



Control Devices

Choice of components for air supply to cylinders

In the chart below can you find the suitable valves, tubes etc. for each cylinder size. If you have a tube length over 2 m, choose one tube size larger than in the chart. The table is based on a maximum cylinder speed of 0,5m/s.

Following data is valid:

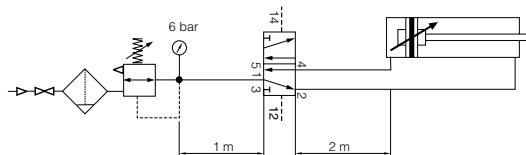
Supply pressure: min 7,0 bar

Regulator pressure setting: 6,0 bar

Pipe length between air treatment unit and valve: max 1 m

Pipe length between valve and cylinder : max 2 m

The table is made for a cylinder speed max 0,5 m/s



Cylinder														
Cylinder diameter mm	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø160	Ø200
Cylinder ISO connection	M5	M5	M5	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2	G3/4	G3/4
Tube														
Tube diameter mm Ext / Int	4 / 2.7	4 / 2.7	4 / 2.7	6 / 4	6 / 4	6 / 4	8 / 6	8 / 6 10 / 8	10 / 8	12 / 9 14 / 11	12 / 9	16 / 13	18 / 15	22 / 16
FRL units														
Global P31														
Global P32														
Global P33														
Valves														
4mm inst. fitting valve														
M5 valve														
6mm inst. fitting valve														
1/8 valve														
1/4 valve														
3/8 valve														
1/2 valve														



Possible



Recommended



Cylinder speed < 0,5 m/s



Not recommended



Viking Xtreme

High performance directional control valves

G1/8 - G1/2 body ported



Extreme Environments

*Demand The **Viking Xtreme***

The Viking Xtreme valve range is robust, versatile and combines high performance with compact installation dimensions. Large flow capacity, short change-over times and low change-over pressure are important characteristics of this valve range.

The 1/8 & 1/4 sizes are designed to operate with pressures up to 16 bar and the 3/8 & 1/2 sizes up to 12 bar, in ambient temperatures -40°C to + 60°C when fitted with suitable solenoid operators.

The Viking Xtreme valve range is robust, versatile and combines high performance with compact installation dimensions. Large flow capacity, short change-over times and low change-over pressure are important characteristics of this valve range.

- 4 sizes: G1/8, G1/4, G3/8 and G1/2.
- Wide operating temperature range
- Compact design with good corrosion resistance.
- Wide range of 5/2 and 5/3 versions.
- High and low temperature versions available for transport applications.
- Lever operated version.



Operating information

	P2L-AX	P2L-BX	P2L-CX	P2L-DX
Working pressure:	16 bar	16 bar	12 bar	12 bar
Working temperature, standard				
Air pilot solenoid		-40 °C to +60 °C		
Standard and food version		-10 °C to +50 °C		
Mobile & Lever operated version		-40 °C to +60 °C		
Flow (Qmax);	P2L-AX 19,0 l/s	P2L-BX 38,0 l/s	P2L-CX 72,0 l/s	P2L-DX 78,0 l/s

Pneumatically actuated 5/2 and 5/3 valves

Symbol	Size	Actuator	Return	Order code
	G1/8 G1/4 G3/8 G1/2	Air pilot	Air pilot	P2LAX511PP P2LBX512PP P2LCX513PP P2LDX514PP
	G1/8 G1/4 G3/8 G1/2	Air pilot	Spring	P2LAX511PS P2LBX512PS P2LCX513PS P2LDX514PS
	G1/8 G1/4 G3/8 G1/2	Air pilot Closed centre	Air pilot Self centring	P2LAX611PP P2LBX612PP P2LCX613PP P2LDX614PP
	G1/8 G1/4 G3/8 G1/2	Air pilot Vented centre	Air pilot Self centring	P2LAX811PP P2LBX812PP P2LCX813PP P2LDX814PP
	G1/8 G1/4 G3/8 G1/2	Air pilot Pressure centre	Air pilot Self centring	P2LAX711PP P2LBX712PP P2LCX713PP P2LDX714PP

Electrically actuated 5/2 and 5/3 valves - 15mm solenoid

Symbol	Size	Actuator	Return	Order code 15mm solenoid with 24 VDC sol	Order code without 15mm solenoid
	G1/8 G1/4 G3/8 G1/2	Solenoid	Solenoid	P2LAX511EENXB549 P2LBX512EENXB549 P2LCX513EENXB549 P2LDX514EENXB549	P2LAX511EENXXX P2LBX512EENXXX P2LCX513EENXXX P2LDX514EENXXX
	G1/8 G1/4 G3/8 G1/2	Solenoid	Spring	P2LAX511ESNXXB549 P2LBX512ESNXXB549 P2LCX513ESNXXB549 P2LDX514ESNXXB549	P2LAX511ESNXXX P2LBX512ESNXXX P2LCX513ESNXXX P2LDX514ESNXXX
	G1/8 G1/4 G3/8 G1/2	Solenoid Closed centre	Solenoid Self centring	P2LAX611EENXB549 P2LBX612EENXB549 P2LCX613EENXB549 P2LDX614EENXB549	P2LAX611EENXXX P2LBX612EENXXX P2LCX613EENXXX P2LDX614EENXXX
	G1/8 G1/4 G3/8 G1/2	Solenoid Vented centre	Solenoid Self centring	P2LAX811EENXB549 P2LBX812EENXB549 P2LCX813EENXB549 P2LDX814EENXB549	P2LAX811EENXXX P2LBX812EENXXX P2LCX813EENXXX P2LDX814EENXXX
	G1/8 G1/4 G3/8 G1/2	Solenoid Pressure centre	Solenoid Self centring	P2LAX711EENXB549 P2LBX712EENXB549 P2LCX713EENXB549 P2LDX714EENXB549	P2LAX711EENXXX P2LBX712EENXXX P2LCX713EENXXX P2LDX714EENXXX

Electrically actuated 5/2 and 5/3 valves - 22mm solenoid

Symbol	Size	Actuator	Return	Order code 22mm solenoid 24 VDC	Order code Without solenoid coil
	G1/8	Solenoid	Solenoid	P2LAX511EENDDB49	P2LAX511EENDDN
	G1/4			P2LBX512EENDDB49	P2LBX512EENDDN
	G3/8			P2LCX513EENDDB49	P2LCX513EENDDN
	G1/2			P2LDX514EENDDB49	P2LDX514EENDDN
	G1/8	Solenoid	Spring	P2LAX511ESNDDDB49	P2LAX511ESNDDN
	G1/4			P2LBX512ESNDDDB49	P2LBX512ESNDDN
	G3/8			P2LCX513ESNDDDB49	P2LCX513ESNDDN
	G1/2			P2LDX514ESNDDDB49	P2LDX514ESNDDN
	G1/8	Solenoid Closed centre	Solenoid Self centring	P2LAX611EENDDB49	P2LAX611EENDDN
	G1/4			P2LBX612EENDDB49	P2LBX612EENDDN
	G3/8			P2LCX613EENDDB49	P2LCX613EENDDN
	G1/2			P2LDX614EENDDB49	P2LDX614EENDDN
	G1/8	Solenoid Vented centre	Solenoid Self centring	P2LAX811EENDDB49	P2LAX811EENDDN
	G1/4			P2LBX812EENDDB49	P2LBX812EENDDN
	G3/8			P2LCX813EENDDB49	P2LCX813EENDDN
	G1/2			P2LDX814EENDDB49	P2LDX814EENDDN
	G1/8	Solenoid Pressure centre	Solenoid Self centring	P2LAX711EENDDB49	P2LAX711EENDDN
	G1/4			P2LBX712EENDDB49	P2LBX712EENDDN
	G3/8			P2LCX713EENDDB49	P2LCX713EENDDN
	G1/2			P2LDX714EENDDB49	P2LDX714EENDDN

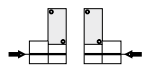
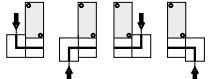
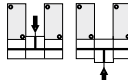
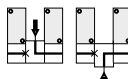
Electrically actuated 5/2 - Xtreme duty 16 bar - 40°C to +60°C. P2LAX/P2LBX 16 bar and P2LCX/P2LDX 12 bar

Symbol	Size	Actuator	Return	Order code 22mm solenoid 24 VDC	Order code Without solenoid coil
	G1/8	Solenoid	Solenoid Low temp.	P2LAX511EEHDDDB49	P2LAX511EEHDDN
	G1/4			P2LBX512EEHDDDB49	P2LBX512EEHDDN
	G3/8			P2LCX513EEHDDDB49	P2LCX513EEHDDN
	G1/2			P2LDX514EEHDDDB49	P2LDX514EEHDDN
	G1/8	Solenoid	Spring Low temp.	P2LAX511ESHDDDB49	P2LAX511ESHDDN
	G1/4			P2LBX512ESHDDDB49	P2LBX512ESHDDN
	G3/8			P2LCX513ESHDDDB49	P2LCX513ESHDDN
	G1/2			P2LDX514ESHDDDB49	P2LDX514ESHDDN

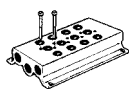
Lever operated directional control valves

Max operating pressure 16 bar. temp range -40°C to +60°C.

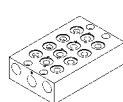
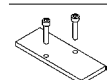
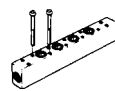
Symbol	Size	Actuation	Return	Changeover angle	Type	Weight Kg	Order code
5/2 valves, standard temperature, lever 90° to ports							
	G1/8	Lever	Lever	28°	Std.	0,18	P2LAX511VV
	G1/4	Lever	Lever	20°	Std.	0,33	P2LBX512VV
	G3/8	Lever	Lever	32°	Std.	0,40	P2LCX513VV
	G1/2	Lever	Lever	32°	Std.	0,60	P2LDX514VV
	G1/8	Lever	Spring	28°	Std.	0,18	P2LAX511VS
	G1/4	Lever	Spring	20°	Std.	0,33	P2LBX512VS
	G3/8	Lever	Spring	32°	Std.	0,40	P2LCX513VS
	G1/2	Lever	Spring	32°	Std.	0,60	P2LDX514VS
5/3 valves, low temperature, lever 90° to ports							
	G1/8	Lever	Lever	±14°	Std.	0,18	P2LAX61122
	G1/4	Closed centre position held in three positions		±12°	Std.	0,33	P2LBX61222
	G3/8			±16°	Std.	0,71	P2LCX61322
	G1/2			±16°	Std.	0,73	P2LDX61422
	G1/8	Lever	Lever	±14°	Std.	0,18	P2LAX81122
	G1/4	Exhausted centre position held in three positions		±12°	Std.	0,33	P2LBX81222
	G3/8			±16°	Std.	0,71	P2LCX81322
	G1/2			±16°	Std.	0,73	P2LDX81422
	G1/8	Lever	Lever	±14°	Std.	0,18	P2LAX71122
	G1/4	Pressure applied centre position held in three positions		±12°	Std.	0,33	P2LBX71222
	G3/8			±16°	Std.	0,71	P2LCX71322
	G1/2			±16°	Std.	0,73	P2LDX71422
	G1/8	Lever	Lever	±14°	Std.	0,18	P2LAX61111
	G1/4	Closed centre position Self centring		±12°	Std.	0,33	P2LBX61211
	G3/8			±16°	Std.	0,71	P2LCX61311
	G1/2			±16°	Std.	0,73	P2LDX61411
	G1/8	Lever	Lever	±14°	Std.	0,18	P2LAX81111
	G1/4	Exhausted centre position Self centring		±12°	Std.	0,33	P2LBX81211
	G3/8			±16°	Std.	0,71	P2LCX81311
	G1/2			±16°	Std.	0,73	P2LDX81411
	G1/8	Lever	Lever	±14°	Std.	0,18	P2LAX71111
	G1/4	Pressure applied centre position Self centring		±12°	Std.	0,33	P2LBX71211
	G3/8			±16°	Std.	0,71	P2LCX71311
	G1/2			±16°	Std.	0,73	P2LDX71411

Accessories P2LAX	Connection alternatives	Type	Weight kg	Order code
		Multiple manifold including seals, mounting screws, and guiding pins.	0,11	9121658060
		Connection block S including seals, mounting screws, and guiding pins. G1/4	0,15	9121658064
		Connection block L including seals, mounting screws, and guiding pins. G1/4	0,15	9121658061
		End cover including seals, mounting screws, and guiding pins.	0,16	9121658066
		Intermediate block T including seals, mounting screws, and guiding pins. G1/4	0,17	9121658062
		Intermediate block L including seals, mounting screws, and guiding pins. G1/4	0,17	9121658065
		Blanking plate including seals, mounting screws.	0,05	9121658063

Accessories P2LAX

Type	Weight kg	Order code
 Manifold bar, P2LA including seals, mounting screws. G3/8 For 4 valves 0,48 For 6 valves 0,63 For 8 valves 0,80 For 10 valves 0,98 For 12 valves 1,10 For 14 valves 1,23		9121658075 9121658076 9121658077 9121658078 9121658079 9121658099
 Blanking plate, P2LA for Manifold bar	0,05	9121658063
 Pressure bar, P2LA for common air supply incl. O-rings and mounting screws. G1/4 For 2 valves 0,13 For 4 valves 0,20 For 6 valves 0,26 For 8 valves 0,33		9121658070 9121658071 9121658072 9121658073
 Blanking plate, P2LA for Pressure bar	0,05	9121658074
 Assembly screws, P2LA in stainless steel for valve	0,02	9121658043
 Assembly screws, P2LA in stainless steel for blanking plate	0,01	9121658044
 O-ring kit, P2LA O-rings between valve and manifold bar/ Pressure bar	0,01	9121658046

Accessories P2LBX

Type	Weight kg	Order code
 Manifold bar, P2LB, (not for P2LB with external air supply to solenoid valves) incl. fasteners and O-ring. G3/8 For 2 valves 0,69 For 4 valves 1,13 For 6 valves 1,56 For 8 valves 2,00 For 10 valves 2,45		9121594805X 9121594806X 9121594807X 9121594808X 9121594812X
 Blanking plate, P2LB for Manifold bar	0,10	9121594809X
 Pressure bar, P2LB for common air supply incl. O-rings and banjo-bolts. G3/8 For 2 valves 0,38 For 4 valves 0,53 For 6 valves 0,68 For 8 valves 0,83 For 10 valves 0,99		9127113301X 9127113302X 9127113303X 9127113304X 9127113305X
 Blanking plug, P2LB for Pressure bar. G1/4	0,02	9127113306X

22mm solenoid operator part numbers and spares

Solenoid coils for 22mm solenoid operators

Voltage	Order code Form A	Weight (Kg)	Order code Form B	Weight (Kg)
12V 60Hz			P2FCB440	0.093
24V 50/60Hz			P2FCB442	0.093
12V DC			P2FCB445	0.093
12V DC Mobile	P2FCA447	0.17	P2FCB447	0.093
24v DC Mobile	P2FCA448	0.17	P2FCB448	0.093
24V DC			P2FCB449	0.093
24V DC Low power			P2FCB249	0.093
48V DC			P2FCB451	0.093
110V/50Hz, 120V/60Hz			P2FCB453	0.093
230V/50Hz, 230V/60Hz			P2FCB457	0.093

Note: Mobile solenoids are only suitable for Viking Xtreme valves with 'H' specification having 0,8/1,0 operator type P2FP13H4D

Spare Solenoid Nuts

Valves requiring captured exhaust should be fitted with plastic knurled nut

Order code
P2FNP

Valves with vented exhaust are fitted with diffuser plastic nut

Order Code
P2FND

Spare Solenoid Operators

Solenoid pilot operator 22mm NC, Normal duty (Max Operating pressure 10bar, Temp -10°C to +50°C)

Order code (with locking bi-stable m/o)	weight Kg	Order code (with Non-locking monostable m/o)	weight Kg
P2FP13N4C	0.05kg	P2FP13N4D	0.05kg

Low power pilot operator NC, Normal duty (Max Operating pressure 10bar, Temp -10°C to +50°C)

Order code (with locking bi-stable m/o)	weight Kg	Order code (with Non-locking monostable m/o)	weight Kg
P2FP13N2C	0.05kg	P2FP13N2D	0.05kg

Solenoid pilot operator 22mm NC, Xtreme duty (Max Operating pressure 16bar, Temp -40°C to +60°C)

Order code (with Non-locking monostable m/o)	weight Kg
P2FP13H4D	0.05kg

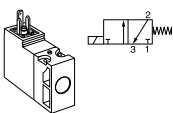
Note.

Solenoid pilot operators are fitted to the Viking valve range. Order the above part numbers for spares. The operators are supplied with mounting screws and interface 'O' rings.

Coils and connectors must be ordered separately.

PDE2600PNUK

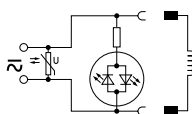
Parker One Pneumatic**Metal Spool Valves - Viking Xtreme****Solenoid Operators - Electrical connection EN175301-803 C/ISO15217 (Ex DIN 43650C)****Solenoids 15 mm NC, standard**

	Voltage	Weight Kg	Order code Without manual override		Weight Kg	Order code Override, blue, non locking flush		Weight Kg	Order code Override, yellow, locking flush	
	12 VDC	0,038	P2E-KV32B0	Ⓐ	0,038	P2E-KV32B1	Ⓐ	0,038	P2E-KV32B2	Ⓐ
	24 VDC	0,038	P2E-KV32C0	Ⓐ	0,038	P2E-KV32C1	Ⓐ	0,038	P2E-KV32C2	Ⓐ
	48 VDC	0,038	P2E-KV32D0	Ⓐ	0,038	P2E-KV32D1	Ⓐ	0,038	P2E-KV32D2	Ⓐ
	24 VAC 50Hz	0,038	P2E-KV31C0	Ⓐ	0,038	P2E-KV31C1	Ⓐ	0,038	P2E-KV31C2	Ⓐ
	48 VAC 50/60Hz	0,038	P2E-KV34D0	Ⓐ	0,038	P2E-KV34D1	Ⓐ	0,038	P2E-KV34D2	Ⓐ
	115 VAC 50Hz/ 120 VAC 60Hz	0,038	P2E-KV31F0	Ⓐ	0,038	P2E-KV31F1	Ⓐ	0,038	P2E-KV31F2	Ⓐ
	230 VAC 50Hz/ 240 VAC 60Hz	0,038	P2E-KV31J0	Ⓐ	0,038	P2E-KV31J1	Ⓐ	0,038	P2E-KV31J2	Ⓐ

In accordance with the EU Machine Directive, EN 983, solenoid valves with manual override should have spring-return operating arms for safety.

Solenoid Connectors / Cable Plugs EN175301-803

	Description	Order code 15mm Form C/ISO15217	Order code 22mm Industrial Form B
With large headed screw suitable for mounting in inaccessible or recess position 	Standard IP65	P8C-C	
	24V DC LED and protection IP65	P8C-C26C	
	110V AC LED and protection IP65	P8C-C21E	
With standard screw 	Standard IP65 without flying lead	P8C-D	3EV10V10
	With LED and protection 24V AC/DC	P8C-D26C	3EV10V20-24
	With LED and protection 110V AC	P8C-D21E	3EV10V20-110
	With LED and protection 230V AC		3EV10V20-230
With cable 	Standard with 2m cable IP65	P8L-C2	
	Standard with 5m cable IP65	P8L-C5	
	24V AC/DC, 2m cable LED and protection IP65	P8L-C226C	
	24V AC/DC, 5m cable LED and protection IP65	P8L-C526C	3EV10V20-24L5
	24V AC/DC, 10m cable LED and protection IP65	P8L-CA26C	
	110V AC/DC, 2m cable LED and protection IP65	P8L-C221E	
	110V AC/DC, 5m cable LED and protection IP65	P8L-C521E	3EV10V20-110L5
	230V AC, 5m cable LED and protection IP65		3EV10V20-230L5

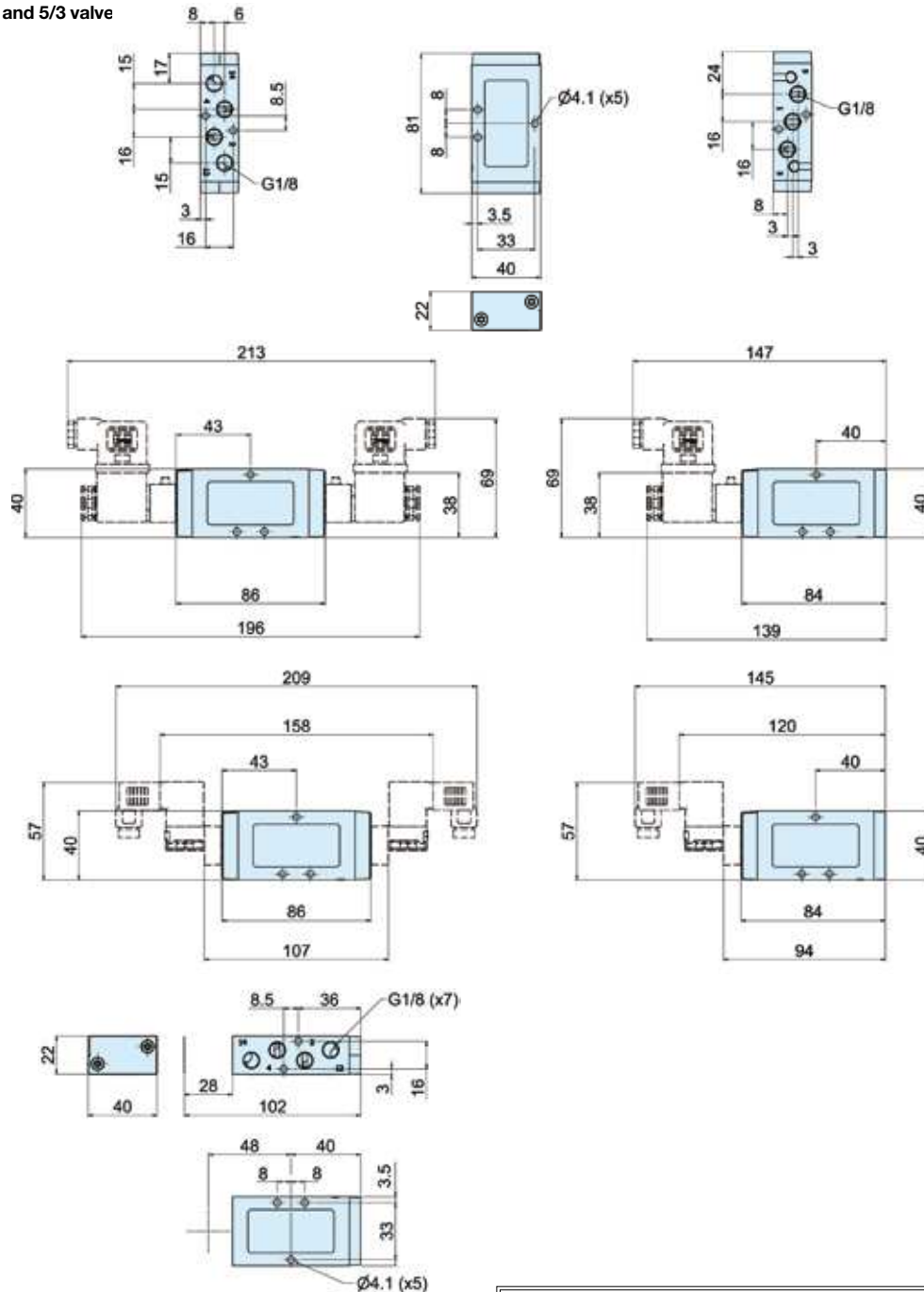


P8C-C	P8C-D26C	P8L-C226C
P8C-D	P8C-D21E	P8L-C526C
P8L-C2	P8C-C26C	P8L-CA26C
P8L-C5	P8C-C21E	P8L-C221E
3EV10V10		P8L-C521E
3EV290V10	3EV10V20-24	3EV10V20-24L5
	3EV10V20-110	3EV10V20-110L5
	3EV10V20-230	3EV10V20-230L5

Dimensions

P2LAX... all

5/2 and 5/3 valve

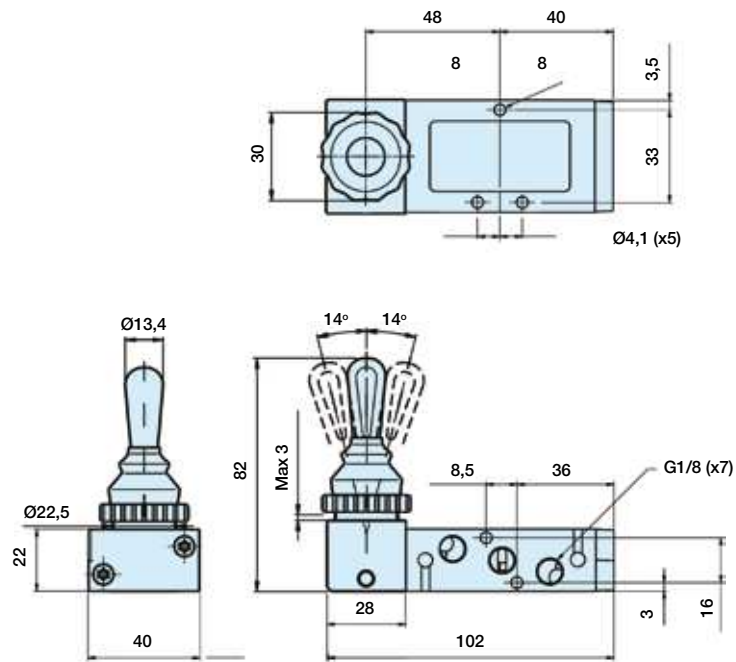


Solenoid valves

Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

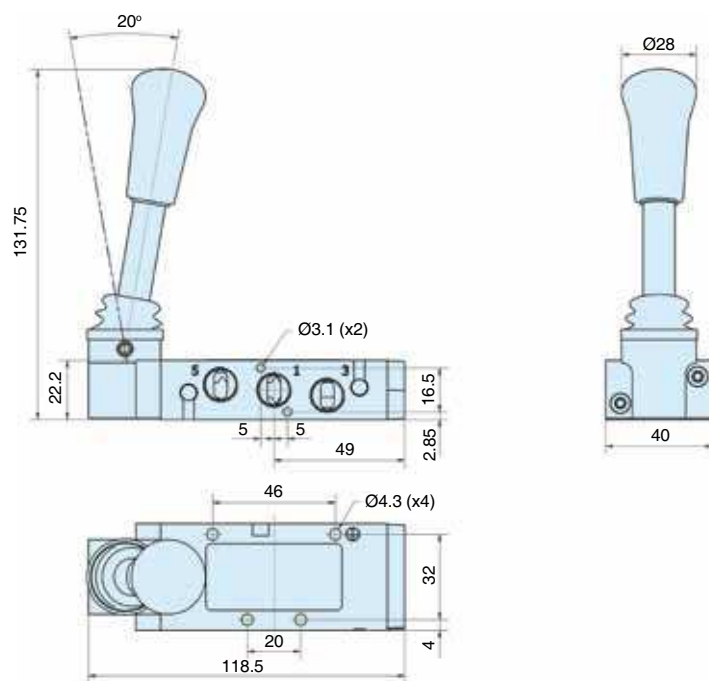
Dimensions

P2LAX - Lever operated directional control valves

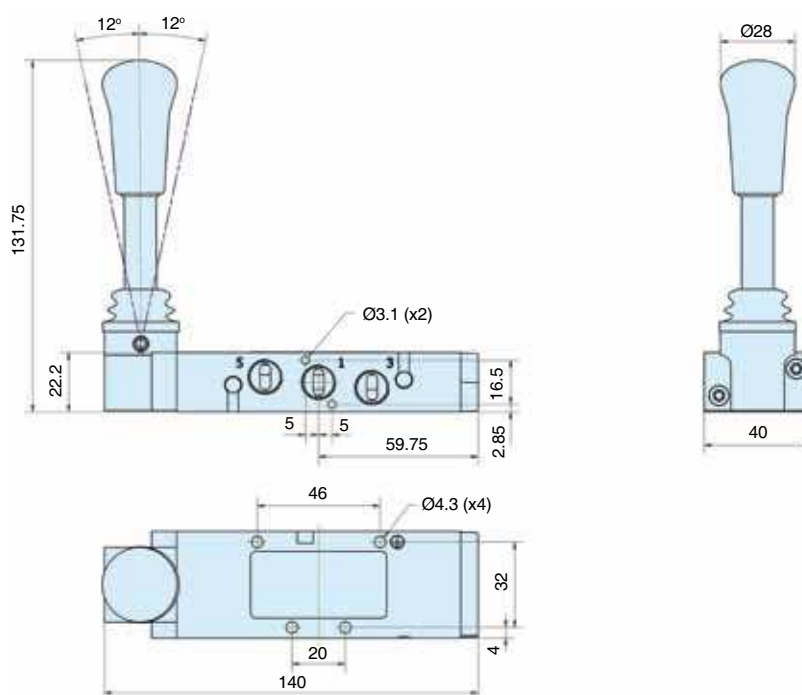


Dimensions

P2LBX - 5/2 Lever operated directional control valves

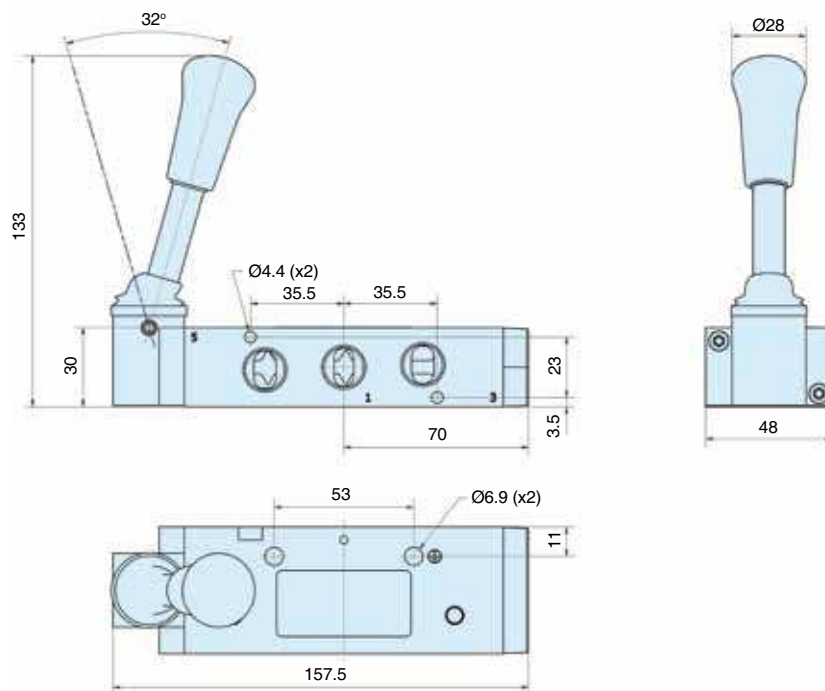


P2LBX - 5/3 Lever operated directional control valves

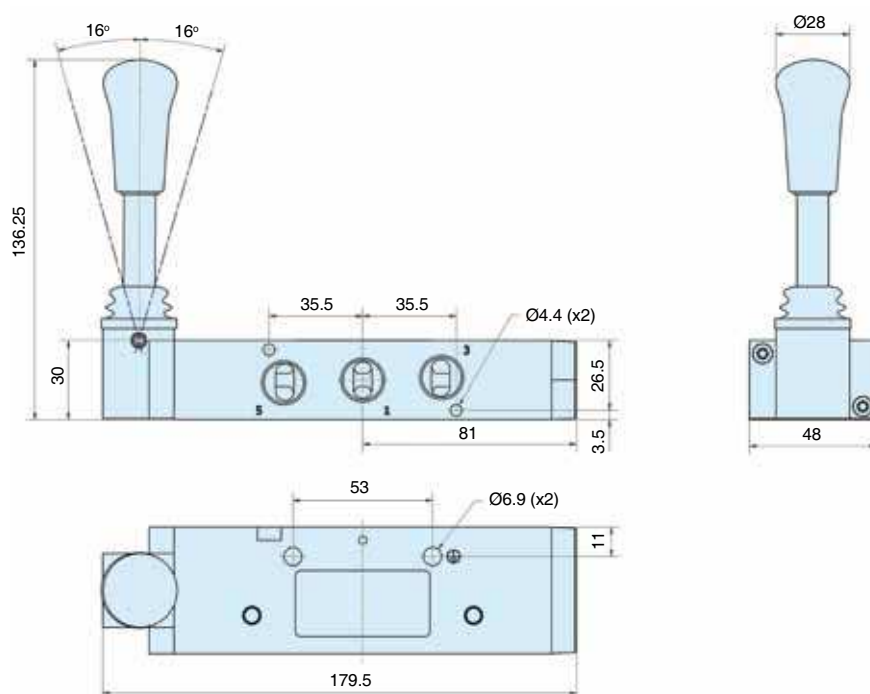


Dimensions

P2LCX - 5/2 Lever operated directional control valves

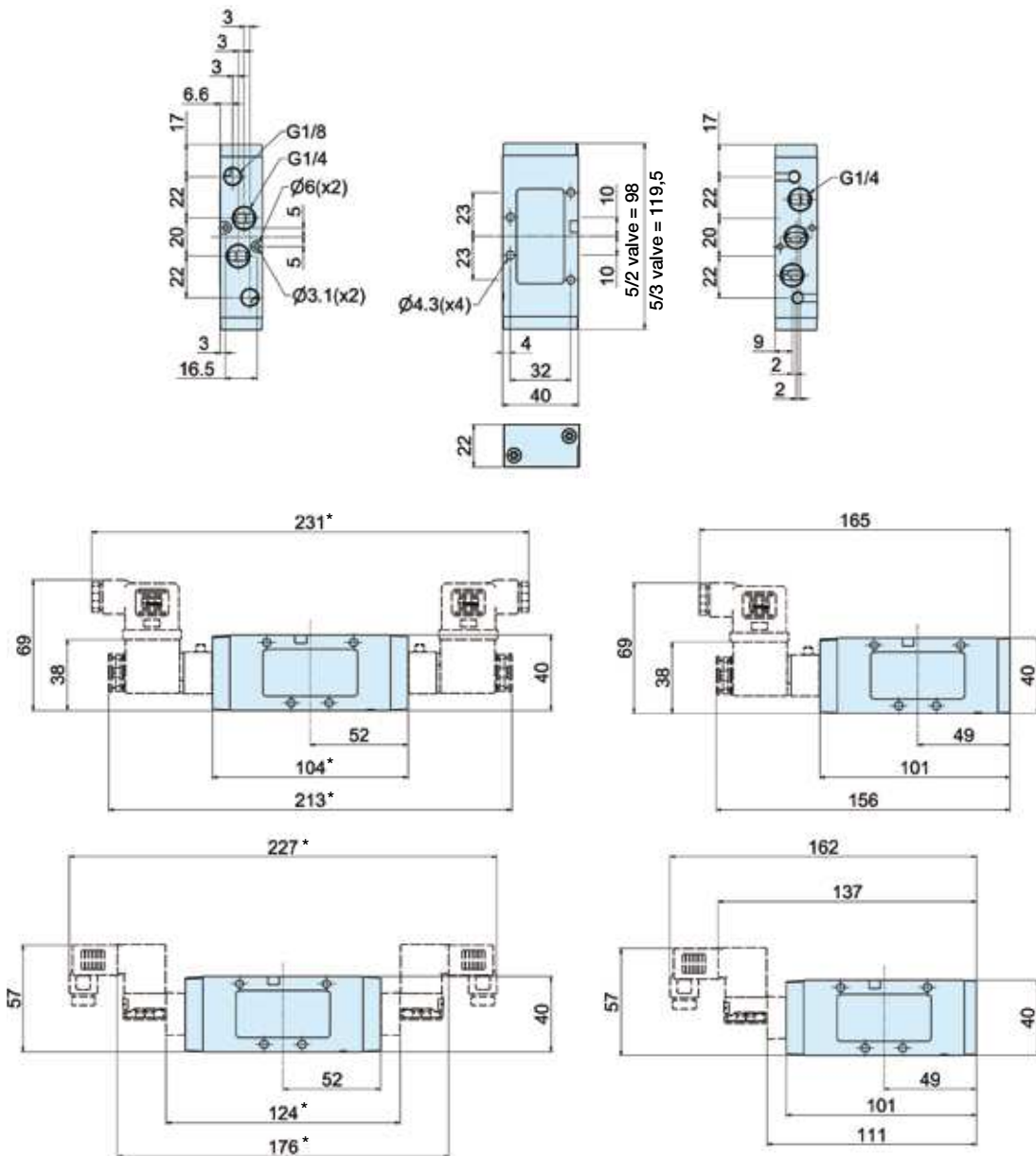


P2LCX - 5/3 Lever operated directional control valves



Dimensions

P2LBX... all
5/2 and 5/3 valves



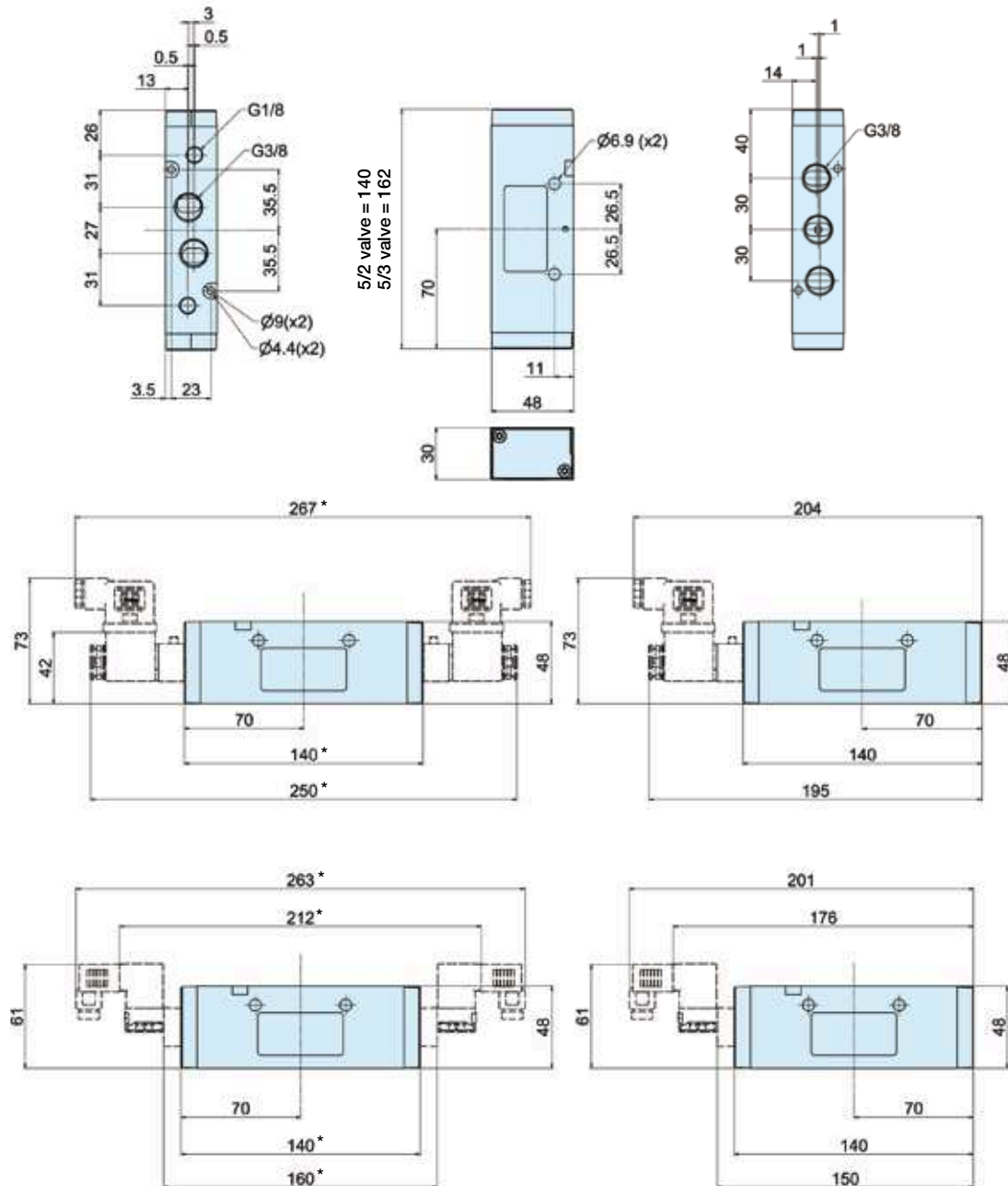
* Note: 5/3 valves - add 21.5mm

Solenoid valves

Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

Dimensions

P2LCX... all
5/2 and 5/3 valves



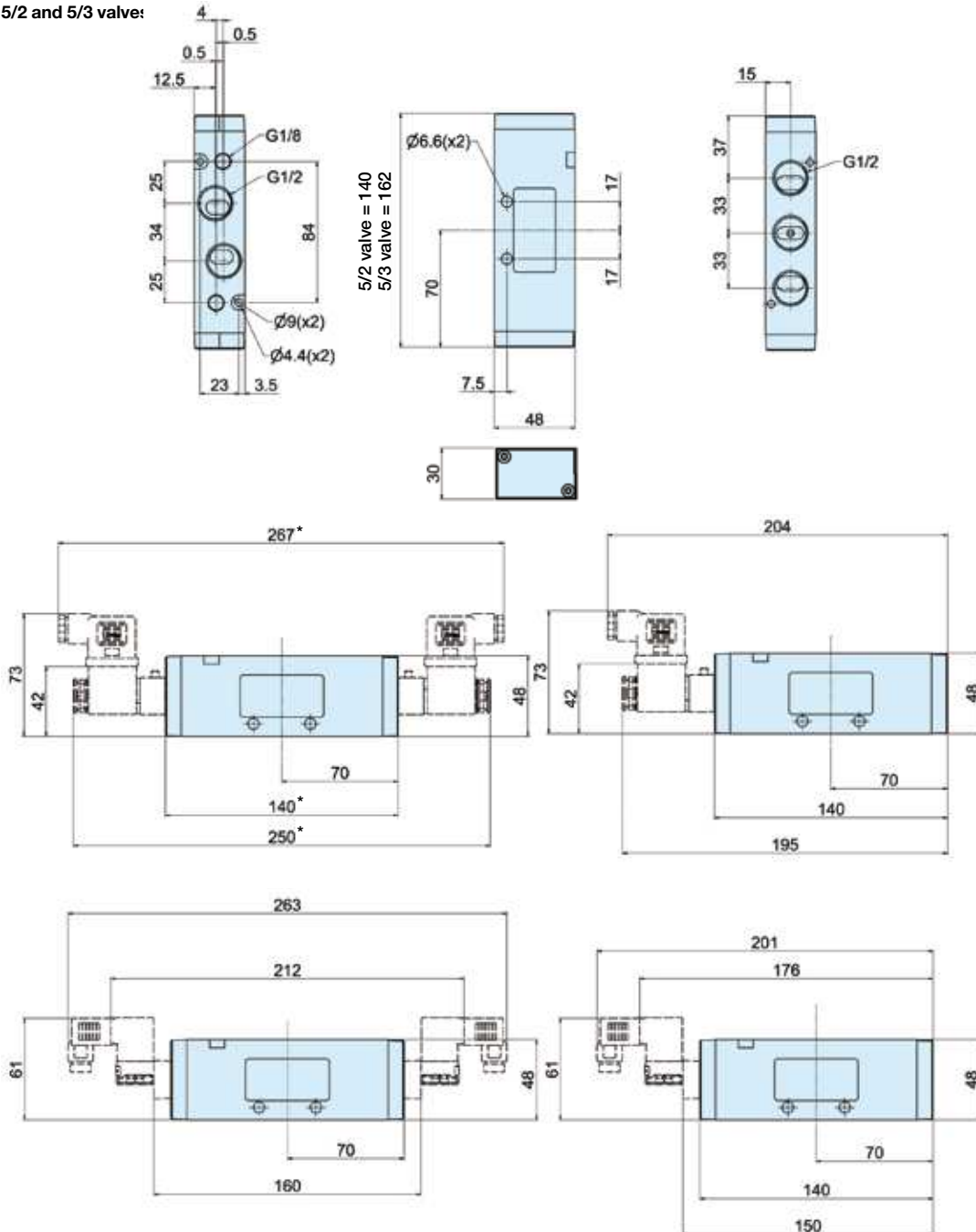
Solenoid valves

Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

Dimensions

P2LDX... all

5/2 and 5/3 valve:



* Note: 5/3 valves - add 22.0mm

Solenoid valves

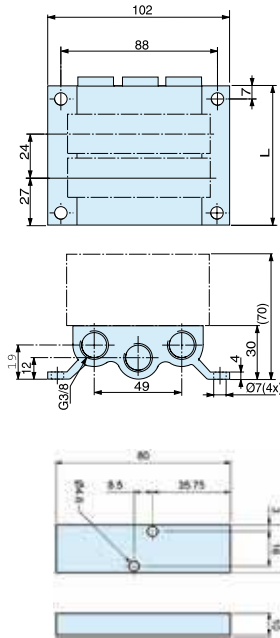
Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.



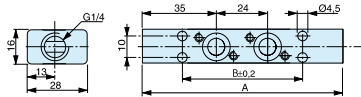
Dimensions

Manifold bar, P2LA

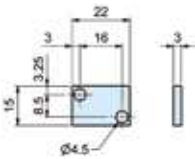
No. of valves	L mm
4	126
6	174
8	222
10	270
12	318
14	366



Pressure bar, P2LA

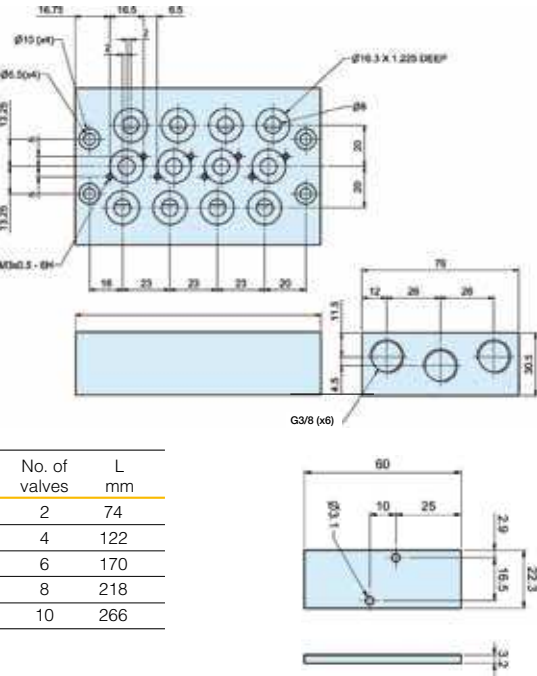


Pressure bar, P2LA



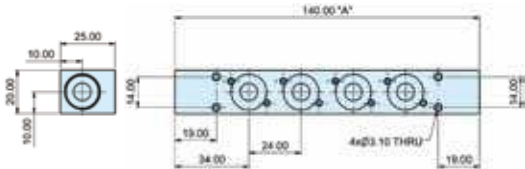
No. of valves	A mm	B mm
2	94	56
4	142	104
6	190	152
8	238	200

Manifold bar, P2LB

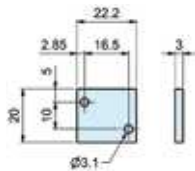


No. of valves	L mm
2	74
4	122
6	170
8	218
10	266

Pressure bar, P2LB



Blanking plug, P2LB



No. of valves	A mm
2	92
4	140
6	188
8	236
10	284

Miniature low voltage solenoid valves, ideal for powering small cylinders in the packaging and process industries. Metal bodies with stand alone or manifold mounted versions.

- 2 sizes: M5 and 1/8"
- Compact body with large flow
- Quick response time, faster than 10ms
- Expected life time more than 50,000,000 cycles
- Low power consumption only 0.6W
- Optional multipin connector manifold
- Manual override



Operating information

Working pressure : 1.5 to 7 bar
 Working temperature : -5°C to +50°C
 Flow (Qmax) A05 : 260 l/min
 A12 : 850 l/min
 Flow Qn A05 : 160 l/min
 A12 : 510 l/min

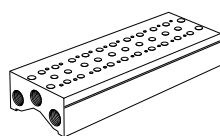
For technical information see CD

Directional control valves A05R and A12R series, inline / IEM manifold

Symbol	Description (Electrically Actuated)	Voltage	Order code A05R - M5 ports	Order code A12R - G1/8 ports
	5/2 single solenoid	24V DC	A05RS251PM5MF	A12RS251PG1MF
	5/2 double solenoid	24V DC	A05RD251PM5MF	A12RD251PG1MF
	5/3 closed centre	24V DC	A05RD351PM5MF	A12RD351PG1MF

A05R/A12R Series Manifolds

Manifold for individual wiring threaded type



No. of stations	Port size	Size	Order Code Manifold
4	M5	A05	MMFU4A05G
	G1/8	A12	MMFU4A12G
6	M5	A05	MMFU6A05G
	G1/8	A12	MMFU6A12G
8	M5	A05	MMFU8A05G
	G1/8	A12	MMFU8A12G



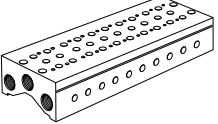
Indicates stocked product.

Directional control valves A05P/A12P series, sub-base version

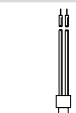
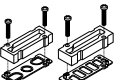
Symbol	Description	Voltage	Order code A05P	Order code A12P
	Electrically actuated 5/2 single solenoid	24V DC	A05PS251P	A12PS251P
	Electrically actuated 5/2 double solenoid	24V DC	A05PD251P	A12PD251P
	Electrically actuated 5/3 closed centre	24V DC	A05PD351P	A12PD351P

A05P/A12P Series manifold sub-bases

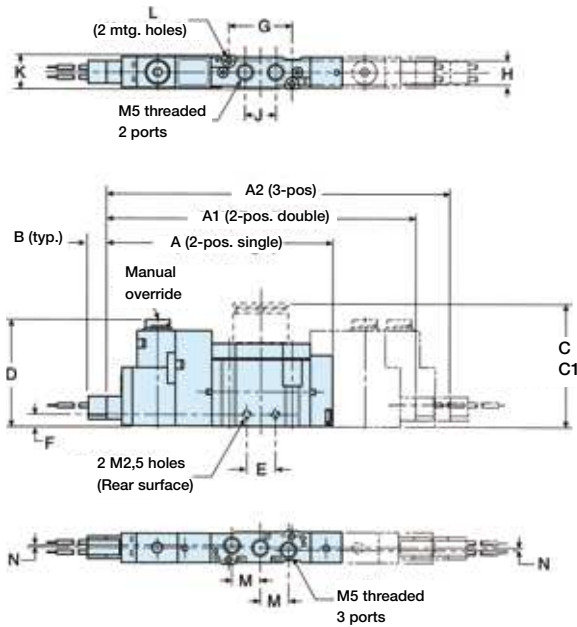
Manifolds individual wiring threaded type

	No. of stations	Port size	Size	Order Code Manifold
	4	M5	A05	MMFS4A05GM5
		G $\frac{1}{8}$	A12	MMFS4A12GG1
	6	M5	A05	MMFS6A05GM5
		G $\frac{1}{8}$	A12	MMFS6A12GG1
	8	M5	A05	MMFS8A05GM5
		G $\frac{1}{8}$	A12	MMFS8A12GG1

Mounting and Wiring Accessories

Description	Order code
 Connector with lead wire black (-) red (+) 500mm	A05PDCCL5
 IEM blank plate kit (pack of 5)	A05RGBP A12RGBP
 Subbase blank plate kit (pack of 5)	A05PGBP A12PGBP

A05R - Single and double operators - Body ported

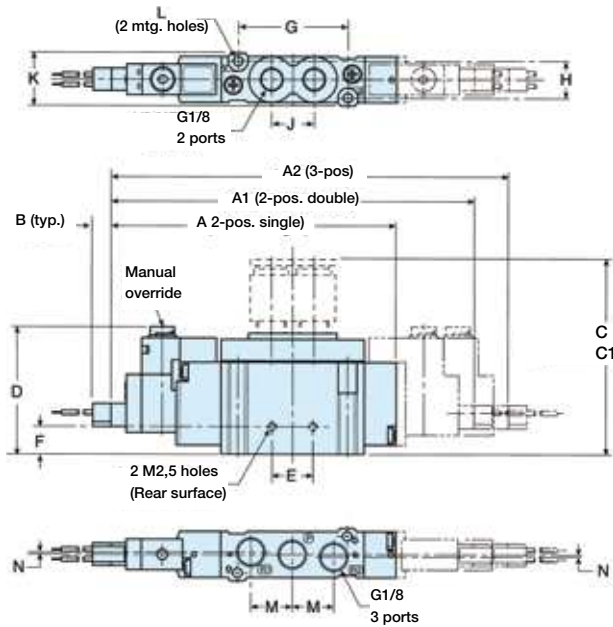


A05R - Body ported

A	A1	A2	B	C
74	100	108	6	-
C1	D	E	F	G
-	34,6	9,6	4	21
H	J	K	L	M
8,5	10,2	11,4	Ø2,1	9,5
N				
1				

Dimensions in mm

A12R - Single and double operators - Body ported

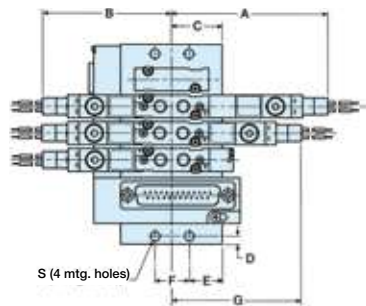


A12R - Body ported

A	A1	A2	B	C
93,5	119	130	6	-
C1	D	E	F	G
-	41,6	13,4	9	36
H	J	K	L	M
12	14	17,2	Ø3,1	13,6
N				
0,8				

Dimensions in mm

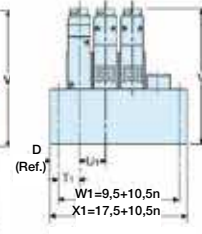
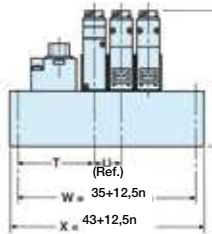
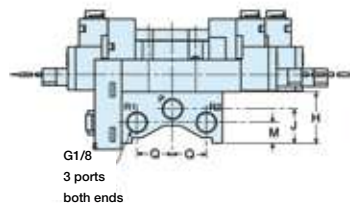
A05R - Manifold - Valve body ports



A05R - Manifold - valve body port

A	B	C	D	E
64	56	23,5	4	15,5
F	G	H	J	M
16	56	24	15,5	9,5
Q	S	T	T1	U
16	Ø4,5	34	10	12,5
U1	V			
10,5	63			

Dimensions in mm

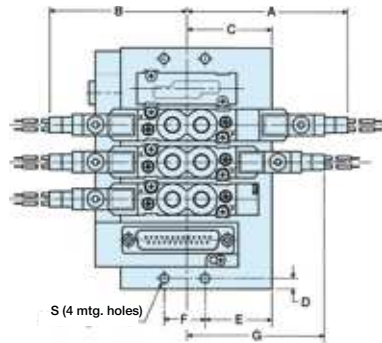


n = number of stations

MMCU...

MMFU...

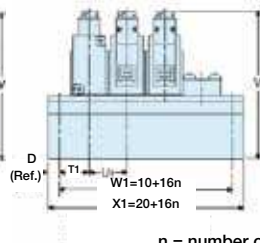
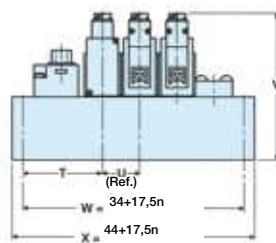
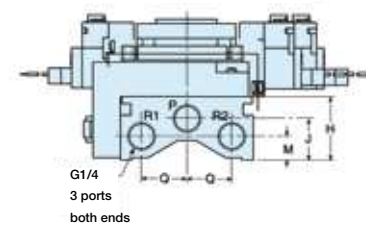
A12R - Manifold - Valve body ports



A12R - Manifold - Valve body port

A	B	C	D	E
77	66	29	5	19,2
F	G	H	J	M
19,6	66	27,5	18	10,5
Q	S	T	T1	U
19,5	Ø4,5	37,5	12,2	17,5
U1	V			
16	70			

Dimensions in mm

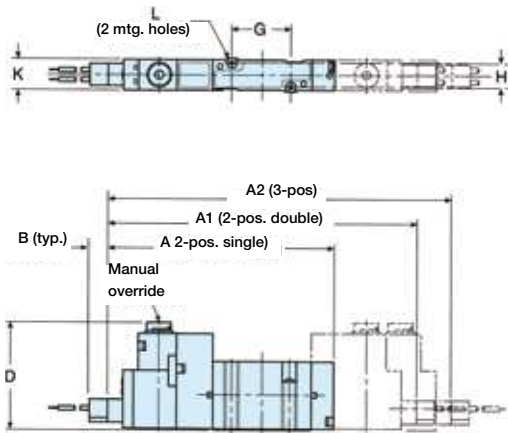


n = number of stations

MMCU...

MMFU...

A05P - Single and double operators - Subbase

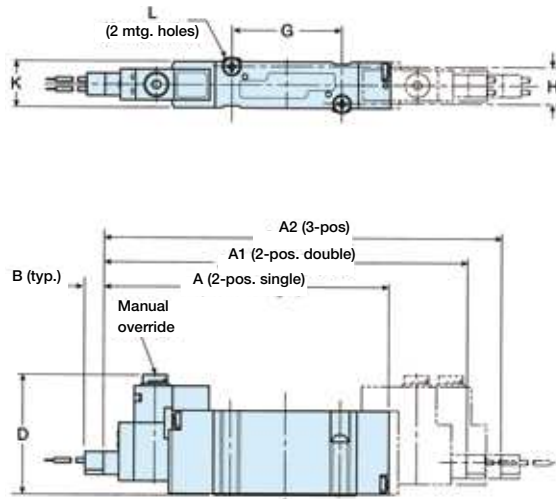


A05P - Subbase

A	A1	A2	B	D
74	100	108	6	35,1
G	H	K	L	
19	8,5	10	Ø2,1	

Dimensions in mm

A12P - Single and double operators - Subbase



A12P - Subbase

A	A1	A2	B	D
93,5	119	130	6	39,1
G	H	K	L	
34	12	15	Ø3,1	

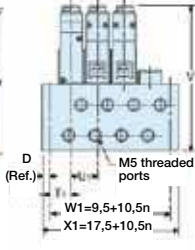
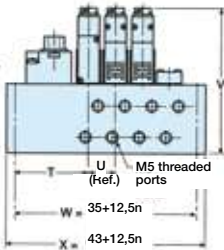
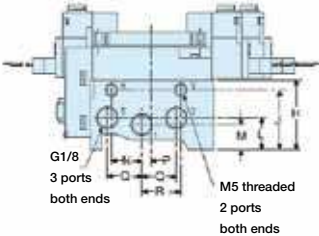
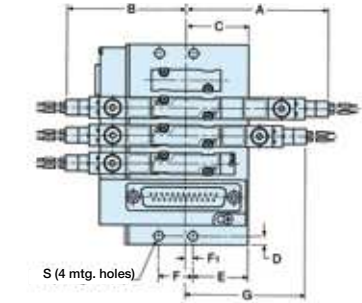
Dimensions in mm

A05P - Manifold - Side ports

A05P - Manifold - Side ports

A	B	C	D	E
64	56	30,2	4	25,5
F	F1	G	H	J
16	4,7	56	32	28
L	M	N	P	Q
14,5	11,5	14	3	16
R	S	T	T1	U
18	Ø4,5	33,8	10	12,5
	U1	V		
	10,5	67		

Dimensions in mm



MMCS...

MMFS...

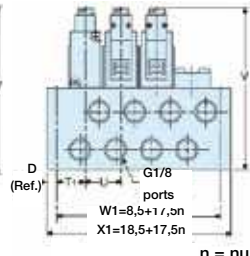
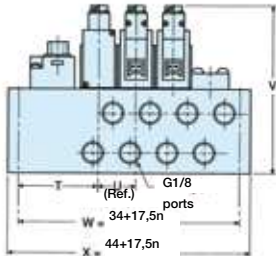
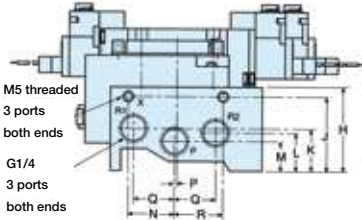
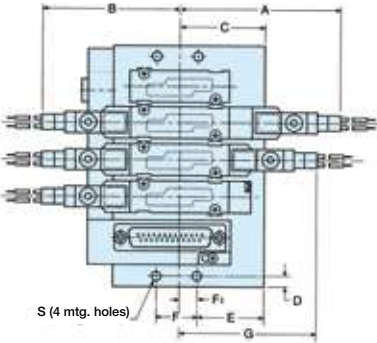
n = number of stations

A12P - Manifolds - Side ports

A12P - Manifold - Side ports

A	B	C	D	E
77	66	40,4	5	31,7
F	F1	G	H	J
19,6	11	66	39,5	35
K	L	M	N	P
20,5	18	14	22	1
Q	R	S	T	T1
19,5	23	Ø4,5	37,2	12,7
U	V			
17,5	79			

Dimensions in mm



MMCS...

MMFS...

n = number of stations

The compact design of these valves make them a popular choice for manual or mechanical operation and their modular construction permit different operators to be fitted to the actuator and return assemblies.

The Midget and Intermediate valves are designed to have balanced forces across the spool so that 3/2 valves can be piped normally open or normally closed by changing the inlet supply from port 1 to port 3.



