIT
Metric Control Valves

NEW

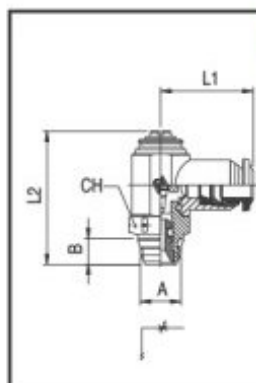


Part No.	Tube	A SWIFT	B	L1	L2	CH	Code
89963-02-32	1/8	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	V
89963-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	V
89963-53-32	5/32	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	V
89963-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	V
89963-04-02	1/4	1/8	.217 (5.5)	.886 (22)	1.181 (30.5)	.551 (14)	V
89963-04-04	1/4	1/4	.276 (7)	.984 (25)	1.417 (36)	.669 (17)	V
89963-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	V
89963-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	V
89963-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	1.614 (41)	.787 (20)	V
89963-08-08	1/2	1/2	.354 (9)	1.378 (35)	1.850 (47)	.945 (24)	V

INCH TUBE NEEDLE VALVE

SWIFT-FIT
Metric Control Valves

NEW

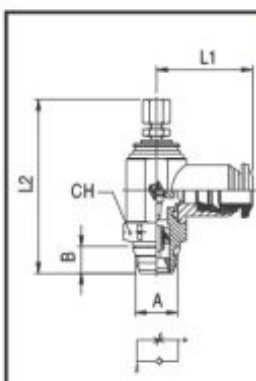


Part No.	Tube	A SWIFT	B	L1	L2	CH	Code
89973-02-32	1/8	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	B
89973-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	B
89973-53-32	5/32	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	B
89973-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	B
89973-04-02	1/4	1/8	.217 (5.5)	.886 (22)	1.181 (30.5)	.551 (14)	B
89973-04-04	1/4	1/4	.276 (7)	.984 (25)	1.417 (36)	.669 (17)	B
89973-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	B
89973-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	B
89973-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	1.614 (41)	.787 (20)	B
89973-08-08	1/2	1/2	.354 (9)	1.378 (35)	1.850 (47)	.945 (24)	B

INCH TUBE FLOW CONTROL (OUT)

SWIFT-FIT
Metric Control Valve

NEW



Part No.	Tube	A SWIFT	B	L1	L2 Min	L2 Max	CH	Code
89958-02-32	1/8	10/32	.157 (4)	.748 (19)	1.299 (33)	1.476 (37.5)	.315 (8)	C
89958-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	C
89958-53-32	5/32	10/32	.157 (4)	.748 (19)	1.299 (33)	1.472 (37.5)	.315 (8)	C
89958-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	C
89958-04-02	1/4	1/8	.217 (5.5)	.886 (22)	1.614 (41)	1.830 (46.5)	.551 (14)	C
89958-04-04	1/4	1/4	.276 (7)	.984 (25)	1.850 (47)	2.066 (53)	.669 (17)	C
89958-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	2.205 (56)	2.480 (63)	.787 (20)	C
89958-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	2.205 (56)	2.480 (63)	.787 (20)	C
89958-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	2.205 (56)	2.480 (63)	.787 (20)	C
89958-08-08	1/2	1/2	.354 (9)	1.378 (35)	2.402 (61)	2.717 (69)	.945 (24)	C





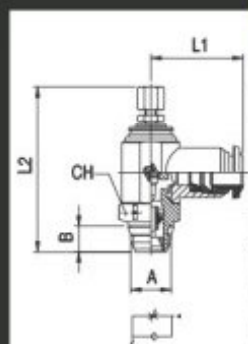
ALPHA
FITTINGS &
ACCESSORIES

CONTROL VALVE INCH

INCH TUBE FLOW CONTROL (IN)

SWIFT-FIT
Metric Control Valves

NEW

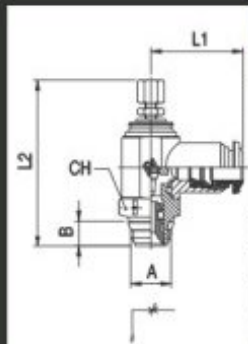


Part No.	Tube	A SWIFT	B	L1	L2 Min	L2 Max	CH	Code
89968-02-32	1/8	10/32	.157 (4)	.748 (19)	1.299 (33)	1.478 (37.5)	.315 (8)	V
89968-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	V
89968-53-32	5/32	10/32	.157 (4)	.748 (19)	1.299 (33)	1.472 (37.5)	.315 (8)	V
89968-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	V
89968-04-02	1/4	1/8	.217 (5.5)	.886 (22)	1.614 (41)	1.830 (46.5)	.551 (14)	V
89968-04-04	1/4	1/4	.276 (7)	.984 (25)	1.850 (47)	2.086 (53)	.689 (17)	V
89968-06-04	3/8	1/4	.295 (7.5)	1.161 (30.5)	2.206 (56)	2.480 (63)	.787 (20)	V
89968-06-06	3/8	3/8	.295 (7.5)	1.161 (30.5)	2.206 (56)	2.480 (63)	.787 (20)	V
89968-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	2.206 (56)	2.480 (63)	.787 (20)	V
89968-08-08	1/2	1/2	.354 (9)	1.378 (35)	2.402 (62)	2.717 (69)	.945 (24)	V

INCH TUBE NEEDLE VALVE

SWIFT-FIT
Metric Control Valve

NEW



Part No.	Tube	A SWIFT	B	L1	L2 Min	L2 Max	CH	Code
89978-02-32	1/8	10/32	.157 (4)	.748 (19)	1.299 (33)	1.478 (37.5)	.315 (8)	B
89978-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	B
89978-53-32	5/32	10/32	.157 (4)	.748 (19)	1.299 (33)	1.472 (37.5)	.315 (8)	B
89978-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	B
89978-04-02	1/4	1/8	.217 (5.5)	.886 (22)	1.614 (41)	1.830 (46.5)	.551 (14)	B
89978-04-04	1/4	1/4	.276 (7)	.984 (25)	1.850 (47)	2.086 (53)	.689 (17)	B
89978-06-04	3/8	1/4	.295 (7.5)	1.161 (30.5)	2.206 (56)	2.480 (63)	.787 (20)	B
89978-06-06	3/8	3/8	.295 (7.5)	1.161 (30.5)	2.206 (56)	2.480 (63)	.787 (20)	B
89978-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	2.206 (56)	2.480 (63)	.787 (20)	B
89978-08-08	1/2	1/2	.354 (9)	1.378 (35)	2.402 (61)	2.717 (69)	.945 (24)	B

MINI
BALL VALVES



PAGE 59





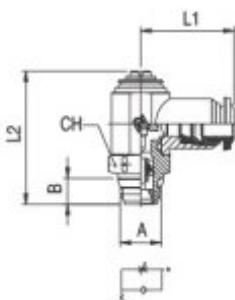
CONTROL VALVE INCH

INCH TUBE FLOW CONTROL (OUT)

SWIFT-FIT
Control Valves



Part No.	Tube	A SWIFT	B	L1	L2	CH	Code
88953-02-32	1/8	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	C
88953-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	C
88953-53-32	5/32	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	C
88953-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	C
88953-04-02	1/4	1/8	.217 (5.5)	.866 (22)	1.181 (30.5)	.551 (14)	C
88953-04-04	1/4	1/4	.276 (7)	.984 (25)	1.417 (36)	.669 (17)	C
88953-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	C
88953-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	C
88953-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	1.614 (41)	.787 (20)	C
88953-08-08	1/2	1/2	.354 (9)	1.378 (35)	1.850 (47)	.945 (24)	C

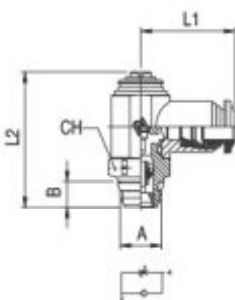


INCH TUBE NEEDLE VALVE (IN)

SWIFT-FIT
Control Valves



Part No.	Tube	A SWIFT	B	L1	L2	CH	Code
88963-02-32	1/8	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	V
88963-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	V
88963-53-32	5/32	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	V
88963-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	V
88963-04-02	1/4	1/8	.217 (5.5)	.866 (22)	1.181 (30.5)	.551 (14)	V
88963-04-04	1/4	1/4	.276 (7)	.984 (25)	1.417 (36)	.669 (17)	V
88963-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	V
88963-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	V
88963-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	1.614 (41)	.787 (20)	V
88963-08-08	1/2	1/2	.354 (9)	1.378 (35)	1.850 (47)	.945 (24)	V

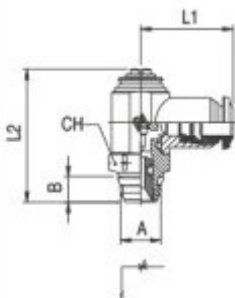


INCH TUBE NEEDLE VALVE

SWIFT-FIT
Control Valves



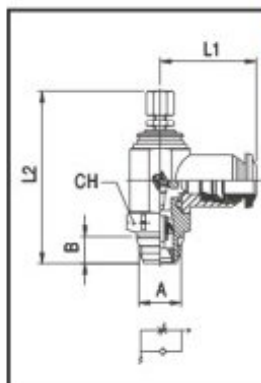
Part No.	Tube	A SWIFT	B	L1	L2	CH	Code
88973-02-32	1/8	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	B
88973-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	B
88973-53-32	5/32	10/32	.157 (4)	.748 (19)	.945 (24)	.315 (8)	B
88973-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.181 (30.5)	.551 (14)	B
88973-04-02	1/4	1/8	.217 (5.5)	.866 (22)	1.181 (30.5)	.551 (14)	B
88973-04-04	1/4	1/4	.276 (7)	.984 (25)	1.417 (36)	.669 (17)	B
88973-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	B
88973-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	1.614 (41)	.787 (20)	B
88973-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	1.614 (41)	.787 (20)	B
88973-08-08	1/2	1/2	.295 (7.5)	1.378 (35)	1.850 (47)	.945 (24)	B





INCH TUBE FLOW CONTROL (OUT)

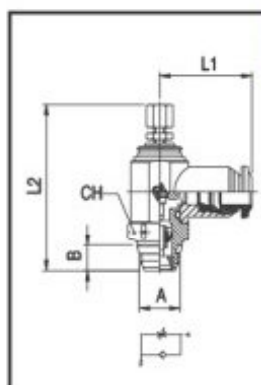
SWIFT-FIT
Control Valves



Part No.	Tube	A SWIFT	B	L1	L2 Min	L2 Max	CH	Code
88958-02-32	1/8	10/32	.157 (4)	.748 (19)	1.299 (33)	1.476 (37.5)	.315 (8)	C
88958-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	C
88958-53-32	5/32	10/32	.157 (4)	.748 (19)	1.299 (33)	1.472 (37.5)	.315 (8)	C
88958-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	C
88958-04-02	1/4	1/8	.217 (5.5)	.866 (22)	1.614 (41)	1.830 (46.5)	.551 (14)	C
88958-04-04	1/4	1/4	.276 (7)	.984 (25)	1.850 (47)	2.086 (53)	.689 (17)	C
88958-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	2.205 (56)	2.480 (63)	.787 (20)	C
88958-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	2.205 (56)	2.480 (63)	.787 (20)	C
88958-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	2.205 (56)	2.480 (63)	.787 (20)	C
88958-08-08	1/2	1/2	.354 (9)	1.378 (35)	2.402 (61)	2.717 (69)	.945 (24)	C

INCH TUBE FLOW CONTROL (IN)

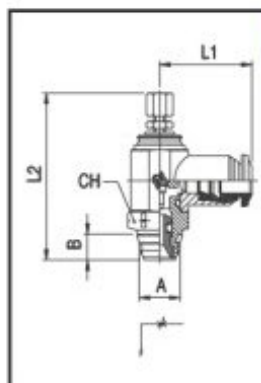
SWIFT-FIT
Control Valves



Part No.	Tube	A SWIFT	B	L1	L2 Min	L2 Max	CH	Code
88968-02-32	1/8	10/32	.157 (4)	.748 (19)	1.299 (33)	1.476 (37.5)	.315 (8)	V
88968-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	V
88968-53-32	5/32	10/32	.157 (4)	.748 (19)	1.299 (33)	1.472 (37.5)	.315 (8)	V
88968-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	V
88968-04-02	1/4	1/8	.217 (5.5)	.866 (22)	1.614 (41)	1.830 (46.5)	.551 (14)	V
88968-04-04	1/4	1/4	.276 (7)	.984 (25)	1.850 (47)	2.086 (53)	.689 (17)	V
88968-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	2.205 (56)	2.480 (63)	.787 (20)	V
88968-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	2.205 (56)	2.480 (63)	.787 (20)	V
88968-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	2.205 (56)	2.480 (63)	.787 (20)	V
88968-08-08	1/2	1/2	.354 (9)	1.378 (35)	2.402 (61)	2.717 (69)	.945 (24)	V

INCH TUBE NEEDLE VALVE

SWIFT-FIT
Control Valves



Part No.	Tube	A SWIFT	B	L1	L2 Min	L2 Max	CH	Code
88978-02-32	1/8	10/32	.157 (4)	.748 (19)	1.299 (33)	1.476 (37.5)	.315 (8)	B
88978-02-02	1/8	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	B
88978-53-32	5/32	10/32	.157 (4)	.748 (19)	1.299 (33)	1.472 (37.5)	.315 (8)	B
88978-53-02	5/32	1/8	.217 (5.5)	.827 (21)	1.614 (41)	1.830 (46.5)	.551 (14)	B
88978-04-02	1/4	1/8	.217 (5.5)	.866 (22)	1.614 (41)	1.830 (46.5)	.551 (14)	B
88978-04-04	1/4	1/4	.276 (7)	.984 (25)	1.850 (47)	2.086 (53)	.689 (17)	B
88978-06-04	3/8	1/4	.295 (7.5)	1.181 (30.5)	2.205 (56)	2.480 (63)	.787 (20)	B
88978-06-06	3/8	3/8	.295 (7.5)	1.181 (30.5)	2.205 (56)	2.480 (63)	.787 (20)	B
88978-08-06	1/2	3/8	.295 (7.5)	1.280 (32.5)	2.205 (56)	2.480 (63)	.787 (20)	B
88978-08-08	1/2	1/2	.354 (9)	1.378 (35)	2.402 (61)	2.717 (69)	.945 (24)	B

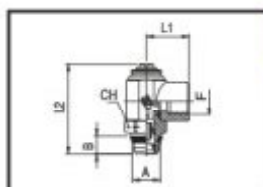




CONTROL VALVE INCH

FEMALE NPTF FLOW CONTROL (OUT)

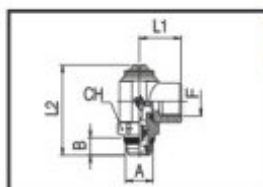
SWIFT-FIT
Control Valves



Part No.	F SWIFT	A SWIFT	B	L1	L2	CH	Code
88952-32-32	10/32	10/32	.157 (4)	.394 (10)	.944 (24)	.315 (8)	C
88952-02-02	1/8	1/8	.217 (5.5)	.650 (16.5)	1.181 (30.5)	.551 (14)	C
88952-04-04	1/4	1/4	.276 (7)	.866 (22)	1.417 (36)	.689 (17)	C
88952-06-06	3/8	3/8	.296 (7.5)	1.043 (26.5)	1.614 (41)	.787 (20)	C

FEMALE NPTF FLOW CONTROL (IN)

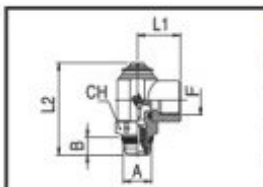
SWIFT-FIT
Control Valves



Part No.	F SWIFT	A SWIFT	B	L1	L2	CH	Code
88962-32-32	10/32	10/32	.157 (4)	.394 (10)	.944 (24)	.315 (8)	V
88962-02-02	1/8	1/8	.217 (5.5)	.650 (16.5)	1.181 (30.5)	.551 (14)	V
88962-04-04	1/4	1/4	.276 (7)	.866 (22)	1.417 (36)	.689 (17)	V
88962-06-06	3/8	3/8	.296 (7.5)	1.043 (26.5)	1.614 (41)	.787 (20)	V

FEMALE NPTF NEEDLE VALVE

SWIFT-FIT
Control Valves



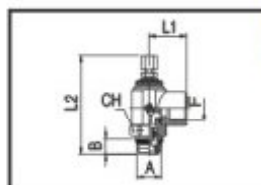
Part No.	F SWIFT	A SWIFT	B	L1	L2	CH	Code
88972-32-32	10/32	10/32	.157 (4)	.394 (10)	.944 (24)	.315 (8)	B
88972-02-02	1/8	1/8	.217 (5.5)	.650 (16.5)	1.181 (30.5)	.551 (14)	B
88972-04-04	1/4	1/4	.276 (7)	.866 (22)	1.417 (36)	.689 (17)	B
88972-06-06	3/8	3/8	.296 (7.5)	1.043 (26.5)	1.614 (41)	.787 (20)	B





FEMALE NPTF FLOW CONTROL (OUT)

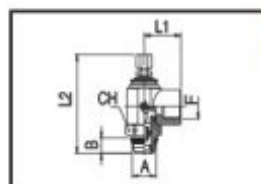
SWIFT-FIT
Control Valves



Part No.	F NPTF	A SWIFT	B	L1	L2 Min	L2 Max	CH	Code
88957-32-32	10/32	10/32	.157 (4)	.394 (10)	1.299 (33)	1.477 (37.5)	.315 (8)	C
88957-02-02	1/8	1/8	.217 (5.5)	.650 (16.5)	1.614 (41)	1.830 (46.5)	.551 (14)	C
88957-04-04	1/4	1/4	.276 (7)	.866 (22)	1.850 (47)	2.086 (53)	.669 (17)	C
88957-06-06	3/8	3/8	.296 (7.5)	1.043 (26.5)	2.206 (56)	2.480 (63)	.787 (20)	C

FEMALE NPTF FLOW CONTROL (IN)

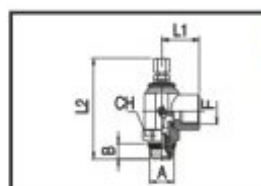
SWIFT-FIT
Control Valves



Part No.	F NPTF	A SWIFT	B	L1	L2 Min	L2 Max	CH	Code
88967-32-32	10/32	10/32	.157 (4)	.394 (10)	1.299 (33)	1.477 (37.5)	.315 (8)	V
88967-02-02	1/8	1/8	.217 (5.5)	.650 (16.5)	1.614 (41)	1.830 (46.5)	.551 (14)	V
88967-04-04	1/4	1/4	.276 (7)	.866 (22)	1.850 (47)	2.086 (53)	.669 (17)	V
88967-06-06	3/8	3/8	.296 (7.5)	1.043 (26.5)	2.206 (56)	2.480 (63)	.787 (20)	V

FEMALE NPTF NEEDLE VALVE

SWIFT-FIT
Control Valves



Part No.	F NPTF	A SWIFT	B	L1	L2 Min	L2 Max	CH	Code
88977-32-32	10/32	10/32	.157 (4)	.394 (10)	1.299 (33)	1.477 (37.5)	.315 (8)	B
88977-02-02	1/8	1/8	.217 (5.5)	.650 (16.5)	1.614 (41)	1.830 (46.5)	.551 (14)	B
88977-04-04	1/4	1/4	.276 (7)	.866 (22)	1.850 (47)	2.086 (53)	.669 (17)	B
88977-06-06	3/8	3/8	.296 (7.5)	1.043 (26.5)	2.206 (56)	2.480 (63)	.787 (20)	B

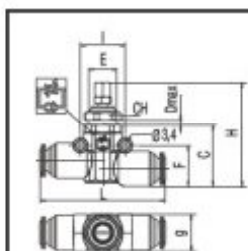




CONTROL VALVE INCH

INLINE FLOW CONTROL

NEW

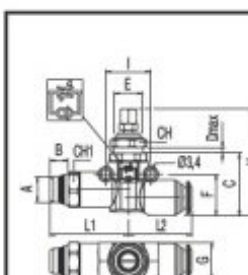


Part No.	Tube	C	D	E	F	G	H	I	L	CH
82815-04	1/4	.928 (23.5)	.157 (4)	M11X1	.818 (15.5)	.551 (14)	1.578-1.827 (40.5-46.5)	.877 (17)	1.890 (48)	.512 (13)
82815-06	3/8	.996 (25.5)	.177 (4.5)	M16X1	.807 (20.5)	.807 (20.5)	1.929-2.161 (49-55)	.787 (20)	2.272 (57.5)	.709 (18)

INLINE FLOW CONTROL MALE X TUBE

SWIFT-FIT
Control Valves

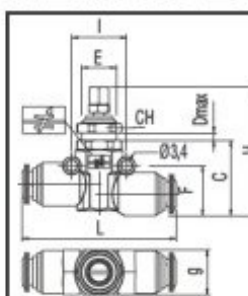
NEW



Part No.	A	Tube	B	C	D	E	F	G	H	I	L1	L2	CH	CH1
82820-04-04	1/4	1/4	.276 (7)	.928 (23.5)	.157 (4)	M11X1	.818 (15.5)	.551 (14)	1.587-1.827 (40.5-46.5)	.877 (17)	1.169 (29.5)	.945 (24)	.512 (13)	.512 (13)
82820-04-06	1/4	3/8	.276 (7)	.996 (25.5)	.177 (4.5)	M16X1	.807 (20.5)	.807 (20.5)	1.929-2.161 (49-55)	.787 (20)	1.378 (35)	1.134 (29)	.709 (18)	.630 (13)
82820-06-06	3/8	3/8	.295 (7.5)	.996 (25.5)	.177 (4.5)	M16X1	.807 (20.5)	.807 (20.5)	1.929-2.161 (49-55)	.787 (20)	1.299 (33)	1.134 (29)	.709 (18)	.669 (17)

INLINE TUBE NEEDLE VALVE

NEW

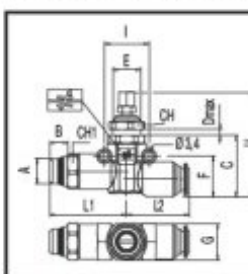


Part No.	Tube	C	D	E	F	G	H	I	L	CH
82830-04	1/4	.928 (23.5)	.157 (4)	M11X1	.818 (15.5)	.551 (14)	1.578-1.827 (40.5-46.5)	.877 (17)	1.890 (48)	.512 (13)
82830-06	3/8	.996 (25.5)	.177 (4.5)	M16X1	.807 (20.5)	.807 (20.5)	1.929-2.161 (49-55)	.787 (20)	2.272 (57.5)	.709 (18)

INLINE NEEDLE VALVE MALE X TUBE

SWIFT-FIT
Control Valves

NEW



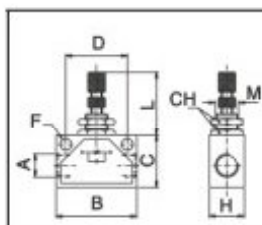
Part No.	A	Tube	B	C	D	E	F	G	H	I	L1	L2	CH	CH1
82835-04-04	1/4	1/4	.276 (7)	.928 (23.5)	.157 (4)	M11X1	.818 (15.5)	.551 (14)	1.587-1.827 (40.5-46.5)	.877 (17)	1.169 (29.5)	.945 (24)	.512 (13)	.512 (13)
82835-06-06	3/8	3/8	.295 (7.5)	.996 (25.5)	.177 (4.5)	M16X1	.807 (20.5)	.807 (20.5)	1.929-2.161 (49-55)	.787 (20)	1.299 (33)	1.134 (29)	.709 (18)	.669 (17)





INLINE FLOW CONTROL FEMALE

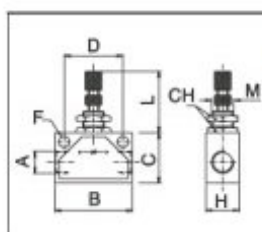
NPTF THREAD



Part No.	A	B	C	H	D	F	L	M	CH
82850-02	1/8	1.378 (35)	.866 (22)	.709 (18)	.984 (25)	.177 (4.5)	1.023-1.417 (26-36)	M12x0.75	.590 (15)
82850-04	1/4	1.811 (46)	1.181 (30)	.787 (20)	1.378 (35)	.256 (6.5)	1.023-1.417 (26-36)	M12x0.75	.590 (15)
82850-06	3/8	1.968 (50)	1.181 (30)	.984 (25)	1.378 (35)	.256 (6.5)	1.259-1.653 (32-42)	M18x1.5	.866 (22)
82850-08	1/2	2.362 (60)	1.575 (40)	.984 (25)	1.732 (44)	.256 (6.5)	1.259-1.734 (32-44)	M18x1.5	.866 (22)

INLINE NEEDLE VALVE FEMALE

NPTF THREAD



Part No.	A	B	C	H	D	F	L	M	CH
82860-02	1/8	1.378 (35)	.866 (22)	.709 (18)	.984 (25)	.177 (4.5)	1.023-1.417 (26-36)	M12x0.75	.590 (15)
82860-04	1/4	1.811 (46)	1.181 (30)	.787 (20)	1.378 (35)	.256 (6.5)	1.023-1.417 (26-36)	M12x0.75	.590 (15)
82860-06	3/8	1.968 (50)	1.181 (30)	.984 (25)	1.378 (35)	.256 (6.5)	1.259-1.653 (32-42)	M18x1.5	.866 (22)
82860-08	1/2	2.362 (60)	1.575 (40)	.984 (25)	1.732 (44)	.256 (6.5)	1.259-1.734 (32-44)	M18x1.5	.866 (22)

SAFETY COUPLER



PAGE 33





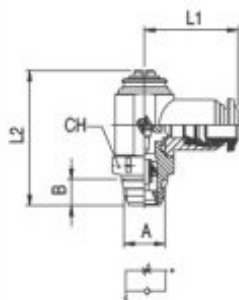
CONTROL VALVE METRIC

METRIC TUBE FLOW CONTROL (OUT)

SWIFT-FIT
Control Valves



Part No.	Tube	A	B	L1	L2	CH	Code
50901N-3-M5	3	M5	.166 (4)	.741 (19)	.936 (24)	.312 (8)	C
50901N-4-M5	4	M5	.166 (4)	.741 (19)	.936 (24)	.312 (8)	C
50901N-4-1/8	4	1/8	.215 (5.5)	.819 (21)	1.190 (30.5)	.546 (14)	C
50901N-5-M5	5	M5	.166 (4)	.780 (20)	.936 (24)	.312 (8)	C
50901N-5-1/8	5	1/8	.215 (5.5)	.839 (21.5)	1.190 (30.5)	.546 (14)	C
50901N-5-1/4	5	1/4	.273 (7)	.966 (24.5)	1.385 (35.5)	.663 (17)	C
50901N-6-M5	6	M5	.166 (4)	.800 (20.5)	.936 (24)	.312 (8)	C
50901N-6-1/8	6	1/8	.273 (7)	.878 (22.5)	1.190 (30.5)	.546 (14)	C
50901N-6-1/4	6	1/4	.215 (5.5)	.975 (25)	1.385 (35.5)	.663 (17)	C
50901N-8-1/8	8	1/8	.215 (5.5)	.936 (24)	1.190 (30.5)	.546 (14)	C
50901N-8-1/4	8	1/4	.273 (7)	1.014 (26)	1.385 (35.5)	.663 (17)	C
50901N-10-3/8	10	3/8	.293 (7.5)	1.190 (30.5)	1.599 (41)	.780 (20)	C
50901N-12-3/8	12	3/8	.293 (7.5)	1.268 (32.5)	1.599 (41)	.780 (20)	C
50901N-12-1/2	12	1/2	.351 (9)	1.365 (35)	1.833 (47)	.936 (24)	C
50901N-14-1/2	14	1/2	.351 (9)	1.385 (35.5)	1.833 (47)	.936 (24)	C

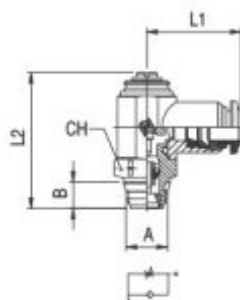


METRIC TUBE FLOW CONTROL (IN)

SWIFT-FIT
Control Valves



Part No.	Tube	A	B	L1	L2	CH	Code
50910N-3-M5	3	M5	.166 (4)	.741 (19)	.936 (24)	.312 (8)	B
50910N-4-M5	4	M5	.166 (4)	.741 (19)	.936 (24)	.312 (8)	B
50910N-4-1/8	4	1/8	.215 (5.5)	.819 (21)	1.190 (30.5)	.546 (14)	B
50910N-5-M5	5	M5	.166 (4)	.780 (20)	.936 (24)	.312 (8)	B
50910N-5-1/8	5	1/8	.215 (5.5)	.839 (21.5)	1.190 (30.5)	.546 (14)	B
50910N-5-1/4	5	1/4	.273 (7)	.966 (24.5)	1.385 (35.5)	.663 (17)	B
50910N-6-M5	6	M5	.166 (4)	.800 (20.5)	.936 (24)	.312 (8)	B
50910N-6-1/8	6	1/8	.273 (7)	.878 (22.5)	1.190 (30.5)	.546 (14)	B
50910N-6-1/4	6	1/4	.215 (5.5)	.975 (25)	1.385 (35.5)	.663 (17)	B
50910N-8-1/8	8	1/8	.215 (5.5)	.936 (24)	1.190 (30.5)	.546 (14)	B
50910N-8-1/4	8	1/4	.273 (7)	1.014 (26)	1.385 (35.5)	.663 (17)	B
50910N-10-3/8	10	3/8	.293 (7.5)	1.190 (30.5)	1.599 (41)	.780 (20)	B
50910N-12-3/8	12	3/8	.293 (7.5)	1.268 (32.5)	1.599 (41)	.780 (20)	B
50910N-12-1/2	12	1/2	.351 (9)	1.365 (35)	1.833 (47)	.936 (24)	B
50910N-14-1/2	14	1/2	.351 (9)	1.385 (35.5)	1.833 (47)	.936 (24)	B

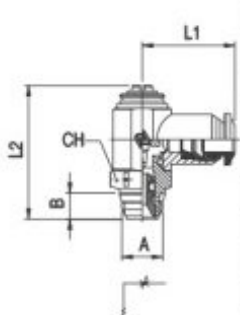




METRIC TUBE NEEDLE VALVE

SWIFT-FIT
Control Valves

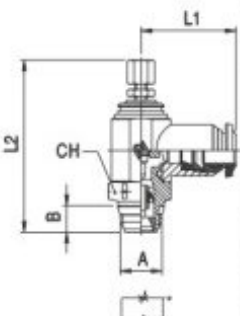


	Part No.	Tube	A	B	L1	L2	CH	Code
	50920N-3-M5	3	M5	.156 (4)	.741 (19)	.936 (24)	.312 (8)	B
	50920N-4-M5	4	M5	.156 (4)	.741 (19)	.936 (24)	.312 (8)	B
	50920N-4-1/8	4	1/8	.215 (5.5)	.819 (21)	1.190 (30.5)	.546 (14)	B
	50920N-5-M5	5	M5	.156 (4)	.780 (20)	.936 (24)	.312 (8)	B
	50920N-5-1/8	5	1/8	.215 (5.5)	.839 (21.5)	1.190 (30.5)	.546 (14)	B
	50920N-5-1/4	5	1/4	.273 (7)	.956 (24.5)	1.385 (35.5)	.663 (17)	B
	50920N-6-M5	6	M5	.156 (4)	.800 (20.5)	.936 (24)	.312 (8)	B
	50920N-6-1/8	6	1/8	.273 (7)	.878 (22.5)	1.190 (30.5)	.546 (14)	B
	50920N-6-1/4	6	1/4	.215 (5.5)	.975 (25)	1.385 (35.5)	.663 (17)	B
	50920N-8-1/8	8	1/8	.215 (5.5)	.936 (24)	1.190 (30.5)	.546 (14)	B
	50920N-8-1/4	8	1/4	.273 (7)	1.014 (26)	1.385 (35.5)	.663 (17)	B
	50920N-10-3/8	10	3/8	.293 (7.5)	1.190 (30.5)	1.599 (41)	.780 (20)	B
	50920N-12-3/8	12	3/8	.293 (7.5)	1.266 (32.5)	1.599 (41)	.780 (20)	B
	50920N-12-1/2	12	1/2	.351 (9)	1.365 (35)	1.833 (47)	.936 (24)	B
	50920N-14-1/2	14	1/2	.351 (9)	1.385 (35.5)	1.833 (47)	.936 (24)	B

METRIC TUBE FLOW CONTROL (OUT)

SWIFT-FIT
Control Valves



	Part No.	Tube	A	B	L1	L2 Min	L2 Max	CH	Code
	50905N-3-M5	3	M5	.156 (4)	.741 (19)	1.267 (33)	1.463 (37.5)	.312 (8)	C
	50905N-4-M5	4	M5	.156 (4)	.741 (19)	1.267 (33)	1.463 (37.5)	.312 (8)	C
	50905N-4-1/8	4	1/8	.215 (5.5)	.819 (21)	1.599 (41)	1.814 (46.5)	.546 (14)	C
	50905N-5-M5	5	M5	.156 (4)	.780 (20)	1.267 (33)	1.463 (37.5)	.312 (8)	C
	50905N-5-1/8	5	1/8	.215 (5.5)	.839 (21.5)	1.599 (41)	1.814 (46.5)	.546 (14)	C
	50905N-5-1/4	5	1/4	.273 (7)	.956 (24.5)	1.814 (46.5)	2.048 (52.5)	.663 (17)	C
	50905N-6-M5	6	M5	.156 (4)	.800 (20.5)	1.267 (33)	1.463 (37.5)	.312 (8)	C
	50905N-6-1/8	6	1/8	.273 (7)	.878 (22.5)	1.599 (41)	1.814 (46.5)	.546 (14)	C
	50905N-6-1/4	6	1/4	.215 (5.5)	.975 (25)	1.814 (46.5)	2.048 (52.5)	.663 (17)	C
	50905N-8-1/8	8	1/8	.215 (5.5)	.936 (24)	1.599 (41)	1.814 (46.5)	.546 (14)	C
	50905N-8-1/4	8	1/4	.273 (7)	1.014 (26)	1.814 (46.5)	2.048 (52.5)	.663 (17)	C
	50905N-10-3/8	10	3/8	.293 (7.5)	1.190 (30.5)	2.184 (56)	2.457 (63)	.780 (20)	C
	50905N-12-3/8	12	3/8	.293 (7.5)	1.266 (32.5)	2.184 (56)	2.457 (63)	.780 (20)	C
	50905N-12-1/2	12	1/2	.351 (9)	1.365 (35)	2.379 (61)	2.591 (66)	.936 (24)	C
	50905N-14-1/2	14	1/2	.351 (9)	1.385 (35.5)	2.379 (61)	2.591 (66)	.936 (24)	C





CONTROL VALVE METRIC

METRIC TUBE FLOW CONTROL (IN)

SWIFT-FIT
Control Valves



	Part No.	Tube	A	B	L1	L2 Min	L2 Max	CH	Code
	50915N-3-M5	3	M5	.166 (4)	.741 (19)	1.287 (33)	1.463 (37.5)	.312 (8)	V
	50915N-4-M5	4	M5	.166 (4)	.741 (19)	1.287 (33)	1.463 (37.5)	.312 (8)	V
	50915N-4-1/8	4	1/8	.215 (5.5)	.819 (21)	1.599 (41)	1.814 (46.5)	.546 (14)	V
	50915N-5-M5	5	M5	.166 (4)	.780 (20)	1.287 (33)	1.463 (37.5)	.312 (8)	V
	50915N-5-1/8	5	1/8	.215 (5.5)	.839 (21.5)	1.599 (41)	1.814 (46.5)	.546 (14)	V
	50915N-5-1/4	5	1/4	.273 (7)	.966 (24.5)	1.814 (46.5)	2.048 (52.5)	.863 (17)	V
	50915N-6-M5	6	M5	.166 (4)	.800 (20.5)	1.287 (33)	1.463 (37.5)	.312 (8)	V
	50915N-6-1/8	6	1/8	.273 (7)	.878 (22.5)	1.599 (41)	1.814 (46.5)	.546 (14)	V
	50915N-6-1/4	6	1/4	.215 (5.5)	.975 (25)	1.814 (46.5)	2.048 (52.5)	.863 (17)	V
	50915N-8-1/8	8	1/8	.215 (5.5)	.936 (24)	1.599 (41)	1.814 (46.5)	.546 (14)	V
	50915N-8-1/4	8	1/4	.273 (7)	1.014 (26)	1.814 (46.5)	2.048 (52.5)	.863 (17)	V
	50915N-10-3/8	10	3/8	.293 (7.5)	1.190 (30.5)	2.184 (56)	2.457 (63)	.780 (20)	V
	50915N-12-3/8	12	3/8	.293 (7.5)	1.268 (32.5)	2.184 (56)	2.457 (63)	.780 (20)	V
	50915N-12-1/2	12	1/2	.351 (9)	1.365 (35)	2.379 (61)	2.691 (69)	.936 (24)	V
	50915N-14-1/2	14	1/2	.351 (9)	1.385 (35.5)	2.379 (61)	2.691 (69)	.936 (24)	V

METRIC TUBE NEEDLE VALVE

SWIFT-FIT
Control Valves



	Part No.	Tube	A	B	L1	L2 Min	L2 Max	CH	Code
	50925N-3-M5	3	M5	.166 (4)	.741 (19)	1.287 (33)	1.463 (37.5)	.312 (8)	B
	50925N-4-M5	4	M5	.166 (4)	.741 (19)	1.287 (33)	1.463 (37.5)	.312 (8)	B
	50925N-4-1/8	4	1/8	.215 (5.5)	.819 (21)	1.599 (41)	1.814 (46.5)	.546 (14)	B
	50925N-5-M5	5	M5	.166 (4)	.780 (20)	1.287 (33)	1.463 (37.5)	.312 (8)	B
	50925N-5-1/8	5	1/8	.215 (5.5)	.839 (21.5)	1.599 (41)	1.814 (46.5)	.546 (14)	B
	50925N-5-1/4	5	1/4	.273 (7)	.966 (24.5)	1.814 (46.5)	2.048 (52.5)	.863 (17)	B
	50925N-6-M5	6	M5	.166 (4)	.800 (20.5)	1.287 (33)	1.463 (37.5)	.312 (8)	B
	50925N-6-1/8	6	1/8	.273 (7)	.878 (22.5)	1.599 (41)	1.814 (46.5)	.546 (14)	B
	50925N-6-1/4	6	1/4	.215 (5.5)	.975 (25)	1.814 (46.5)	2.048 (52.5)	.863 (17)	B
	50925N-8-1/8	8	1/8	.215 (5.5)	.936 (24)	1.599 (41)	1.814 (46.5)	.546 (14)	B
	50925N-8-1/4	8	1/4	.273 (7)	1.014 (26)	1.814 (46.5)	2.048 (52.5)	.863 (17)	B
	50925N-10-3/8	10	3/8	.293 (7.5)	1.190 (30.5)	2.184 (56)	2.457 (63)	.780 (20)	B
	50925N-12-3/8	12	3/8	.293 (7.5)	1.268 (32.5)	2.184 (56)	2.457 (63)	.780 (20)	B
	50925N-12-1/2	12	1/2	.351 (9)	1.365 (35)	2.379 (61)	2.691 (69)	.936 (24)	B
	50925N-14-1/2	14	1/2	.351 (9)	1.385 (35.5)	2.379 (61)	2.691 (69)	.936 (24)	B

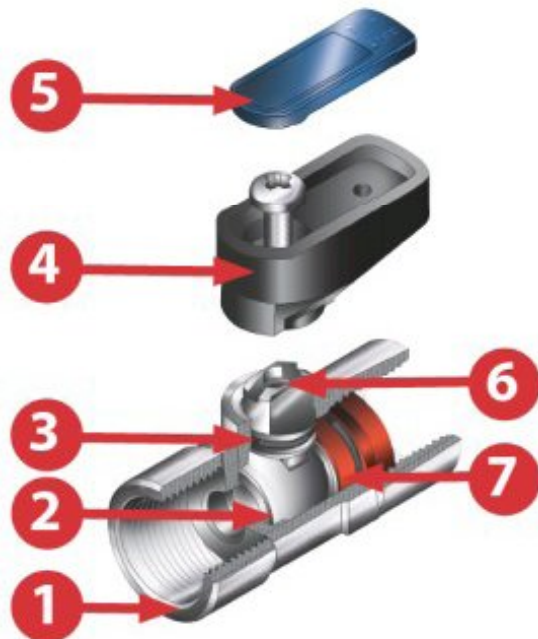




MINI!
BALL VALVES



MINI BALL VALVES



"A" = Long handle. "B" = Long handle with stem extension.
Example: Part# 86300-04B is a 1/4" mini-ball valve with long handle and stem extension.

COMPONENT SPECIFICATIONS

1. Body	Chrome Plated Brass
2. Ball	Chrome Plated Brass
3. Stem seal	NBR 70
4. Handle	Composite
5. Color plate	Composite
6. Stem	Nickel-plated brass
7. Ball retainer seal	Teflon

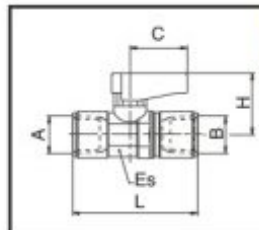
Pressure range 0 - 290 psi (20 bar)
Vacuum service

Connection type Male NPTF, Female NPTF and Barb

Temperature range Min: 0° F (-18° C)
Max: 175° F (80° C)

Media Air, oil, water, gas
(Consult factory for seal compatibility)

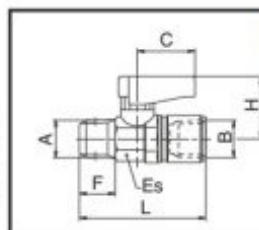
FEMALE x FEMALE



Part No.	A NPTF	B NPTF	Orifice	Es	L	C	H
86300-02	1/8	1/8	.217 (5.5)	.551 (14)	1.476 (37.5)	.748 (19)	.827 (21)
86300-04	1/4	1/4	.217 (5.5)	.551 (14)	1.811 (46)	.748 (19)	.827 (21)
86300-06	3/8	3/8	.315 (8)	.709 (18)	1.909 (48.5)	.748 (19)	.866 (22)
86300-08	1/2	1/2	.394 (10)	.866 (22)	2.441 (62)	1.024 (26)	1.201 (30.5)

NPTF THREAD

MALE x FEMALE

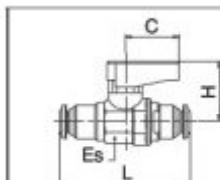


Part No.	A NPTF	B NPTF	Orifice	Es	F	L	C	H
86310-02	1/8	1/8	.217 (5.5)	.551 (14)	.335 (8.5)	1.476 (37.5)	.748 (19)	.827 (21)
86310-04	1/4	1/4	.217 (5.5)	.551 (14)	.512 (13)	1.811 (46)	.748 (19)	.827 (21)
86310-06	3/8	3/8	.315 (8)	.709 (18)	.512 (13)	1.909 (48.5)	.748 (19)	.866 (22)
86310-08	1/2	1/2	.394 (10)	.866 (22)	.669 (17)	2.441 (62)	1.024 (26)	1.201 (30.5)

NPTF THREAD



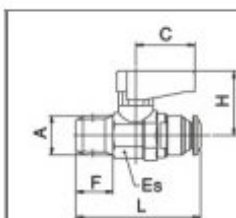
INCH TUBE x TUBE



Part No.	Tube	Tube	Es	L	C	H
86320-02	1/8	1/8	.551-.591 (14-15)	1.673 (42.5)	.748 (19)	.828 (21)
86320-04	1/4	1/4	.551-.591 (14-15)	1.831 (46.5)	.748 (19)	.828 (21)
86320-06	3/8	3/8	.709-.748 (18-19)	2.382 (60.5)	.748 (19)	.866 (22)

INCH TUBE x MALE

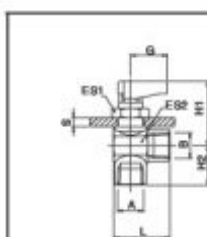
NPTF THREAD



Part No.	Tube	A NPTF	B NPTF	Es	L	C	H
86330-53-02	5/32	1/8	.332 (8.5)	.546 (14)	1.365 (35)	.741 (19)	.819 (21)
86330-04-02	1/4	1/8	.332 (8.5)	.546 (14)	1.574 (40)	.741 (19)	.819 (21)
86330-04-04	1/4	1/4	.486 (12.5)	.546 (14)	1.602 (38.5)	.741 (19)	.819 (21)
86330-06-06	3/8	3/8	.507 (13)	.702 (18)	1.755 (45)	.741 (19)	.858 (22)