- B 43 - 1/8" ported, B53 - 1/4 ported
- Manual and mechanical operation
- Stainless steel spools
- Viton seals
- 3/2, 5/2, 3/3 and 5/3 versions.
- Integral mounting holes

Operating information

Type	Spool valves
Style	Body ported
Port size	G1/8 & G1/4
Mounting	Any plane
Pressure range	Vacuum to 10 bar
Temperature range	-10°C to +80°C
Flow acc. (to ISO 6358)	

Midget B43 series Intermediate B53 series

$c = 1.13 \text{ NI/s} \times \text{bar}$	$c = 3.69 \text{ NI/s} \times \text{bar}$
$b = 0.36$	$b = 0.33$
$Q_n = 5.5 \text{ l/s}$	$Q_n = 17.5 \text{ l/s}$
$Q_{\max} = 9.0 \text{ l/s}$	$Q_{\max} = 29 \text{ l/s}$
$C_v = 0.24$	$C_v = 1.02$

Material specification

Valve body	Aluminium
Spool	Stainless steel
Seal spacers	Zinc die cast
Seals	Viton
Spring housing	Nylon
Spring	Zinc plated
End covers	Zinc die cast
Actuators	Zinc die cast
End cover screws	Zinc plated

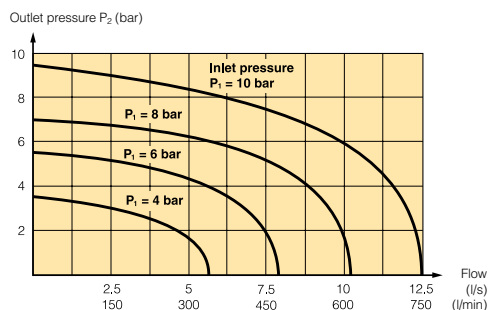
Working medium, air quality

Working medium: Dry, filtered compressed air to ISO 8573-1 class 3.4.3.

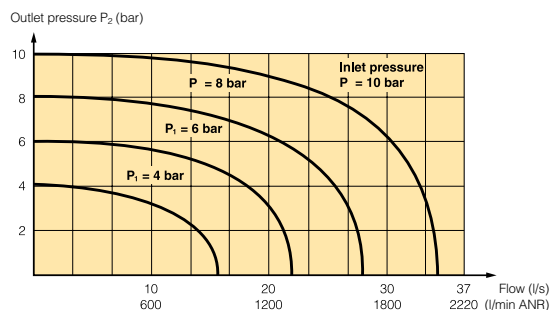
Flow characteristics

Flow capacities in accordance with ISO 6358
The flow curves shown below are typical.

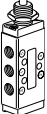
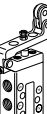
Midget B43 series valves



Intermediate B53 series valves



Midget mechanically operated valves, B43 series

	Symbol	Type	Actuator	Return	Operating force at 6 bar, N	Size	Weight Kg	Order code
		3/2	Plunger	Spring	36	G1/8	0,182	B43003CS
		3/2	Plunger	Air	14	G1/8	0,202	B43003CP
		5/2	Plunger	Spring	36	G1/8	0,222	B43004CS
		5/2	Plunger	Air	14	G1/8	0,242	B43004CP
		3/2	Roller Lever	Spring	20	G1/8	0,234	B43003RS
		3/2	Roller lever	Air	7	G1/8	0,254	B43003RP
		5/2	Roller Lever	Spring	20	G1/8	0,274	B43004RS
		5/2	Roller lever	Air	7	G1/8	0,294	B43004RP
		3/2	One way roller lever	Spring	20	G1/8	0,274	B43003RTS
		3/2	One way roller lever	Air	7	G1/8	0,294	B43003RTP
		5/2	One way roller lever	Spring	20	G1/8	0,314	B43004RTS
		5/2	One way roller lever	Air	7	G1/8	0,334	B43004RTP

 Indicates stocked product.

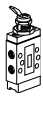
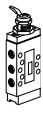
Intermediate mechanically operated valves, B53 series

	Symbol	Type	Actuator	Return	Operating force at 6 bar, N	Size	Weight Kg	Order code
		3/2	Plunger	Spring	53	G1/4	0,348	B53003CS
		3/2	Plunger	Air	27	G1/4	0,388	B53003CP
		5/2	Plunger	Spring	53	G1/4	0,478	B53004CS
		5/2	Plunger	Air	27	G1/4	0,518	B53004CP
		3/2	Roller	Spring	53	G1/4	0,350	B53003RS
		3/2	Roller	Air	27	G1/4	0,390	B53003RP
		5/2	Roller	Spring	53	G1/4	0,480	B53004RS
		5/2	Roller	Air	27	G1/4	0,520	B53004RP



Indicates stocked product.

Midget manually operated valves, B43 series

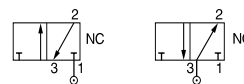
	Symbol	Type	Actuator	Return	Operating force at 6 bar, N	Size	Weight Kg	Order code
		3/2	Button, black	Spring	36	G1/8	0,200	B43003BXS
		3/2	Button, black	Button	13	G1/8	0,200	B43003HXS
		5/2	Button, black	Spring	36	G1/8	0,240	B43004BXS
		5/2	Button, black	Button	13	G1/8	0,240	B43004HXS
		3/2	Button, black	Air	13	G1/8	0,200	B43003BXP
		3/2	Button, black	Air or button	13	G1/8	0,200	B43003HXP
		5/2	Button, black	Air	13	G1/8	0,240	B43004BXP
		5/2	Button, black	Air or button	13	G1/8	0,280	B43004XHP
		3/2	Lock down lever	Spring	9	G1/8	0,202	B43003LS
		3/2	Lock down lever	Spring	9	G1/8	0,242	B43004LS
		3/2	Lock down lever	Air	3	G1/8	0,240	B43003LP
		3/2	Lock down lever	Air	3	G1/8	0,280	B43004LP

Note: The standard button colour is black (X)
For optional colour buttons change 8th character of order code
e.g. B43004HXS = Black button, B43004HXS = Green button,
B43004HYS = Red button.

X = Black

Z = Green

Y = Red



All 3/2 type B43 & B53 valves can be connected either as normally closed 3/2 valve (NC) or normally open 3/2 valve (NO) as required, by connecting the primary air supply to port 1 or port 3

 Indicates stocked product.

Intermediate manually operated valves, B53 series

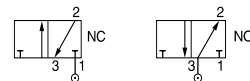
	Symbol	Type	Actuator	Return	Operating force at 6 bar, N	Size	Weight Kg	Order code
		3/2	Button, black	Spring	53	G1/4	0,368	B53003HXS
		3/2	Button, black	Button	27	G1/4	0,368	B53003HX
		3/2	Button, black	Air	27	G1/4	0,380	B53003HXP
		5/2	Button, black	Spring	53	G1/4	0,498	B53004HXS
		5/2	Button, black	Button	27	G1/4	0,498	B53004HX
		5/2	Button, black	Air	27	G1/4	0,510	B53004HXP
		5/3	Button Closed centre position	Button Self centring	53	G1/4	0,623	B53004HXX
		5/3	Button Vented centre position	Button Self centring	53	G1/4	0,623	B53004HXY
		5/3	Button Pressurised centre position	Button Self centring	53	G1/4	0,623	B53004HXZ

Note: The standard button colour is black (X)
For optional colour buttons change 8th character of order code
e.g. B43004HXS = Black button, B43004HZS = Green button,
B43004HYS = Red button.

X = Black

Z = Green

Y = Red

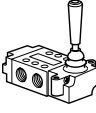
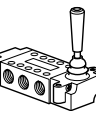
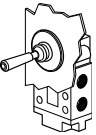


All 3/2 type B43 & B53 valves can be connected either as normally closed 3/2 valve (NC) or normally open 3/2 valve (NO) as required, by connecting the primary air supply to port 1 or port 3

 Indicates stocked product.



Intermediate lever operated valves, B53 series

	Symbol	Type	Actuator	Return	Operating force at 6 bar, N	Size	Weight Kg	Order code
		3/2	Lever	Spring	14	G1/4	0,504	B53003LS
		3/2	Lever	Air	9	G1/4	0,520	B53003LP
		3/2	Lever	Lever	9	G1/4	0,500	B53003LT
		3/3	Lever Closed centre position	Lever	9	G1/4	0,504	B53003L
		3/3	Lever Closed centre position	Lever Self centring	14	G1/4	0,780	B53003LX
		5/2	Lever	Spring	14	G1/4	0,506	B53004LS
		5/2	Lever	Air	14	G1/4	0,526	B53004LP
		5/2	Lever	Lever	14	G1/4	0,632	B53004LT
		5/3	Lever Closed centre position	Lever held in three positions	9	G1/4	0,640	B53004L
		5/3	Lever Vented centre position	Lever held in three positions	9	G1/4	0,640	B53004LW
		5/3	Lever Pressurised centre position	Lever held in three positions	9	G1/4	0,640	B53004LN
		5/3	Lever Closed centre position	Lever Self centring	14	G1/4	0,780	B53004LX
		5/3	Lever Vented centre position	Lever Self centring	14	G1/4	0,780	B53004LY
		5/3	Lever Pressurised centre position	Lever Self centring	14	G1/4	0,780	B53004LZ
Mounting kit		Panel mounting kit Kit includes panel plate and M5 counter sunk head screws					0,040	M53004L-10A

 Indicates stocked product.

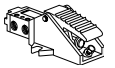
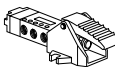
Midget foot operated valves, B43 series

Symbol	Type	Actuator	Return	Operating force at 6 bar, N	Size	Weight Kg	Order code
	3/2	Foot pedal	Spring	16	G1/8	0,312	B43003FS
	5/2	Foot pedal	Spring	16	G1/8	0,370	B43004FS

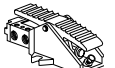
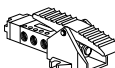
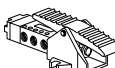
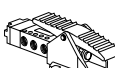
Intermediate foot operated valves, B53 series

Symbol	Type	Actuator	Return	Operating force at 6 bar, N	Size	Weight Kg	Order code
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Single pedal operated

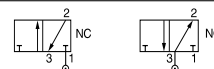
		3/2	Foot pedal	Spring	95	G1/4	1,34	B53003FS
		5/2	Foot pedal	Spring	95	G1/4	1,48	B53004FS

Rocker pedal operated

		3/2	Foot pedal	Foot pedal	18	G1/4	1,38	B53003G
		5/2	Foot pedal	Foot pedal	18	G1/4	1,58	B53004G
		5/3	Foot pedal Closed centre position	Foot pedal Self centring	18	G1/4	1,68	B53004GX
		5/3	Foot pedal Vented centre position	Foot pedal Self centring	18	G1/4	1,68	B53004GY
		5/3	Foot pedal Pressurised centre position	Foot pedal Self centring	18	G1/4	1,68	B53004GZ

Accessories

	Foot guard kit					1,16	3117
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All 3/2 type B43 & B5/3 valves can be connected either as normally closed 3/2 valve (NC) or normally open 3/2 valve (NO) as required, by connecting the primary air supply to port 1 or port 3

 Indicates stocked product.

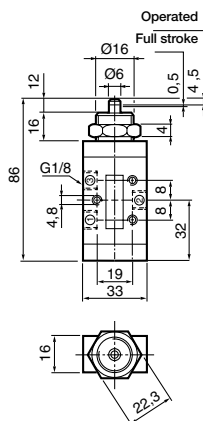
Dimensions, G1/8 ported spool valves

All dimensions in mm unless otherwise stated

Mechanically operated valves

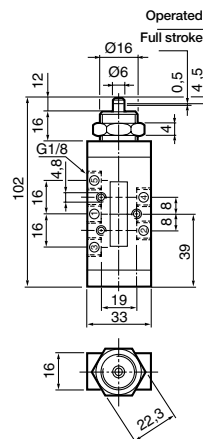
3/2 valves

Plunger operated spring return



5/2 valves

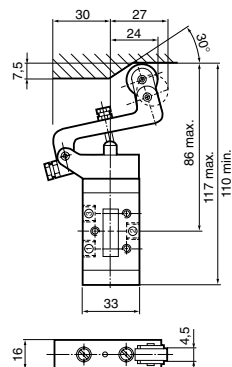
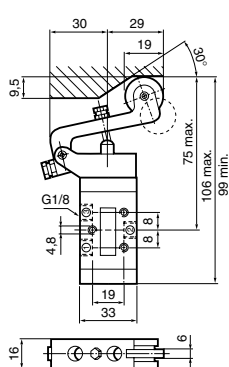
Plunger operated spring return



3/2 valves

Roller operated spring return

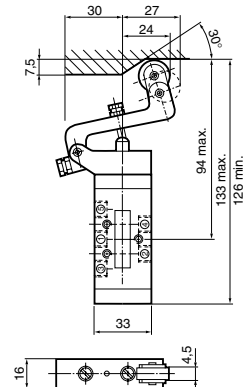
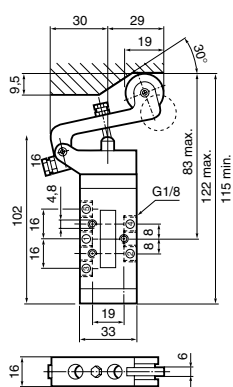
One way roller trip operate
spring return



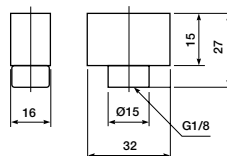
5/2 valves

Roller operated spring return

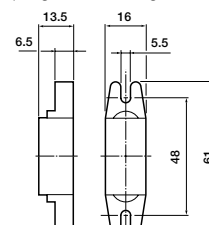
One way roller trip operate
spring return



Air Pilot Return



Optional foot mounted -
Spring return housing



Dimensions, G1/8 ported spool valves

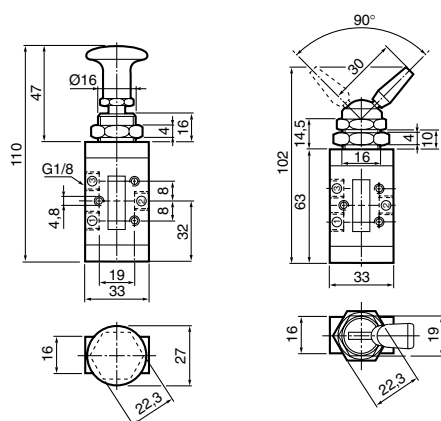
All dimensions in mm unless otherwise stated

Manually operated valves

3/2 valves

Button operated spring return
or button returned

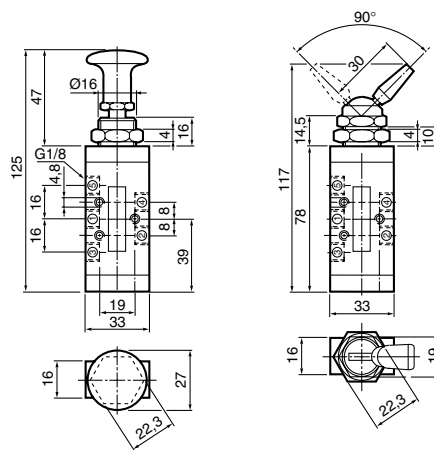
Lock down lever
operated spring return



5/2 valves

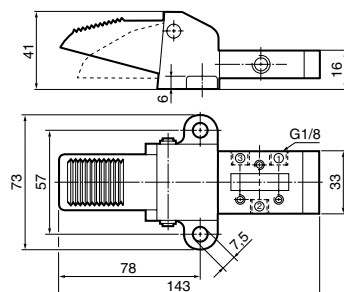
Button operated spring return
or button returned

Lock down lever
operated spring return



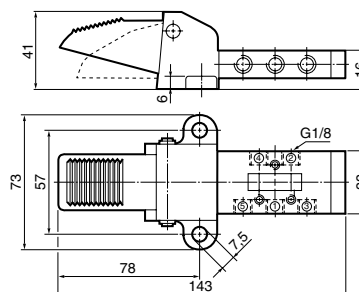
3/2 valves

Foot pedal operated spring return



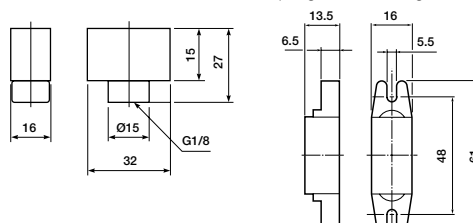
5/2 valves

Foot pedal operated spring return



Air Pilot Return

Optional foot mounted -
Spring return housing



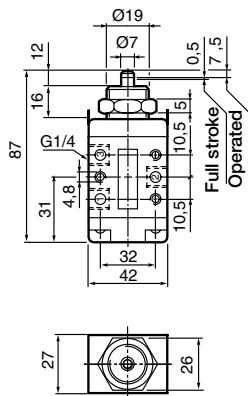
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Mechanically operated valves

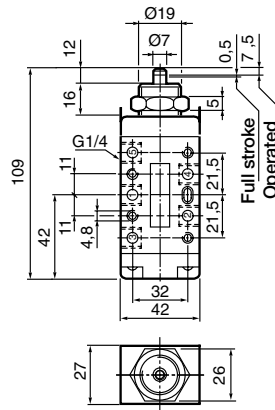
3/2 valves

Plunger operated spring return



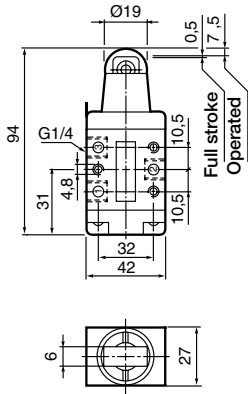
5/2 valves

Plunger operated spring return



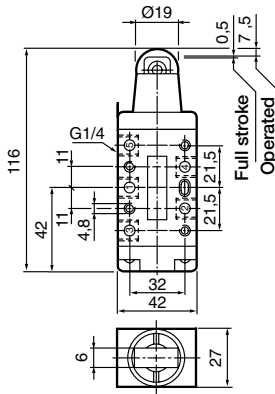
3/2 valves

Roller operated spring return

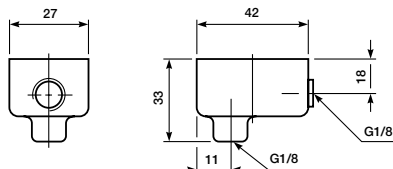


5/2 valves

Roller operated spring return



Air Pilot Return



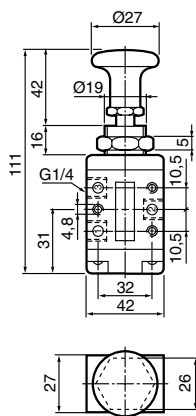
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

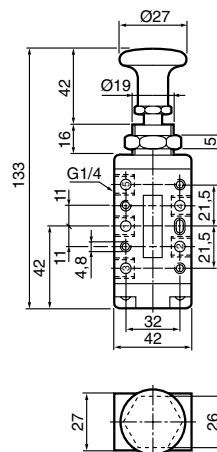
3/2 valves

Button operated spring return
or button returned



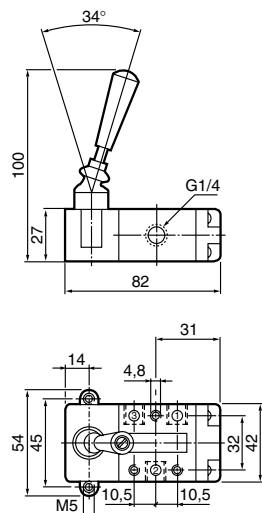
5/2 valves

Button operated spring return
or button returned



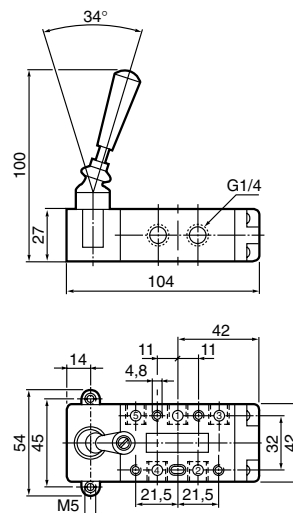
3/2 valves

Lever operated

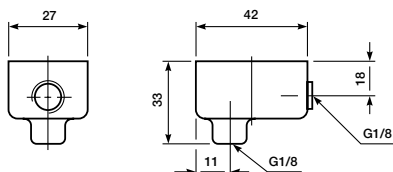


5/2 valves

Lever operated



Air Pilot Return

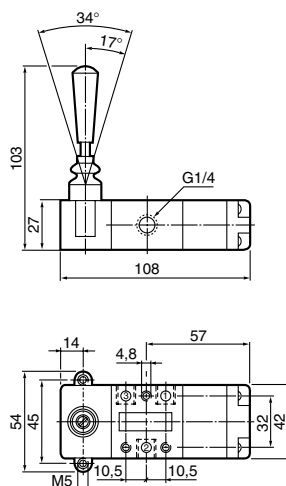


Dimensions, G1/4 ported spool valves

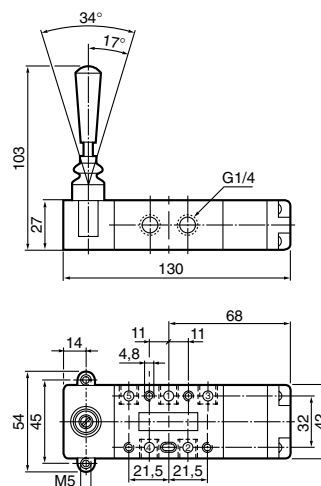
All dimensions in mm unless otherwise stated

Manually operated valves**3/3 valves (Self centring)**

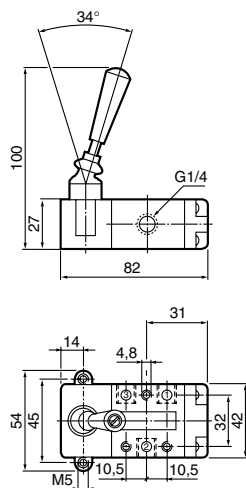
Lever operated

**5/3 valves (Self centring)**

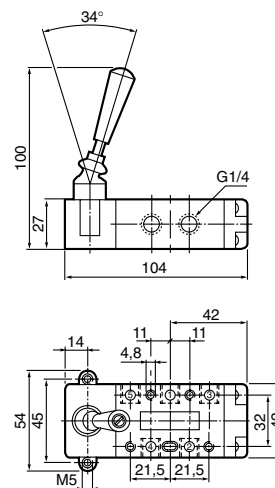
Lever operated

**3/3 valves (3 positions)**

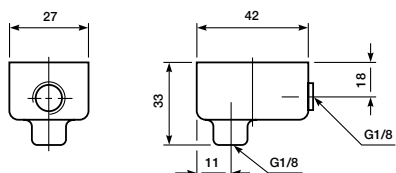
Lever operated

**5/3 valves (3 positions)**

Lever operated



Air Pilot Return



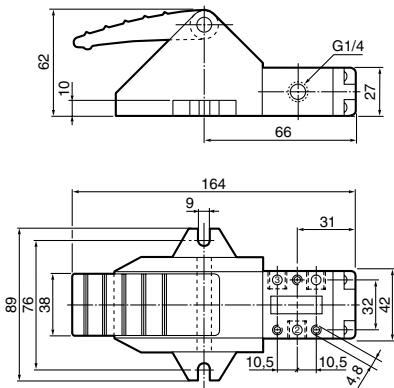
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

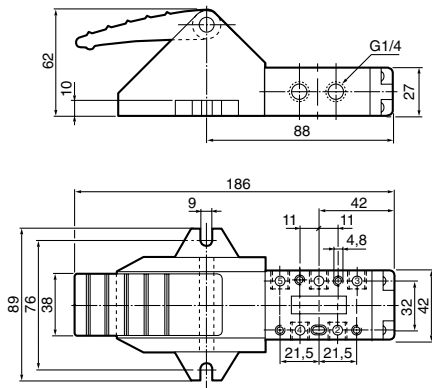
3/2 valves

Foot pedal operated spring return



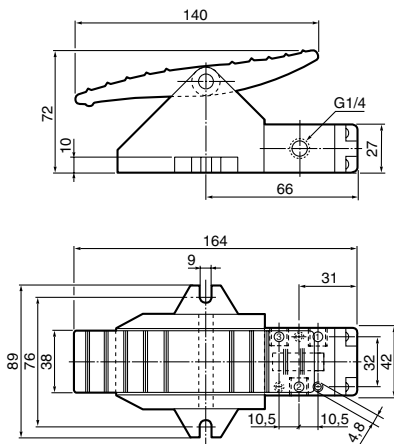
5/2 valves

Foot pedal operated spring return



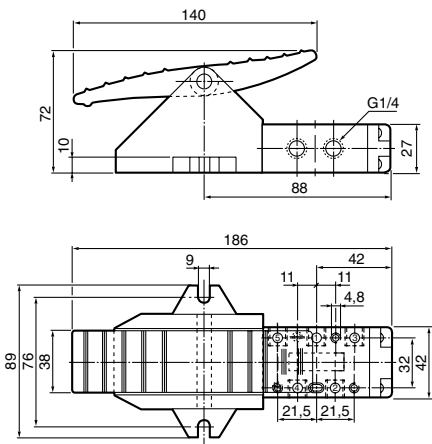
3/2 valves

Foot pedal operated



5/2 valves

Foot pedal operated

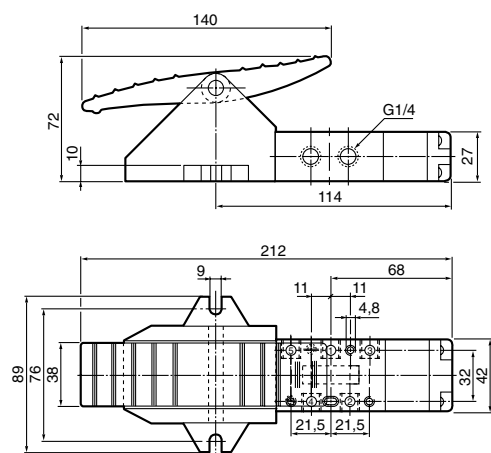


Dimensions, G1/4 ported spool valves

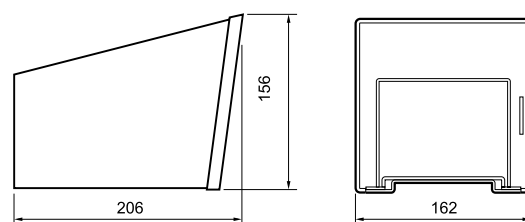
All dimensions in mm unless otherwise stated

Manually operated valves**5/3 valves**

Foot pedal operated

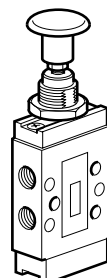
**Foot guard kit**

3117

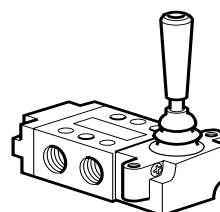


Service and Replacement Parts**B43 Series Manually Operated Valves**

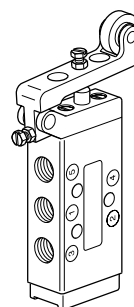
Order code	Actuator	Replacement actuator	Repair kit
B43003BXS	Button	43004BX-100	Body seal 43007A
B43004BXS	Button		
B43004HXS	Button, Push/Pull	43004H-100	
B43003LS	Lockdown lever	43004L-200	
B43004LS	Lockdown lever		

**B53 Series Manually Operated Valves**

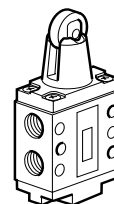
Order code	Actuator	Replacement actuator	Repair kit
B53003HXS	Button	53004HX-100	Body seal 53007
B53004HXS	Button		
B53003HX	Button, Push/Pull		
B53004HX	Button, Push/Pull		
B53004HXX	Button, Self centring		
B53004HXY	Button, Self centring		
B53004HXZ	Button, Self centring	53004F-100	
B53003FS	Foot		
B53004FS	Foot		
B53003LS	Lever		
B53004LS	Lever	53004L-198	Body seal 53007
B53003LT	Lever, 2 positions		
B53004LT	Lever, 2 positions	53004L-100	Lever kit 53004L-300R
B53004L	Lever, 3 positions		
B53004LW	Lever, 3 positions	53004L-198	
B53004LX	Lever, Self centring		
B53004LY	Lever, Self centring		

**B43 Series Mechanically Operated Valves**

Order code	Actuator	Replacement actuator	Repair kit
B43003CS	Plunger	43004C-100	Body seal 43007A
B43004CS	Plunger		
B43003RS	Roller Lever	43004R-200	
B43004RS	Roller Lever		

**B53 Series Mechanically Operated Valves**

Order code	Actuator	Replacement actuator	Repair kit
B53003CS	Plunger	53004C-100	Body seal 53007
B53004CS	Plunger		
B53003RS	Roller	53004R-100	
B53004RS	Roller		



 Indicates stocked product.

Rugged brass bodies with excellent corrosion resistance make these valves the ideal choice for arduous applications. Large and robust manual actuators are available together with air pilot actuators.

- Rugged valves for heavy duty applications
- Large and robust actuators for easy operation
- Excellent corrosion resistance
- Integral mounting holes
- Panel mounting versions



Operating information

Working temperature	-20 °C to +70 °C
Working pressure	Max 10 bar
Flow (Qmax):	380 l/min
For technical information see CD	

Push button valves, VA13 Series - G¹/₈

Symbol	Actuator	Return	Operating force at 6 bar, N	Mounting	Order code
Hand actuated					
	 Flush-Push button, red	Spring	32,5	Panel	VA13-HIS4
	 Flush-Push button, black	Spring	32,5	Panel	VA13-HIS4A06
	Hand lever Held in two positions	Hand lever	8	Panel	VA13-HB24
	Hand lever Held in two positions	Hand lever	8	Side	VA13-HB2
	Button, red Two positions	Button	3	Panel	VA13-KL24
	 Button, red	Spring	31,5	Panel	VA13-KS4
	Button, red Two positions	Button	3	Side	VA13-KL2
	 Button, red	Spring	31,5	Side	VA13-KS
	Button, red Two positions	Knob/ Air signal	6	Side	VA13-KL2A



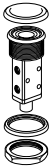
All 3/2 type VA13 valves can be connected either as normally closed 3/2 valve (NC) or normally open 3/2 valve (NO) as required, by connecting the primary air supply to port 1 or port 3

 Indicates stocked product.

Push button valves, VA15 Series - G¹/₈ connection

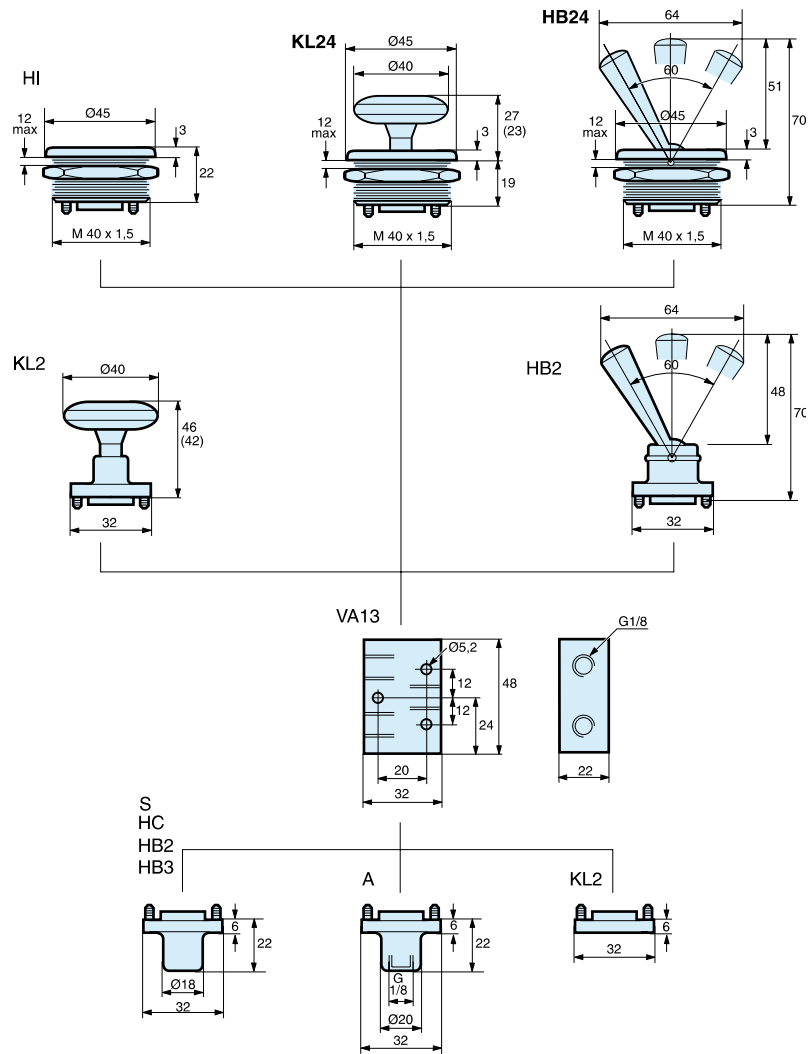
Symbol	Actuator	Return	Operating force at 6 bar, N	Mounting	Order code	
Hand actuated						
		Flush-Push button, red	Spring	34,5	Panel	VA15-HIS4
		Hand lever Held in two positions	Hand lever	9	Panel	VA15-HB24
		Hand lever Held in three positions Closed centre position	Hand lever	9	Panel	VA15-HB34
		Hand lever Held in three positions Vented centre position	Hand lever	9	Panel	VA15-XHB34
		Hand lever Three positions Closed centre position	Hand lever	9	Panel	VA15-HC4
		Hand lever Three positions Vented centre position	Hand lever Self centring	9	Panel	VA15-XHC4
		Hand lever Held in two positions	Hand lever	9	Side	VA15-HB2
		Button, red Two positions	Button	5	Panel	VA15-KL24
		Button, red Two positions	Button	5	Side	VA15-KL2
		Air signal	Air signal	3/3	Side	VA15-AA
		Air signal	Spring	4/-	Side	VA15-AS

Accessories for VA13/15HI... Series valves

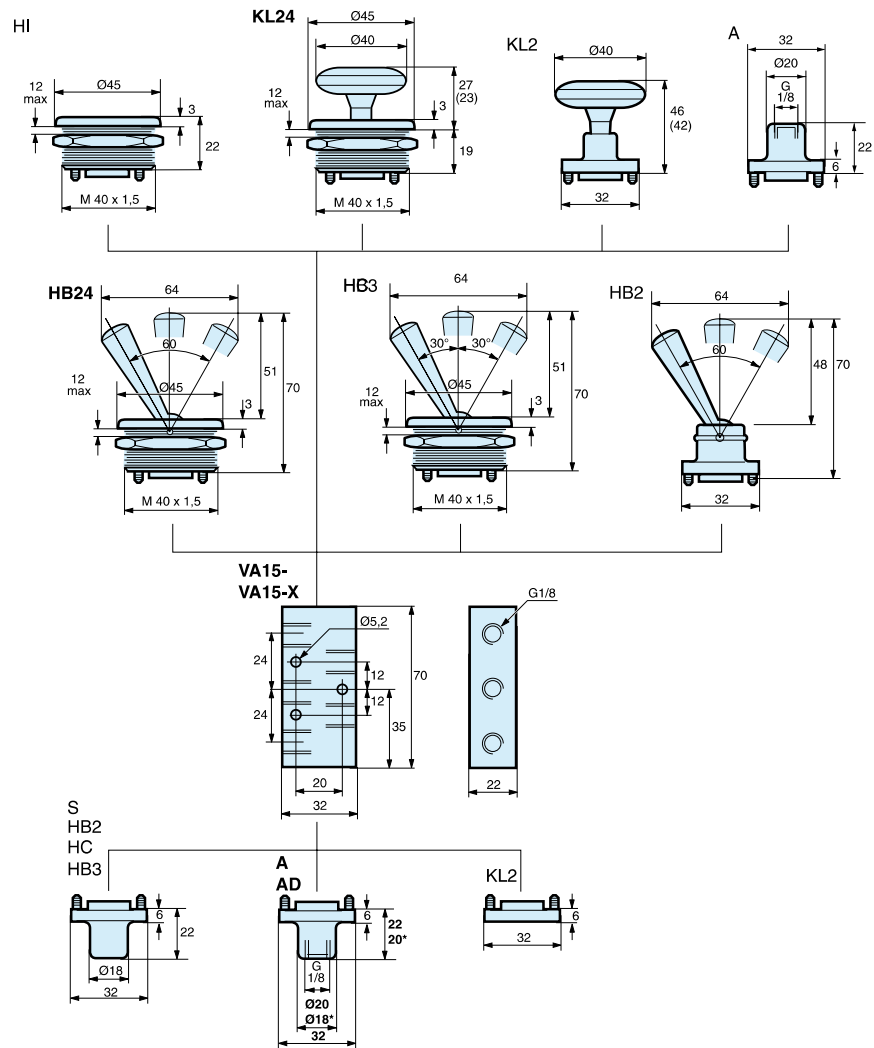
	Description	Order code
 Diaphragm Mounting ring	Diaphragm, black	9127359331
	Diaphragm, yellow	9127359332
	Mounting ring	9127359334

 Indicates stocked product.

Dimensions



Dimensions



Heavy duty poppet valves

2/2 & 3/2 - G³/₈" & G¹/₂"

These valves use the well proven poppet principle to give high flow rates with short valve travel, both the 2/2 and 3/2 valves in the range are available in G3/8" and G1/2" port sizes. This means that each actuator is available in four configurations i.e. 3/8" ports 2/2 or 3/2 and G1/2" ports 2/2 or 3/2. All valves are normally closed.

The bodies are of block form construction for ease of mounting. Springs are stainless steel; internal seals being of nitrile rubber. The 2/2 body allows air in one direction only, 3/2 versions having the facility of exhausting air through the actuator unit. This exhaust vent is unthreaded on all valves except the pilot and solenoid types which allows the piping away of exhaust air.

All mechanisms are spring returned.



Working medium, air quality

Working medium: Dry, filtered compressed air to ISO 8573-1 class 3.4.3.

Recommended air quality for valves

For best possible service life and trouble free operation, ISO 8573-1 quality class 3.4.3 should be used. This means 5µm filter (standard filter) dew point +3°C for indoor operation (a lower dew point should be selected for outdoor operation) and oil concentration 1.0 mg oil/m³, which is what a standard compressor with a standard filter gives.

ISO 8573-1 quality classes

Quality class	Pollution		Water	Oil
	particle size (µm)	max. concentration (mg/m ³)	max. press. dew point (°C)	max. concentration (mg/m ³)
1	0,1	0,1	-70	0,01
2	1	1	-40	0,1
3	5	5	-20	1,0
4	15	8	+3	5,0
5	40	10	+7	25
6	-	-	+10	-

Specification

Material

Body	Zinc die cast
Roller	Zinc plated steel
Mechanical arm	Zinc plated steel
Poppet	Stainless steel
Seals	Nitrile
Spring	Stainless steel
Bush	Aluminium
Piston	Aluminium

Operating information

Working pressure	0 - 10 bar	
Working temperature	-10°C to +80°C	
Solenoid version	-10°C to +50°C	
Minimum pilot pressure	1.9 bar @ 6 bar supply	
Response time (solenoid energised)	14 msec	
Response time (solenoid de-energised)	75 msec	
Flow capacities in accordance with ISO6358		
	B102-B103	B202-B203
Flow;	C = 7,54	C = 10,75 NI/s x bar
	b = 0,29	b = 0,24
	Qn = 33 l/s	Qn = 43 l/s
	Qmax = 54 l/s	Qmax = 75 l/s
	Cv = 2,65	Cv = 3,20

Part number configurator for solenoid valves

D

B

Valve family	
DB	HD poppet solenoid operated

1

Thread port	
1	3/8 BSP
2	1/2 BSP

2

Air supply to solenoid	
2	Internal

2

Function	
2	2/2 NC
3	3/2 NC

A

Overrides	
A	None
C	Flush - Locking
D	Extended - non locking

4

Voltage ¹		
	AC	DC
	60Hz	50Hz
40	12	
42	24	22
45		12
49		24
53	120	110
57	240	230
XX	valve less solenoid/coil	

9

¹ Shaded part numbers are standard
Unshaded part numbers are available on request but will be subject to minimum order quantities
Otherwise order XX version and order coil separately.

Part number configurator for manual & mechanical operated poppet valves

B

Valve family	
B	HD poppet manual & mechanical

1

Thread port	
1	3/8 BSP
2	1/2 BSP

0

2

Function	
2	2/2 NC
3	3/2 NC

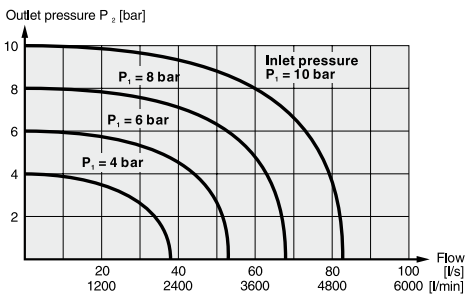
P

Operator	
C	Ball
L	Lever
P	Pilot pressure
R	Roller lever

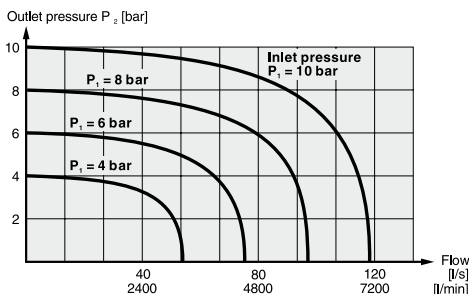
Flow characteristics

Flow capacities in accordance with ISO6358
Flow measured with valve on manifold
All pressures = effective pressure

B102



B202



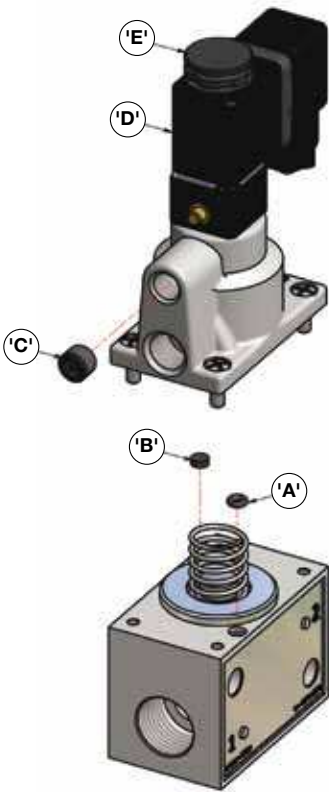
Electrical Information

Power consumption	Inrush	Hold
	AC VA	8.5VA
	DC 4.8 Watt	
Rating	100% continuous	
Isolation class	F	
Protection class	IP 65 (P 54) DIN 40 050	
Connection	DIN 43 650 Form B	
Solenoid response	milliseconds at 7 bar	

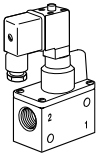
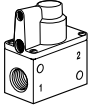
External pilot supply option

Solenoid pilot operated valves have an internal pilot supply, but provisions for external pilot supply is provided. To use with external supply interchange 'O'-ring (Item 'A') and Plug (Item 'B') to block off the internal pilot supply. Remove hexagon socket plug (Item 'C') from the external pilot supply port, connecting an air supply as desired.

Orientation of the solenoid coil (Item 'D') can be altered through 90° increments by loosening the diffuser nut (Item 'E').

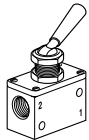
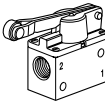
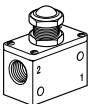


Main data for mechanically operated valves, Heavy duty poppet series (NC only)

	Symbol	Type	Connection	Actuator	Return	Voltage	Weight Kg	Order code
		2/2	G3/8	Solenoid pilot	Spring	24VDC Less solenoid	0.70 0.65	DB122A49 DB122AXX
		3/2	G3/8	Solenoid pilot	Spring	24VDC Less solenoid	0.70 0.65	DB123A49 DB123AXX
		2/2	G1/2	Solenoid pilot	Spring	24VDC Less solenoid	0.70 0.65	DB222A49 DB222AXX
		3/2	G1/2	Solenoid pilot	Spring	24VDC Less solenoid	0.70 0.65	DB223A49 DB223AXX
		2/2	G3/8	Air pilot	Spring		0.61	B102P
		3/2	G3/8	Air pilot	Spring		0.61	B103P
		2/2	G1/2	Air pilot	Spring		0.61	B202P
		3/2	G1/2	Air pilot	Spring		0.61	B203P

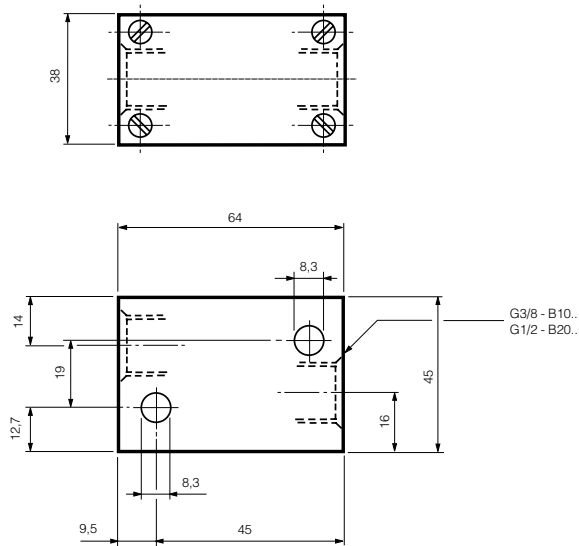
Order electrical connectors for solenoids separately.

Main data for mechanically operated valves, Heavy duty poppet series (NC only)

	Symbol	Type	Connection	Actuator	Return	Operating force at 6 bar, N	Weight Kg	Order code
		2/2	G3/8	Lever	Lever	22	0.65	B102L
		3/2	G3/8	Lock down lever	Lever	22	0.65	B103L
		2/2	G1/2	Lock down lever	Lever	22	0.65	B202L
		3/2	G1/2	Lock down lever	Lever	22	0.65	B203L
		2/2	G3/8	Roller lever	Spring	36	0.642	B102R
		3/2	G3/8	Roller lever	Spring	36	0.630	B103R
		2/2	G1/2	Roller lever	Spring	36	0.614	B202R
		3/2	G1/2	Roller lever	Spring	36	0.604	B203R
		2/2	G3/8	Ball	Spring	220	0.542	B102C
		3/2	G3/8	Ball	Spring	220	0.532	B103C
		2/2	G1/2	Ball	Spring	220	0.530	B202C
		3/2	G1/2	Ball	Spring	220	0.520	B203C

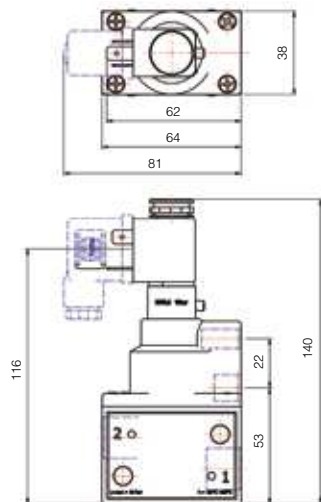
Mechanically operated valves - 2/2, 3/2 valves

Basic body dimensions



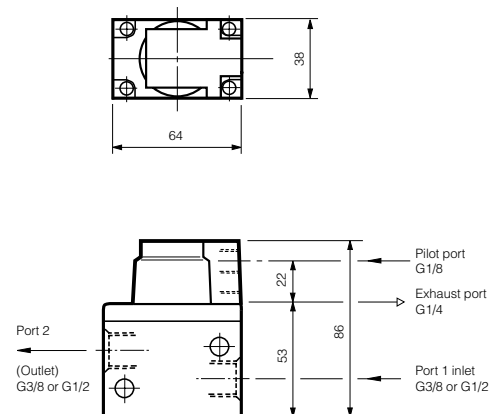
Solenoid pilot operated spring return

DB122, DB123, DB222, DB223



Air pilot operated spring return

B102P, B103P, B202P, B203P

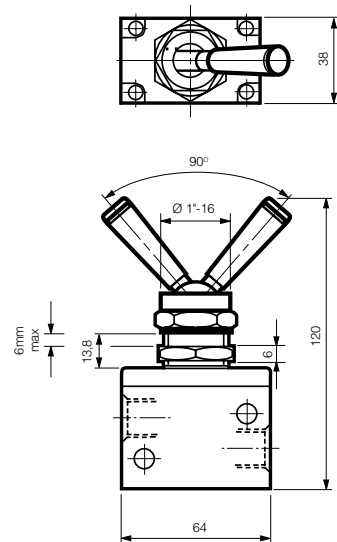


All dimensions in mm unless otherwise stated

Mechanically operated valves - 2/2, 3/2 valves

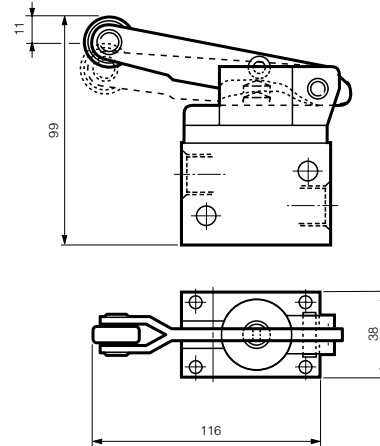
Lock down lever

B102L, B103L, B202L, B203L



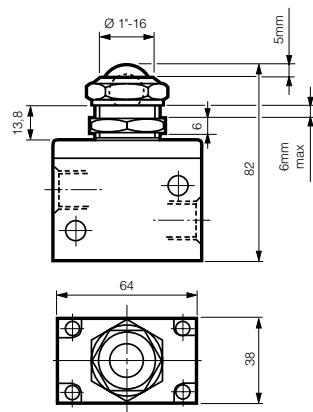
Roller lever operated spring return

B102R, B103R, B202R, B203R



Ball operated spring return

B102C, B103C, B202C, B203C



All dimensions in mm unless otherwise stated

22mm solenoid operator part numbers and spares

Solenoid coils for 22mm solenoid operators

Voltage	Order code Form B	Weight (Kg)
12V 60Hz	P2FCB440	0.093
24V 50/60Hz	P2FCB442	0.093
12V DC	P2FCB445	0.093
12V DC Mobile	P2FCB447	0.093
24v DC Mobile	P2FCB448	0.093
24V DC	P2FCB449	0.093
48V DC	P2FCB451	0.093
110V/50Hz, 120V/60Hz	P2FCB453	0.093
230V/50Hz, 230V/60Hz	P2FCB457	0.093

Spare Solenoid Nuts

Valves with vented exhaust are fitted with diffuser plastic nut

Order Code
P2FND

Spare Solenoid Operators

Solenoid pilot operator 22mm NC, Normal duty
(Max Operating pressure 10bar, Temp -10°C to +50°C)

Order code (with locking bi-stable m/o)	Weight Kg
P2FP13N4C	0.05
Order code (with Non-locking monostable m/o)	Weight Kg
P2FP13N4D	0.05
Order code (with no m/o)	Weight Kg
P2FP13N4A	0.05

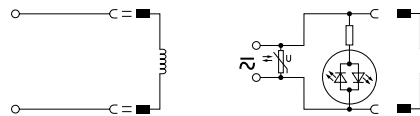
Note.

The operators are supplied with mounting screws and interface 'O' rings.

Coils and connectors must be ordered separately.

Solenoid Connectors / Cable Plugs EN175301-803

	Description	Order code 22mm Industrial Form B
	With standard screw	Standard IP65 without flying lead
		3EV10V10
		With LED and protection 24V AC/DC
		3EV10V20-24
		With LED and protection 110V AC
		3EV10V20-110
		With LED and protection 230V AC
		3EV10V20-230
	With cable	24V AC/DC, 5m cable LED and protection IP65
		3EV10V20-24L5
		110V AC/DC, 5m cable LED and protection IP65
		3EV10V20-110L5
		230V AC, 5m cable LED and protection IP65
		3EV10V20-230L5

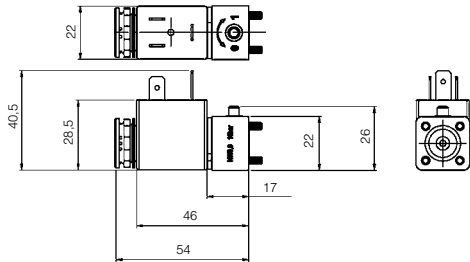


3EV10V10

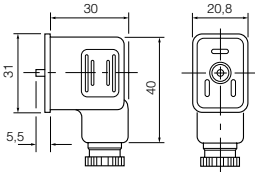
3EV10V20-24 3EV10V20-24L5
3EV10V20-110 3EV10V20-110L5
3EV10V20-230 3EV10V20-230L5

Cable Plug Dimensions (mm)

Solenoid operators P2E-•V...

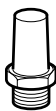


Cable plugs Form B
3EV10V10



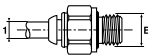
Accessories

Sintered bronze series silencers



Port	Order code	Pack Qty
G1/4	P6M-BAA2	1

Male straight connectors - Parallel thread



Tube Ø1	Thread B	Order code	Box Qty
4	1/8	F4PMB4-1/8	20
6	1/8	F4PMB6-1/8	30
6	1/4	F4PMB6-1/4	30
8	1/8	F4PB8-1/8	40
8	1/4	F4PB8-1/4	30
8	3/8	F4PB8-3/8	20
10	1/4	F4PB10-1/4	20
10	3/8	F4PB10-3/8	20
10	1/2	F4PB10-1/2	10
12	1/4	F4PB12-1/4	10
12	3/8	F4PB12-3/8	10
12	1/2	F4PB12-1/2	10
14	3/8	F4PB14-3/8	10
14	1/2	F4PB14-1/2	10

Ceramic slide valves for maximum operational life.
Solenoid or air pilot actuation. Vacuum to 10 bar
general applications.



- Size 01 and 02 (26 and 18 mm)
- Ceramic technology for long life operation
- From vacuum up to 10 bar applications
- Internal or external pilot supply with same valves
- Capture solenoid exhaust

Operation information

Working pressure :	-0,9 to 10 bar	
Working temperature :	-10 to +60°C	
	DX02	DX01
Flow (Qmax.) :	630 l/min	1000 l/min
Flow (Qn) :	385 l/min	585 l/min

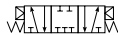
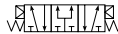
Solenoid operated ISO valve fitted with 15 mm solenoid 24 VDC

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Electrical signal	Spring	4,0/2,0	15/25	0.13	DX02-621-951M
	01 - 26mm	Electrical signal	Spring	4,3/2,3	25/35	0.17	DX01-621-951M
	02 - 18mm	Electrical signal	Differential	3,9/1,6	15/30	0.13	DX02-651-951M
	01 - 26mm	Electrical signal	Differential	3,8/1,7	20/40	0.17	DX01-651-951M
	02 - 18mm	Electrical signal	Electrical signal	1,3/1,3	12/12	0.17	DX02-606-951M
	01 - 26mm	Electrical signal	Electrical signal	1,0/1,0	15/15	0.21	DX01-606-951M
5/3 Valves							
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.17	DX02-616-951M
	01 - 26mm	Closed center	Self centering	2,9	20/60	0.21	DX01-616-951M
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.17	DX02-611-951M
	01 - 26mm	Vented center	Self centering	3	20/60	0.21	DX01-611-951M
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.17	DX02-613-951M
	01 - 26mm	Press. center	Self centering	3	20/60	0.21	DX01-613-951M

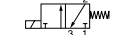
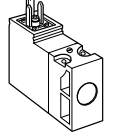
Solenoid operated ISO valve fitted with adaptor to accept 15 mm solenoid

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Electrical signal	Spring	4,0/2,0	15/25	0.9	DX02-621-60
	01 - 26mm	Electrical signal	Spring	4,3/2,3	25/35	0.13	DX01-621-60
	02 - 18mm	Electrical signal	Differential	3,9/1,6	15/30	0.9	DX02-651-60
	01 - 26mm	Electrical signal	Differential	3,8/1,7	20/40	0.13	DX01-651-60
	02 - 18mm	Electrical signal	Electrical signal	1,3/1,3	12/12	0.9	DX02-606-60
	01 - 26mm	Electrical signal	Electrical signal	1,0/1,0	15/15	0.13	DX01-606-60
5/3 Valves							
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.9	DX02-616-60
	01 - 26mm	Closed center	Self centering	2,9	20/60	0.13	DX01-616-60
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.9	DX02-611-60
	01 - 26mm	Vented center	Self centering	3	20/60	0.13	DX01-611-60
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.9	DX02-613-60
	01 - 26mm	Press. center	Self centering	3	20/60	0.13	DX01-613-60

Pneumatic operated ISO valve

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Air signal	Spring	4,0/2,0	15/25	0.9	DX02-421-60
	01 - 26mm	Air signal	Spring	4,3/2,3	25/35	0.13	DX01-421-60
	02 - 18mm	Air signal	Differential	3,9/1,6	15/30	0.9	DX02-451-60
	01 - 26mm	Air signal	Differential	3,8/1,7	20/40	0.13	DX01-451-60
	02 - 18mm	Air signal	Air signal	1,3/1,3	12/12	0.9	DX02-406-60
	01 - 26mm	Air signal	Air signal	1,0/1,0	14/14	0.13	DX01-406-60
5/3 Valves							
	02 - 18mm	Air signal	Air signal	3,3	20/50	0.9	DX02-416-60
	01 - 26mm	Closed center	Self centering	2,9	20/50	0.13	DX01-416-60
	02 - 18mm	Air signal	Air signal	3,3	20/50	0.9	DX02-411-60
	01 - 26mm	Vented center	Self centering	3	20/50	0.13	DX01-411-60
	02 - 18mm	Air signal	Air signal	3,3	20/50	0.9	DX02-413-60
	01 - 26mm	Press. center	Self centering	3	20/50	0.13	DX01-413-60

Solenoids 15 mm NC standard flow DIN 1,2 W/1,6 VA

	Voltage	Order code Override flush non locking	Order code Override flush locking
	24 V DC	P2E-KV32C1	P2E-KV32C2
	48 V DC		P2E-KV32D1
	24 V AC 50 Hz	P2E-KV31C1	P2E-KV31C2
	48 V AC 50/60 Hz	P2E-KV34D1	P2E-KV34D2
	115 V AC 50 Hz / 120 V AC 60 Hz	P2E-KV31F1	P2E-KV31F2
	230 V AC 50 Hz / 240 V AC 60 Hz	P2E-KV31J1	P2E-KV31J2



Indicates stocked product.

Ceramic slide valves for maximum operational life. Solenoid or air pilot operated with a wide choice of bases and manifolds. Vacuum to 12 bar general applications.