RIGHT ANGLE

NPTF THREAD



Part No.	A/B	Orifice	ES1	ES2	L	G	H1	H2	S Max
86720-02	1/8	.217 (5.5)	.669 (17)	.669 (17)	1.476 (37.5)	.748 (19)	1.319 (33.5)	.650 (16.5)	.177 (4.5)
86720-04	1/4	.217 (5.5)	.669 (17)	.669 (17)	1.476 (37.5)	.748 (19)	1.319 (33.5)	.650 (16.5)	.177 (4.5)
86720-06	3/8	.276 (7)	.669 (17)	.827 (21)	1.535 (39)	.748 (19)	1.378 (35)	.866 (22)	.177 (4.5)

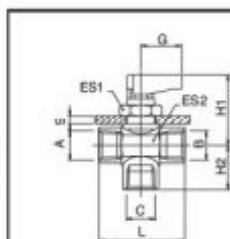




BALL VALVE INCH

THREE POSITION (CLOSED CENTER)

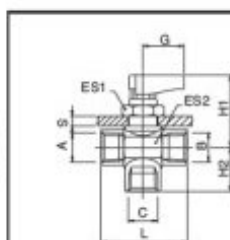
NPTF THREAD



Part No.	A/B/C	Orifice	ES1	ES2	L	G	H1	H2	S Max
86700-02	1/8	.217 (5.5)	.669 (17)	.669 (17)	1.476 (37.5)	.748 (19)	1.319 (33.5)	.850 (16.5)	.177 (4.5)
86700-04	1/4	.217 (5.5)	.669 (17)	.669 (17)	1.476 (37.5)	.748 (19)	1.319 (33.5)	.850 (16.5)	.177 (4.5)
86700-06	3/8	.276 (7)	.669 (17)	.827 (21)	1.909 (48.5)	.748 (19)	1.378 (35)	.866 (22)	.177 (4.5)

THREE POSITION (OPEN CENTER)

NPTF THREAD



Part No.	A/B/C	Orifice	ES1	ES2	L	G	H1	H2	S Max
86710-02	1/8	.217 (5.5)	.669 (17)	.669 (17)	1.476 (37.5)	.748 (19)	1.319 (33.5)	.850 (16.5)	.177 (4.5)
86710-04	1/4	.217 (5.5)	.669 (17)	.669 (17)	1.476 (37.5)	.748 (19)	1.319 (33.5)	.850 (16.5)	.177 (4.5)
86710-06	3/8	.276 (7)	.669 (17)	.827 (21)	1.909 (48.5)	.748 (19)	1.378 (35)	.866 (22)	.177 (4.5)

MULTI-SOCKET
UNIVERSAL QUICK DISCONNECT



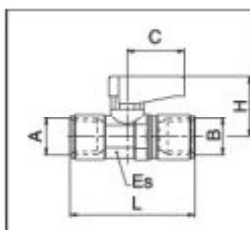
PAGE 36





FEMALE x FEMALE

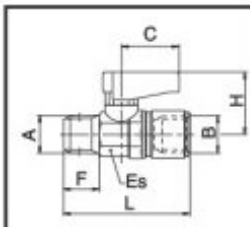
BSPP THREAD



Part No.	A NPTF	B NPTF	Orifice	Es	L	C	H
6300-02	1/8	1/8	.217 (5.5)	.551 (14)	1.417 (36)	.748 (19)	.827 (21)
6300-04	1/4	1/4	.217 (5.5)	.551 (14)	1.692 (43)	.748 (19)	.827 (21)
6300-06	3/8	3/8	.315 (8)	.709 (18)	1.950 (47)	.748 (19)	.866 (22)
6300-08	1/2	1/2	.394 (10)	.866 (22)	2.232 (59)	1.024 (26)	1.201 (30.5)

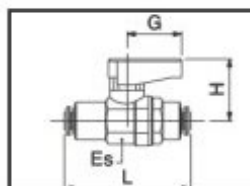
MALE x FEMALE

BSPT THREAD



Part No.	A NPTF	B NPTF	Orifice	Es	F	L	C	H
6310-02	1/8	1/8	.217 (5.5)	.551 (14)	.295 (7.5)	1.417 (36)	.748 (19)	.827 (21)
6310-04	1/4	1/4	.217 (5.5)	.551 (14)	.433 (11)	1.692 (43)	.748 (19)	.827 (21)
6310-06	3/8	3/8	.315 (8)	.709 (18)	.452 (11.5)	1.811 (46)	.748 (19)	.866 (22)
6310-08	1/2	1/2	.394 (10)	.866 (22)	.590 (15)	2.240 (57)	1.024 (26)	1.201 (30.5)

METRIC TUBE x TUBE



Part No.	Tube	Es	L	G	H
6560-4	4	.551 - .590 (14-15)	1.732 (44)	.748 (19)	.826 (21)
6560-6	6	.551 - .590 (14-15)	1.889 (48)	.748 (19)	.826 (21)
6560-8	8	.551 - .590 (14-15)	1.889 (48)	.748 (19)	.826 (21)

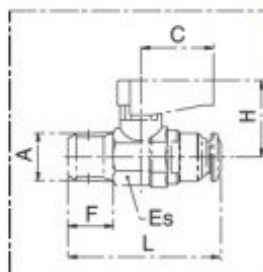




BALL VALVE METRIC

METRIC TUBE x MALE

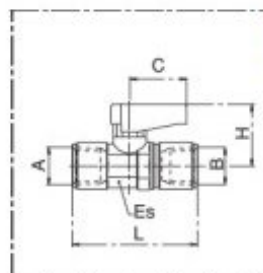
BSPT THREAD



Part No.	Tube	A	F	Es	L	C	H
6570-4-1/8	4	1/8	.334 (8.6)	.551 - .590 (14-15)	1.377 (35)	.748 (19)	.826 (21)
6570-6-1/8	6	1/8	.334 (8.6)	.551 - .590 (14-15)	1.574 (40)	.748 (19)	.826 (21)
6570-8-1/8	8	1/8	.334 (8.6)	.551 - .590 (14-15)	1.833 (41.5)	.748 (19)	.826 (21)
6570-6-1/4	6	1/4	.492 (12.5)	.551 - .590 (14-15)	1.515 (38.5)	.748 (19)	.826 (21)
6570-8-1/4	8	1/4	.492 (12.5)	.551 - .590 (14-15)	1.791 (45.5)	.748 (19)	.866 (22)

FEMALE x FEMALE

G THREAD



Part No.	A/B	ES	F	M	L	C	H
6400-1/8	1/8	.551 - .590 (14-15)	.275 (7)	.275 (7)	1.377 (35)	.748 (19)	.826 (21)
6400-1/4	1/4	.551 - .590 (14-15)	.314 (8)	.314 (8)	1.496 (37)	.748 (19)	.826 (21)
6400-3/8	3/8	.708 - .748 (18-19)	.354 (9)	.354 (9)	1.653 (42)	.748 (19)	.866 (22)
6400-1/2	1/2	.866 - .905 (22-23)	.393 (10)	.393 (10)	1.929 (49)	1.023 (26)	1.200 (30.5)
6400-3/4	3/4	1.102 - 1.181 (28-30)	.472 (12)	.472 (12)	2.283 (58)	1.023 (26)	1.299 (33)

MALE x FEMALE

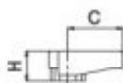
G THREAD



Part No.	A/B	ES	F	M	L	G	H
6410-1/8-1/8	1/8-1/8	.551 - .590 (14-15)	.275 (7)	.275 (7)	1.338 (34)	.748 (19)	.826 (21)
6410-1/4-1/8	1/4-1/8	.551 - .590 (14-15)	.314 (8)	.275 (7)	1.377 (35)	.748 (19)	.826 (21)
6410-1/4-1/4	1/4-1/4	.551 - .590 (14-15)	.314 (8)	.314 (8)	1.377 (35)	.748 (19)	.826 (21)
6410-3/8-3/8	3/8-3/8	.708 - .748 (18-19)	.354 (9)	.354 (9)	1.535 (39)	.748 (19)	.866 (22)
6410-1/2-1/2	1/2-1/2	.866 - .905 (22-23)	.393 (10)	.393 (10)	1.771 (45)	1.023 (26)	1.200 (30.5)
6410-3/4-3/4	3/4-3/4	1.102 - 1.181 (28-30)	.472 (12)	.472 (12)	2.047 (52)	1.023 (26)	1.299 (33)



STANDARD HANDLE



Part No.	C	H
86900-02	.748 (19)	.433 (11)
86900-08	1.024 (26)	.590 (15)

86900-02 for 1/8, 1/4, 3/8 valves
86900-08 for 1/2 valve

LONG HANDLE



Part No.	C	H
86910-02	1.378 (35)	.433 (11)
86910-08	1.968 (50)	.590 (15)

86910-02 for 1/8, 1/4, 3/8 valves
86910-08 for 1/2 valve

STEM EXTENSION KIT



Part No.	Valve Size	L
86915-02	1/8	2.283 (58)
86915-02	1/4	2.283 (58)
86915-02	3/8	2.323 (59)
86915-08	1/2	2.677 (68)

COLOR PLATE



Part No.	L
86920-01 -02 -03 -04 -05	.886 (22.6)
86921-01 -02 -03 -04 -05	1.220 (31)

86920 for 1/8, 1/4, 3/8 valves
86921 for 1/2 valve

01 Blue (Standard Color)

Available colors:

02 Red 03 Green 04 Yellow 05 White



1000 SERIES NICKLE PLATED PUSH ON FITTINGS





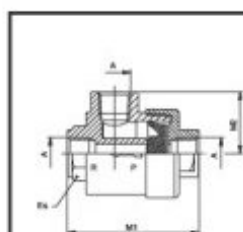
ACCESSORIES



QUICK EXHAUST VALVE NPTF THREAD



WARNING!
This valve exhausts to atmosphere. DO NOT use toxic, corrosive or flammable media.



Part No.	A NPTF	M1	M2	Es
82650 02	1/8	1.653 (42)	.768 (19.5)	.691 (15)
82650 04	1/4	2.126 (54)	.984 (25)	.748 (19)
82650 06	3/8	2.361 (60.5)	1.043 (26.5)	.866 (22)
82650 08	1/2	2.834 (72)	1.260 (32)	1.024 (26)
82650 12	3/4	3.664 (93)	1.467 (37)	1.260 (32)
82650 16	1	4.291 (109)	1.890 (48)	1.811 (46)

Fig. 1: System pressure is applied to the inlet port (P), flow is directed to cylinder port (A).

Fig. 2: When system pressure (P) is dropped, exhaust air in the cylinder (A) is discharged directly from the exhaust port (R).

COMPONENT SPECIFICATIONS

- Body** Nickel-plated brass
- Cap seal** Nylon
- Cap** Nickel-plated brass
- Piston** NBR 70/Polyurethane



Pressure range 0 - 150 psi

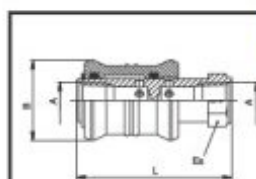
Temperature range Min: 0° F
Max: 160° F



SLIDE VALVE FEMALE NPTF THREAD



WARNING!
This valve exhausts to atmosphere. DO NOT use toxic, corrosive or flammable media.



Part No.	A NPTF	B	L	Es
82660 02	1/8	.984 (25)	1.890 (48)	.651 (14)
82660 04	1/4	1.181 (30)	2.283 (58)	.669 (17)
82660 06	3/8	1.378 (35)	2.706 (70)	.866 (22)
82660 08	1/2	1.575 (40)	3.150 (80)	1.024 (26)

ON: In the "on" or open position, pressure flows from the inlet through a series of radial holes in the body to the air circuit

OFF: Moving the sleeve to the "off" or closed position allows air from the circuit to be exhausted to the atmosphere.

COMPONENT SPECIFICATIONS

- Sleeve** Aluminum
- Body** Chrome-plated brass
- Seal** NBR 70
- Snap ring** Steel



Pressure range 0 - 150 psi

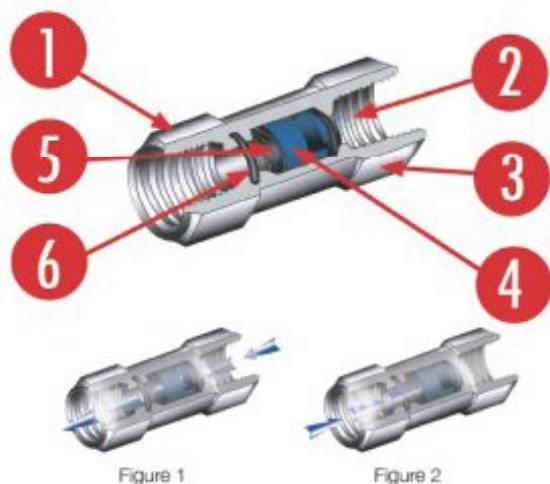
Temperature range Min: 0° F
Max: 160° F





ACCESSORIES

CHECK VALVES



(Figure 1) Full flow in one direction
(Figure 2) Check or stop flow in the other direction

COMPONENT SPECIFICATIONS

1. Body	Nickel Plated Brass
2. End Cap	Nickel Plated Brass
3. End Cap Seal	NBR 70 / Viton
4. Spring	Steel
5. Piston	Nickel Plated Brass
6. Piston Seal	NBR 70 / Viton

Pressure Range	3 - 120 psi
Cracking Pressure	3 psi
Maximum Pressure	150 psi
Temperature range	Min: 0° F (-18° C) Max: 160° F (70° C)

FEMALE x FEMALE



Part No.	A	L	ES
82662-02	1/8	1.437 (36.6)	.512 (13)
82662-04	1/4	1.890 (47)	.689 (17)

NPTF THREAD

MALE x MALE NEW



Part No.	A	L	ES	H
82663-04	1/4	1.220 (31)	.551 (14)	.512 (13)
82663-06	3/8	1.220 (31)	.748 (19)	.512 (13)

NPTF THREAD

INCH TUBE x TUBE NEW



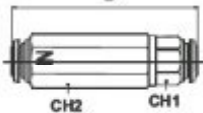
Part No.	Tube	L	B
82664-04	1/4	2.047 (52)	.512 (13)
82664-06	3/8	2.244 (57)	.689 (17)



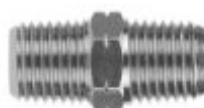


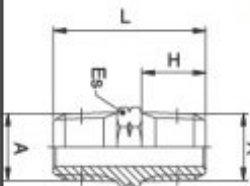
INLINE FILTER



	Part No.	Tube	L	CH1	CH2
	82670VM-04	1/4	2.579 (86.5)	.748 (19)	.512 (13)
	82670VM-06	3/8	2.834 (72)	.748 (19)	.669 (17)

HEX NIPPLE



	Part No.	A NPTF	H	L	ES
	82200N-02	1/8	.335 (8.5)	.846 (21.5)	.472 (12)
	82200N-04	1/4	.512 (13)	1.220 (31)	.551 (14)
	82200N-06	3/8	.512 (13)	1.220 (31)	.748 (19)
	8220N-08	1/2	.669 (17)	1.575 (40)	.866 (22)

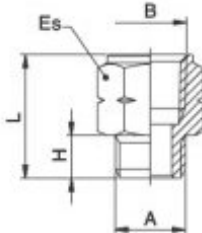
ADAPTER FEMALE G THREAD - MALE NPTF



	Part No.	A NPTF	B ISO228	H	L	ES
	82241N-32-M5	10/32 UNF	M5	.177 (4.5)	.472 (12)	.315 (8)
	82241N-02-02	1/8	1/8	.335 (8.5)	.766 (19.5)	.551 (14)
	82241N-04-04	1/4	1/4	.512 (13)	1.063 (27)	.669 (17)
	82241N-06-06	3/8	3/8	.512 (13)	1.102 (28)	.866 (22)

ADAPTER FEMALE NPTF - MALE G THREAD



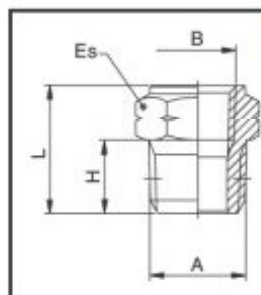
	Part No.	A ISO228	B NPTF	H	L	ES
	82242N-02	1/8	1/8	.236 (6)	.669 (17)	.551 (14)
	82242N-04	1/4	1/4	.315 (8)	.906 (23)	.669 (17)
	82242N-06	3/8	3/8	.354 (9)	.945 (24)	.866 (22)
	82242N-08	1/2	1/2	.472 (12)	1.240 (31.5)	1.063 (27)





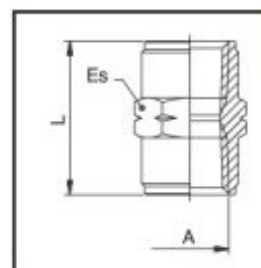
ACCESSORIES

REDUCER FEMALE - MALE NPTF



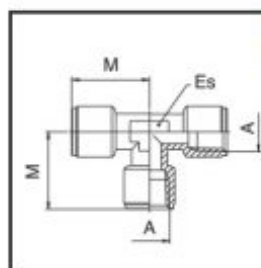
Part No.	A NPTF	B NPTF	H	L	ES
82280N-02-32	1/8	10/32 UNF	.335 (8.5)	.571 (14.5)	.472 (12)
82280N-04-02	1/4	1/8	.512 (13)	.748 (19)	.551 (14)
82280N-06-02	3/8	1/8	.512 (13)	.768 (19.5)	.748 (19)
82280N-06-04	3/8	1/4	.512 (13)	.906 (23)	.748 (19)
82280N-08-04	1/2	1/4	.669 (17)	.965 (24.5)	.866 (22)
82280N-08-06	1/2	3/8	.335 (8.5)	.571 (14.5)	.472 (12)

COUPLING FEMALE NPTF



Part No.	A NPTF	L	ES
82300N-02	1/8	.748 (19)	.551 (14)
82300N-04	1/4	1.063 (27)	.669 (17)
82300N-06	3/8	1.063 (27)	.866 (22)
82300N-08	1/2	1.378 (35)	1.063 (27)

TEE FEMALE NPTF

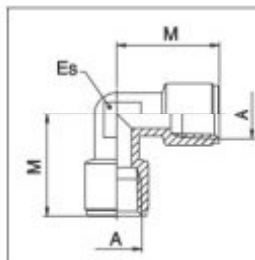


Part No.	A NPTF	M	ES
82400N-02	1/8	.669 (19.5)	.551 (12)
82400N-04	1/4	.906 (26)	.669 (19.5)
82400N-06	3/8	.945 (28.5)	.866 (16)
82400N-08	1/2	1.240 (33.5)	1.063 (20)



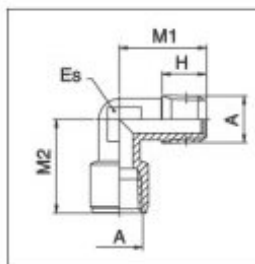


ELBOW - FEMALE NPTF



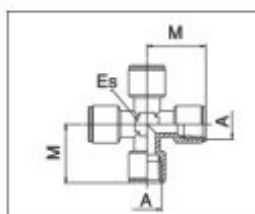
Part No.	A NPTF	M	ES
82510N-02	1/8	.846 (21.5)	.433 (11)
82510N-04	1/4	1.063 (27.5)	.512 (13)
82510N-06	3/8	1.161 (29.5)	.669 (17)
82510N-08	1/2	1.339 (34)	.787 (20)

ELBOW FEMALE - MALE NPTF



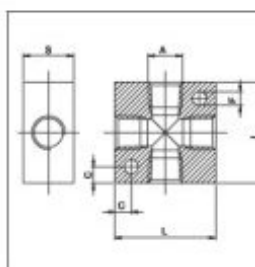
Part No.	A NPTF	H	M1	M2	ES
82520N-02	1/8	.335 (8.6)	.827 (21)	.746 (19)	.433 (11)
82520N-04	1/4	.512 (13)	1.063 (27.5)	1.004 (25.5)	.512 (13)
82520N-06	3/8	.512 (13)	1.161 (29.5)	1.063 (27.5)	.669 (17)
82520N-08	1/2	.669 (17)	1.339 (34)	1.260 (32)	.787 (20)

CROSS FEMALE NPTF



Part No.	A NPTF	M	ES
82620N-02	1/8	.787 (20)	.433 (11)
82620N-04	1/4	1.063 (27)	.512 (13)
82620N-06	3/8	1.142 (29)	.669 (17)

ALUMINUM DISTRIBUTION BLOCK FEMALE



Part No.	A NPTF	L	S	F	C
82640N-02	1/8	.984 (25)	.630 (16)	.177 (4.5)	.169 (4.3)
82640N-04	1/4	1.575 (40)	.767 (20)	.217 (5.5)	.266 (6.6)
82640N-06	3/8	1.969 (50)	.964 (25)	.217 (5.5)	.296 (7.5)
82640N-08	1/2	1.969 (50)	1.181 (30)	.217 (5.5)	.296 (7.5)



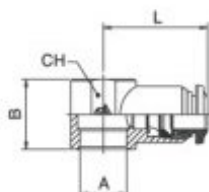


BANJO INCH

SINGLE BANJO BODY



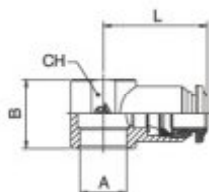
Part No.	Tube	A	B	L	CH
89500-02-02	1/8	1/8	.591 (15)	.767 (19.5)	.551 (14)
89500-53-32	5/32	10/32	.492 (12.5)	.740 (19)	-
89500-53-02	5/32	1/8	.591 (15)	.827 (21)	.551 (14)
89500-04-02	1/4	1/8	.591 (15)	.885 (22.5)	.551 (14)
89500-04-04	1/4	1/4	.669 (17)	.984 (25)	.709 (18)
89500-06-04	3/8	1/4	.669 (17)	1.142 (29)	.709 (18)
89500-06-06	3/8	3/8	.787 (20)	1.201 (30.5)	.827 (21)
89500-08-06	1/2	3/8	.787 (20)	1.269 (32)	.827 (21)
89500-08-08	1/2	1/2	.944 (24)	1.377 (35)	.984 (25)



SINGLE BANJO BODY



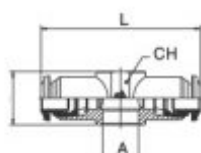
Part No.	Tube	A	B	L	CH
88500-02-02	1/8	1/8	.591 (15)	.767 (19.5)	.551 (14)
88500-53-32	5/32	10/32	.492 (12.5)	.740 (19)	-
88500-53-02	5/32	1/8	.591 (15)	.827 (21)	.551 (14)
88500-04-02	1/4	1/8	.591 (15)	.885 (22.5)	.551 (14)
88500-04-04	1/4	1/4	.669 (17)	.984 (25)	.709 (18)
88500-06-04	3/8	1/4	.669 (17)	1.142 (29)	.709 (18)
88500-06-06	3/8	3/8	.787 (20)	1.201 (30.5)	.827 (21)
88500-08-06	1/2	3/8	.787 (20)	1.269 (32)	.827 (21)
88500-08-08	1/2	1/2	.944 (24)	1.377 (35)	.984 (25)



DOUBLE BANJO BODY

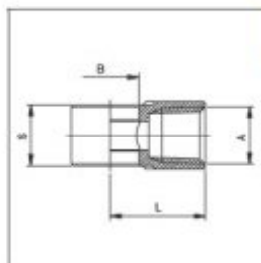


Part No.	Tube	A	B	L	CH
88510-53-32	5/32	10/32	.492 (12.5)	1.496 (38)	-
88510-04-02	1/4	1/8	.591 (15)	1.732 (44)	.551 (14)
88510-04-04	1/4	1/4	.669 (17)	1.968 (50)	.709 (18)



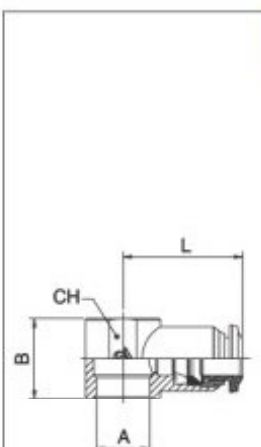


SINGLE BANJO BODY FEMALE NPTF



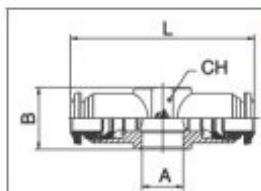
Part No.	A NPTF	B	L	S	CH
82690-02	1/8	.394 (10)	.649 (16.5)	.590 (15)	.551 (14)
82690-04	1/4	.524 (13.3)	.866 (22)	.669 (17)	.708 (18)
82690-06	3/8	.688 (17.5)	1.043 (26.5)	.787 (20)	.827 (21)

SINGLE BANJO BODY METRIC



Part No.	Tube	A	B	L	CH
50500N-3-M5	3	M5	.492 (12.5)	.748 (19)	-
50500N-3-M6	3	M6	.492 (12.5)	.748 (19)	-
50500N-4-M5	4	M5	.492 (12.5)	.748 (19)	-
50500N-4-M6	4	M6	.492 (12.5)	.748 (19)	-
50500N-4-1/8	4	1/8	.590 (15)	.827 (21)	.551 (14)
50500N-5-M5	5	M5	.492 (12.5)	.787(20)	-
50500N-5-M6	5	M6	.492 (12.5)	.787(20)	-
50500N-5-1/8	5	1/8	.590 (15)	.846 (21.5)	.551 (14)
50500N-5-1/4	5	1/4	.699 (17)	.964 (24.5)	.709 (18)
50500N-6-M5	6	M5	.492 (12.5)	.807 (20.5)	-
50500N-6-M6	6	M6	.492 (12.5)	.807 (20.5)	-
50500N-6-1/8	6	1/8	.590 (15)	.866 (22)	.551 (14)
50500N-6-1/4	6	1/4	.699 (17)	.984 (25)	.709 (18)
50500N-8-1/8	8	1/8	.590 (15)	.945 (24)	.551 (14)
50500N-8-1/4	8	1/4	.699 (17)	1.021 (26)	.709 (18)
50500N-8-3/8	8	3/8	.787(20)	1.102 (28)	.827 (21)
50500N-10-1/4	10	1/4	.699 (17)	1.142 (29)	.709 (18)
50500N-10-3/8	10	3/8	.787(20)	1.201 (30.5)	.827 (21)
50500N-12-3/8	12	3/8	.787(20)	1.260 (32.5)	.827 (21)
50500N-12-1/2	12	1/2	.945 (24)	1.378 (35)	.984 (25)
50500N-14-1/2	14	1/2	.945 (24)	1.398 (35.5)	.984 (25)

DOUBLE BANJO BODY METRIC



Part No.	Tube	A	B	L	CH
50510N-53-32	5/32	10/32	.492 (12.5)	1.496 (38)	-
50510-04-02	1/4	1/8	.591 (15)	1.732 (44)	.551 (14)
50510-04-04	1/4	1/4	.669 (17)	1.968 (50)	.709 (18)





BANJO STEM NPTF

BANJO STEM

Part No.
81410
81420
81430



NYLON WASHER



BANJO BODY INCH OR METRIC



NYLON WASHER



ADAPTER



BANJO STEM ASSEMBLIES

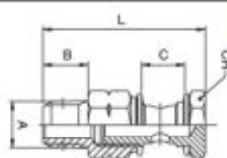
Examples of various banjo stems with
single and double banjo bodies

Single
banjo stem

Double
banjo stem

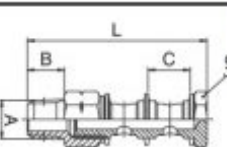
Triple
banjo stem

SINGLE BANJO STEM NPTF



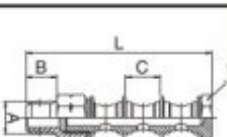
Part No.	A	B	C	L	CH
81410-32	10/32	.177 (4.5)	.482 (12.5)	1.102 (28)	.315 (8)
81410-02	1/8	.334 (8.5)	.591 (15)	1.535 (39)	.551 (14)
81410-04	1/4	.511 (13)	.869 (17)	1.929 (49)	.869 (17)
81410-06	3/8	.511 (13)	.787 (20)	2.086 (53)	.748 (19)

DOUBLE BANJO STEM NPTF



Part No.	A	B	C	L	CH
81420-02	1/8	.334 (8.5)	.591 (15)	2.224 (56.5)	.551 (14)
81420-04	1/4	.511 (13)	.869 (17)	2.559 (65)	.869 (17)
81420-06	3/8	.511 (13)	.787 (20)	2.718 (69)	.748 (19)

TRIPLE BANJO STEM NPTF



Part No.	A	B	C	L	CH
81430-02	1/8	.334 (8.5)	.591 (15)	2.795 (71)	.551 (14)
81430-04	1/4	.511 (13)	.869 (17)	3.188 (81)	.869 (17)
81430-06	3/8	.511 (13)	.787 (20)	3.582 (91)	.748 (19)



BANJO STEM ASSEMBLIES

Examples of various banjo stems with single and double banjo bodies

BANJO STEM

Part No.
51410
51420
51430



NYLON WASHER



BANJO BODY

INC
OR
METRIC



NYLON WASHER

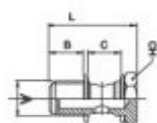


Single
banjo stem

Double
banjo stem

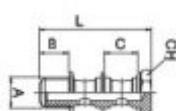
Triple
banjo stem

SINGLE BANJO STEM BSPP



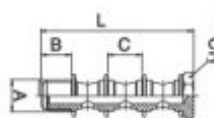
Part No.	A	B	C	L	CH
51410-M5	10/32	.157 (4)	.482 (12.5)	.906 (23)	.315 (8)
51410-02	1/8	.236 (6)	.591 (15)	1.102 (28)	.551 (14)
51410-04	1/4	.315 (8)	.669 (17)	1.260 (32)	.669 (17)
51410-06	3/8	.354 (9)	.787 (20)	1.417 (36)	.748 (19)

DOUBLE BANJO STEM BSPP



Part No.	A	B	C	L	CH
51420-02	1/8	.236 (6)	.591 (15)	1.752 (44.5)	.551 (14)
51420-04	1/4	.315 (8)	.669 (17)	1.988 (50.5)	.669 (17)
51420-06	3/8	.354 (9)	.787 (20)	2.283 (58)	.748 (19)

TRIPLE BANJO STEM BSPP



Part No.	A	B	C	L	CH
51430-02	1/8	.236 (6)	.591 (15)	2.402 (61)	.551 (14)
51430-04	1/4	.315 (8)	.669 (17)	2.717 (69)	.669 (17)
51430-06	3/8	.354 (9)	.787 (20)	3.150 (80)	.748 (19)



TUBING

NYLON TUBING



Compound	Nylon 11
Temperature range	-60° F to +200° F
Diameter tolerance	+.002 - .004 (all sizes)
Vacuum rating	To 28" Hg
Colors	Natural or black Consult factory for other colors
Hardness	78 Rockwell R

Part No.	OD	ID	Wall	Color	Working pressure		Bend radius	Standard Pack
					@ 75° F	@ 150° F		
N11-021-100	1/8	.93	.016	Black	225 PSI	123 PSI	.375	100' Bag
N11-022-100	1/8	.93	.016	Natural	225 PSI	123 PSI	.375	100' Bag
N11-531-100	5/32	.108	.016	Black	225 PSI	123 PSI	.375	100' Bag
N11-532-100	5/32	.108	.016	Natural	225 PSI	123 PSI	.375	100' Bag
N11-041-100	1/4	.205	.035	Black	265 psi	141 psi	.875	100' Bag
N11-042-100	1/4	.205	.016	Black	225 PSI	123 PSI	.375	100' Bag
N11-051-100	5/16	.232	.016	Natural	225 PSI	123 PSI	.375	100' Bag
N11-052-100	5/16	.232	.016	Black	225 PSI	123 PSI	.375	100' Bag
N11-061-100	3/8	.275	.016	Natural	225 PSI	123 PSI	.375	100' Bag
N11-062-100	3/8	.275	.016	Natural	225 PSI	123 PSI	.375	100' Bag
N11-081-100	1/2	.375	.016	Black	225 PSI	123 PSI	.375	100' Bag
N11-082-100	1/2	.375	.016	Natural	225 PSI	123 PSI	.375	100' Bag

TUBE CUTTER

PART NUMBER: 1750





RECOIL

RECOIL FITTING



	Part No.	A	B	C	L	CH
	81026-04	1/4	.236 (6)	.691 (18)	2.402 (61)	.661 (14)
	81026-06	3/8	.310 (8)	.609 (17)	2.717 (69)	.609 (17)
	81026-08	1/2	.354 (9)	.787 (20)	3.150 (80)	.748 (19)

RECOIL ASSEMBLIES



Part No.	Fitting Male NPTF	ID	OD	Length			Coil Diameter	Working Pressure	
				Straight	Working	Retracted		@ 75° F	@ 150° F
R811-043-012	1/4	1/4	.309	12	10 1/2	5 1/4	3 1/2	185PSI	100 PSI
R811-043-025	1/4	1/4	.309	25	22	10 1/2	3 1/2	185PSI	100 PSI
R811-043-050	1/4	1/4	.309	50	44	21	3 1/2	185PSI	100 PSI
R811-043-100	1/4	1/4	.309	100	88	42	3 1/2	185PSI	100 PSI
R811-053-012	3/8	3/8	.470	12	10	5	5 5/8	165PSI	85 PSI
R811-053-025	3/8	3/8	.470	25	10	10 1/4	5 5/8	165PSI	85 PSI
R811-053-050	3/8	3/8	.470	50	10	20 1/4	5 5/8	165PSI	85 PSI
R811-053-100	3/8	3/8	.470	100	10	41	5 5/8	165PSI	85 PSI
R811-083-012	1/2	1/2	.625	12	8.5	4 1/4	9	170PSI	100 PSI
R811-083-025	1/2	1/2	.625	25	18	9	9	170PSI	100 PSI
R811-083-050	1/2	1/2	.625	50	36	18	9	170PSI	100 PSI
R811-083-100	1/2	1/2	.625	100	72	36	9	170PSI	100 PSI





SPECIALTY
MANUFACTURING





ALPHA
FITTINGS &
ACCESSORIES

SPECIALTY

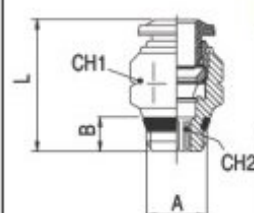


ALPHA CAN PRODUCE SPECIAL PRODUCTS TO MEET YOUR SPECIFIC REQUIREMENTS. CONSULT FACTORY FOR DETAILS.

STRAIGHT MALE FKM



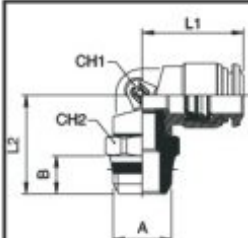
Part No.	Tube	A SWIFT	B	L	CH1	CH2
89000VM 04-02	1/4	1/8	.217 (5.5)	.846 (21.5)	.512 (13)	.157 (4)
89000VM 04-04	1/4	1/4	.276 (7)	.907 (20.5)	.551 (14)	.157 (4)



SWIVEL ELBOW FKM



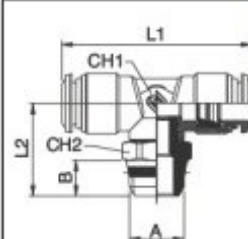
Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
89110VM 04-02	1/4	1/8	.276 (7)	.885 (22.5)	.776 (19.7)	.433 (11)	.511 (13)
57110VM 12-3/8	12mm	3/8	.354 (9)	1.201 (30.5)	1.051 (26.7)	.630 (16)	.669 (17)



SWIVEL TEE FKM



Part No.	Tube	A SWIFT	B	L1	L2	CH1	CH2
89210VM 04-02	1/4	1/8	.216 (5.5)	1.574 (40)	.787 (20)	.433 (11)	.511 (13)
89210VM 04-04	1/4	1/4	.275 (7)	1.574 (40)	.846 (21.5)	.433 (11)	.629 (16)

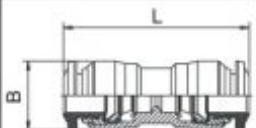




SPECIALTY

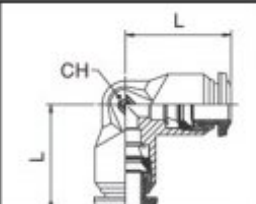
TUBE UNION FKM



	Part No.	Tube	B	L
	89040VM-04	1/4	.217 (5.5)	.846 (21.5)

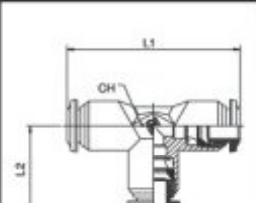
UNION ELBOW FKM



	Part No.	Tube	Tube	L	CH
	89130VM-04	1/4	1/4	.826 (21)	.433 (11)
	57130VM-12	12mm	12mm	1.200 (30.5)	.748 (19)
	57130VM-06-12	3/8	12mm	1.024 (26)	.830 (16)

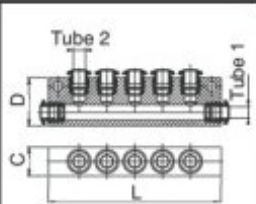
UNION TEE FKM



	Part No.	Tube	L1	L2	CH
	89230VM-04	1/4	1.854 (42)	.827 (21)	.433 (11)
	57230VM-12	12mm	2.402 (61)	1.201 (30.5)	.748 (19)

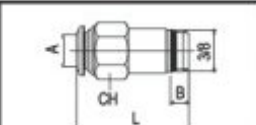
MANIFOLD



	Part No.	Tube 1	Tube 2	C	D	L
	80900-53-04	5/32	1/4	.590 (15)	.984 (25)	3.230 (82)
	80900-04-04	1/4	1/4	.590 (15)	.984 (25)	3.230 (82)

CHECK VALVE



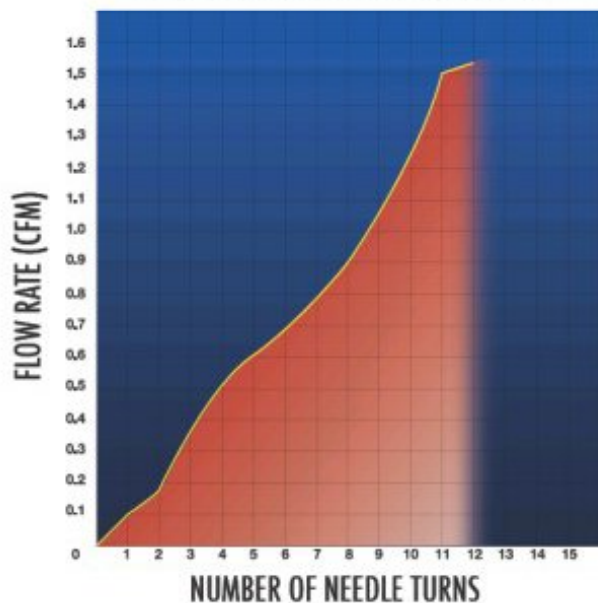
	Part No.	Tube	A SWIFT	B	L	CH
	82000-08-06	1/2	3/8	.295 (7.5)	1.791 (45.5)	.787 (20)



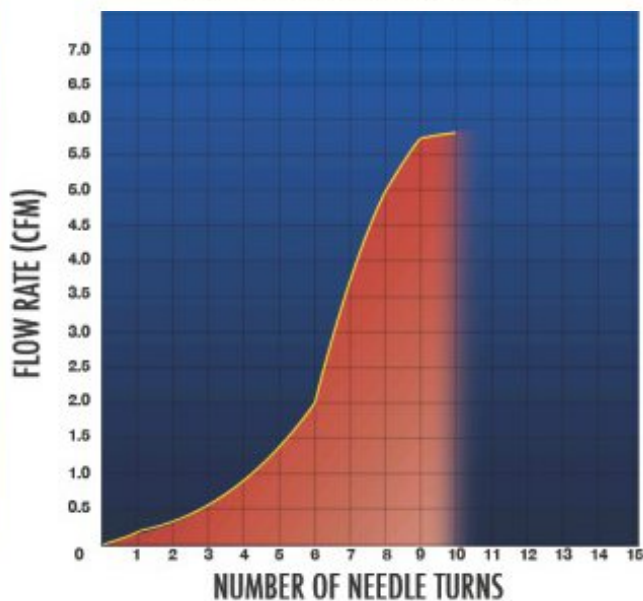


FLOW CONTROL SPECIFICATIONS

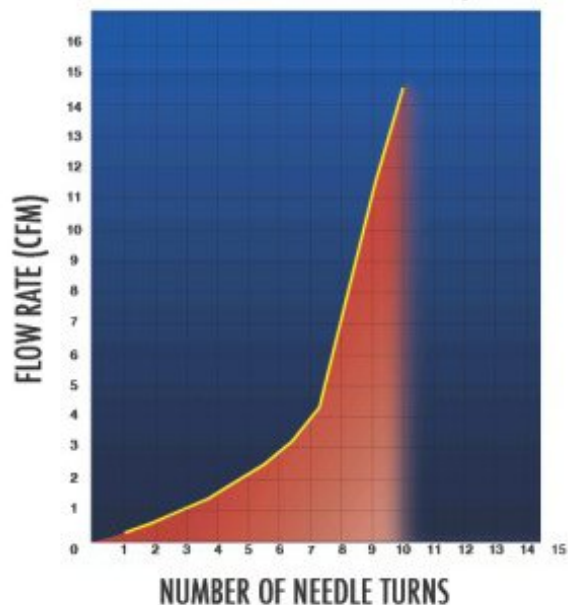
FLOW CONTROL VALVES 10/32"



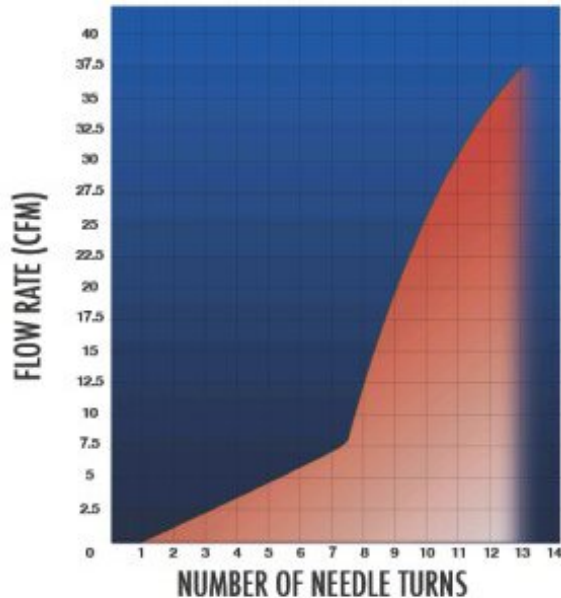
FLOW CONTROL VALVES 1/8"



FLOW CONTROL VALVES 1/4"



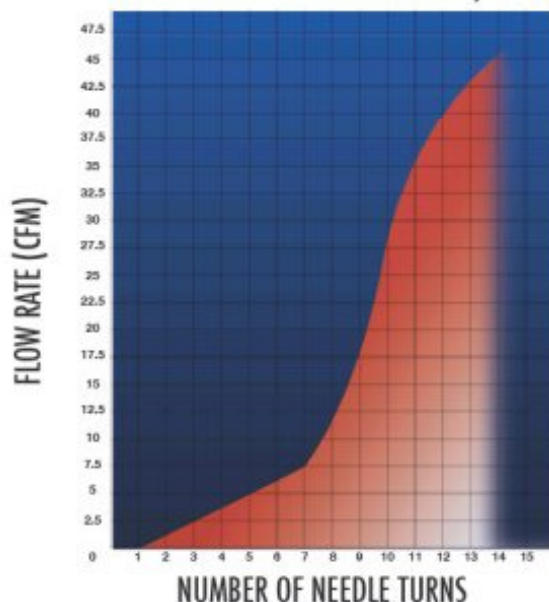
FLOW CONTROL VALVES 3/8"