- Size 1, 2 and 3
- Ceramic technology for long life operation
- From vacuum up to 12 bar applications
- Internal or external pilot supply with same valves
- M12 on each coil
- Common M12



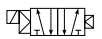
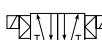
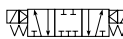
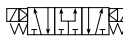
Operation information

Working pressure :	-0,9 to 12 bar		
Working temperature :	-10 to +60°C		
	DX1	DX2	DX3
Flow (Qmax.) :	1680 l/min	3640 l/min	6420 l/min
Flow (Qn.) :	1150 l/min	2330 l/min	4050 l/min
ATEX approval:	CE Ex II 2 GD c 85°C		
For ATEX specific products contact Sales Office			

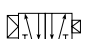
Solenoid operated ISO valve fitted with CNOMO solenoid(s) 24 VDC

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring	3,9/2,5	40/55	0.5	DX1-621-BL49
	2 - 56mm	Electrical signal	Spring	3,6/2,4	60/105	0.75	DX2-621-BL49
	3 - 71mm	Electrical signal	Spring	3,6/2,3	85/160	1.25	DX3-621-BL49
	1 - 43mm	Electrical signal	Differential	3,3/1,9	30/70	0.5	DX1-651-BL49
	2 - 56mm	Electrical signal	Differential	3,3/2,0	55/110	0.75	DX2-651-BL49
	3 - 71mm	Electrical signal	Differential	3,3/1,9	80/180	1.25	DX3-651-BL49
	1 - 43mm	Electrical signal	Electrical signal	1,0/1,0	25/25	0.65	DX1-606-BL49
	2 - 56mm	Electrical signal	Electrical signal	1,0/1,0	30/30	0.9	DX2-606-BL49
	3 - 71mm	Electrical signal	Electrical signal	1,0/1,0	40/40	1.4	DX3-606-BL49
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,6	30/95	0.65	DX1-616-BL49
	2 - 56mm	Closed center	Self centering	2,1	40/190	0.9	DX2-616-BL49
	3 - 71mm			2,1	55/330	1.4	DX3-616-BL49
	1 - 43mm	Electrical signal	Electrical signal	2,8	25/70	0.65	DX1-611-BL49
	2 - 56mm	Vented center	Self centering	2,2	40/140	0.9	DX2-611-BL49
	3 - 71mm			2,1	60/270	1.4	DX3-611-BL49
	1 - 43mm	Electrical signal	Electrical signal	2,4	25/65	0.65	DX1-613-BL49
	2 - 56mm	Press. center	Self centering	2,1	40/150	0.9	DX2-613-BL49

Solenoid operated ISO valve fitted with CNOMO operator without coil

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring	3,9/2,5	40/55	0.4	DX1-621-BN
	2 - 56mm	Electrical signal	Spring	3,6/2,4	60/105	0.65	DX2-621-BN
	3 - 71mm	Electrical signal	Spring	3,6/2,3	85/160	1.15	DX3-621-BN
	1 - 43mm	Electrical signal	Differential	3,3/1,9	30/70	0.4	DX1-651-BN
	2 - 56mm	Electrical signal	Differential	3,3/2,0	55/110	0.65	DX2-651-BN
	3 - 71mm	Electrical signal	Differential	3,3/1,9	80/180	1.15	DX3-651-BN
	1 - 43mm	Electrical signal	Electrical signal	1,0/1,0	25/25	0.55	DX1-606-BN
	2 - 56mm	Electrical signal	Electrical signal	1,0/1,0	30/30	0.8	DX2-606-BN
	3 - 71mm	Electrical signal	Electrical signal	1,0/1,0	40/40	1.3	DX3-606-BN
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,6	30/95	0.55	DX1-616-BN
	2 - 56mm	Closed center	Self centering	2,1	40/190	0.8	DX2-616-BN
	3 - 71mm			2,1	55/330	1.3	DX3-616-BN
	1 - 43mm	Electrical signal	Electrical signal	2,8	25/70	0.55	DX1-611-BN
	2 - 56mm	Vented center	Self centering	2,2	40/140	0.8	DX2-611-BN
	3 - 71mm			2,1	60/270	1.3	DX3-611-BN
	1 - 43mm	Electrical signal	Electrical signal	2,4	25/65	0.55	DX1-613-BN
	2 - 56mm	Press. center	Self centering	2,1	40/150	0.8	DX2-613-BN

Pneumatic operated ISO valve without valve spool override

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Air signal	Spring	3,9/2,5	30/45	0.35	DX1-421-60
	2 - 56mm	Air signal	Spring	3,6/2,4	50/95	0.6	DX2-421-60
	3 - 71mm	Air signal	Spring	3,6/2,3	80/160	1.1	DX3-421-60
	1 - 43mm	Air signal	Differential	3,3/1,9	25/60	0.35	DX1-451-60
	2 - 56mm	Air signal	Differential	3,3/2,0	45/100	0.6	DX2-451-60
	3 - 71mm	Air signal	Differential	3,3/1,9	70/170	1.1	DX3-451-60
	1 - 43mm	Air signal	Air signal	1,0/1,0	20/20	0.35	DX1-406-60
	2 - 56mm	Air signal	Air signal	1,0/1,0	25/25	0.6	DX2-406-60
	3 - 71mm	Air signal	Air signal	1,0/1,0	35/35	1.1	DX3-406-60
5/3 Valves							
	1 - 43mm	Air signal	Air signal	2,6	20/80	0.35	DX1-416-60
	2 - 56mm	Closed center	Self centering	2,1	30/170	0.6	DX2-416-60
	3 - 71mm			2,1	45/330	1.1	DX3-416-60
	1 - 43mm	Air signal	Air signal	2,8	20/65	0.35	DX1-411-60
	2 - 56mm	Vented center	Self centering	2,2	30/140	0.6	DX2-411-60
	3 - 71mm			2,1	50/270	1.1	DX3-411-60
	1 - 43mm	Air signal	Air signal	2,4	20/60	0.35	DX1-413-60
	2 - 56mm	Press. center	Self centering	2,1	25/140	0.6	DX2-413-60

Solenoid operated ISO valve, CNOMO, 24 VDC with M12 coil

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring	3,9/2,5	40/55	0.5	DX1-621-B619
	2 - 56mm	Electrical signal	Spring	3,6/2,4	60/105	0.75	DX2-621-B619
	3 - 71mm	Electrical signal	Spring	3,6/2,3	85/160	1.25	DX3-621-B619
	1 - 43mm	Electrical signal	Differential	3,3/1,9	30/70	0.5	DX1-651-B619
	2 - 56mm	Electrical signal	Differential	3,3/2,0	55/110	0.75	DX2-651-B619
	3 - 71mm	Electrical signal	Differential	3,3/1,9	80/180	1.25	DX3-651-B619
	1 - 43mm	Electrical signal	Electrical signal	1,0/1,0	25/25	0.65	DX1-606-B619
	2 - 56mm	Electrical signal	Electrical signal	1,0/1,0	30/30	0.9	DX2-606-B619
	3 - 71mm	Electrical signal	Electrical signal	1,0/1,0	40/40	1.4	DX3-606-B619
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,6	30/95	0.65	DX1-616-B619
	2 - 56mm	Closed center	Self centering	2,1	40/190	0.9	DX2-616-B619
	3 - 71mm			2,1	55/330	1.4	DX3-616-B619
	1 - 43mm	Electrical signal	Electrical signal	2,8	25/70	0.65	DX1-611-B619
	2 - 56mm	Vented center	Self centering	2,2	40/140	0.9	DX2-611-B619
	3 - 71mm			2,1	60/270	1.4	DX3-611-B619
	1 - 43mm	Electrical signal	Electrical signal	2,4	25/65	0.65	DX1-613-B619
	2 - 56mm	Press. center	Self centering	2,1	40/150	0.9	DX2-613-B619

Solenoid operated ISO valve, CNOMO, 24 VDC with Din A coil and M12 connector

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring	3,9/2,5	40/55	0.65	DX1-621-B219
	2 - 56mm	Electrical signal	Spring	3,6/2,4	60/105	0.9	DX2-621-B219
	3 - 71mm	Electrical signal	Spring	3,6/2,3	85/160	1.4	DX3-621-B219
	1 - 43mm	Electrical signal	Differential	3,3/1,9	30/70	0.65	DX1-651-B219
	2 - 56mm	Electrical signal	Differential	3,3/2,0	55/110	0.9	DX2-651-B219
	3 - 71mm	Electrical signal	Differential	3,3/1,9	80/180	1.4	DX3-651-B219
	1 - 43mm	Electrical signal	Electrical signal	1,0/1,0	25/25	0.8	DX1-606-B219
	2 - 56mm	Electrical signal	Electrical signal	1,0/1,0	30/30	1.05	DX2-606-B219
	3 - 71mm	Electrical signal	Electrical signal	1,0/1,0	40/40	1.55	DX3-606-B219
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,6	30/95	0.8	DX1-616-B219
	2 - 56mm	Closed center	Self centering	2,1	40/190	1.05	DX2-616-B219
	3 - 71mm			2,1	55/330	1.55	DX3-616-B219
	1 - 43mm	Electrical signal	Electrical signal	2,8	25/70	0.8	DX1-611-B219
	2 - 56mm	Vented center	Self centering	2,2	40/140	1.05	DX2-611-B219
	3 - 71mm			2,1	60/270	1.55	DX3-611-B219
	1 - 43mm	Electrical signal	Electrical signal	2,4	25/65	0.8	DX1-613-B219
	2 - 56mm	Press. center	Self centering	2,1	40/150	1.05	DX2-613-B219

Solenoid or air pilot actuation. Vacuum to 10 bar heavy duty applications.



- Size HA and HB (26mm and 18mm)
- Heavy duty and corrosion resistant body
- Internal led & rectifier
- Internal or external pilot supply with same valve
- M12 common wiring

Operation information

Working pressure :	2,0 to 10 bar	
Working temperature :	-15 to +50°C	
	Size 02	Size 01
Flow (Qmax.) :	10,8 l/s	25,3 l/s
Flow (Qn) :	6,5 l/s	15,3 l/s

Solenoid operated ISO valve, 24VDC, central M12 connection

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Electrical signal	Spring & Diff.	3,1	20/40	0.15	HBEXWBG2G9000FA
	01 - 26mm	Electrical signal	Spring & Diff.	3,1	20/45	0.25	HAEXWBG2G9000FA
	02 - 18mm	Electrical signal	Differential	2,7	15/40	0.15	HB1WXBG2G9000FA
	01 - 26mm	Electrical signal	Differential	2,7	15/50	0.25	HA1WXBG2G9000FA
	02 - 18mm	Electrical signal	Electrical signal	1,7	10	0.165	HB2WXBG2G9000FA
	01 - 26mm	Electrical signal	Electrical signal	1,7	10	0.265	HA2WXBG2G9000FA
5/3 Valves							
	2 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.165	HB5WXBG2G9000FA
	01 - 26mm	Closed center	Self centering	2,4	15/50	0.265	HA5WXBG2G9000FA
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.165	HB6WXBG2G9000FA
	01 - 26mm	Vented center	Self centering	2,4	15/50	0.265	HA6WXBG2G9000FA
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.165	HB7WXBG2G9000FA
	01 - 26mm	Press. center	Self centering	2,4	15/50	0.265	HA7WXBG2G9000FA

Pneumatic operated ISO valve

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Air signal	Spring & Diff.	3,1	15/30	0.115	HBFWX000XXA
	01 - 26mm	Air signal	Spring & Diff.	3,1	15/40	0.215	HAFWX000XXA
	02 - 18mm	Air signal	Differential	2,7	10/30	0.115	HB3WX000XXA
	01 - 26mm	Air signal	Differential	2,7	15/35	0.215	HA3WX000XXA
	02 - 18mm	Air signal	Air signal	1,7	8	0.115	HB4WX000XXA
	01 - 26mm	Air signal	Air signal	1,7	10	0.215	HA4WX000XXA
5/3 Valves							
	2 - 18mm	Air signal	Air signal	2,4	15/35	0.115	HB8WX000XXA
	01 - 26mm	Closed center	Self centering	2,4	15/40	0.215	HA8WX000XXA
	02 - 18mm	Air signal	Air signal	2,4	15/35	0.115	HB9WX000XXA
	01 - 26mm	Vented center	Self centering	2,4	15/40	0.215	HA9WX000XXA
	02 - 18mm	Air signal	Air signal	2,4	15/35	0.115	HB0WX000XXA
	01 - 26mm	Press. center	Self centering	2,4	15/40	0.215	HA0WX000XXA

Solenoid actuated Iso valve for multiple and centralised field bus (Plug-in)



- Size HA and HB (26mm and 18mm)
- Heavy duty and corrosion resistant body
- Internal led & rectifier
- Internal or external pilot supply with same valve
- Multiple connection, Sub D25, M23, Terminal block
- Communication with ISYS NET

Operation information

Working pressure :	2,0 to 10 bar	
Working temperature :	-15 to +50°C	
	Size 02	Size 01
Flow (Qmax.) :	10,8 l/s	25,3 l/s
Flow (Qn) :	6,5 l/s	15,3 l/s

Solenoid operated ISO plug-in valve, 24VDC

Manual override non locking, Led & surge suppressor

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Electrical signal	Spring & Diff.	3,1	20/40	0.13	HB5VXBG0G9A
	01 - 26mm	Electrical signal	Spring & Diff.	3,1	20/45	0.23	HA5VXBG0G9A
	02 - 18mm	Electrical signal	Differential	2,7	15/40	0.13	HB1VXBG0G9A
	01 - 26mm	Electrical signal	Differential	2,7	15/50	0.23	HA1VXBG0G9A
	02 - 18mm	Electrical signal	Electrical signal	1,7	10	0.145	HB2VXBG0G9A
	01 - 26mm	Electrical signal	Electrical signal	1,7	10	0.245	HA2VXBG0G9A
5/3 Valves							
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.145	HB5VXBG0G9A
	01 - 26mm	Closed center	Self centering	2,4	15/50	0.245	HA5VXBG0G9A
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.145	HB6VXBG0G9A
	01 - 26mm	Vented center	Self centering	2,4	15/50	0.245	HA6VXBG0G9A
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.145	HB7VXBG0G9A
	01 - 26mm	Press. center	Self centering	2,4	15/50	0.245	HA7VXBG0G9A

Heavy duty valve. Solenoid or air pilot. Vacuum to 10 bar. Wide choice of electrical connections.

- Size 1, 2, 3
- Heavy duty and corrosion resistant body
- Vacuum to 10 bar
- Internal or external pilot supply with same valve
- Din A, M12, M23 connections



Operation information

Working pressure :	2,0 to 10 bar		
Working temperature :	-15 to +50°C		
	Size 1	Size 2	Size 3
Flow (Qmax.) :	34,5 l/s	69,0 l/s	130,8 l/s
Flow (Qn) :	20,8 l/s	42,0 l/s	83,7 l/s

Solenoid operated ISO valve fitted with CNOMO solenoid(s) 24 VDC

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	25/35	0.77	H1EWXBBL49C
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	40/70	1.19	H2EWXBBL49C
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	70/80	1.47	H3EWXBBL49C
	1 - 43mm	Electrical signal	Differential	1,7/1,9	25/45	0.77	H11WXBBL49C
	2 - 56mm	Electrical signal	Differential	2,4/1,7	35/80	1.19	H21WXBBL49C
	3 - 71mm	Electrical signal	Differential	3,5/2,4	55/85	1.47	H31WXBBL49C
	1 - 43mm	Electrical signal	Electrical signal	1,7	15	0.94	H12WXBBL49C
	2 - 56mm	Electrical signal	Electrical signal	1,7	20	1.36	H22WXBBL49C
	3 - 71mm	Electrical signal	Electrical signal	2,4	25	1.64	H32WXBBL49C
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.94	H15WXBBL49C
	2 - 56mm	Closed center	Self centering	3,5	30/75	1.36	H25WXBBL49C
	3 - 71mm			3,5	23/80	1.64	H35WXBBL49C
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.94	H16WXBBL49C
	2 - 56mm	Vented center	Self centering	3,5	30/75	1.36	H26WXBBL49C
	3 - 71mm			3,5	23/80	1.64	H36WXBBL49C
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.94	H17WXBBL49C
	2 - 56mm	Press. center	Self centering	3,5	30/75	1.36	H27WXBBL49C
	3 - 71mm			3,5	23/80	1.64	H37WXBBL49C

Solenoid operated ISO valve fitted with CNOMO operator without coil

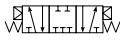
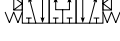
Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	25/35	0.65	H1EWXBBNXXC
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	40/70	1.07	H2EWXBBNXXC
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	70/80	1.35	H3EWXBBNXXC
	1 - 43mm	Electrical signal	Differential	1,7/1,9	25/45	0.65	H11WXBBNXXC
	2 - 56mm	Electrical signal	Differential	2,4/1,7	35/80	1.07	H21WXBBNXXC
	3 - 71mm	Electrical signal	Differential	3,5/2,4	55/85	1.35	H31WXBBNXXC
	1 - 43mm	Electrical signal	Electrical signal	1,7	15	0.7	H12WXBBNXXC
	2 - 56mm	Electrical signal	Electrical signal	1,7	20	1.12	H22WXBBNXXC
	3 - 71mm	Electrical signal	Electrical signal	2,4	25	1.4	H32WXBBNXXC
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.7	H15WXBBNXXC
	2 - 56mm	Closed center	Self centering	3,5	30/75	1.12	H25WXBBNXXC
	3 - 71mm			3,5	23/80	1.4	H35WXBBNXXC
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.7	H16WXBBNXXC
	2 - 56mm	Vented center	Self centering	3,5	30/75	1.12	H26WXBBNXXC
	3 - 71mm			3,5	23/80	1.4	H36WXBBNXXC
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.7	H17WXBBNXXC
	2 - 56mm	Press. center	Self centering	3,5	30/75	1.12	H27WXBBNXXC
	3 - 71mm			3,5	23/80	1.4	H37WXBBNXXC

Solenoid operated ISO valve, 24VDC, central M12 connection

Oriented side 14, Led & surge suppressor

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	30/40	0.77	H1EWXBG2B9000FC
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	45/70	1.29	H2EWXBG2B9000FC
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	75/80	1.57	H3EWXBG2B9000FC
	1 - 43mm	Electrical signal	Differential	1,7/1,9	30/50	0.77	H11WXBG2B9000FC
	2 - 56mm	Electrical signal	Differential	2,4/1,7	40/80	1.29	H21WXBG2B9000FC
	3 - 71mm	Electrical signal	Differential	3,5/2,4	60/85	1.57	H31WXBG2B9000FC
	1 - 43mm	Electrical signal	Electrical signal	1,7	20	1.04	H12WXBG2B9000FC
	2 - 56mm	Electrical signal	Electrical signal	1,7	25	1.46	H22WXBG2B9000FC
	3 - 71mm	Electrical signal	Electrical signal	2,4	30	1.74	H32WXBG2B9000FC
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	1.04	H15WXBG2B9000FC
	2 - 56mm	Closed center	Self centering	3,5	35/80	1.46	H25WXBG2B9000FC
	3 - 71mm			3,5	40/85	1.74	H35WXBG2B9000FC
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	1.04	H16WXBG2B9000FC
	2 - 56mm	Vented center	Self centering	3,5	35/80	1.46	H26WXBG2B9000FC
	3 - 71mm			3,5	40/85	1.74	H36WXBG2B9000FC
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	1.04	H17WXBG2B9000FC
	2 - 56mm	Press. center	Self centering	3,5	35/80	1.46	H27WXBG2B9000FC
	3 - 71mm			3,5	40/85	1.74	H37WXBG2B9000FC

Pneumatic operated ISO valve without manual override

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Air signal	Spring & Diff.	3, 1/2, 5	20/30	0.6	H1FWX000XXC
	2 - 56mm	Air signal	Spring & Diff.	3, 1/2, 1	35/70	1.02	H2FWX000XXC
	3 - 71mm	Air signal	Spring & Diff.	3, 8/3, 3	65/75	1.3	H3FWX000XXC
	1 - 43mm	Air signal	Differential	1, 7/1, 9	20/40	0.6	H13WX000XXC
	2 - 56mm	Air signal	Differential	2, 4/1, 7	30/80	1.02	H23WX000XXC
	3 - 71mm	Air signal	Differential	3, 5/2, 4	50/85	1.3	H33WX000XXC
	1 - 43mm	Air signal	Air signal	1, 7	12	0.6	H14WX000XXC
	2 - 56mm	Air signal	Air signal	1, 7	16	1.02	H24WX000XXC
	3 - 71mm	Air signal	Air signal	2, 4	20	1.3	H34WX000XXC
5/3 Valves							
	1 - 43mm	Air signal	Air signal	2, 4	15/55	0.6	H18WX000XXC
	2 - 56mm	Closed center	Self centering	3, 5	20/70	1.12	H28WX000XXC
	3 - 71mm			3, 5	30/80	1.3	H38WX000XXC
	1 - 43mm	Air signal	Air signal	2, 4	15/55	0.6	H19WX000XXC
	2 - 56mm	Vented center	Self centering	3, 5	20/70	1.02	H29WX000XXC
	3 - 71mm			3, 5	30/80	1.3	H39WX000XXC
	1 - 43mm	Air signal	Air signal	2, 4	15/55	0.6	H10WX000XXC
	2 - 56mm	Press. center	Self centering	3, 5	20/70	1.02	H20WX000XXC
	3 - 71mm			3, 5	30/80	1.3	H30WX000XXC

Solenoid actuator Iso valve for multiple and centralised field bus



- Size 1, 2, 3
- Heavy duty and corrosion resistant body
- Internal led rectifier
- Internal or external pilot supply with same valve
- Multiple connection, SubD25, M23, Terminal block
- Communication with ISYS NET

Operation information

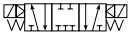
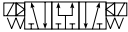
Working pressure :	2,0 to 10 bar		
Working temperature :	-15 to +50°C		
	Size 1	Size 2	Size 3
Flow (Qmax.) :	34,5 l/s	69,0 l/s	130,8 l/s
Flow (Qn) :	20,8 l/s	42,0 l/s	83,7 l/s

Solenoid operated ISO valve, 24VDC, Plug-in

Led & surge suppressor

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	30/40	0.77	H1EVXBG0B9C
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	45/70	1.19	H2EVXBG0B9C
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	75/80	1.47	H3EVXBG0B9C
	1 - 43mm	Electrical signal	Differential	1,7/1,9	30/50	0.77	H11VXBG0B9C
	2 - 56mm	Electrical signal	Differential	2,4/1,7	40/80	1.19	H21VXBG0B9C
	3 - 71mm	Electrical signal	Differential	3,5/2,4	60/85	1.47	H31VXBG0B9C
	1 - 43mm	Electrical signal	Electrical signal	1,7	20	0.94	H12VXBG0B9C
	2 - 56mm	Electrical signal	Electrical signal	1,7	25	1.36	H22VXBG0B9C
	3 - 71mm	Electrical signal	Electrical signal	2,4	30	1.64	H32VXBG0B9C
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.94	H15VXBG0B9C
	2 - 56mm	Closed center	Self centering	3,5	35/80	1.36	H25VXBG0B9C
	3 - 71mm			3,5	40/85	1.64	H35VXBG0B9C
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.94	H16VXBG0B9C
	2 - 56mm	Vented center	Self centering	3,5	35/80	1.36	H26VXBG0B9C
	3 - 71mm			3,5	40/85	1.64	H36VXBG0B9C
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.94	H17VXBG0B9C
	2 - 56mm	Press. center	Self centering	3,5	35/80	1.36	H27VXBG0B9C
	3 - 71mm			3,5	40/85	1.64	H37VXBG0B9C

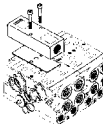
Solenoid operated ISO valve, with plug in operator, without coil

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	30/40	0.65	H1EVXBGXNC
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	45/70	1.07	H2EVXBGXNC
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	75/80	1.35	H3EVXBGXNC
	1 - 43mm	Electrical signal	Differential	1,7/1,9	30/50	0.65	H11VXBGXNC
	2 - 56mm	Electrical signal	Differential	2,4/1,7	40/80	1.07	H21VXBGXNC
	3 - 71mm	Electrical signal	Differential	3,5/2,4	60/85	1.35	H31VXBGXNC
	1 - 43mm	Electrical signal	Electrical signal	1,7	20	0.7	H12VXBGXNC
	2 - 56mm	Electrical signal	Electrical signal	1,7	25	1.12	H22VXBGXNC
	3 - 71mm	Electrical signal	Electrical signal	2,4	30	1.4	H32VXBGXNC
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.7	H15VXBGXNC
	2 - 56mm	Closed center	Self centering	3,5	35/80	1.12	H25VXBGXNC
	3 - 71mm			3,5	40/85	1.4	H35VXBGXNC
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.7	H16VXBGXNC
	2 - 56mm	Vented center	Self centering	3,5	35/80	1.12	H26VXBGXNC
	3 - 71mm			3,5	40/85	1.4	H36VXBGXNC
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.7	H17VXBGXNC
	2 - 56mm	Press. center	Self centering	3,5	35/80	1.12	H27VXBGXNC
	3 - 71mm			3,5	40/85	1.4	H37VXBGXNC

Side ported subbase

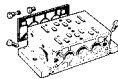
	Description	Port size	Weight	Order code BSPP *G*	Order code NPT
	Individual subbase kit				
	Subbase with side port				
	Size 02	G1/8	0.07	PL02-01-70	PL02-01-80
	Size 01	G1/4	0.12	PL01-02-70	PL01-02-80

Side ported manifold

	Description	Port size	Weight	Order code BSPP *G*	Order code NPT
	Two station manifold base with side ports				
	To suit valves with internal supply solenoid				
	Size 02	G1/8	0.14	PJLP02-201-70	PJLP02-201-80
	Size 01	G1/4	0.7	PJLP01-202-70	PJLP01-202-80
	Two station manifold base				
	To suit pneumatic actuated valves				
	Size 01	G1/4	0.73	PJL01-202-70	PJL01-202-80
	End plate kit - for side ported two station manifold base				
	Size 02	G1/4	0.15	PEJ02-02-70	PEJ02-02-80*
	Size 01	G3/8	0.52	PEJ01-03-70	PEJ01-03-80**
	* Use with PJLP02				
	** Use with PJLP01 or PJL01				
	Gaskets and assembly hardware included.				

Accessories

	Description	Weight	Order code
	Blanking plate		
	Size 02	0.04	DX02BLK
	Size 01	0.05	DX01BLK
	Blanking plug (for subbase PJL)		
	Size 02	0.01	D02BD0
	Size 01	0.02	D01BD0
	Bolt, washer and nut		
	Size 02		DX02M2MB
	Size 01		DX01M2MB

Accessories	Designation	Weight (kg)	Order code (P2V-A, 18 mm)	Weight (kg)	Order code (P2V-B, 26 mm)
	Multiple manifold Including seal, fitting screws and plugs. Ports 2, 4, and 14 are bottom-connected. Fit plugs as required to provide common supply of operating air and common exhausts for solenoid valves.	0,20	P2V-AM511NB	0,40	P2V-BM512NB
	Multiple manifold Multiple manifold as above, but with the plugs fitted to suit use with valves with internal supply to solenoid.	0,20	P2V-AM511PB	0,40	P2V-BM512PB
	Intermediate manifold, 18 to 26 mm Including seals and fitting screws. For connecting P2V-AM511NB/PB multiple manifolds to P2V-BM511NB/PB multiple manifolds.	0,33	P2V-AM500BE	0,33	P2V-AM500BE
	Connection block G-side, including seal and fitting screws. For side connection.	0,18	P2V-AM512GS	0,21	P2V-BM513GS
	Connection block H-side. For side connection.	0,18	P2V-AM512HS	0,21	P2V-BM513HS
	Connection block G-side, including seal and fitting screws. For top connection.	0,18	P2V-AM512GT	0,21	P2V-BM513GT
	Connection block H-side. For top connection.	0,18	P2V-AM512HT	0,21	P2V-BM513HT
	Connection block G-side, including seal and fitting screws. For bottom connection.	0,18	P2V-AM512GB	0,22	P2V-BM513GB
	Connection block H-side. For bottom connection.	0,18	P2V-AM512HB	0,22	P2V-BM513HB
	End cover G-side, including seal and fitting screws.	0,19	P2V-AM500G0	0,24	P2V-BM500G0
	End cover H-side	0,19	P2V-AM500H0	0,24	P2V-BM500H0
	Plug For sealing supply and exhaust air ducts between multiple manifolds with different primary supply pressures.	0,004	P2V-AK0P	0,01	P2V-BK0P
	Angle mounting set For raising multiple manifolds so that angle connections can be fitted to the underside. The parts are designed so that the entire manifold can be angled to simplify connection of the pipes. The set consists of four mounts, complete with all necessary screws and nuts.	0,14	P2V-AK0M	0,14	P2V-AK0M
	O-ring strip seal For sealing between bases and multiple manifolds. 3.53 mm diameter, Supplied in 5 m lengths.	0,07	9304331543	0,07	9304331543

Side ported manifold

	Description	Port size	Order code
	Manifold with two valve positions with terminal Strip (Non collective wiring) Size 01 - 26mm	G1/4	PS551154CP
	Manifold with two single solenoid valve positions with single address board Size 02 - 18mm Size 01 - 26mm	G1/8 G1/4	PS561152JP PS551154JP
	Manifold with two valve positions with double address board Size 02 - 18mm Size 01 - 26mm	G1/8 G1/4	PS561152MP PS551154MP
	Extension Manifold with two valve positions with single address board * Size 02 - 18mm Size 01 - 26mm	G1/8 G1/4	PS561152NP PS551154NP
	Extension Manifold with two valve positions with double address board * Size 02 Size 01	G1/8 G1/4	PS561152PP PS551154PP

* Use only one per manifold assembly to address more 24 solenoid

Side & bottom ported manifold

	Description	Port size	Order code
	Manifold with two valve positions with terminal Strip Size 01 - 26mm	G1/4	PS551164CP
	Manifold with two valve positions with single address board Size 02 - 18mm Size 01 - 26mm	G1/8 G1/4	PS561162JP PS551164JP
	Manifold with two valve positions with double address board Size 02 - 18mm Size 01 - 26mm	G1/8 G1/4	PS561162MP PS551164MP
	Extension Manifold with two valve positions with single address board Size 02 - 18mm Size 01 - 26mm	G1/8 G1/4	PS561162NP PS551164NP
	Extension Manifold with two valve positions with double address board Size 02 Size 01	G1/8 G1/4	PS561162PP PS551164PP

Accessories

	Description	Order code
	Blanking plate Size 02 - 18mm Size 01 - 26mm	PS5634P PS5534P
	Manifold to Manifold gasket kit HA & HB Gasket Standard HA & HB Gasket 1 Blocked HA & HB Gasket 1 2 3 Blocked	PS561AP PS561BP PS561CP



Indicates stocked product.



Collective wiring end plate kits

	Description	Port size	Order code
	Left & right ends modules with pressure & exhaust port, auxiliary port , and non collective wiring (only for PS551154CP) Size 02 / 01	G3/8	PS5631011P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and SubD25 connection Size 02 / 01	G3/8	PS5620L21P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 19pin Brad Harrison connection Size 02 / 01	G3/8	PS5620L31P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 12pin M23 connection Size 02 / 01	G3/8	PS5620L41P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 16 point terminal strip Size 02 / 01	G3/8	PS5620L51P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and ISYSNET (32 output driver is included) Size 02 / 01	G3/8	PS5620L61P

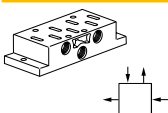
Accessories

	Description	Order code
	32 output driver module for spare part	PSSV32A
	HA & HB 24 Out Cable Size 02 / 01	PS5624P
	HA & HB 32 Out cable Size 02 / 01	PS5632P
	25 pin female 25 pin SubD25 cable 3m	P8LMH25M3A

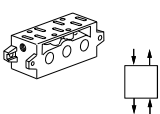
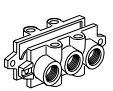


Indicates stocked product.

VDMA Side Ported Subbases

	Description	Size	Port size	Weight	Order code
	Subbases VDMA				
	Side port according to VDMA	1 - 43mm	G1/4	0.16	P2N-VS512SD
	Side port according to VDMA	2 - 56mm	G3/8	0.28	P2N-WS513SD
	Side port according to VDMA	3 - 71mm	G1/2	0.35	P2N-YS514SD

VDMA Bottom Ported Manifold

	Description	Size	Port size	Weight	Order code
	VDMA Form C				
	Bottom port according to VDMA	1 - 43mm	G1/4	0.24	P2N-VM512MB
	Bottom port according to VDMA	2 - 56mm	G3/8	0.36	P2N-WM513MB
	Bottom port according to VDMA	3 - 71mm	G1/2	0.70	P2N-YM514MB
	VDMA Transition plate				
	Size 1 to Size 3	1 to 3	G1/4		P2N-VM500AK
	Kit includes: Transition plate only				
	VDMA Form D - End plate				
	According to VDMA	1 - 43mm	G3/8	0.21	P2N-VM513ES
	According to VDMA	2 - 56mm	G1/2	0.36	P2N-WM514ES
	According to VDMA	3 - 71mm	G1	0.68	P2N-YM518ES
	VDMA Isolation - Main galley				
	According to VDMA	1 - 43mm	G3/8	0.21	P2N-VK0P
	According to VDMA	2 - 56mm	G1/2	0.36	P2N-WK0P
	According to VDMA	3 - 71mm	G1	0.68	P2N-YK0P
	Kit includes: (1) Isolator plug.				

Accessories

	Description	Size	Port size	Weight	Order code
	Blanking plate				
	Kit includes: (1) Blanking plate, (1) Gasket and (4) Mounting bolts	1 - 43mm	G1/4	0.10	P2N-AA5B
		2 - 56mm	G3/8	0.15	P2N-BA5B
		3 - 71mm	G1/2	0.20	P2N-CA5B



Indicates stocked product.

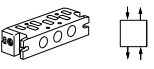
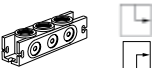
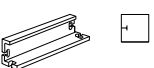
Side ported subbases

Description	Size	Port size	Weight	Order code BSP	Order code NPT
 Single subbase with side ports 1 3 5 2 4 ports & 12 14	1 - 43mm	G1/4	0.16	PL1-1/4-70	PL1-1/4-80
	1 - 43mm	G3/8	0.16	PL1-3/8-70	
	2 - 56mm	G3/8	0.28	PL2-3/8-70	PL2-3/8-80
	2 - 56mm	G1/2		P2N-HS514SS	
	3 - 71mm	G1/2		PL3-1/2-70	PL3-1/2-80
	3 - 71mm	G3/4		P2N-JS516SD	

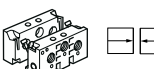
Bottom ported subbases

Description	Size	Port size	Weight	Order code BSP	Order code NPT
 Single subbase with side ports 1 3 5 2 4 ports & 12 14	1 - 43mm	G1/4	0.37	PD1-1/4-70	PD1-1/4-80
	2 - 56mm	G3/8	0.59	PD2-3/8-70	
	3 - 71mm	G1/2	0.59	PD3-1/2-70	PD2-3/8-80

Size 1 bottom ported manifold

Description	Size	Port size	Weight	Order code
 Manifold with bottom ports low profile	1 - 43mm	G1/4	0.2	P2N-AM512MB
 Connecting block Top or bottom ported connecting block for above manifold "low profile"	1 - 43mm	G3/8	0.15	P2N-AM513GT
 End End piece for above manifold "low profile"	1 - 43mm	no	0.06	P2N-AM500J
 Intermediate supply Top or bottom ported intermediate supply for above manifold "low profile"	1 - 43mm	G3/8	0.14	P2N-AM513BT
 Isolation plugs isolating seal for above manifold "low profile"	1 - 43mm		0.07	P2N-AK0P

Sizes 1 & 2 side ported manifold

Description	Size	Port size	Weight	Order code
 Manifold Manifold with side port	1 - 43mm	G1/4	0.24	P2N-EM512MD
	2 - 56mm	G3/8	0.21	P2N-FM513MD
 End Side ported connecting kit for above manifold with side ports	1 - 43mm	G3/8	0.36	P2N-EM513ES
	2 - 56mm	G1/2	0.29	P2N-FM514ES

 Indicates stocked product.

Side ported manifold

	Description	Size	Port size	Order code
	Manifold with terminal Strip (non collective wiring)	1 - 43mm	G3/8	PS401156CCP
		2 - 56mm	G1/2	PS411158CCP
		3 - 71mm	G3/4	PS421150CCP
	Manifold with single address board (single solenoid)	1 - 43mm	G3/8	PS401156JCP
	Manifold with double address board	1 - 43mm	G3/8	PS401156MCP

Accessories

	Description	Size	Port size	Order code
	Blanking plate	1 - 43mm	G3/8	PS4034CP
		2 - 56mm	G1/2	PS4134CP
		3 - 71mm	G3/4	PS4234CP
	Insulation plug	1 - 43mm	G3/8	PS4032CP
		2 - 56mm	G1/2	PS4132CP
		3 - 71mm	G3/4	PS4232CP
	Manifold to Manifold gasket kit	1 - 43mm	G3/8	PS4013P

Coils for plug in valve

	Description		Order code
	12 V DC	5599-2 coil	PS404145P
	24 V DC	5599-2 coil	PS4041B9P
	24 V AC	5599-2 coil	PS404142P
	120 V AC	5599-2 coil	PS404123P
	240 V AC	5599-2 coil	PS404157P



Indicates stocked product.

Collective wiring end plate kits

	Description	Port size	Order code
	Left & right ends modules with pressure & exhaust port, auxiliary port , and non collective wiring		
	Size 1	G1/2	PS4031011CP
	Size 2	G3/4	PS4131011CP
	Size 3	G3/4	PS4231011CP
	Left & right ends modules with pressure & exhaust port, auxiliary port , and SubD25 connection		
	Size 1	G1/2	PS4020L21CP
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 19pin Brad Harrison connection		
	Size 1	G1/2	PS4020L31CP
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 12pin M23 connection		
	Size 1	G1/2	PS4020L41CP
	Left & right ends modules with pressure & exhaust port, auxiliary port , and ISYSNET		
	Size 1	G3/8	PS4020L61CP

Accessories

	Description	Order code
	32 output driver module for spare part	PSSV32A
	HA & HB 24 Out Cable	PS4024P
	25 pin female 25 pin SubD25 cable 3m	P8LMH25M3A
	H1 H2 H3 Pilot Gasket	PS4007P
	Valve to base gasket	PS4005CP

 Indicates stocked product.

Accessories - Sandwich Regulator

Features

- Remote air pilot operated for hard-to-reach pressure control.
- Unregulated pilot pressure to valve for consistent valve shifting regardless of pressure adjustment.

Gauge adaptor kit

Included with all HB Regulators. Both kits are required on all HA & HB Regulators when the Regulator is on the last station on the right (14) end.

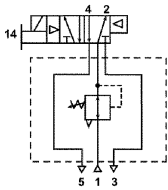


Description	Order code
Gauge kit	PS5651160P

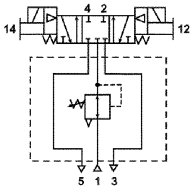
HB & HA Common Port Regulation

Provides adjustable regulated air pressure to the valves #1 port which gives the same pressure to both the #2 and #4 port of the manifold or subbase. The regulator is always on the 14 end of the valve.

Common port regulator with 4-way, 2-position single solenoid valve



Common port regulator with 4-way, 3-position APB valve



HA - 26mm
(Common Port Regulator shown)



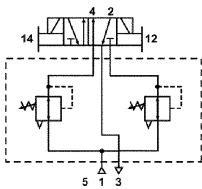
8 bar	Order code	
	Plug-in	Non Plug-in
Size 18mm	PS5638133P	PS5637133P
Size 26mm	PS5538133P	PS5537133P

HB & HA Independent Port Regulation

Dual Port Regulator

Provides regulated pressure to both ports. Pressure regulation can occur out of the #2 or #4 port of the valve. In this case #2 and #4 have to be cross wired.
3 position CP have to be used as a COE
3 position COE have to be used as a CP

Independent dual port regulator with 4-way, 2-position double solenoid valve



Order chart - Sandwich Regulator (please contact Parker Sales Office)

PS5637

Series		
HB		
15407-1 18mm	PS5637	
15407-2 18mm	PS5638	
HA		
15407-1 26mm	PS5537	
15407-2 26mm	PS5538	

1

Regulator function	
1	Common pressure regulator
2	Independent pressure regulator

6

#4 Port regulator / Gauge*	
2	2-60 PSIG w/o Gauge
3	5-125 PSIG w/o Gauge
5	2-60 PSIG w/Gauge
6	5-125 PSIG w/Gauge

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

6

#2 Port regulator / Gauge*	
2	2-60 PSIG w/o Gauge
3	5-125 PSIG w/o Gauge
5	2-60 PSIG w/Gauge
6	5-125 PSIG w/Gauge

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

P

How to Configure Sandwich Regulator / Valve Combinations

Ordering Components

- Manifold or Subbase Kit required.
- Sandwich Regulator Kit configured for Internal Pilot as standard.
- Order valve as External Pilot.

Internal Pilot Configuration -

Pressure in Base Port 1 feeds regulator configured for Internal Pilot which feeds valve configured for External Pilot.

Flow control - ISO 15407 - Sandwich flow controls features

- Both adjustment screws are located on the 12 end of the unit.
- Sandwich Flow Control mounts with its own studs, which means the valve uses standard bolts for mounting.
- Sandwich Flow Control is not to be used as a shut off device and is not bubble tight when needles are fully turned down.



Size	Order code	
	Plug-in	Non Plug-in
	15407-2	15407-1
Size 18mm	PS5635P	PS5642P
Size 26mm	PS5535P	PS5542P

Accessories - Sandwich Regulator

Features

- Remote air pilot operated for hard-to-reach pressure control.
- Unregulated pilot pressure to valve for consistent valve shifting regardless of pressure adjustment.

Gauge adaptor kit

Included with all HB Regulators. Both kits are required on all HA & HB Regulators when the Regulator is on the last station on the right (14) end.

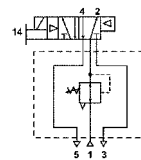


Description	Order code
Gauge kit	PS5651160P

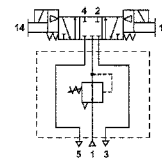
ISYS ISO 1 / 2 / 3 Common Port Regulation

Provides adjustable regulated air pressure to the valves #1 port which gives the same regulated pressure to both the #2 and #4 port of the manifold or subbase. The regulator is always on the 14 end of the valve.

Common port regulator with 4-way, 2-position single solenoid valve



Common port regulator with 4-way, 3-position APB valve



Order code

Plug-in

Non Plug-in

Size 1

8 bar

PS4038133CP

PS4037133CP

ISYS ISO 1 / 2 / 3 Independent Port Regulation

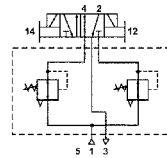
Dual Port Regulator or Single Port Regulator

Provides regulated pressure to both ports. Pressure regulation can occur out of the #2 or #4 port of the valve. Full line pressure would be provided with a pass plate.

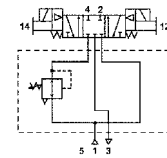


When using an independent Pressure Sandwich Regulator, the cylinder outlet ports are reversed. The 12 end energizes the #2 port. The 3-Position CE and PC functions are also reversed. (See schematics on right).

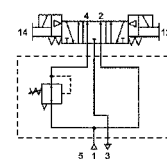
Independent dual port regulator with 4-way, 2-position double solenoid valve



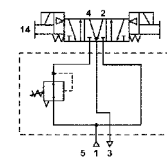
Independent port regulator with 4-way, 3-position all ports blocked valve



Independent port regulator with 4-way, 3-position inlet to cylinder function



Independent port regulator with 4-way, 3-position cylinder to exhaust function



CAUTION: Requires 4-way, 3-position, cylinder to exhaust valve

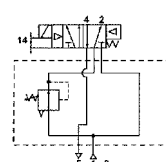


CAUTION: Requires 4-way, 3-position, cylinder to exhaust valve

ISYS ISO 1 / 2 / 3 Selector Regulation

Supplies two different pressures to the valves #1 and #3 flow paths. Shifting the valve "selects" one or the other of these two pressures to flow out port #2. A Selector Regulator can: 1) Provide regulated pressure to one flow path and full line pressure to the other by use of the Line Pressure By-Pass Plate.

Selector regulator with 4-way, 2-position single solenoid valve



Order chart - Sandwich Regulator (please contact Parker Sales Office)

PS4037	1	6	6	C	P
Series ISYS ISO Size 1 5599-1 PS4037 5599-2 PS4038 ISYS ISO Size 2 5599-1 PS4137 5599-2 PS4138 ISYS ISO Size 3 5599-1 PS4237 5599-2 PS4238	Regulator function 1 Common pressure regulator 2 Independent pressure regulator 3 Selector Regulator	#4 Port regulator / Gauge* 0 Line By-Pass Plate** 1 1-30 PSIG w/o Gauge 2 2-60 PSIG w/o Gauge 3 5-125 PSIG w/o Gauge 4 1-30 PSIG w/Gauge 5 2-60 PSIG w/Gauge 6 5-125 PSIG w/Gauge C Air Pilot w/60 PSIG Gauge D Air Pilot w/60 PSIG Gauge	#2 Port regulator / Gauge* 0 Line By-Pass Plate** 1 1-30 PSIG w/o Gauge 2 2-60 PSIG w/o Gauge 3 5-125 PSIG w/o Gauge 4 1-30 PSIG w/Gauge 5 2-60 PSIG w/Gauge 6 5-125 PSIG w/Gauge C Air Pilot w/60 PSIG Gauge D Air Pilot w/60 PSIG Gauge		

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

** Pressure Line By-Pass Option can only be used with independent and Selector Regulators (Option 2 & 3 in Sandwich Block Function).

How to Configure Sandwich Regulator / Valve Combinations**Ordering Components**

- Manifold or Subbase Kit required.
- Sandwich Regulator Kit configured for Internal Pilot as standard.
- Order valve as External Pilot.

Internal Pilot Configuration -

Pressure in Base Port 1 feeds regulator configured for Internal Pilot which feeds valve configured for External Pilot.

External Pilot Configuration - H1, H2, H3

An External Pilot pressure in Port 12 or 14 of the base feeds thru the Sandwich Regulator 12 or 14 galley directly to the 12/14 pilot of the valve.

This configuration takes an External Pilot from the 12 port of the base and passes it thru the regulator to feed the 12 galley of the valve.

Flow Control - Size 1 / 2 / 3 - ISO 5599 - Sandwich flow controls features

- Both adjustment screws are located on the 12 end of the unit.
- Sandwich Flow Control mounts with its own studs, which means the valve uses standard bolts for mounting.

Size	Order code	
	Plug-in	Non Plug-in
	5599-2	5599-1
Size 1	PS4035CP	PS4042CP
Size 2	PS4135CP	PS4142CP
Size 3	PS4235CP	PS4242CP

Plug-In
5599-2
Size 2 Shown



Solenoid coils with Din A or Industrial connection

Voltage	Order code Din A Standard 30 x 30	Weight (Kg)	Order code Din A Mobile 30 x 30	Weight (Kg)	Order code Industrial standard 22 x 30	Weight (Kg)
Direct current						
12V DC	P2FCA445	0.105	P2FCA447	0.105	P2FCB445	0.093
24V DC	P2FCA449	0.105	P2FCA448	0.105	P2FCB449	0.093
48V DC	P2FCA453*	0.105	P2FCA474	0.105	P2FCB451	0.093
72V DC			P2FCA470	0.105		
96V DC			P2FCA471	0.105		
110V DC			P2FCA472	0.105		
Alternative current						
12V 50/60Hz	P2FCA440	0.105			P2FCB440	0.093
24V 50/60Hz	P2FCA442	0.105			P2FCB442	0.093
48V 50/60Hz	P2FCA469#	0.105				
110V 50Hz, 120V 60Hz	P2FCA453	0.105			P2FCB453	0.093
230V 50Hz, 230V 60Hz	P2FCA457	0.105			P2FCB457	0.093

* P2FCA453 is compatible with 110 V AC and 48 V DC

P2FCA469 is 24 V DC 6.8W or 48 V 50Hz 9.9 VA

Solenoid coils with M12 connection

Voltage	Order code 30 x 30	Weight (Kg)	Order code 22 x 30	Weight (Kg)
Direct current				
24V DC	P2FC6419	0.065	P2FC7419	0.065

Spare Solenoid Nuts

Valves requiring captured exhaust should be fitted with plastic knurled nut

Order code
P2FNP

Valves with vented exhaust are fitted with diffuser plastic nut

Order Code
P2FND

Spare Solenoid Operators

Solenoid pilot operator CNOMO NC

Description	Order code No manual override	Weight (Kg)	Order code Non-lock manual override	Weight (Kg)	Order code Locking manual override	Weight (Kg)
Standard duty	P2FP23N4A	0.065	P2FP23N4B	0.065	P2FP23N4C	0.065
Mobile metal	P2FP43M4A	0.1				

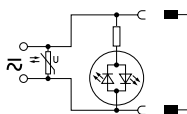
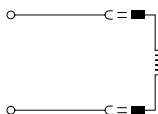
Note.

Solenoid pilot operators are fitted to the Viking valve range. Order the above part numbers for spares. The operators are supplied with mounting screws and interface 'O' rings.

Coils and connectors must be ordered separately.

Solenoid Connectors / Cable Plugs EN175301-803

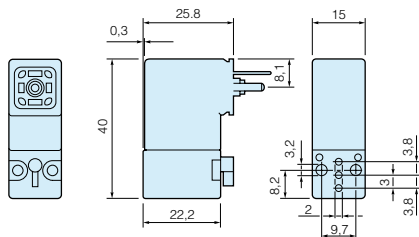
	Description	Order code 15mm Form C/ISO15217	Order code 22mm Industrial Form B	Order code 30mm Form A/ISO4400
With large headed screw suitable for mounting in inaccessible or recess position 	Standard IP65	P8C-C		
	24V DC LED and protection IP65	P8C-C26C		
	110V AC LED and protection IP65	P8C-C21E		
With standard screw 	Standard IP65 without flying lead	P8C-D	3EV10V10	3EV290V10
	With LED and protection 24V AC/DC	P8C-D26C	3EV10V20-24	3EV290V20-24
	With LED and protection 110V AC	P8C-D21E	3EV10V20-110	3EV290V20-110
	With LED and protection 230V AC		3EV10V20-230	3EV290V20-230
With cable 	Standard with 2m cable IP65	P8L-C2		
	Standard with 5m cable IP65	P8L-C5		
	24V AC/DC, 2m cable LED and protection IP65	P8L-C226C		
	24V AC/DC, 5m cable LED and protection IP65	P8L-C526C	3EV10V20-24L5	3EV290V20-24L5
	24V AC/DC, 10m cable LED and protection IP65	P8L-CA26C		
	110V AC/DC, 2m cable LED and protection IP65	P8L-C221E		
	110V AC/DC, 5m cable LED and protection IP65	P8L-C521E	3EV10V20-110L5	3EV290V20-110L5
	230V AC, 5m cable LED and protection IP65		3EV10V20-230L5	3EV290V20-230L5



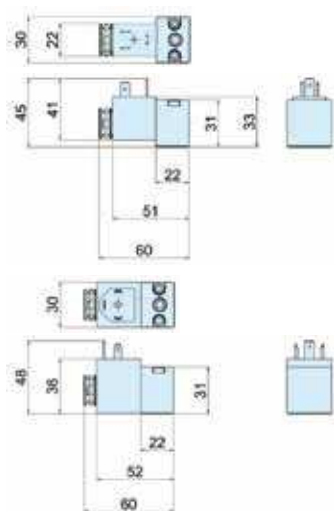
P8C-C	P8C-D26C	P8L-C226C
P8C-D	P8C-D21E	P8L-C526C
P8L-C2	P8C-C26C	P8L-CA26C
P8L-C5	P8C-C21E	P8L-C221E
3EV10V10		P8L-C521E
	3EV10V20-24	3EV10V20-24L5
	3EV10V20-110	3EV10V20-110L5
	3EV10V20-230	3EV10V20-230L5

Cable Plug Dimensions (mm)

Solenoid operators P2E - 15mm

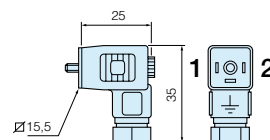


Solenoid operators P2F - CNOMO - 22 x 30mm



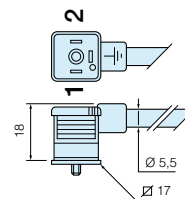
Cable plugs

P8L-C2
P8LC5
P8L-C226C
P8L-C526C
P8L-CA26C
P8L-C221E
P8L-C521E



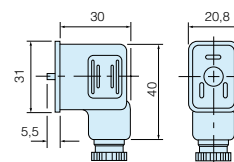
Cable plugs

P8C-C
P8C-C26C
P8C-C21E
P8C-D
P8C-D26C
P8C-D21E



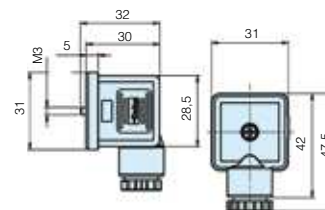
Cable plugs

3EV10V10



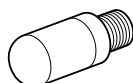
Cable plugs

3EV290V10



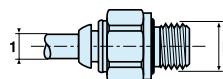
Accessories

Silencers



Port	Ordercode	Pack Qty
G1/8	P6M-PAB1	10
G1/4	P6M-PAB2	10
G3/8	P6M-PAB3	10
G1/2	P6M-PAB4	10

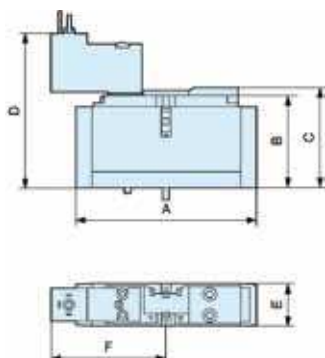
Fittings



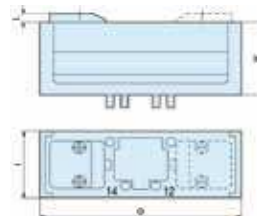
Male connector - BSPP

Tube dia 1	Thread B	Ordercode	Box Qty
4	1/8	F4PMB4-1/8	20
4	1/8	F4PMB4-1/8	20
6	1/8	F4PMB6-1/8	30
8	1/8	F4PB8-1/8	40
6	1/4	F4PMB6-1/4	30
8	1/4	F4PB8-1/4	30
10	1/4	F4PB10-1/4	20
12	1/4	F4PB12-1/4	10
8	3/8	F4PB8-3/8	20
10	3/8	F4PB10-3/8	20
12	3/8	F4PB12-3/8	10
14	3/8	F4PB14-3/8	10
10	1/2	F4PB10-1/2	10
12	1/2	F4PB12-1/2	10
14	1/2	F4PB14-1/2	10

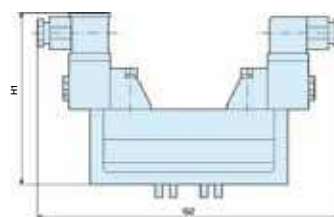
Isomax - Dimensions (mm)



Pneumatically actuated



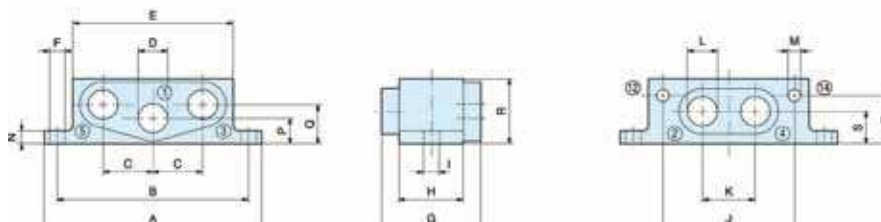
With P2F solenoids



	A	B	C	D	E	F
Isomax 02	80	41	44,5	67,8	18	51,2
Isomax 01	100	42	45,5	68,8	26	51,2

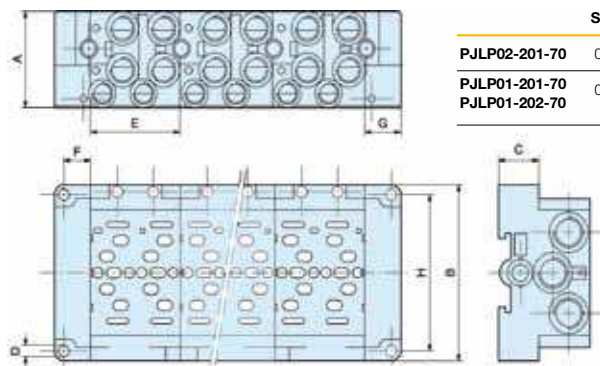
	G	G1	G2	G3	H	H1	I	L
Size 1	120	164	202,5	160	47	119	42	5
Size 2	140	179,5	218	175,5	58,5	130	54	5
Size 3	170	198	235,5	194	71	142,5	68	5

Single subbases side ported



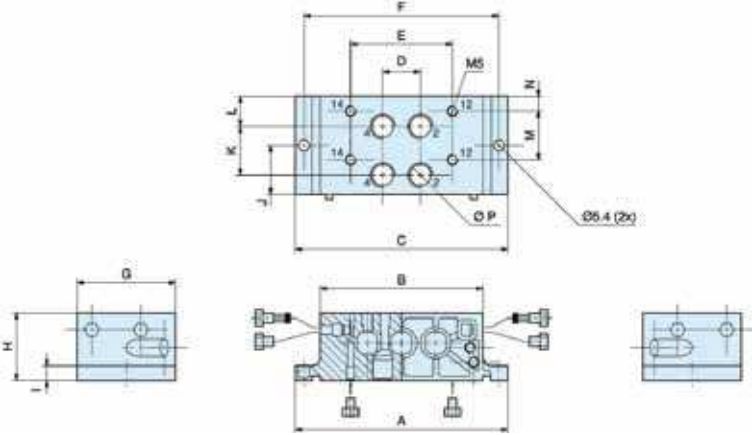
	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T
PL02-01-70	02	80	70	16	G1/8	52	8	27	19	5,5	40	17	G1/8	M5	8	8	8	22	13	6
P2V-BS512SS	01	92	80	21,2	G1/8	68	6,5	42	27	5,5	55	22	G1/8	M5	6	11	17	28	14	21

Side ported manifolds for 2 valve positions



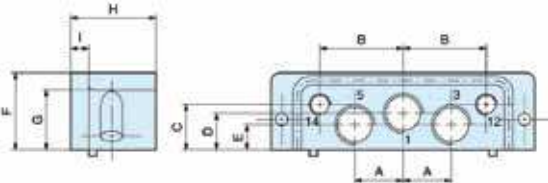
	Size	A	B	C	D	E	F	G	H
PJLP02-201-70	02	38,5	80	12	Ø 4,2	38	14	18	72
PJLP01-201-70	01	55	100	24	Ø 5,5	54	17	22	90
PJLP01-202-70									

Bottom ported manifolds for 2 valve positions



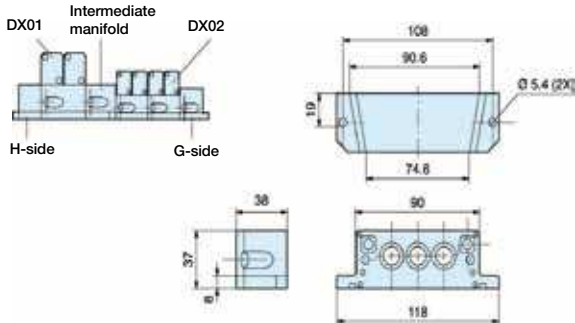
	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
P2V-AM511PB	02	102	74	74,6	16	43	92	38	26	7	19	19	11	19	5	G1/8
P2V-BM512PB	01	118	90	90,6	21	56,5	108	54	37	8	27	27	16,5	27	8	G1/4

G and H side end plate bottom ported for above bottom ported manifold



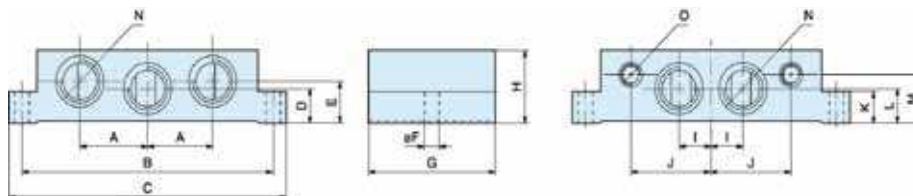
	Size	Port size 1,2,3	Port size 12, 14	A	B	C	D	E	F	G	H	I
P2V-AM512GB and P2V-AM512HB	02	G1/4	G1/8	17	29	21	18,5	9,5	35,5	28	33	7
P2V-BM513GB and P2V-BM513HB	01	G3/8	G1/8	21,5	37	20	16	11	34,5	28	38	8

Transfer plate size 01 to size 02 for above bottom ported manifold



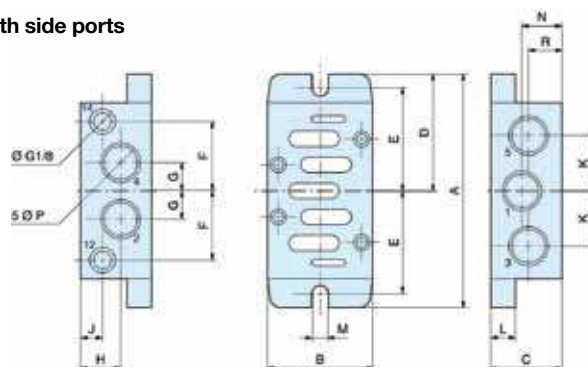
Dimensions

Single subbase with side ports according to VDMA



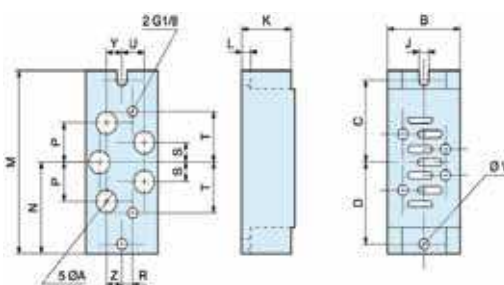
Order code	ISO Size	Port Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
P2N-VS512SD	1	G1/4	21,5	98	110	11	20	5,5	48	32	12	29	10	11	23	G1/4	G1/8
P2N-WS513S	2	G3/8	28	112	124	14	26	6,6	56	40	15	37	13	14	30	G3/8	G1/8
P2N-YS514SD	3	G1/2	34	136	149	17	17	6,6	71	32	16	45	18	17	22	G1/2	G1/8

Single subbase with side ports



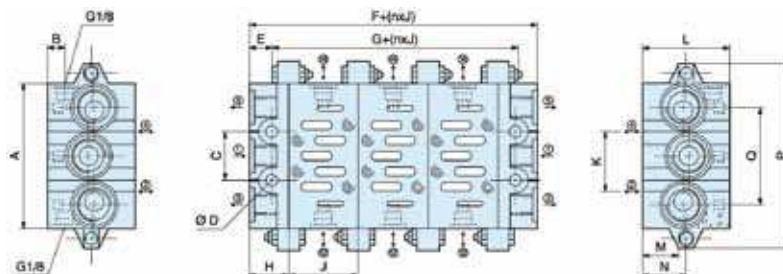
Order code	ISO Size	ØP	A	B	C	D	E	F	G	H	J	K	L	M	N	R
PL1-1/4-70	1	G1/4	110	46	29	55	49	30	11	17,75	17,75	22	6	5,5	17,75	17,75
PL2-3/8-70	2	G3/8	124	56	37	62	55	37	14,5	22,5	14	28	6	5,5	22,5	14,5
P2N-JS516SD	3	G3/4	149	71	60	74,5	68	45	21	33	10	40	18	6,6	37,5	22,5

Single subbase with bottom ports



Order code	A	B	C	D	J	K	L	M	N	P	R	S	T	U	W	Y	Z
PD1-1/4-70	G1/4	46	49	49	5,5	29	6	110	55	22	10	11	30	10	5,5	10	10
PD2-3/8-70	G3/8	56	55	55	5,5	37	6	124	62	29	10	14,5	37	12,5	5,5	12,5	12,5
PD3-1/2-70	G1/2	77	68	68	6,6	32	18	149	74,5	34	10	17	45	17	6,5	17	17

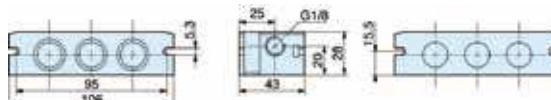
Manifold and end plates according to VDMA (P2N-VM / WM / YM)



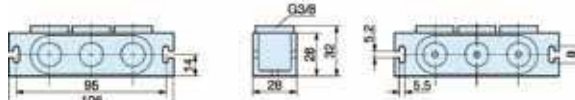
ISO Size	Port 1, 3, 5	Port 2, 4	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
1	G3/8	G1/4	85	8,5	28	7	11	44	22	22	43	26	46	21	24	56	110
2	G1/2	G3/8	100	9	35	9	13	52	26	26	56	30	47	22	24	68	135
3	G1	G1/2	140	10	52	12	15	60	30	30	71	38	56	31	34	104	190

Manifold and end plates with bottom ports "low profile" (P2N-AM..)

Manifold P2N-AM512MB



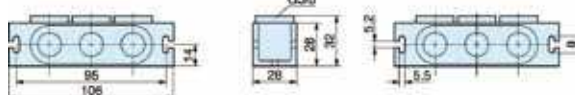
Connecting block P2N-AM513GT



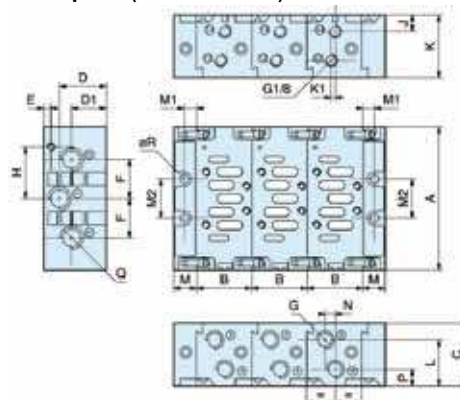
End piece P2N-AM500J



Intermediate supply P2N-AM513BT

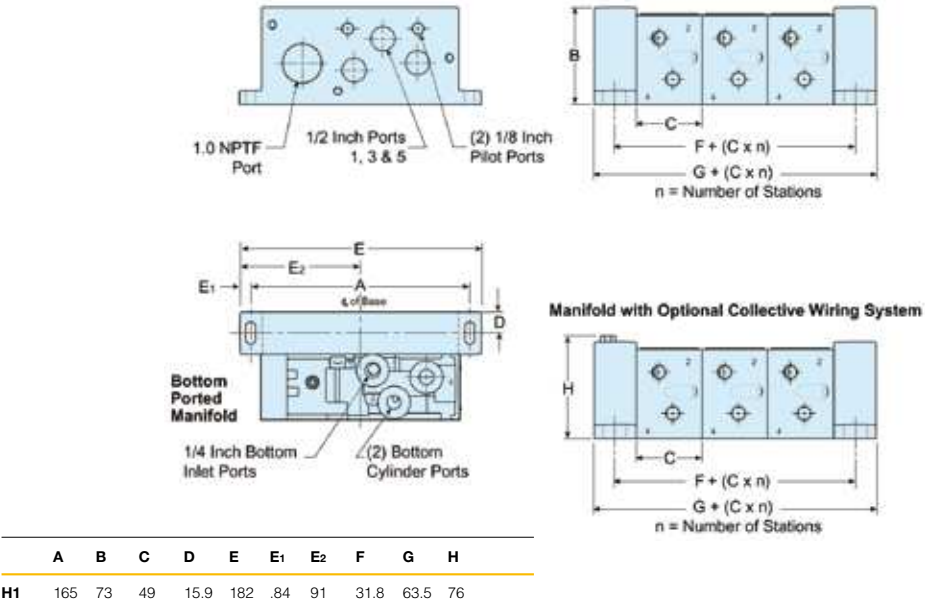


Manifold and end plates with side ports (P2N-EM / FM..)

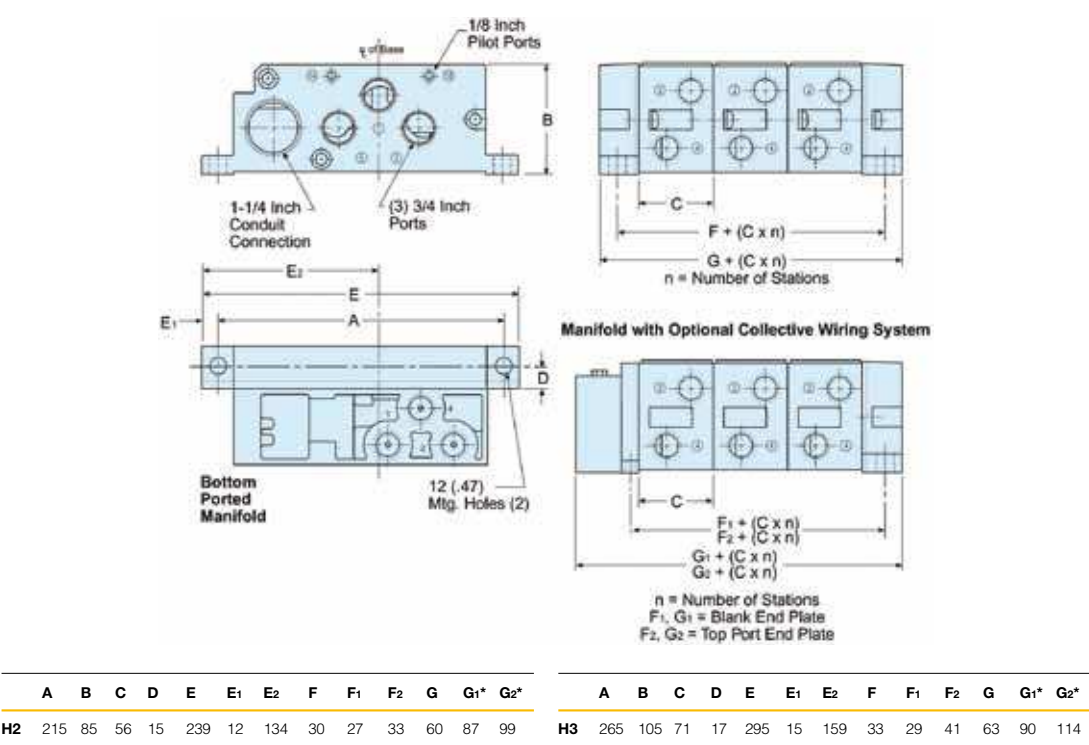


Order code	A	B	C	D	D1	E	F	G	H	J	K	K1	L	M	M1	M2	N	P	Q	R
P2N-EM...	110	43	48	35,5	26,5	5,5	28	G1/4	36	15,5	35	3	32	20	11	28	12	12,5	G3/8	6
P2N-FM...	129	56	60	44,5	35,5	6	34,5	G3/8	45	16	41,5	3	41	24	13	35	12,5	16	G1/2	8

H1 5599-2 / 5599-1 Manifold



H2 / H3 5599-2 / 5599-1 Manifold

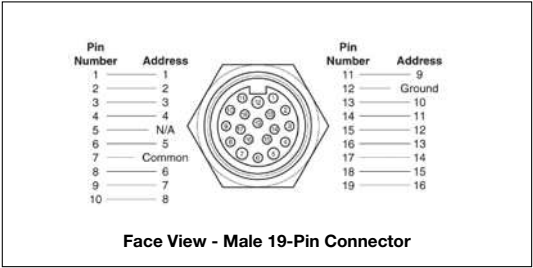


Maximum Solenoids Energized Simultaneously

HA HB	Voltage code	25-pin D-Sub	19-pin round	Single 12-pin M23	Isysnet	
24 V DC	B9 / G9	24	16	8	32	
120 V AC*	23	24	16	8	32	
H1 H2 H3	Voltage code	25-pin D-Sub	19-pin round	Single 12-pin M23	Isysnet	SAM 3.0
12 V DC	45	13	13	8	N/A	N/A
24 V AC*	42	24	16	8	N/A	N/A
24 V DC	B9	20	16	8	21	4
120 V AC*	23	24	16	8	N/A	N/A

* Not CSA certified for 25-pin, D-Sub option.

19-Pin Round Brad Harrison



19-Pin Round Cable Specifications

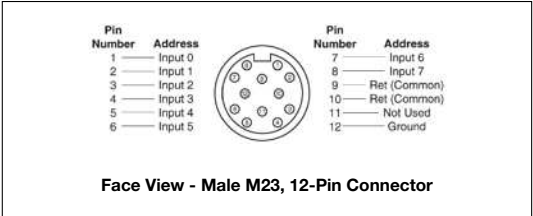
Common Pin "7" is rated for 8 amps. Cable common wire must be greater than total amperage of solenoids on Add-A-Fold assembly.

Example:- 8 station manifold, 16 solenoids,
120VAC - 16 x .039 amps = .63 total amp rating.
NEMA 4 rated with properly assembled NEMA 4 rated cable.

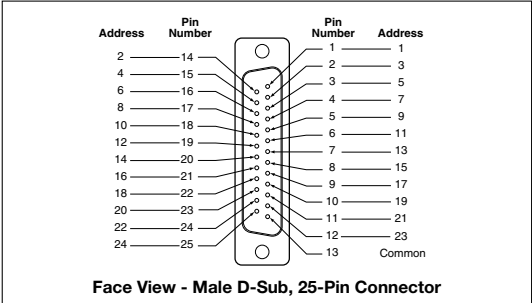
Brad Harrison #333030P80M050 16.40 ft. (Female to Male Cable)

Brad Harrison #333030P80M0100 32.80 ft. (Female to Male Cable)

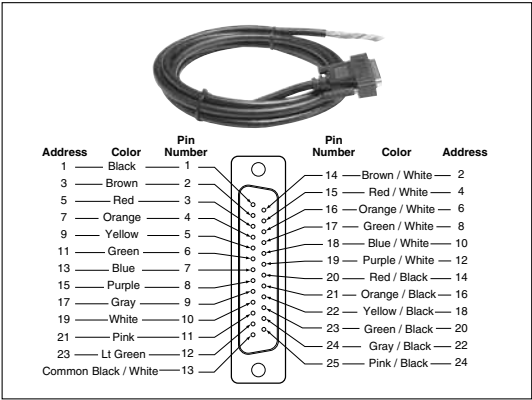
M23, 12-Pin Round Connector (Male)



25-Pin, D-Sub Connector (Male)



25-Pin, D-Sub Cable (Female)

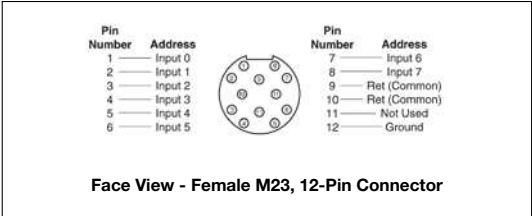


25-Pin, D-Sub Cable Specifications

Common Pin "13" is rated for 3 amps. Common wire rating must be greater than total amperage of all solenoids on a Add-A-Fold assembly.

IP65 rated with properly assembled IP65 rated cable.

M23, 12-Pin Round Connector (Female)

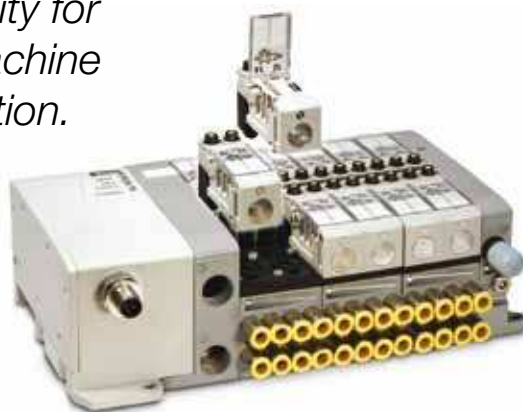




Isys Micro

Plug-in valve island

*Parker's newest and most innovative valve design offers functionality for **every** machine configuration.*



The Isys Micro valve redefines flexibility for pneumatic users. When either configured from basic components or ordered as pre-assembled and tested valve islands, Isys Micro valves are the answer to all your needs.

Flexible in use

The Isys Micro range is fully dedicated to centralized applications where a high quantity of valves have to be concentrated in a single location.

Solenoid valve island can also be implemented with digital or analogical electrical I/O.

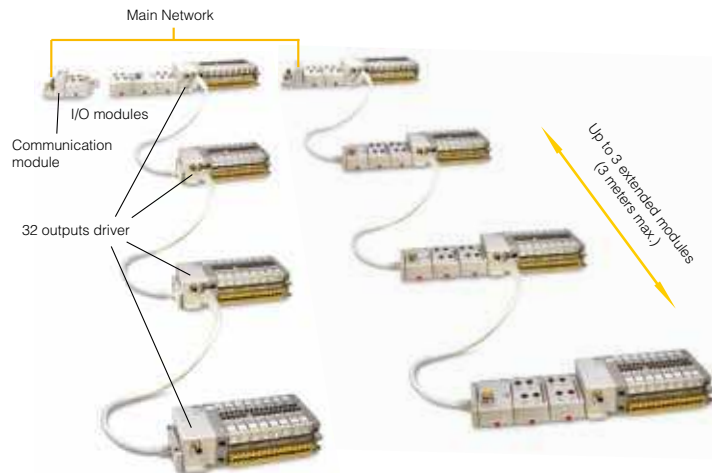
From a centralized application high complexity level to a basic configuration, with industrial communication or traditional multi-connection, an Isys Micro valve island can be designed.

One communication module for 256 Inputs and 256 Outputs

The combination of 32 output drivers and electrical I/O modules linked to the main communication module allows Isys Micro valve islands to drive up to 512 I/O, including up to 128 solenoids split between 4 interconnected devices.

Both electrical inputs and outputs modules can also be assembled either on the main or extended islands.

Expansion power supply may be used to provide additional Pointbus backplane current.



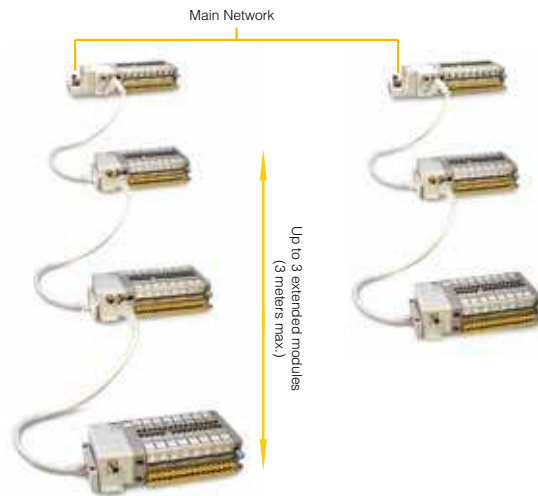
Up to 128 solenoid valves configuration

If a high quantity of valves is required in a centralized application, up to 3 extended islands can be connected to the main device communication module.

All extended islands are connected through a bus extension cable PSSVEXT1 (including 1 m cable and head plate).

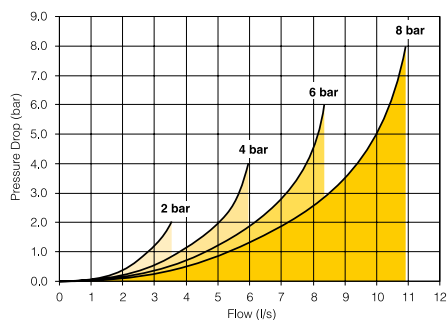
In this configuration, the 32 outputs driver module, on the main island and the extended island, have to be equipped with a "bus extension" M12 connector, excepted for the last extended island.

All 32 outputs driver modules need to be equipped with a M12 solenoids power supply connector.



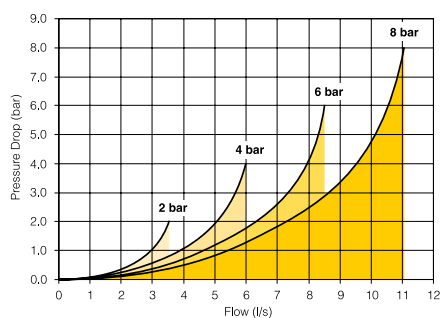
Flow Characteristics

Dual 3/2



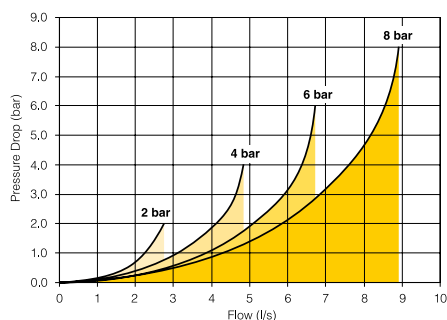
Operating pressure :	2,7 to 8,3 bar
Change-over time (side 14)	Actua. 15 ms Return 20 ms P = 6b
Change-over time (side 12)	15 ms / 25 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1,2 NI/s x bar b = 0,13 Qn = 4,6 NI/s Qmax = 8,4 NI/s

5/2 single and double solenoid



Operating pressure single solenoid:	2,7 to 8,3 bar
Operating pressure double solenoid:	1,7 to 8,3 bar
Change-over time single solenoid:	Actua. 15 ms Return 25 ms P = 6b
Change-over time double solenoid:	13 ms / 13 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1,2 NI/s x bar b = 0,13 Qn = 4,7 NI/s Qmax = 8,5 NI/s

5/3 all ports blocked



Operating pressure :	2,7 to 8,3 bar
Change-over time	Actua. 20 ms Return 20 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1 NI/s x bar b = 0,14 Qn = 3,8 NI/s Qmax = 6,7 NI/s

Characteristics

Fluid :	Air or inert gas Filtered 40 µ Class 5 (according to ISO 8573-1) Dry class 4 (according to ISO 8573-1) Non-lubricated or lubricated	Operating pressure :	-0,9 to 8,3 bar with external pressure 6 bar
Storage temperature :	-40 °C to + 70 °C	Piloting pressure :	2,7 to 8,3 bar
Working temperature	-15 °C to + 50°C	Exhaust collection :	Independant exhaust collection
Vibration :	according to IEC 68-2-6 2G to 150 Hz	Rated coil voltage :	24 VDC -15 % / +10 %
Shock :	according to IEC 68-2-27 15G 11 ms	Electrical connection:	Not polarised
		Coil insulation :	Class B
		Power consumption :	1 W (42 mA) with LED
		Duty factor :	100 % at 20°C

Valve ordering chart



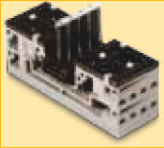
Assembly: HMEVX2049A

Pneumatic function		Manual override	
E	5/2 Single solenoid - Spring return	0	None, (no solenoid *)
2	5/2 Double solenoid	2	Non locking, Flush, Multi-functional
5	5/3 All ports blocked (APB)		
N	Double 3/2 NC		
P	Double 3/2 NO		
Q	Double 3/2 NC + NO		
B	Blanking plate		
C	Pressure module		

Solenoid pilot	
49	24 VDC standard
XX	No solenoid pilot *

* Only available with B & C

Manifold ordering chart (without valve module and fitting)



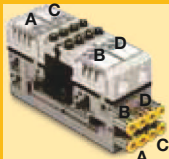
Assembly: PSM21JAP

Manifold design	Thread type
1 Side ported	M7
2 Bottom ported	M7

Electronic circuit board	
J	Single address *
M	Double address

Single address sub-bases are only used with 5/2 single solenoid for saving the address

Manifold ordering chart (complete with valve modules and/or fittings)



Assembly: PSM31JAPN6N62456

Manifold design	Thread type
1 Side ported	M7
2 Bottom ported	M7

Electronic circuit board	
J	Single address
M	Double address

Pneumatic function	
X	Without valve module - fittings only
E	5/2 Single solenoid - Spring return
2*	5/2 Double solenoid
5*	5/3 All ports blocked (APB)
N*	Double 3/2 NC
P*	Double 3/2 NO
Q*	Double 3/2 NC + NO
C	Pressure module
B	Blanking plate

Straight fittings	
0	Without fitting
4	4 mm OD
6	6 mm OD
7	1/4" OD

* Double address electronic circuit board (type M) required

Solenoid operated valve fitted with 24 VDC solenoid

	Symbol	Description	Weight (g)	Order code
 Including multi-function manual override cap		Double 3/2 NC + NC	60	HMNVX2049A
		Double 3/2 NO + NO	60	HMPVX2049A
		Double 3/2 NC + NO	60	HMQVX2049A
		5/2 single solenoid - Spring return	49	HMEVX2049A
		5/2 double solenoid	60	HM2VX2049A
		5/3 all ports blocked (APB)	65	HM5VX2049A
		Blanking module kit (including two M7 plugs for manifold)	30	HMBVX00XXA
		Additional pressure module	30	HMCVX00XXA

Metal manifold for 4 valves (M7 threaded)

	Description	Weight (g)	Order code
 Side ported	4 position manifold single electrical address	332	PSM21JAP
	4 position manifold double electrical address	332	PSM21MAP
 Bottom ported	4 position manifold single electrical address	310	PSM22JAP
	4 position manifold double electrical address	310	PSM22MAP

Complete manifold without fitting (M7 threaded)

	Symbol	Description	Weight (g)	Order code
 Side ported		4 x Double 3/2 NC + NC	572	PSM31MAPN0N0N0N0
		4 x 5/2 single solenoid - Spring return	528	PSM31JAPE0E0E0E0
		4 x 5/2 double solenoid	572	PSM31MAP20202020
		4 x 5/3 all ports blocked (APB)	592	PSM31MAP50505050
 Bottom ported		4 x Double 3/2 NC + NC	550	PSM32MAPN0N0N0N0
		4 x 5/2 single solenoid - Spring return	506	PSM32JAPE0E0E0E0
		4 x 5/2 double solenoid	550	PSM32MAP20202020
		4 x 5/3 all ports blocked (APB)	570	PSM32MAP50505050

Pneumatic accessories

	Description	Size	Tube OD	Material	Order code
	Straight pneumatic connector for sub-base and Px	M7	4 mm	Metal	F28PMB4M7MD
		M7	6 mm	Metal	F28PMB6M7MD
	Straight pneumatic connector for Ex	1/8"	6 mm	Metal	F4PMB6-1/8
		3/8"	8 mm	Metal	F4PB8-3/8
	Straight pneumatic connector for Pressure and Exhaust ports	3/8"	10 mm	Metal	F4PB10-3/8
		3/8"	12 mm	Metal	F4PB12-3/8
	Muffler for Ex	1/8"		Metal	ESB12MC
		1/8"		Plastic	P6M-PAB1
	Muffler for exhaust port	3/8"		Metal	ESB37MC

Multi-pressure inter-manifold seal plate

	Description	Pressure port	Exhaust port	Weight (g)	Order code
	Inter-manifold seal plate	Passing / Passing	Passing	16	PSM0001
		Passing / Block	Passing	20	PSM0002
		Passing / Block	Block	30	PSM0003
		Block / Block	Block	40	PSM0004

Spare parts

	Description	Weight (g)	Order code
	24 VDC Pilot solenoid with screws	11	PSM0010
	Set of 10 multifunction manual override caps	15	PSM0011
	Set of 5 valve manifold gaskets and 10 screws	25	PSM0012
	Set of 10 M7 plugs for auxiliary pressure selection	30	PSM0013
	Set of 10 labels (in the P/N, x has to be replaced with the valve function letter, see page 14)	5	PSM002x
	Set of 10 manifold to manifold M3 screws	20	PSM0014

Isysnet 32 output driver end modules ordering chart



PSML61AP

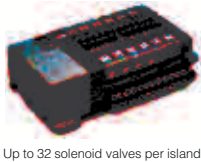
	24 VDC power supply connector	Extender bus connector
L6	NO	NO
M5	NO	YES
M6	YES	NO
M7	YES	YES

	Ported design	Thread type
1	Side ported	3/8" BSPP
2	Bottom ported	3/8" BSPP
5	Side ported	3/8" NPT
6	Bottom ported	3/8" NPT

32 outputs driver selection guide :

L6 type

- Isysnet 32 outputs driver with internal solenoids power supply from the communication head module
- Extended valve island not possible



M6 type

- Isysnet 32 outputs driver with external solenoids power supply by M12 male connector
- Extended valve island not possible



M7 type

- Isysnet 32 outputs driver with external solenoids power supply by separated M12 male connector
- Extended Bus link connection for additional valve islands by separate M12 female connector



M5 type

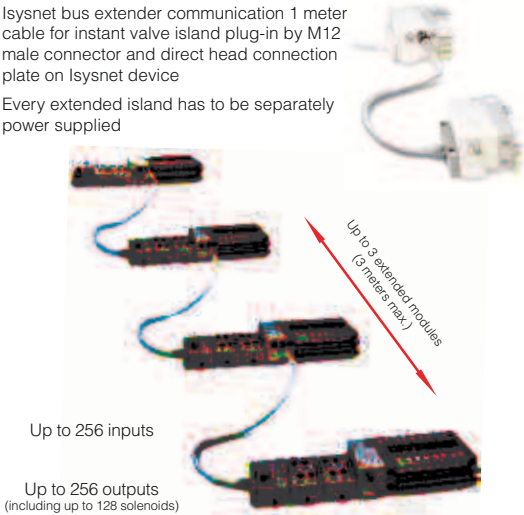
- Isysnet 32 outputs driver with internal solenoids power supply from the communication head module
- Extended Bus link connection for additional valve islands by separate M12 female connector



Isysnet bus extender

Isysnet bus extender communication 1 meter cable for instant valve island plug-in by M12 male connector and direct head connection plate on Isysnet device

Every extended island has to be separately power supplied



Technical data

Isysnet 32 Outputs driver modules

Number of Outputs : 32

Operating Voltage Range : 20,4 to 26.4 VDC

Output current rating Nom. : 50 mA per channel (100 mA Max)
3.2A per module

Pointbus current : 200 mA

Working temperature : -15°C to 50°C

Dust and water protection : IP65

Isysnet 32 outputs driver modules

	Sub-base design	Thread type	24 VDC power supply	Extender bus	Weight (g)	Order code
	Side ported	3/8" BSPP	NO	NO	400	PSML61AP
	Bottom ported	3/8" BSPP	NO	NO	400	PSML62AP
	Side ported	3/8" BSPP	YES	NO	400	PSMM61AP
	Bottom ported	3/8" BSPP	YES	NO	400	PSMM62AP
	Side ported	3/8" BSPP	NO	YES	400	PSMM51AP
	Bottom ported	3/8" BSPP	NO	YES	400	PSMM52AP
	Side ported	3/8" BSPP	YES	YES	400	PSMM71AP
	Bottom ported	3/8" BSPP	YES	YES	400	PSMM72AP

Isysnet bus extender

	Description	Weight (g)	Order code
	Head plate 1 meter cable / M12 male connector for extended island inter-connection	380	PSSVEXT1



Communication modules :

- Fieldbus
- Industrial Ethernet

Digital and Analogical I/O modules
Extended power supply module
IP67 modules

Isysnet Communication and I/O modules

Isysnet Communication modules

Isysnet communication modules are available in :

- DeviceNet
- Profibus DP
- Ethernet I/P
- ControlNet



Digital or Analogical electrical I/O modules

Some modules have diagnostic features, electronic fusing, or individually isolated inputs/ outputs. The Isysnet family provides a wide range of input and output modules to span many applications, from highspeed discrete to process control. Isysnet supports producer/consumer technology, which allows input information and output status to be shared among multiple Logix controllers.



Isysnet Extension Power Unit

The auxiliary power supports up to 10 I/O modules and 32 output driver with a maximum of 10 A field power. The 24 VDC extension power unit (PSSSE24A) extends the backplane bus power to support up to 10 more I/O modules. Connect additional extension power units to expand the I/O assembly up to 63 I/O modules



Technical data

Isysnet Communication modules & Extension power unit

Bus power supply :	24 VDC at 400 mA
Power supply input voltage :	24 VDC
Operative voltage range :	10 to 28.8 VDC
Input overvoltage protection :	Reverse polarity protected

Isysnet Analogue Input modules

Number of Outputs :	2
Input signal Range :	4 to 20 mA / 0 to 10 VDC
Pointbus current :	75 mA

Isysnet Analogue Output modules

Number of Outputs :	2
Input signal Range :	4 to 20 mA / 0 to 10 VDC
Pointbus current :	75 mA

Isysnet Digital Input modules

Number of Outputs :	8 – PNP or NPN
Operating Voltage Range :	10 to 28.8 VDC
Input current on-state :	2 to 5 mA
Input current off-state :	1,5 mA
Pointbus current :	75 mA

Isysnet Digital Output modules

Number of Outputs :	8
Operating Voltage Range :	10 to 28.8 VDC
Output current rating Max. :	1 A per channel 3 A per module
Pointbus current :	75 mA

Isysnet Relay Output modules

Number of Outputs :	4 – NO contacts
Operating Voltage Range :	5 to 28.8 VDC
Output current rating Max. :	2 A per channel 8 A per module
Pointbus current :	90 mA

Isysnet communication modules

	Description	Fieldbus connection	Power supply connector	Weight (g)	Order code
	DeviceNet	M18	7/8" - 4 pins	400	PSSCDM18PA
		M12 - A coding	7/8" - 4 pins	400	PSSCDM12A
	Profibus DP	M12 - B coding	7/8" - 5 pins	380	PSSCPBA
	Ethernet I/P	M12 - D coding	7/8" - 4 pins	380	PSSCENA
	ControlNet	M12 - D coding	7/8" - 4 pins	380	PSSCCNA

Isysnet electrical I/O modules

	Description	Polarity	Connector type	Weight (g)	Order code
	8 Digital Inputs	PNP	8 x M8	400	PSSN8M8A
		NPN	4 x M12	380	PSSN8M12A
	8 Digital Outputs	PNP	8 x M8	400	PSST8M8A
			4 x M12	380	PSST8M12A
	8 Digital Outputs	PNP	8 x M8	400	PSST8M8A
			4 x M12	380	PSST8M12A
	4 Digital Outputs	Relay	1 x M23	400	PSSTR8M23A
			4 x M12	410	PSSTR4M12A
	2 Analogue Inputs	0 - 10 V	4 x M12	400	PSSNAVM12A
		4 - 20 mA	2 x M12	400	PSSNACM12A
	2 Analogue Outputs	0 - 10 V	2 x M12	400	PSSTAVM12A
		4 - 20 mA	2 x M12	400	PSSTACM12A

Isysnet auxiliary electrical modules

	Description	Connector type	Weight (g)	Order code
	24 VDC expansion power unit	7/8" - 4 pins	420	PSSSE24A

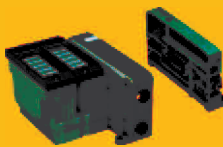
Isysnet bus extender

	Description	Length	Weight (g)	Order code
	Bus extender cable for Isysnet module interconnection	1 meter	380	PSSVEXT1
		3 meters	760	PSSVEXT3
	Isysnet termination module		200	PSSTERM

Isysnet accessories

	Description	Bus protocol	Connector type	Weight (g)	Order code
	Power supply connector	DeviceNet, ControlNet & Ethernet	7/8" - 4 pins	40	P8CS7804AA
		Profibus DP	7/8" - 5 pins	40	P8CS7805AA
	Line termination	DeviceNet	M12 - A coding	25	P8BPA00MA
		Profibus DP	M12 - B coding	25	P8BPA00MB
	Bus IN	DeviceNet	M12 - A coding	25	P8CS1205AA
	female connector	Profibus DP	M12 - B coding	25	P8CS1205AB
	Bus OUT	DeviceNet	M12 - A coding	25	P8CS1205BA
	male connector	Profibus DP	M12 - B coding	25	P8CS1205BB
	Cable quick connect connector		M8	25	P8CS0803J
			M12 - A coding	25	P8CS1204J
	"Y" shape, thread to thread		M12 - 2 x M12	25	P8CSY1212A

16 Outputs Moduflex Bus ends module adaptor



TURCK BL67 Series adaptor

T0	Valve Driver Module without output module
T1	Valve Driver Module for 16 Outputs
T2	Valve Driver Module for 32 Outputs

For T0 version, 16 output module and blank module can be ordered separately from the next page or directly from TURCK under the same part number.

	Ported design	Thread type
1	Side ported	3/8" BSPP
2	Bottom ported	3/8" BSPP
5	Side ported	3/8" NPT
6	Bottom ported	3/8" NPT

TURCK
Industrial Automation

Valve driver Module for 16 or 32 Outputs

Modularity up to 16 or 32 Outputs :

- Populated with 1 or 2 standard TURCK 16 Output modules BL67-16DO-0. 1A-P, the Valve Driver Module can handle up to 16 or 32 solenoid valves.
- For a 16 Outputs configuration, the second slot has to be populated with 1 standard TURCK blank module BL67-E.



TURCK BL67 communication gateway

Industrial Communication :

- Linked to a TURCK BL67 communication module (programmable or not programmable), the device can be connected to a wide choice of Field Bus or Industrial Ethernet protocols.



CANopen

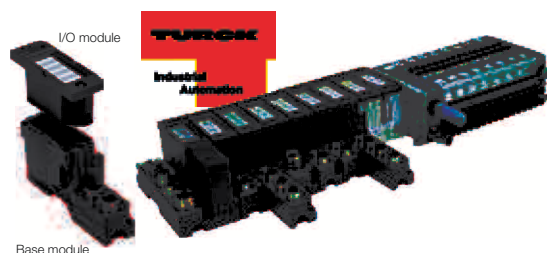
MODBUS TCP

TURCK BL67 I/O and Base modules

The 2 piece design allows to complete the device with a choice through a full digital or analogue **I/O modules** range populating the **base module** existing with a multiple choice of electrical connection (M8, M12, M23, 7/8")

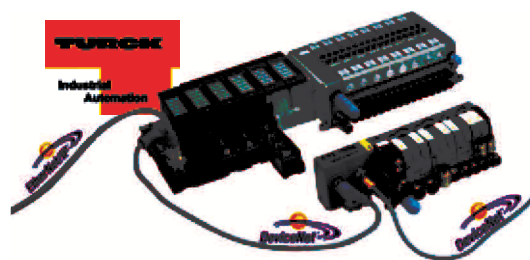
The complete resulting configuration can handle :

- Up to 32 electrical modules (up to 2 in the Valve Driver Module)
- Up to 256 digital I/O (up to 32 outputs in the Valve Driver Module)
- Up to 64 analog I/O



BL67 Ethernet IP gateway to DeviceNet

Using the TURCK BL67 Ethernet/IP gateway with DeviceNet master BL67-GW-EN-IP-DN, you can easily connect and configure a DeviceNet subnetwork thanks to the "Magic Black Button".



Full description of TURCK BL67 Series on <http://www.turck.com>

Valve Driver Module - TURCK BL67 adaptor

	Description	Solenoid Valves	Sub-base design	Thread type	Weight (g)	Order code
	Valve Driver Module	0	Side ported	3/8" BSPP	200	PSMT01AP
		Without 16 O module	Bottom ported	3/8" BSPP	200	PSMT02AP
	16 Outputs or blank module to be ordered separately (see below)					
		16	Side ported	3/8" BSPP	270	PSMT11AP
		Including : - 1 x 16 O module - 1 blank module	Bottom ported	3/8" BSPP	270	PSMT12AP
		32	Side ported	3/8" BSPP	310	PSMT21AP
		Including : - 2 x 16 O modules	Bottom ported	3/8" BSPP	310	PSMT22AP

Standard TURCK BL67 module

	Description	Weight (g)	Order code
	16 Outputs module for 16 or 32 solenoid valves configuration	55	BL67-16DO-0.1A-P
	Blank module for 16 solenoid valves configuration	15	BL67-E

Both standard TURCK BL67 Outputs module and Blank module can be ordered directly from TURCK under the same part number.

16 Outputs module BL67-16DO-0.1A-P technical specifications

Number of channels	16	Dimensions (W x L x H)	32 x 91 x 59 mm
Nominal voltage V_O	24 VDC	Approvals	CE, cULus
Rated current from field supply	≤ 100 mA	Operating temperature	Refer to solenoid valve
Rated current from module bus	≤ 30 mA	Storage temperature	-40°C to +70°C
Power loss, typical	≤ 1.5 W	Vibration	According to IEC68-2-6 : 2g to 150 Hz
		Shock test	According to IEC68-2-27 : 15g to 11 ms
Output type	PNP	Electro-magnetic compatibility	acc. to EN61131-2
Output voltage	24 VDC	Protection class	IP 65
Output current per channel	140 mA rated current (with VN 01-05 or higher)	Tightening torque fixing screws	0.9 ... 1.2 Nm
Output delay	3 ms		
Load type	resistive, inductive		
Short-circuit protection	yes		
Simultaneity factor	1		
Electrical isolation	electronics for the field level		

16 Outputs Moduflex Bus ends module adaptor



PSM

MC

1

AP

Moduflex 16 Outputs adaptor	
M4	Adaptor without bus module
MC	Adaptor with CANopen module
MD	Adaptor with DeviceNet module
MP	Adaptor with Profibus DP module

Ported design		Thread type
1	Side ported	3/8" BSPP
2	Bottom ported	3/8" BSPP
5	Side ported	3/8" NPT
6	Bottom ported	3/8" NPT

For AS-i communication, use M4 and see Moduflex Valve catalogue for AS-i module part number.

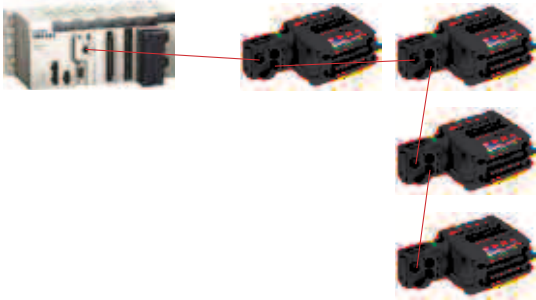
Moduflex Bus 16 Outputs

16 solenoids fieldbus modules available in DeviceNet, CANopen, and Profibus DP protocols.



Closer to the cylinder

Decentralized application when solenoid valves have to be closer to the pneumatic actuators.



Technical data

Moduflex Bus communication modules

Bus power supply :	20 to 30 VDC
Power supply output voltage :	24 VDC
Module consumption :	
• DeviceNet :	1,5 W
• CANopen :	1,5 W
• Profibus DP :	1,5 W
Water and dust Protection :	IP65
Output protection :	overload protected

Moduflex Bus modules



Description	Bus protocol	Sub-base design	Thread type	Weight (g)	Order code
Moduflex Bus module	CANopen	Side ported	3/8" BSPP	250	PSMMC1AP
		Bottom ported	3/8" BSPP	250	PSMMC2AP
	DeviceNet	Side ported	3/8" BSPP	250	PSMMD1AP
		Bottom ported	3/8" BSPP	250	PSMMD2AP
	Profibus DP	Side ported	3/8" BSPP	250	PSMMP1AP
		Bottom ported	3/8" BSPP	250	PSMMP2AP
Also available, AS-i interface protocol, standard version or extended version (A - B coded). See Moduflex Valve catalogue.					
End modules adaptor without Moduflex Bus module	All	Side ported	3/8" BSPP	200	PSMM41AP
		Bottom ported	3/8" BSPP	200	PSMM42AP



For configuration files, go to : <http://www.parker.com/pneu/moduflex>.

Decentralized Device bus accessories

	Description	Bus protocol	Connector type	Weight (g)	Order code
 P8CS0803J	Power supply female straight connector	All	M12 - A coding	25	P8CS1205AA
	Line termination	DeviceNet	M12 - A coding	25	P8BPA00MA
		CANopen			
		Profibus DP	M12 - B coding	25	P8BPA00MB
	Bus IN female connector	DeviceNet	M12 - A coding	25	P8CS1205AA
		CANopen			
		Profibus DP	M12 - B coding	25	P8CS1205AB
	Bus OUT male connector	DeviceNet	M12 - A coding	25	P8CS1205BA
		CANopen			
		Profibus DP	M12 - B coding	25	P8CS1205BB
 P8CSY1212A	Cable quick connect connector		M8	25	P8CS0803J
			M12 - A coding	25	P8CS1204J
	"Y" shape, thread to thread		M12 - 2 x M12 - A coding	25	P8CSY1212A

Multi-connection head module



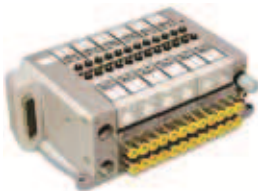
PSML21AP

Multi-wire connection	
L2	Sub-D25 connector

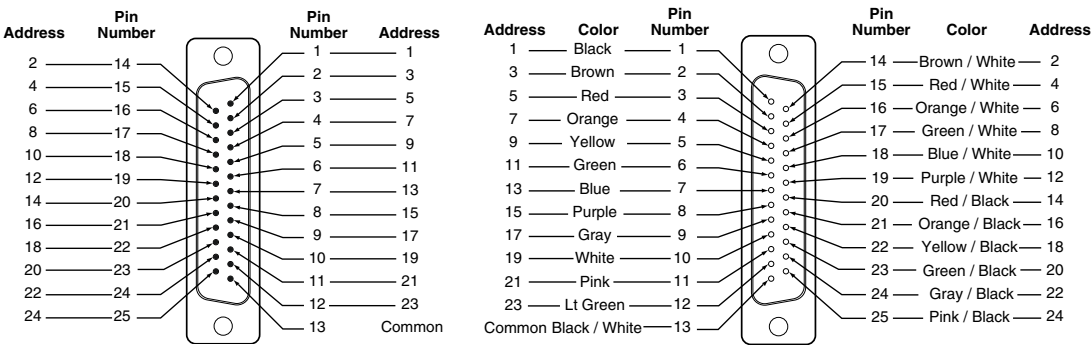
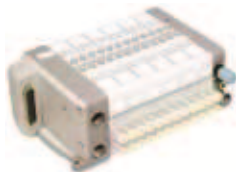
Ported design		Thread type
1	Side ported	3/8" BSPP
2	Bottom ported	3/8" BSPP
5	Side ported	3/8" NPT
6	Bottom ported	3/8" NPT

Sub-D25 connection

Up to 24 solenoids on standard Sub-D25 connector.



Technical data



Rated voltage :	24 VDC
Maximum addresses :	24
Maximum energised simultaneously :	24
Electrical connection :	Sub-D25 pin DIN 41652, MIL-C-24308, NFC93425 type HE5
Polarity :	PNP and NPN compatible (solenoids not polarized)
Dust and water protection :	IP65 rated with properly assembled IP65 rated cable

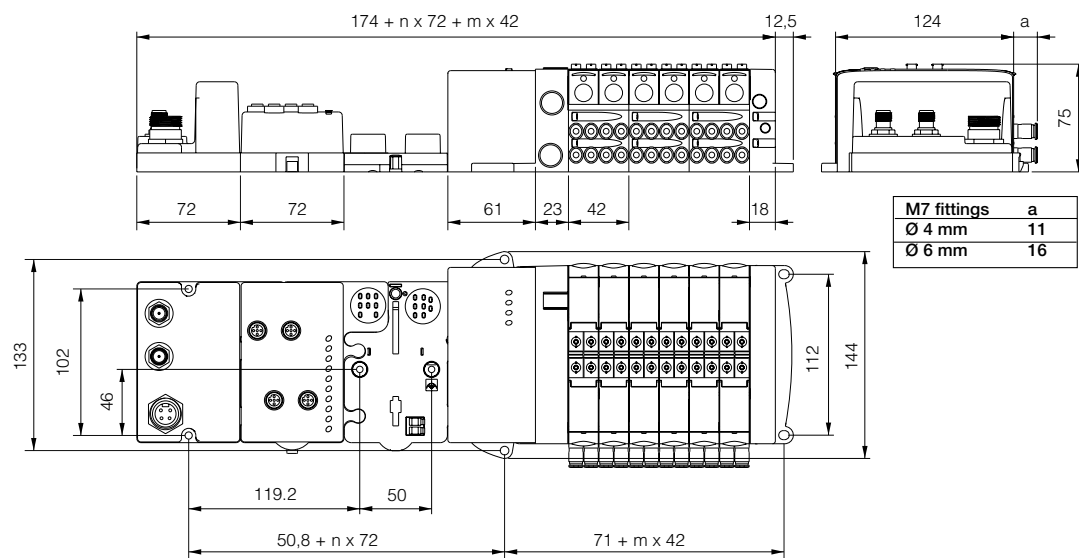
Electrical multi-pole end modules

	Description	Sub-base design	Thread type	Weight (g)	Order code
	Sub-D25 ends module	Side ported	3/8" BSPP	250	PSML21AP
		Bottom ported	3/8" BSPP	250	PSML22AP

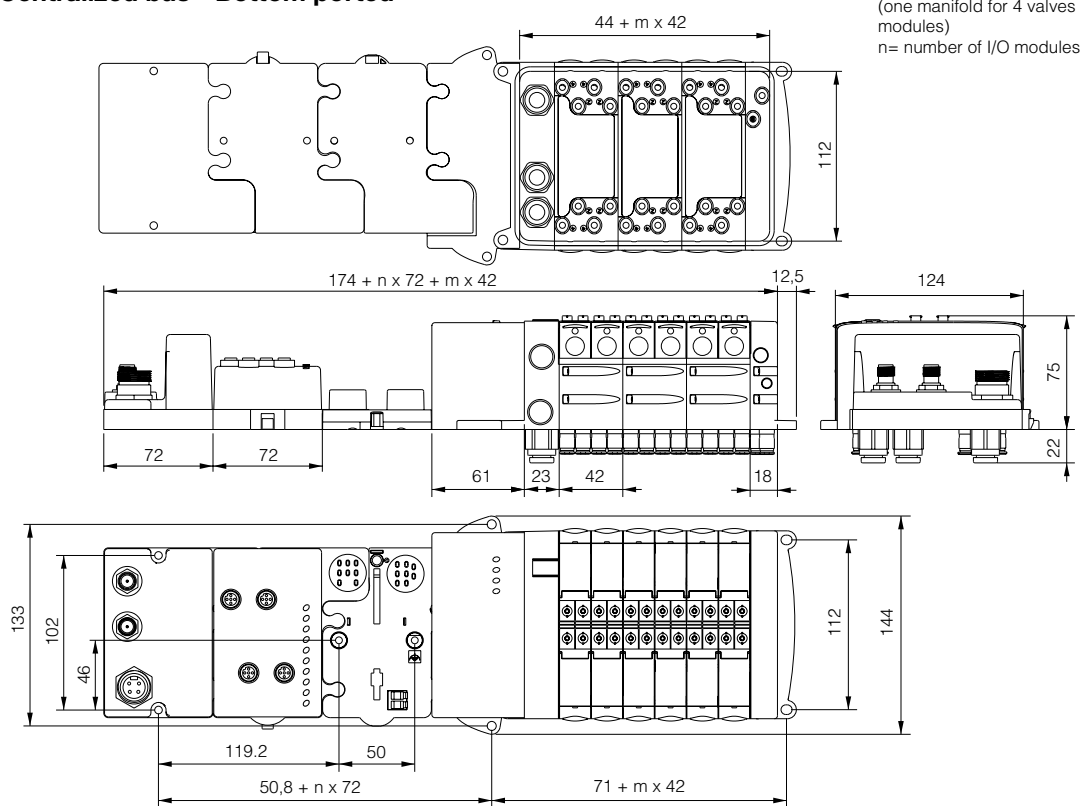
Electrical accessories

	Description	Cable length	Weight (g)	Order code
	Sub-D25 connector IP40 with flying leads multi-cable	3 m	380	P8LMH25M3A
		9 m	780	P8LMH25M9A
P8LMH25M3A	Sub-D25 connector IP65 with flying leads multi-cable	9 m	790	P8LMH25B9A

Centralized bus - Side ported

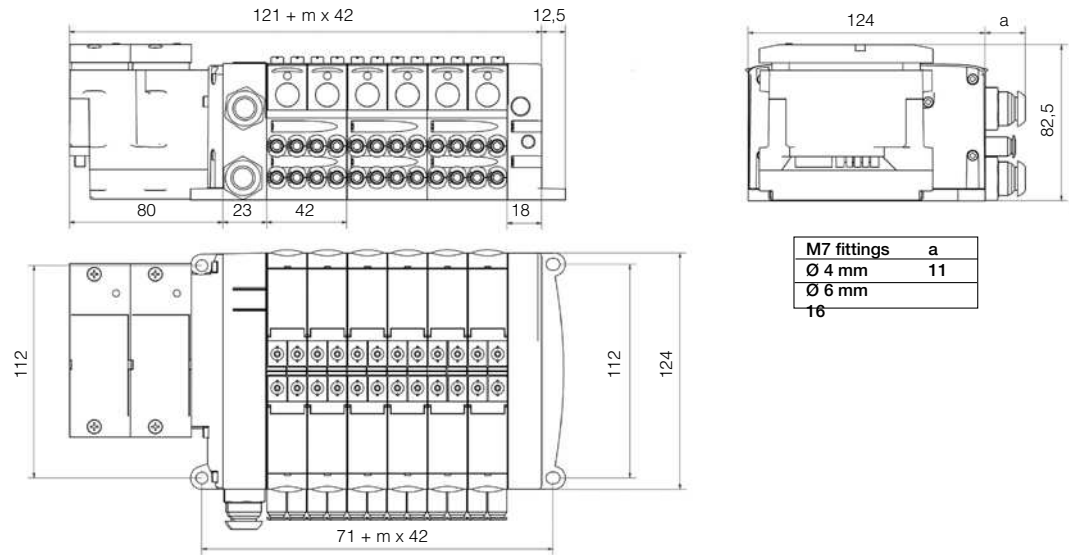


Centralized bus - Bottom ported

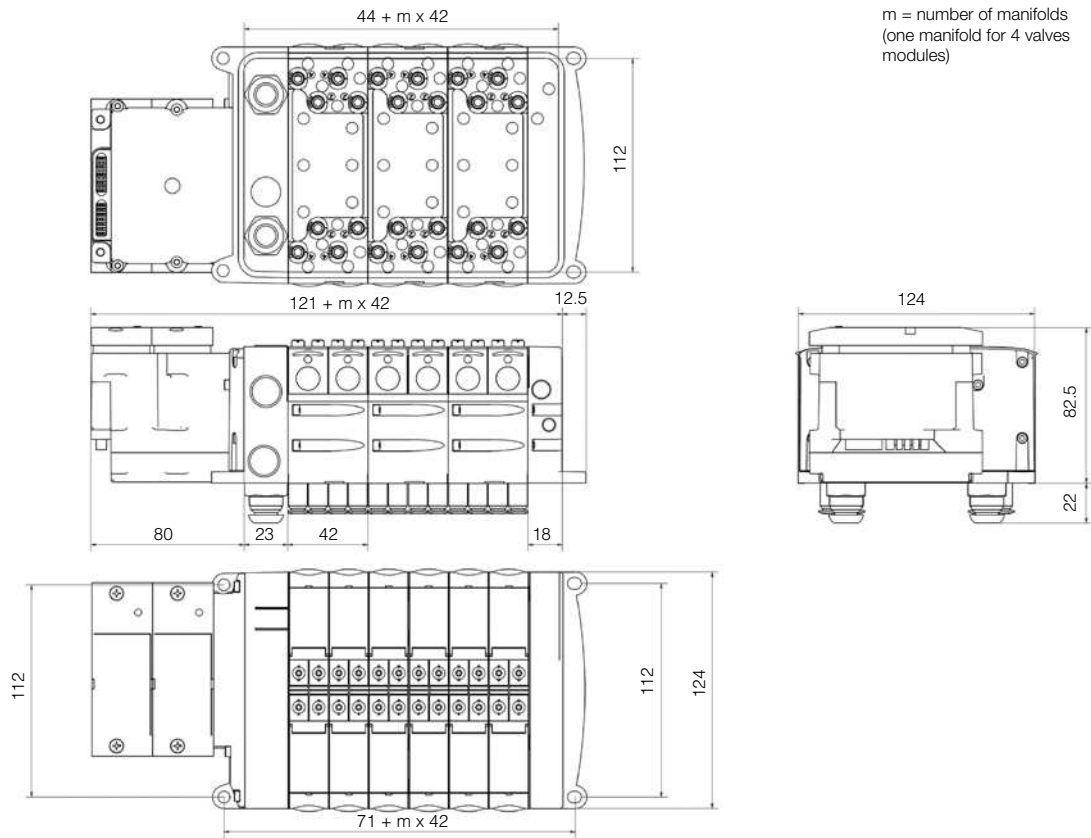
**Note:**

m = number of manifolds
(one manifold for 4 valves
modules)
n = number of I/O modules

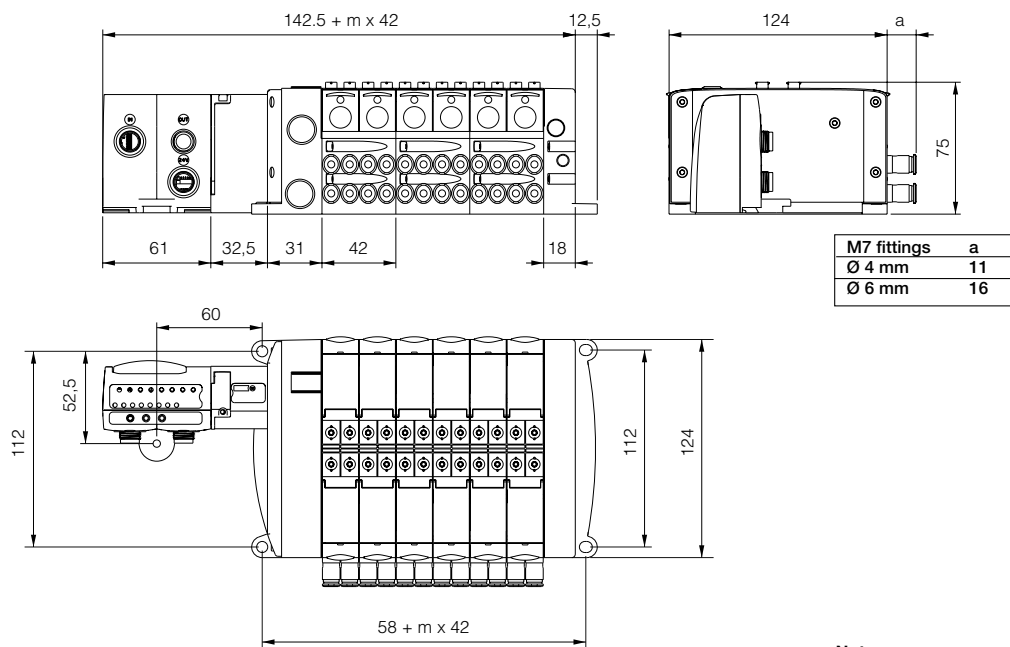
Isys Micro with TURCK BL67 adaptor - Side ported



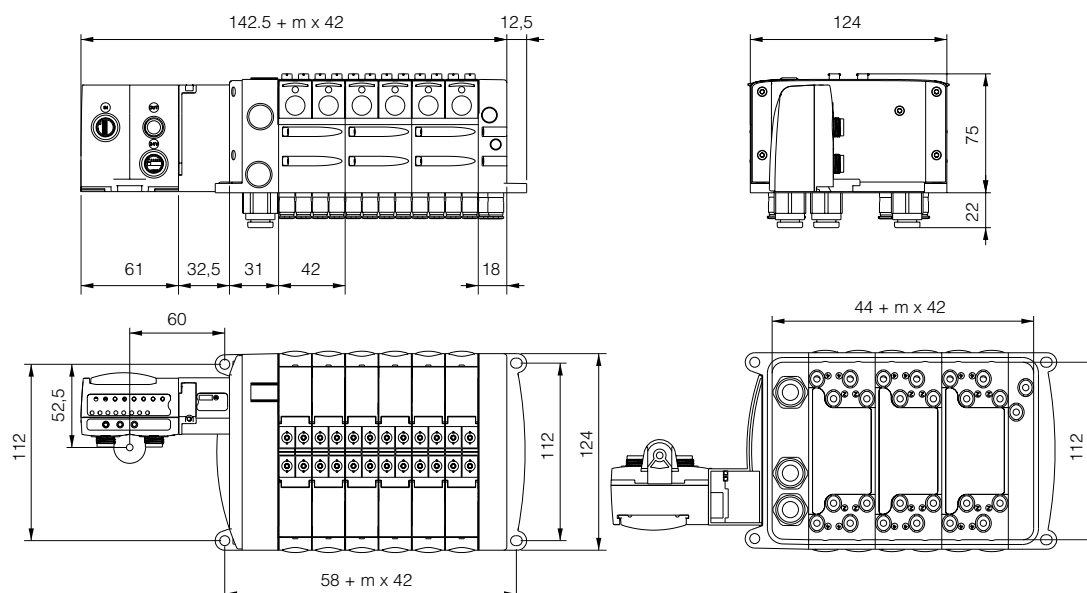
Isys Micro with TURCK BL67 adaptor - Bottom ported



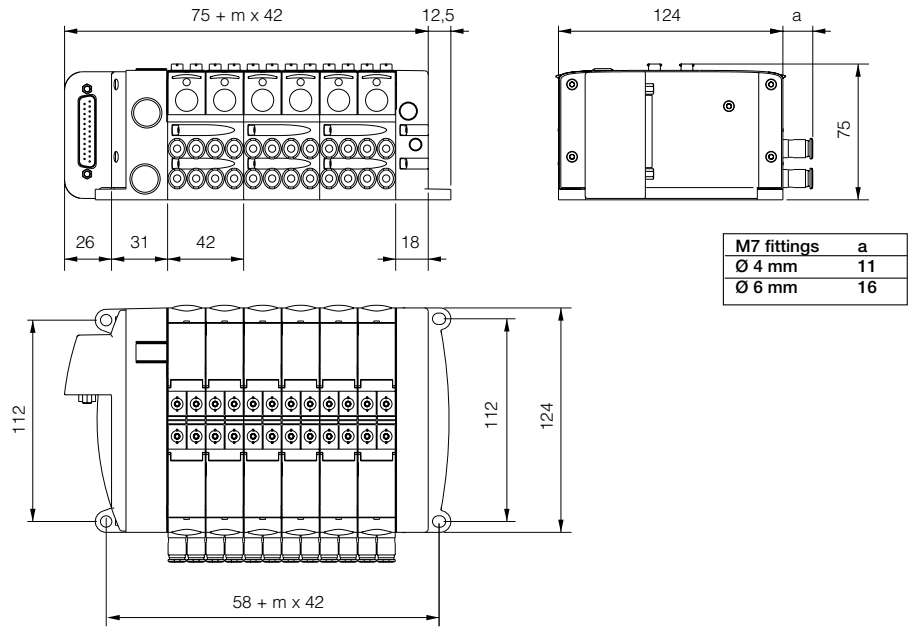
Fieldbus - Side ported



Fieldbus - Bottom ported

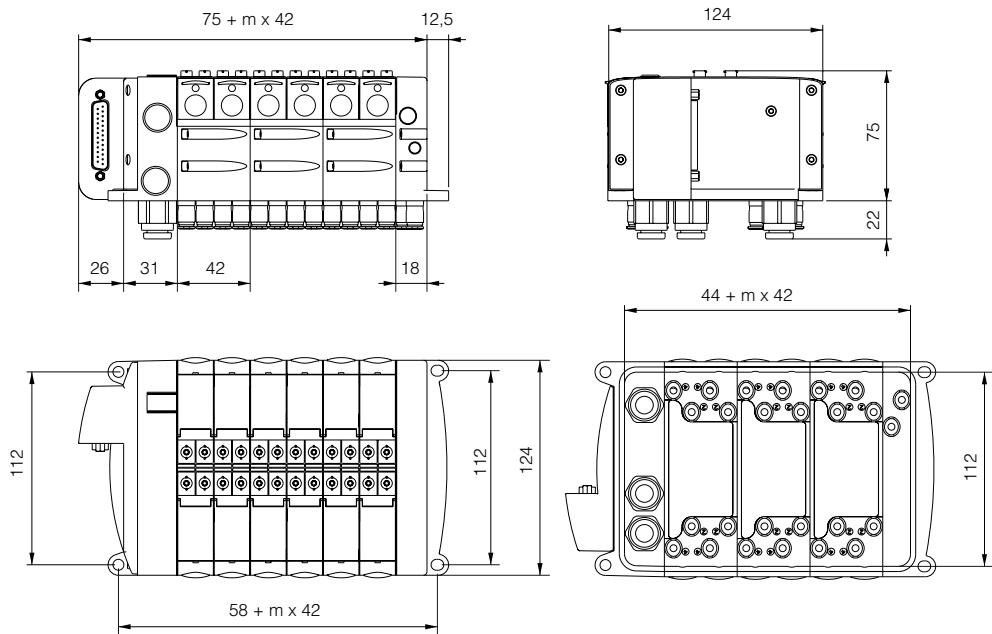


SubD25 - Side ported



Note:
m = number of manifolds
(one manifold for 4 valves
modules)

SubD25 - Bottom ported





Moduflex Valve System®

Flexibility for pneumatic users

*Whether configured from basic components or ordered as a pre-assembled and tested valve island, **Moduflex flexibility** is unmatched in the market place.*



Innovative

The 6 patents awarded to the Moduflex Valve System reflect that innovation is core to the Parker design process. Maintaining a clear understanding of our customer's expectations has defined the individuality of the Moduflex, and clearly differentiated it as a leading automation solution.

Adaptive

No other system can be adapted so simply once specified. Unique, captive fitting release system, quick release electrical connectors and single mechanical screw connection between manifolds offer the ultimate capability for late system design changes.

Multi-Functional

From stand-alone valves to fieldbus ready valve islands, from cylinder flow controls to vacuum generators with integrated blow-off, the Moduflex Valve System meets the requirements of the whole automation spectrum.

Moduflex Valve technology

Two technology platforms enable the compact design and high performance of the Moduflex Valve System.

The compact dual 4/2 and 3/2 valves utilize well proven Parker seal technology. The standard 4/2 valves adopt the long life super durable ceramic switching technology.

Dual 4/2 valve

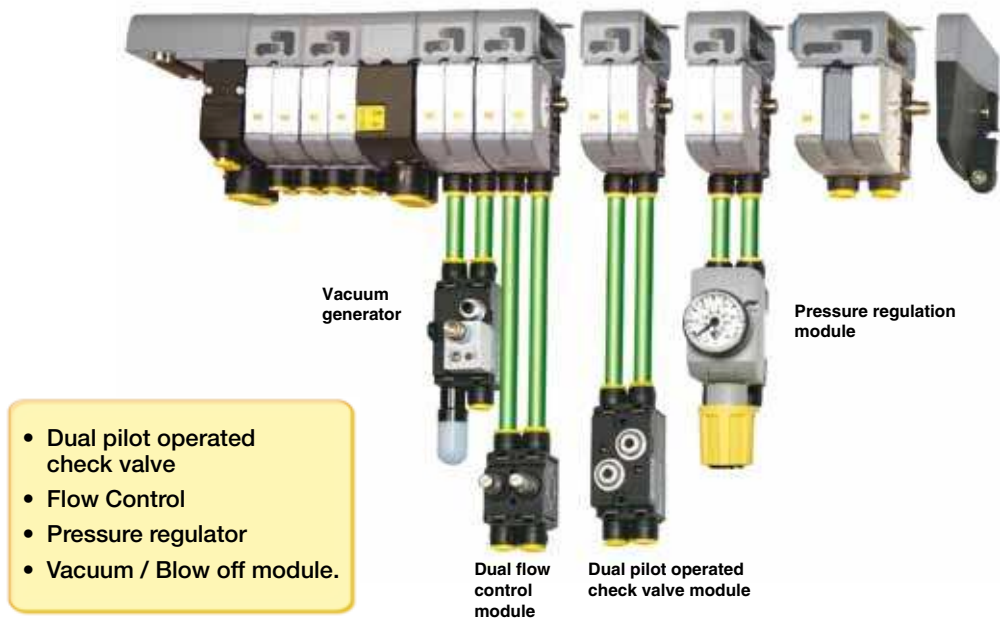


4/2 Valve



Moduflex Complete Control

With the introduction of the dual 4/2 size 1 valves, Moduflex now offers unrivaled ability of matching valves to exact flow requirements, ensuring cost and space are minimized. In addition, Moduflex Valve System offers all the necessary control peripherals to provide a complete automation solution. Moduflex is the complete control package.