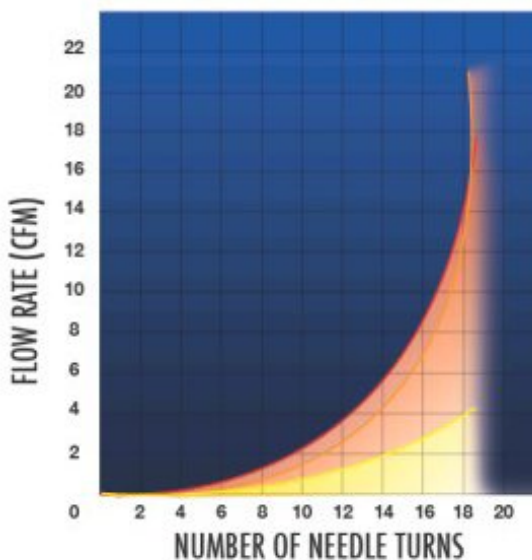


TECHNICAL SPECIFICATION

FLOW CONTROL VALVES 1/2"

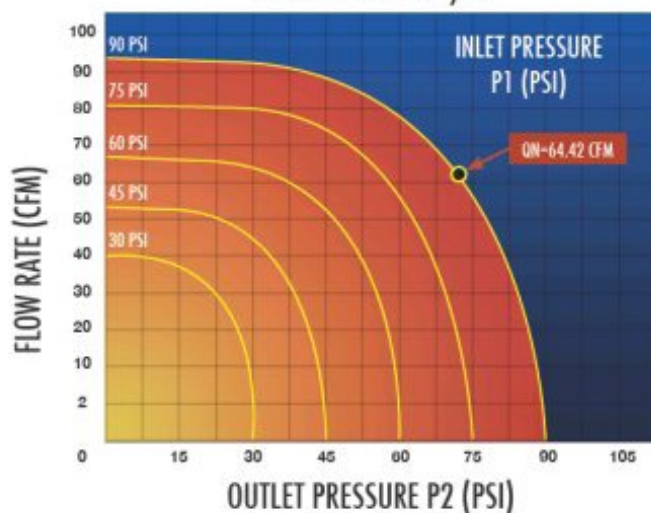


INLINE FLOW CONTROLS

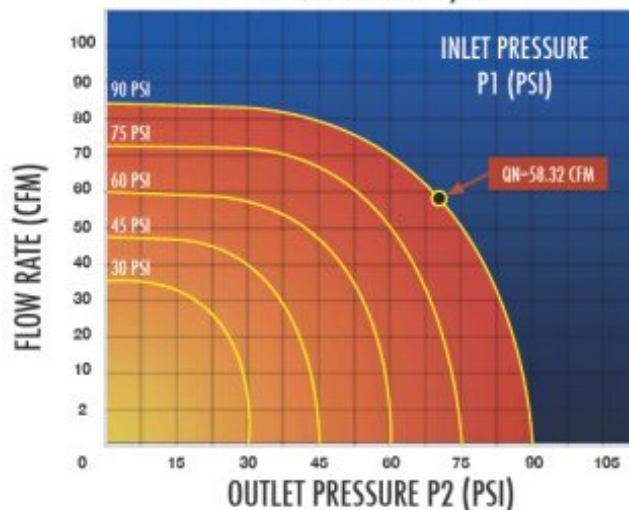


BALL VALVE SPECIFICATIONS

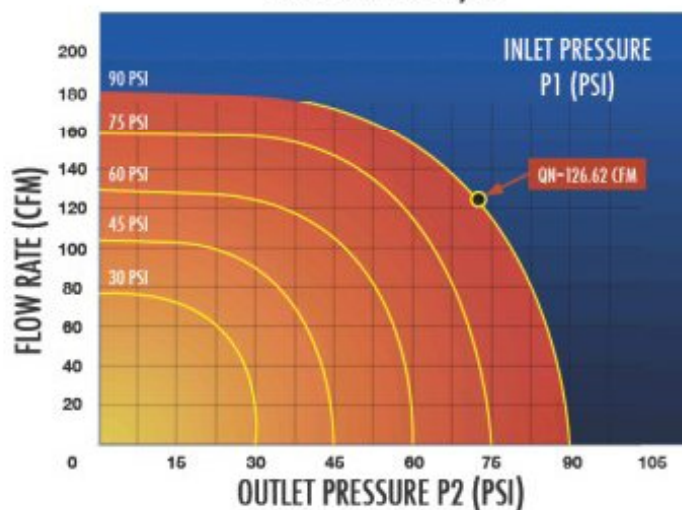
BALL VALVES 1/8"



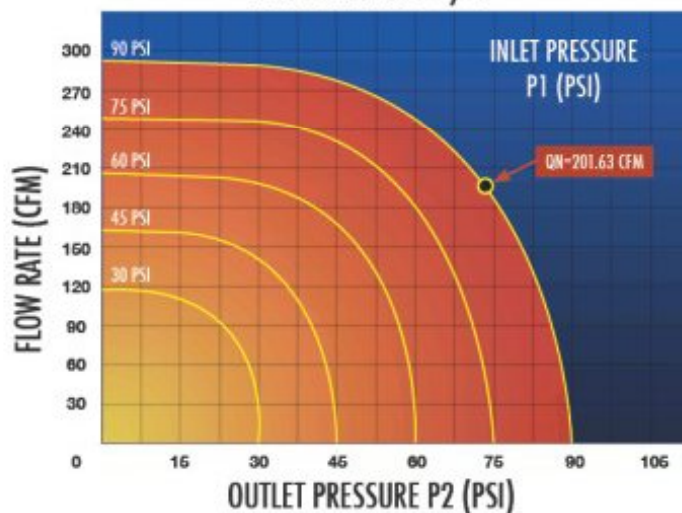
BALL VALVES 1/4"



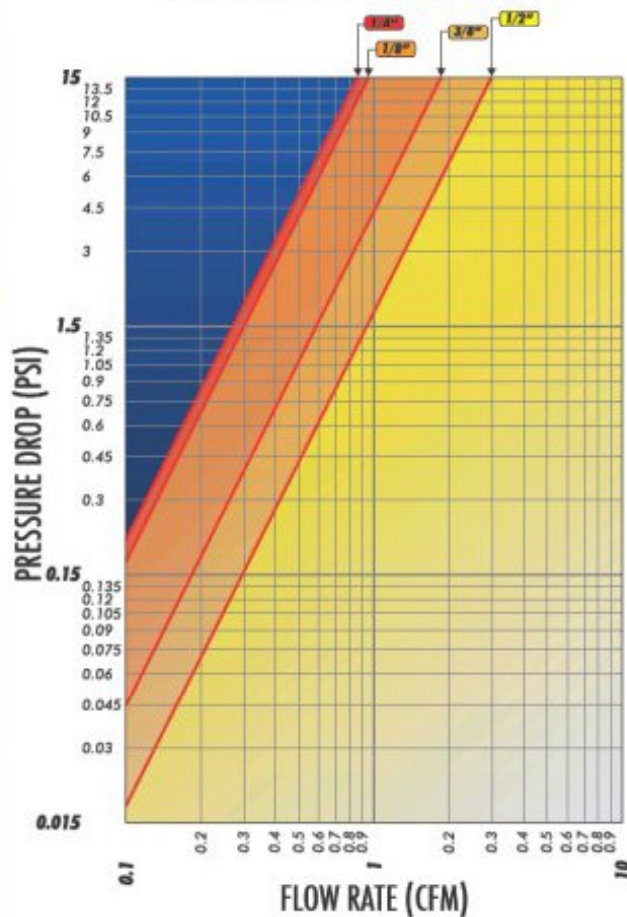
BALL VALVES 3/8"



BALL VALVES 1/2"



FLOW RATE & PRESSURE DROP



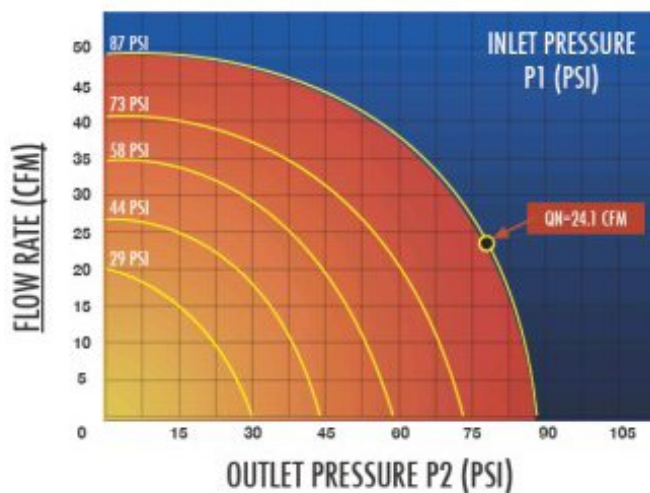
Valve Size	Orifice
1/8"	.217 (5.5)
1/4"	.217 (5.5)
3/8"	.315 (8)
1/2"	.394 (10)



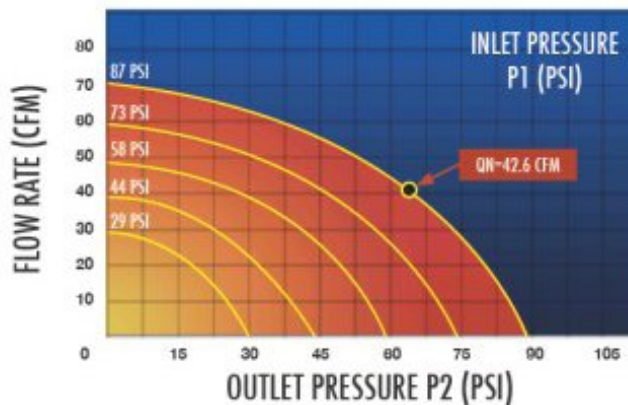
TECHNICAL SPECIFICATION

QUICK EXHAUST VALVE SPECIFICATIONS

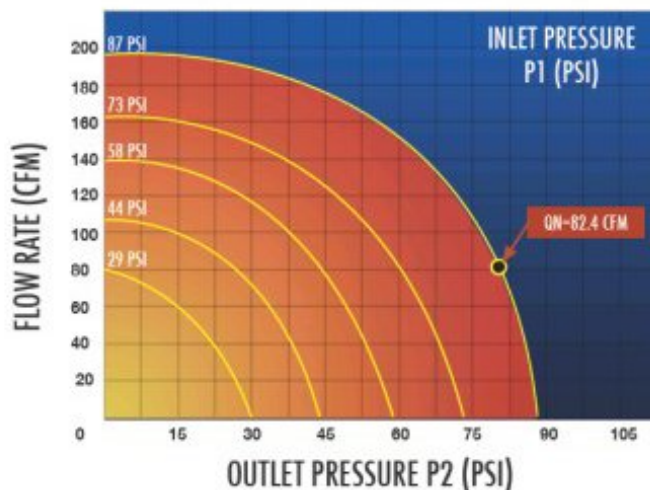
QUICK EXHAUST VALVE 1/8"



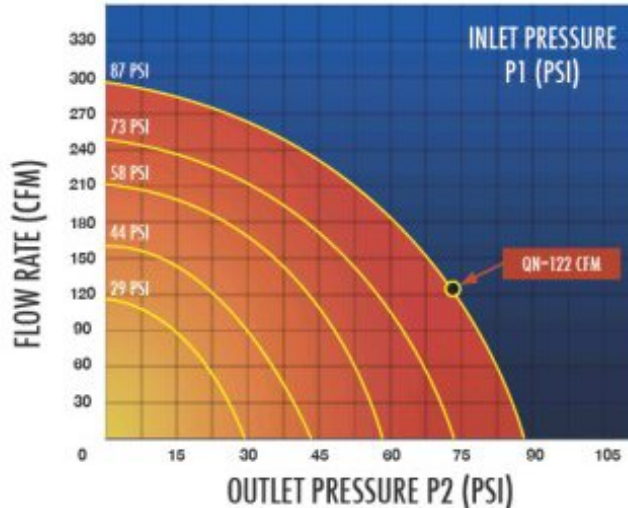
QUICK EXHAUST VALVE 1/4"



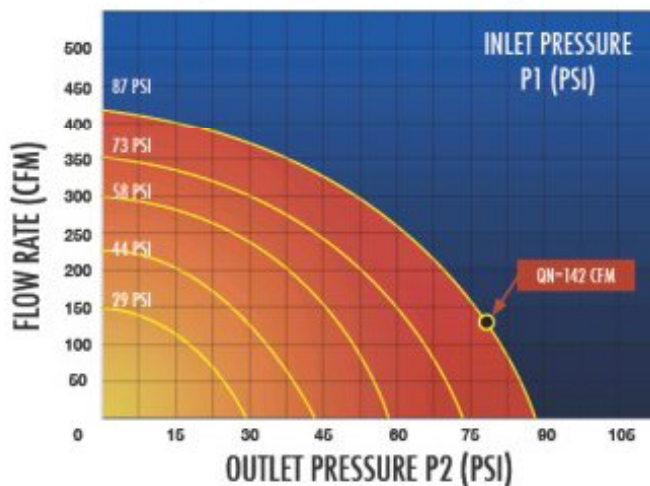
QUICK EXHAUST VALVE 3/8"



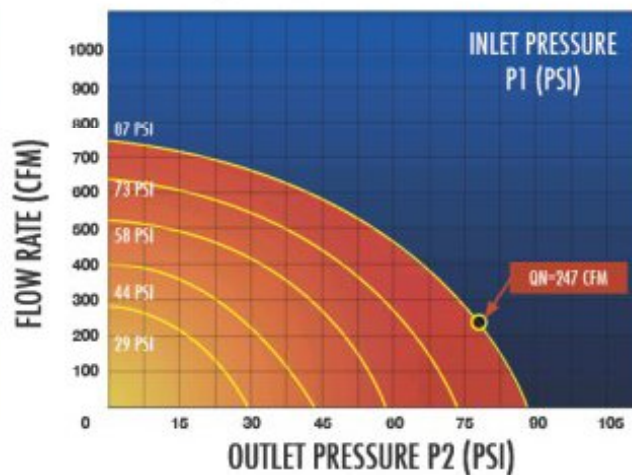
QUICK EXHAUST VALVE 1/2"



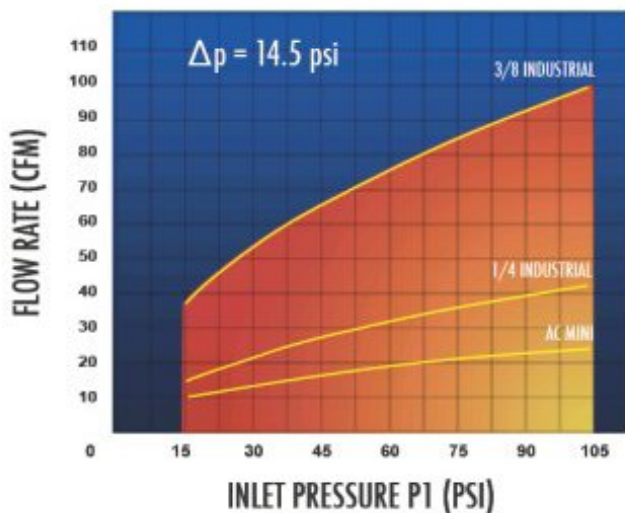
QUICK EXHAUST VALVE 3/4"



QUICK EXHAUST VALVE 1"



QUICK DISCONNECT COUPLERS





CROSS REFERENCE

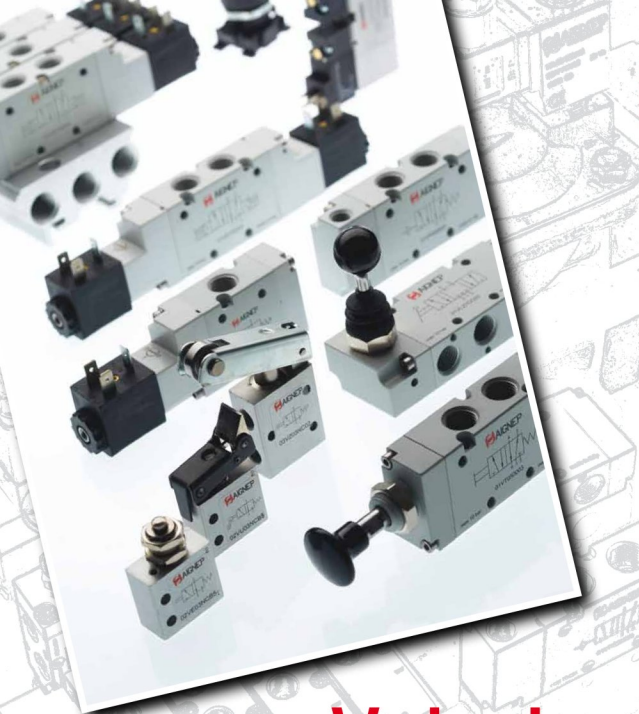
1/4" Basic size: INDUSTRIAL									
ALPHA	MILTON	AMFLO	ARO	COIL HOSE	DIXON	NAPA	PARKER	Foster	TOMCO
80192-04	715	C20-AU	MSCF22-000	150	DC20	90-670	B23	2803	M184
80191-04	716	C21	MSCM22-000	152	DC21	90-672	B22	2903	M181
80193-04	717	C20-42	MSCH22-000	153	DC2042	90-671	B20-3B	3603	M186
80193-06	717-6	C20-44	MSCH23-000		DC2044			3703	M187
80192-06	718	C20-23	MSCF23-000	151	DC2023	90-667	B23E	3203	M185
80191-06	719	C21-03	MSCM23-000	155	DC2103	90-657	B22E	3303	M182
80221-04	727	CP21	23902-210	1501	DCP21	90-674	H2C	10-3	1804
80222-04	728	CP20	23902-200	1502	DCP2021	90-676	H3C	11-3	1805
80222-06	732	CP20-23	23902-300	1505	DCP2023	90-659	H3C-E	15-3	1807
80221-06	733	CP21-03	23902-310	1503	DCP2103	90-677	H2C-E	14-3	1806
80223-04	736	CP21-42	23902-220	1506	DCP2142	90-673	H8C	16-3	1824
80223-06	736-6	CP21-44	23902-420	1508	DCP2144		H9C	17-3	1826
80192-04	745								UC2-16
80191-04	746								UC2-15
80192-04	755	C40B	MSCF22-X00		DCB20	90-615	B33		
80191-04	756	C41B	MSCM22-X00		DCB21	90-617	B32		
80193-04	1717-4	C20-42L	MSCP22-000				B20-3BP		
80193-06	1717-6	C20-44L	MSCP23-000				B20-5BP		
1/4" Basic size: ARO									
ALPHA	MILTON	AMFLO	ARO	COIL HOSE	DIXON	NAPA	PARKER	Foster	TOMCO
80192-04	775	C38,C46	210	140	DC38	90-613	B53	210-3303	A100
80191-04	776	C37,C45	210-212		DC37		B50	210-3103	A101
80193-04	776-4	C38-42	210-022		DC3842	90-679	B50-3BP	210-3603	A104
80193-06	776-6	C38-44	210-215		DC3844		B50-5BP	210-3703	A105
80271-04	777	CP37	2608	1401	DCP37	90-618	A2C	210-10	200
80273-04	777-4	CP37-42	3946	1406	DCP3742		A8C	210-16	400
80273-06	777-6	CP37-44	2223B		DCP3744			210-17	500
80272-04	778	CP38	2609	1402	DCP38	90-620	A3C	210-11	300
1/4" Basic size: TRU-FLATE									
ALPHA	MILTON	AMFLO	ARO	COIL HOSE	DIXON	NAPA	PARKER	Foster	TOMCO
80291-04	783	CP1	TFPM22-000	1601	DCP1	90-628	2C	TF10	2154
80293-04	783-4	CP1-42	TFPH22-000	1606	DCP142	90-630	8C	TF16	2164
80293-06	783-6	CP1-44	TFPH23-000	1608	DCP143	90-626	9C	TF17	2166
80292-04	784	CP2	TFPH22-000	1602	DCP2	90-600	3C	TF11	2155
80192-04	785	C2	TFCF22-000	160	DC2	90-610	B13	TF3003	A2184
80191-04	786	C1	TFCM22-000	162	DC1	90-607	B12	TF3103	A2181
80193-04	786-4	C2-42	TFCH22-000	163	DC242	90-611	B10-3B	TF3603	A2186
80193-06	786-6	C2-44	TFCH23-000	166	DC244	90-609	B10-5B	TF3703	A2188
80192-06	788	C2-23	TFCF23-000					TF3203	A2185
80191-06	789	C1-03	TFCM23-000		DC103			TF3303	A2182





3/8" Basic size: Industrial									
ALPHA	MILTON	AMFLO	ARO	COIL HOSE	DIXON	NAPA	PARKER	Foster	TOMCO
80195-06	1835	C26	MSCF33-000	580	DC26	90-680	25	4204	T420
80194-06	1836	C25	MSCM33-000	581	DC25	90-682	24	4304	T430
80195-08									T440
80194-08									T450
80231-06	1837	CP25	23903-310	5801	DCP25	90-683	H2E	42-4	T42
80232-06	1838	CP26	23903-300	5802	DCP26	90-681	H3E	43-4	T43
80231-08									T44
80232-08									T45
3/8" Basic size: TRU-FLATE									
ALPHA	MILTON	AMFLO	ARO	COIL HOSE	DIXON	NAPA	PARKER	Foster	TOMCO
80195-06	1805	C6	TFCF33-000	590	DC6	90-654	15	5005	PT420
80194-06	1806	C5	TFCM33-000	591	DC5	90-656	14	5105	PT430
80281-06	1807	CP5	TFPM33-000	5901	DCP5	90-658	2E	TF42	PT42
80282-06	1808	CP6	TFPF33-000	5902	DCP6	90-660	3E	TF43	PT43





Serie Valvole

VALVOLE ELETTOPNEUMATICHE, PNEUMATICHE E MANUALI
MANUAL, PNEUMATIC AND SOLENOID PILOT VALVE

15.5
Serie 01V

Valvole Elettropneumatiche, Pneumatiche, Manuali
Manual, Pneumatic and Solenoid pilot Valve


15.33
Serie 02V

Microo Valvole
Micro Valve


15.37
Serie 03V

Valvole 16 mm
16 mm Valve


15.41
Serie 04V

Valvole a Pannello, Pulsanti e Selettori
Panel Valve, Push Buttons and Selectors


15.45
Serie 05V

Valvole VDMA 18 mm
18 mm VDMA Valve


15.53
Serie 06V

Valvole a Pedale
Pedal Valve



15.55
Serie 07V
Elettropiloti
Solenoid Valve

15.59
Serie 08V
Valvole NAMUR
NAMUR Valve


Note:



Serie 01V

VALVOLE ELETTROPNEUMATICHE, PNEUMATICHE E MANUALI
MANUAL, PNEUMATIC AND SOLENOID PILOT VALVE

Valvole ad azionamento Elettropneumatico / Solenoid Pilot Valve



Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

TENSIONE SOLENOIDE / SOLENOID VOLTAGE

POTENZA MINIMA / MINIMUM POWER

COMANDO MANUALE / MANUAL CONTROL

COPIA DI SERRAGGIO DELLA GHIERA SUL SOLENOIDE

TORQUE OF TIGHTENING THE NUT SOLENOID

1/8

1/8
740 Nl/min

1/4

1/4
1200 Nl/min

1/2

1/2
5000 Nl/min

MONOSTABILE / MONOSTABLE: 2 - 10 Bar

BISTABILE / BISTABLE: 1 - 10 Bar

-10° / +50° C

CORPO IN ALLUMINIO ANODIZZATO E VERNICIATO

ANODISED AND PAINTED ALUMINIUM BODY

SPOLA IN ALLUMINIO NICHELATO CHIMICAMENTE

CHEMICAL NICKEL-PLATED SPOOL

GUARNIZIONI IN NBR

NBR SEALS

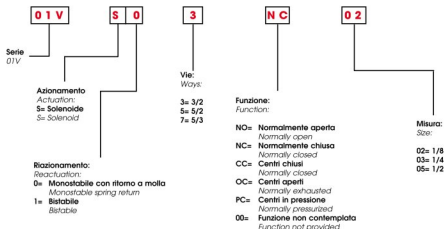
24V DC - 12V DC - 24V AC - 110V AC - 220V AC

2W - 3VA

BISTABILE / BISTABLE

0,6 Nm

Tabella dei codici di ordinazione - Article codes to be used for ordering



Valvole ad azionamento Elettropneumatico / Solenoid Pilot Valve



01V 50 3 NC 02
01V 50 3 NC 03
01V 50 3 NC 05

01V 50 3 NO 02
01V 50 3 NO 03
01V 50 3 NO 05

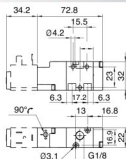
3/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

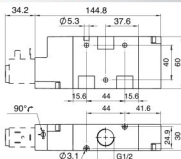
CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V 50 3 NC 02	3/2	NC	1/8
01V 50 3 NC 03	3/2	NC	1/4
01V 50 3 NC 05	3/2	NC	1/2
01V 50 3 NO 02	3/2	NO	1/8
01V 50 3 NO 03	3/2	NO	1/4
01V 50 3 NO 05	3/2	NO	1/2



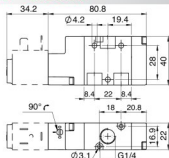
01V 50 3 NC 02 01V 50 3 NO 02



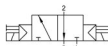
01V 50 3 NC 05 01V 50 3 NO 05



01V 50 3 NC 03 01V 50 3 NO 03



Valvole ad azionamento Elettropneumatico / Solenoid Pilot Valve



01V S1 3 00 02
01V S1 3 00 03
01V S1 3 00 05

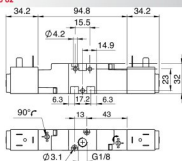


3/2 Vie/Ways

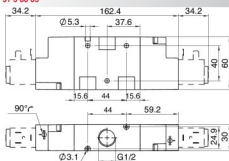
BISTABILE
TWO STABLE POSITIONS

CODICE CODE	VIE WAYS	MISURA SIZE
01V S1 3 00 02	3/2	1/8
01V S1 3 00 03	3/2	1/4
01V S1 3 00 05	3/2	1/2

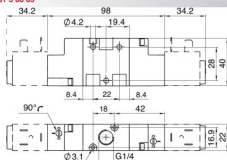
01V S1 3 00 02



01V S1 3 00 05



01V S1 3 00 03



Valvole ad azionamento Elettropneumatico / Solenoid Pilot Valve



01V 50 5 00 02
01V 50 5 00 03
01V 50 5 00 05

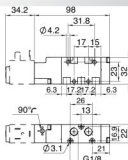


5/2 Vie/Ways

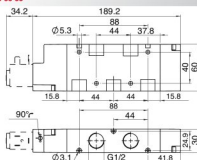
MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	MISURA SIZE
01V 50 5 00 02	5/2	1/8
01V 50 5 00 03	5/2	1/4
01V 50 5 00 05	5/2	1/2

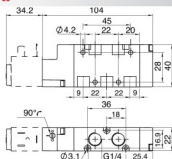
01V 50 5 00 02



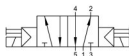
01V 50 5 00 05



01V 50 5 00 03



Valvole ad azionamento Elettropneumatico / Solenoid Pilot Valve



```
01V $1 5 00 02
01V $1 5 00 03
01V $1 5 00 05
```

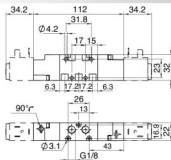


5/2 Vie/Ways

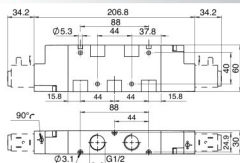
BISTABLE
TWO STABLE POSITIONS

CODICE CODE	VIE WAYS	MISURA SIZE
01V S1 5 00 02	5/2	1/8
01V S1 5 00 03	5/2	1/4
01V S1 5 00 05	5/2	1/2

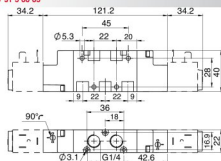
01V \$1 5 00 02



01V \$1 5 00 05



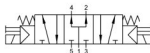
01V S1 5 00 03



```
01V S0 7 CC 02
01V S0 7 CC 03
01V S0 7 CC 05
```



```
01V $0 7 OC 02
01V $0 7 OC 03
01V $0 7 OC 05
```

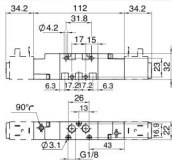


```
01V $0 7 PC 02
01V $0 7 PC 03
01V $0 7 PC 05
```

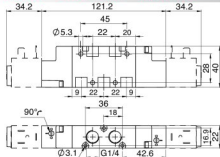
MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V S0 7 CC 02	5/3	CC	1/8
01V S0 7 CC 03	5/3	CC	1/4
01V S0 7 CC 05	5/3	CC	1/2
01V S0 7 OC 02	5/3	OC	1/8
01V S0 7 OC 03	5/3	OC	1/4
01V S0 7 OC 05	5/3	OC	1/2
01V S0 7 PC 02	5/3	PC	1/8
01V S0 7 PC 03	5/3	PC	1/4
01V S0 7 PC 05	5/3	PC	1/2

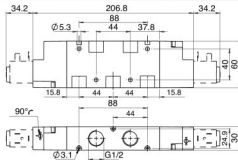
01V 50 7 CC 02 01V 50 7 OC 02 01V 50 7 PC 02



01V S0 7 CC 03 01V S0 7 OC 03 01V S0 7 PC 03

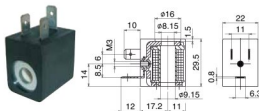


01V S0 7 CC 05 01V S0 7 OC 05 01V S0 7 PC 05



Solenoidi e Connettori / Solenoids and Connectors

Solenoidi Solenoids



CODICE CODE	TENSIONE SOLENOIDE SOLENOID VOLTAGE	POTENZA POWER
SOL01012C1000	12V DC	3W
SOL01024C1000	24V DC	3W
SOL01024C3000	24V DC	2W
SOL01024A2000	24V AC	5VA
SOL01110A2000	110V AC	5VA
SOL01220A2000	220V AC	5VA

Solenoido Consigliato
Solenoid Recommended

Caratteristiche Tecniche - Technical Characteristics

TOLLERANZE DI TENSIONE / VOLTAGE TOLERANCE

CLASSE DI ISOLAMENTO / CLASS OF ISOLATION

GRADO DI PROTEZIONE / DEGREE OF PROTECTION

CICLO DI LAVORO / DUTY CYCLE

TERMINALI / TERMINALS

±10%

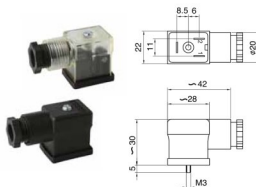
F CEI EN 60085

IP65 IEC 60529 CON CONNETTORE (WITH CONNECTOR)

100%

DIN 43650 B

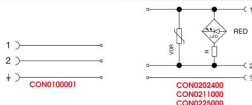
Connettori Connectors



CODICE CODE	COLORE COLOR	CARATTERISTICHE CHARACTERISTICS
CON0100001	NERO / BLACK	STANDARD A 2 POLI (2 PIN)
CON0202400	TRASPARENTE / TRANSPARENT	LED + VDR 0 - 24V
CON0211000	TRASPARENTE / TRANSPARENT	LED + VDR 110V
CON0225000	TRASPARENTE / TRANSPARENT	LED + VDR 220V

VDR: Dotati di Varistore come dispositivo di protezione delle sovratensioni.
Fitted with varistors as surge protection device.

SCHEMA ELETTRICO / WIRING



Caratteristiche Tecniche - Technical Characteristics

GRADO DI PROTEZIONE / DEGREE OF PROTECTION

GUARNIZIONE / GASKET

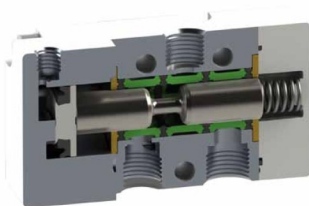
DIAMETRO CAVO / CABLE DIAMETER

IP65 IEC 60529

GUARNIZIONE A PROFILO / PROFIL GASKET

6 + 8 mm

Valvole ad azionamento Pneumatico / Pneumatic Valve



Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

PRESSIONE DI AZIONAMENTO / PRESSURE DRIVE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

1/8

1/8
740 Nl/min

1/4

1/4
1200 Nl/min

1/2

1/2
5000 Nl/min

0 - 10 Bar

MONOSTABILE / MONOSTABLE: 2 - 10 Bar

BISTABILE / BISTABLE: 1 - 10 Bar

-10° / +60° C

CORPO IN ALLUMINIO ANODIZZATO E VERNICIATO

ANODISED AND PAINTED ALUMINIUM BODY

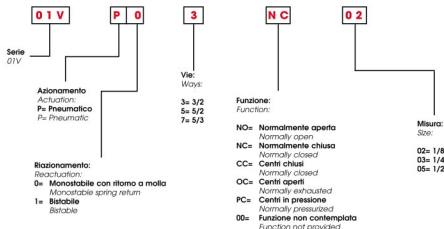
SPOLA IN ALLUMINIO NICHELATO CHIMICAMENTE

CHEMICAL NICKEL-PLATED SPOOL

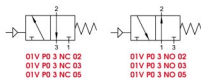
GUARNIZIONI IN NBR

NBR SEALS

Tabella dei codici di ordinazione - Article codes to be used for ordering



Valvole ad azionamento Pneumatico / Pneumatic Valve



3/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V P0 3 NC 02	3/2	NC	1/8
01V P0 3 NC 03	3/2	NC	1/4
01V P0 3 NC 05	3/2	NC	1/2
01V P0 3 NO 02	3/2	NO	1/8
01V P0 3 NO 03	3/2	NO	1/4
01V P0 3 NO 05	3/2	NO	1/2

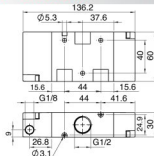
01V P0 3 NC 02

01V P0 3 NO 02



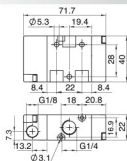
01V P0 3 NC 05

01V P0 3 NO 05



01V P0 3 NC 03

01V P0 3 NO 03



Valvole ad azionamento Pneumatico / Pneumatic Valve



01V P1 3 00 02
01V P1 3 00 03
01V P1 3 00 05



3/2 Vie/Ways

BISTABILE

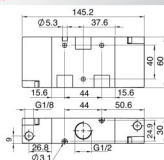
TWO STABLE POSITIONS

CODICE CODE	VIE WAYS	MISURA SIZE
01V P1 3 00 02	3/2	1/8
01V P1 3 00 03	3/2	1/4
01V P1 3 00 05	3/2	1/2

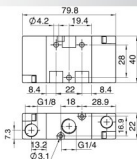
01V P1 3 00 02



01V P1 3 00 05



01V P1 3 00 03



Valvole ad azionamento Pneumatico / Pneumatic Valve



```
01V P0 5 00 02
01V P0 5 00 03
01V P0 5 00 05
```

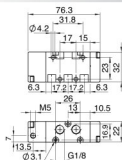


5/2 Vie/Ways

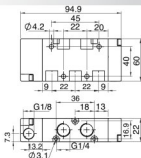
MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	MISURA SIZE
01V PO 5 00 02	5/2	1/8
01V PO 5 00 03	5/2	1/4
01V PO 5 00 05	5/2	1/2

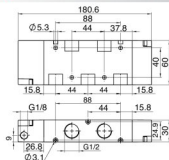
01V P0 5 00 02



01V P0 5 00 03



01V P0 5 00 05



Valvole ad azionamento Pneumatico / Pneumatic Valve



01V P1 5 00 02
01V P1 5 00 03
01V P1 5 00 05



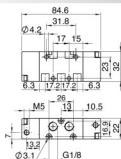
5/2 Vie/Ways

BISTABILE

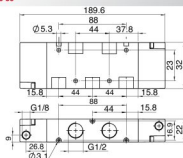
TWO STABLE POSITIONS

CODICE CODE	VIE WAYS	MISURA SIZE
01V P1 5 00 02	5/2	1/8
01V P1 5 00 03	5/2	1/4
01V P1 5 00 05	5/2	1/2

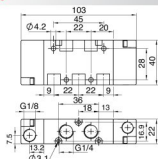
01V P1 5 00 02



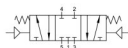
01V P1 5 00 05



01V P1 5 00 03



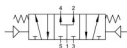
Valvole ad azionamento Pneumatico / Pneumatic Valve



01V P0 7 CC 02
01V P0 7 CC 03
01V P0 7 CC 05



01V P0 7 OC 02
01V P0 7 OC 03
01V P0 7 OC 05



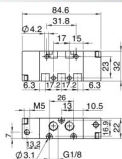
01V P0 7 PC 02
01V P0 7 PC 03
01V P0 7 PC 05

5/3 Vie/Ways

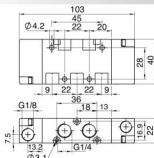
MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V P0 7 CC 02	5/3	CC	1/8
01V P0 7 CC 03	5/3	CC	1/4
01V P0 7 CC 05	5/3	CC	1/2
01V P0 7 OC 02	5/3	OC	1/8
01V P0 7 OC 03	5/3	OC	1/4
01V P0 7 OC 05	5/3	OC	1/2
01V P0 7 PC 02	5/3	PC	1/8
01V P0 7 PC 03	5/3	PC	1/4
01V P0 7 PC 05	5/3	PC	1/2

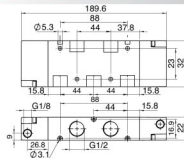
01V P0 7 CC 02 01V P0 7 OC 02 01V P0 7 PC 02



01V P0 7 CC 03 01V P0 7 OC 03 01V P0 7 PC 03



01V P0 7 CC 05 01V P0 7 PC 05 01V P0 7 PC 05



Valvole ad azionamento Manuale / Manual Valve



Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

1/8

1/8
740 Nl/min

1/4

1/4
1200 Nl/min

0 - 10 Bar

-10° / +60° C

CORPO IN ALLUMINIO ANODIZZATO E VERNICIATO

ANODISED AND PAINTED ALUMINIUM BODY

SPOLA IN ACCIAIO NICHELATO CHIMICAMENTE

INOX CHEMICAL NICKEL-PLATED SPOOL

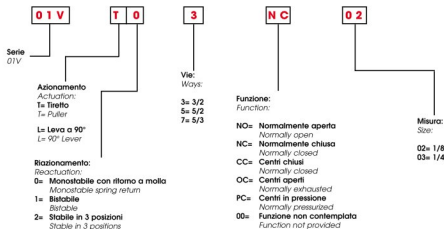
GUARNIZIONI IN NBR

NBR SEALS

M16x1

ATTACCO A PANNELLO / PANEL MOUNT

Tabella dei codici di ordinazione - Article codes to be used for ordering



Valvole a Tiretto / Puller Valve



01VT03NC02
01VT03NC03

3/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V TD 3 NC 02	3/2	NC	1/8
01V TD 3 NC 03	3/2	NC	1/4



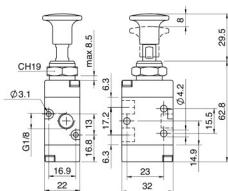
01VT13NC02
01VT13NC03

3/2 Vie/Ways

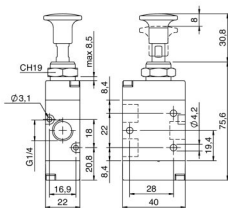
BISTABILE
TWO STABLE POSITIONS

CODICE CODE	VIE WAYS	MISURA SIZE
01V TI 3 00 02	3/2	1/8
01V TI 3 00 03	3/2	1/4

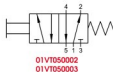
01V TD 3 NC 02 01V TI 3 00 02



01V TD 3 NC 03 01V TI 3 00 03



Valvole a Tiretto / Puller Valve



5/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	MISURA SIZE
01V TO 5 00 02	5/2	1/8
01V TO 5 00 03	5/2	1/4

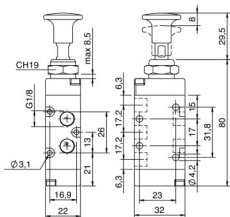


5/2 Vie/Ways

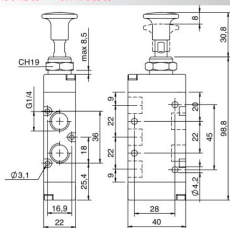
BISTABLE
TWO STABLE POSITIONS

CODICE CODE	VIE WAYS	MISURA SIZE
01V T1 5 00 02	5/2	1/8
01V T1 5 00 03	5/2	1/4

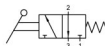
01V T0 3 NC 02 01V T1 3 00 02



01V T0 3 NC 03 01V T1 3 00 03



Valvole a Leva a 90° / 90° Lever Valve



01VL03NC02
01VL03NC03

3/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V L0 3 NC 02	3/2	NC	1/8
01V L0 3 NC 03	3/2	NC	1/4



01VL130002
01VL130003

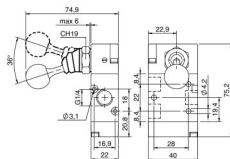
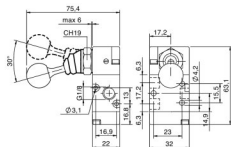
3/2 Vie/Ways

BISTABLE
TWO STABLE POSITIONS

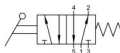
CODICE CODE	VIE WAYS	MISURA SIZE
01V L1 3 00 02	3/2	1/8
01V L1 3 00 03	3/2	1/4

01V L0 3 NC 02 01V L1 3 00 02

01V L0 3 NC 03 01V L1 3 00 03



Valvole a Leva a 90° / 90° Lever Valve



01VL050002
01VL050003

5/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN



01VL150002
01VL150003

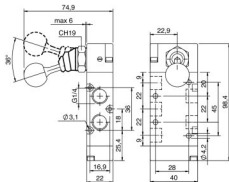
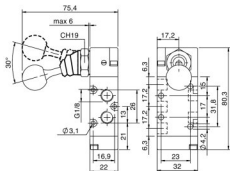
5/2 Vie/Ways

BISTABLE
TWO STABLE POSITIONS

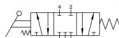
CODICE CODE	VIE WAYS	MISURA SIZE
01V LI 5 00 02	5/2	1/8
01V LI 5 00 03	5/2	1/4

01V L0 5 00 02 01V L1 5 00 02

01V L0 5 00 03 01V L1 5 00 03



Valvole a Leva a 90° / 90° Lever Valve



01V L0 7 CC 02
01V L0 7 CC 03



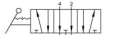
01V L0 7 OC 02
01V L0 7 OC 03



01V L0 7 PC 02
01V L0 7 PC 03



01V L2 7 CC 02
01V L2 7 CC 03



01V L2 7 OC 02
01V L2 7 OC 03



01V L2 7 PC 02
01V L2 7 PC 03



5/3 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V L0 7 CC 02	5/3	CC	1/8
01V L0 7 CC 03	5/3	CC	1/4

01V L0 7 OC 02	5/3	OC	1/8
01V L0 7 OC 03	5/3	OC	1/4

01V L0 7 PC 02	5/3	PC	1/8
01V L0 7 PC 03	5/3	PC	1/4

5/3 Vie/Ways

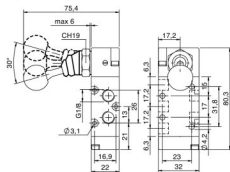
STABILE A 3 POSIZIONI / 3 STABLE POSITIONS

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V L2 7 CC 02	5/3	CC	1/8
01V L2 7 CC 03	5/3	CC	1/4

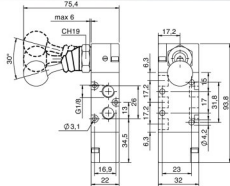
01V L2 7 OC 02	5/3	OC	1/8
01V L2 7 OC 03	5/3	OC	1/4

01V L2 7 PC 02	5/3	PC	1/8
01V L2 7 PC 03	5/3	PC	1/4

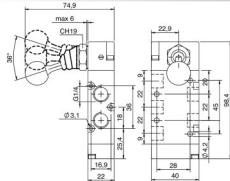
01V L2 7 CC 02 01V L2 7 OC 02 01V L2 7 PC 02



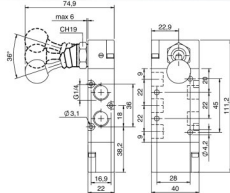
01V L0 7 CC 02 01V L0 7 OC 02 01V L0 7 PC 02



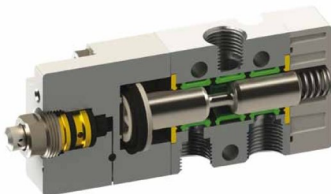
01V L2 7 CC 03 01V L2 7 OC 03 01V L2 7 PC 03



01V L0 7 CC 03 01V L0 7 OC 03 01V L0 7 PC 03



Valvole ad azionamento Meccanico / Mechanically actuated Valve



Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PORTATA A 6 BAR CON Δp 1 bar / 6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

FORZA DI AZIONAMENTO / DRIVING FORCE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