Operating information

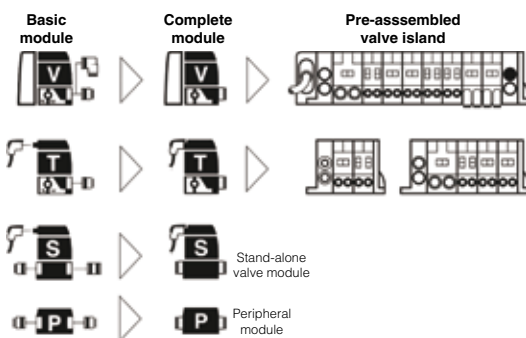
Working pressure	-0,9 to 8 bar
Pilot pressure	3 to 8 bar *
Working temperature	-15 °C to 60 °C
Protection individual connectors	IP 67 NEMA4
Protection integrated connectors	IP 65
Voltage	24 V DC

* Single and double 3/2 3,5 to 8 bar

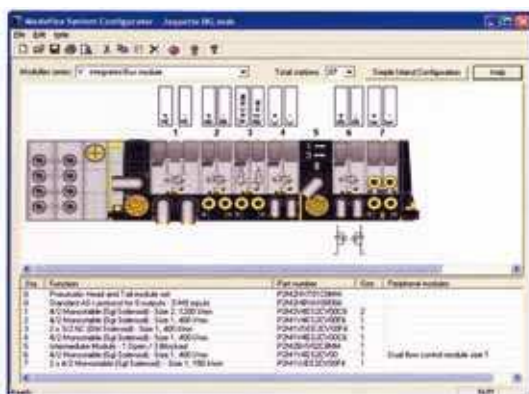
		Dual 4/2	Dual 3/2	3/2	4/2
Size 1	Qmax.	275 l/min	415 l/min	415 l/min	510 l/min
	Qn	165 l/min	235 l/min	235 l/min	310 l/min
Size 2	Qmax.	-	805 l/min	805 l/min	1340 l/min
	Qn	-	450 l/min	440 l/min	800 l/min

Total ordering flexibility

Additionally to the complete product adaptability, the Moduflex Valve range offers for V, T, S and P series an ordering flexibility with 3 different designs; from all components separately ordered (basic module) to pre-assembled and tested valve island.



The Moduflex Valve Island Configurator software is the easy way to, step by step, configure and order the required valve island for the application.



Ordering options

1 - Basic modules ordering

Using this option, all basic components are separately ordered :

- Head and Tail set
- Valve modules
- Intermediate module kit
- Peripheral modules
- Pneumatic connectors, mufflers and plugs
- Electrical connection or fieldbus module

The complete bill of material needed for the valve island assembly can be easily details using page 1 of the Moduflex Valve Configurator software report.

2 - Complete modules ordering

Using this option, modules are defined, ordered and supplied, pneumatic connectors and electrical connection equipped. One part number defines :

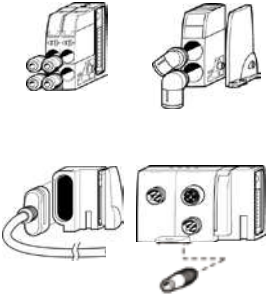
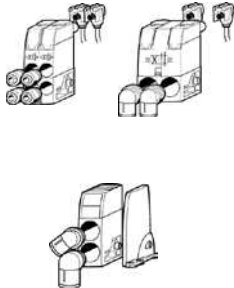
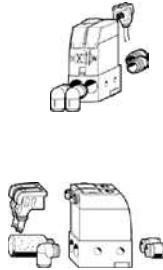
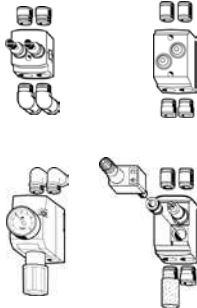
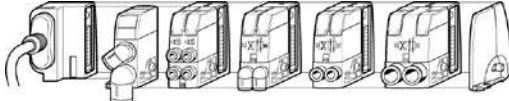
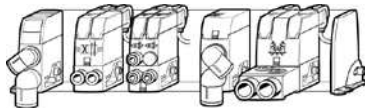
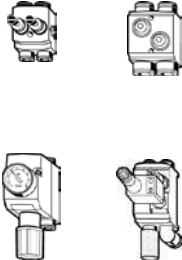
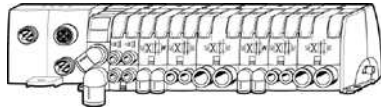
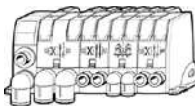
- Function module
- Pneumatic connectors, muffler and plugs
- Electrical connection and cable

For an entire valve island configuration, the list of complete modules can be easily details using page 3 of the Moduflex Valve Configurator software report.

3 - Pre-assembled valve islands ordering

Using this option, the complete valves island configuration has to be defined, and may be ordered, delivered fully assembly and tested under one part number.

The Moduflex Valve Configurator software is an easy way for a clear definition of the requested valve island configuration.

V series	T series	S series	P series
Integrated connection field bus or multi-connector valve island	Individual connector valve islands Solenoid or air pilot	Stand alone valves Solenoid or air pilot	Peripheral modules Flow control, check valves, pressure regulator, vacuum
			
			
 V series  T series	 		
 V series  T series	Moduflex Valve Configurator software 		

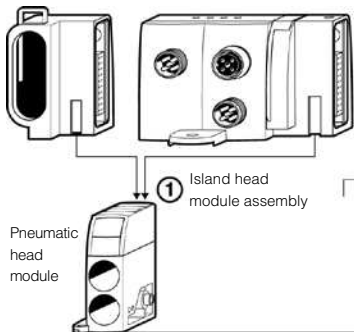
Integrated connections valve islands : V series

In a V series Moduflex valve island, electrical controls are all received by the head module and transmitted to the concerned valve modules through the modular integrated circuit.

The head module may either be a cable multi-connector or a Fieldbus communication module : the next pages show multi-connector cable and a complete choice of bus protocols.



Valve island electrical head module :
multi-connector or field bus connection



Valve island configuration

The following page shows all valve sizes and functions that may enter into a V series valve island and, for each valve size, a choice of clip-on pneumatic connectors : tubing size, straight, elbow...

To receive its pressure supply and collect its exhaust, the island also requires a pneumatic

head and tail module set and sometimes an intermediate module set with 4 configuration plates for different functions. To receive its electrical controls, the island is completed by an electrical head module, either a multi-connector or by a bus module to be chosen from the next pages.

Valve island assembly

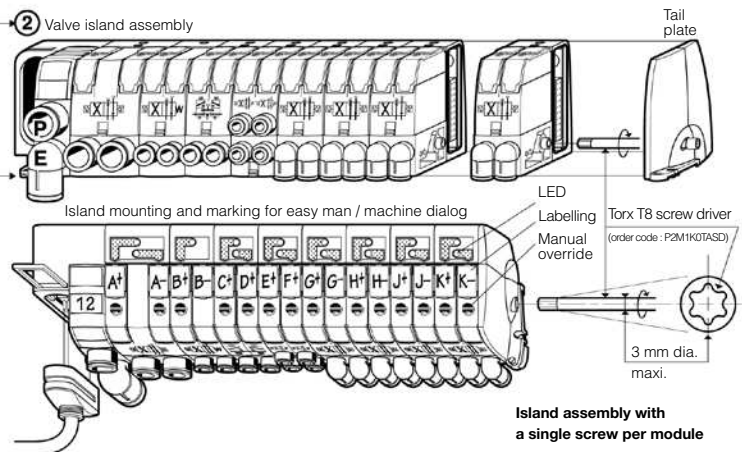
The above illustration presents :

- **Step ①** : the electrical head module is engaged into the pneumatic head module ;
- **Step ②** : valve modules are one by one screwed onto each other starting from the head module. For this task, the single integrated screw is tightened with a torx T8 standard screwdriver.

The pneumatic connectors may be clipped or unclipped at any stage.

With a LED, a manual override and a labelling for each valve pilot (see illustration), the island front face eases the "man / machine" dialog.

The resulting valve island length is expressed by the drawing below, while further size details and mountings are presented on dimensions pages.



Modules and island ordering

Choice between 3 approaches :

1 - Basic modules ordering :

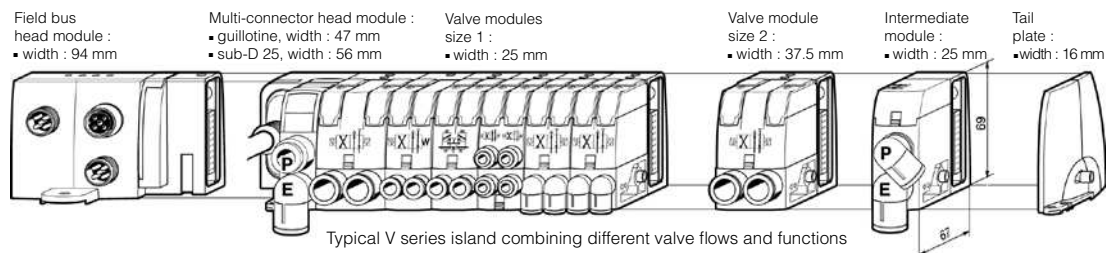
The following page shows these modules supplied without connector, together with the choice of clip-on connectors separately supplied (10 units packs). This approach gives the maximum flexibility.

2 - Complete modules ordering :

Page 265 shows the ordering chart for modules supplied with their connectors.

3 - Assembled island ordering :

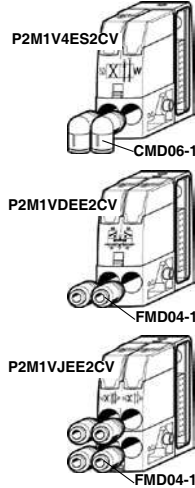
Page 268 shows the valve island configurator CD-Rom to specify a valve island that may be delivered assembled.



Basic modules (without connector) and corresponding clip-on pneumatic connectors

Size 1 Valve Modules

Description	Symbol	Weight (g)	Order code
4/2 Solenoid spring		94	P2M1V4ES2CV
4/2 Double solenoid		103	P2M1V4EE2CV
2 x 3/2 NC + NC with exhaust check valves		106	P2M1VDEE2CV
2 x 3/2 NO + NO with exhaust check valves		106	P2M1VCEE2CV
2 x 3/2 NC + NO with exhaust check valves		106	P2M1VEEE2CV
2 x 4/2 Solenoid spring with exhaust check valves		114	P2M1VJEE2CV
3/2 NC with exhaust check valves		102	P2M1V3ES2CV
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		106	P2M1VGEE2CV



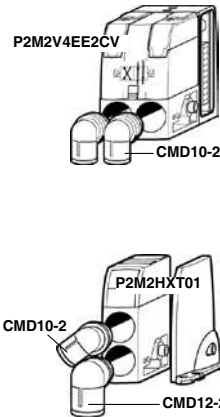
Size 1 pneumatic connectors *

Description	Tube OD	W. (g)	Order code
Straight	4 mm	2	FMD04-1
	6 mm	3	FMD06-1
Elbow	4 mm	3	CMD04-1
	6 mm	5	CMD06-1
Plug		3	PMDXX1

* Pack quantity : 10

Size 2 Valve Modules

Description	Symbol	Weight (g)	Order code
4/2 Solenoid spring		100	P2M2V4ES2CV
4/2 Double solenoid		110	P2M2V4EE2CV
2 x 3/2 NC + NC with exhaust check valves		115	P2M2VDEE2CV
2 x 3/2 NO + NO with exhaust check valves		115	P2M2VCEE2CV
2 x 3/2 NC + NO with exhaust check valves		115	P2M2VEEE2CV
3/2 NC with exhaust check valves		110	P2M2V3ES2CV
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		115	P2M2VGEE2CV



Size 2 pneumatic connectors *

Description	Tube OD	W. (g)	Order code
Straight	6 mm	3	FMD06-2
	8 mm	4	FMD08-2
	10 mm	5	FMD10-2
Elbow	6 mm	5	CMD06-2
	8 mm	6	CMD08-2
	10 mm	7	CMD10-2
Plug		5	PMDXX2

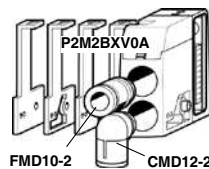
Also for head and intermediate modules

Straight		12 mm	6	FMD12-2
Elbow		12 mm	8	CMD12-2
Muffler			5	MMDVA2

* Pack quantity : 10

Island head and intermediate module sets

Description	Symbol	Weight (g)	Order code
Valve Island Pneumatic head and tail module set		64	P2M2HXT01
Valve Island Intermediate supply module with a set of 4 configuration plates		68	P2M2BXV0A



Electrical multi-connection and field bus head modules

Multiconnector or field bus head module to be chosen from next pages.

Indicates stocked product.

V series valve island : Electrical multi-connector head module

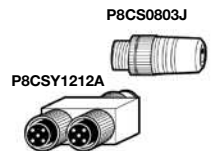
	Description		Weight (g)	Order code
	Electrical head module Guillotine type		IP65 Guillotine type Multi-connector head module	P2M2HEV0A
	Electrical head module Sub-D 25 type		Sub-D 25 standard multi-connector head module	P2M2HEV0D

V series valve island : Electrical field bus head modules for AS-i protocol



	Description	Weight (g)	Order code
	Standard AS-i protocol (up to 31 nodes)	Input connections	
	Electrical module for 8 outputs max. • V series island may have up to 8 solenoid pilots • 2 nodes per module, 4I / 4O per node	Input connections	
	Electrical module for 4 outputs max. • V series island may have up to 4 solenoid pilots • 1 node per module, 4I / 4O	Input connections	
	AS-i version 2.1 protocol (up to 62 nodes)	Input connections	
	AS-i head module accessorie	Length 1 m	

Standard threaded IP 67 electrical connectors *

		Male	Female	Weight (g))	Order code
	straight, cable to thread	M8	cable quick connect	12	P8CS0803J
		M12	cable quick connect	15	P8CS1204J
	Y shape, thread to thread	M12	two M12	30	P8CSY1212A

* Pack Quantity : 10

 Indicates stocked product.

V series valve island : Electrical field bus head modules for device bus

Electrical modules for 16 outputs
(The V series modules may have up to 16 solenoid pilot valves)



Description

Description	Bus In / Bus Out connector type	Power supply connector type	Weight (g)	Order code
Profibus DP communication head module	M12 - B coding	M12 - A coding	250	P2M2HBVP21600

For .GSD file, go to <http://www.parker.com/pneu/moduflex>



Description

Description	Bus In / Bus Out connector type	Power supply connector type	Weight (g)	Order code
DeviceNet communication head module	M12 - A coding	M12 - A coding	250	P2M2HBVD21600

For .EDS file, go to <http://www.parker.com/pneu/moduflex>



Description

Description	Bus In / Bus Out connector type	Power supply connector type	Weight (g)	Order code
CANopen communication head module	M12 - A coding	M12 - A coding	250	P2M2HBVC21600

For .EDS file, go to <http://www.parker.com/pneu/moduflex>



Description

Description	Bus In / Bus Out connector type	Power supply connector type	Weight (g)	Order code
InterBus-S communication head module	M23 - 9 Pins	M12 - A coding	300	P2M2HBVS11600

Device bus accessories

	Description	Bus protocol	Connector type	Weight (g)	Order code
	Power supply female straight connector	All	M12 - A coding	25	P8CS1205AA
	Line termination	DeviceNet	M12 - A coding	25	P8BPA00MA
		CANopen	M12 - A coding	25	P8BPA00MA
		Profibus DP	M12 - B coding	25	P8BPA00MB
	Bus IN female connector	DeviceNet	M12 - A coding	25	P8CS1205AA
		CANopen	M12 - A coding	25	P8CS1205AB
		Profibus DP	M12 - B coding	25	P8CS1205AB
	Bus OUT male connector	DeviceNet	M12 - A coding	25	P8CS1505BA
		CANopen	M12 - A coding	25	P8CS1505BA
		Profibus DP	M12 - B coding	25	P8CS1205BB
	Cable quick connect connector		M8	25	P8CS0803J
			M12 - A coding	25	P8CS1204J
	"Y" shape, thread to thread		M12 - 2 x M12 - A coding	25	P8CSY1212A

Indicates stocked product.



M12 - A coding connector



M12 - B coding connector



Individual connection valve islands : T series

In a T series valve island, electrical controls are individually connected to each valve module, onto its solenoid pilot.

As an alternative, air pilot valve modules are also available, to be controlled by individual pneumatic signals.



Valve island assembly

As shown by the above illustration, the valve modules are one by one screwed onto each other, starting from the head module. For this task, the single integrated screw is tightened with a torx T8 standard screwdriver.

The pneumatic connectors may be clipped or unclipped at any stage.

With a LED, a manual override and a labelling for each valve pilot (see above illustration), the island front face eases the "man / machine" dialog. The resulting valve island length is expressed by the drawing below, while further size details and mountings are presented on dimensions pages.

Valve island configuration

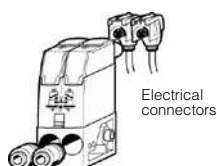
The following page presents all valve sizes and functions that may enter into a T series valve island and, for each valve size, a choice of clip-on pneumatic connectors : tubing size, straight, elbow... To receive its pressure supply and collect its exhaust, the island also requires a

pneumatic head and tail module set and sometimes an intermediate module set including 4 configuration plates for different functions.

Valve modules may either be solenoid driven versions or air pilot versions. Mixing both versions into the same valve island is possible.

Valve pilot connections

1 - Solenoid valve modules



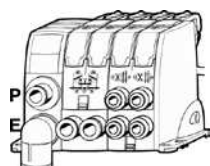
Each solenoid shows a M8 connection. Lockable clip-on connectors, IP67 protected, with LED, voltage surge protection and flying lead cable may be ordered for the required length.

2 - Air pilot valve modules



No connector has to be ordered : each pneumatic pilot port includes its integrated swivable elbow 4 mm OD tube push-in connector.

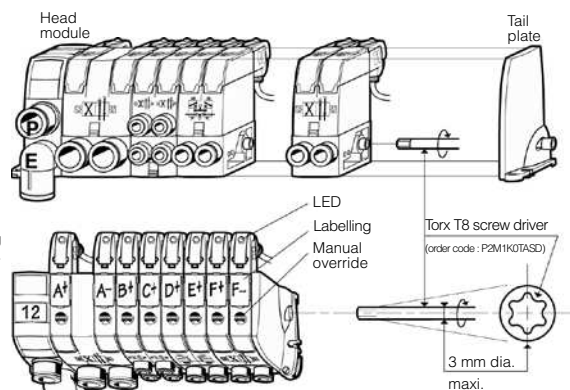
Typical T series short island for single or double acting small cylinders.



Typical T series islands combining different valve flows and functions

Valve island assembly

Island mounting and marking for easy man / machine dialog



Island assembly with a single screw per module

Modules and island ordering

Choice between 3 approaches :

1 - Basic modules ordering :

The following page shows these modules supplied without connector, together with the choice of clip-on connectors separately supplied (10 units packs). This approach gives the maximum flexibility.

2 - Complete modules ordering :

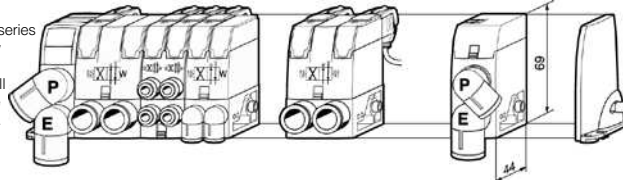
Page 265 shows the ordering chart for modules supplied with their connectors.

3 - Assembled island ordering :

Page 268 shows the valve island configurator CD-Rom to specify a valve island that may be delivered assembled.

Pneumatic head module :	Valve module size 1 :	Valve module size 2 :	Intermediate module :	Tail plate :
width : 32 mm	width : 25 mm	width : 37.5 mm	width : 25 mm	width : 16 mm

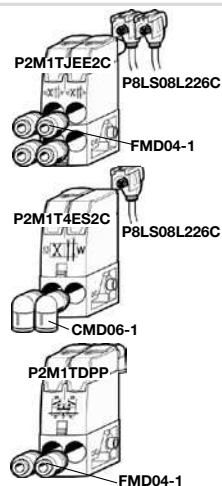
Typical T series high flow island for both small and large cylinders.



Basic modules (without connector) and clip-on electrical and pneumatic connectors

Size 1 Valve Modules

Description	Symbol	Actuator	W.(g)	Order code
4/2 Spring return		Solenoid	68	P2M1T4ES2C
		Air pilot	63	P2M1T4PS
4/2 Double pilot		Solenoid	77	P2M1T4EE2C
		Air pilot	67	P2M1T4PP
2 x 3/2 NC + NC with exhaust check valves		Solenoid	80	P2M1TDDE2C
		Air pilot	70	P2M1TDPP
2 x 3/2 NO + NO with exhaust check valves		Solenoid	80	P2M1TCDE2C
		Air pilot	70	P2M1TCPP
2 x 3/2 NC + NO with exhaust check valves		Solenoid	80	P2M1TEDE2C
		Air pilot	70	P2M1TEPP
2 x 4/2 Spring return with exhaust check valves		Solenoid	88	P2M1TJEE2C
		Air pilot	78	P2M1TJPP
3/2 NC with exhaust check valves		Solenoid	76	P2M1T3ES2C
		Air pilot	71	P2M1T3PS
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		Solenoid	80	P2M1TGEE2C
		Air pilot	70	P2M1TGPP



Size 1 pneumatic connectors *

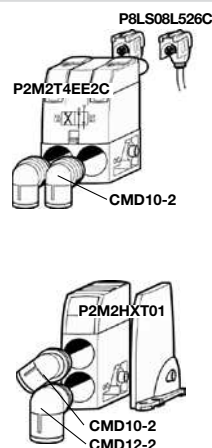
Description	Tube OD	W. (g)	Order code
Straight	4 mm	2	FMD04-1
	6 mm	3	FMD06-1
Elbow	4 mm	3	CMD04-1
	6 mm	5	CMD06-1
Plug		3	PMDXX1

* Pack quantity : 10

Indicates stocked product.

Size 2 Valve Modules

Description	Symbol	Actuator	W.(g)	Order code
4/2 Spring return		Solenoid	74	P2M2T4ES2C
		Air pilot	69	P2M2T4PS
4/2 Double pilot		Solenoid	83	P2M2T4EE2C
		Air pilot	73	P2M2T4PP
2 x 3/2 NC + NC with exhaust check valves		Solenoid	94	P2M2TDDE2C
		Air pilot	84	P2M2TDPP
2 x 3/2 NO + NO with exhaust check valves		Solenoid	94	P2M2TCDE2C
		Air pilot	84	P2M2TCPP
2 x 3/2 NC + NO with exhaust check valves		Solenoid	94	P2M2TEDE2C
		Air pilot	84	P2M2TEPP
3/2 NC with exhaust check valves		Solenoid	90	P2M2T3ES2C
		Air pilot	70	P2M2T3PS
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		Solenoid	94	P2M2TGEE2C
		Air pilot	84	P2M2TGPP



Size 2 pneumatic connectors *

Description	Tube OD	W. (g)	Order code
Straight	6 mm	3	FMD06-2
	8 mm	4	FMD08-2
	10 mm	5	FMD10-2
Elbow	6 mm	5	CMD06-2
	8 mm	6	CMD08-2
	10 mm	7	CMD10-2
Plug		5	PMDXX2

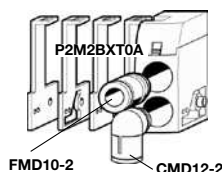
Also for head and intermediate modules

Straight	12 mm	6	FMD12-2
Elbow	12 mm	8	CMD12-2
Muff		5	MMDVA2

* Pack quantity : 10

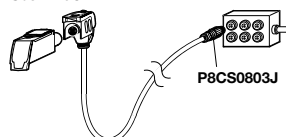
Island head and intermediate module sets

Description	W.(g)	Order code
Valve Island Pneumatic head and tail module set	64	P2M2HXT01
Valve Island Intermediate supply module with a set of 4 configuration plates	64	P2M2BXT0A



Electrical connectors

P8LS08L226C



Clip-on individual electrical connector, for each solenoid pilot, IP67 protected, including LED, voltage surge protection and flying lead cable

Straight cable quick connect to thread connector, IP67 protected.



Description	W. (g)	Order code
2 m. cable	62	P8LS08L226C
5 m. cable	155	P8LS08L526C
9 m. cable	180	P8LS08L926C
M8	12	P8CS0803J
M12	15	P8CS1204J

Stand-Alone Valve Modules : S series

Very useful to control isolated cylinders, these stand-alone valves module are compact and easy to mount on the machines with neat electrical and pneumatic connections.

As an alternative to electrical controls, valves with air pilots are also available, to be controlled by individual pneumatic signals.

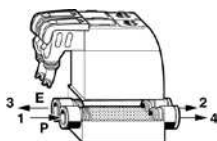


Valve functions

The following page shows all valve sizes and functions and, for each valve size, a choice of clip-on pneumatic connectors : tubing size, straight, elbow, ...

Valve main connections

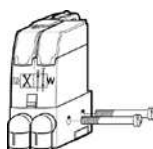
- Outlets to cylinders (ports 2 and 4) on one side.
- Supply P (port 1) and exhaust E (port 3) on the other side. At port 3, exhaust may be collected or receive a clip-on muffler.



Valve mounting

All valves may be mounted either with side screws or with their integrated retractable brackets.

Side screw mounting



The brackets are then retracted.

Optional foot mounting

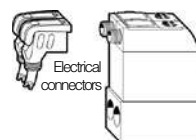


The brackets are then extended.

Valve pilot connections

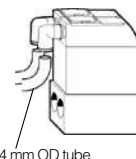
1- Solenoid valve modules

Each solenoid presents an M8 connection. Lockable clip-on connectors, IP 67 protected, with LED, voltage surge protection and flying lead cable may be ordered for the required length.



2- Air pilot valve modules

No connector has to be ordered : each pneumatic pilot port includes its integrated swivable elbow 4 mm OD tube push-in connector.



Modules and island ordering

Choice between 2 approaches :

1 - Basic modules ordering :

The following page shows these modules supplied without connector, together with the choice of clip-on connectors separately supplied (10 units packs). This approach gives the maximum flexibility.

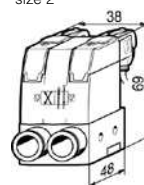
2 - Complete modules ordering :

Page 266 shows the ordering chart for modules supplied with their pneumatic and electrical connectors and muffler.

Valve module
size 1



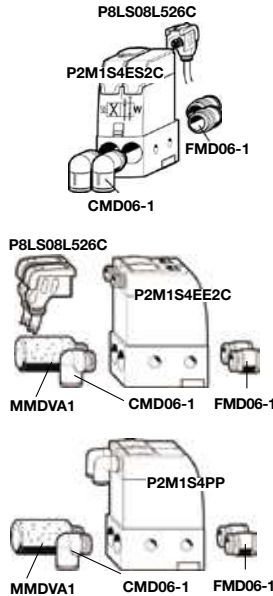
Valve module
size 2



Basic modules (without connector) and clip-on electrical and pneumatic connectors

Size 1 Valve Modules

Description	Symbol	Actuator	W.(g)	Order code
4/2 Spring return		Solenoid Air pilot	72 67	P2M1S4ES2C P2M1S4PS
4/2 Double pilot		Solenoid Air pilot	87 77	P2M1S4EE2C P2M1S4PP
2 x 3/2 NC + NC with exhaust check valves		Solenoid Air pilot	85 75	P2M1SDDEE2C P2M1SDPP
2 x 3/2 NO + NO with exhaust check valves		Solenoid Air pilot	85 75	P2M1SCDEE2C P2M1SCPP
2 x 3/2 NC + NO with exhaust check valves		Solenoid Air pilot	85 75	P2M1SEEE2C P2M1SEPP
3/2 NC with exhaust check valves		Solenoid Air pilot	85 75	P2M1S3ES2C P2M1S3PS
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		Solenoid Air pilot	85 75	P2M1SGEE2C P2M1SGPP



Size 1 pneumatic connectors *

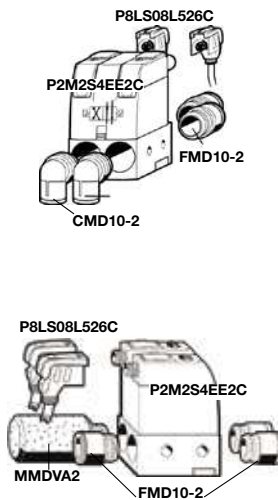
Description	Tube OD	W. (g)	Order code
Straight 	4mm	2	FMD04-1
	6mm	3	FMD06-1
Elbow 	4mm	3	CMD04-1
	6mm	5	CMD06-1
Plug 		3	PMDXX1
Muffler 		3	MMDVA1

* Pack quantity : 10

 Indicates stocked product.

Size 2 Valve Modules

Description	Symbol	Actuator	W.(g)	Order code
4/2 Spring return		Solenoid Air pilot	72 67	P2M2S4ES2C P2M2S4PS
4/2 Double pilot		Solenoid Air pilot	87 77	P2M2S4EE2C P2M2S4PP
2 x 3/2 NC + NC with exhaust check valves		Solenoid Air pilot	85 75	P2M2SDDEE2C P2M2SDPP
2 x 3/2 NO + NO with exhaust check valves		Solenoid Air pilot	85 75	P2M2SCDEE2C P2M2SCPP
2 x 3/2 NC + NO with exhaust check valves		Solenoid Air pilot	85 75	P2M2SEEE2C P2M2SEPP
3/2 NC with exhaust check valves		Solenoid Air pilot	85 75	P2M2S3ES2C P2M2S3PS
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		Solenoid Air pilot	85 75	P2M2SGEE2C P2M2SGPP

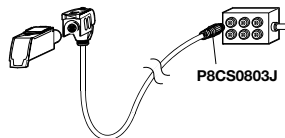


Description	Tube OD	W. (g)	Order code
Straight 	6mm3		FMD06-2
	8mm4		FMD08-2
	10mm6		FMD10-2
	12mm6		FMD12-2
Elbow 	6mm5		CMD06-2
	8mm6		CMD08-2
	10mm7		CMD10-2
Plug 		5	PMDXX2
		5	MMDVA2

* Pack quantity : 10

Electrical connectors

P8LS08L226C



Clip-on individual electrical connector, for each solenoid pilot, IP67 protected, including LED, voltage surge protection and flying lead cable

Straight cable quick connect to thread connector, IP67 protected.



Description	W. (g)	Order code
2 m. cable	62	P8LS08L226C
5 m. cable	155	P8LS08L526C
9 m. cable	180	P8LS08L926C
M8	12	P8CS0803J
M12	15	P8CS1204J

Peripheral Valve Modules : P series

Four additional peripheral modules complete the valve system in order to facilitate the installation of specific cylinder controls :

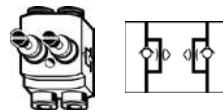
- Dual flow control, for cylinder speed adjusting;
- Dual pilot operated check valve, for cylinder positioning;
- Pressure regulator, for cylinder thrust adjusting;
- Vacuum generator, for vacuum pad controls.



Module function selection

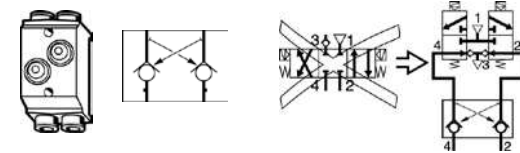
Dual flow control

By controlling the exhaust flows of a double acting cylinder, this module can adjust both speeds : forward and backward.



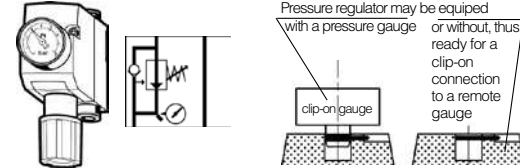
Dual pilot operated check valve

Combined with a double 3/2 NC + NC valve, this module will block flows and stop cylinder movement as soon as the valve outputs are both exhausted. Better than a 3 position closed centre valve, it provides accurate positioning when mounted close to the cylinder.



Pressure regulator

The thrust developed by a cylinder often requires adjustment by controlling the pressure to the front or back of the piston. This pressure regulator module enables manual adjustment of pressure on one side of the piston, with visual indication provided by the pressure gauge.

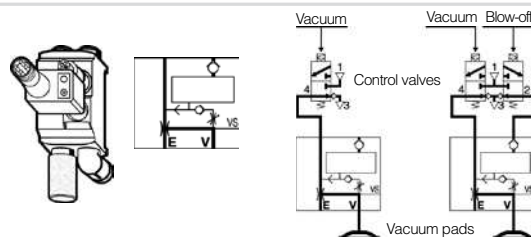


Vacuum generator

This multi-purpose module controls vacuum pads with a choice between two basic schematics :

- Controlled with only one 3/2 NC valve, the vacuum generator provides vacuum to the pads during valve actuation and then blow-off supplied from an integrated chamber.
- Controlled with a double 3/2 NC + NC, the vacuum generator provides vacuum during the first valve actuation, and then strong blow-off from the second valve.

Integrated blow-off flow controller. Optional plug-in vacuum sensor.

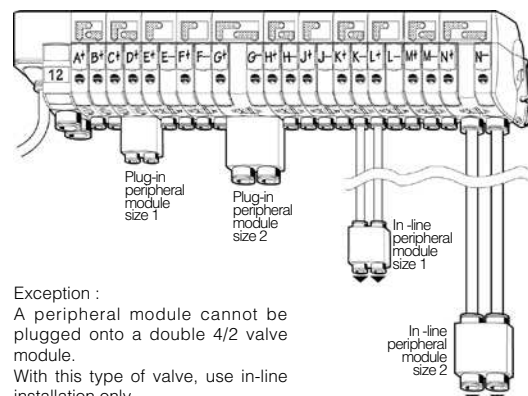


Module installation selection



Peripheral modules may either be mounted :

- Plugged into the valve module through double male unions;
- Or in line, close to the cylinder to control it better.

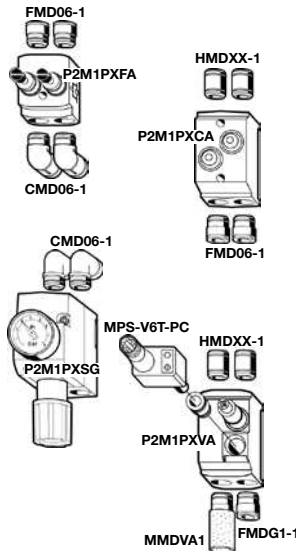


Exception :
A peripheral module cannot be plugged onto a double 4/2 valve module.
With this type of valve, use in-line installation only.

Basic peripheral modules (without connector) and corresponding clip-on pneumatic connectors

Size 1 Peripheral Modules

Description / Symbol	W.(g)	Order code
Dual flow control 	50	P2M1PXFA
Dual P.O. check valve 	50	P2M1PXCA
Pressure regulator 	Gauge	
0-2 bar	With 135	P2M1PXSR
	Without 105	P2M1PXST
0-4 bar	With 135	P2M1PXSM
	Without 105	P2M1PXSL
0-8 bar	With 135	P2M1PXSG
	Without 105	P2M1PXSN
Vacuum generator 	90% Vac 30	P2M1PXVA



Size 1 pneumatic connectors *

Description	Tube OD	W. (g)	Order code
Straight 	4mm	2	FMD04-1
	6mm	3	FMD06-1
Elbow 	4mm	3	CMD04-1
	6mm	5	CMD06-1
Plug 		3	PMDXX1
Double male union 		5	HMDXX-1

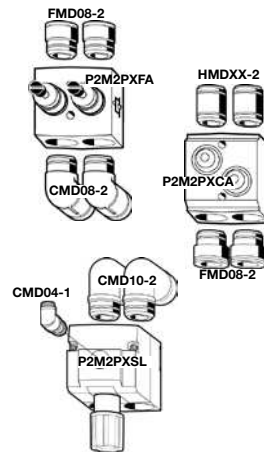
* Pack quantity : 10

Also for vacuum ports

Description	BSP	W. (g)	Order code
Female threaded connectors 	Straight 1/8"	2	FMDG1-1
	Elbow 1/8"	3	CMDG1-1

Size 2 Peripheral Modules

Description / Symbol	W. (g)	Order code
Dual flow control 	50	P2M2PXFA
Dual P.O. check valve 	50	P2M2PXCA
Pressure regulator 	Gauge	
0-2 bar	With 135	P2M2PXSR
	Without 165	P2M2PXST
0-4 bar	With 135	P2M2PXSM
	Without 165	P2M2PXSL
0-8 bar	With 135	P2M2PXSG
	Without 165	P2M2PXSN



Size 2 pneumatic connectors *

Description	Tube OD	W. (g)	Order code
Straight 	6mm	3	FMD06-2
	8mm	4	FMD08-2
	10mm	5	FMD10-2
	12mm	6	FMD12-2
Elbow 	6mm	5	CMD06-2
	8mm	6	CMD08-2
	10mm	7	CMD10-2
	12mm	8	CMD12-2
Plug 		5	PMDXX2
Double male union 		5	HMDXX-1

* Pack quantity : 10

 Indicates stocked product.

Clip-on accessories

Clip-on pressure gauge for pressure regulator modules, size 1 or size 2.
Pressure gauge is equipped with a damper to protect it from pressure oscillations.



Description	W. (g)	Order code
0 to 2 bar	30	P2M1K0GT
0 to 4 bar	30	P2M1K0GL
0 to 8 bar	30	P2M1K0GN

Clip-on vacuum sensor for vacuum generator module.
Pressure sensors are equipped with an output LED and a switch point trimmer.



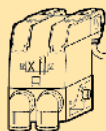
M8 electrical connector	25	MPS-V6T-PC
Flying lead cable	25	MPS-V6T-PG



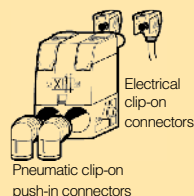
Complete module ordering, as compared to basic module ordering**Complete modules**

Ordered from the following pages, the complete modules are supplied all equipped with their electrical and pneumatic connectors.

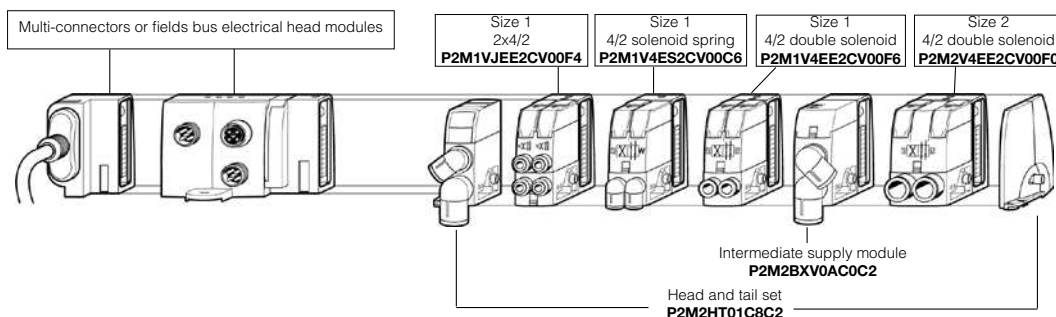
Only one order line is necessary, and each module comes complete, with just the necessary chosen connectors.

**Basic modules**

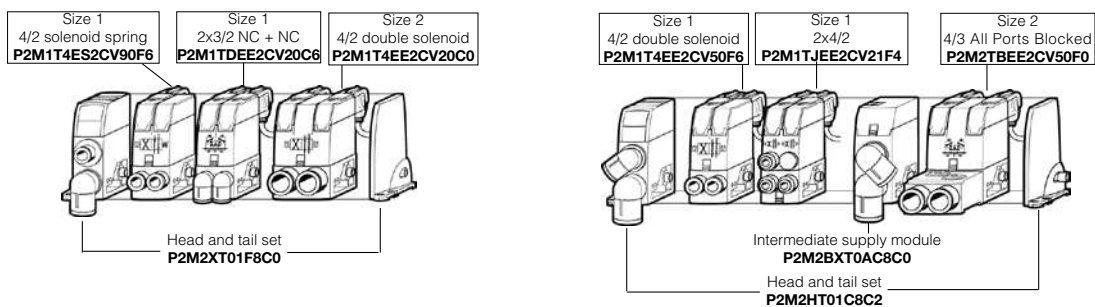
Ordered from the previous pages, the basic modules are to be equipped with their connectors. Their clip-on assembly to the module is easy. The main advantage is flexibility: connector type and size may be chosen at the last moment, to fit better the machine needs.

**V series**

See opposite page for complete module order code chart

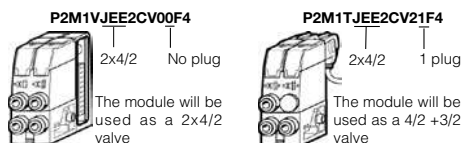
**T series**

See next page for complete module order code chart

**Special case : the 2 x 4/2 mini-module plug configuration**

For micro-cylinders, this very compact 2 x 4/2 module (order code. JEE) may also be used to obtain 3/2 valves, either Normally Closed or Normally Open.

To do so, the complete module may be supplied with plugs that may replace some of the plug-in connectors.



Complete Moduflex modules, equipped with their electrical and pneumatic connectors, may be ordered. To do so, use the below chart to define the complete module order codes.

Valve modules

Minimum ordering quantity : 10 pieces

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	P	2	M	1	V	4	E	E	2	C	V	0	0	F	6

Size

1	Size 1
2	Size 2

Series

V	Integrated connections
T	Individual connectors

Electrical connections

V Series

V0	Integrated connection
----	-----------------------

T Series

00	No cable
V2	2 m cable
V5	5 m cable
V9	9 m cable

Pneumatic connectors Ports 2 & 4

Size 1 modules

F4	Straight 4 mm OD
C4	Elbow 4 mm OD
F6	Straight 6 mm OD
C6	Elbow 6 mm OD

Size 2 modules

F6	Straight 6 mm OD
C6	Elbow 6 mm OD
F8	Straight 8 mm OD
C8	Elbow 8 mm OD
F0	Straight 10 mm OD
C0	Elbow 10 mm OD

Valve Function - Solenoid Versions *

4 ES	4/2 Solenoid spring
4 EE	4/2 Double solenoid
DEE	2 x 3/2 NC + NC (with exhaust check valve)
CEE	2 x 3/2 NO + NO (with exhaust check valve)
EEE	2 x 3/2 NC + NO (with exhaust check valve)
3 ES	3/2 NC (with exhaust check valve)
GEE	4/3 centre exhaust (= 2x3/2 without exhaust check valve)
BEE	2x3/2 + clipped dual PO check (= 4/3 APB)

Plug configurations

0	No plug
---	---------

Only for JEE 2x4/2 modules

0	0 plug (2x 4/2)
1	1 plug (4/2 + 3/2)
2	2 plugs (2x3/2 or 1x4/2)
3	3 plugs (1x3/2)

Size 1 only

JEE	2x4/2 with exhaust check valve with plug configuration
-----	--

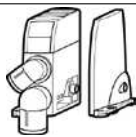
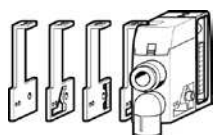
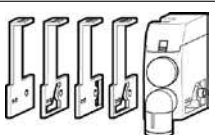
* For T series only, air pilot versions p21, as basic modules.

Head/Tail & Intermediate Modules

Minimum ordering quantity : 10 pieces

	1	2	3	4	5	6	7	8	9	10	11	12	13
	P	2	M	2	H	X	T	0	1	F	0	C	2

Island head or intermediate module function

HXT01	V and T series Pneumatic head and tail set	
BXV0A	V series intermediate supply module with a set of 4 configuration plates	
BXT0A	T series intermediate supply module with a set of 4 configuration plates	

Pressure port connector

F6	Straight 6 mm OD
C6	Elbow 6 mm OD
F8	Straight 8 mm OD
C8	Elbow 8 mm OD
F0	Straight 10 mm OD
C0	Elbow 10 mm OD
F2	Straight 12 mm OD
C2	Elbow 12 mm OD
PP	Plug
MM	Muffler

Exhaust port connector

F6	Straight 6 mm OD
C6	Elbow 6 mm OD
F8	Straight 8 mm OD
C8	Elbow 8 mm OD
F0	Straight 10 mm OD
C0	Elbow 10 mm OD
F2	Straight 12 mm OD
C2	Elbow 12 mm OD
PP	Plug
MM	Muffler

Complete Moduflex stand alone valves, equipped with their electrical and pneumatic connectors, may be ordered.

To do so, use the below chart to define the complete module order codes.

Stand alone valve modules

Minimum ordering quantity : 10 pieces

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
P	2	M	1	S	4	E	E	2	C	V	5	A	F	6

Size	
1	Size 1
2	Size 2

Series	
S	Stand alone valve modules

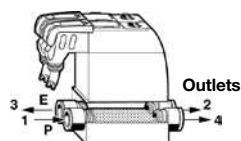
Electrical connector	
00	No cable
V2	2 m cable
V5	5 m cable
V9	9 m cable

Valve Function - Solenoid Versions *	
4 ES	4/2 Solenoid spring
4 EE	4/2 Double solenoid
D EE	2 x 3/2 NC + NC (with exhaust check valve)
C EE	2 x 3/2 NO + NO (with exhaust check valve)
E EE	2 x 3/2 NC + NO (with exhaust check valve)
3 ES	3/2 NC (with exhaust check valve)
G EE	4/3 centre exhaust (= 2x3/2 without exhaust check valve)
B EE	2x3/2 + clipped dual PO check (= 4/3 APB)

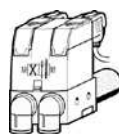
Pneumatic connectors		
Ports 1 & 3	Outlet ports 2 & 4	Tube OD
A Straight & straight	F Straight & straight	Size 1 modules
B Elbow & elbow	C Elbow & elbow	4 4 mm OD
C Straight & muffler	0 No connector for plug-in P module	6 6 mm OD
D Elbow & muffler		Size 2 modules
		6 6 mm OD
		8 8 mm OD
		0 10 mm OD

* Air pilot version, as basic modules.

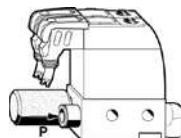
Size 1
4/2 solenoid spring
P2M1S4ES2CV5CC6



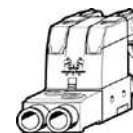
Size 1
2x3/2 NC + NC
P2M1SDEE2CV2BC6



Size 2
4/2 double solenoid
P2M2S4EE2CV9CC8



Size 2
2x3/2 NC + NC
P2M2SDEE2CV2CC0



Size 2
4/3 All Ports Blocked
P2M2SBEE2CV2AF0

Complete Moduflex peripheral module, equipped with their pneumatic connectors, may be ordered. To do so, use the below chart to define the complete module order codes.

Dual flow control, dual pilot operated check valve, and pressure regulator peripheral modules

Minimum ordering quantity : 10 pieces

1	2	3	4	5	6	7	8	9	10	11	12
P	2	M	1	P	X	F	A	J	J	F	6

Size	
1	Size 1
2	Size 2

Peripheral module function	
F A	Dual flow control
C A	Dual P.O. check valve
Pressure regulators	
S R	0-2 bar, with pressure gauge
S M	0-4 bar, with pressure gauge
S G	0-8 bar, with pressure gauge

Inlet port pneumatic connectors	
Size 1 modules	
F4	Straight 4 mm OD
C4	Elbow 4 mm OD
F6	Straight 6 mm OD
C6	Elbow 6 mm OD
Size 2 modules	
F6	Straight 6 mm OD
C6	Elbow 6 mm OD
F8	Straight 8 mm OD
C8	Elbow 8 mm OD
F0	Straight 10 mm OD
C0	Elbow 10 mm OD

Outlet port pneumatic connectors	
Size 1 modules	
F4	Straight 4 mm OD
C4	Elbow 4 mm OD
F6	Straight 6 mm OD
C6	Elbow 6 mm OD
Size 2 modules	
F6	Straight 6 mm OD
C6	Elbow 6 mm OD
F8	Straight 8 mm OD
C8	Elbow 8 mm OD
F0	Straight 10 mm OD
C0	Elbow 10 mm OD



P2M1PXAF6



P2M1XCAJJF6



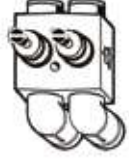
P2M1XSGF6



P2M1PXVAF6



P2M1PXVAF6CMA



P2M2PXFAF0C0



P2M2PXCAJJF8



P2M2PXSGC0F0

Vacuum generator peripheral module

Minimum ordering quantity : 10 pieces

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
P	2	M	1	P	X	V	A	F	6	A	F	6	C	M	A

Size	
1	Size 1

Peripheral module function	
V A	Vacuum generator

Exhaust port (3) *	
F4	Straight 4 mm OD
C4	Elbow 4 mm OD
F6	Straight 6 mm OD
C6	Elbow 6 mm OD
MA	Clip-on muffler

Vacuum connectors and vacuum sensors (2) *	
F4	Straight 4 mm OD
C4	Elbow 4 mm OD
F6	Straight 6 mm OD
C6	Elbow 6 mm OD
JJ	Clip-on double male

Vacuum connectors and vacuum sensors (2) *	
F4	Straight 4 mm OD
C4	Elbow 4 mm OD
F6	Straight 6 mm OD
C6	Elbow 6 mm OD
F1	Straight threaded 1/8"
C1	Elbow threaded 1/8"

Moduflex Valve Island Configurator

This software facilitates any valve island configuration and its bill ordering through basic or complete modules.

Pre-assembled valve island ordering

As an option, so defined with the configurator, any Moduflex Valve island may be ordered as pre-assembled.



Island configuration practice

An easy step by step procedure, finalized with the complete valve island print, composition report and 2D drawing.

Valve island modules identification

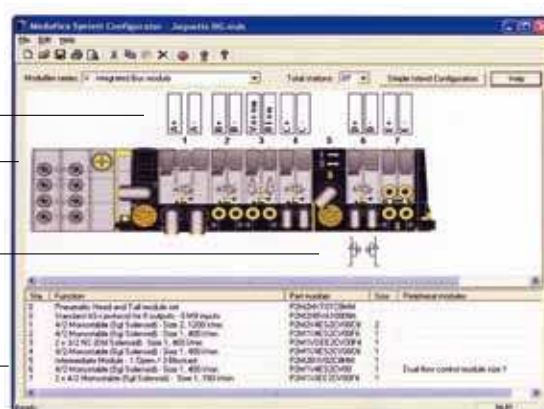
Valve island graphic description

including pneumatic function module symbol, outlet port connector, pneumatic and electrical head module,...

Additional peripheral modules

Valve island composition

including each module description and order code

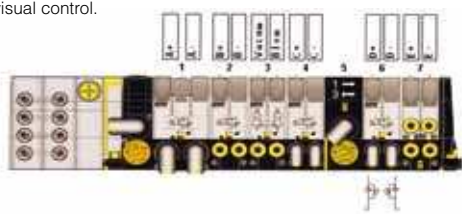


An easy to use software for a complete ordering tool

The Moduflex Valve Island Configurator software offers an easy way to, step by step, configure the required valve island for the application.

Valve island print with symbols and markings

Once the valve island configured, picture of the configuration allows a visual control.



4 pages report :

A complete 4 pages report can be edit, giving :

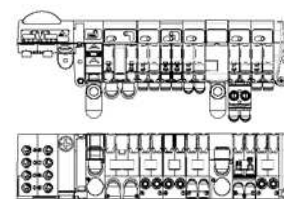
Page 1	Page 2	Page 3	Page 4
Complete list of "basic modules" pneumatic connectors, mufflers and electrical connectors	Complete list of components splitted slice by slice	Detail list of "complete module" with module width and total valve island length	Warnings and advices depending on the configuration

Multi-language CD-Rom order code :

PDE2536CDV3.1-ev

2D drawing :

A direct valve island configuration exportation function to .dxf format included.



3D drawing library :

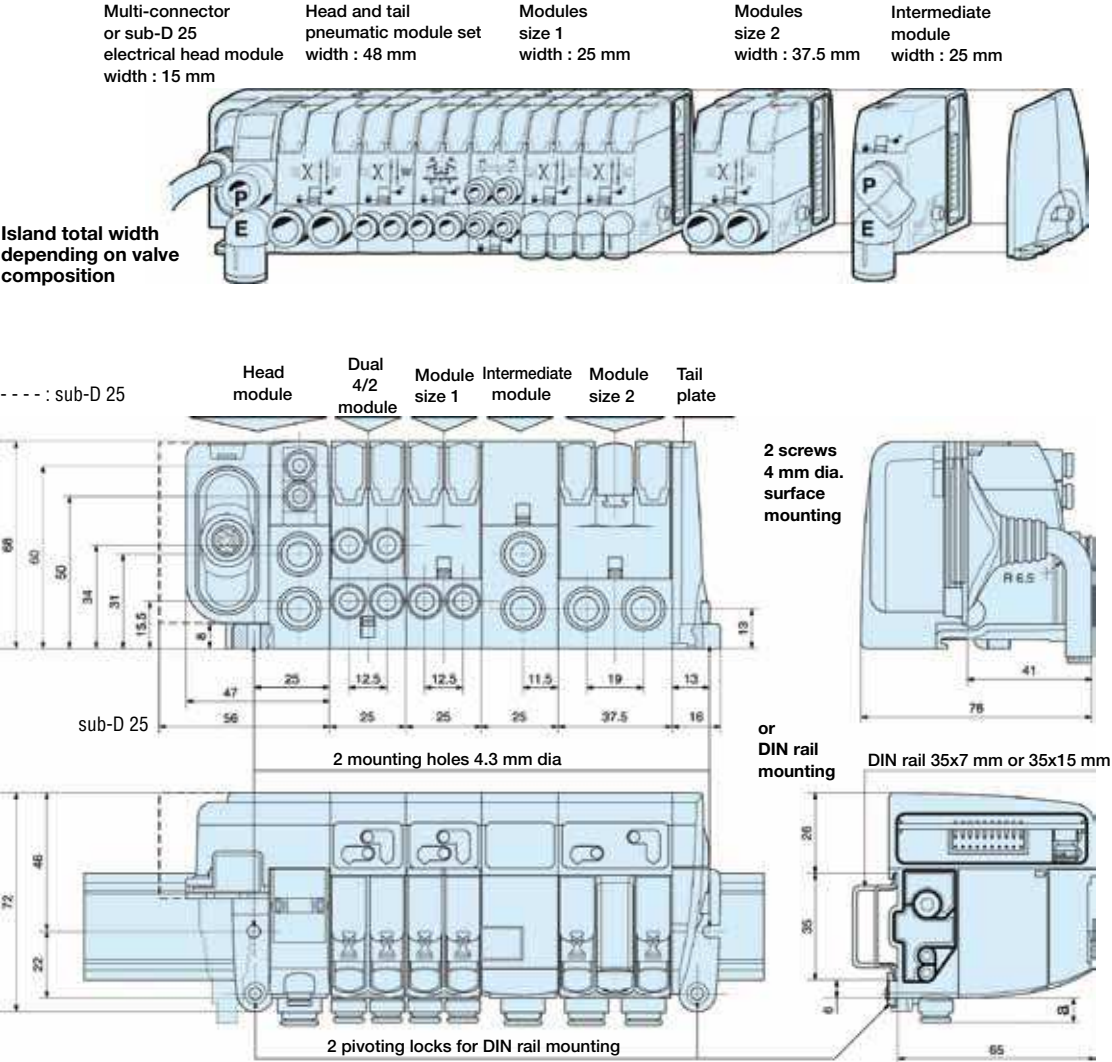
3 formats are available on the CD for each basic module, electrical components and pneumatic connectors.



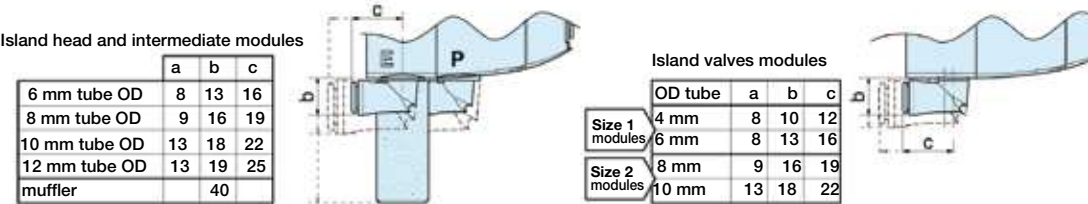
3D e-configurator software :

Also available, a 3D e-configurator on : <http://www.parker.com/pneu/moduflex>

1 - Multi-connector or sub-D 25 valve island



Special case : 4/3 closed centre function within island version :
Add the dimensions of the dual P.O. check valve module plugged into the island.



2 - Field bus connected islands

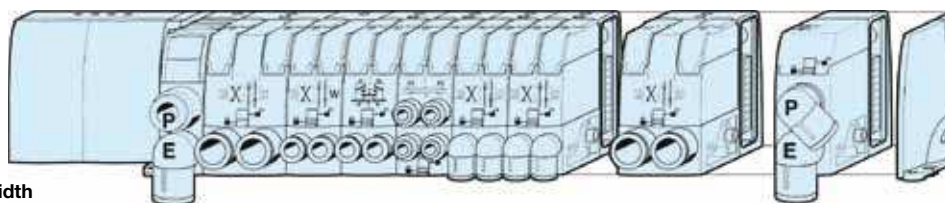
Electrical field
bus head module
width : 62 mm

Head and tail
pneumatic module set
width : 48 mm

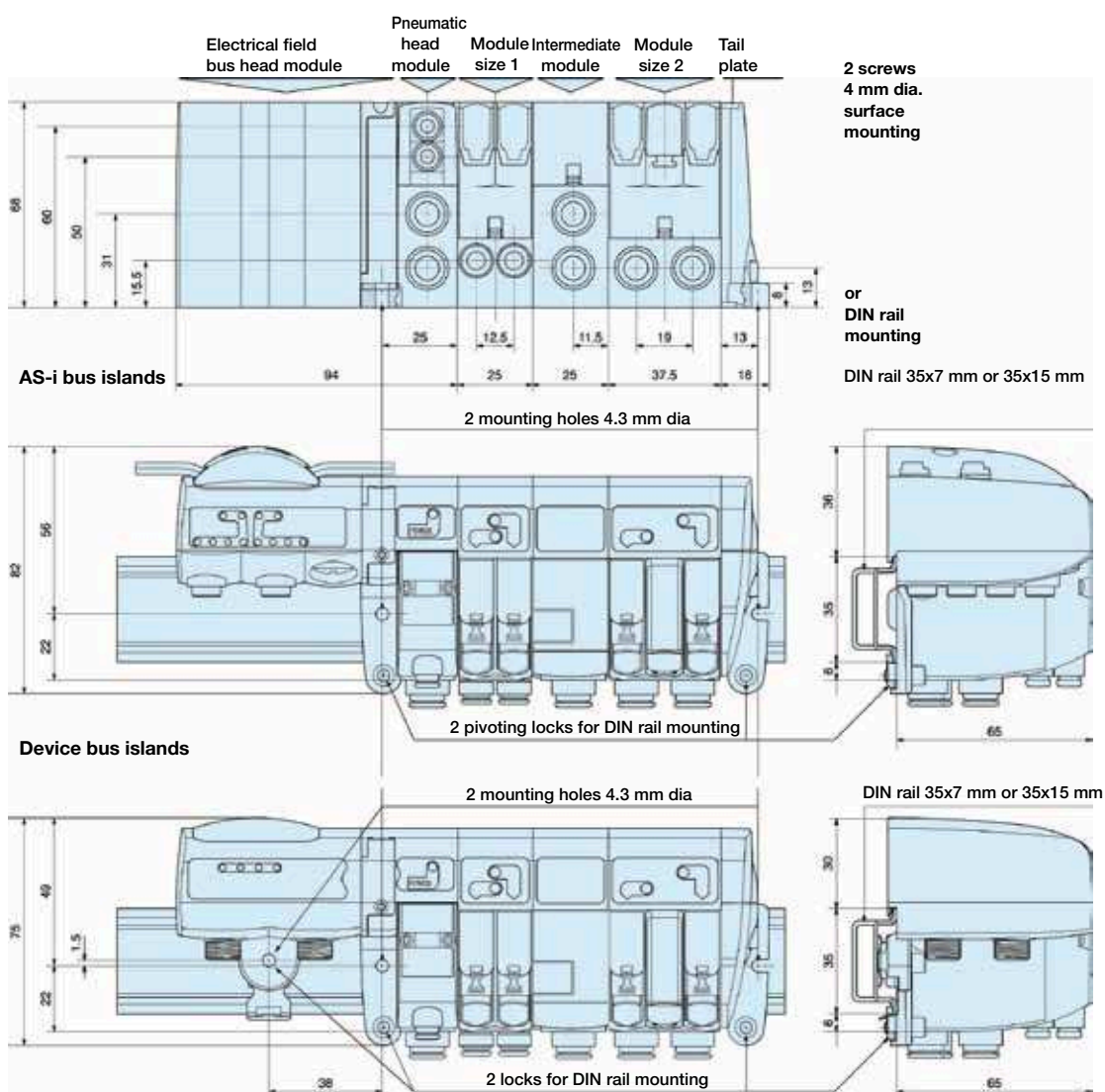
Modules
size 1
width : 25 mm

Modules
size 2
width : 37.5 mm

Intermediate
module
width : 25 mm



Island total width
depending on valve
composition

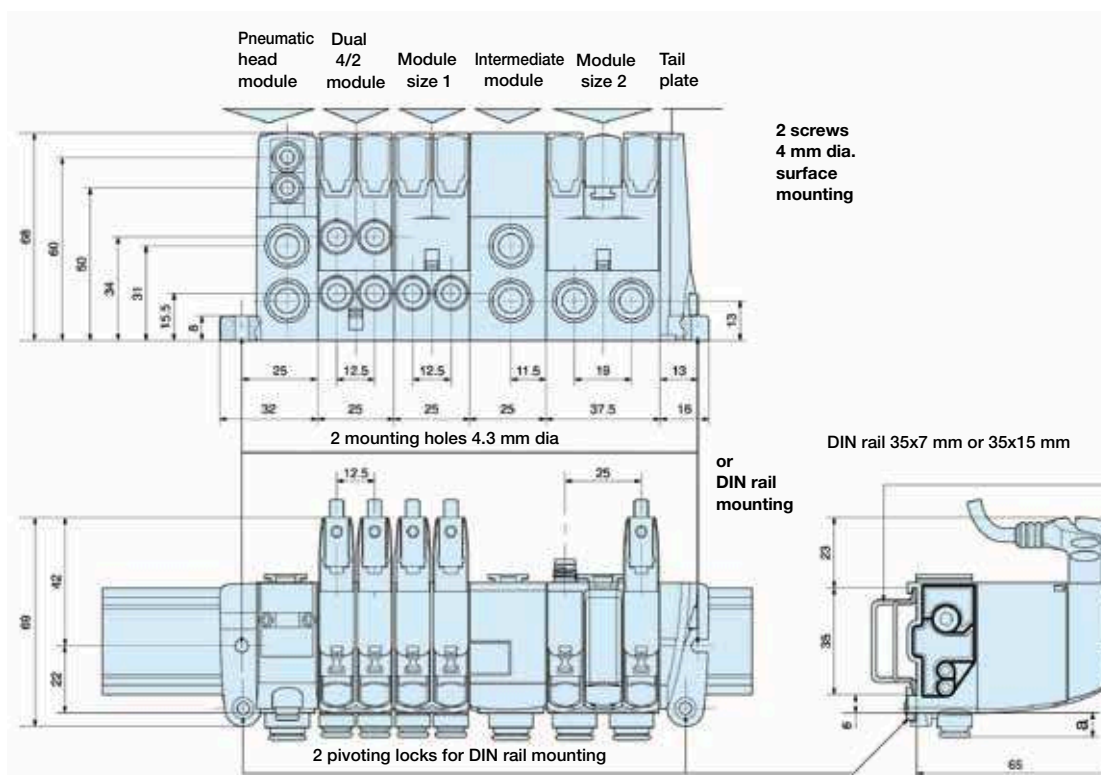
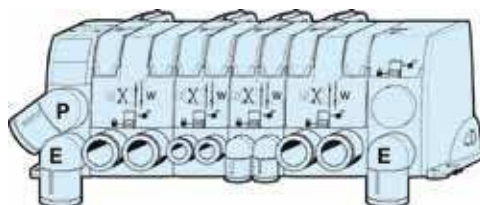


Parker One Pneumatic

Dimensions and Mounting - T Series

Island total width depending on valve composition

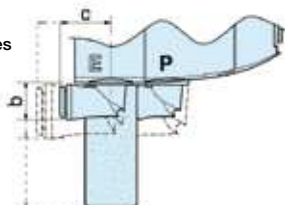
	Pneumatic head and tail module	Modules size 1	Modules size 2	Intermediate module
width $\Rightarrow$	48 mm	25 mm	37.5 mm	25 mm



Special case : 4/3 closed centre function within island version :
Add the dimensions of the dual P.O. check valve module plugged into the island

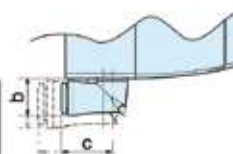
Island head and intermediate modules

	a	b	c
6 mm tube OD	8	13	16
8 mm tube OD	9	16	19
10 mm tube OD	13	18	22
12 mm tube OD	13	19	25
muffler		40	



Island valves modules

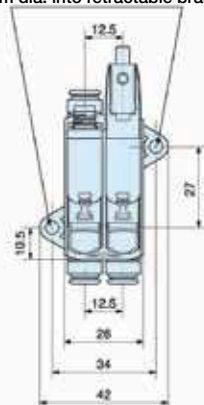
	OD tube	a	b	c
Size 1 modules	4 mm	8	10	12
	6 mm	8	13	16
Size 2 modules	8 mm	9	16	19
	10 mm	13	18	22



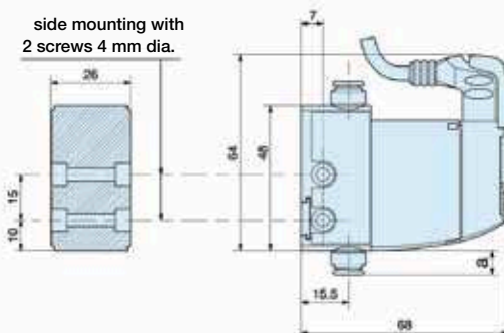
Stand-alone valve size 1



surface mounting with screws
4 mm dia. into retractable brackets 3 mm thick



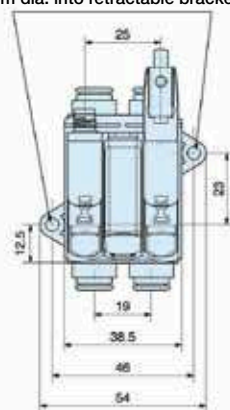
or side mounting with
2 screws 4 mm dia.



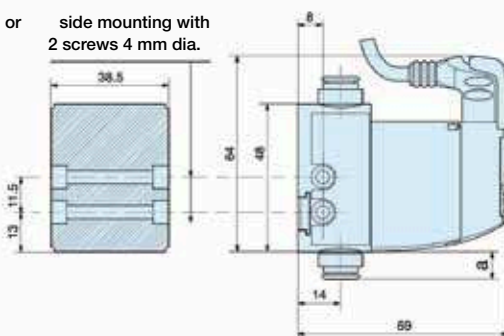
Stand-alone valve size 2



surface mounting with screws
4 mm dia. into retractable brackets 3 mm thick



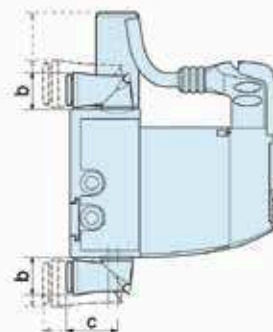
or side mounting with
2 screws 4 mm dia.



Dimensions and mountings
of the stand-alone valves
4/2, double and single 3/2,
4/3 vented centre and
4/3 pressure centre.

Special case : 4/3 closed centre.
Add the dual P.O. check
valve module that has been
plugged in the basic valve.

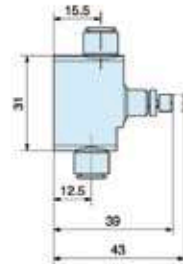
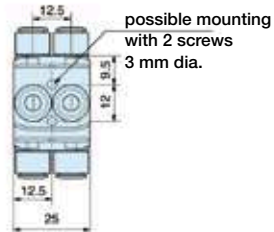
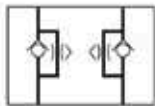
		a	b	c
Size 1 modules	4 mm tube OD	8	10	12
	6 mm tube OD	8	13	16
	muffler		31	
Size 2 modules	8 mm tube OD	9	16	19
	10 mm tube OD	13	18	22
	muffler		40	



Reminder : peripheral modules may either be plugged in the valve output ports or mounted in line separate from the valve

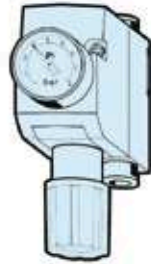
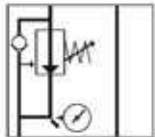


Dual flow control module size 1

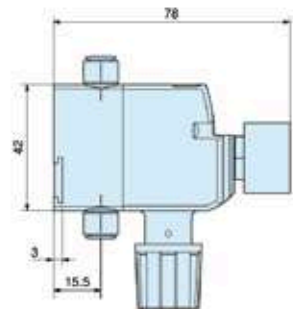
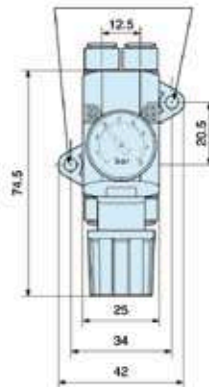


Pressure regulation module size 1

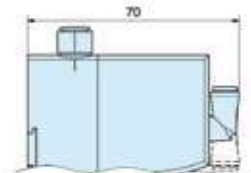
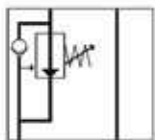
- with gauge



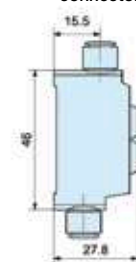
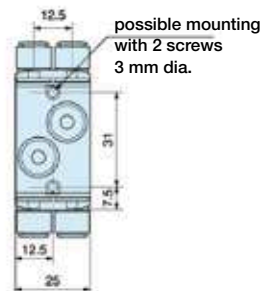
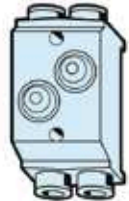
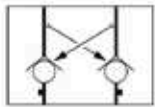
mounting with 2 screws 4 mm dia.
on retractable brackets



- without gauge

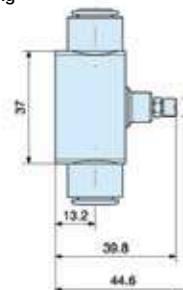
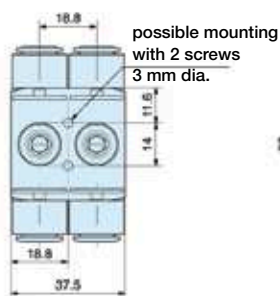
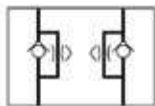


Dual P.O. check valve module size 1



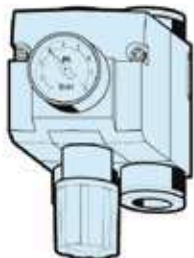
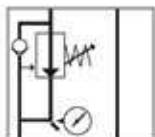
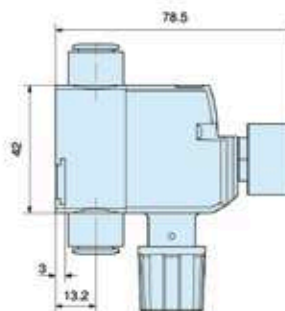
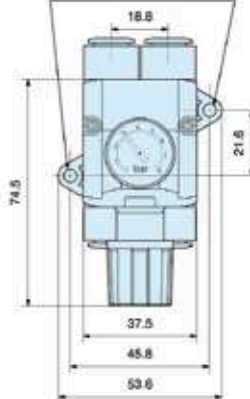
swivel elbow push-in
connector 4 mm OD tube

Dual flow control module size 2

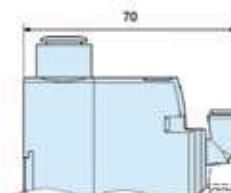
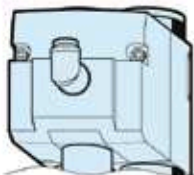
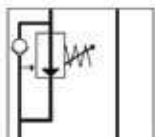


Pressure regulation module size 2

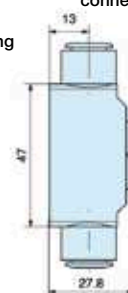
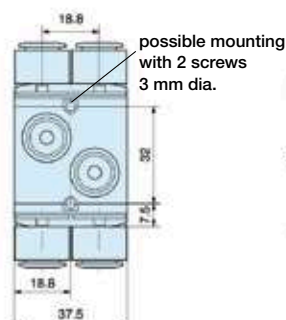
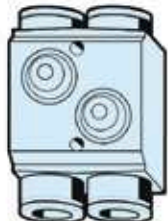
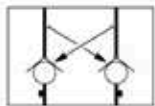
- with gauge

mounting with 2 screws 4 mm dia.
on retractable brackets

- without gauge

swivel elbow push-in
connector 4 mm OD tube

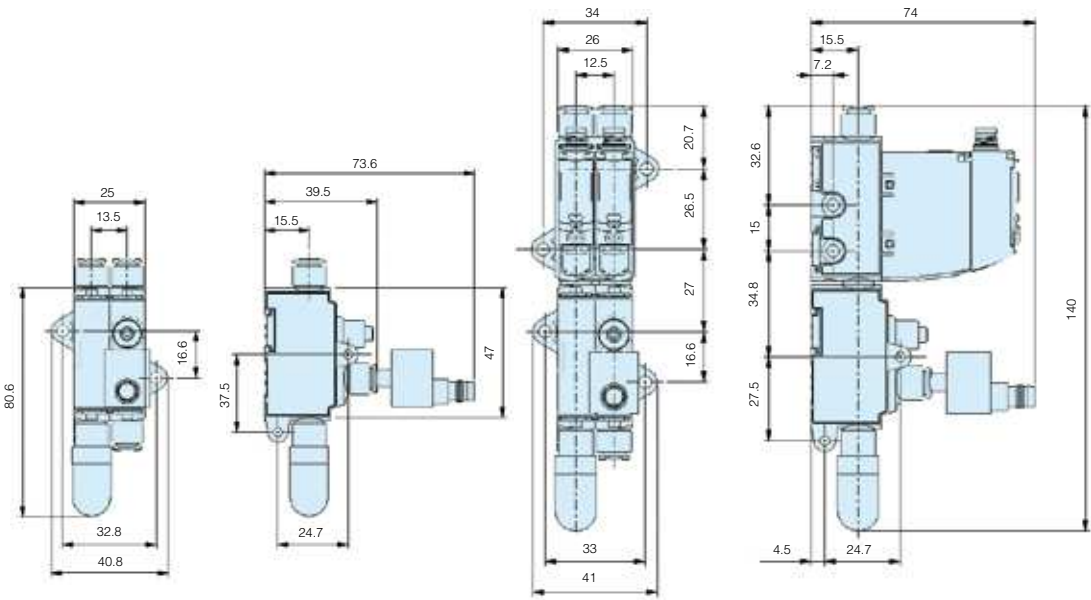
Dual P.O. check valve module size 2



Vacuum generator module

In-line

With Moduflex valve





Industrial Communication System

Isysnet / Moduflex

*Isysnet system for **centralised** and **decentralised** applications*



Isysnet System for Centralised applications

Isysnet System has 4 major components :

- **Communication interface modules** provide the network- interface circuitry
- **I/O modules** provide the field interface, system-interface circuitry, and bases for mounting
- **Power distribution module** provide the solution to expandability of the Isysnet system or multiple power supply

Moduflex Bus System for Decentralised applications

The Moduflex communication module is directly attach the either, a Moduflex, Isys Micro or Isys ISO manifold in a compact valve island directly connectable to the industrial network.

Pneumatic variants using Isysnet Industrial communication system for Centralised applications

Isysnet device with electric modules only**Isysnet with Isys Micro extended device****Isysnet with Isys Micro Valves island****Isysnet with Isys ISO valves island**

Isys ISO 15407-2 – HA & HB
Isys ISO 5599-2 – H1



Pneumatic variants using Moduflex Fieldbus modules for Decentralised applications

Moduflex Bus with Moduflex Valve System**Moduflex Bus with Isys Micro Valves island****Moduflex Bus With Isys ISO 15407-2 or 5599-2 valves island**

Isys ISO 15407-2 – HA & HB
Isys ISO 5599-2 – H1



Isysnet Device constitution overview for a Centralised application

For main device

For both main and extended devices



Communication modules :

- Fieldbus or Industrial Ethernet protocol
- Network connection
- Separated 24VDC for logic and user power supply
- Configuration with coding wells and bus status display by LED

Bus extender cable :

- Cable linking extended device through the Sub-network
- Sub-network connection from Isysnet module or Isys Micro Valve driver
- Transferring both sub-network communication and 5VDC for bus power supply

I/O modules :

- Choice of Digital or Analogic I/O modules offering multiple industrial connection types
- Connection to the Sub-network and the separated 24VDC for both logic and user through the socket
- I/O and sub-network status display by LEDs

Power extender module :

- Additional separated 24VDC power supply for logic and user allowing multiple permanent or safety power supply recommendations
- Both Logic and User electrical power supply display by separated LEDs

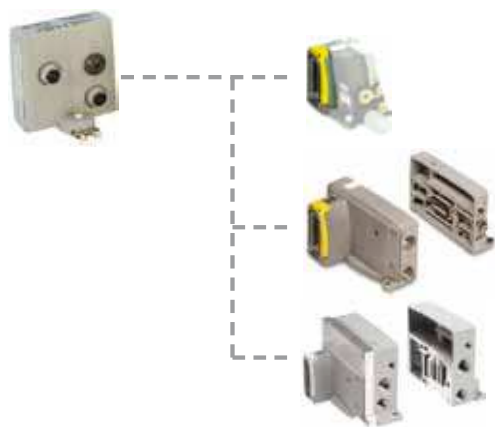
Isysnet end section :

- Specific socket or valve driver without extender bus connector for Isysnet end section

Isysnet prologation section :

- Specific socket with sub-network extender cable and extended device head plate
- Valve driver including extender bus connector for sub-network continuity

Moduflex constitution overview for a Decentralised application



Communication module :

- Fieldbus protocols
- Network connection
- Separated power supply for communication and solenoid valves
- Addressing and speed communication configuration by coding wells
- Bus status display by LED

Bus module adaptor :

Using the appropriate adaptor, the Moduflex Bus module can be assembled to :

- Moduflex Valve System
- Isys Micro
- Isys ISO 15407-2 – HA & HB
- Isys ISO 5599-2 – H1

Isysnet Industrial Communication modules



A choice of different protocols to connect the Isysnet device to the requested industrial network :

- DeviceNet
- Profibus DP
- ControlNet
- Ethernet I/P

Digital and Analogue Isysnet I/O modules :



Application always needs a wide sensor quantity, diversity and additional electric actuators as well, with an appropriate electrical connection.

With a modularity from 2 to 16 channels, the wide Isysnet range of digital or analogue inputs and outputs modules offers a choice of industrial connection :

- M8 -3 PINs
- M12 -5 PINs
- M23 - 12 PINs

Isysnet extension power supply module :



The auxiliary power from the communication module supports up to 10 I/O modules. Also, for application needing a huge I/O modules quantity, this 24VDC extension power module extends the backplane bus power to support up to 10 more I/O modules.

Also, when safety recommendations require multiple permanent and safety power supplies, this 24VDC extension power module avoids to get a separated power supply section in the Isysnet device.

Isysnet and Isys Micro bus extender cable



An Isysnet device can be split into the Isysnet section or, from an Isys Micro valve manifold to an extended Isysnet section. Both cables avoid the backplane Bus power and communication.

The Isysnet device has to be closed with a 32 output driver (internally ending the backplane bus) or using the Isysnet terminating base module

Isysnet 32 Outputs driver for valve islands in centralised applications

Isysnet 32 Outputs driver for Isys Micro Valve Islands



- Isys Micro valve nominal flow up to 280 NI/mn
- 32 outputs per module to handle up to 32 solenoids per valve island
- Up to 4 valve islands linked through the internal sub-network for a total of 128 solenoids per device
- With or without additional user power supply
- With or without bus extender

Isysnet 32 Outputs driver for Isys ISO Valve Islands



ISO 15407-2

ISO 5599-2

- | | | | |
|---------------|--------------|-------|------------|
| • ISO 15407-2 | Size 02 (HB) | 18 mm | 380 NI/mn |
| • ISO 15407-2 | Size 01 (HA) | 26 mm | 590 NI/mn |
| • ISO 5599-2 | Size 1 (H1) | 42 mm | 1030 NI/mn |
- 32 outputs per module to handle up to 32 solenoids per valve island.

Moduflex fieldbus modules for valve islands in decentralised applications

Moduflex fieldbus adaptor for Isys Micro and Isys ISO valve islands



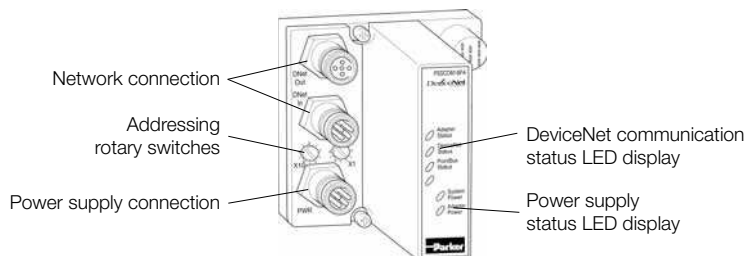
Moduflex valve system

Isys Micro

ISO 15407-2
HA - HBISO 5599-2
H1

- Compatible with all Moduflex fieldbus protocol modules handling up to 16 solenoids:
 - DeviceNet
 - CANopen
 - Profibus DP
 - InterBus-S
 - AS-i standard and extended a-b coding versions.

DeviceNet communication module



DeviceNet Adapters		
DeviceNet module order code	PSSCDM12A	PSSCDM18PA
Adapters connection		
Power supply connection	7/8" - 4 PINs - Male :  - PIN 1 : User power + - PIN 2 : Adapter power + - PIN 3 : Adapter power - - PIN 4 : User power -	
Bus IN connection	M12 - 5 PINs - Male - A coding 	M18 - 5 PINs - Male : 
	- PIN 1 : Drain - PIN 2 : DeviceNet V+ - PIN 3 : DeviceNet V- - PIN 4 : CAN High - PIN 5 : CAN Low	
Bus OUT connection	M12 - 5 PINs - Female - A coding 	M18 - 5 PINs - Female : 
	- PIN 1 : Drain - PIN 2 : V+ - PIN 3 : V- - PIN 4 : CAN High - PIN 5 : CAN Low	
LED display	1 - Adapter status : green/red 2 - DeviceNet status : green/red 3 - Status : green/red 4 - System power (5V power) : green 5 - Adapter power (24V from field supply) : green	

DeviceNet communication module connection accessories

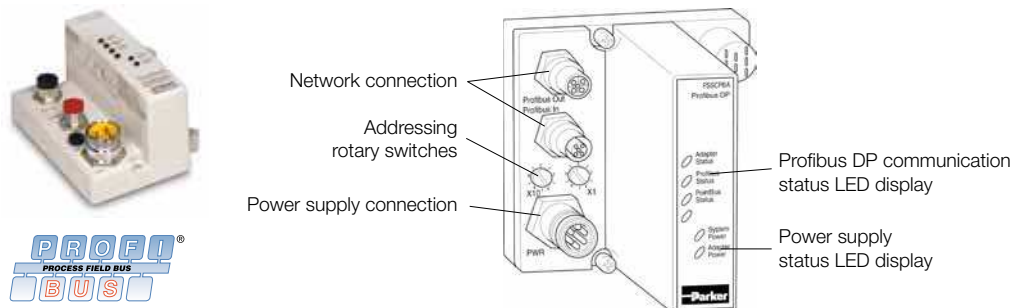


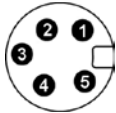
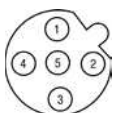
P8CS1205BA

Description	Connector type	W (g)	Order code
Power supply connector	7/8" - 4 PINs	40	P8CS7804AA
Bus IN connector	M12 female - A coding	25	P8CS1205AA
Bus OUT connector	M12 male - A coding	25	P8CS1205BA
Line terminaison	M12 male - A coding	25	P8BPA00MA



Profibus DP communication module



Profibus DP Adapters	
Profibus DP module order code	PSSCPBA
Profibus DP adapters connection	
Power supply connection	7/8" - 5 PINs - Male :  - PIN 1 : User power - - PIN 2 : Adapter power - - PIN 3 : Protective GND - PIN 4 : Adapter power + - PIN 5 : User power +
BUS IN connection	M12 - 5 PINs - Male - B coding  - PIN 1 : + 5 VDC Bus - PIN 2 : A - Line - PIN 3 : GND Bus - PIN 4 : B - Line - PIN 5 : Shield
BUS OUT connection	M12 - 5 PINs - Female - B coding  - PIN 1 : + 5 VDC Bus - PIN 2 : A - Line - PIN 3 : GND Bus - PIN 4 : B - Line - PIN 5 : Shield
LED display	1 - Adapter status : green/red 2 - Profibus DP status : green/red 3 - Bus status : green/red 4 - System power (5V power) : green 5 - Adapter power (24V from field supply) : green

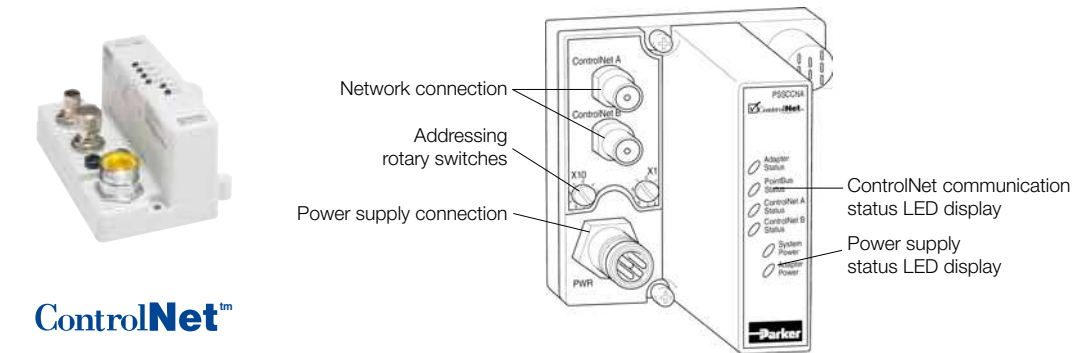
Profibus DP communication module connection accessories



P8CS1205BB

Description	Connector type	W (g)	Order code
Power supply connector	7/8" - 5 PINs	40	P8CS7805AA
Bus IN connector	M12 female - B coding	25	P8CS1205AB
Bus OUT connector	M12 male - B coding	25	P8CS1205BB
Line terminaison	M12 male - B coding	25	P8BPA00MB

ControlNet communication module

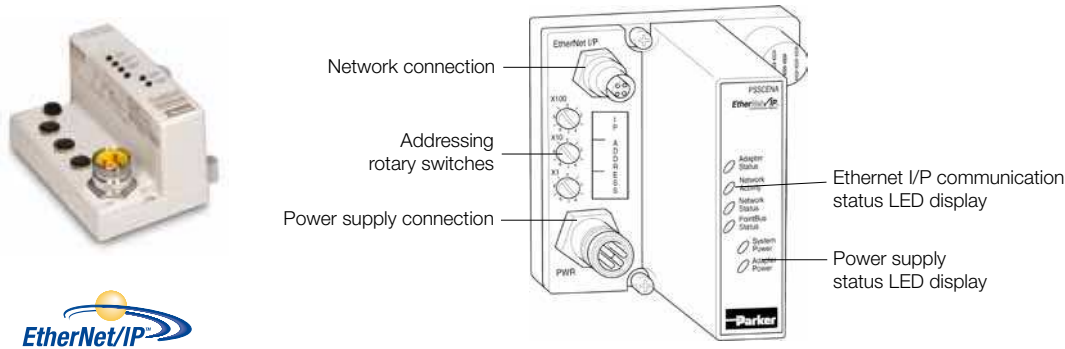


ControlNet Adapters	
ControlNet module order code	PSSCCNA
ControlNet adapters connection	
Power supply connection	7/8" - 4 PINs - Male :  - PIN 1 : User power + - PIN 2 : Adapter power + - PIN 3 : Adapter power - - PIN 4 : User power -
ControlNet IN connection	TNC style connector
ControlNet OUT connection	TNC style connector
LED display	1 - Adapter status : green/red 2 - Bus status : green/red 3 - ControNet A status : green/red 4 - ControNet B status : green/red 5 - System power (Bus 5V power) : green 6 - Adapter power (24V from field supply) : green

ControlNet communication module connection accessories

 P8CS7804AA	Description	Connector type	W (g)	Order code
	Power supply connector	7/8" - 4 PINs	40	P8CS7804AA

Ethernet I/P communication module



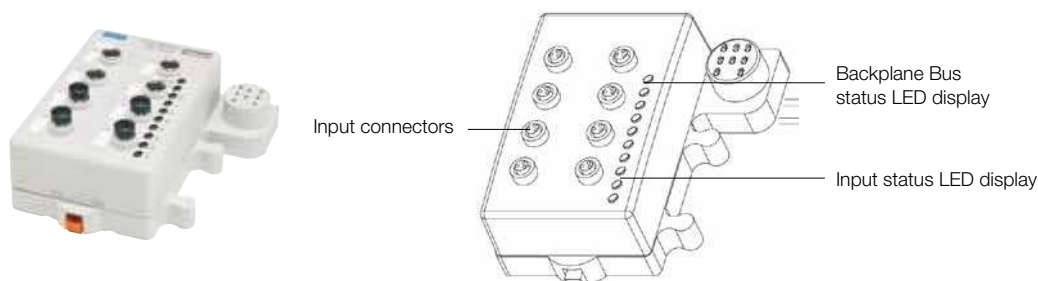
Ethernet I/P Adapters	
Ethernet I/P module order code	PSSCENA
Ethernet I/P adapters connection	
Power supply connection	7/8" - 4 PINs - Male :  - PIN 1 : User power + - PIN 2 : Adapter power + - PIN 3 : Adapter power - - PIN 4 : User power -
Ethernet I/P connection	M12 - 4 PINs - Female - D coding :  - PIN 1 : Tx + - PIN 2 : Rx + - PIN 3 : Tx - - PIN 4 : Rx -
LED display	1 - Adapter status : green/red 2 - Network activity : green 3 - Network status : green/red 4 - Bus status : green/red 5 - System power (Bus 5V power) : green 6 - Adapter power (24V from field supply) : green

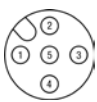
Ethernet I/P communication module connection accessories

	Description	Connector type	W (g)	Order code
	Power supply connector	7/8" - 4 PINs	40	P8CS7804AA

P8CS7804AA

Isysnet Digital Input modules

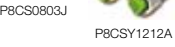


Isysnet Digital DC Input modules				
Input module order code	PSSN8M8A	PSSP8M8A	PSSN8M12A	PSSP8M12A
				
Nb of Inputs	8	8	8	8
Nb of Input connectors	8 x M8	8 x M8	4 x M12	4 x M12
Input density / connector	1	1	2	2
Sensor polarity	PNP	NPN	PNP	NPN
Input module connection				
Input connector	M8 - 3 PINs - Female  - PIN 1 : + 24 VDC - PIN 3 : Common - PIN 4 : Input		M12 - 5 PINs - Female  - PIN 1 : + 24 VDC - PIN 2 : Odd input (1, 3, 5, 7) - PIN 3 : Common - PIN 4 : Even input (0, 2, 4, 6) - PIN 5 : n/a	
Input status LED display (Logic side)	8 x Yellow			
Backplane Bus status LED display (Logic side)	Network status : 1 x green / red Module status : 1 x green / red			

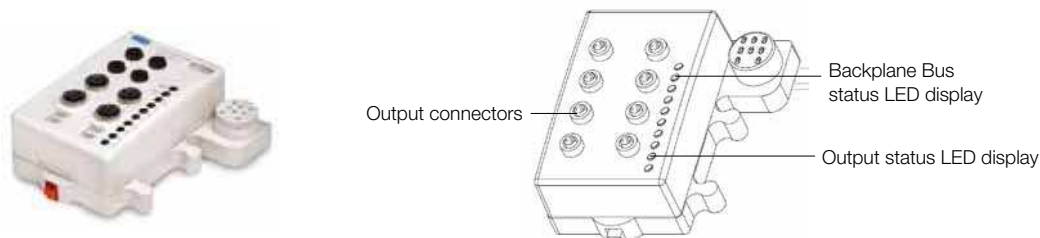
Isysnet Backplane Bus accessories

	Description	Cable length	W (g)	Order code
	Backplane Bus extender	1 meter	380	PSSEXT1
		3 meter	760	PSSEXT3
	Termination module		200	PSSTERM

Connectors for inputs

	Description	Connector type	W (g)	Order code
	Cable quick connect connector	M8 male	25	P8CS0803J
		M12 male - A coding	25	P8CS1204J
	Y shape	M12 male - 2 x M12 female	25	P8CSY1212A

Isysnet Digital Output modules



Isysnet Digital DC Output modules				
Output module order code	PSST8M8A	PSST8M12A	PSST8M23A	PSSTR4M12A
				
Nb of Outputs	8	8	8	4
Nb of Output connectors	8 x M8	4 x M12	1 x M23	4 x M12
Output density / connector	1	2	8	1
Output module connection				
Output connector	M8 - 3 PINs Female  - PIN 1 : +24 VDC - PIN 3 : Common - PIN 4 : Outputs (0 to 7)	M12 - 5 PINs Female  - PIN 1 : +24 VDC - PIN 2 : Odd output (1, 3, 5, 7) - PIN 3 : Common - PIN 4 : Even output (0, 2, 4, 6) - PIN 5 : n/a	M23 - 12 PINs Female  - PIN 1 : Output 0 - PIN 2 : Output 1 - PIN 3 : Output 2 - PIN 4 : Output 3 - PIN 5 : Output 4 - PIN 6 : Output 5 - PIN 7 : Output 6 - PIN 8 : Output 7 - PIN 9 : Return (common) - PIN 10 : Return (common) - PIN 11 : +24 VDC - PIN 12 : Chassis	M12 - 5 PINs Female  - PIN 1 : +24 VDC - PIN 2 : Odd outputs - PIN 3 : Common - PIN 4 : Even outputs - PIN 5 : n/a
Output status LED display (Logic side)	8 x Yellow / Red			4 x Yellow / Red
Backplane Bus status LED display (Logic side)	Network status : 1 x green / red Module status : 1 x green / red			

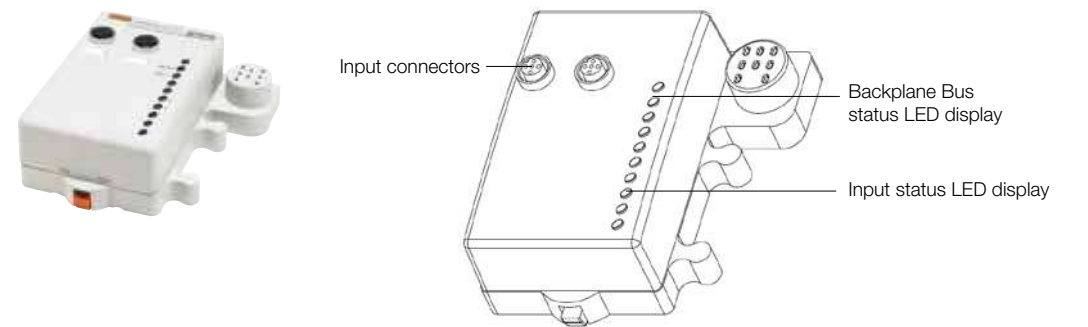
Isysnet Backplane Bus accessories

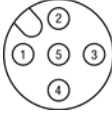
	Description	Connector type	W (g)	Order code
	Backplane Bus extender	1 meter	380	PSSEXT1
		3 meter	760	PSSEXT3
	Termination module		200	PSSTERM

Connectors for Outputs

	Description	Connector type	W (g)	Order code
	Cable quick connect connector	M8 male	25	P8CS0803J
		M12 male - A coding	25	P8CS1204J
	Y shape	M12 male - 2 x M12 female	25	P8CSY1212A

Isysnet Analogue Input modules



Isysnet Analogue Input modules		
Input module order code	PSSNAVM12A	PSSNACM12A
		
Nb of Inputs	2	2
Nb of Input connectors	2 x M12	2 x M12
Input density / connector	1	1
Input signal	0 - 10 V	4 - 20 mA
Analogue Input module connection		
Input connector	M12 - 5 PINs - Female  - PIN 1 : +24 VDC - PIN 2 : Inputs - PIN 3 : Common - PIN 4 : Common - PIN 5 : n/a	
Input status LED display (Logic side)	2 x green / red	
Backplane Bus status LED display (Logic side)	Module status : 1 x green / red Network status : 1 x green / red	

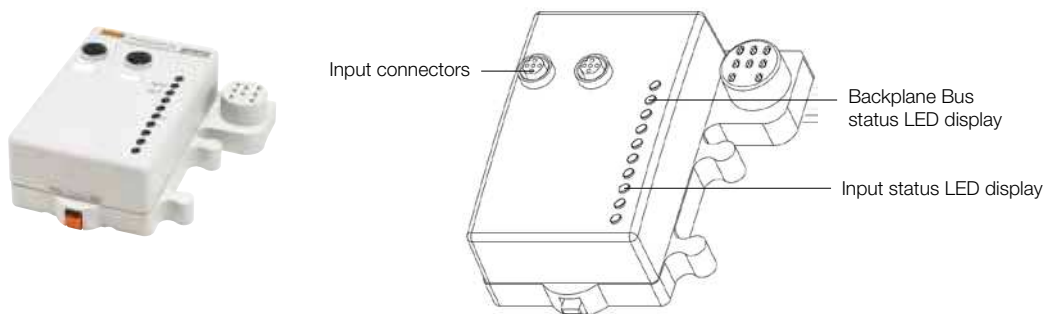
Isysnet Backplane Bus accessories

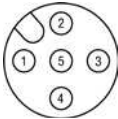
	Description	Cable length	W (g)	Order code
	Backplane Bus extender	1 meter	380	PSSEXT1
		3 meter	760	PSSEXT3
	Termination module		200	PSSTERM

Connectors for inputs

	Description	Connector type	W (g)	Order code
	Straight connector	M12 male - A coding	25	P8CS1205BA

Isysnet Analogue Output modules



Isysnet Analogue Output modules		
Output module order code	PSSTAVM12A	PSSTACM12A
		
Nb of Outputs	2	2
Nb of Output connectors	2 x M12	2 x M12
Output density / connector	1	1
Output signal	0 - 10 V	4 - 20 mA
Analogue Output module connection		
Output connector	M12 - 5 PINs - Female  - PIN 1 : Outputs - PIN 2 : +24 VDC - PIN 3 : Common - PIN 4 : Common - PIN 5 : n/a	
Output status LED display (Logic side)	2 x green / red	
Backplane Bus status LED display (Logic side)	Module status : 1 x green / red Network status : 1 x green / red	

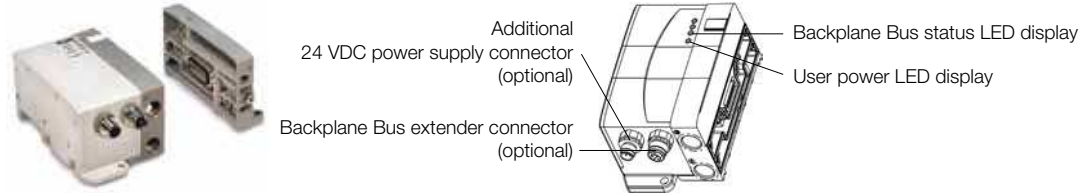
Isysnet Backplane Bus accessories

	Description	Cable length	W (g)	Order code
	Backplane Bus extender	1 meter	380	PSSEXT1
		3 meter	760	PSSEXT3
	Termination module		200	PSSTERM

Connectors for Outputs

	Description	Connector type	W (g)	Order code
	Straight connector	M12 male - A coding	25	P8CS1205BA

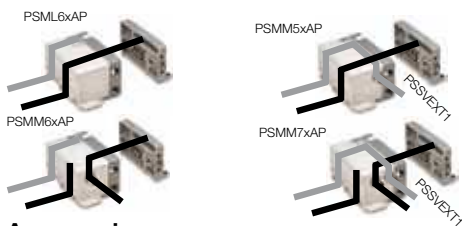
Isysnet 32 Output drivers



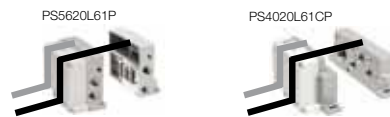
Isysnet 32 Output driver modules							
Dedicated valve range		Isys Micro				Isys ISO 15407-2	Isys ISO 5599-2
32 Output driver modules order code	Side ported	PSML61AP	PSMM61AP	PSMM71AP	PSMM51AP	PS5620L61P	PS4020L61CP
	Bottom ported	PSML62AP	PSMM62AP	PSMM72AP	PSMM52AP	-	-
							
Pneumatic port sizes	Power supply	G3/8"					
	Exhaust	G3/8"					
Pneumatic pilot port sizes	Power supply	Internal or M7				Internal	
	Exhaust	G1/8"				Internal	
32 Output driver module connection							
24 VDC power supply connector	NO	YES	YES	NO	NO	NO	
	 - PIN 1 : +24 VDC - PIN 2 : n/a - PIN 3 : Common - PIN 4 : n/a - PIN 5 : Protective Earth						
Backplane Bus Extender connector	NO	NO	YES	YES	NO	NO	
			 M12 - 5 PINs - Female To use with PSSVEXT1 - PIN 1 : CAN SHLD - PIN 2 : CAN V+ - PIN 3 : CAN GND - PIN 4 : CAN High - PIN 5 : CAN Low				
Backplane Bus status LED display (Logic side)		Backplane Bus power supply : 1 x green / red Backplane Bus status : 1 x green / red Output fault : 1 x red Valve power supply : 1 x green				Module status : 1 x green / red Backplane Bus status : 1 x green/red Output fault : 1 x yellow / red	

Backplane Bus and Solenoid Valves Power Supply Sourcing :

Isys Micro 32 output driver modules



Isys ISO 32 output driver modules



Backplane Bus power supply

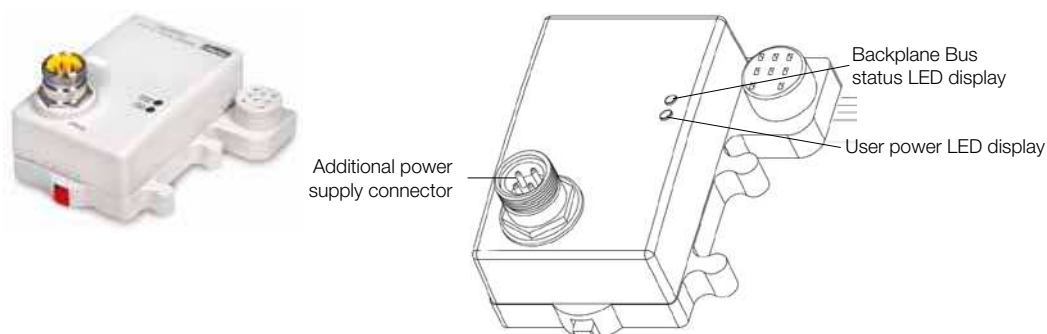
Solenoid Valves power supply

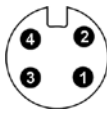
For further details on Multiple Power supply, see at end of this section.

Accessories

	Description	Connector type	W (g)	Order code
	Backplane Bus extension cable with 1 meter cable	M12 male - A coding Head plate	380	PSSVEXT1
	Connector for 24 VDC power supply connector	M12 Female - A coding	25	P8CS1205AA
	Line terminaison	M12 Male - A coding	25	P8BPA00MA

Isysnet Power Extender module



Backplane Bus Extension Power Supply module	
Power Supply Extender module Order Code	PSSE24A
	
Extender module connection	
Power supply connection	7/8" - 4 PINs - Male  - PIN 1 : User power + - PIN 2 : Backplane bus power + - PIN 3 : Backplane bus power + - PIN 4 : User power -
Status LED display (Logic side)	Field power status : 1 x green 5 VDC system power status : 1 x green

Isysnet Backplane Bus connector



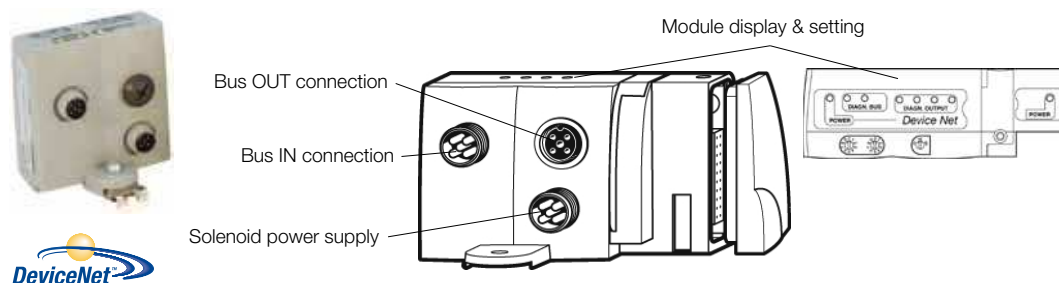
P8CS7804AA

Description	Connector type	W (g)	Order code
power supply connector	7/8" - 4 PINs	40	P8CS7804AA

Isysnet Backplane Bus accessories

Description	Cable length	W (g)	Order code
 Backplane Bus extender from Isysnet module	1 meter	380	PSSEXT1
	3 meter	760	PSSEXT3
 Backplane Bus extension cable from 32 outputs driver	1 meter	380	PSSVEXT1

DeviceNet 16 outputs communication module



DeviceNet Adapters	
Dedicated valve range	Moduflex Valve System
DeviceNet module Order Code	P2M2HBVD11600 P2M2HBVD21600
Adapter connection	
Power supply connection	M12 - 5 PINs - Male - B coding - PIN 1 : n/a - PIN 2 : n/a - PIN 3 : 0 VDC Solenoids - PIN 4 : 24 VDC Solenoids - PIN 5 : Protected earth (PE)
Bus IN connection	M12 - 5 PINs - Male - A coding - PIN 1 : Drain - PIN 2 : CAN V+ - PIN 3 : CAN V- - PIN 4 : CAN High - PIN 5 : CAN Low
Bus OUT connection	M12 - 5 PINs - Female - A coding - PIN 1 : Drain - PIN 2 : CAN V+ - PIN 3 : CAN V- - PIN 4 : CAN High - PIN 5 : CAN Low
LED Display	Adapter power : 1 x green DeviceNet status : 2 x green/red Solenoid pilots power : 1 x green/red Solenoid pilots diagnostic : 4 x red

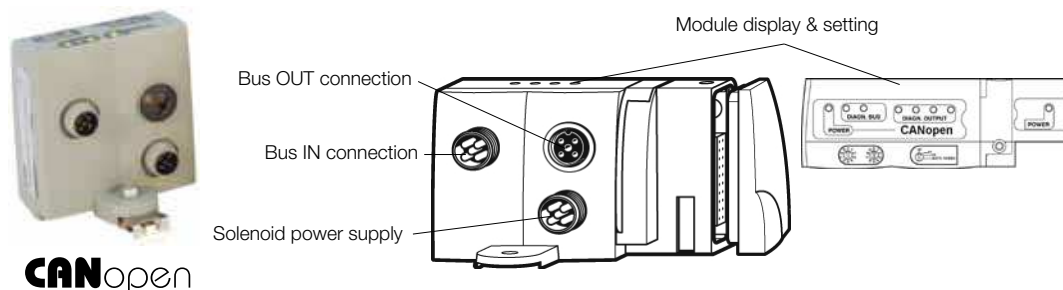
Valve range adapters

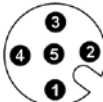
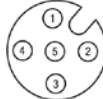
Description	Valve range	W (g)	Order code
 PSMM41AP	Moduflex Valve	30	P2M2HEV0B
	Isys Micro Side ported	200	PSMM41AP
	Bottom ported	200	PSMM42AP
	Isys ISO 15407-2 - HA - HB	200	PS5620M41P
	Isys ISO 5599-2 - H1	300	PS4020M41CP

DeviceNet communication module connection accessories

Description	Connection type	W (g)	Order code
 P8CS1205BA	Power supply connector	M12 Female - A coding	40
		M12 Female - B coding	40
	Bus IN connector	M12 Female - A coding	25
	Bus OUT connector	M12 Male - A coding	25
	Line terminaison	M12 Male - A coding	25

CANopen 16 outputs communication module



CANopen Adapters		Moduflex Valve System		Isys Micro
Dedicated valve range				
CANopen module Order Code		P2M2HBVC11600	P2M2HBVC21600	Side ported : PSMMC1AP Bottom ported : PSMMC2AP
				
Adapter connection				
Power supply connection	 - M12 - 5 PINs - Male - B coding - PIN 1 : n/a - PIN 2 : n/a - PIN 3 : 0 VDC Solenoids - PIN 4 : 24 VDC Solenoids - PIN 5 : Protected earth (PE)	 - M12 - 5 PINs - Male - A coding - PIN 1 : n/a - PIN 2 : n/a - PIN 3 : 0 VDC Solenoids - PIN 4 : 24 VDC Solenoids - PIN 5 : Protected earth (PE)		
Bus IN connection	 - M12 - 5 PINs - Male - A coding - PIN 1 : Drain - PIN 2 : CAN V+ - PIN 3 : CAN V- - PIN 4 : CAN High - PIN 5 : CAN Low			
Bus OUT connection	 - M12 - 5 PINs - Female - A coding - PIN 1 : Drain - PIN 2 : CAN V+ - PIN 3 : CAN V- - PIN 4 : CAN High - PIN 5 : CAN Low			
LED Display	Adapter power : 1 x green CANopen status : 2 x green/red Solenoid pilots power : 1 x green/red Solenoid pilots diagnostic : 4 x red			

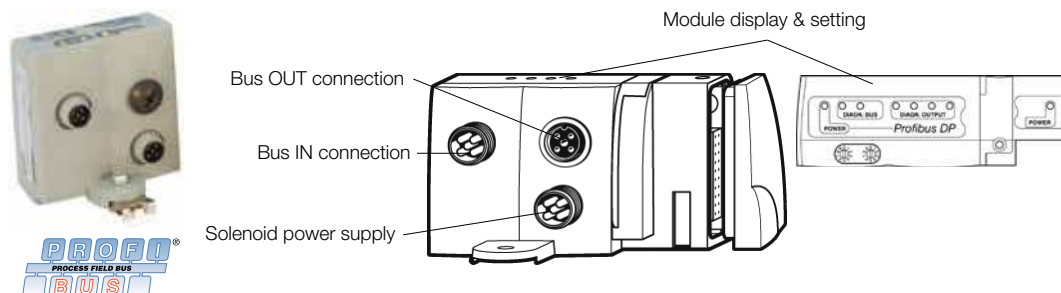
Valve range adapters

	Description	Valve range	W (g)	Order code
	Moduflex Bus adapter without communication module	Moduflex Valve	30	P2M2HEV0B
		Isys Micro Side ported	200	PSMM41AP
		Bottom ported	200	PSMM42AP
		Isys ISO 15407-2 - HA - HB	200	PS5620M41P
		Isys ISO 5599-2 - H1	300	PS4020M41CP

CANopen communication module connection accessories

	Description	Connection type	W (g)	Order code
	Power supply connector	M12 Female - A coding	40	P8CS1205AA
		M12 Female - B coding	40	P8CS1205AB
	Bus IN connector	M12 Female - A coding	25	P8CS1205AA
	Bus OUT connector	M12 Male - A coding	25	P8CS1205BA
	Line terminaison	M12 Male - A coding	25	P8BPA00MA

Profibus DP 16 outputs communication module



Profibus DP Adapters	
Dedicated valve range	Moduflex Valve System
Profibus DP module Order Code	P2M2HBVP21600
	
	Isys Micro Side ported : PSMMP1AP Bottom ported : PSMMP2AP 
Adapter connection	
Power supply connection	 - M12 - 5 PINs - Male - A coding - PIN 1 : +24 VDC adapter - PIN 2 : n/a - PIN 3 : 0 VDC Adapter & Solenoids - PIN 4 : 24 VDC Solenoids - PIN 5 : Protected earth (PE)
Bus IN connection	 - M12 - 5 PINs - Male - B coding - PIN 1 : + 5 VDC Bus - PIN 2 : A - Line - PIN 3 : GND Bus - PIN 4 : B - Line - PIN 5 : Shield
Bus OUT connection	 - M12 - 5 PINs - Female - B coding - PIN 1 : + 5 VDC Bus - PIN 2 : A - Line - PIN 3 : GND Bus - PIN 4 : B - Line - PIN 5 : Shield
LED Display	Adapter power : 1 x green Profibus DP status : 2 x green/red Solenoid pilots power : 1 x green/red Solenoid pilots diagnostic : 4 x red

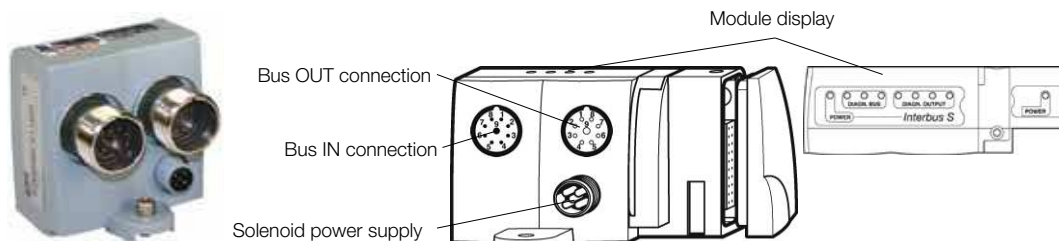
Valve range adapters

Description	Valve range	W (g)	Order code
 Moduflex Bus adapter without communication module	Moduflex Valve	30	P2M2HEV0B
	Isys Micro Side ported	200	PSMM41AP
	Bottom ported	200	PSMM42AP
	Isys ISO 15407-2 - HA - HB	200	PS5620M41P
	Isys ISO 5599-2 - H1	300	PS4020M41CP

Profibus DP communication module connection accessories

Description	Connection type	W (g)	Order code
 P8CS1205BB	Power supply connector	M12 Female - A coding	40
	Bus IN connector	M12 Female - B coding	25
	Bus OUT connector	M12 Male - B coding	25
	Line terminaison	M12 Male - B coding	25

InterBus-S 16 outputs communication module



INTERBUS-S

InterBus-S Adapters	
Dedicated valve range	Moduflex Valve System
InterBus-S module Order Code	P2M2HBVS11600
	
Adapter connection	
Power supply connection	 M12 - 5 PINs - Male - A coding - PIN 1 : +24 VDC adapter - PIN 2 : n/a - PIN 3 : 0 VDC Adapter & Solenoids - PIN 4 : 24 VDC Solenoids - PIN 5 : Protected earth (PE)
Bus IN connection	 M23 - 9 PINs - Male: - PIN 1 : DO - PIN 2 : DO - PIN 3 : DI - PIN 4 : DI - PIN 5 : Ground - PIN 6 : n/a - PIN 7 : n/a - PIN 8 : n/a - PIN 9 : n/a
Bus OUT connection	 M23 - 9 PINs - Female: - PIN 1 : DO - PIN 2 : DO - PIN 3 : DI - PIN 4 : DI - PIN 5 : Ground - PIN 6 : n/a - PIN 7 : n/a - PIN 8 : n/a - PIN 9 : RBST
LED Display	Adapter power : 1 x green InterBus S status : 3 x green/red Solenoid pilots power : 1 x green/red Solenoid pilots diagnostic : 4 x red

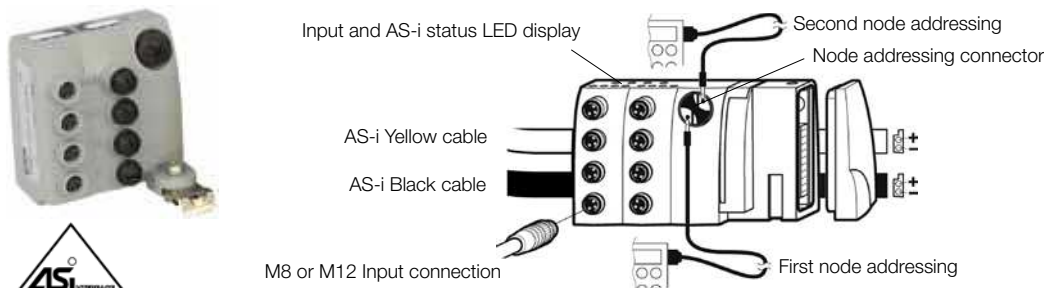
Valve range adapters

 P8MM41AP	Description	Valve range	W (g)	Order code
	Moduflex Bus adapter without communication module	Moduflex Valve	30	P2M2HEV0B
		Isys Micro Side ported	200	PSMM41AP
		Bottom ported	200	PSMM42AP
		Isys ISO 15407-2 - HA - HB	200	PS5620M41P
		Isys ISO 5599-2 - H1	300	PS4020M41CP

InterBus-S communication module connection accessories

 P8CS1205AA	Description	Connection type	W (g)	Order code
	Power supply connector	M12 Female - A coding	40	P8CS1205AA

AS-interface communication module



AS-i Adapters								
AS-i module Order Code	P2M2HBVA10400	P2M2HBVA10800	P2M2HBVA20600	P2M2HBVA10808A	P2M2HBVA20608A	P2M2HBVA10404B	P2M2HBVA10808B	P2M2HBVA20608B
								
AS-i Version	V2.0	V2.0	V2.1	V2.0	V2.1	V2.0	V2.0	V2.1
Number of adresses	1 / 31	2 / 31	2 / 31a + 31b	2 / 31	2 / 31a + 31b	1 / 31	2 / 31	2 / 31a + 31b
Nb of outputs for sol. valves	4	8	6	8	6	4	8	6
Nb of Inputs	-			8	8	4	8	8
Nb of Input connectors	-			8 x M8	8 x M8	4 x M12	4 x M12	4 x M12
Input density / connector	-			1	1	1	2	2
Adapter connection								
Yellow cable	Bus signal Bus module and sensors power supply							
Black cable	24 VDC outputs for solenoid valves							
INPUTS connection				M8 - 3 PINs - Female:  - PIN 1 : +24 VDC - PIN 3 : Common - PIN 4 : Input		M12 - 5 PINs - Female:  - PIN 1 : +24 VDC - PIN 2* : Input 2&3 - PIN 3 : Common - PIN 4 : Input 0 to 3 - PIN 5: n/a *on left connectors only		
LED Display	Node status : 2 x green/red per node Input status : 4 x yellow per node Valve power (24V from field supply) : 1 x green / red							

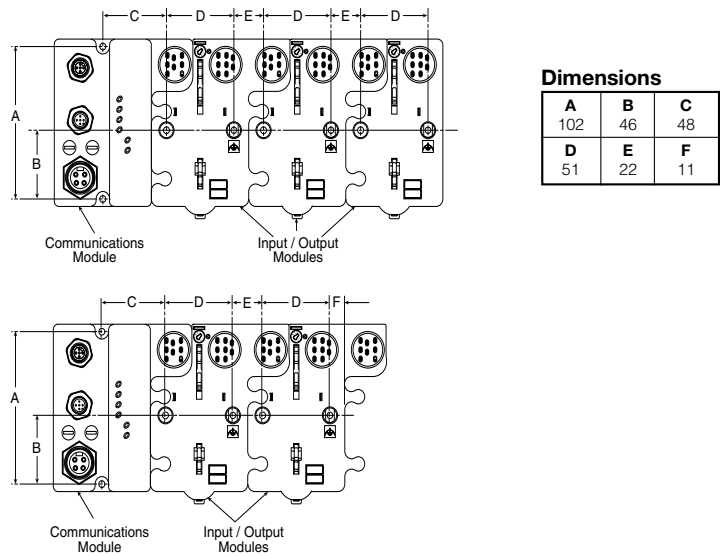
Valve range adapters

	Description	Valve range	W (g)	Order code
	Moduflex Bus adapter without communication module	Moduflex Valve	30	P2M2HEV0B
		Isys Micro Side ported	200	PSMM41AP
		Bottom ported	200	PSMM42AP
		Isys ISO 15407-2 - HA - HB	200	PS5620M41P
		Isys ISO 5599-2 - H1	300	PS4020M41CP

Connectors for Inputs

	Description	Connection type	W (g)	Order code
	Cable quick connect connector	M8 Male	25	P8CS0803J
		M12 Male - A coding	25	P8CS1204J
	"Y" shape	M12 Male - 2 x M12 Female	25	P8CSY1212A
	Addressing cable	M12 Male - Jack	100	P8LS12JACK

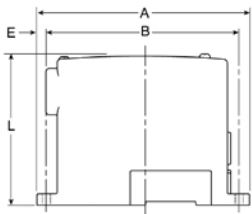
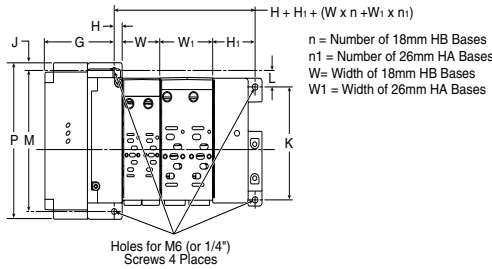
Isysnet modules



Isysnet with Isys ISO Valves

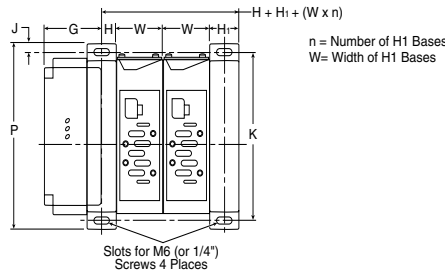
HB-HA
Dimensions

A	B	E	L	G
152	137	7.5	106	68
H	H ₁	J	K	L
8.4	45.8	4	110	16
M	P	W	W ₁	
137	152	40.8	56.8	



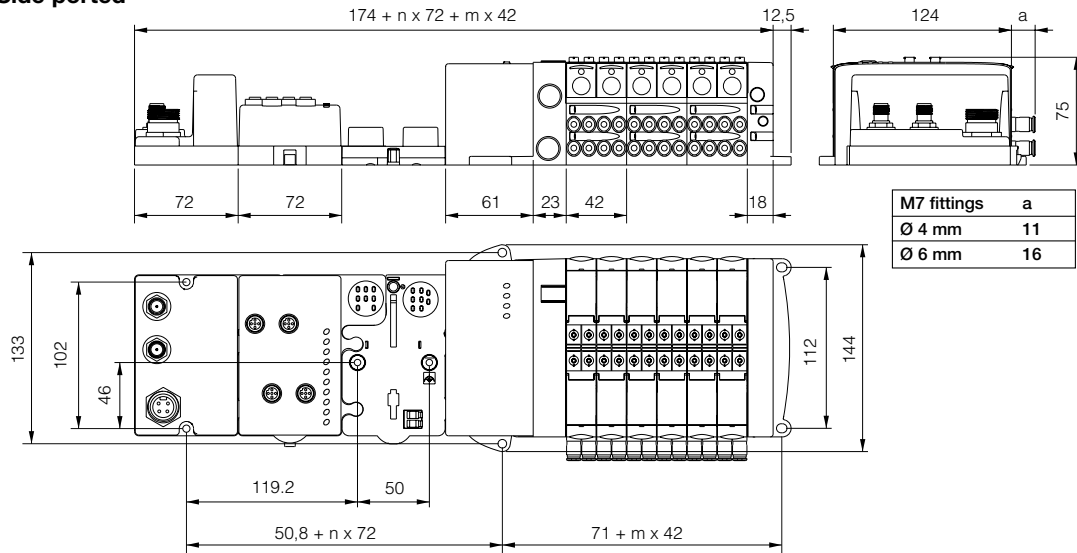
H1
Dimensions

G	H	H ₁	J	K
56	15.9	15.9	8.5	165
P	W			
182	49			



Isysnet with Isys Micro Valves

Side ported

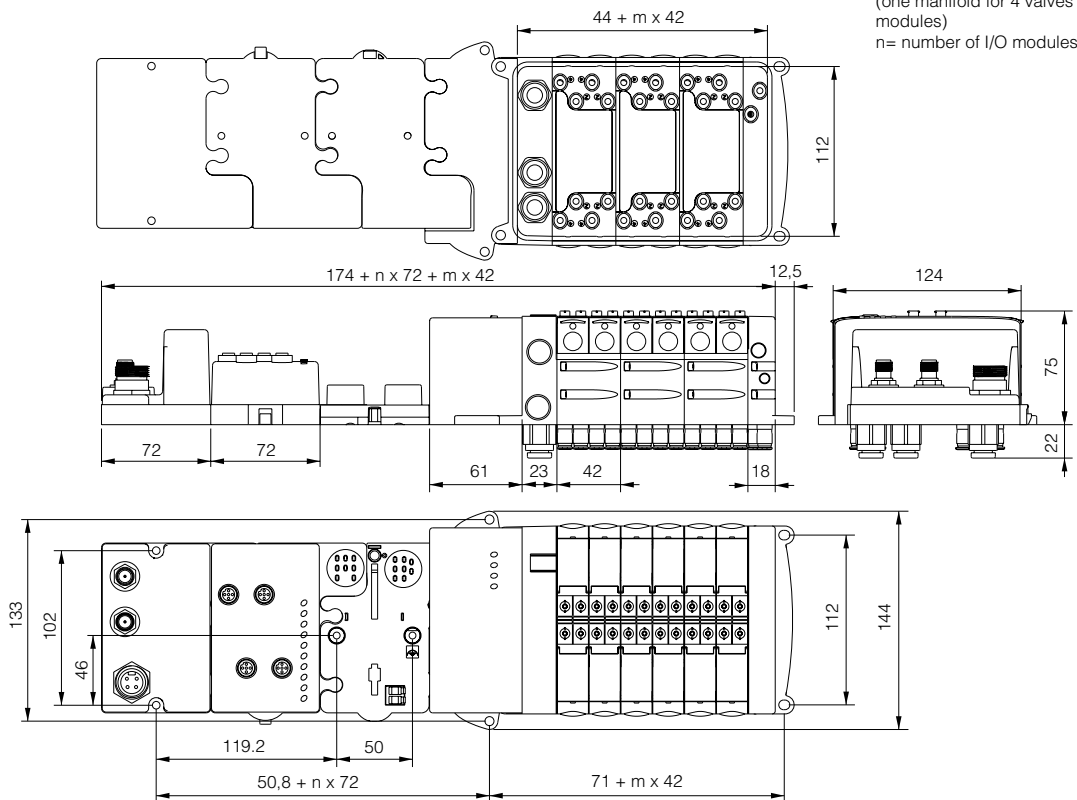


Note:

m = number of manifolds
(one manifold for 4 valves modules)

n = number of I/O modules

Bottom ported



Moduflex Bus with Moduflex Valve

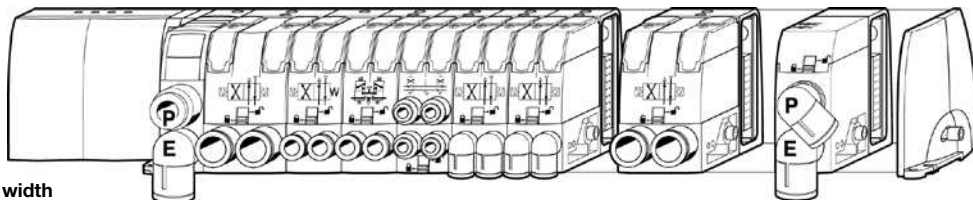
Electrical field
bus head module
width : 62 mm

Head and tail
pneumatic module set
width : 48 mm

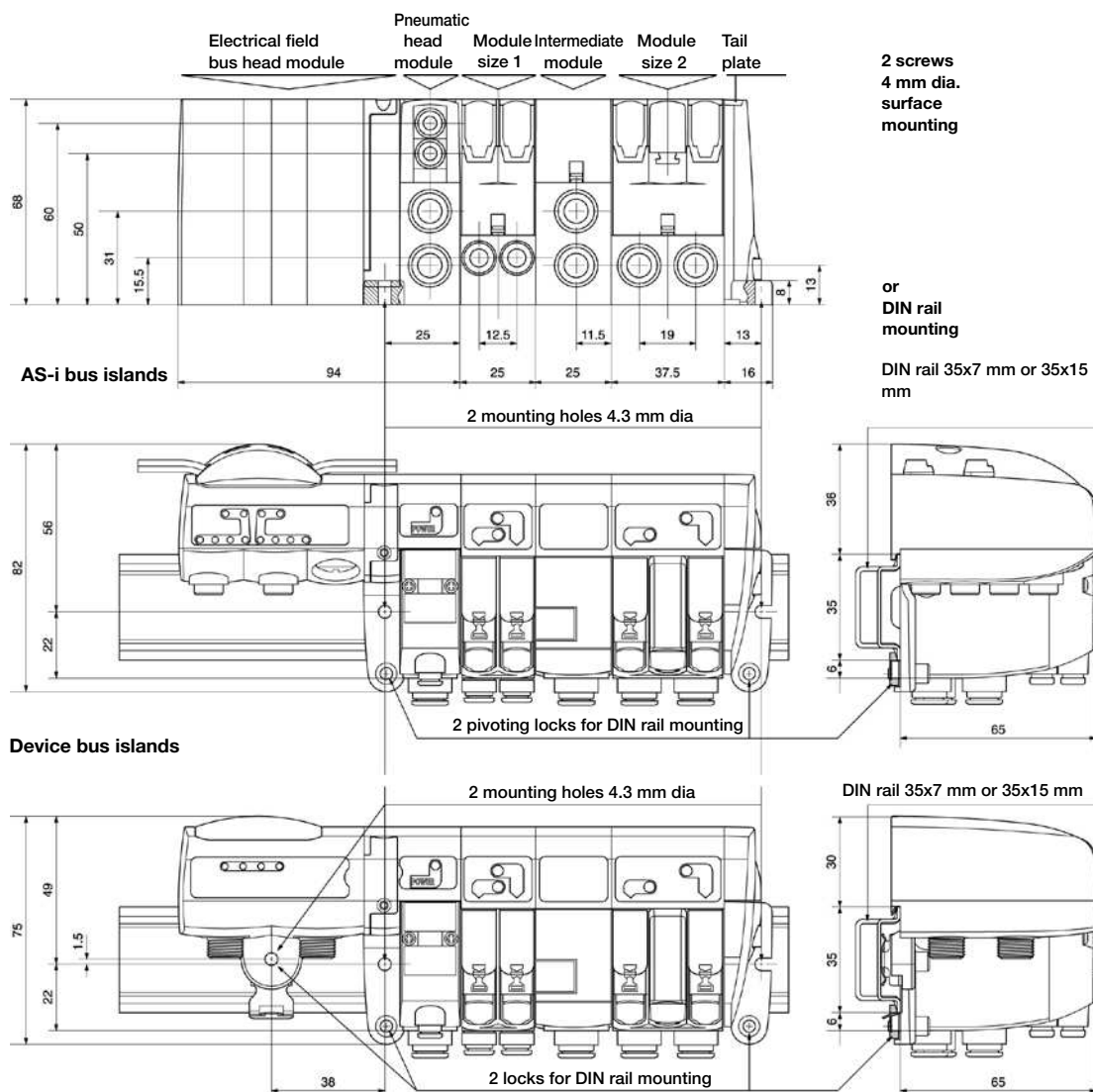
Modules
size 1
width : 25 mm

Modules
size 2
width : 37.5 mm

Intermediate
module
width : 25 mm

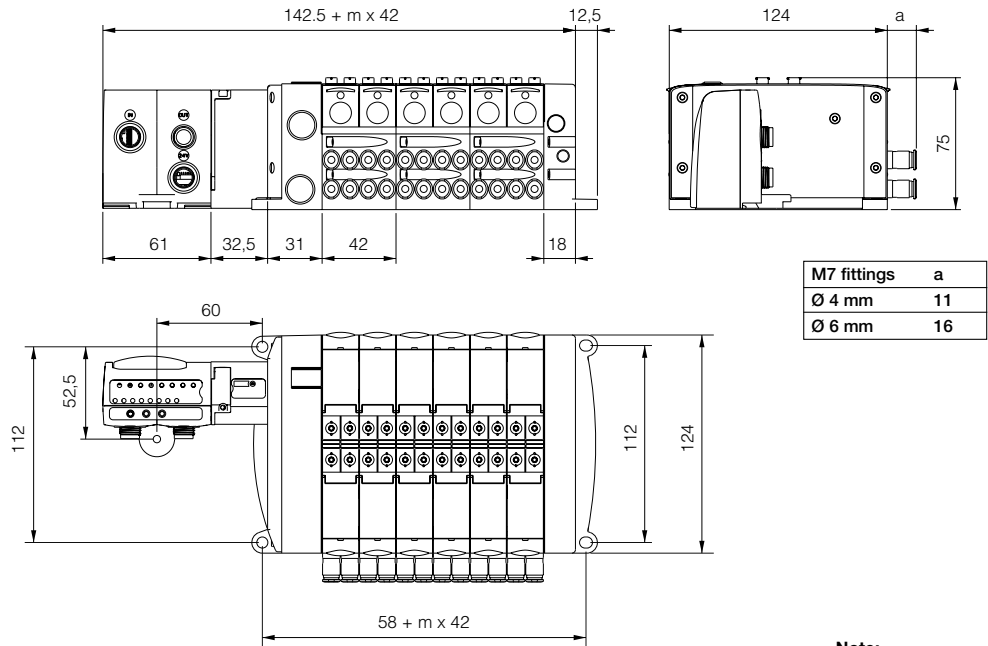


Island total width
depending on valve
composition



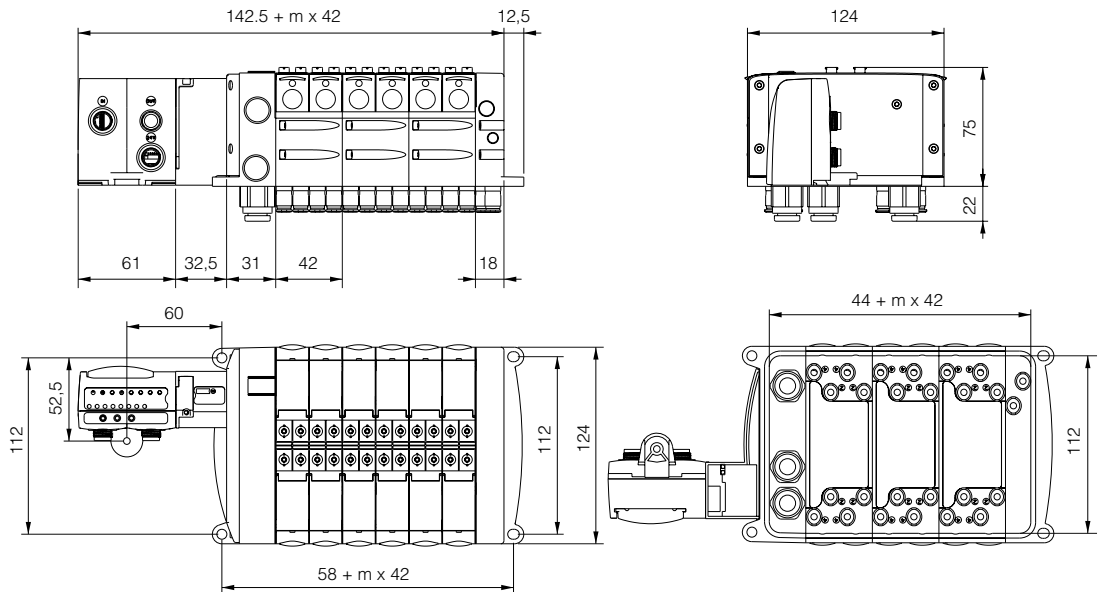
Moduflex Bus with Isys Micro Valves

Side ported



Note:
m = number of manifolds
(one manifold for 4 valves
modules)

Bottom ported



2/2-Way Direct Operated Valve

General application valves for dry or lubricated air, neutral gases and liquids



Description:

- 2/2-Way Direct Operated Valve - Normally Closed.
- Coil IP65 for 2 P + E plug according to DIN 43650 type A
- Power Consumption 8W (AC), 9W (DC).

Applications:

- Shut-off and control (On-Off) of water, air, light oils, steam and inert gases
- Humidifiers, welding systems, industrial washing machines, automatic dispensers, diesel oil burners, sterilizers, compressors.

Temperature Range:

- Min: -10°C | Max: see table

Seals Material:

- See table

Advantages:

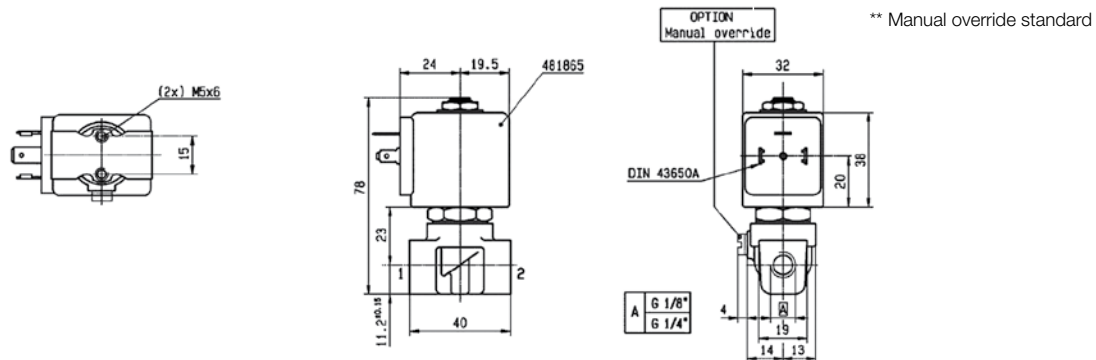
- Versatile product for many 2/2 NC valve requiring applications, robust design.

Port size	Orifice	K _v	Admissible differential pressure (bar)			Fluid Temp.	Seal Material	Reference number			Options
G	mm	l/min	Min.	Max. DC	Max. AC		C°	Valve	Housing	Coil	

2/2-Way Direct Operated Valve

Normally CLOSED

1/8"	2.5	3.50	0	10.0	28.0	100°C	Ruby	E121K23	2995	481865	-
1/8"	3.0	4.50	0	7.0	10.0	100°C	FKM	121K1302	2995	481865	-
1/4"	1.2	0.85	0	36.0	80.0	100°C	Ruby	E121K65	2995	481865	-
1/4"	1.5	1.50	0	25.0	60.0	75°C	PCTFE	E121K04	2995	481865	-
1/4"	1.5	1.50	0	25.0	60.0	100°C	Ruby	E121K67	2995	481865	-
1/4"	1.5	1.50	0	20.0	20.0	100°C	FKM	E121K0402	2995	481865	-
1/4"	2.5	3.50	0	10.0	28.0	75°C	PCTFE	E121K07	2995	481865	-
1/4"	2.5	3.50	0	7.0	14.0	100°C	FKM	121K0706	2995	481865	-
1/4"	2.5	3.50	0	10.0	28.0	100°C	Ruby	E121K63	2995	481865	-
1/4"	3.0	4.50	0	7.0	20.0	75°C	PCTFE	E121K03	2995	481865	-
1/4"	3.0	4.50	0	7.0	10.0	100°C	FKM	E121K0302	2995	481865	-
1/4"	3.0	4.50	0	7.0	10.0	100°C	EPDM	121K0323	2995	481865	-
1/4"	3.0	4.50	0	7.0	10.0	100°C	FKM	E121K0352	2995	481865	**
1/4"	3.0	4.50	0	7.0	20.0	100°C	Ruby	E121K64	2995	481865	-
1/4"	4.0	7.50	0	4.0	10.0	100°C	FKM	121K02	2995	481865	-
1/4"	4.0	7.50	0	4.0	10.0	100°C	FKM	121K0250	2995	481865	**
1/4"	5.0	11.00	0	2.0	7.0	100°C	FKM	121K01	2995	481865	-
1/4"	5.0	11.00	0	2.0	7.0	100°C	EPDM	121K0103	2995	481865	-
1/4"	5.0	11.00	0	2.0	7.0	100°C	FKM	121K0150	2995	481865	**
1/4"	5.0	11.00	0	2.0	7.0	100°C	FKM	121K3106	2995	481865	-
3/8"	4.0	7.50	0	4.0	10.0	100°C	FKM	121K3206	2995	481865	-
3/8"	6.0	12.00	0	1.1	5.0	100°C	FKM	121K3303	2995	481865	-
3/8"	6.0	12.00	0	1.1	5.0	100°C	FKM	121K3306	2995	481865	-
1/2"	8.5	25.00	0	0.5	1.1	100°C	FKM	E121K46	2995	481865	-
1/2"	11.0	36.00	0	0.3	0.7	100°C	FKM	E121K45	2995	481865	-



2/2 & 3/2 Solenoid Valves for High Pressure pneumatic applications - 40 bar

Product offering:

- 2/2 valves and 3/2 way valves - pilot operated
- Pipe mounting (G 1/2- 3/4) or sub-base mounting
- 1.5 (2) - 40 bar
- Normally open or closed
- Internal or external pilot pressure supply

Customer Value Proposition:

- Safety of operation
- Reliability
- Response time stability
- Repeatability
- No leakage
- Integrated non return valve (421version)

The use of high pressure gases became a necessity in the new technologies developed during the last years.

The control of these fluids can be done through the solenoid valves specially designed by Parker Lucifer for high pressure applications (maximum 50 bar).

The **life expectancy of several millions** of cycles, with **response time of few milliseconds**, allows the use of these valves on intensive applications and on high technology machines, as the plastic bottle blowing machines, or the laser cutting machines.



Parker Lucifer also develops special valves or adapted blocks upon specific customers needs. Please contact your agent for more information.



Application Example

Main Technical Specifications

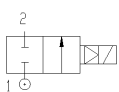
Function

2/2 pilot operated: Normally closed (with internal pilot pressure) 321H/F type
 Normally closed (with external pilot pressure) 421H/F type
 Normally open (with internal pilot pressure) 322H/F type

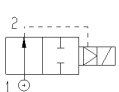
3/2 pilot operated: normally closed (with internal pressure) 331B type

ISO diagram

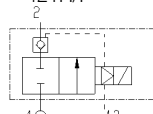
321H/F



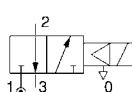
322H/F



421H/F



331B



Mounting

- For direct pipe mounting G 1/2" or 3/4" (2/2 Valve type H); G 1/4 (3/2 Valve type B)
 - For sub-base mounting (type F)

Nominal diameter

15 mm (type H), 14 mm (type F)

Pressures

For the version with external pilot pressure, the pilot pressure must always be higher than the controlled pressure

External Leakage

0 Ncc/min.

Internal Leakage

< 20 Ncc/min.

Fluids

Dry lubricated or non lubricated air, Argon, Nitrogen.
 Oxygen on request

Proof pressure

200 bar

Filtration

< 1 µm

Life expectancy

> 2 10⁶ cycles (dry and clean air)
 > 8 10⁶ cycles (lubricated air)

Temperatures

Ambient / fluid mini: -10 °C
 Ambient / fluid maxi: +50 °C

Materials specifications

Body/cover: 2/2 Valves: Brass - 3/2 Valves: Aluminium
 Pilot seals : PUR
 Main seals : FKM (Viton®) with isolating diaphragm from PUR
 Tube and plunger : Stainless steel
 Coil : Encapsulation from PA66 + 30% fiber glass

Options

Δp maxi 50 bar on request

Response Time

Depends on application

Mounting Position

Indifferent

Specials

Parker Lucifer also develops special valves or adapted blocks upon specific customers needs.
 Please contact your agent for more information.

Port size	Orifice	Flow Factor (l/min)	Admissible differential pressure (bar)			Fluid Temp.	Seal Material (C°)	Reference number				Dim. Ref. N°
G	mm	Gaz Qn	Min.	Max. DC	Max. AC	Gaz Max.		Global Ref. No.	Valve	Housing	Coil	

2/2 Valves - Direct Pipe Mounting

Normally CLOSED

1/2"	15	3150	1.5	40	40	50	FKM	-	321H35	2995	see table	1
3/4"	15	3550	1.5	40	40	50	FKM	-	321H36	2995	see table	1

2/2 Valves - Direct Pipe Mounting

Normally OPEN

1/2"	15	3150	1.5	40	40	50	FKM	-	322H35	2995	see table	2
3/4"	15	3550	1.5	40	40	50	FKM	-	322H36	2995	see table	2

2/2 Valves - Direct Pipe Mounting

External Pilot

Normally CLOSED

1/2"	15	3150	2	40	40	50	FKM	-	421H35	2995	see table	3
3/4"	15	3550	2	40	40	50	FKM	-	421H36	2995	see table	3

2/2 Valves - Sub-base Mounting

Normally CLOSED

-	14	2100	1.5	40	40	50	FKM	-	321F35	2995	see table	4
-	22	7000	5	40	40	50	FKM	-	321F37	2995	see table	-

2/2 Valves - Sub-base Mounting

Normally OPEN

-	14	2100	1.5	40	40	50	FKM	-	322F35	2995	see table	5
-	22	7000	1.5	40	40	50	FKM	-	322F37	2995	see table	-

2/2 Valves - Sub-base Mounting

External Pilot

Normally CLOSED

-	14	2100	2	40	40	50	FKM	-	421F35	2995	see table	6
---	----	------	---	----	----	----	-----	---	--------	------	-----------	---

3/2 Valves - Direct Pipe Mounting

Normally CLOSED

1/4"	8	750	1	40	40	50	PUR	-	331B31	2995	see table	7
------	---	-----	---	----	----	----	-----	---	--------	------	-----------	---

3/2 Valves - Sub-base Mounting

Normally CLOSED

-	8	750	1	40	40	50	PUR	-	331F31	2995	see table	-
---	---	-----	---	----	----	----	-----	---	--------	------	-----------	---

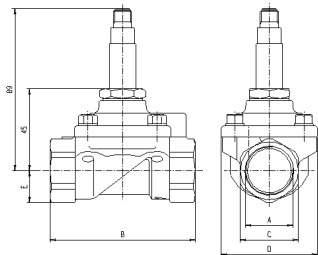
Available electrical parts:

You will find standard available coil details on the next pages. Due to the innovative sleeve design it is also possible to use all listed Parker valves with special solutions, like water tight (IP67) or explosion proof designs.

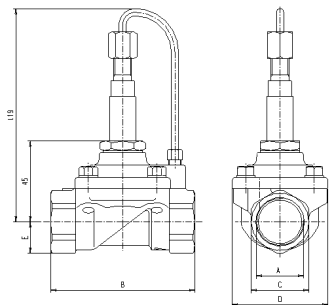
Please consult your local agent for more details.

Dimensions

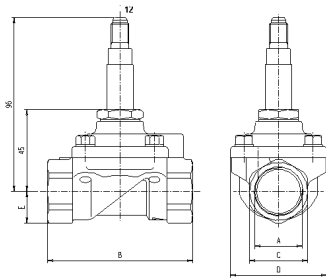
Dimensions Reference N° 1



Dimensions Reference N° 2

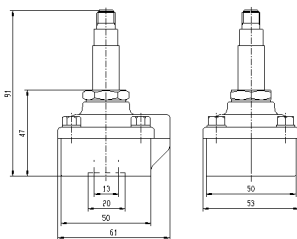


Dimensions Reference N° 3

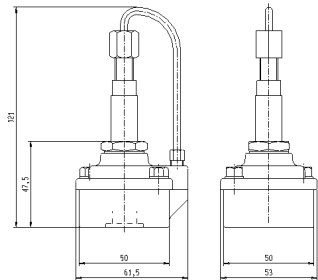


A	B	C	D	E
G3/4"	80	32	53	17.5
G1/2"	75	27	53	13.5

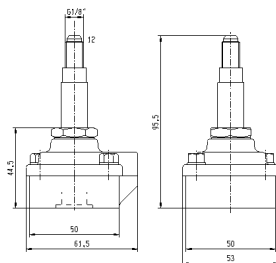
Dimensions Reference N° 4



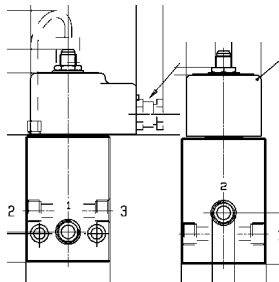
Dimensions Reference N° 5



Dimensions Reference N° 6



Dimensions Reference N° 7



Electrical Parts Availability

32 mm Electrical Parts Availability

481865 Series - Standard Coil Mono-Frequency, F Class, IP65

Encapsulated in synthetic material, connector for 2P+E DIN 43650 A Plug, IP65 insulation class to be considered with connector plug only. This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

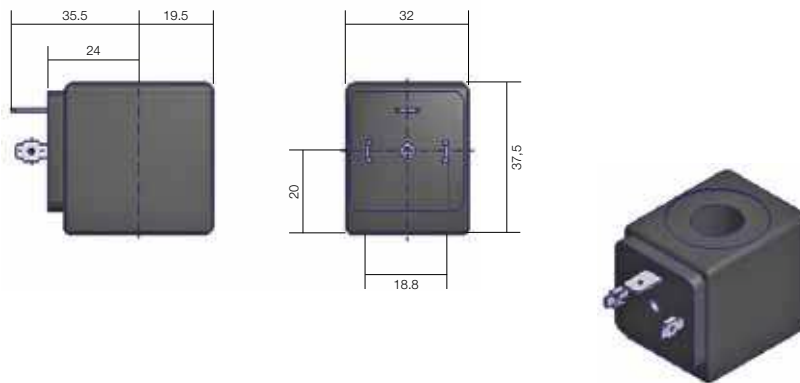
Voltage V	Power Consumption	Reference	Approvals	Ambient Temperature	Class of insulation	Dimensional Drawing
24/50	8 W	481865A2	-	-40°C to +50°C	F Class 155°C	8
48/50	8 W	481865A4	-	-40°C to +50°C	F Class 155°C	8
110/50	8 W	481865A5	-	-40°C to +50°C	F Class 155°C	8
220-230/50	8 W	4818653D	-	-40°C to +50°C	F Class 155°C	8
380/50	8 W	481865A9	-	-40°C to +50°C	F Class 155°C	8
24/60	8 W	481865B2	-	-40°C to +50°C	F Class 155°C	8
230/60	8 W	481865J3	-	-40°C to +50°C	F Class 155°C	8
115/60	8 W	481865K8	-	-40°C to +50°C	F Class 155°C	8
12 DC	9 W	481865C1	-	-40°C to +50°C	F Class 155°C	8
24 DC	9 W	481865C2	-	-40°C to +50°C	F Class 155°C	8
48 DC	9 W	481865C4	-	-40°C to +50°C	F Class 155°C	8
110V DC	9 W	481865C5	-	-40°C to +50°C	F Class 155°C	8

Voltage

Tolerances: -10% to +10% of the nominal voltage (AC), -5% to +10% of the nominal voltage (DC)

Duty: Continuous duty coil (100%ED)

Weight: 130 g (without plug)



All dimensions are in mm

Dimensional Drawing N° 8

32 mm Electrical Parts Availability

483510 Series - Standard Bi-Frequency Coil, F Class, IP65

Encapsulated in synthetic material, connector for 2P+E DIN 43650 A Plug, IP65 insulation class to be considered with connector plug only.

This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

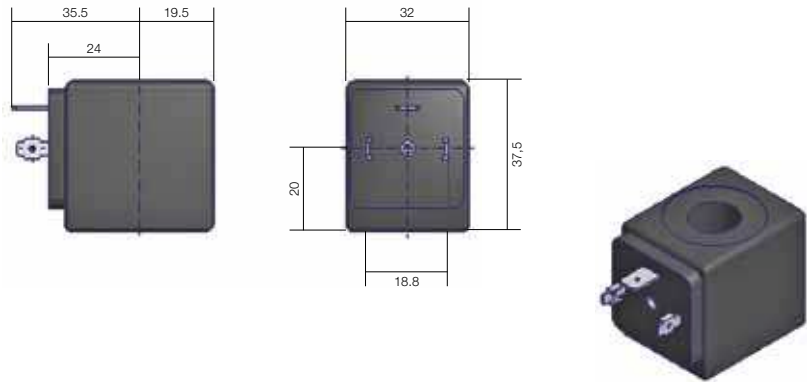
Voltage V	Power Consumption	Reference	Approvals	Ambient Temperature	Class of insulation	Dimensional Drawing
12/50-60	9 W	4835101W	-	-40°C to +50°C	F Class 155°C	8
24/50-60	9 W	483510P0	-	-40°C to +50°C	F Class 155°C	8
48/50-60	9 W	483510S4	-	-40°C to +50°C	F Class 155°C	8
110-115/50 120/60	9 W	483510S5	-	-40°C to +50°C	F Class 155°C	8
220-240/50 240/60	9 W	483510S6	-	-40°C to +50°C	F Class 155°C	8

Voltage

Tolerances: -10% to +10% of the nominal voltage (AC), -5% to +10% of the nominal voltage (DC)

Duty Continuous duty coil (100%ED)

Weight: 130 g (without plug)



All dimensions are in mm

Dimensional Drawing N° 8

2 Way Solenoid Valves High Flow

Fast Switching

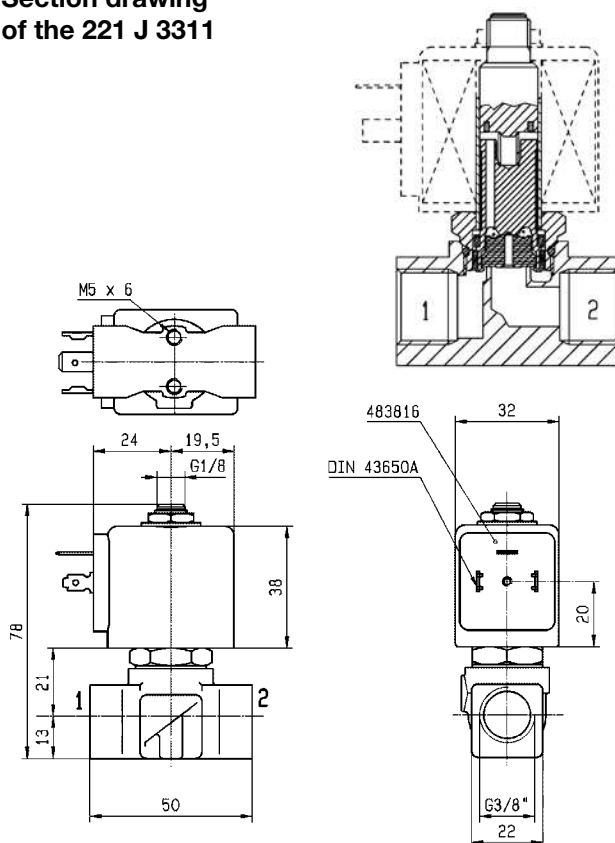
2/2 magnalift solenoid valve used for air control or air pulsing in all applications where extremely short response time and/or long life expectancy are required.

Flow rate up to 40 Nm³/h (subsonic flow only) like: textile weaving looms, printing machines, sorting machines, bank note counting machines.

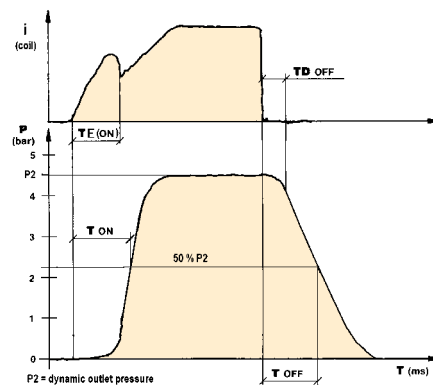
Features

- 2P+E DIN 43650A plug connection
- Degree of protection IP65
- Guide rings assure high life expectancy
- High performance plunger with low residual magnetic effect and long life
- Shock absorber improves life expectancy of the valve
- PUR seat disc provides magnalift effect

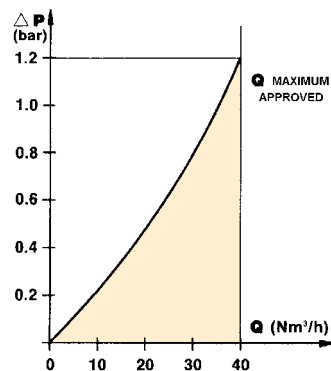
Section drawing of the 221 J 3311



Typical response times At 20 Hz (40% on)



Flow rate (valve on 100%)



Technical Data

Function:	2/2 solenoid valve closed when de-energized.		
Design:	Pilot operated poppet valve with magnalift.		
Mounting:	For direct pipe mounting or with the help of M5x6 mm screw (see dimensions).		
Mounting position:	Indifferent.		
Material specifications:	Forged brass body. Internal parts in stainless steel. Sealing material in PUR.		
Range of admissible pressure drop:	Δp min. = 0 bar Δp max. = 7 bar		
Response time (see p. 2):	Conditions: voltage 24 VDC nominal, flow 34 Nm ³ /h. Reference pressure dynamic (orifice 2): 4.5 bar. Response times are increasing above starting from 300 millions cycles.		
Switching on:	TE on: 9.5 - 12 ms Electrical response time until the plunger is in fully attracted position. T on: 10-14 ms Filling time until the pressure has reached 50% of output pressure P2 (own volume of the valve, outlet port plugged.)		
Switching off:	TD off: 4 - 8 ms Closing time until the plunger is in the rest position. T off: 5,5 - 9,5 ms Emptying time until the pressure has dropped to 50% of P2 pressure. This response time is depending on user at the outlet port.		
Cycling rate:	Up to 30 Hz.		
Life expectancy:	> 500 millions cycles Conditions: Instrumentation dried and filtered air at 20 µm, (dew point +2°C). P max. 5 bar nominal voltage 24 VDC vibrations 5 to 500 Hz.		
Media:	Instrumentation air (dried and unlubricated) filtered at 20 µm.		
Fluid temperature:	Min. 0°C. Max. + 40°C.		
Ambient temperature:	0°C to +50°C.		
Vibrations:	Up to 1500 Hz, max. shocks 10 g. At max. vibration rating, life expectancy will decrease.		
Electrical part:	32 mm coil 483816 (14W DC) encapsulated in synthetic material. Connection with 3 pin DIN 43650 type A plug connector, degree of protection IP 65.		
Solenoid duty:	Relative duty time: 80% max. for cycle 30 Hz (33ms). 70% max. for cycle 20 Hz (50ms). 55% max. for cycle 10 Hz (100ms). 25% max. for cycle 1 hour (this valve can not work at ED 100%). $x \% = \frac{\text{Energized time}}{\text{Cycle time}} \div 100$		
Housing:	3 possibilities 2994/2995/299560.		
Voltage:	24 V DC.		
Voltage tolerance:	±10%.		
Class of insulation material:	Class F (155 °C).		
Part kit:	Nothing available		
Port Size:	G	3/8	
Orifice:	mm	8	
Qmax:	Nm ³ / h	40	
Admissible differential pressure:	min.	0	
	Max.	7	
Maximum admissible fluid temperature:	Air	40	
References N°:	Valve	221 J 3311	
	Housing	2994	2995 299560
	Coil	483816	
Power consumption:	W	14	
Weight:	g	360	

3-Way Solenoid Valve - Direct Acting

General application valves for dry or lubricated air, neutral gases and liquids



Description:

- 3-Way Solenoid Valve - Direct Acting - Normally Closed.
- Coil IP65 for 2 P + E plug according to DIN 43650 type A
- Power Consumption 8W (AC), 9W (DC).

Applications:

- This series is used in applications which require actuation and automatic discharge of moving systems.
- Typical applications can be found in: sterilizers, Cylinder actuation, air compressors, Diesel oil burners, pilot valves, water treatment installations.

Temperature Range:

- Min: -10°C | Max: see table

Seals Material:

- FKM, PCTFE

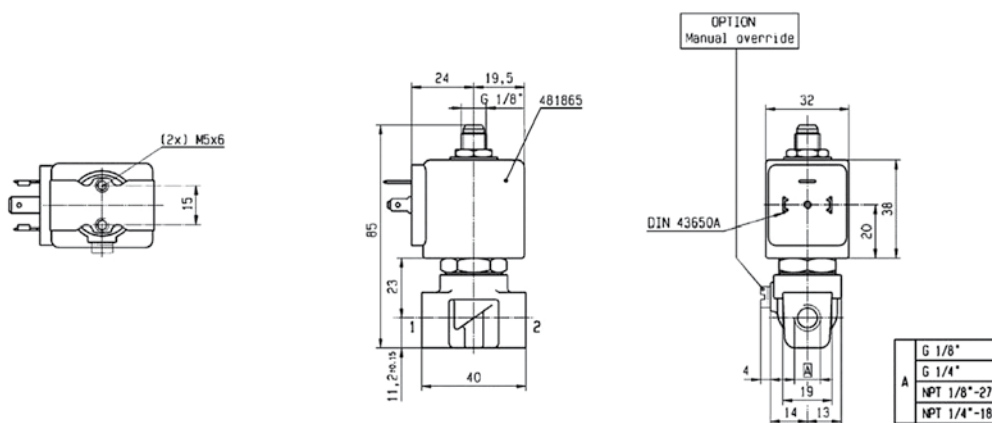
Advantages:

- Versatile product for many 2/2 NC v alve requiring applications, robust design.

Port size	Orifice	K _v	Admissible differential pressure (bar)		Fluid Temp.	Seal Material	Reference number			Options
G	mm	l/min	Min.	Max.	°C		Valve	Housing	Coil	
3-Way Solenoid Valve - Direct Acting - Normally Closed										
1/8"	1.5	1.5	0	15	100°C	FKM	E131K14	2995	481865	-
1/8"	2.0	2.5 (3.5)*	0	10	100°C	FKM	131K16	2995	481865	-
1/8"	2.0	2.5 (3.5)*	0	10	100°C	FKM	131K1650	2995	481865	**
1/8"	2.5	3.5	0	7	100°C	FKM	E131K13	2995	481865	-
1/4"	0.8	0.3	0	40	75°C	PCTFE	131K05	2995	481865	-
1/4"	1.5	1.5	0	15	100°C	FKM	E131K04	2995	481865	-
1/4"	1.5	1.5	0	15	100°C	FKM	E131K0450	2995	481865	**
1/4"	2.0	2.5 (3.5)*	0	10	100°C	FKM	E131K06	2995	481865	-
1/4"	2.0	2.5 (3.5)*	0	10	100°C	FKM	E131K0650	2995	481865	**
1/4"	2.5	3.5	0	7	100°C	FKM	E131K03	2995	481865	-
1/4"	2.5	3.5	0	7	100°C	FKM	E131K0350	2995	481865	**

* Kv for Exhaust side

** Manual override standard



Please consult the "How to Order" part at the end of each coil chapter.

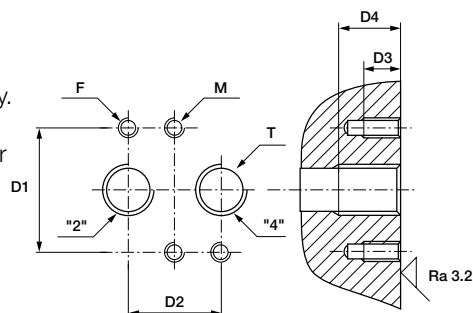
Valves for Pneumatic Actuator Control

NAMUR Interfaces 1/4" & 1/2"

NAMUR + piped versions in safe or dangerous areas.

The interface design is conform to the NAMUR standard and to the VDI/VDE 3845 recommendations of the actuator industry. It allows a compact design of the actuator/valve unit. In case of a 3/2 function, the air of the actuator spring chamber also flows through the pilot valve (re-breather function). This prevents corrosion of the actuator springs.

F	T	D1 mm	D2 mm	D3 mm	D4 min. mm	M mm
M5	1/4	32	24	8	12	M5
M6	1/2	45	40	10	16	M6



F: 2 mounting holes - T: 2 actuators control port - M: 2 holes for dowel pins

- High flow: 1.250 l/min (1/4"), 3.000 l/min (1/2")
- Compact design
- Long life expectancy
- N3x & P3x Series compatible with any Parker Lucifer coil (ATEX or not) of electrical group 2 (8/9 W coils)
- Fail safe standard
- Reduced inventory (3/2 & 5/2 functions with the same)
- valve on 341Nx5 series)
- Mechanical part of the valve ATEX certified according standard EN 13463-1 & -5

General Information

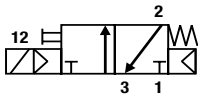
Function:	3/2, 5/2, 3/2 <=> 5/2 and 5/3 valves.
Manual override:	Standard on all versions.
Design:	Nxx & Pxx Series: Solenoid operated spool valve with combined spring and air return & external air pressure operated versions. Bxx Series: Solenoid direct acting valve with spring return.
Mounting:	Nxx Series: For direct mounting on NAMUR interface 1/4" & 1/2" Pxx Series: Piped valves G1/4" & G1/2" Bxx Series: Equipped with a banjo bolt G1/8" or G1/4"
Mounting position:	Indifferent.
Material specifications:	Aluminium body. Internal parts of stainless steel. Sealing material from NBR.
Range of admissible pressure drop:	Δp min. = see table. Δp max. = 10 bar.
Media:	Dry or lubricated air.
Fluid temperature:	Min. 0°C Max. + 50°C
Ambient temperature:	-10°C to +50°C
Electrical part: series	N0x / P0x / Bxx Series are compatible with 22 mm coil 496131 / 496482 / 496637 N3x / P3x Series are compatible with 32/37/40 mm coils part of electrical group 2 (8/9W), including 481865 / 495870 / 495905 Series.
Solenoid duty:	100% ED.
Voltage:	481865 coil: 12 VDC , 24 VDC , 48 VDC , 110VDC, 24 V / 50 AC, 48 V / 50 AC, 110 V / 50 AC, 220-230V/50 AC, 115 V / 60 Hz AC, 230 V / 60 AC.
Voltage tolerance:	± 10% of nominal for 481865 coil.
Class of insulation material:	Class F for 481865 coil.
Standards:	Mechanical ATEX conform to EN 13463-1 & -5.

Banjo Valves - G1/4" & G1/8" Series

Solenoid Operated Versions
B14-B04 Versions with 22 mm Coil

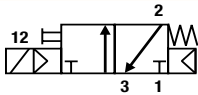
Port size	Orifice	Q _N	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C) min. = 0°C	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.					Valve	Housing	Coil	DC	AC		
G	mm	l/min	min	DC=	AC~	Air & Neutral gases								

3/2 Solenoid operated - Spring return (monostable)



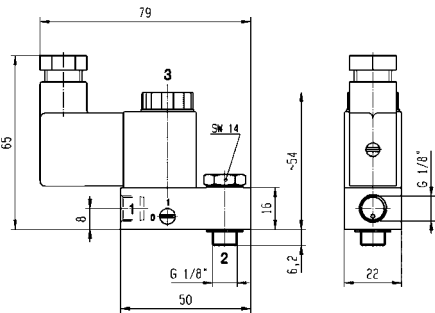
1/8	1.2	50	0	10	10	50	NBR	131B14	-	496131	3	3	140	26
1/8	1.2	50	0	10	10	50	NBR	131B14	-	496482	3	3	140	26
1/8	1.2	50	0	10	10	50	NBR	131B14	-	496637	3	3	140	26

3/2 Solenoid operated - Spring return (monostable)

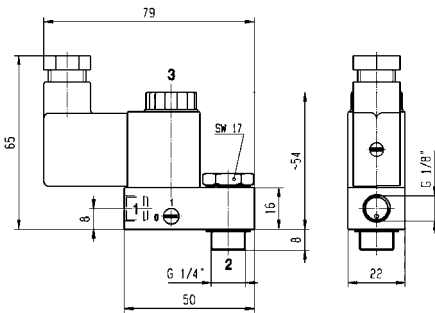


1/4	1.2	50	0	10	10	50	NBR	131B04	-	496131	3	3	160	27
1/4	1.2	50	0	10	10	50	NBR	131B04	-	496482	3	3	160	27
1/4	1.2	50	0	10	10	50	NBR	131B04	-	496637	3	3	160	27

Dimensions Reference 26



Dimensions Reference 27



Please consult the "How to Order" part at the end of each coil chapter.

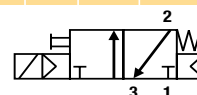


NAMUR Valves G1/4" Series

Solenoid Operated Versions N03-N05 Series with 22 mm Coil

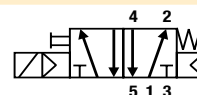
Port size	Orifice	Q _N	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.			min. = 0°C								
G	mm	l/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC		

3/2 Solenoid operated - Combined spring & air return (monostable)



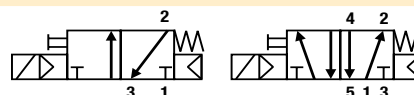
1/4	7	1250	2.5	10	10	50	NBR	331N03	-	496131	3	3	300	1
1/4	7	1250	2.5	10	10	50	NBR	331N03	-	496482	3	3	300	1
1/4	7	1250	2.5	10	10	50	NBR	331N03	-	496637	3	3	300	1

5/2 Solenoid operated - Combined spring & air return (monostable)



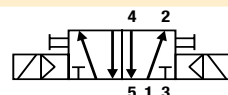
1/4	7	1250	2.5	10	10	50	NBR	341N03	-	496131	3	3	300	2
1/4	7	1250	2.5	10	10	50	NBR	341N03	-	496482	3	3	300	2
1/4	7	1250	2.5	10	10	50	NBR	341N03	-	496637	3	3	300	2

3/2 <=> 5/2 with conversion plate - Solenoid operated Combined spring & air return (monostable)



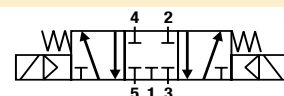
1/4	7	1250	2.5	10	10	50	NBR	341N05	-	496131	3	3	310	3
1/4	7	1250	2.5	10	10	50	NBR	341N05	-	496482	3	3	310	3
1/4	7	1250	2.5	10	10	50	NBR	341N05	-	496637	3	3	310	3

5/2 Solenoid operated and return (bistable)



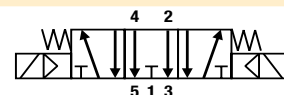
1/4	7	1250	2.5	10	10	50	NBR	347N03	-	496131	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	347N03	-	496482	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	347N03	-	496637	3	3	430	4

5/3 W1 closed in center position - Solenoid operated and return



1/4	7	1250	2.5	10	10	50	NBR	342N03	-	496131	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	342N03	-	496482	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	342N03	-	496637	3	3	430	4

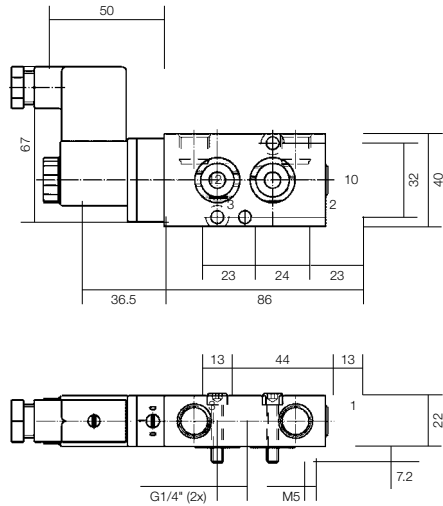
5/3 W3 exhausted in center position Solenoid operated and return



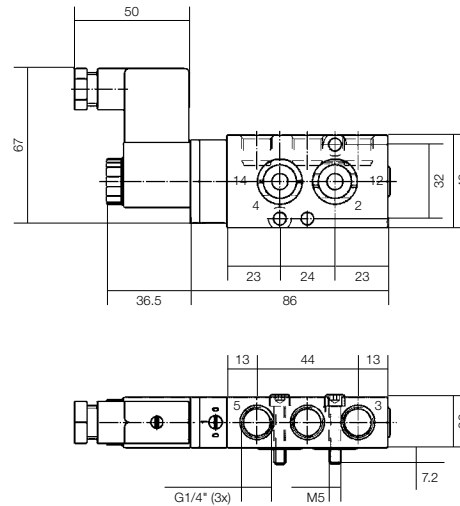
1/4	7	1250	2.5	10	10	50	NBR	343N03	-	496131	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	343N03	-	496482	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	343N03	-	496637	3	3	430	4

Please consult the "How to Order" part at the end of each coil chapter.

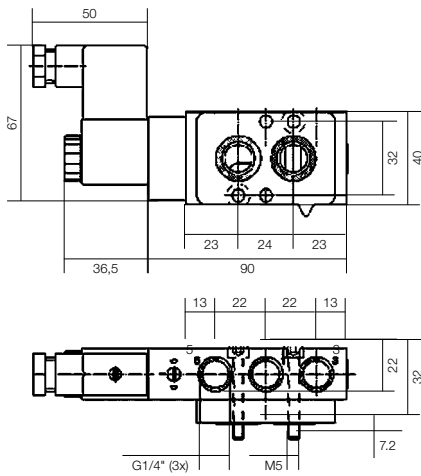
Dimensions Reference 1



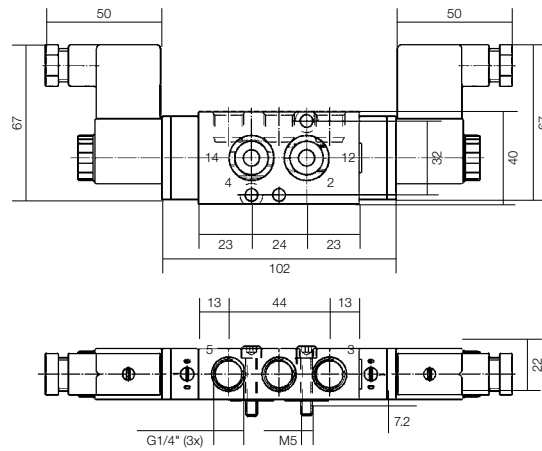
Dimensions Reference 2



Dimensions Reference 3



Dimensions Reference 4



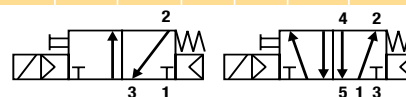
Please consult the "How to Order" part at the end of each coil chapter.

NAMUR Valves G1/4" Series

Solenoid Operated Versions N33-N35 Series with 32 / 37 / 40 mm Coil

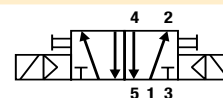
Port size	Orifice	Q _N	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Dim. Group Ref.	
			max.	max.	min.	min.		Valve	Housing	Coil	DC	AC			
G	mm	l/min	min	DC=	AC=	Air & Neutral gases									

3/2 <=> 5/2 with conversion plate - Solenoid operated Combined spring & air return (monostable)



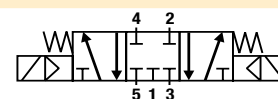
1/4	7	1250	2.5	10	10	50	NBR	341N35	2995	481865	9	8	480	2	5
1/4	7	1250	2.5	10	10	50	NBR	341N35	2995	495870	9	8	700	2	-
1/4	7	1250	2.5	10	10	50	NBR	341N35	-	495905	8	8	740	2	-

5/2 Solenoid operated and return (bistable)



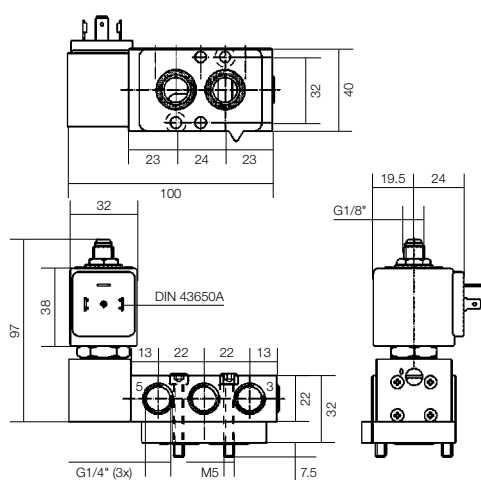
1/4	7	1250	2.5	10	10	50	NBR	347N33	2995	481865	9	8	750	2	6
1/4	7	1250	2.5	10	10	50	NBR	347N33	2995	495870	9	8	1190	2	-
1/4	7	1250	2.5	10	10	50	NBR	347N33	-	495905	8	8	1270	2	-

5/3 W1 Closed in center position Solenoid operated and return

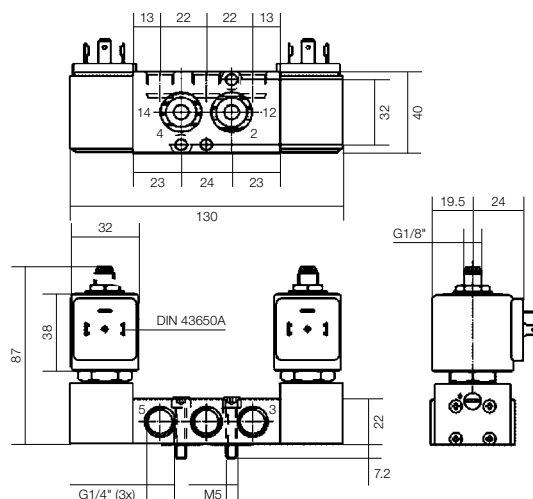


1/4	7	1250	2.5	10	10	50	NBR	342N33	2995	481865	9	8	750	2	6
1/4	7	1250	2.5	10	10	50	NBR	342N33	2995	495870	9	8	1190	2	-
1/4	7	1250	2.5	10	10	50	NBR	342N33	-	495905	8	8	1270	2	-

Dimensions Reference 5



Dimensions Reference 6



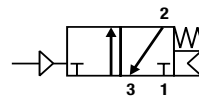
NAMUR Valves G1/4" Series

External Pressure Air Operated Series

5xx N03 Series

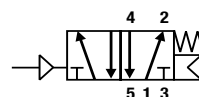
Port size	Orifice	Q _N	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.			min. = 0°C								
G	mm	l/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC		

**3/2 External pressure air operated
Combined spring & air return (monostable)
External pressure supply 2.5 to 10 bar**



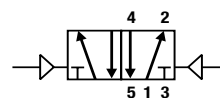
1/4	7	1250	2.5	10	10	50	NBR	531N03	-	w/o	-	-	210	7
-----	---	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---

**5/2 External pressure air operated
Combined spring & air return (monostable)
External pressure supply 2.5 to 10 bar**



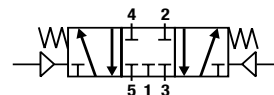
1/4	7	1250	2.5	10	10	50	NBR	541N03	-	w/o	-	-	210	8
-----	---	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---

5/2 External pressure air operated
External pressure air return (bistable)
External pressure supply 2.5 to 10 bar



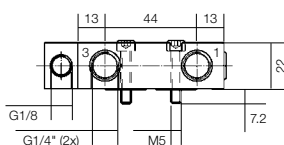
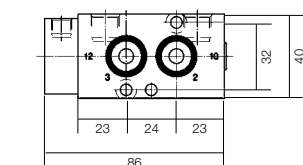
1/4	7	1250	2.5	10	10	50	NBR	547N03	-	w/o	-	-	240	9
-----	---	------	-----	----	----	----	-----	---------------	---	-----	---	---	-----	---

5/3 W1 closed in center position - External pressure air operated
External pressure air return
External pressure supply 2.5 to 10 bar

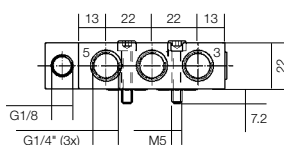
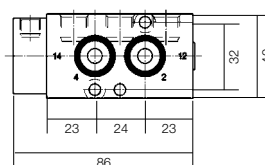


1/4	7	1250	2.5	10	10	50	NBR	542N03	-	w/o	-	-	240	9
-----	---	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---

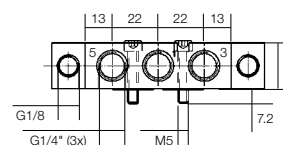
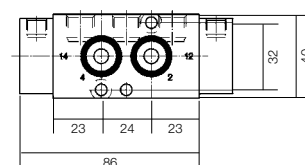
Dimensions Reference 7



Dimensions Reference 8



Dimensions Reference 9



Solenoid Operated Versions

N04 Versions with 22 mm Coil

Port size	Orifice	Q _N	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.			min. = 0°C		Valve	Housing	Coil	DC	AC		
G	mm	l/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC		

A horizontal beam of length 10 m is shown. From the left end, there is a triangular load increasing linearly from 0 to 14 kN/m over the first 2 m. This is followed by a point load of 4 kN acting downwards at 2 m from the left. Then, a uniformly distributed load of 2 kN/m acts downwards over the next 3 m. Finally, a point load of 3 kN acts upwards at the right end (10 m from the left). The beam is supported by a pin support at 2 m from the left and a roller support at 7 m from the left (5 m from the triangular load's end).

1/2	12	3000	2.5	10	10	50	NBR	331N04	-	496131	3	3	910	670	10
1/2	12	3000	2.5	10	10	50	NBR	331N04	-	496482	3	3	1130	670	10
1/2	12	3000	2.5	10	10	50	NBR	331N04	-	496637	3	3	1170	670	10

A horizontal beam of length 10 m is shown. From the left end (0 m) to 4 m, there is a triangular load increasing linearly from 0 to 14 kN/m. From 4 m to 6 m, there is a uniformly distributed load of 4 kN/m acting downwards. From 6 m to 8 m, there is a triangular load decreasing linearly from 4 kN/m to 0. At 8 m, there is a point load of 2 kN acting upwards. From 8 m to 10 m, the beam is unloaded. The beam is supported by a pin support at 0 m and a roller support at 10 m.

1/2	12	3000	2.5	10	10	50	NBR	341N04	-	496131	3	3	900	840	11
1/2	12	3000	2.5	10	10	50	NBR	341N04	-	496482	3	3	1120	840	11
1/2	12	3000	2.5	10	10	50	NBR	341N04	-	496637	3	3	1160	840	11

1/2	12	3000	2.5	10	10	50	NBR	347N04	-	496131	3	3	1240	840	12
1/2	12	3000	2.5	10	10	50	NBR	347N04	-	496482	3	3	1680	840	12
1/2	12	3000	2.5	10	10	50	NBR	347N04	-	496637	3	3	1760	840	12

The technical drawing shows two views of a hydraulic cylinder:

- Top View (Front View):** Shows a rectangular body with a total width of 148 mm. The distance from each end flange face to the centerline is 50 mm. The mounting holes are spaced 37 mm apart from the centerline, with a hole diameter of Ø12. There is a central circular feature with a diameter of Ø6.
- Bottom View (Side View):** Shows the cylinder's profile with a total length of 95 mm. The mounting flanges have a thickness of 21 mm. The main body has a diameter of Ø40 mm. The internal bore diameter is indicated as Ø32.



Parker

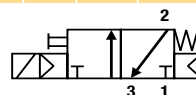
NAMUR Valves G1/2" Series

Solenoid Operated Versions

N34 Series with 32 / 37 / 40 mm Coil

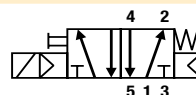
[illegible]

**3/2 Solenoid operated
Combined spring & air return (monostable)**



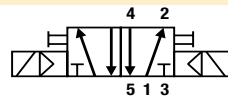
1/2	12	3000	2.5	10	10	50	NBR	331N34	2995	481865	9	8	910	2	13
1/2	12	3000	2.5	10	10	50	NBR	331N34	2995	495870	9	8	1130	2	-
1/2	12	3000	2.5	10	10	50	NBR	331N34	-	495905	8	8	1170	2	-

**5/2 Solenoid operated
Combined spring & air return (monostable)**



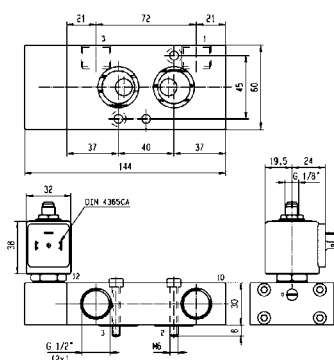
1/2	12	3000	2.5	10	10	50	NBR	341N34	2995	481865	9	8	900	2	14
1/2	12	3000	2.5	10	10	50	NBR	341N34	2995	495870	9	8	1120	2	-
1/2	12	3000	2.5	10	10	50	NBR	341N34	-	495905	8	8	1160	2	-

5/2 Solenoid operated and return (bistable)

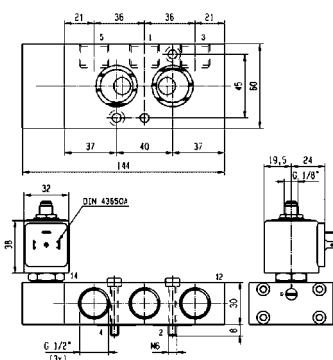


1/2	12	3000	2.5	10	10	50	NBR	347N34	2995	481865	9	8	1240	2	15
1/2	12	3000	2.5	10	10	50	NBR	347N34	2995	495870	9	8	1680	2	-
1/2	12	3000	2.5	10	10	50	NBR	347N34	-	495905	8	8	1760	2	-

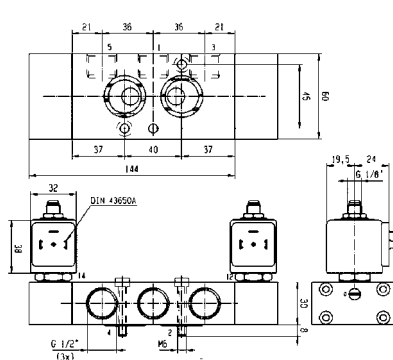
Dimensions Reference 13



Dimensions Reference 14



Dimensions Reference 15



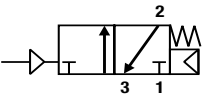
Please consult the "How to Order" part at the end of each coil chapter.

NAMUR Valves G1/2" Series

External Pressure Air Operated Series
5 xx N04 Series

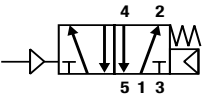
Port size	Orifice	Q _N	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C) min. = 0°C	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.								DC	AC		
G	mm	l/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC		

3/2 External pressure air operated
Combined spring & air return (monostable)
External pressure supply 2.5 to 10 bar



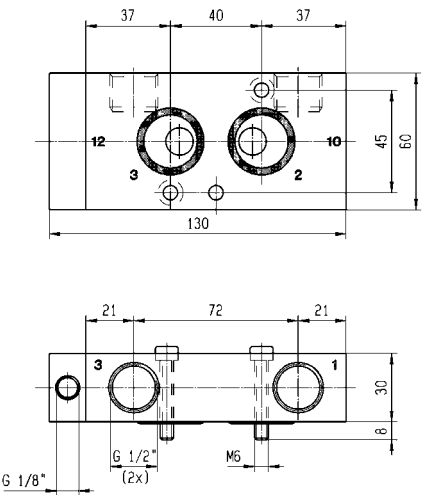
1/2	12	3000	2.5	10	10	50	NBR	531N04	-	w/o	-	-	620	16
-----	----	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	----

5/2 External pressure air operated
Combined spring & air return (monostable)
External pressure supply 2.5 to 10 bar

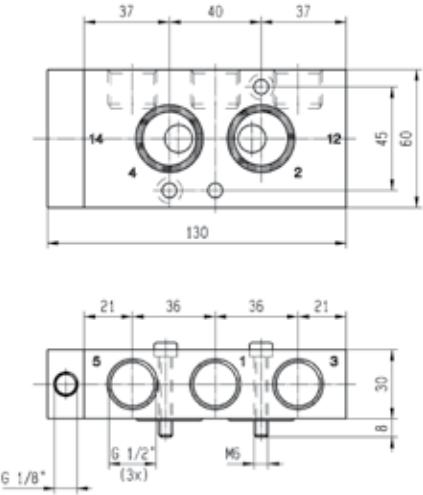


1/2	12	3000	2.5	10	10	50	NBR	541N04	-	w/o	-	-	600	17
-----	----	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	----

Dimensions Reference 16



Dimensions Reference 17



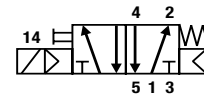
Please consult the "How to Order" part at the end of each coil chapter.

Piped Valves - G1/4" Series

Solenoid Operated Versions P03 Versions with 22 mm Coil

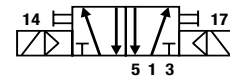
Port size	Orifice	Q _N	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.								min. = 0°C			
G	mm	l/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC		

5/2 Solenoid operated Combined spring & air return (monostable)



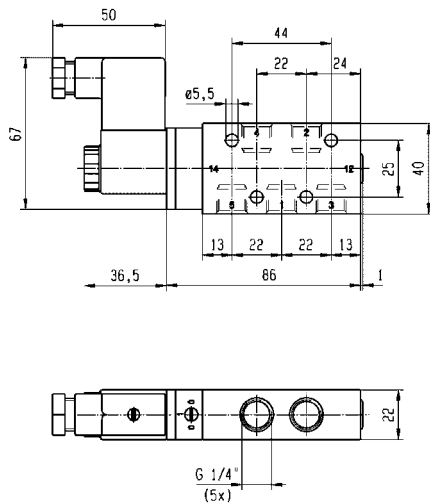
1/4	7	1250	2.5	10	10	50	NBR	341P03	-	496131	3	3	250	18
1/4	7	1250	2.5	10	10	50	NBR	341P03	-	496482	3	3	250	18
1/4	7	1250	2.5	10	10	50	NBR	341P03	-	496637	3	3	250	18

5/2 Solenoid operated and return (bistable)

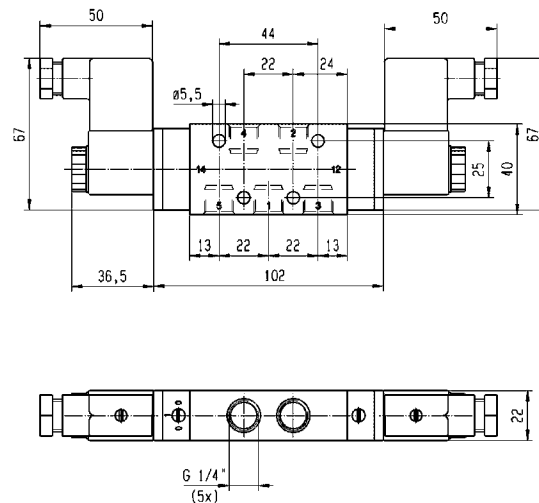


1/4	7	1250	2.5	10	10	50	NBR	347P03	-	496131	3	3	350	19
1/4	7	1250	2.5	10	10	50	NBR	347P03	-	496482	3	3	350	19
1/4	7	1250	2.5	10	10	50	NBR	347P03	-	496637	3	3	350	19

Dimensions Reference 18



Dimensions Reference 19



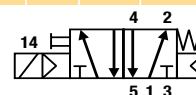
Please consult the "How to Order" part at the end of each coil chapter.

Piped Valves - G1/4" Series

Solenoid Operated Versions P33 Versions with 32-37-40 mm Coil

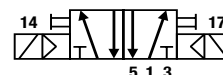
Port size	Orifice	Q _N	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Dim. Group Ref.	
			max.		min.	max.		Valve	Housing	Coil	DC	AC			
G	mm	l/min	min	DC=	AC=	Air & Neutral gases									

5/2 Solenoid operated Combined spring & air return (monostable)



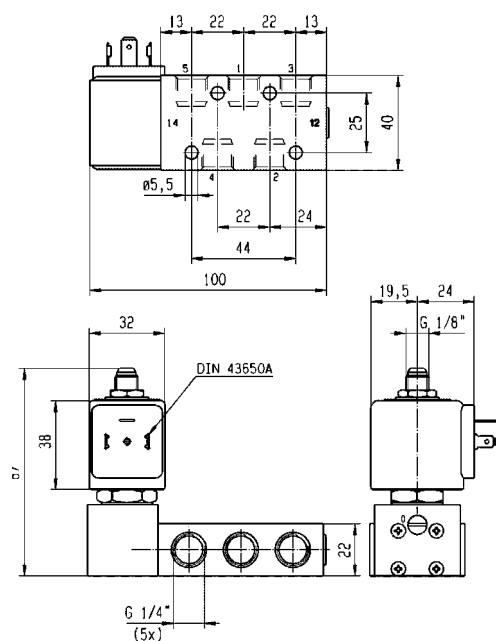
1/4	7	1250	2.5	10	10	50	NBR	341P33	2995	481865	9	8	470	2	20
1/4	7	1250	2.5	10	10	50	NBR	341P33	2995	495870	9	8	690	2	-
1/4	7	1250	2.5	10	10	50	NBR	341P33	-	495905	8	8	730	2	-

5//2 Solenoid operated and return (bistable)

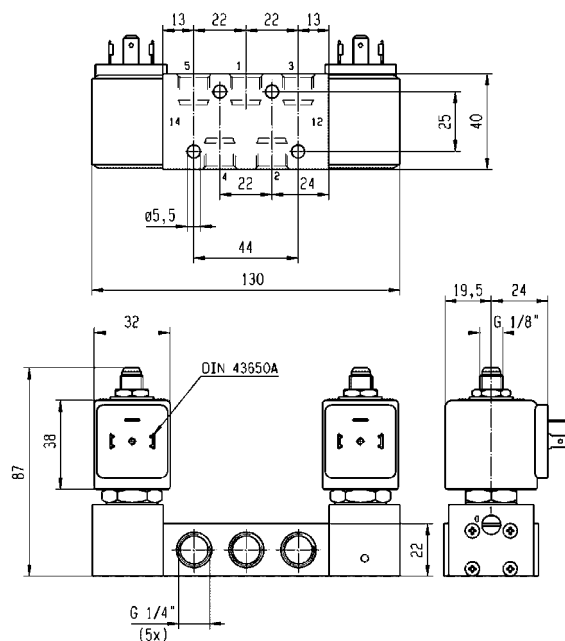


1/4	7	1250	2.5	10	10	50	NBR	347P33	2995	481865	9	8	750	2	21
1/4	7	1250	2.5	10	10	50	NBR	347P33	2995	495870	9	8	1190	2	-
1/4	7	1250	2.5	10	10	50	NBR	347P33	-	495905	8	8	1270	2	-

Dimensions Reference 20



Dimensions Reference 21

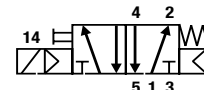


Piped Valves - G1/2" Series

Solenoid Operated Versions P04 Versions with 22 mm Coil

Port size	Orifice	Q _N	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.			min. = 0°C								
G	mm	l/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC		

5/2 Solenoid operated Combined spring & air return (monostable)



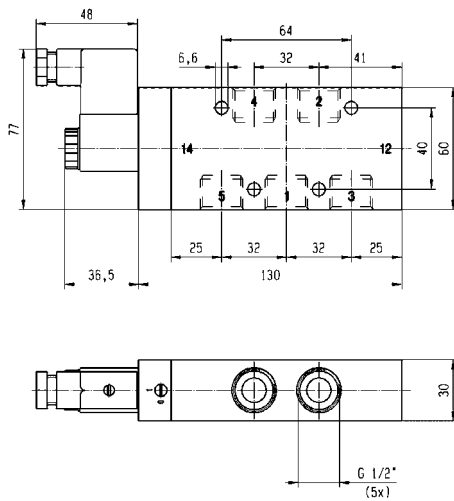
1/2	12	3000	2.5	10	10	50	NBR	341P04	-	496131	3	3	670	22
1/2	12	3000	2.5	10	10	50	NBR	341P04	-	496482	3	3	670	22
1/2	12	3000	2.5	10	10	50	NBR	341P04	-	496637	3	3	670	22

5/2 Solenoid operated and return (bistable)

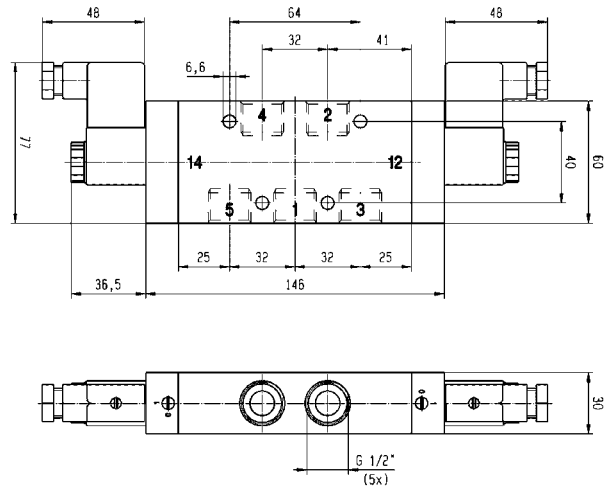


1/2	12	3000	2.5	10	10	50	NBR	347P04	-	496131	3	3	840	23
1/2	12	3000	2.5	10	10	50	NBR	347P04	-	496482	3	3	840	23
1/2	12	3000	2.5	10	10	50	NBR	347P04	-	496637	3	3	840	23

Dimensions Reference 22



Dimensions Reference 23



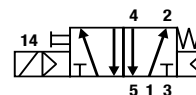
Please consult the "How to Order" part at the end of each coil chapter.

Piped Valves - G1/2" Series

Solenoid Operated Versions P34 Versions with 32/37/40 mm Coil

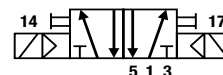
Port size	Orifice	Q _N	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Dim. Group Ref.	
			max.	min.	DC=	AC=		Valve	Housing	Coil	DC	AC			
G	mm	l/min	min				Air & Neutral gases								

5/2 Solenoid operated Combined spring & air return (monostable)



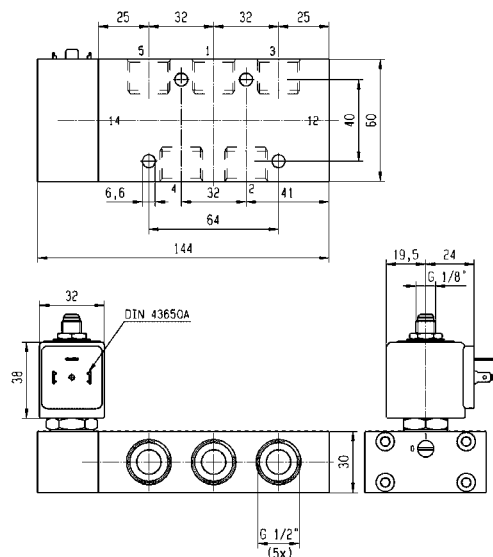
1/2	12	3000	2.5	10	10	50	NBR	341P34	2995	481865	9	8	900	2	24
1/2	12	3000	2.5	10	10	50	NBR	341P34	2995	495870	9	8	1120	2	-
1/2	12	3000	2.5	10	10	50	NBR	341P34	-	495905	8	8	1160	2	-

5/2 Solenoid operated and return (bistable)

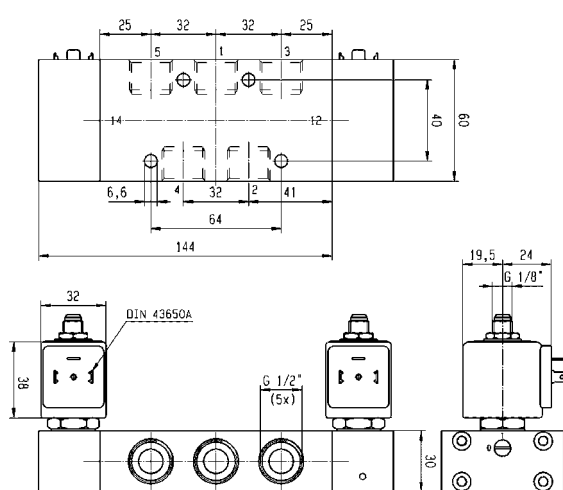


1/2	12	3000	2.5	10	10	50	NBR	347P34	2995	481865	9	8	1240	2	25
1/2	12	3000	2.5	10	10	50	NBR	347P34	2995	495870	9	8	1680	2	-
1/2	12	3000	2.5	10	10	50	NBR	347P34	-	495905	8	8	1760	2	-

Dimensions Reference 24



Dimensions Reference 25



Please consult the "How to Order" part at the end of each coil chapter.

Coils and Spare Parts Informations

Safe Area & ATEX Zone 22

Coils 22 mm for N03-N05 Series

Safe Area & ATEX Zone 22

Ref. 496131 / 496482 / 496637

These coils with connection for 2 P+G DIN 43650 B plug are encapsulated in synthetic material, conform to the IEC/CENELEC safety standards and comply with European low voltage directive 73/23/EC .

- Power: 3W
 - Insulation Class: F (155°C)
 - Degree of Protection: IP65 (with plug)
 - Duty Cycle: 100% ED
 - Ambient Temperature: -10°C to 50°C
- 3 different types are available:**
- Ref. 496131 for a safe area without plug
 - Ref. 496482 for a safe area with plug
 - Ref. 496637 for an ATEX area Zone 22 

496637 coil series with connection 2P + G when mounted together with the supplied Pg9 plug (delivered with the coil) are suitable for use in dangerous areas (dust Zone 22) according to the European directive ATEX 94/9/C. Protection mode: Ex tD A22 IP65 - T95°C

Available Voltages	Safe area without DIN plug Order Code	Safe area with DIN plug Order Code	ATEX Zone 22 EX II 3D Order Code
12 VDC	496131 C1	496482 C1	496637 C1
24 VDC	496131 C2	496482 C2	496637 C2
48 VDC	496131 C4	496482 C4	496637 C4
110 VDC	496131 C5	496482 C5	496637 C5
24/50-60 VAC	496131 P0	496482 P0	496637 P0
48/50-60 VAC	496131 S4	496482 S4	496637 S4
110/50-60 VAC	496131 P2	496482 P2	496637 P2
115/60 VAC	496131 K8	496482 K8	496637 K8
230/50-60 VAC	496131 P9	496482 P9	496637 P9

How to Order

The housing kit is already included into the coil reference, so it's not needed to add it with the order code:

Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 341N03 - 496131 C2

Valves and coils may be ordered also separately.

Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series

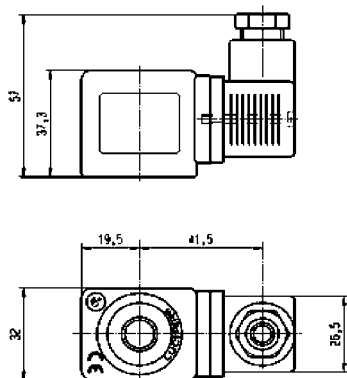
Safe Area

Ref. 481865

N3x series are compatible with any Parker Lucifer coil part of electrical group 2. That group includes many different coils for safe areas or areas submitted to ATEX certifications. These coils are part of the 8/9W class. These coils with connection for 2P+G DIN 43650 A plug are encapsulated in synthetic material, conform to the IEC/CENELEC safety standards and comply with European low voltage directive 73/23/EC.

- Power: 8W (AC) 9W (DC)
- Insulation Class: F (155°C)
- Degree of Protection: IP65 (with plug)
- Duty Cycle: 100% ED
- Voltage Tolerance -10% / +10%
- Ambient Temperature -40°C / +50°C
 - The application can be limited also by the temperature range of the valve

Available Voltages	Order Code
12 VDC	481865 C1
24 VDC	481865 C2
48 VDC	481865 C4
110 VDC	481865 C5
24/50 VAC	481865 A2
48/50 VAC	481865 A4
110/50 VAC	481865 A5
220-230/50 VAC	481865 3D
380/50 VAC	481865 A9
24/60 VAC	481865 B2
115/60 VAC	481865 K8
230/60 VAC	481865 J3



How to Order

This coil must be used together with a housing kit which includes a nut, a plate, and a washer. Housing Kit Order Code: 2995

Valve Reference Number - Housing Reference - Coil Reference - Voltage Code = Order Code

Example: 341N35 - 2995 - 481865 C2

Valves and coils may be ordered also separately.

Coils and Spare Parts Informations

Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series

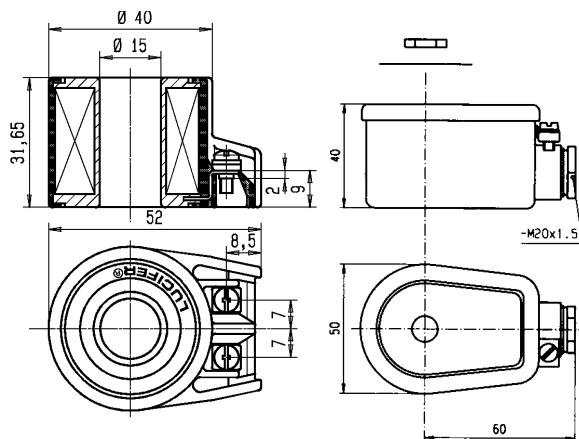
Safe Area Coil 481000 Series with 4538 Watertight and dust proof housing IP67

Ref. 481000

Coil 481000 series is encapsulated in synthetic material. Electrical connection is made with screw terminals for wire up to 1.5 mm. This coil conforms to the IEC/CENELEC safety standards and complies with European low voltage directive 73/23/EC. It must be used with a metallic housing.

- Power: 8W
- Insulation Class: F (155°C)
- Degree of Protection: IP67 (with 4538 housing)
- Duty Cycle: 100%
- Voltage Tolerance -10%/+10%
- Ambient Temperature -40°C/+50°C
 - The application can be limited also by the temperature range of the valve

Available Voltages	Order Code
12 VDC	481000 C1
24 VDC	481000 C2
48 VDC	481000 C4
110 VDC	481000 C5
24/50 VAC	481000 A2
48/50 VAC	481000 A4
110-115/50 VAC	481000 OA
220-230/50 VAC	481000 3D
380/50-440/60 VAC	481000 5P
24/60 VAC	481000 B2
110-115/60 VAC	481000 6J
220-240/60 VAC	481000 4K
42/50-48/60 VAC	481000 S7



Housing 4538

This enclosure is dust and water proof. It corresponds to the protection degree IP67 according to IEC/EN60529. Corrosion resistant, the metallic housing offers good protection for the coil against shocks. It can be 360° orientable. This housing must be equipped with 481000 series coil.

Material: galvanized passivated steel - Degree of protection IP67 according to IEC/EN 60529 - Electrical connection: cable galvan by cable gland according to DIN46320. Cable with outer diameter 6.5-13.5 mm (M20x1.5) can be simply sealed using a rubber gland resilient sealing rings. The enclosure is internally and externally fitted with grounding and earthing screw terminals.

How to Order

Valve Reference Number - Housing Reference - Coil Reference - Voltage Code = Order Code

Example: 331N34 - 4538 - 481000C2

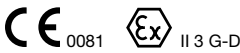
Valves and coils may be ordered also separately.

Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series
ATEX Zone 2-22

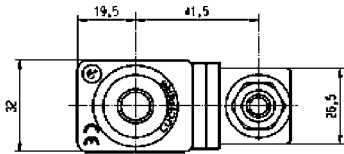
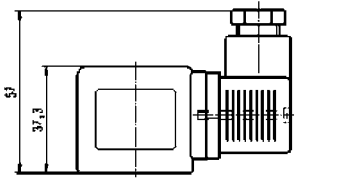
REF. 495870

This coil with connection 2P+G - when mounted together with the supplied Pg 9 plug (delivered with the coil), is suitable for use in Gas and Dust dangerous areas (Zone 2-22), according to the European directive **ATEX 94/9/C. Certificate LCIE 05 ATEX 6003 X - Protection mode: non sparking / limited energy solenoid**

- II 3 G - Ex nAC IIC T3 / T4
- II 3 D - Ex tD A22 IP65 - T 195°C / T 130°C



- Power: 8W (AC) 9W (DC)
- Insulation Class: F (155°C)
- Degree of Protection: IP65 (with plug)
- Duty Cycle: 100% ED
- Voltage Tolerance -10%/+10%
- Ambient temperature
 - T3 (gaz) T 195°C (dust) -40°C/+65°C
 - T4 (gaz) T 130°C (dust) -40°C/+50°C
- The application can be limited also by the temperature range of the valve



Available Voltages	Order Code
24 VDC	495870 C2
48 VDC	495870 C4
110 VDC	495870 C5
24/50 VAC	495870 A2
48/50 VAC	495870 A4
110/50 VAC	495870 A5
220-230/50 VAC	495870 3D



How to Order

This coil must be used together with a housing kit which includes a nut, a plate, and a washer. Housing kit order code: 2995

Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 331N34 - 2995 - 495870 A5

Valves and coils may be ordered also separately.

Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series

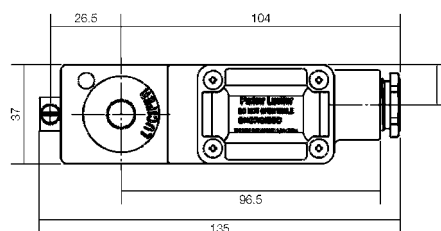
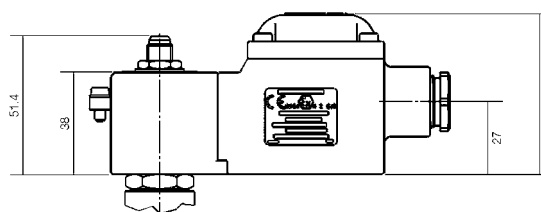
ATEX Zone 1-21

Ref. 495905

This coil is suitable for use in Gas and Dust dangerous areas (Zone 1-21), according to the European directive **ATEX 94/9/C**. It's also IECEx certified according to the IECEx Scheme. **Certificate LCIE 02 ATEX 6451 X - Protection modes: Explosionproof solenoids with flameproof enclosure / encapsulation "d mb"**

- II 2 G - Ex d mb IIC T4
- II 2 D - Ex tD A21 IP67 - T 130°C

- Insulation Class H (180°C)
- Power: 8W (AC-DC)
- Degree of Protection IP67
- Duty Cycle 100%
- Voltage Tolerance -10%/+10%
- Ambient Temperature: -40°C/+65°C
- The application can be limited also by the temperature range of the valve



Available Voltages	Order Code
24 VDC	495905 C2
48 VDC	495905 C4
110 VDC	495905 C5
24/50 VAC	495905 A2
48/50 VAC	495905 A4
110/50 VAC	495905 E5
220-230/50 VAC	495905 3D
115/60	495905 E5
240/60	495905 B8

Electric connection is done in the connection box on an easily accessible connector terminals.
M20x1.5 Cable gland



How to Order

The housing kit is already included into the coil reference, so it's not needed to add it in the order code:

Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 347N33 - 495905 C2

Valves and coils may be ordered also separately.

Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series

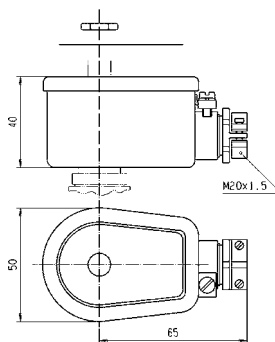
ATEX Solutions Zone 1-21

Ref. 483371 & 494040

These coils are suitable for use in Gas and Dust dangerous areas (Zone 1-21), according to the European directive **ATEX 94/9/C**. **Protection mode: encapsulated electrical parts with increased safety.**

Reference		483371 or HZ06	494040 or HZ23
Approval		LCIE 02 ATEX 6011 X	LCIE 02 ATEX 6013 X
Type of protection	Gas	II 2 G - Ex e mb II T4	II 2 G - Ex e mb II T3
	Dust	II 2 D - Ex tD A21 T 130°C	II 2 D - Ex tD A21 T 195°C
Degree of protection		IP67	IP67
Ambient temperature		-40°C to +65°C	-40°C to +90°C
		-40°C to +65°C	
		The application is limited also by the temperature range of the valve	
Class of insulation		F (155°)	H (180°)
Electrical connection		By special cable gland or M20x1.5 "Ex e" on screw terminals for wires up to 1.5 mm ² . Cables with outside diameter 6.5 mm to 13.5 mm can be simply sealed using the rubber gland with resilient sealing rings supplied.	
Elect. Power	DC Pn (hot)	8 W	8 W
	P (cold) 20°C	9 W	9 W
	AC Pn (holding)	8 W	8 W
		32 VA (9 W)	32 VA (9 W)
Voltage tolerance		Tolerance -10/ +10% of the nominal voltage	
Solenoid duty		Continuous duty solenoid (ED 100%)	

Available Voltages	Order Code	Order Code
6 VDC	483371 C0	-
12 VDC	483371 C1	-
24 VDC	483371 C2	494040 C2
36 VDC	483371 C3	-
48 VDC	483371 C4	-
60 VDC	483371 M3	-
110 VDC	483371 C5	-
125 VDC	483371 3N	494040 3N
220 VDC	483371 C7	494040 C7
12/50 VAC	483371 A1	-
24/50 VAC	483371 A2	494040 A2
48/50 VAC	483371 A4	-
110-115/50 VAC	483371 0A	494040 0A
220-230/50	483371 3D	494040 3D
24/60 VAC	483371 B2	-
110-115/60 VAC	483371 6J	-
220-240/60 VAC	483371 4K	-
380/50-440/60 VAC	-	494040 5P



Fuses: Both electrical 483371... and 494040... parts have to be connected in series with a safety fuse according to CEI 60127-3.

483371...

DC: 24V / 400mA - 48V / 250mA
110V / 100mA

AC: 24V / 630mA - 48V / 315mA
110/115V / 160mA
220/230V / 80mA

494040...

DC: 24V / 400mA - 125V / 80mA
48V / 220V - 63mA

AC: 24V / 630mA - 48V / 315mA
110/115V / 160mA
220/230V / 80mA

How to Order

The housing kit is already included into the coil reference, so it's not needed to add it in the order code:
Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 347N33 - 483371C2

Valves and coils may be ordered also separately.



Spare Parts Mounting Kit and Accessories

Kit for G1/4" Models without conversion plate (N x 3 Series)



Kit includes the 2 mounting screws M5 x 25 A2, the dowel pin M5 x 10 A2,
the 2 O-rings NBR 15 x 2.5

Order code: 496132

Kit for G1/4" Models with conversion plate (N x 5 Series)



Kit includes the 2 mounting screws
M5 x 35 A2, the dowel pin M5 x 20 A2,
the conversion plate equipped with its seals

Order code: 496742 (equipped plate)

Order code: 496852 (screws + pin)



Kit for G1/2" Models (N x 4 Series)

Kit includes the 2 mounting screws M6 x 35 A2, the dowel pin M6 x 12 A2,
the 2 O-rings NBR 24 x 3

Order code: 496133



Exhaust Flow Regulators

Material Body:	Brass	Filter element:	Sintered bronze
Spring:	Stainless Steel	Seal:	NBR

G1/8" Order code: 496551

G1/4" Order code: 496552

G1/2" Order code: 496553



Connector for 22 mm Coil

Connector DIN43650 AB Pg9 2P+E

Order code: 481043



Housing for 22 mm Coil

Plastic nut with O-ring

Order code: 3125



Connector for 32 mm Coil

Connector DIN43650 AA Pg9 2P+E

Order code: 486586

Miniature high-speed valves in stand alone, stackable or combined modules, incorporating standard logic functions. The range also includes timers and impulse modules.

- Complete range
- Stand alone, stackable or combinable modules
- Very fast response time
- Flexible and highly maintainable system
- DIN rail mounting
- Ø 4mm connection

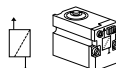


Operating information

Working pressure	3 to 8 bar
Working temperature	-15 °C to 60 °C
Flow (Qmax)	180 l/min (PRD = 60 l/min)
ATEX approval:	CE Ex II 2 GD c 85°C
For ATEX specific products contact Sales Office	
For technical information see CD	

Logic sequencer

Step modules



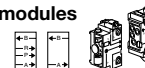
	Order code
Without sub base Pneumatic output	PSM-A10
Visual indication of pneumatic output and manual override	PSM-A12
With sub base Without manual override	PSM-B12

Step module subbase



	Order code
Subbase	PSB-A12
Additional interlock	PSV-A12

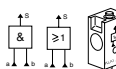
Set of head and tail modules and deviation modules



	Order code
Head & tail set	PSE-A12
Deviation standard	PSD-A12
Deviation for remote	PSD-B12

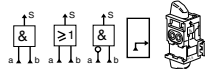
Logic elements

Line mounted elements



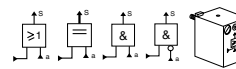
Logic Function	Order code
AND	PLL-A11
OR	PLK-A11
Clip on Din-rail	PZM-L199

Combinable elements



Logic Function	Order code
AND	PLL-B12
OR	PLK-B12
NOT	PLN-B12
INPUT	PLE-B12

Subbase mounted elements



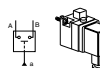
Logic Function	Order code
AND	PLL-C10
NOT inhibit standard	PLN-C10
NOT inhibit threshold	PLN-D10
OR	PLK-C10
YES regenerated	PLJ-C10

3 port subbase to be ordered separately.

Logic relays

Pressure switch

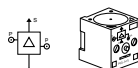
To be used with 3 port subbase



	Order code
With subbase	PRE-A12
Without subbase	PRE-A10

Amplifier relays

To be used with 4 port subbase



	Order code
With subbase	PRD-A12
Without subbase	PRD-A10

Memory relays

To be used with 4 port subbase



	Order code
With subbase	PLM-A12
Without subbase	PLM-A10

Sensor relays

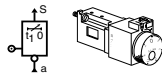


	Order code
With subbase	PRF-A12
Without subbase	PRF-A10

 Indicates stocked product.

Time delay relays

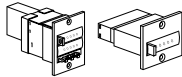
To be mounted on 3 port subbase



Function	Timing	Order code
Output after timed period	0,1 to 3s	PRT-E10
	0,1 to 30s	PRT-A10
	10 to 180s	PRT-B10
With subbase	0,1 to 30s	PRT-A12
Output during timed period	0,1 to 3s	PRT-F10
	0,1 to 30s	PRT-C10
	10 to 180s	PRT-D10

Impulse counters

Flush mounting
Pneumatic or manual reset



	Order code
*Surface mounting	PCT-A11
*Flush mounting	PCT-B11
Surface mounting	PCP-A11

* Totalising counters

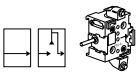


Not elements

Description	Order code
PLNC10 on PZUA12 subbase	PLN-C12
PLND10 on PZUA12 subbase	PLN-D12

Subbase for logic elements and relays

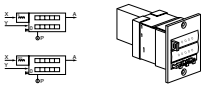
3 port and 4 port subbases



	Order code
Input module	PZU-E12
3 port "common input"	PZU-A12
3 port "cascade"	PZU-C12
4 port subbase*	PZU-B12

* For combination with memory relay and amplified relay.

Timers

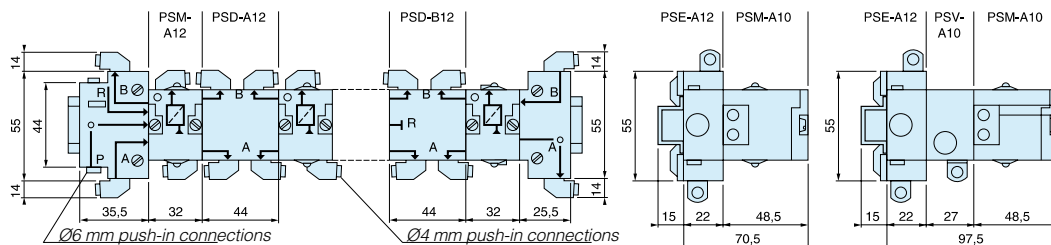


Time base	Time range	Order code
1 second	1 second to 27 hours	PCM-A11
1 minute	1 minute to 69 days	PCM-B11
2 minutes	3 to 100 seconds	PCM-C11
2 minutes	3 to 10 minutes	PCM-D11
2 minutes	3 to 100 minutes	PCM-E11

 Indicates stocked product.

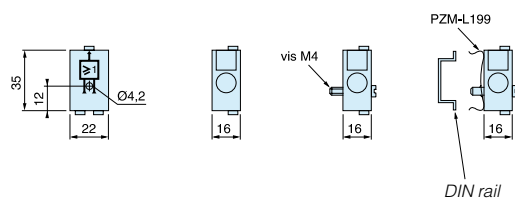
Dimensions, Logic processing

Modular sequencer



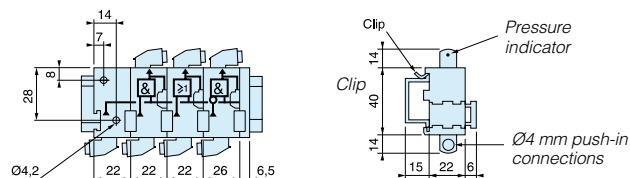
Line mounted logic elements

PLL-A11 and PLK-A11



Combinable logic elements

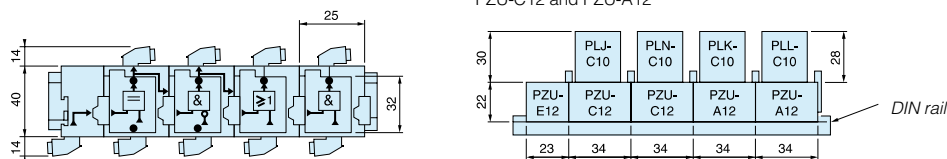
PLE-B12 — PLL-B12 — PLK-B12 and PLN-B12



Logic elements mounted on 3-port modular subbases

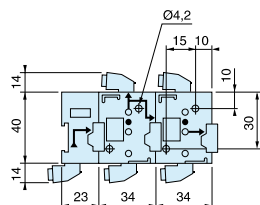
PZU-E12

PLJ-C10 — PLN-C10 — PLK-C10 and PLL-C10 mounted on
PZU-C12 and PZU-A12

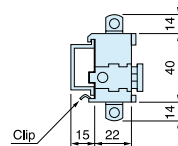
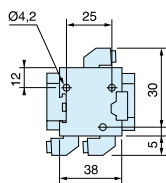


3 and 4-port modular subbases

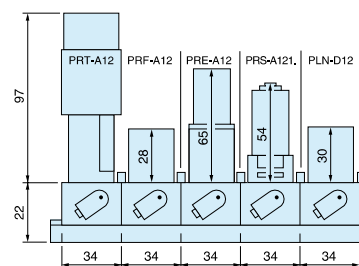
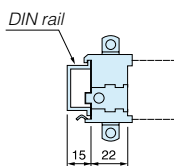
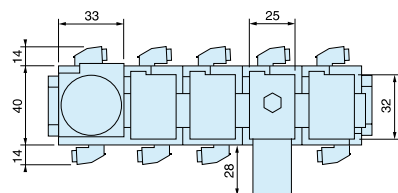
PZU-E12 — PZU-C12 — PZU-A12



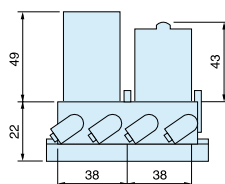
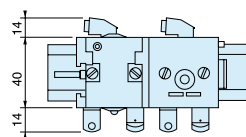
PZU-B12

**Relays mounted on 3-port modular subbases**

PRT-A12 — PRF-A12 — PRE-A12 — PRS-A121 and PLN-D12

**Relays mounted on 4-port modular subbases**

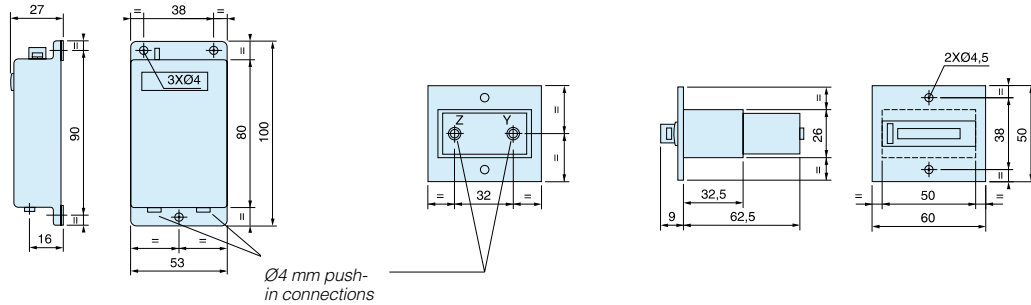
PLM-A12 and PRD-A12



Totalising counters

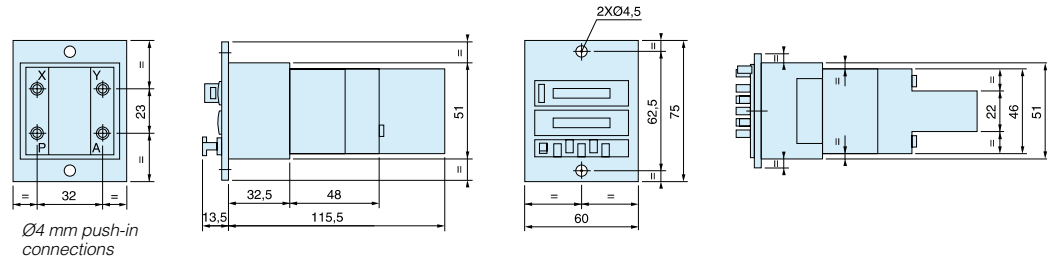
PCT-A11

PCT-B11



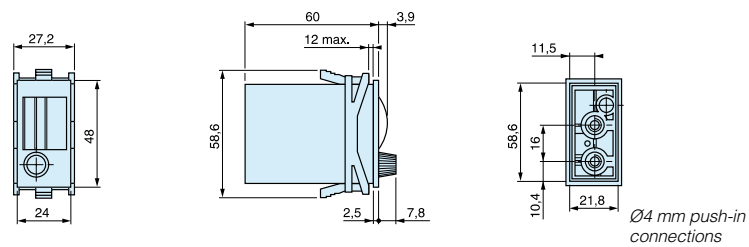
Digital display timers

PCM-A11 to PCM-B11



Timers with calibrated dial

PCM-F11 and PCM-G11



Designed to fit the standard electrical Ø22mm knock out, they can provide dual pneumatic and electrical output signals. A variety of button and switch actuators are available.

- Facia mounted operation
- 3/2 NO or NC
- Modular construction
- Wide range of actuators
- Dual pneumatic and electrical output signal



Flow characteristics

PXB-B3••	Q _{max} = 60 l/min Q _n = 30 l/min
PXB-B4••	Q _{max} = 240 l/min Q _n = 120 l/min
Connections	Ø 4 mm push-in

Operating information

Push button valves - Visual indicators

Working pressure	
PXB-B3••	1 to 9 bar
PXB-B4••	1 to 10 bar
PXV-••	1 to 8 bar
Working temperature	-15°C to +60°C
ATEX approval:	CE Ex II 3 GD
For ATEX specific products contact Sales Office	

Spring return push buttons

Symbol	Flow	Order code
	60 l/min	PXB-B3111BA2
	240 l/min	PXB-B4131BA2
Black - With 1 NC valve		

Symbol	Flow	Order code
	60 l/min	PXB-B3111BA4
	240 l/min	PXB-B4131BA4
Red - With 1 NC valve		

Symbol	Flow	Order code
	60 l/min	PXB-B3111BA3
	240 l/min	PXB-B4131BA3
Green - With 1 NC valve		

Mushroom head push buttons

Symbol	Flow	Order code
	60 l/min	PXB-B3111BC2
	240 l/min	PXB-B4131BC2
Black - Spring return - With 1 NC valve		

Symbol	Flow	Order code
	60 l/min	PXB-B3111BT4
	240 l/min	PXB-B4131BT4
Red - Latching - With 1 NC valve		

Selector switches

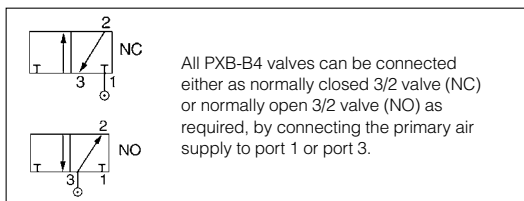
Symbol	Flow	Order code
	60 l/min	PXB-B3111BD2
	240 l/min	PXB-B4131BD2
Black - 2 positions - With 1 NC valve		

Indicates stocked product.

Additional switch valves, electrical contact block and mounting brackets

Symbol	Flow	Order code	Contact	Order code
	60 l/min NC	PXB-B3911	Normally open NO 	ZBE-101
	240 l/min NC	PXB-B4931	Normally closed NC 	ZBE-102
	60 l/min NO	PXB-B3921		
	240 l/min NO	PXB-B4931		
	60 l/min NC	PXB-B3912		
	60 l/min NO	PXB-B3922		

Symbol	Flow	Order code	Description	Order code
	60 l/min NC	PXB-B3111B		ZB4-BZ009 block
	60 l/min NO	PXB-B3121B		



Spring return push buttons

Spring return		Mushroom head	
Colour	Order code	Colour	Order code
 Flush	Black	ZB4-BA2	 Ø40 mm spring return
	Green	ZB4-BA3	
	Red	ZB4-BA4	

Selector switches

Black handle

Function	Order code
2 positions fixed	ZB4-BD2
3 positions fixed	ZB4-BD3

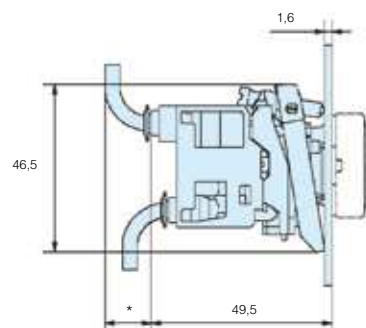
Standard

Visual indicators

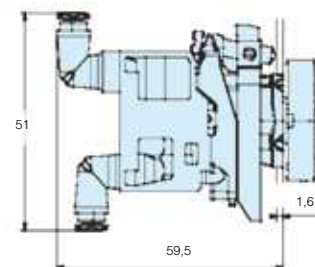
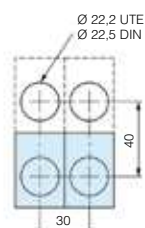
Colour actuated	Colour unactuated	Order code
	Green	Black
	Red	Black
	Yellow	Black
	Blue	Black
	White	Black
	Green	Red

 Indicates stocked product.

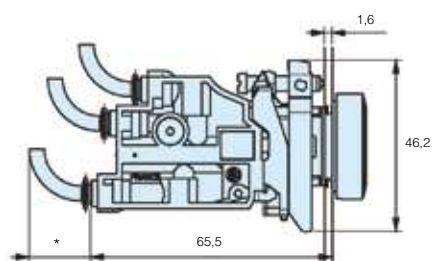
PXB-B3



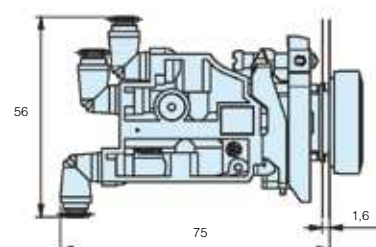
Body width 30mm
 * With 2 x 4mm tube = 10
 With 2,7 x 4mm tube = 15



PXB-B4



Body width 30mm
 * With 2 x 4mm tube = 10
 With 2,7 x 4mm tube = 15



Compact 3/2 normally closed metal bodied valves with push-in air connections. Designed for the process duty cycle with high durability. Ideal for the process or packaging industry.

- High durability
- Very good repeat accuracy
- Design for process duty cycle
- Push-in connection
- Versatile and easily maintained
- Miniature size



Operating information

Working pressure; PXC-M	3 to 8 bar
Working temperature	-15 °C to +60 °C
	PXC-M111 PXC-M121 PXC-M521 PXC-M601
Flow (Qmax):	60 l/min 85 l/min 250 l/min 250 l/min

Bore Ø1,5 mm, flow 60 NI/min

Symbol	Actuator	Return	Operating forces at 6 bar, N	Order code
		Steel plunger	Spring	11
				PXC-M111

Bore Ø1,5 mm, flow 85 NI/min

Symbol	Actuator	Return	Operating forces at 6 bar, N	Order code
		Plastic roller	Spring	4,5
				PXC-M121
		Steel roller	Spring	4,5
				PXC-M131

Bore Ø2,5 mm, flow 250 NI/min

Symbol	Actuator	Return	Operating forces at 6 bar, N	Order code
		Plastic roller	Spring	7
				PXC-M521

3/2 compact limit switches - With Ø4mm Push-in connections with pipeable exhaust port

Bore Ø2,5mm, flow 250 NI/min - With plunger head

Symbol	Actuator	Return	Operating forces at 6 bar, N	Order code
		Steel plunger	Spring	24
				PXC-M601A110
		Steel roller plunger	Spring	24
				PXC-M601A102
		90° Steel roller plunger	Spring	24
				PXC-M601A103

 Indicates stocked product.

Dimensions, Limit switches, Series PXC

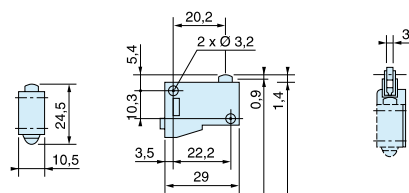
All dimensions in mm unless otherwise stated

3/2 miniature limit switches

PXC-M111

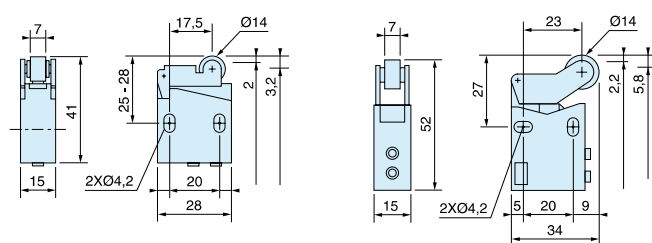
PXC-Z12

PXC-Z11



PXC-M121 - PXC-M131

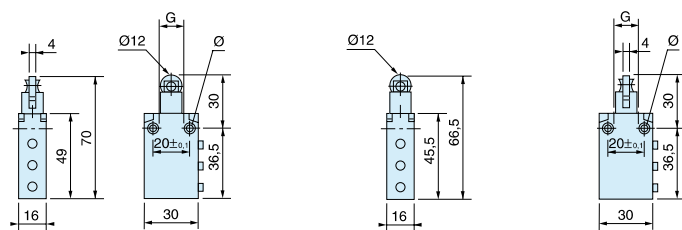
PXC-M521



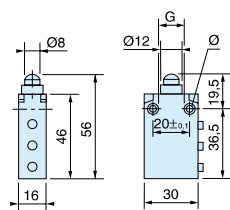
3/2 compact limit switches

PXC-M601A102

PXC-M601A103



PXC-M601A110



Ergonomically designed units to provide protection against accidental operation of machines. Completely sealed units prevent tampering and comply with latest European safety standards.

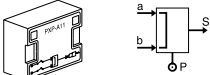


- Ergonomic design
- Robust polymer or metal enclosure
- Meets requirements for protection against accidental operation and tampering
- Metal enclosure features a wrist-rest bar which helps prevent illness due to repetitive actions
- Conforms to EN574 and EN954-1 requirements

Operating information

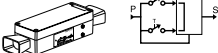
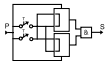
Working pressure	3 to 8 bar
Working temperature	-5 °C to +60 °C
For technical information see CD	

Control module only

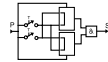
Symbol	Connections	Order code
	Ø4 mm Push-in	PXP-A11

Complete units

Polymer enclosure, with two Ø40 mm push button with protective guards and control module

Symbol	Connections	Number of control modules	Order code
	Ø4 mm Push-in	1	PXP-C111
	Ø4 mm Push-in	2	PXP-D121

Metal enclosure, with two Ø60 push buttons, wrist restbar, built in protective guard and control module

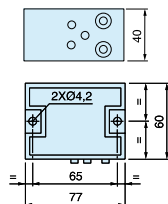
Symbol	Connections	Number of control modules	Order code
	Push-in Ø6 mm for supply Ø4 mm for output	1	PXP-S111
	Push-in Ø6 mm for supply Ø4 mm for output	2	PXP-S121



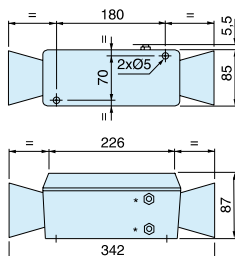
Indicates stocked product.

Dimensions

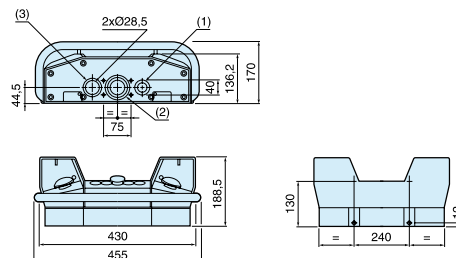
PXP-A11



PXP-C111 and PXP-D121



PXP-S111 and PXP-S121



* Ø4 mm push-in connections

** Ø6 mm push-in connections

Ex Bus Manifold

for pneumatic actuator control

Parkers EExPress™ bus manifold package has been designed for the control of pneumatic actuators in the Process Industry where hazardous environments Zone 1, 21 and or Zone 2, 22 are present.

EExPress™ is a stackable system that includes Gateway - Input sensor modules - Solenoid valve modules.

NAMUR Standard ON/OFF Where the (NPN) sensor can be directly connected on the input sensor module.

The Ex manifold uses the Profibus DP protocol.



Increased Process Productivity

- When plant installation's are simplified, the engineering study, component package's and man hour costs are reduced, this results in a quicker production start-up.
- Through more efficient process control, quality and quantity of production is improved.
- EExPress™ bus manifold replaces a lot of proprietary components, thus reducing cost of installation.
- EExPress™ bus manifold simplifies commissioning time resulting in quicker plant start up time.
- EExPress™ bus manifold reduces overall product life cost through reduction in maintenance costs.



A User Friendly Product

- EExPress™ uses the well known profibus DP protocol.
- It as been designed to approach a "plug and play" usage.
- At a glance at the LED the user knows immediately the current production Process status.
- Authorised users may re-adress the 5/2 valves directly from the manifold.



Plant installation simplification

- EExPress™ significantly reduces the need of electronic components such as couplers, repeaters, safety barriers, PLC, etc.
- It significantly reduces the need of mechanical components such as pressurised cabinet's, pneumatic piping, electrical wiring, connectors, etc.
- One bus address can operate and control up to 32 x solenoid valves on one manifold (or combination of sensor modules and solenoid valves).
- Integrated solution with high flow valves and sensor signal inputs.

Better process & personnel safety

- With separated wiring, the bus communication* is maintained "ON" even if the coil voltage supply is cut.
* Solenoid valve status + inputs sensor status + safety pressure status, etc.
- The diagnostic capabilities offer permanently a real reliable Process Control.
- Ex px [ia] [ib] mb IIC T5
Ex tD A21 IP65 T100°C protection as well as the patented coil connection eliminate risks associated with bad handling.
eg.: disconnection of bus or sensor connectors in presence of gases.
- It provides more efficient Process Control due to centralised mounting close to actuators.



IECEx

IECEx LCI 07.0027 X

CE 0081

LCIE 01 ATEX 6013 X



II 2/(1) G D

**Ex px [ia] [ib] mb IIC T5
Ex tD A21 IP65 T100°C**

**Proven achievement through
innovative fluid control.**

Control Devices

A complete range of pneumatic valves

PDE2614TCUK



Parker is the world leader in motion and control technologies, providing systematic, precision-engineered solutions for a wide variety of, industrial markets. Throughout the world, Parker Hannifin is working together with companies to make their machines more reliable and more productive. Parker products are in operation on satellites orbiting the earth: in machine tools and mobile plant; on oil rigs and refineries; in hospitals and laboratories. In fact, wherever there are machines that depend on motion or fluid control, you will find innovative and reliable Parker components and systems.

The Parker range of control devices is much more than just valves, we have within our product programme field bus enabled valve systems, limit switches, logic process components, two hand control units, metal valves for arduous applications and ultra lightweight plastic valves.

PDE2614TCUK
Control Devices

General Lightweight Applications & Individual/ Multiple Field Bus Connections

P2M Moduflex Valves



- High flow, compact size.
- Mixable valve sizes.
- Stand alone valves, modular islands with individual, multiconnector or bus connections.
- Integrated selectable internal or external pilot supply and exhaust.
- Optional peripheral modules.
- Push-in connection.

Poppet Valve for Enclosures

PS1 Interface



- High speed poppet valve
- Push-in connection
- Built-in terminal block
- Pneumatic output indicator
- DIN rail mounting

Industrial Applications

B Series Valves



- 2 sizes: 1/8" and 1/4"
- Compact size
- Inlet-exhaust-mounting facility
- Fast response, high flow
- Integrated mounting holes
- Wear compensating seal system
- DIN rail mountable manifolds

Valve Islands

PVL-B10



- Compact lightweight, high flow valves
- 2 x 3/2, 5/2 or 5/3 configuration
- Push-in Ø6mm or G1/8 threaded connections
- High performance 15mm solenoids
- Stacking type modules with DIN rail mounting
- Bus protocols: Interbus S, Profibus DP, Devicenet, ASI.

Stackable Inline Lightweight Valve

PVL Compact Valves



- High flow, compact size
- Push-in or threaded connection
- DIN rail or block mounting
- Light weight construction

Heavy Duty Applications / Mobile

Viking Xtreme Metal Spool Valves



- 4 sizes: G1/8, G1/4, G3/8 and G1/2.
- Wide operating temperature range
- Compact design with good corrosion resistance.
- Wide range of 5/2 and 5/3 versions.
- High and low temperature versions available for transport applications.

Valve Islands

PVL-C10



- Compact lightweight, high flow valves
- 2 x 3/2, 5/2 or 5/3 configuration
- Push-in Ø8mm or G1/4 threaded connections
- High performance 15mm solenoids
- Stacking type modules with DIN rail mounting
- Bus protocols: Interbus S, Profibus DP, Devicenet, ASI.

Miniature Valves

ADEX Directional Control Valves



- 2 sizes: M5 and 1/8"
- Compact body with large flow
- Quick response time, faster than 10ms
- Expected life time more than 50,000,000 cycles
- Low power consumption only 0.6W
- Optional multipin connector manifold
- Manual override

Hi Flow Valves

P2V Flowstar Valves ISO 15407-1



- Compact high flow design
- To VDMA 24563, ISO 15407-1 standard
- 5/2 & 5/3 configurations
- 18mm & 26mm body widths
- Single sub-base or manifold mounted
- Air pilot and solenoid actuators
- Suitable for Food Industry applications.

Heavy Duty Applications / Multiple Connection and Plug-in

Isomax Valves - ISO 15407 / ISO 5599



- Size 1, 2 and 3 ISO 5599-1
- Size 01 and 02 (26 and 18 mm) ISO 15407-1
- Ceramic technology for long live operation
- From vacuum up to 12 bar applications
- Internal or external pilot supply with same valves
- Pressure supply possible on exhaust port

ISYS Valves - ISO 15407 / ISO 5599



- Size 1, 2 and 3 ISO 5599-1 / 2
- Size 01 and 02 ISO 15407-1 / 2
- Excellent reliability, long life in excess of 30 million operations.
- Complete range, plug-in and non-plug-in
- WCS Spool technology

Metal Spool Valves

Midget Spool Valves



- G1/8 body ported
- Rugged die cast body
- 3/2 & 5/2 configurations
- Stainless steel spool
- Viton body seals as standard
- Integral mounting holes
- Manual, mechanical and automatic actuators.

Metal Spool Valves

Intermediate Spool Valves



- G1/4 body ported
- Rugged die cast body
- 3/2, 5/2 & 5/3 configurations
- Stainless steel spool
- Viton body seals as standard
- Integral mounting holes
- Manual, mechanical and automatic actuators.

Heavy Duty Applications

VA - Brass bodied spool valves



- Rugged valves for heavy duty applications
- Large and robust actuators for easy operation
- Excellent corrosion resistance
- Integral mounting holes
- Panel mounting versions

Limit Switches

PXC Limit Switches



- 3/2 Nc spring return as standard
- Ø4mm, M5 & G1/8 ported versions
- Miniature and Compact designs
- Wide choice of actuators include levers, rollers & ultra light whisker types.

Ceramic Valves

PVD Everdure



- Available in 3 sizes
- 4/2 Directional control valves
- 3/2 dump valves & 2/2 slow start valves
- Stand alone or manifolds.
- Built-in manual override
- Ceramic slide provides extremely long life
- DIN rail mounting.

Push Button Actuators

PXB Push Buttons



- Facia mounted operators
- 3/2 NO or NC versions
- Pneumatic valves combinable with electrical switches
- Modular construction
- Wide choice of actuators.

Processing Modules

Logic Control



- Complete range of logic processing modules
- Stand alone or stackable and combinable units
- Ultra fast response times
- Visual indication
- DIN rail mounting.

PDE2614TCUK
Control Devices

Metal Poppet Valves

Mini Poppet Valves



- M5 body ported
- 3/2 NC spring return as standard
- Manual and mechanical actuators
- Light actuation forces.

Midget Poppet Valves



- G1/8 body ported poppet design
- 3/2 NC spring return as standard
- Manual, mechanical and air pilot actuators
- Light actuation forces
- Integral mounting holes.

Heavy Duty Poppet Valves



- G3/8 & G1/2 body ported
- 2/2 & 3/2 NC spring return as standard
- High flow poppet design
- Manual and mechanical and solenoid actuators
- Light actuation forces
- Integral mounting holes.

Heavy Duty Valves

VE Heavy Duty Isolator Valves



- G1/4, G1/2 & G1 versions
- 2/2 or 3/2 option
- Inline installation
- High flow
- Suitable as a remotely controlled main shut off valve.
- Air or solenoid pilot

Lockout Valves

LV Series Lockout Valves



- G1/4 - G1 Ported emergency shut-off valves
- High flow G1 exhaust port
- Manually operated
- High visibility, rugged aluminium body
- Detented spool with padlock 'lockout' facility.

Shut Off Valves

Ball Valves and Sliding Sleeve Valves



Ball Valves

- 3 distinct series
- Vented and non vented
- Bubble tight shut-off
- Positive 90 ° movement
- Wide variety of fluids

Sliding sleeve valves

- Linear sleeve operated
- 3/2 valve
- Simple airline isolation
- Compact
- Minimum space for valve operation

Processing Modules

Two Hand Control Units



- Ergonomic design
- Robust polymer or metal enclosure
- Meets requirements for protection against accidental operation and tampering
- Metal enclosure features a wrist rest bar which prevents illness due to repetitive actions
- Conforms to EN574 and EN954-1 requirements

Vacuum Products

A complete range of vacuum products and accessories

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Parker is the world leader in motion and control technologies, providing systematic, precision-engineered solutions for a wide variety of, industrial markets. Throughout the world, Parker Hannifin is working together with companies to make their machines more reliable and more productive. Parker products are in operation on satellites orbiting the earth: in machine tools and mobile plant; on oil rigs and refineries; in hospitals and laboratories. In fact, wherever there are machines that depend on motion or fluid control, you will find innovative and reliable Parker components and systems.

The Parker Convum range of vacuum products is one of the most comprehensive in the market. The product range includes vacuum cups in wide variety of styles and materials, ejectors and generators from mini units to fully integrated units along with sensors and a wide selection of accessories.

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Vacuum Products

Wide choice of styles and materials

Vacuum Pads



- Flat & Bellows Pads
- Male & Female Connections
- Different Materials
- Range of Diameters

High performance accessories

Vacuum Accessories



- High performance silencers and vacuum filters
- Electronic cables with M8 connector 4 pin

Vacuum generators to suit most applications

Vacuum Ejectors



- Basic Ejectors
- Basic Ejectors with electro-mechanical Switch
- In-line Ejectors
- Integrated Ejectors small & large

Digital or analog output

Vacuum Sensors



- -1 to +10 bar
- Analog and/or Digital Outputs
- With display