1/8

1/8

740 Nl/min

2 - 10 Bar

5.8 N

-10° / +60° C

CORPO IN ALLUMINIO ANODIZZATO E VERNICIATO

ANODISED AND PAINTED ALUMINIUM BODY

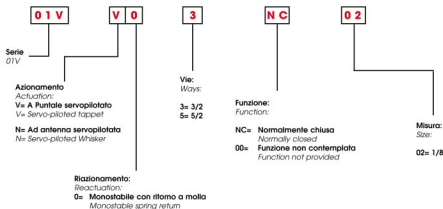
SPOLA IN ALLUMINIO NICHELATO CHIMICAMENTE

CHEMICAL NICKEL-PLATED SPOOL

GUARNIZIONI IN NBR

NBR SEALS

Tabella dei codici di ordinazione - Article codes to be used for ordering



Valvole A Puntale Servopilotate / Servo-Piloted Tappet Valves



3/2 Vie/Ways



MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V V0 3 NC 02	3/2	NC	1/8



04V0100001



5/2 Vie/Ways



MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	MISURA SIZE
01V V0 5 00 02	5/2	1/8



04V0600002



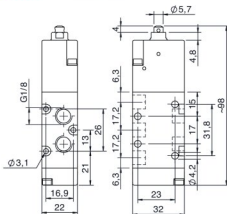
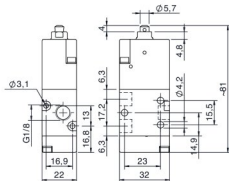
04V0600001

Le valvole servopilotate sono predisposte per gli attuatori da pannello. Per le interfacce, i pulsanti e i selettori consultare la serie 04V a pagina 15.41

Le valvole servopilotate sono predisposte per gli attuatori da pannello. Per le interfacce, i pulsanti e i selettori consultare la serie 04V a pagina 15 .41

01V V0 3 NC 02

01V V0 5 00 02



Valvole ad antenna servopilotata/ Servo-Piloted whisker valves



3/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN



CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
01V N0 3 NC 02	3/2	NC	1/8



5/2 Vie/Ways

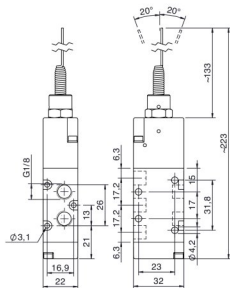
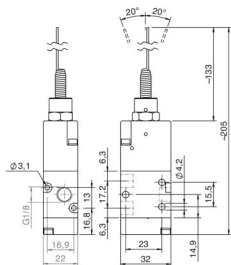
MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN



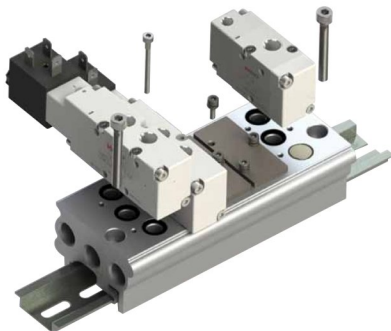
CODICE CODE	VIE WAYS	MISURA SIZE
01V N0 5 00 02	5/2	1/8

01V N0 3 NC 02

01V N0 5 00 02



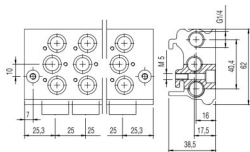
Basi Multiple / Multiple Bases



Basi multiple 1/8 Manifold plates 1/8

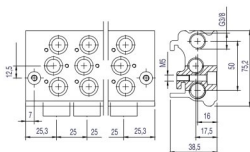
CODICE CODE	VIE WAYS	MISURA SIZE
01VB000002	2	1/8
01VB000003	3	1/8
01VB000004	4	1/8
01VB000005	5	1/8
01VB000006	6	1/8
01VB000007	7	1/8
01VB000008	8	1/8
01VB000009	9	1/8
01VB000010	10	1/8

Le basi sono fornite complete di viti e O-Ring per il fissaggio delle valvole
The bases are supplied with screws and O-Ring for attachment of the valves

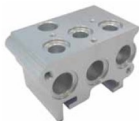
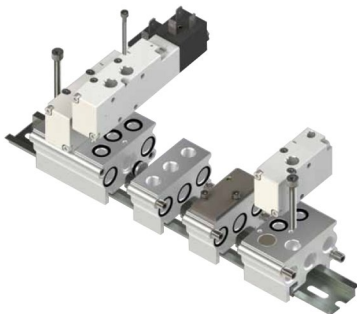


Basi multiple 1/4 Manifold plates 1/4

CODICE CODE	VIE WAYS	MISURA SIZE
01VB010002	2	1/4
01VB010003	3	1/4
01VB010004	4	1/4
01VB010005	5	1/4
01VB010006	6	1/4
01VB010007	7	1/4
01VB010008	8	1/4
01VB010009	9	1/4
01VB010010	10	1/4



Basi Modulari / Modular Bases



Terminale anteriore con base integrata *Front terminal-based integrated*

CODICE CODE	MISURA SIZE
01VB100000	1/8
01VB100001	1/4

Il terminale è fornito completo di viti e o-ring per il fissaggio delle valvole e per il fissaggio con la base.
The terminal is supplied with screws and o-rings for fastening and fixing the valve to the base.



Terminale posteriore con base integrata *Rear terminal-based integrated*

CODICE CODE	MISURA SIZE
01VB200000	1/8
01VB200001	1/4

Il terminale è fornito completo di viti e o-ring per il fissaggio delle valvole e per il fissaggio con la base.
The terminal is supplied with screws and o-rings for fastening and fixing the valve to the base.



Base modulare *Modular Base*

CODICE CODE	MISURA SIZE
01VB300000	1/8
01VB300001	1/4

La base è fornita di viti e o-ring per il fissaggio fra i vari componenti.
The base is supplied with screws and o-rings for attachment between the various components.

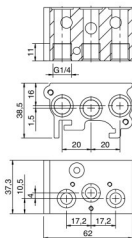
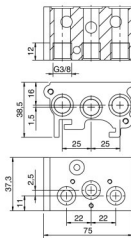
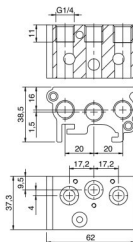
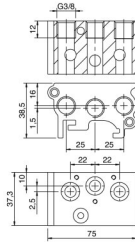
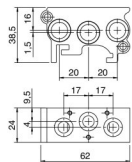
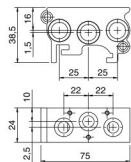
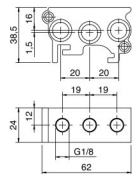
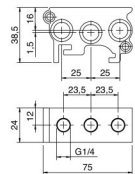
Basi Modulari / Modular Bases



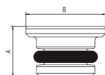
Alimentazione intermedia Intermediate power

CODICE CODE	MISURA SIZE
01VB400000	1/8
01VB400001	1/4

L'alimentazione è fornita di viti e o-ring per il fissaggio fra i vari componenti.
Power is supplied with screws and o-rings for attachment between the various components.

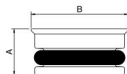
01VB100000

01VB100001

01VB200000

01VB200001

01VB300000

01VB300001

01VB400000

01VB400001


Accessori per Basi / Bases Accessories



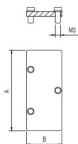
Tappo per attacco valvola a 3 vie Plug for 3 way valve connection

CODICE CODE	MISURA SIZE	A	B
01VB600000	1/8	7.5	12
01VB600001	1/4	7.5	14



Tappo intermedio per basi modulari Intermediate steps for modular base

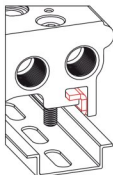
CODICE CODE	MISURA SIZE	A	B
01VB800000	1/8	7.5	12
01VB800001	1/4	7.5	14



Piastrina di copertura Cover Plate

CODICE CODE	MISURA SIZE	A	B
01VB900000	1/8	50	22
01VB900001	1/4	62	22

La piastrina è fornita completa di viti per il fissaggio sulle basi.
The Cover Plate is supplied with screws for securing the Base.



Staffa di fissaggio con barra omega Bracket with Omega bar

CODICE CODE	MISURA SIZE
01VB700000	1/8 - 1/4

Caratteristiche Tecniche - Technical Characteristics

TIPO DI FISSAGGIO TYPE OF MOUNTING	VITE SCREW
CON BARRA OMEGA EN50222 DI SPESSORE 15MM WITH EN50222 OMEGA BAR THICKNESS 15MM	VITE M5 x 40 SCREW M5 x 40
CON BARRA OMEGA EN50222 DI SPESSORE 7.5MM WITH EN50222 OMEGA BAR THICKNESS 7.5MM	VITE M5 x 35 SCREW M5 x 35
DIRETTO SUL BASAMENTO DIRECT ON BASE	VITE M4 x 40 SCREW M4 x 40

Note:



Serie 02V

MICROVALVOLE
MICROVALVE

MicroValvole / MicroValve



Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

M5

M5

100 Nl/min

2 - 10 Bar

-10° / +60° C

CORPO IN ALLUMINIO ANODIZZATO

ANODISED ALUMINIUM BODY

MOLLA IN ACCIAIO INOX

STAINLESS STEEL SPRING

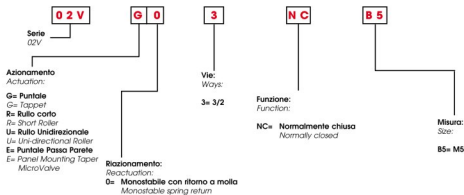
GUARNIZIONI IN NBR

NBR SEALS

6 N

FORZA DI AZIONAMENTO / ACTUATING FORCE

Tabella dei codici di ordinazione - Article codes to be used for ordering



MicroValvole / MicroValve



3/2 Vie/Ways

MICROVALVOLE A PUNTALE
TAPPET MICROVALVE



CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
02V G0 3 NC B5	3/2	NC	M5



3/2 Vie/Ways

MICROVALVOLE A RULLO CORTO
SHORT ROLLER MICROVALVE



CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
02V R0 3 NC B5	3/2	NC	M5



3/2 Vie/Ways

MICROVALVOLE A RULLO UNIDIREZIONALE
UNI-DIRECTIONAL ROLLER MICROVALVE



CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
02V U0 3 NC B5	3/2	NC	M5



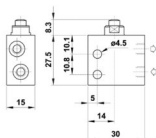
3/2 Vie/Ways

MICROVALVOLE A PUNTALE PASSAPARETE
PANEL MOUNTING TAPPET MICROVALVE

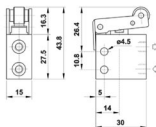


CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
02V E0 3 NC B5	3/2	NC	M5

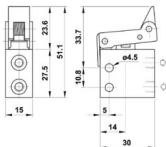
02V G0 3 NC B5



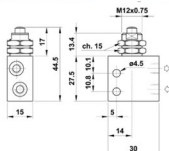
02V R0 3 NC B5



02V U0 3 NC B5



02V E0 3 NC B5



Note:



Serie 03V

Valvole 16 mm ad azionamento meccanico e manuale
16 mm Valve with mechanical and manual drive

Valvole 16 mm / 16 mm Valve



Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

1/8

1/8

350 Nl/min

2 - 10 Bar

-10° / +60° C

CORPO IN ALLUMINIO ANODIZZATO

ANODISED AND ALUMINIUM BODY

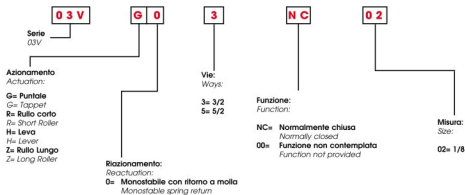
MOLLA IN ACCIAIO INOX

STAINLESS STEEL SPRING

GUARNIZIONI IN NBR

NBR SEALS

Tabella dei codici di ordinazione - Article codes to be used for ordering



Valvole 16 mm / 16 mm Valve



3/2 Vie/Ways

VALVOLE A PUNTALE - RITORNO A MOLLA
TAPPET - SPRING RETURN VALVE



CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE	FORZA AZIONAMENTO DRIVING FORCE
03V G0 3 NC 02	3/2	NC	1/8	19.6 N



5/2 Vie/Ways

VALVOLE A PUNTALE - RITORNO A MOLLA
TAPPET - SPRING RETURN VALVE



CODICE CODE	VIE WAYS	MISURA SIZE	FORZA AZIONAMENTO DRIVING FORCE
03V G0 5 00 02	5/2	1/8	39.2 N



3/2 Vie/Ways

VALVOLE A RULLO CORTO - RITORNO A MOLLA
SHORT ROLLER - SPRING RETURN VALVE



CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE	FORZA AZIONAMENTO DRIVING FORCE
03V R0 3 NC 02	3/2	NC	1/8	9.8 N



5/2 Vie/Ways

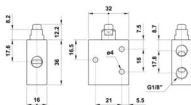
VALVOLE A RULLO CORTO - RITORNO A MOLLA
SHORT ROLLER - SPRING RETURN VALVE



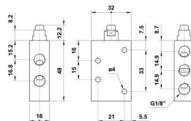
CODICE CODE	VIE WAYS	MISURA SIZE	FORZA AZIONAMENTO DRIVING FORCE
03V R0 5 00 02	5/2	1/8	21.5 N

03V G0 3 NC 02

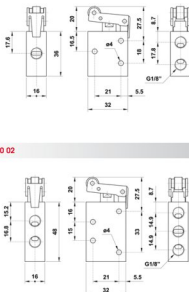
03V R0 3 NC 02



03V G0 5 NC 02



03V R0 5 00 02



Valvole 16 mm / 16 mm Valve



3/2 Vie/Ways



VALVOLE A RULLO LUNGO - RITORNO A MOLLA
LONG ROLLER - SPRING RETURN VALVE

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE	FORZA AZIONAMENTO DRIVING FORCE
03V ZD 3 NC 02	3/2	NC	1/8	8.3 N

5/2 Vie/Ways



VALVOLE A RULLO LUNGO - RITORNO A MOLLA
LONG ROLLER - SPRING RETURN VALVE

CODICE CODE	VIE WAYS	MISURA SIZE	FORZA AZIONAMENTO DRIVING FORCE
03V ZD 5 00 02	5/2	1/8	14.2 N

3/2 Vie/Ways



VALVOLE CON TASTO ROSSO - RITORNO A MOLLA
PUSH RED BUTTON - SPRING RETURN VALVE

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE	FORZA AZIONAMENTO DRIVING FORCE
03V H0 3 NC 02	3/2	NC	1/8	7.8 N

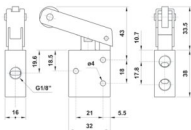
5/2 Vie/Ways



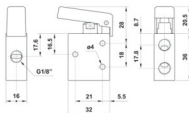
VALVOLE CON TASTO ROSSO - RITORNO A MOLLA
PUSH RED BUTTON - SPRING RETURN VALVE

CODICE CODE	VIE WAYS	MISURA SIZE	FORZA AZIONAMENTO DRIVING FORCE
03V H0 5 00 02	5/2	1/8	13.7 N

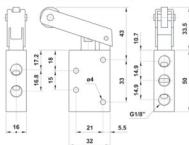
03V ZD 3 NC 02



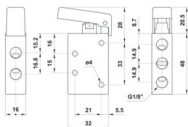
03V H0 3 NC 02



03V ZD 5 00 02



03V H0 5 00 02





Serie 04V

Valvole a Pannello, Pulsanti e Selettori
Panel Valve, Push Buttons and Selectors

MicroValvole / MicroValve

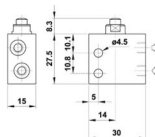
3/2 Vie/Ways



MICROVALVOLE A PUNTALE
TAPPET MICROVALVE



CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
02V G0 3 NC B5	3/2	NC	M5



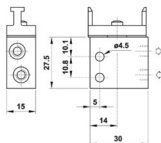
3/2 Vie/Ways



MICROVALVOLE PER ATTUATORE DA PANNELLO
MICROVALVE FOR PANEL MOUNTING ACTUATOR



CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
02V D0 3 NC B5	3/2	NC	M5



04V0600002

04V0600001

Interfaccia per attacco pulsante

Interface for connection button

CODICE CODE	
04V0600001	SINGOLA / SINGLE
04V0600002	DOPPIA / DOUBLE

Pulsanti e Selettori / Push Button and Selector

Pulsante protetto / Protected push button



CODICE CODE	COLORE STANDARD STANDARD COLOR
04V0100001	Rosso / Red - Nero / Black - Bianco / White



CODICE CODE	COLORE COLOR
* 04V01P00VE	Verde / Green
* 04V01P00GI	Giallo / Yellow
* 04V01P00AZ	Azzurro / Light Blue

* I seguenti colori sono disponibili ordinandoli in aggiunta al kit standard.
The following colors can be ordered separately.

Fungo monostabile assiale / Axial mono-stable mushroom



CODICE CODE	COLORE COLOR
04V0200N01	Nero / Black
04V0200R01	Rosso / Red

Fungo sblocca a rotazione / Turn to unlock mushroom

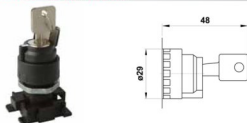


CODICE CODE	COLORE COLOR
04V0200R02	Rosso / Red

FORO PER MONTAGGIO
A PANNELLO CON ASOLA
ANTIROTAZIONE.
PANEL MOUNTING HOLE WITH
ANTIROTATION FEATURE.



Selettore a chiave / Key selector



CODICE CODE	COLORE COLOR	FUNZIONE FUNCTION	POSIZIONE ESTRAZIONE CHIAVE POSITION TO PULL THE KEY OUT
04V0300001	Nero / Black	0 - 1	solo centrale / only in central position
04V0300002	Nero / Black	0 - 1	ambidue / both position
04V0300003	Nero / Black	2 - 0 - 1	solo centrale / only in central position

Selettore a leva corta / Short lever selector



CODICE CODE	COLORE COLOR	FUNZIONE FUNCTION
04V0400N01	Nero / Black	0 1
04V0400N02	Nero / Black	0 ← 1
04V0400N03	Nero / Black	2 0 1
04V0400N04	Nero / Black	2 → 0 ← 1

Selettore a leva lunga / Long lever selector



CODICE CODE	COLORE COLOR	FUNZIONE FUNCTION
04V0500N01	Nero / Black	0 1
04V0500N02	Nero / Black	0 ← 1
04V0500N03	Nero / Black	2 0 1
04V0500N04	Nero / Black	2 → 0 ← 1

Note:



Serie 05V

Valvole 18 mm VDMA
VDMA 18 mm Valve

Valvole VDMA 18 mm ad azionamento Elettropneumatico / Solenoid Pilot Valve 18 mm VDMA

Caratteristiche Tecniche - Technical Characteristics
NORMA DI RIFERIMENTO / REFERENCE STANDARD
PORTATA A 6 BAR CON Δp 1 bar
6 bar FLOW RATE WITH Δp 1 bar
PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE
TEMPERATURA / TEMPERATURE
MATERIALI / MATERIAL
TENSIONE SOLENOIDE / SOLENOID VOLTAGE
POTENZA MINIMA / MINIMUM POWER
COMANDO MANUALE / MANUAL CONTROL
VDMA 24563 TAGLIA 02 (18 mm) / VDMA 24563 TAGLIA 02 (18 mm)
 550 Nl/Min

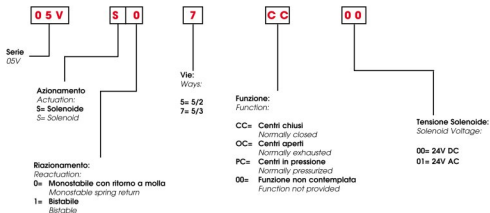
MONOSTABILE / MONOSTABLE: 2.5 - 10 Bar
BISTABILE / BISTABLE: 1 - 10 Bar

-10° / +50° C

CORPO IN ALLUMINIO ANODIZZATO
ANODISED ALUMINIUM BODY
SPOLA IN ALLUMINIO NICHELATO
NICKEL-PLATED SPOOL
GUARNIZIONI IN NBR
NBR SEALS

24V DC - 24V AC

2W - 3VA

MONOSTABILE / MONOSTABLE
Tabella dei codici di ordinazione - Article codes to be used for ordering


Valvole VDMA 18 mm ad azionamento Elettropneumatico / Solenoid Pilot Valve 18 mm VDMA


5/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN


CODICE CODE	VIE WAYS	SOLENOIDE SOLENOID
05V S0 5 00 00	5/2	24V DC
05V S0 5 00 01	5/2	24V 50/60Hz



5/2 Vie/Ways

BISTABILE
TWO STABLE POSITIONS


CODICE CODE	VIE WAYS	SOLENOIDE SOLENOID
05V S1 5 00 00	5/2	24V DC
05V S1 5 00 01	5/2	24V 50/60Hz


05V S0 7 CC 00
05V S0 7 CC 01

05V S0 7 OC 00
05V S0 7 OC 01

5/3 Vie/Ways

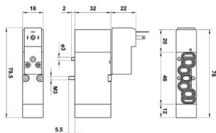
MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	SOLENOIDE SOLENOID
05V S0 7 CC 00	5/3	CC	24V DC
05V S0 7 OC 00	5/3	OC	24V DC

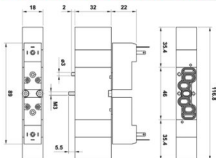
05V S0 7 CC 01	5/3	CC	24V 50/60Hz
05V S0 7 OC 01	5/3	OC	24V 50/60Hz

05V S0 7 CC 00	05V S0 7 OC 00	05V S0 7 CC 01	05V S0 7 OC 01
----------------	----------------	----------------	----------------

05V S0 5 00 00 05V S0 5 00 01



05V S0 5 00 00 05V S0 5 00 01



Connettori / Connectors

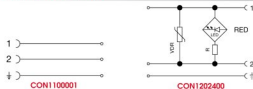


Connettori Connectors

CODICE CODE	COLORE COLOR	CARATTERISTICHE CHARACTERISTICS
CON1100001	NERO / BLACK	STANDARD A 2 PINI (2 PIN)
CON1202400	TRASPARENTE / TRANSPARENT	LED + VDR 0 - 24V

VDR: Dotati di Varistore come dispositivo di protezione delle sovratensioni.
Fitted with varistors as surge protection device.

SCHEMA ELETTRICO / WIRING



Caratteristiche Tecniche - Technical Characteristics

GRADO DI PROTEZIONE / DEGREE OF PROTECTION

GUARNIZIONE / GASKET

TERMINALI / TERMINALS

DIAMETRO CAVO / CABLE DIAMETER

IP67 IEC 60529

GUARNIZIONE PIATTA / FLAT GASKET

DIN 4365 C

4 ÷ 6 mm

Valvole VDMA 18 mm ad azionamento Pneumatico / Pneumatic Valve 18 mm VDMA



Caratteristiche Tecniche - Technical Characteristics

NORMA DI RIFERIMENTO / REFERENCE STANDARD

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI AZIONAMENTO / PRESSURE DRIVE

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

VDMA 24563 TAGLIA 02 (18 mm) / VDMA 24563 TAGLIA 02 (18 mm)
550 Nl/Min

0 - 10 Bar

MONOSTABILE / MONOSTABLE: 2 - 10 Bar

BISTABILE / BISTABLE: 1 - 10 Bar

-10° / +60° C

CORPO IN ALLUMINIO ANODIZZATO

ANODISED ALUMINIUM BODY

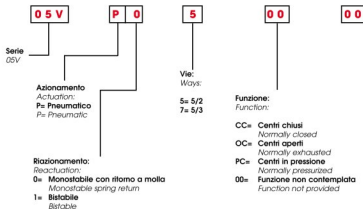
SPOLA IN ALLUMINIO NICHELATO

NICKEL-PLATED SPOOL

GUARNIZIONI IN NBR

NBR SEALS

Tabella dei codici di ordinazione - Article codes to be used for ordering



Valvole VDMA 18 mm ad azionamento Pneumatico / Pneumatic Valve 18 mm VDMA


5/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN


CODICE CODE	VIE WAYS
05V P0 5 00 00	5/2



5/2 Vie/Ways

BISTABILE
TWO STABLE POSITIONS


CODICE CODE	VIE WAYS
05V P1 5 00 00	5/2

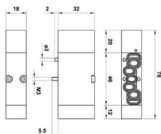
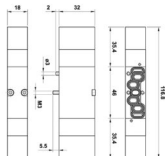
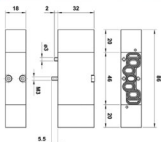

05VP07CC00

05VP07OC00

5/3 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION
05V P0 7 CC 00	5/3	CC
05V P0 7 OC 00	5/3	OC

05V P0 5 00 00

05V P0 7 CC 00 05V P0 7 OC 00

05V P1 5 00 00


Basi Multiple e Accessori / Multiple Bases and Accessories



Terminale anteriore con base integrata
Front terminal-based integrated

CODICE

CODE

05VB100000

La base è fornita completa di viti e guarnizioni per il fissaggio delle valvole e per il fissaggio con la base.
The base is supplied with screws and gasket for fastening and fixing the valve to the base.



Terminale posteriore con base integrata
Rear terminal-based integrated

CODICE

CODE

05VB200000

La base è fornita completa di viti e guarnizioni per il fissaggio delle valvole e per il fissaggio con la base.
The base is supplied with screws and gasket for fastening the valve to the base.



Base modulare
Modular Base

CODICE

CODE

05VR300000

La base è fornita completa di viti e guarnizioni per il fissaggio delle valvole e per il fissaggio con la base.
The base is supplied with screws and gasket for fastening and fixing the valve to the base.



Alimentazione Intermedia

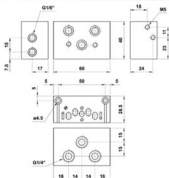
CODICE

CODE

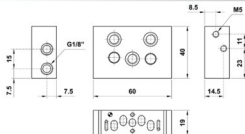
05VB400000

L'alimentazione è fornita completa di viti e guarnizioni per il fissaggio delle valvole e per il fissaggio con la base.
The intermediate power is supplied with screws and gasket for fastening and fixing the valve to the base.

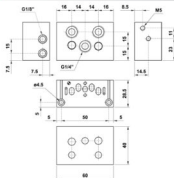
0.5V/810000



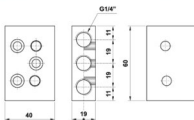
05VB300000



05VR200000



05VB40000C



Basi Multiple e Accessori / Multiple Bases and Accessories



Tappo Intermedio Intermediate Plug

CODICE
CODE

05VB800000

Il tappo intermedio è fornito completo di viti e guarnizioni per il fissaggio delle valvole e per il fissaggio con la base.

The Intermediate Plug is supplied with screws and gasket for fastening and fixing the valve to the base.



Guarnizione per tappo intermedio Gasket for Intermediate plug

CODICE
CODE

05VB700000

La guarnizione è fornita con grano da M8

The gasket is supplied with M8 dowel



Piastrina di copertura Cover Plate

CODICE
CODE

05VB900000

La piastrina di copertura è fornita completa di viti e guarnizioni per il fissaggio delle valvole e per il fissaggio con la base.

The Cover Plate is supplied with screws and gasket for fastening and fixing the valve to the base.



Base singola Individual base

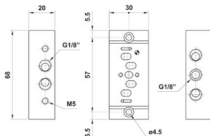
CODICE
CODE

05VB500000

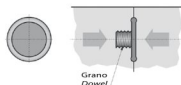
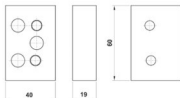
La base è fornita completa di viti e guarnizioni per il fissaggio delle valvole e per il fissaggio con la base.

The base is supplied with screws and gasket for fastening and fixing the valve to the base.

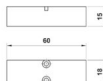
05VB500000



05VB800000



05VB900000

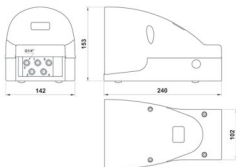




Serie 06V

Valvole a pedale
Pedal Valve

Valvole a pedale / Pedal Valve



5/2 Vie/Ways



MONOSTABILE CON PROTEZIONE

MONOSTABLE PEDAL VALVE WITH PROTECTION COVER

CODICE CODE	VIE WAYS	MISURA SIZE
06V 00 0 00 01	5/2	1/4

5/2 Vie/Ways



MONOSTABILE CON PROTEZIONE E FERMO DI SICUREZZA

MONOSTABLE PEDAL VALVE WITH PROTECTION COVER AND SAFETY FEATURE

CODICE CODE	VIE WAYS	MISURA SIZE
06V 00 0 00 02	5/2	1/4

5/2 Vie/Ways



BISTABILE CON PROTEZIONE

BISTABLE PEDAL VALVE WITH PROTECTION COVER

CODICE CODE	VIE WAYS	MISURA SIZE
06V 00 0 00 03	5/2	1/4

Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

TEMPERATURA MASSIMA / MAX. TEMPERATURE

MATERIALI / MATERIAL

1/4

1/4

2 - 10 Bar

+60° C

CORPO IN ALLUMINIO

ALUMINIUM BODY

SPOLA IN ALLUMINIO NICHELATO

NICKEL-PLATED SPOOL

GUARNIZIONI IN NBR

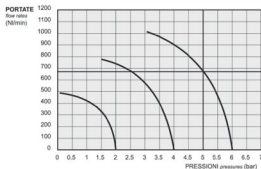
NBR SEALS

TECNOPOLIMERO

POLYMER

PROTEZIONE / PROTECTION

Gráfico Portate / Flow Rates





Serie 07V

Elettropiloti
Solenoid Valves

Elettropiloti / Solenoid Valves



Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

TENSIONE SOLENOIDE / SOLENOID VOLTAGE

POTENZA MINIMA / MINIMUM POWER

COMANDO MANUALE / MANUAL CONTROL

COPIA DI SERRAGGIO DELLA GHIERA SUL SOLENOIDE

TORQUE OF TIGHTENING THE NUT SOLENOID

1/8 - AUTOMATICO/AUTOMATIC Ø4
30 Nl/min

0 - 10 Bar

-10° / +60° C

CORPO IN ALLUMINIO ANODIZZATO

ANODISED ALUMINUM BODY

GUARNIZIONI IN NBR

NBR SEALS

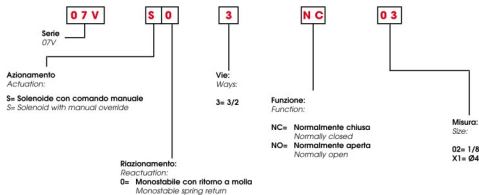
24V DC - 12V DC - 24V AC - 110V AC - 220V AC

3W - 5VA

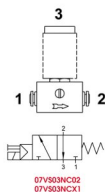
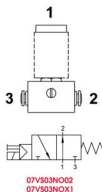
BISTABILE / BISTABLE

0.6 Nm

Tabella dei codici di ordinazione - Article codes to be used for ordering



Elettropiloti con comando manuale / Solenoid with manual override



3/2 Vie/Ways

CON COMANDO MANUALE
WITH MANUAL OVERRIDE

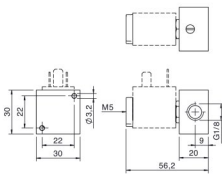
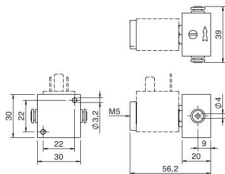
CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
07V 50 3 NC 02	3/2	NC	1/8
07V 50 3 NC X1	3/2	NC	Ø4
07V 50 3 NO 02	3/2	NO	1/8
07V 50 3 NO X1	3/2	NO	Ø4

07V 50 3 NC X1

07V 50 3 NO X1

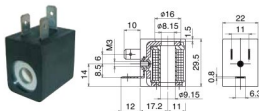
07V 50 3 NC 02

07V 50 3 NO 02



Solenoidi e Connettori / Solenoids and Connectors

Solenoidi Solenoids



CODICE CODE	TENSIONE SOLENOIDE SOLENOID VOLTAGE	POTENZA POWER
SOL01012C1000	12V DC	3W
SOL01024C1000	24V DC	3W
SOL01024A2000	24V AC	5VA
SOL01110A2000	110V AC	5VA
SOL01220A2000	220V AC	5VA

Caratteristiche Tecniche - Technical Characteristics

TOLLERANZE DI TENSIONE / VOLTAGE TOLERANCE

CLASSE DI ISOLAMENTO / CLASS OF ISOLATION

GRADO DI PROTEZIONE / DEGREE OF PROTECTION

CICLO DI LAVORO / DUTY CYCLE

TERMINALI / TERMINALS

±10%

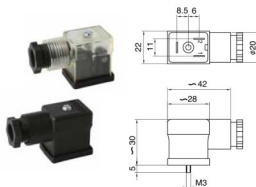
F CEI EN 60085

IP65 IEC 60529 CON CONNETTORE (WITH CONNECTOR)

100%

DIN 43650 B

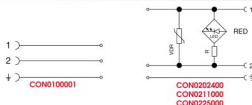
Connettori Connectors



CODICE CODE	COLORE COLOR	CARATTERISTICHE CHARACTERISTICS
CON0100001	NERO / BLACK	STANDARD A 2 POLI (2 PIN)
CON0202400	TRASPARENTE / TRANSPARENT	LED + VDR 0 - 24V
CON0211000	TRASPARENTE / TRANSPARENT	LED + VDR 110V
CON0225000	TRASPARENTE / TRANSPARENT	LED + VDR 220V

VDR: Dotati di Varistore come dispositivo di protezione delle sovratensioni.
Fitted with varistors as surge protection device.

SCHEMA ELETTRICO / WIRING



Caratteristiche Tecniche - Technical Characteristics

GRADO DI PROTEZIONE / DEGREE OF PROTECTION

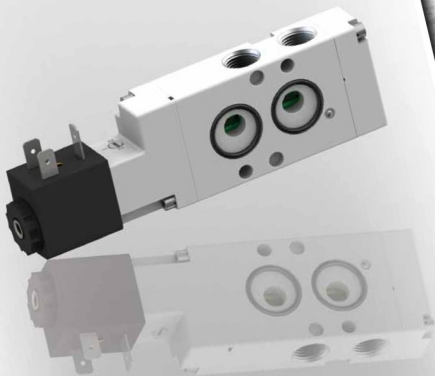
GUARNIZIONE / GASKET

DIAMETRO CAVO / CABLE DIAMETER

IP65 IEC 60529

GUARNIZIONE A PROFILO / PROFIL GASKET

6 ÷ 8 mm



Serie 08V

**VALVOLE NAMUR
NAMUR VALVE**

Valvole ad azionamento Elettropneumatico / Solenoid Pilot Valve



Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

TENSIONE SOLENOIDE / SOLENOID VOLTAGE

POTENZA MINIMA / MINIMUM POWER

COMANDO MANUALE / MANUAL CONTROL

COPPIA DI SERRAGGIO DELLA GHIERA SUL SOLENOIDE

TORQUE OF TIGHTENING THE NUT SOLENOID

NORMA DI RIFERIMENTO

REFERENCE STANDARD

1/4

1/4
1200 Nl/min

MONOSTABILE / MONOSTABLE: 2 - 10 Bar

BISTABILE / BISTABLE: 1 - 10 Bar

-10° / +60° C

CORPO IN ALLUMINIO ANODIZZATO E VERNICIATO

ANODISED AND PAINTED ALUMINIUM BODY

SPOLA IN ALLUMINIO NICHELATO CHIMICAMENTE

CHEMICAL NICKEL-PLATED SPOOL

GUARNIZIONI IN NBR

NBR SEALS

24V DC - 12V DC - 24V AC - 110V AC - 220V AC

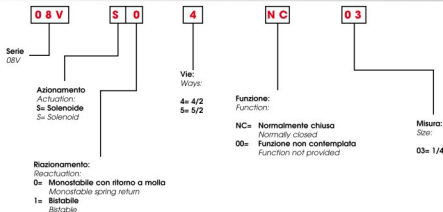
2W - 3VA

BISTABILE / BISTABLE

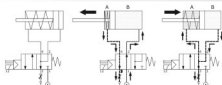
0.6 Nm

VDI/VDE 3845

Tabella dei codici di ordinazione - Article codes to be used for ordering



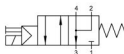
Schema di funzionamento della valvola NAMUR 4/2 / Schematic diagram of the valve NAMUR 4/2



Per evitare che nella fase di ritorno l'aria sporca dell'ambiente esterno entri nella camera A del cilindro, parte dell'aria che fuoriesce dalla camera B viene indirizzata nella camera A stessa.

To prevent the return phase of the external dirty air enters the chamber in the cylinder, the air escaping from the chamber B is routed to the same room.

Valvole ad azionamento Elettropneumatico / Solenoid Pilot Valve



4/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
08V S0 4 NC 03	4/2	NC	1/4

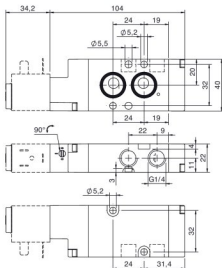


4/2 Vie/Ways

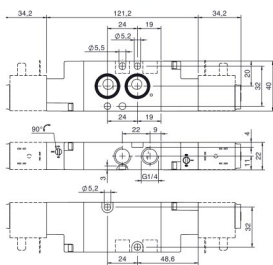
BISTABILE
BISTABLE

CODICE CODE	VIE WAYS	MISURA SIZE
08V S1 4 00 03	4/2	1/4

08V S0 4 NC 03



08V S1 4 00 03



Valvole ad azionamento Elettropneumatico / Solenoid Pilot Valve



5/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	MISURA SIZE
08V S0 5 00 03	5/2	1/4

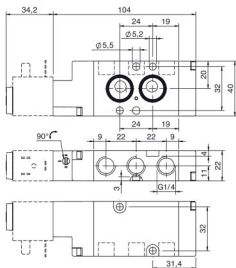


5/2 Vie/Ways

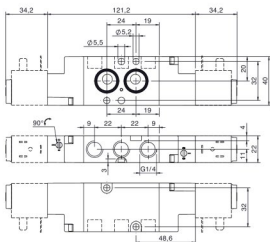
BISTABILE
BISTABLE

CODICE CODE	VIE WAYS	MISURA SIZE
08V S1 5 00 03	5/2	1/4

08V S0 5 00 03

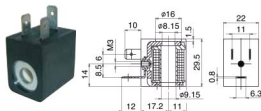


08V S1 5 00 03



Solenoidi e Connettori / Solenoids and Connectors

Solenoidi Solenoids



CODICE CODE	TENSIONE SOLENOIDE SOLENOID VOLTAGE	POTENZA POWER
SOL01012C1000	12V DC	3W
SOL01024C1000	24V DC	3W
SOL01024C3000	24V DC	2W
SOL01024A2000	24V AC	5VA
SOL01110A2000	110V AC	5VA
SOL01220A2000	220V AC	5VA

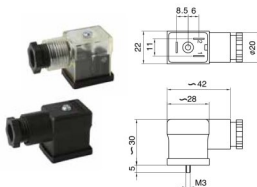
Solenoidi Consigliato
Solenoid Recommended

Caratteristiche Tecniche - Technical Characteristics

TOLLERANZE DI TENSIONE / VOLTAGE TOLERANCE
CLASSE DI ISOLAMENTO / CLASS OF ISOLATION
GRADO DI PROTEZIONE / DEGREE OF PROTECTION
CICLO DI LAVORO / DUTY CYCLE
TERMINALI / TERMINALS

±10%
F CEI EN 60085
IP65 IEC 60529 CON CONNETTORE (WITH CONNECTOR)
100%
DIN 43650 B

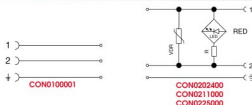
Connettori Connectors



CODICE CODE	COLORE COLOR	CARATTERISTICHE CHARACTERISTICS
CON0100001	NERO / BLACK	STANDARD A 2 POLI (2 PIN)
CON0202400	TRASPARENTE / TRANSPARENT	LED + VDR 0 - 24V
CON0211000	TRASPARENTE / TRANSPARENT	LED + VDR 110V
CON0225000	TRASPARENTE / TRANSPARENT	LED + VDR 220V

VDR: Dotati di Varistore come dispositivo di protezione delle sovratensioni.
Fitted with varistors as surge protection device.

SCHEMA ELETTRICO / WIRING

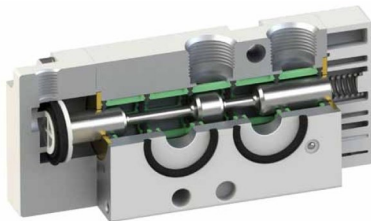


Caratteristiche Tecniche - Technical Characteristics

GRADO DI PROTEZIONE / DEGREE OF PROTECTION
GUARNIZIONE / GASKET
DIAMETRO CAVO / CABLE DIAMETER

IP65 IEC 60529
GUARNIZIONE A PROFILO / PROFIL GASKET
6 ± 0.8 mm

Valvole ad azionamento Pneumatico / Pneumatic Valve



Caratteristiche Tecniche - Technical Characteristics

ATTACCO FILETTATO / THREADED

PORTATA A 6 BAR CON Δp 1 bar

6 bar FLOW RATE WITH Δp 1 bar

PRESSIONE DI FUNZIONAMENTO / OPERATING PRESSURE

PRESSIONE DI AZIONAMENTO / PRESSURE DRIVE

TEMPERATURA / TEMPERATURE

MATERIALI / MATERIAL

1/4

1/4

1200 Nl/min

0 - 10 Bar

MONOSTABILE / MONOSTABLE: 2 - 10 Bar

BISTABILE / BISTABLE: 1 - 10 Bar

-10° / +60° C

CORPO IN ALLUMINIO ANODIZZATO E VERNICIATO

ANODISED AND PAINTED ALUMINIUM BODY

SPOLA IN ALLUMINIO NICHELATO CHIMICAMENTE

CHEMICAL NICKEL-PLATED SPOOL

GUARNIZIONI IN NBR

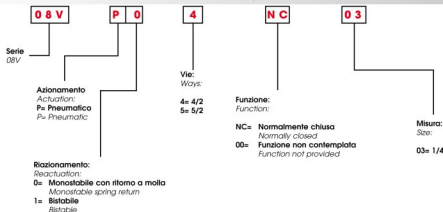
NBR SEALS

VDI/VDE 3845

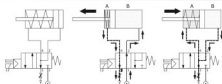
NORMA DI RIFERIMENTO

REFERENCE STANDARD

Tabella dei codici di ordinazione - Article codes to be used for ordering



Schema di funzionamento della valvola NAMUR 4/2 / Schematic diagram of the valve NAMUR 4 / 2



Per evitare che nella fase di ritorno l'aria sporca dell'ambiente esterno entri nella camera A del cilindro, parte dell'aria che fuoriesce dalla camera B viene indirizzata nella camera A stessa.

To prevent the return phase of the external dirty air enters the chamber in the cylinder, the air escaping from the chamber B is routed to the same room.

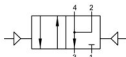
Valvole ad azionamento Pneumatico / Pneumatic Valve



4/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

CODICE CODE	VIE WAYS	FUNZIONE FUNCTION	MISURA SIZE
08V P0 4 NC 03	4/2	NC	1/4

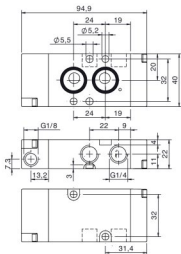


4/2 Vie/Ways

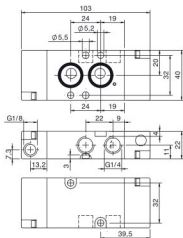
BISTABILE
BISTABLE

CODICE CODE	VIE WAYS	MISURA SIZE
08V P1 4 00 03	4/2	1/4

08V P0 4 NC 03



08V P1 4 00 03

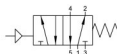


Valvole ad azionamento Pneumatico / Pneumatic Valve



5/2 Vie/Ways

MONOSTABILE CON RITORNO A MOLLA
MONOSTABLE SPRING RETURN

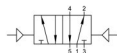


CODICE CODE	VIE WAYS	MISURA SIZE
08V P0 5 00 03	5/2	1/4



5/2 Vie/Ways

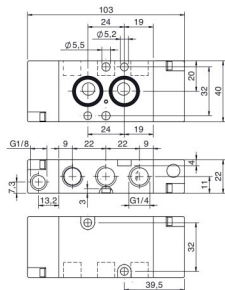
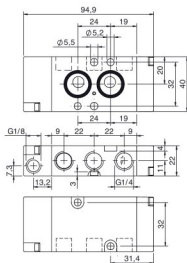
BISTABILE
BISTABLE



CODICE CODE	VIE WAYS	MISURA SIZE
08V P1 5 00 03	5/2	1/4

08V P0 5 00 03

08V P1 5 00 03



Note:

Note: