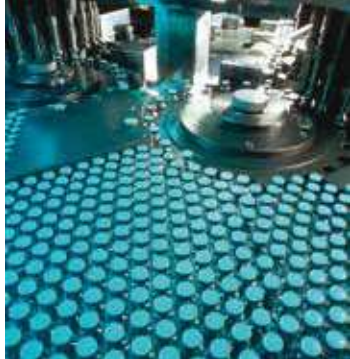




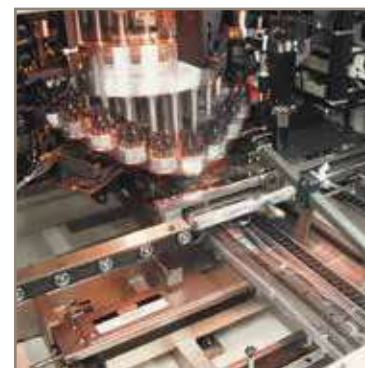
aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Parker Pneumatic

A complete range of system components

Catalogue PDE2600PNUK February 2016



ENGINEERING YOUR SUCCESS.



Valves

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:

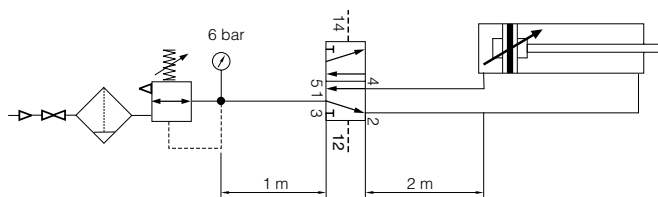
Supply pressure: min 7,0 bar

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 Lite

*rust and corrosion resistant,
high reliability with flexible installation*



Rust and corrosion resistant designs.

Viking Lite valves are made of anodized aluminium, for good corrosion resistance. The smooth design, with no dirt-collecting pockets, makes the valve suitable for most environments.

High reliability

Viking Lite valves easily comply with the requirements for the component reliability in accordance with EU Machinery Directive standards EN292-2 and EN983. The valves are designed for use with or without supplementary lubrication.

Compact installation dimensions - flexible installation

Compact dimensions direct body porting and integral mounting holes are all features of the Viking Lite range. In addition to single valve installation, the Viking Lite valves may be installed on manifolds so that the valves have a common supply and manifolded exhausts.

The Viking Lite 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.

Designed to operate with pressures up to 10 bar in temperatures -10°C to +50°C.



- 3 sizes: G1/8, G1/4 and G3/8.
- Large flow capacity with short change-over times.
- Low change over pressure.
- Dynamic bi-directional spool seals.
- Do not require lubrication in operation but can also be installed in systems that are lubricated.

Operating information

	P2L-AZ	P2L-BZ	P2L-CZ
Port size:	G1/8	G1/4	G3/8
Working pressure:	10 bar	10 bar	10 bar
Working temperature	-10 °C to +50 °C		
Flow (Qmax);	15,6 l/s	37,8 l/s	68,3 l/s

For more information see www.parker.com/euro_pneumatic

Solenoid and pneumatically operated directional control valves

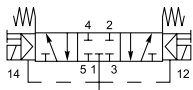
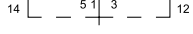
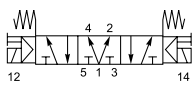
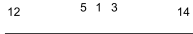
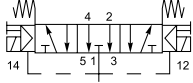
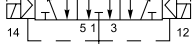
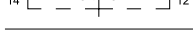
3/2 valves, internal air, standard temperature

Symbol	Size	Actuation	Return	Min Operating Pressure (bar)	Changeover time (ms) at 6 bar @20°C actua./return	Weight Kg	Order code Without coil	Order code With 24V DC (22mm coil)
	G1/8	Air signal	Air signal	1.5	5/5	0.18	P2LAZ311PP	
	G1/4			1.5	6/6	0.18	P2LBZ312PP	
	G3/8			1.5	8/8	0.36	P2LCZ313PP	
	G1/8	Air signal	Spring	3.0	8/15	0.16	P2LAZ311PS	
	G1/4			3.0	10/20	0.16	P2LBZ312PS	
	G3/8			3.0	10/30	0.35	P2LCZ313PS	
	G1/8	Electric signal	Electric signal	1.5	10/10	0.18	P2LAZ311EENDCN	P2LAZ311EENDCB49
	G1/4			1.5	12/12	0.18	P2LBZ312EENDCN	P2LBZ312EENDCB49
	G3/8			1.5	17/17	0.36	P2LCZ313EENDCN	P2LCZ313EENDCB49
	G1/8	Electric signal	Spring	3.0	15/35	0.16	P2LAZ311ESNDCN	P2LAZ311ESNDCB49
	G1/4			3.0	18/45	0.16	P2LBZ312ESNDCN	P2LBZ312ESNDCB49
	G3/8			3.0	27/75	0.35	P2LCZ313ESNDCN	P2LCZ313ESNDCB49

5/2 valves, internal air, standard temperature

Symbol	Size	Actuation	Return	Min Operating Pressure (bar)	Changeover time (ms) at 6 bar @20°C actua./return	Weight Kg	Order code Without coil	Order code With 24V DC (22mm coil)
	G1/8	Air signal	Air signal	1.5	5/5	0.18	P2LAZ511PP	
	G1/4			1.5	6/6	0.18	P2LBZ512PP	
	G3/8			1.5	8/8	0.36	P2LCZ513PP	
	G1/8	Air signal	Spring	3.0	8/15	0.16	P2LAZ511PS	
	G1/4			3.0	10/20	0.16	P2LBZ512PS	
	G3/8			3.0	10/30	0.35	P2LCZ513PS	
	G1/8	Electric signal	Electric signal	1.5	10/10	0.19	P2LAZ511EENDCN	P2LAZ511EENDCB49
	G1/4			1.5	12/12	0.21	P2LBZ512EENDCN	P2LBZ512EENDCB49
	G3/8			1.5	17/17	0.44	P2LCZ513EENDCN	P2LCZ513EENDCB49
	G1/8	Electric signal	Spring	3.0	15/35	0.17	P2LAZ511ESNDCN	P2LAZ511ESNDCB49
	G1/4			3.0	18/45	0.20	P2LBZ512ESNDCN	P2LBZ512ESNDCB49
	G3/8			3.0	27/75	0.43	P2LCZ513ESNDCN	P2LCZ513ESNDCB49

5/3 valves, internal air, standard temperature

Symbol	Size	Actuation	Min Operating Pressure (bar)	Changeover time (ms) at 6 bar @20°C actua./return	Weight Kg	Order code Without coil	Order code With 24V DC (22mm coil)
	G1/8	Self centring	3,0	18/40	0,26	P2LAZ611EENDCN	P2LAZ611EENDCB49
	G1/4	Electric/Electric Closed	3,0	22/55	0,28	P2LBZ612EENDCN	P2LBZ612EENDCB49
	G3/8	Centre	3,0	30/90	0,60	P2LCZ613EENDCN	P2LCZ613EENDCB49
	G1/8	Self centring	3,0	18/40	0,26	P2LAZ711EENDCN	P2LAZ711EENDCB49
	G1/4	Electric/Electric Presurised	3,0	22/45	0,28	P2LBZ712EENDCN	P2LBZ712EENDCB49
	G3/8	Centre	3,0	30/90	0,60	P2LCZ713EENDCN	P2LCZ713EENDCB49
	G1/8	Self centring	3,0	18/40	0,26	P2LAZ811EENDCN	P2LAZ811EENDCB49
	G1/4	Electric/Electric Vented	3,0	22/45	0,28	P2LBZ812EENDCN	P2LBZ812EENDCB49
	G3/8	Centre	3,0	30/90	0,60	P2LCZ813EENDCN	P2LCZ813EENDCB49

Note: All valves may be ordered with non locking manual override, replacing

...CN with ...BN

...CB49 with ...BB49

Viking Lite

Available in boxed quantities of 25



5/2 valves, internal air, standard temperature

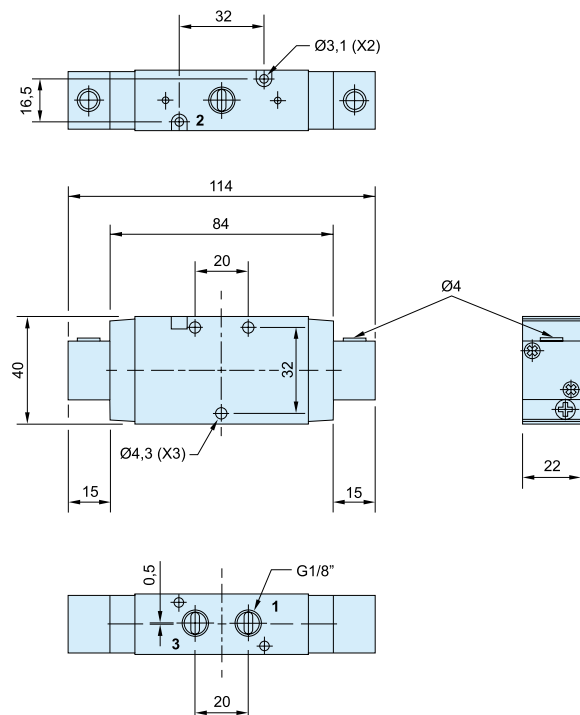
Size	Actuation	Return	Order code Without solenoid	Order code With 24V DC (22mm coil)
G1/8	Electric	Electric	P2LAZ511EENDCNQ25	P2LAZ511EENDCB49Q25
G1/4	signal	signal	P2LBZ512EENDCNQ25	P2LBZ512EENDCB49Q25
G1/8	Electric	Spring	P2LAZ511ESNDCNQ25	P2LAZ511ESNDCB49Q25
G1/4	signal		P2LBZ512ESNDCNQ25	P2LBZ512ESNDCB49Q25

The Viking Lite valve is available in boxed quantities of 25 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.

Dimensions

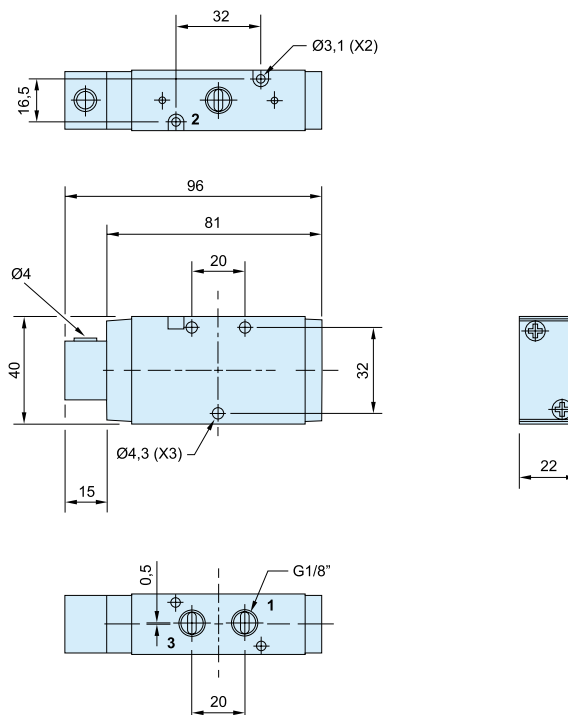
P2LAZ 3/2

Air / Air



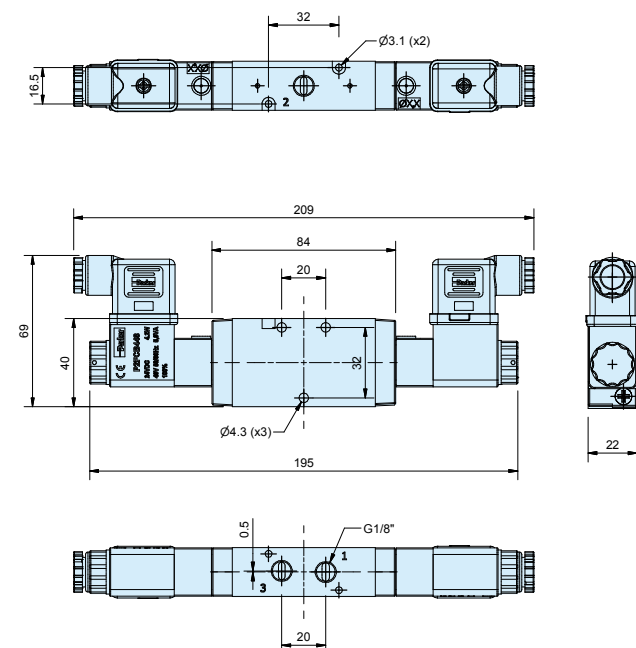
P2LAZ 3/2

Air / Spring



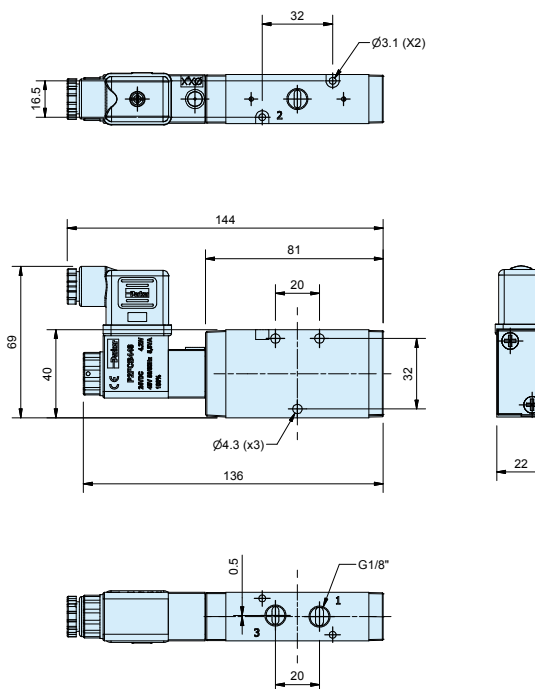
P2LAZ 3/2

Solenoid / Solenoid



P2LAZ 3/2

Solenoid / Spring

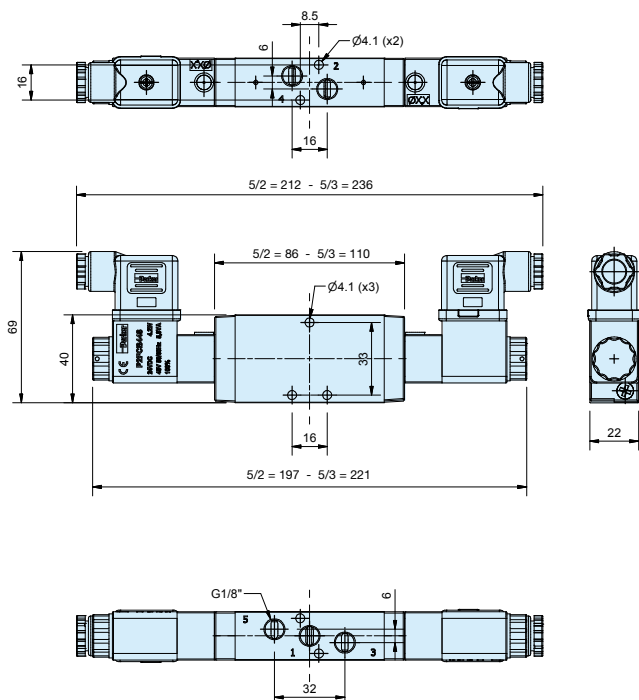


Solenoid valves

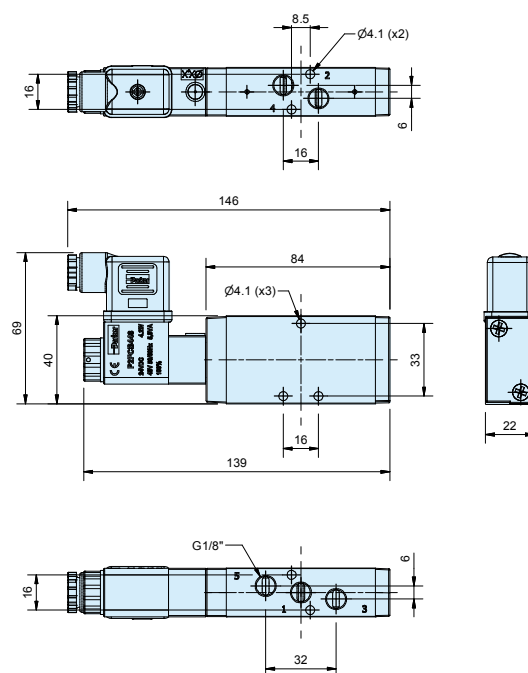
Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E (NDCN only) in the valve order code.

Dimensions

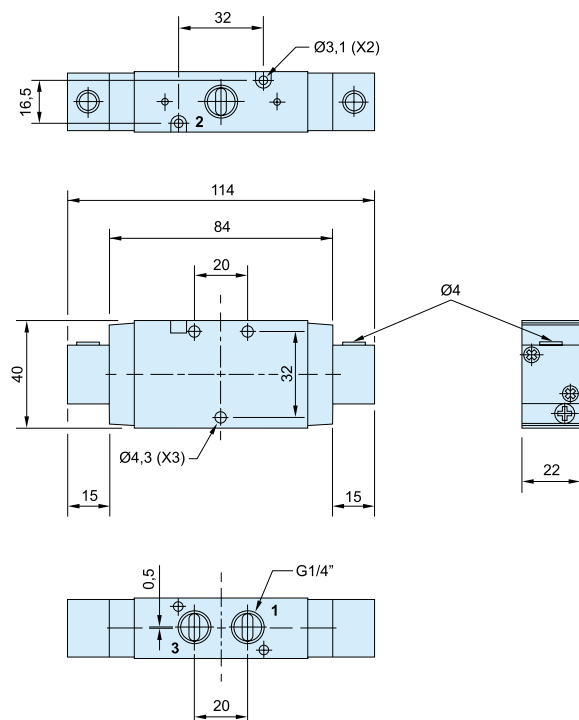
P2LAZ 5/2 and 5/3 Solenoid / Solenoid



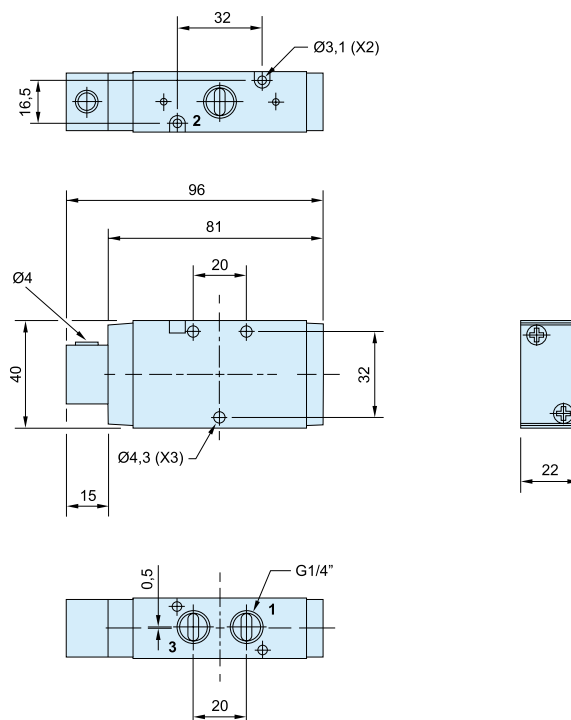
P2LAZ 5/2 Solenoid / Spring



P2LBZ 3/2 Air / Air



P2LBZ 3/2 Air / Spring

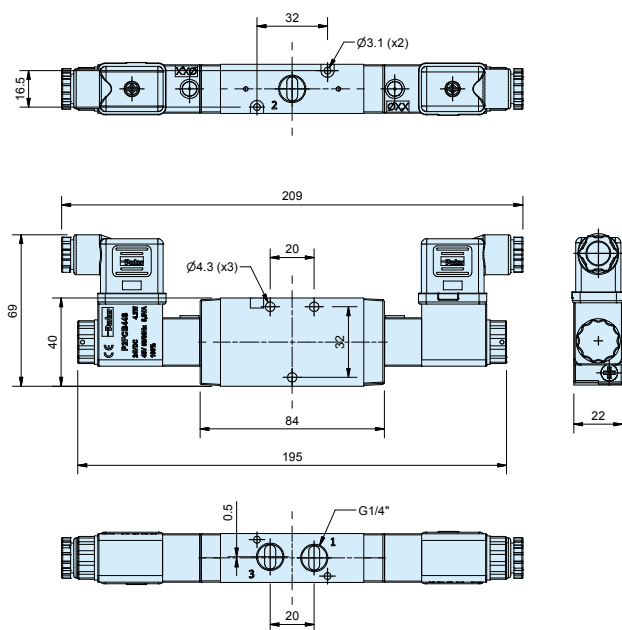


Solenoid valves

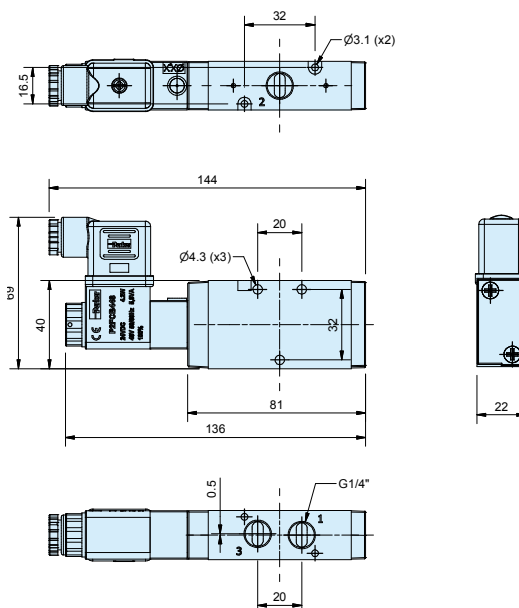
Solenoid valves and cable plugs must be ordered separately. One pilot valve is required for each E (NDCN only) in the valve order code.

Dimensions

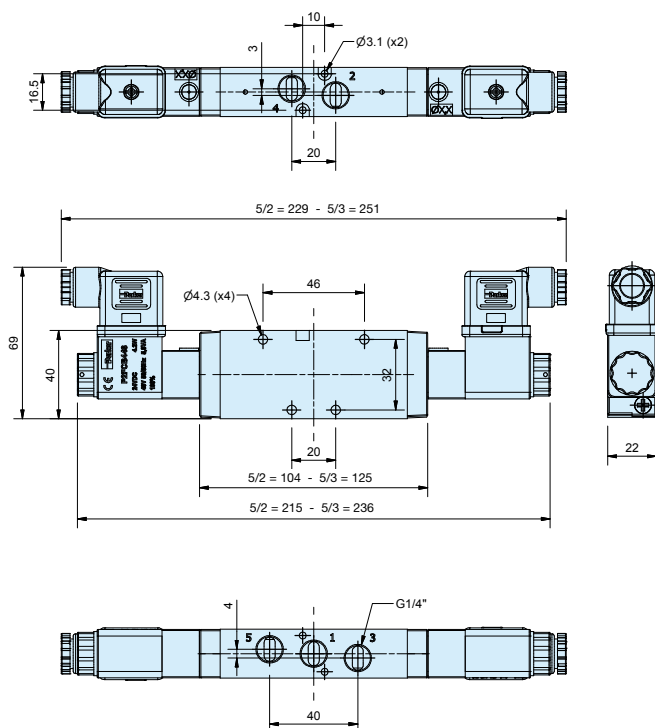
P2LBZ 3/2 Solenoid / Solenoid



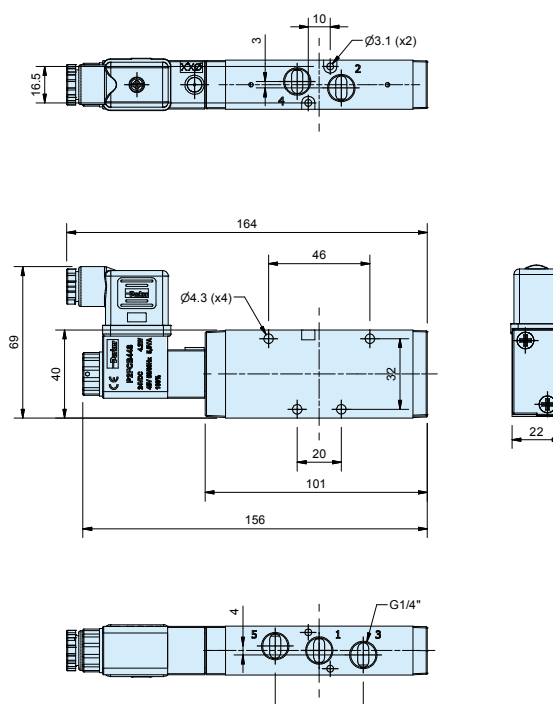
P2LBZ 3/2 Solenoid / Spring



P2LBZ 5/2 and 5/3 Solenoid / Solenoid



P2LBZ 5/2 Solenoid / Spring

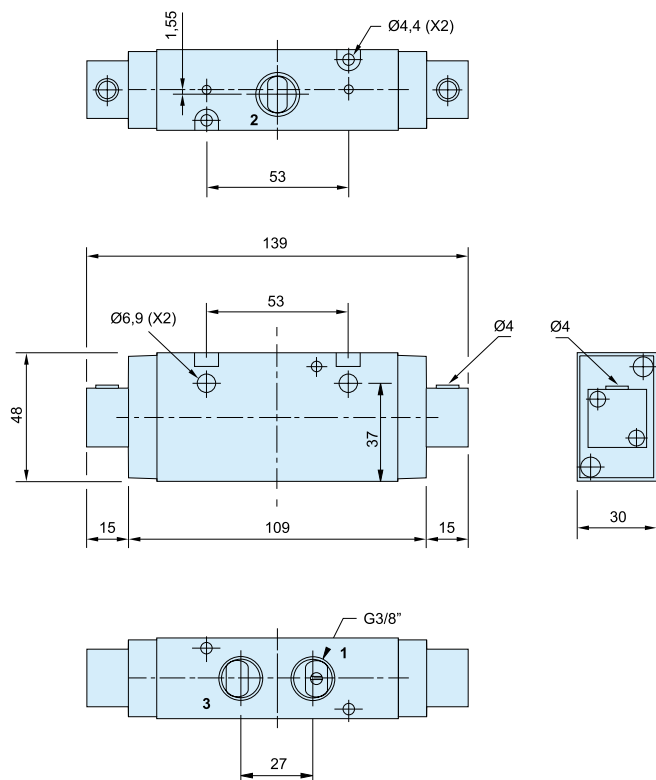


Solenoid valves

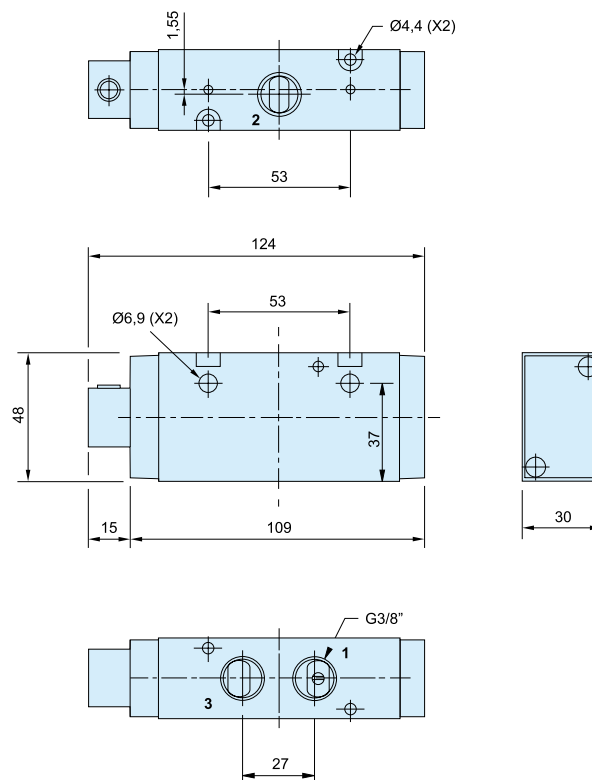
Solenoid valves and cable plugs must be ordered separately. One pilot valve is required for each E (NDCN only) in the valve order code.

Dimensions

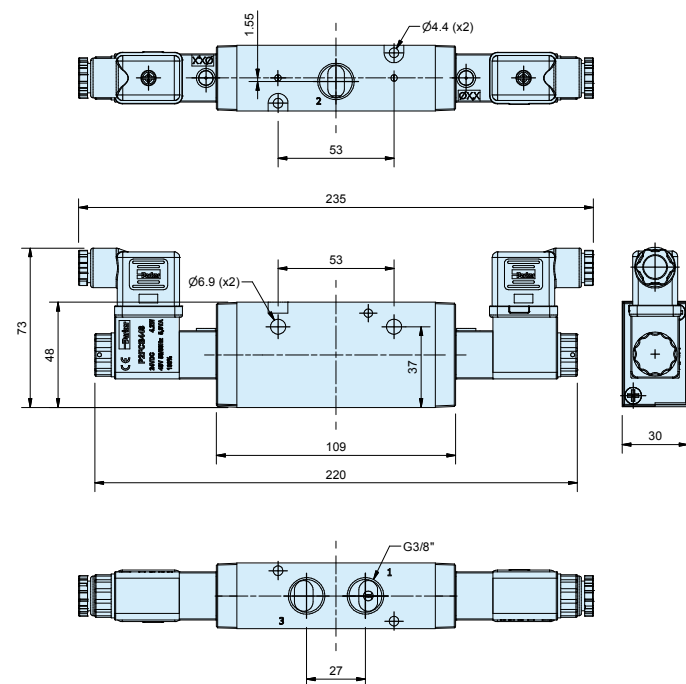
P2LCZ 3/2 Air / Air



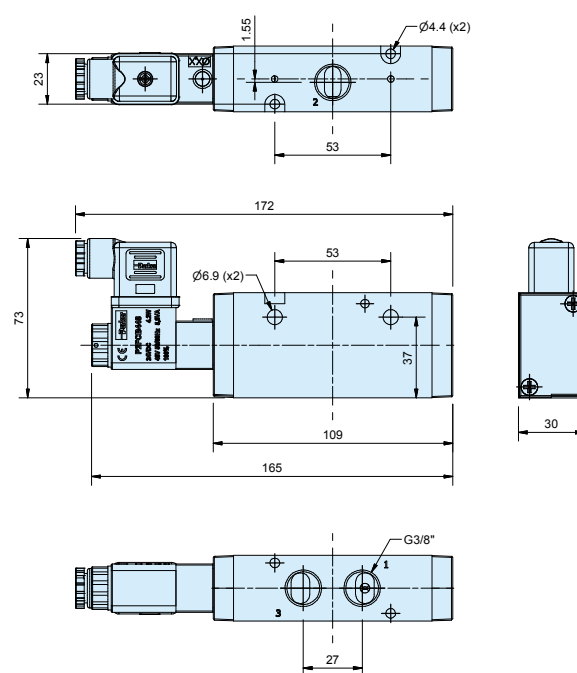
P2LCZ 3/2 Air / Spring



P2LCZ 3/2 Solenoid / Solenoid



P2LCZ 3/2 Solenoid / Spring

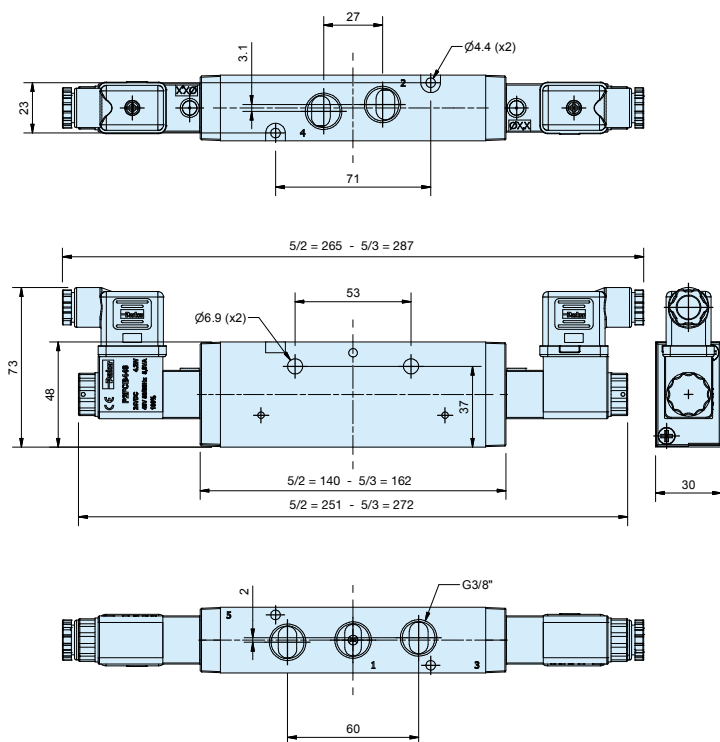


Solenoid valves

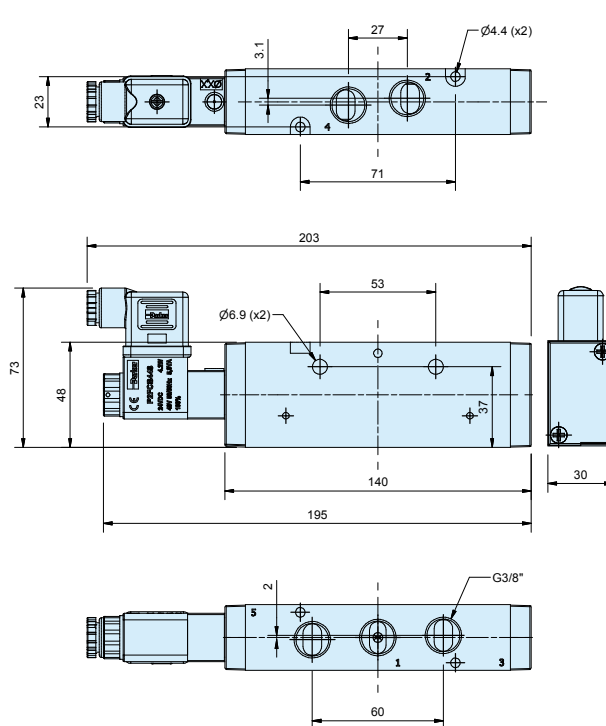
Solenoid valves and cable plugs must be ordered separately. One pilot valve is required for each E (NDCN only) in the valve order code.

Dimensions

P2LCZ 5/2 and 5/3 Solenoid / Solenoid



P2LCZ 5/2 Solenoid / Spring



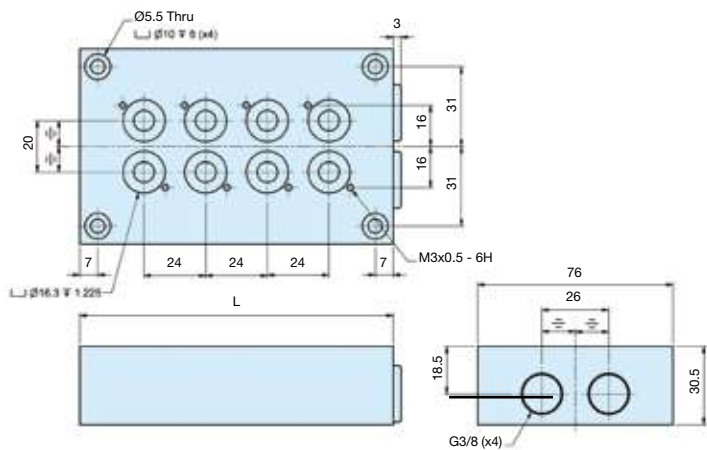
Solenoid valves

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

Accessories	Type P2LA / P2LB 3/2 valves	Weight kg	Order code
	Manifold bar, P2LB incl. fasteners and O-ring. G3/8 For 2 valves For 4 valves For 6 valves For 8 valves For 10 valves	0,38 0,64 0,89 1,15 1,40	91213202SXZ 91213204SXZ 91213206SXZ 91213208SXZ 91213210SXZ
		0,10	912132BPSXZ

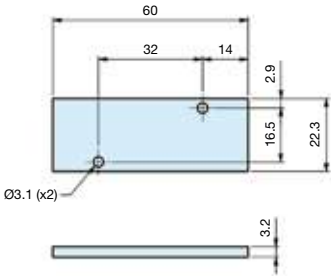
Dimensions

Manifold bar



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

Blanking plate
for manifold bar,
P2LB

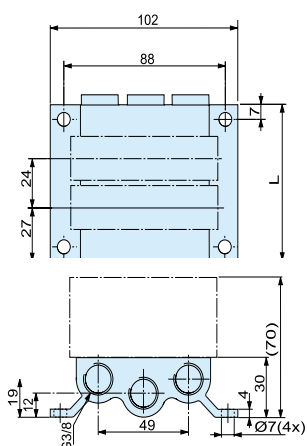


Accessories	Type P2LA 5/2 valves	Weight kg	Order code
	Manifold bar, P2LA including seals, mounting screws. G3/8		
	For 4 valves	0,48	9121658075
	For 6 valves	0,63	9121658076
	For 8 valves	0,80	9121658077
	For 10 valves	0,98	9121658078
	For 12 valves	1,10	9121658079
	For 14 valves	1,23	9121658099
	Blanking 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	9121658070
	For 4 valves	0,20	9121658071
	For 6 valves	0,26	9121658072
	For 8 valves	0,33	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

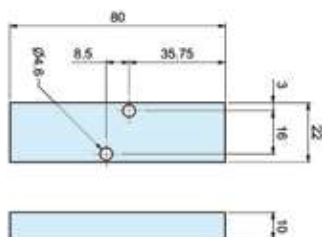
Dimensions

Manifold bar, P2LA

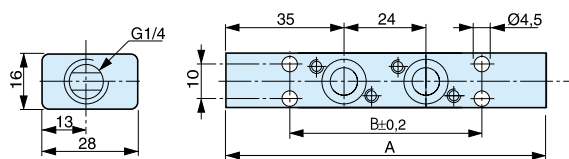
No. of valves	L mm
4	126
6	174
8	222
10	270
12	318
14	366



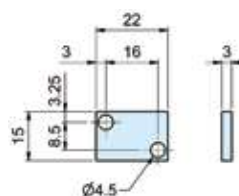
Blanking plate for manifold bar, P2LA



Pressure bar, P2LA



Blanking plate for pressure bar, P2LA

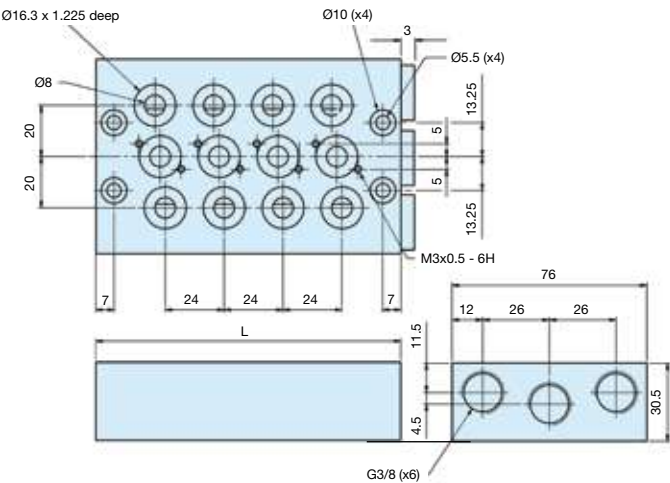


No. of valves	A mm	B mm
2	94	56
4	142	104
6	190	152
8	238	200

Accessories	Type P2LB 5/2 valves	Weight kg	Order code
	Manifold bar, P2LB incl. fasteners and O-ring. G3/8		
	For 2 valves	0,69	9121594805X
	For 4 valves	1,13	9121594806X
	For 6 valves	1,56	9121594807X
	For 8 valves	2,00	9121594808X
	For 10 valves	2,45	9121594812X
	Blanking plate, P2LB for Manifold bar	0,10	9121594809X
	Pressure bar, P2LB for common air supply incl. O-rings and mounting screws. G3/8		
	For 2 valves	0,38	9127113301X
	For 4 valves	0,53	9127113302X
	For 6 valves	0,68	9127113303X
	For 8 valves	0,83	9127113304X
	For 10 valves	0,99	9127113305X
	Blanking plate P2LB for Pressure bar. G1/4	0,02	9127113306X

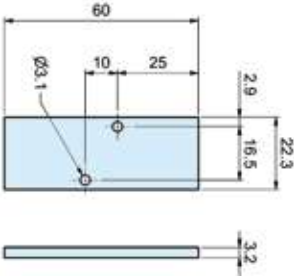
Dimensions

Manifold bar, P2LB

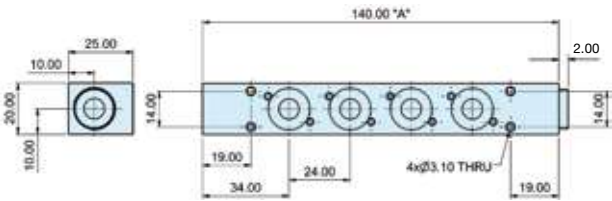


No. of valves	L mm
2	74
4	122
6	170
8	218
10	266

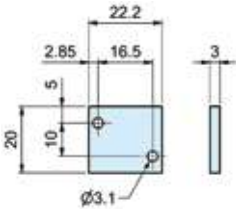
Blanking plate
for manifold bar,
P2LB



Pressure bar, P2LB



Blanking plate for
pressure bar, P2LB



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

22mm solenoid operator part numbers and spares

Solenoid coils for 22mm solenoid operators

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

Spare Solenoid Nuts

Valves requiring captured exhaust should be fitted with plastic knurled nut

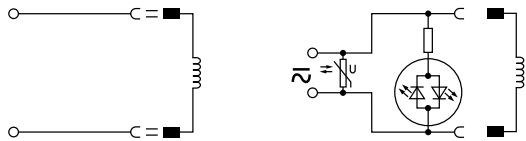
Order code
P2FNP

Valves with vented exhaust are fitted with diffuser plastic nut

Order Code
P2FND

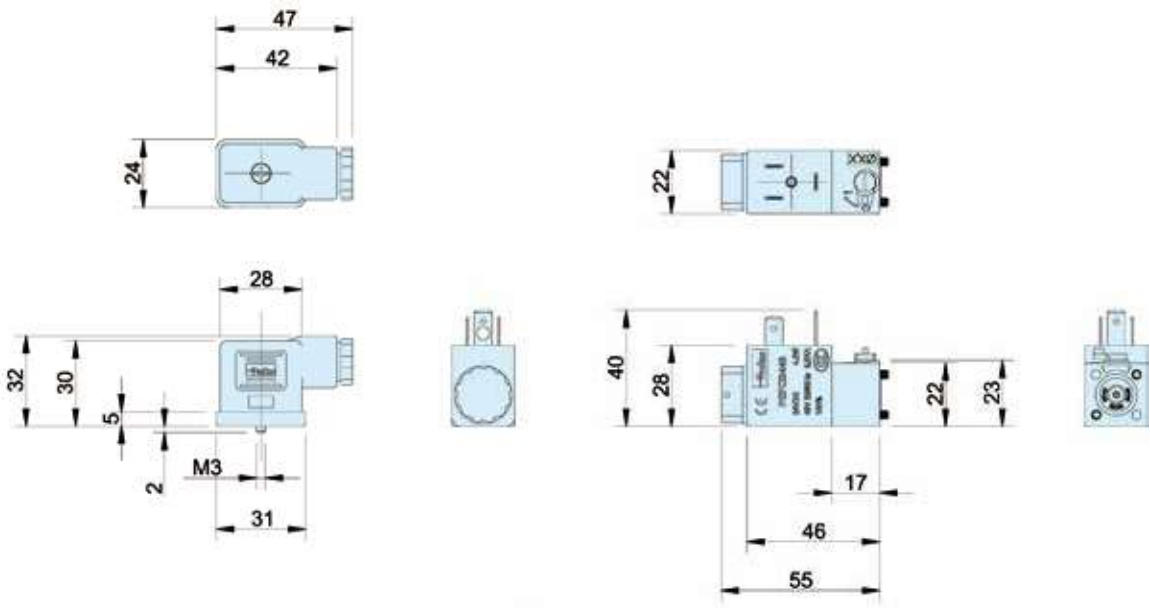
Solenoid Connectors / Cable Plugs EN175301-803

	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)





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.

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- 4 sizes: G1/8, G1/4, G3/8 and G1/2.
- Wide operating temperature range
- Compact design with good corrosion resistance.
- Wide range of 3/2, 5/2 and 5/3 versions.
- High and low temperature versions available for transport applications.
- Lever operated version.
- Twist 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	P2L-BX	P2L-CX	P2L-DX
	19,0 l/s	38,0 l/s	72,0 l/s	78,0 l/s

For more information see www.parker.com/euro_pneumatic



**For ATEX specific products
contact Sales Office**

Pneumatically actuated 3/2, 5/2 and 5/3 valves

Symbol	Size	Actuator	Return	Order code
3/2 valves, temperature -40°C to +60°C				
	G1/8	Air pilot	Air pilot	P2LAX311PP
	G1/4			P2LBX312PP
	G3/8			P2LCX313PP
	G1/2			P2LDX314PP
	G1/8	Air pilot	Spring	P2LAX311PS
	G1/4			P2LBX312PS
	G3/8			P2LCX313PS
	G1/2			P2LDX314PS
5/2 valves, temperature -40°C to +60°C				
	G1/8	Air pilot	Air pilot	P2LAX511PP
	G1/4			P2LBX512PP
	G3/8			P2LCX513PP
	G1/2			P2LDX514PP
	G1/8	Air pilot	Spring	P2LAX511PS
	G1/4			P2LBX512PS
	G3/8			P2LCX513PS
	G1/2			P2LDX514PS

Symbol	Size	Actuator	Return	Order code
5/3 valves, temperature -40°C to +60°C				
	G1/8	Air pilot	Air pilot	P2LAX611PP
	G1/4	Closed	Self	P2LBX612PP
	G3/8	centre	centring	P2LCX613PP
	G1/2			P2LDX614PP
	G1/8	Air pilot	Air pilot	P2LAX811PP
	G1/4	Vented	Self	P2LBX812PP
	G3/8	centre	centring	P2LCX813PP
	G1/2			P2LDX814PP
	G1/8	Air pilot	Air pilot	P2LAX711PP
	G1/4	Pressure	Self	P2LBX712PP
	G3/8	centre	centring	P2LCX713PP
	G1/2			P2LDX714PP

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

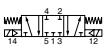
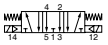
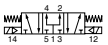
Symbol	Size	Actuator	Return	Order code 15mm solenoid with 24 VDC sol	Order code without 15mm solenoid
3/2 valves, internal air, standard temperature					
	G1/8	Solenoid	Solenoid	P2LAX311EENXB549	P2LAX311EENXXX
	G1/4			P2LBX312EENXB549	P2LBX312EENXXX
	G3/8			P2LCX313EENXB549	P2LCX313EENXXX
	G1/2			P2LDX314EENXB549	P2LDX314EENXXX
	G1/8	Solenoid	Spring	P2LAX311ESNXB549	P2LAX311ESNXXX
	G1/4			P2LBX312ESNXB549	P2LBX312ESNXXX
	G3/8			P2LCX313ESNXB549	P2LCX313ESNXXX
	G1/2			P2LDX314ESNXB549	P2LDX314ESNXXX
5/2 valves, internal air, standard temperature					
	G1/8	Solenoid	Solenoid	P2LAX511EENXB549	P2LAX511EENXXX
	G1/4			P2LBX512EENXB549	P2LBX512EENXXX
	G3/8			P2LCX513EENXB549	P2LCX513EENXXX
	G1/2			P2LDX514EENXB549	P2LDX514EENXXX
	G1/8	Solenoid	Spring	P2LAX511ESNXB549	P2LAX511ESNXXX
	G1/4			P2LBX512ESNXB549	P2LBX512ESNXXX
	G3/8			P2LCX513ESNXB549	P2LCX513ESNXXX
	G1/2			P2LDX514ESNXB549	P2LDX514ESNXXX
5/3 valves, internal air, standard temperature					
	G1/8	Solenoid	Solenoid	P2LAX611EENXB549	P2LAX611EENXXX
	G1/4	Closed	Self	P2LBX612EENXB549	P2LBX612EENXXX
	G3/8	centre	centring	P2LCX613EENXB549	P2LCX613EENXXX
	G1/2			P2LDX614EENXB549	P2LDX614EENXXX
	G1/8	Solenoid	Solenoid	P2LAX811EENXB549	P2LAX811EENXXX
	G1/4	Vented	Self	P2LBX812EENXB549	P2LBX812EENXXX
	G3/8	centre	centring	P2LCX813EENXB549	P2LCX813EENXXX
	G1/2			P2LDX814EENXB549	P2LDX814EENXXX
	G1/8	Solenoid	Solenoid	P2LAX711EENXB549	P2LAX711EENXXX
	G1/4	Pressure	Self	P2LBX712EENXB549	P2LBX712EENXXX
	G3/8	centre	centring	P2LCX713EENXB549	P2LCX713EENXXX
	G1/2			P2LDX714EENXB549	P2LDX714EENXXX

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

Symbol	Size	Actuator	Return	Order code 22mm solenoid 24 VDC	Order code Without solenoid coil
3/2 valves, internal air, standard temperature					
	G1/8	Solenoid	Solenoid	P2LAX311EENDDB49	P2LAX311EENDDN
	G1/4			P2LBX312EENDDB49	P2LBX312EENDDN
	G3/8			P2LCX313EENDDB49	P2LCX313EENDDN
	G1/2			P2LDX314EENDDB49	P2LDX314EENDDN
	G1/8	Solenoid	Spring	P2LAX311ESNDDDB49	P2LAX311ESNDDDN
	G1/4			P2LBX312ESNDDDB49	P2LBX312ESNDDDN
	G3/8			P2LCX313ESNDDDB49	P2LCX313ESNDDDN
	G1/2			P2LDX314ESNDDDB49	P2LDX314ESNDDDN
5/2 valves, internal air, standard temperature					
	G1/8	Solenoid	Solenoid	P2LAX511EENDDB49	P2LAX511EENDDN
	G1/4			P2LBX512EENDDB49	P2LBX512EENDDN
	G3/8			P2LCX513EENDDB49	P2LCX513EENDDN
	G1/2			P2LDX514EENDDB49	P2LDX514EENDDN
	G1/8	Solenoid	Spring	P2LAX511ESNDDDB49	P2LAX511ESNDDDN
	G1/4			P2LBX512ESNDDDB49	P2LBX512ESNDDDN
	G3/8			P2LCX513ESNDDDB49	P2LCX513ESNDDDN
	G1/2			P2LDX514ESNDDDB49	P2LDX514ESNDDDN
5/3 valves, internal air, standard temperature					
	G1/8	Solenoid	Solenoid	P2LAX611EENDDB49	P2LAX611EENDDN
	G1/4	Closed	Self	P2LBX612EENDDB49	P2LBX612EENDDN
	G3/8	centre	centring	P2LCX613EENDDB49	P2LCX613EENDDN
	G1/2			P2LDX614EENDDB49	P2LDX614EENDDN
	G1/8	Solenoid	Solenoid	P2LAX811EENDDB49	P2LAX811EENDDN
	G1/4	Vented	Self	P2LBX812EENDDB49	P2LBX812EENDDN
	G3/8	centre	centring	P2LCX813EENDDB49	P2LCX813EENDDN
	G1/2			P2LDX814EENDDB49	P2LDX814EENDDN
	G1/8	Solenoid	Solenoid	P2LAX711EENDDB49	P2LAX711EENDDN
	G1/4	Pressure	Self	P2LBX712EENDDB49	P2LBX712EENDDN
	G3/8	centre	centring	P2LCX713EENDDB49	P2LCX713EENDDN
	G1/2			P2LDX714EENDDB49	P2LDX714EENDDN

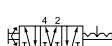
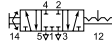
Electrically actuated 3/2, 5/2 and 5/3 - Xtreme duty 16 bar - 40°C to +60°C.

P2LAX/P2LBX 16 bar and P2LCX/P2LDX 12 bar

Symbol	Size	Actuator	Return	Order code 22mm solenoid 24 VDC	Order code Without solenoid coil
3/2 valves, internal air, low temperature					
	G1/8	Solenoid	Solenoid	P2LAX311EEHDDDB49	P2LAX311EEHDDN
	G1/4		Low temp.	P2LBX312EEHDDDB49	P2LBX312EEHDDN
	G3/8			P2LCX313EEHDDDB49	P2LCX313EEHDDN
	G1/2			P2LDX314EEHDDDB49	P2LDX314EEHDDN
	G1/8	Solenoid	Spring	P2LAX311ESHDDDB49	P2LAX311ESHDDN
	G1/4		Low temp.	P2LBX312ESHDDDB49	P2LBX312ESHDDN
	G3/8			P2LCX313ESHDDDB49	P2LCX313ESHDDN
	G1/2			P2LDX314ESHDDDB49	P2LDX314ESHDDN
5/2 valves, internal air, low temperature					
	G1/8	Solenoid	Solenoid	P2LAX511EEHDDDB49	P2LAX511EEHDDN
	G1/4		Low temp.	P2LBX512EEHDDDB49	P2LBX512EEHDDN
	G3/8			P2LCX513EEHDDDB49	P2LCX513EEHDDN
	G1/2			P2LDX514EEHDDDB49	P2LDX514EEHDDN
	G1/8	Solenoid	Spring	P2LAX511ESHDDDB49	P2LAX511ESHDDN
	G1/4		Low temp.	P2LBX512ESHDDDB49	P2LBX512ESHDDN
	G3/8			P2LCX513ESHDDDB49	P2LCX513ESHDDN
	G1/2			P2LDX514ESHDDDB49	P2LDX514ESHDDN
5/3 valves, internal air, low temperature					
	G1/8	Solenoid	Solenoid	P2LAX611EEHDDDB49	P2LAX611EEHDDN
	G1/4	Closed	Self	P2LBX612EEHDDDB49	P2LBX612EEHDDN
	G3/8	centre	centring	P2LCX613EEHDDDB49	P2LCX613EEHDDN
	G1/2			P2LDX614EEHDDDB49	P2LDX614EEHDDN
	G1/8	Solenoid	Solenoid	P2LAX811EEHDDDB49	P2LAX811EEHDDN
	G1/4	Vented	Self	P2LBX812EEHDDDB49	P2LBX812EEHDDN
	G3/8	centre	centring	P2LCX813EEHDDDB49	P2LCX813EEHDDN
	G1/2			P2LDX814EEHDDDB49	P2LDX814EEHDDN
	G1/8	Solenoid	Solenoid	P2LAX711EEHDDDB49	P2LAX711EEHDDN
	G1/4	Pressure	Self	P2LBX712EEHDDDB49	P2LBX712EEHDDN
	G3/8	centre	centring	P2LCX713EEHDDDB49	P2LCX713EEHDDN
	G1/2			P2LDX714EEHDDDB49	P2LDX714EEHDDN

Pneumatic twist operated valves - Xtreme operating pressure / temperature

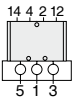
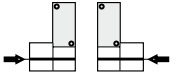
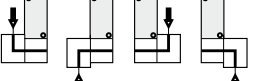
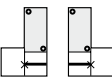
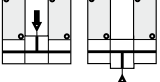
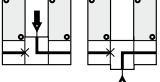
Max operating pressure 16 bar (A & B) 12 bar (C & D). temp range -40°C to +60°C

Symbol	Size	Actuation	Return	Changeover Angle	Order code
3/2 valves, temperature -40°C to +60°C					
	G1/4	Twist	Twist	45	P2LBX312JJ
5/2 valves, temperature -40°C to +60°C					
	G1/4	Twist	Twist	45	P2LBX512JJ
5/3 valves, temperature -40°C to +60°C					
	G1/4	Twist	Twist	54	P2LBX71277
	G1/4	Twist	Twist	54	P2LBX61277
	G1/4	Twist	Twist	54	P2LBX81277

Lever operated directional control valves

Max operating pressure 16 bar (A & B) 12 bar (C & D). temp range -40°C to +60°C

Symbol	Size	Actuation	Return	Changeover angle	Changeover Force	Type	Weight Kg	Order code
3/2 valves, standard temperature / Low temperature, lever 90° to ports								
	G1/8	Lever	Lever	20°	9 N	Std.	0,33	P2LAX311VV
	G1/4	Lever	Lever	20°	9 N	Std.	0,33	P2LBX312VV
	G3/8	Lever	Lever	32°	25 N	Std.	0,40	P2LCX313VV
	G1/2	Lever	Lever	32°	25 N	Std.	0,60	P2LDX314VV
	G1/8	Lever	Spring	20°	10N	Std.	0,33	P2LAX311VS
	G1/4	Lever	Spring	20°	10N	Std.	0,33	P2LBX312VS
	G3/8	Lever	Spring	32°	15 N	Std.	0,40	P2LCX313VS
	G1/2	Lever	Spring	32°	15 N	Std.	0,60	P2LDX314VS
5/2 valves, standard temperature / Low temperature, lever 90° to ports								
	G1/8	Lever	Lever	28°	9 N	Std.	0,18	P2LAX511VV
	G1/4	Lever	Lever	20°	9 N	Std.	0,33	P2LBX512VV
	G3/8	Lever	Lever	32°	25 N	Std.	0,40	P2LCX513VV
	G1/2	Lever	Lever	32°	25 N	Std.	0,60	P2LDX514VV
	G1/8	Lever	Spring	28°	10N	Std.	0,18	P2LAX511VS
	G1/4	Lever	Spring	20°	10N	Std.	0,33	P2LBX512VS
	G3/8	Lever	Spring	32°	15 N	Std.	0,40	P2LCX513VS
	G1/2	Lever	Spring	32°	15 N	Std.	0,60	P2LDX514VS
5/3 valves, low temperature, lever 90° to ports								
	G1/8	Lever	Lever	±14°	15 N	Std.	0,18	P2LAX61122
	G1/4	Closed centre position held in three positions		±12°	15 N	Std.	0,33	P2LBX61222
	G3/8			±16°	17 N	Std.	0,71	P2LCX61322
	G1/2			±16°	17 N	Std.	0,73	P2LDX61422
	G1/8	Lever	Lever	±14°	15 N	Std.	0,18	P2LAX81122
	G1/4	Exhausted centre position held in three positions		±12°	15 N	Std.	0,33	P2LBX81222
	G3/8			±16°	17 N	Std.	0,71	P2LCX81322
	G1/2			±16°	17 N	Std.	0,73	P2LDX81422
	G1/8	Lever	Lever	±14°	15 N	Std.	0,18	P2LAX71122
	G1/4	Pressure applied centre position held in three positions		±12°	15 N	Std.	0,33	P2LBX71222
	G3/8			±16°	17 N	Std.	0,71	P2LCX71322
	G1/2			±16°	17 N	Std.	0,73	P2LDX71422
	G1/8	Lever	Lever	±14°	16 N	Std.	0,18	P2LAX61111
	G1/4	Closed centre position Self centring		±12°	16 N	Std.	0,33	P2LBX61211
	G3/8			±16°	30 N	Std.	0,71	P2LCX61311
	G1/2			±16°	30 N	Std.	0,73	P2LDX61411
	G1/8	Lever	Lever	±14°	16 N	Std.	0,18	P2LAX81111
	G1/4	Exhausted centre position Self centring		±12°	16 N	Std.	0,33	P2LBX81211
	G3/8			±16°	30 N	Std.	0,71	P2LCX81311
	G1/2			±16°	30 N	Std.	0,73	P2LDX81411
	G1/8	Lever	Lever	±14°	16 N	Std.	0,18	P2LAX71111
	G1/4	Pressure applied centre position Self centring		±12°	16 N	Std.	0,33	P2LBX71211
	G3/8			±16°	30 N	Std.	0,71	P2LCX71311
	G1/2			±16°	30 N	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

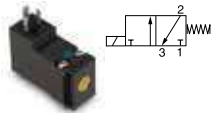
Note.

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.

Solenoid Operators - Electrical connection EN175301-803 C/ISO15217 (Ex DIN 43650C)

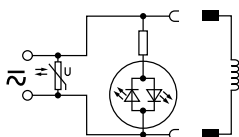
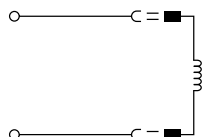
Solenoids 15 mm NC, standard

	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

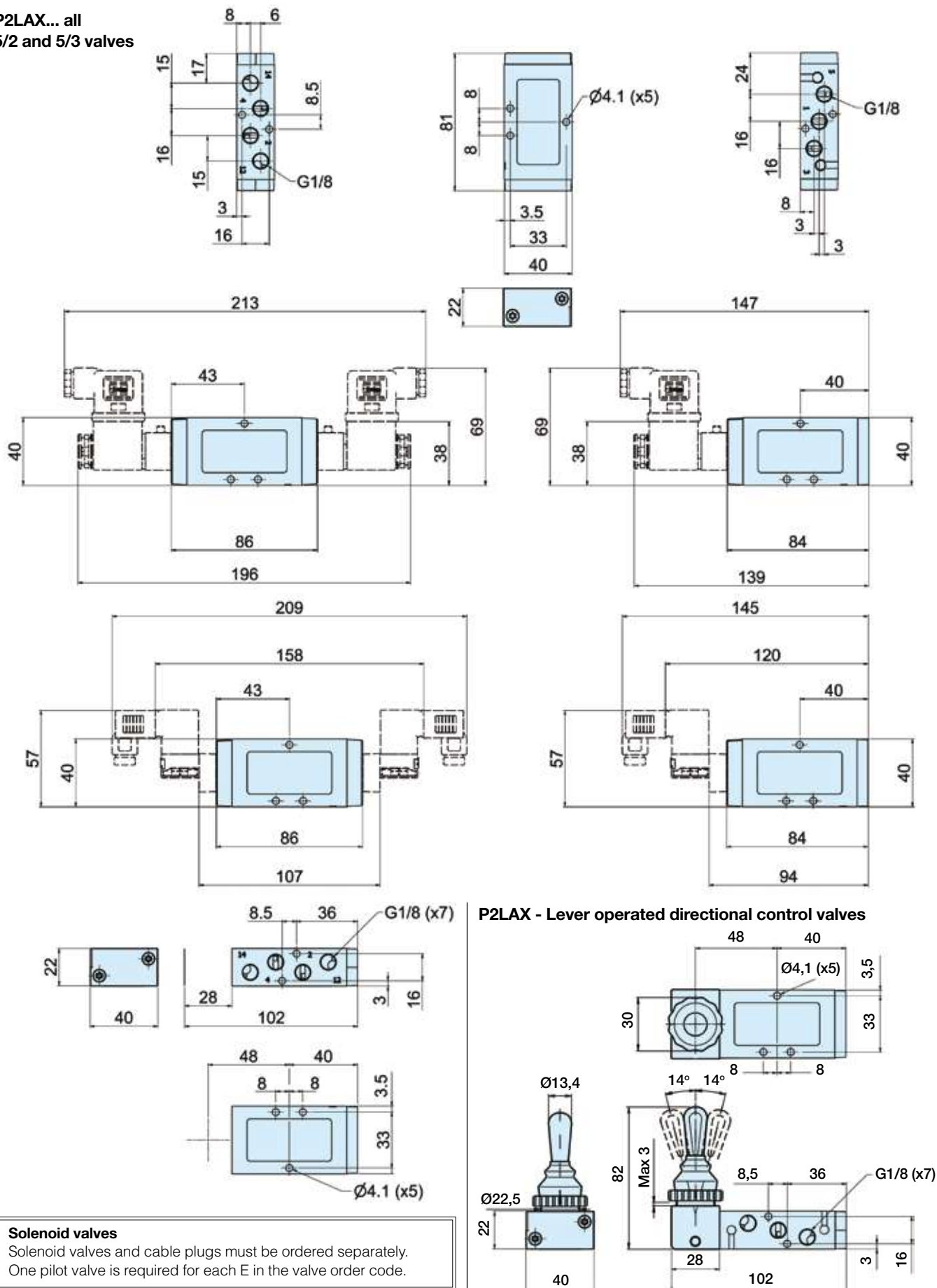


P8C-C	P8C-D26C	P8L-C226C
P8C-D	P8C-D21E	P8L-C526C
P8L-C2	P8C-C26C	P8L-CA26C
P8L-C5	P8C-C21E	P8L-C221E
3EV10V10		P8L-C521E
3EV290V10	3EV10V20-24	3EV10V20-24L5
	3EV10V20-110	3EV10V20-110L5
	3EV10V20-230	3EV10V20-230L5

Dimensions

P2LAX... all

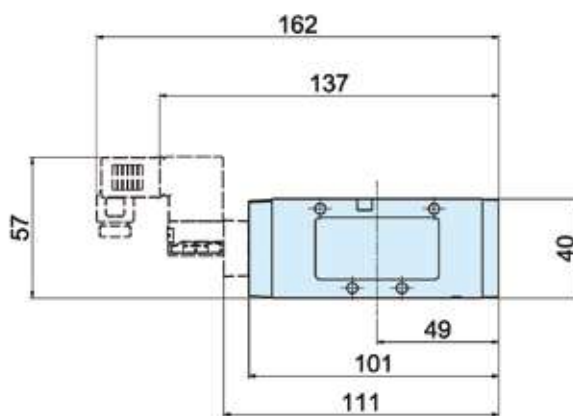
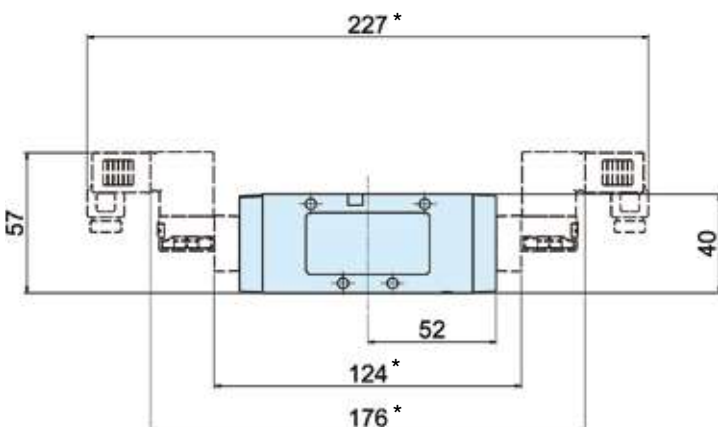
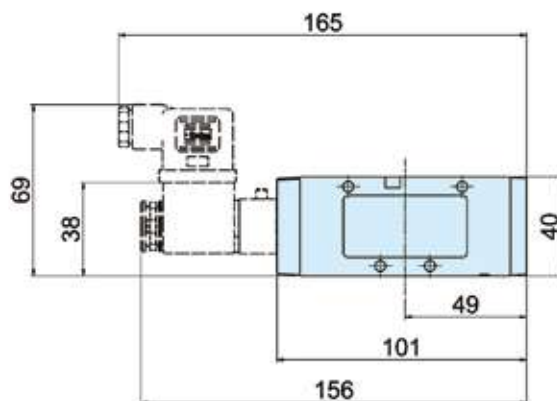
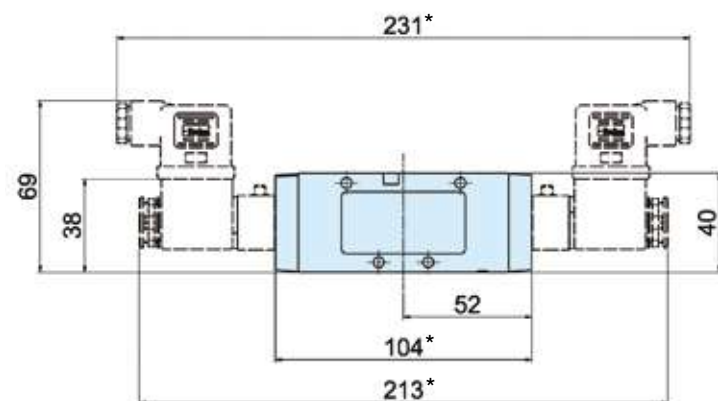
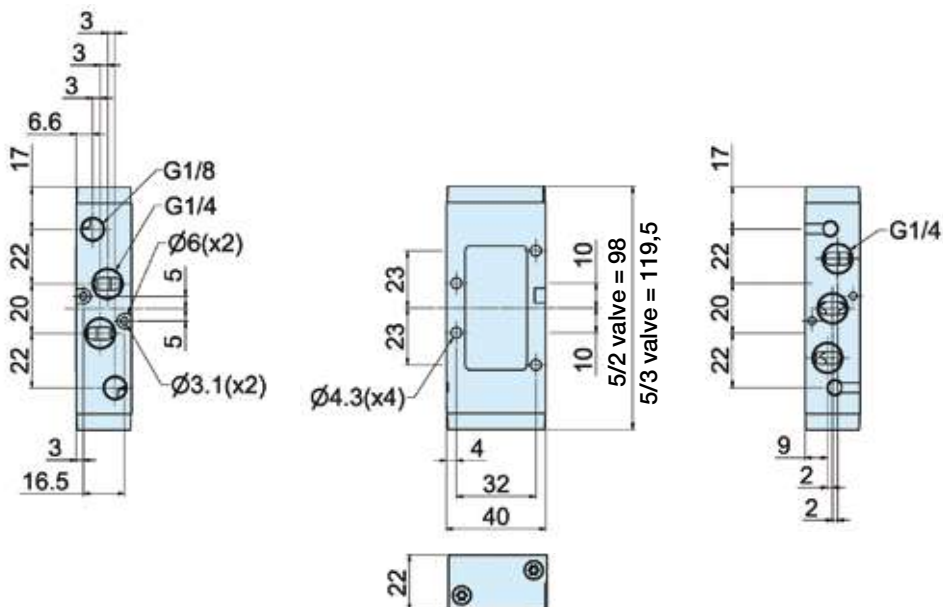
5/2 and 5/3 valves



Dimensions

P2LBX... all

5/2 and 5/3 valves



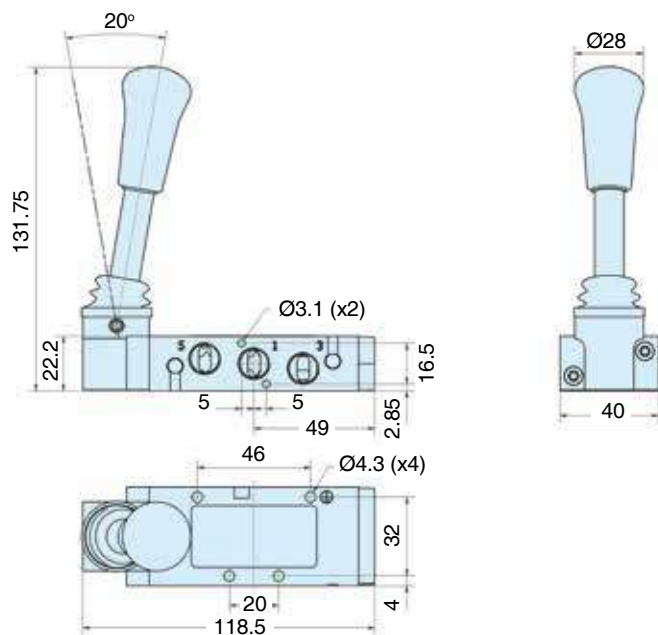
* Note: 5/3 valves - add 21.5mm

Solenoid valves

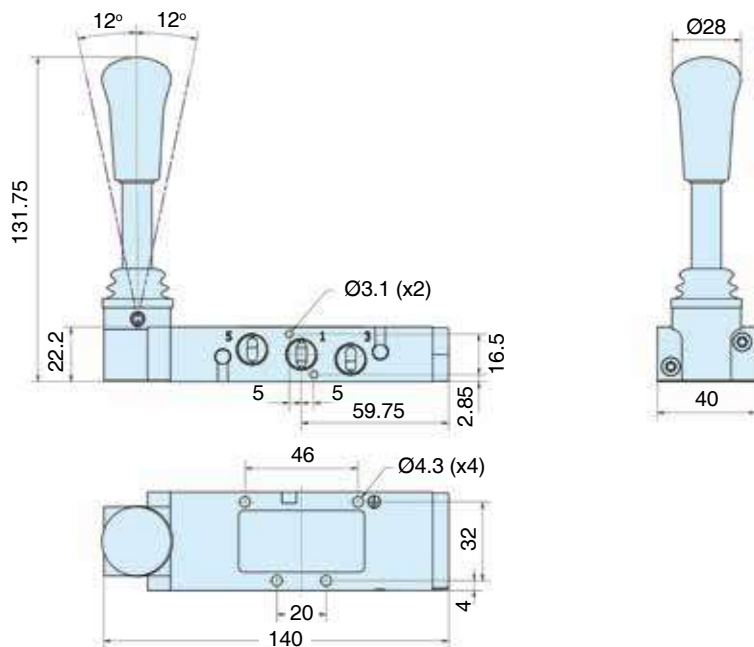
Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

Dimensions

P2LBX - 5/2 Lever operated directional control valves

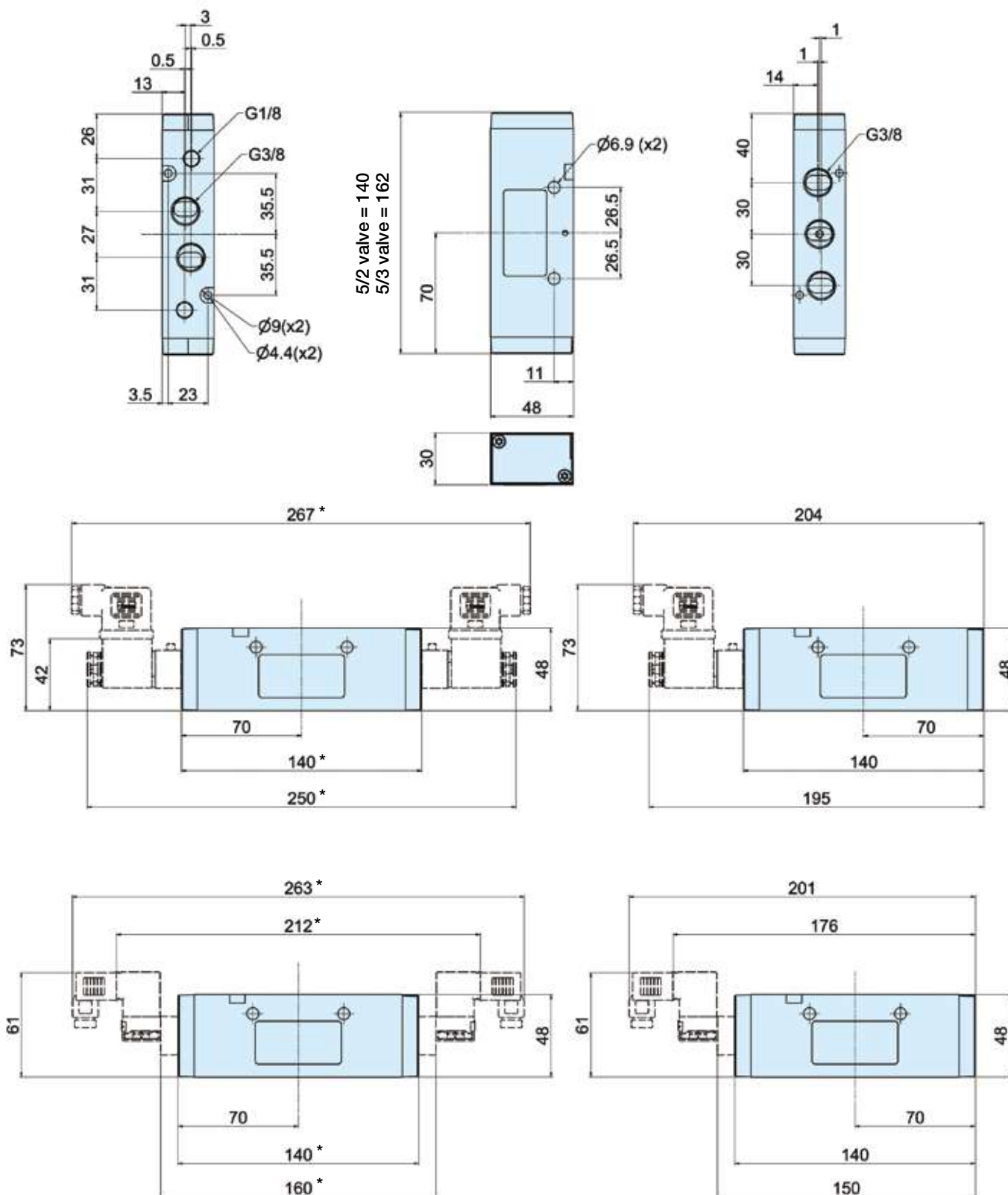


P2LBX - 5/3 Lever operated directional control valves



Dimensions

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



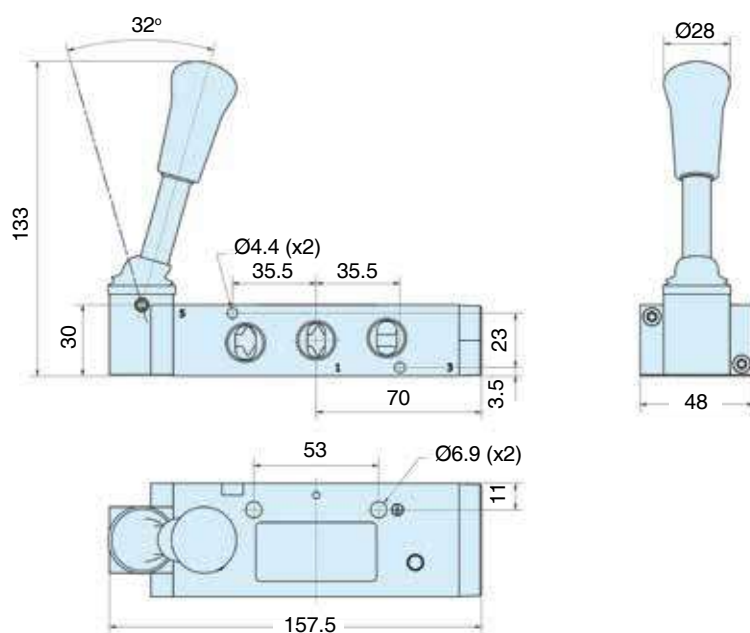
* Note: 5/3 valves - add 22.0mm

Solenoid valves

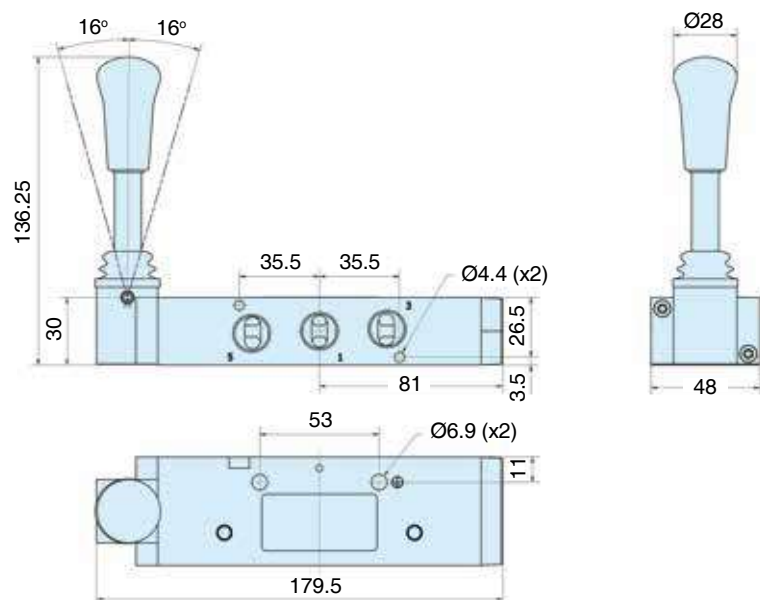
Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

Dimensions

P2LCX - 5/2 Lever operated directional control valves



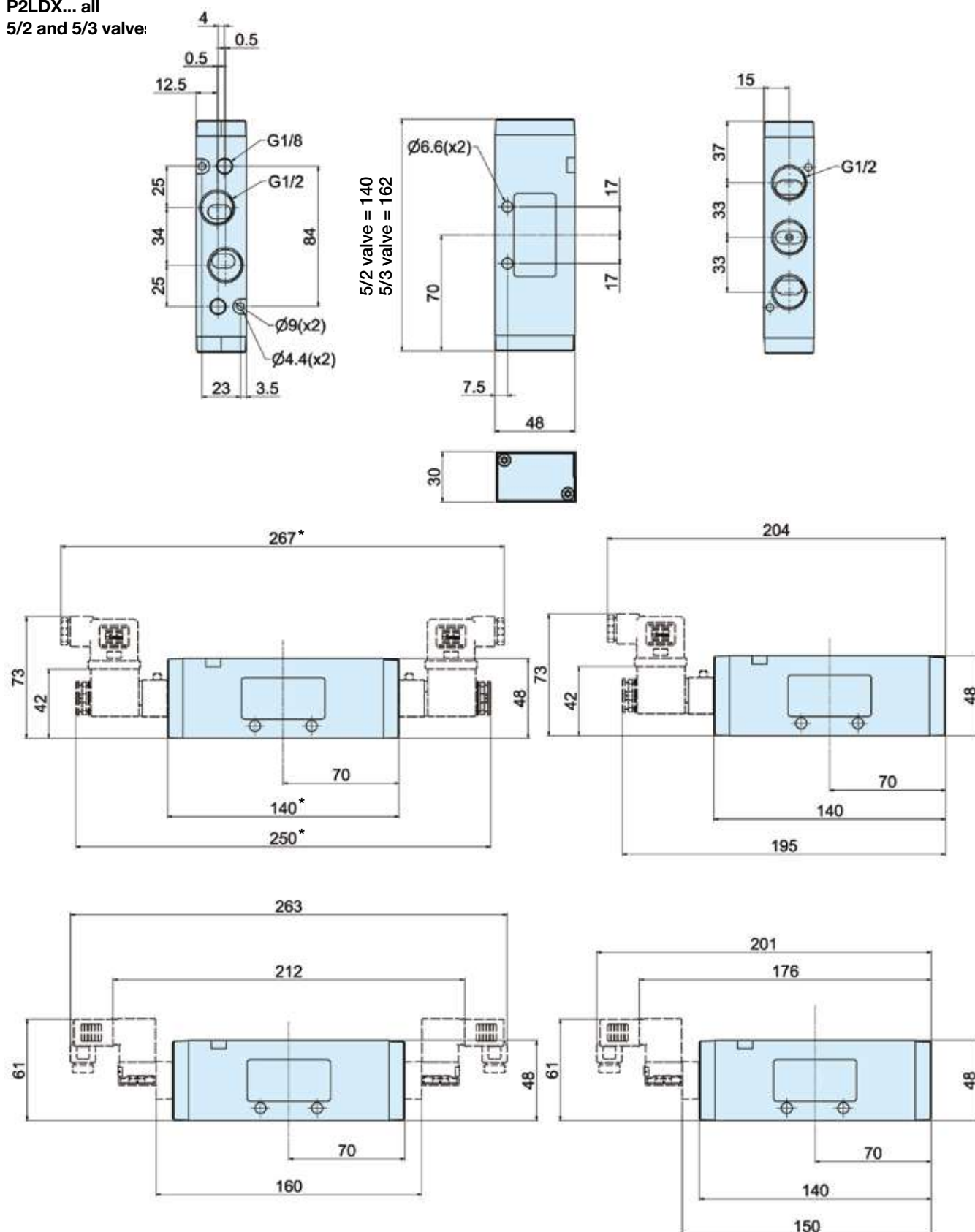
P2LCX - 5/3 Lever operated directional control valves



Dimensions

P2LDX... all

5/2 and 5/3 valve:

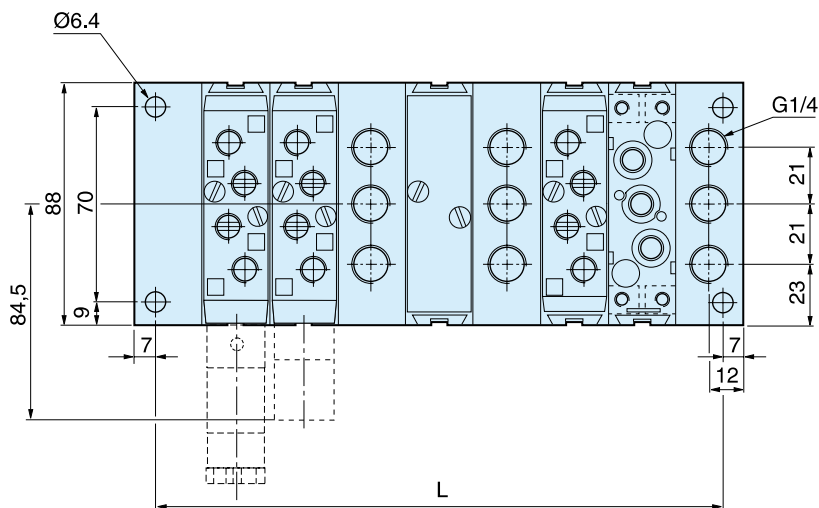


* Note: 5/3 valves - add 22.0mm

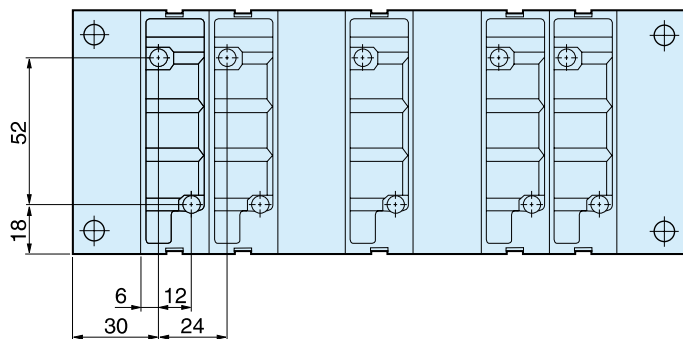
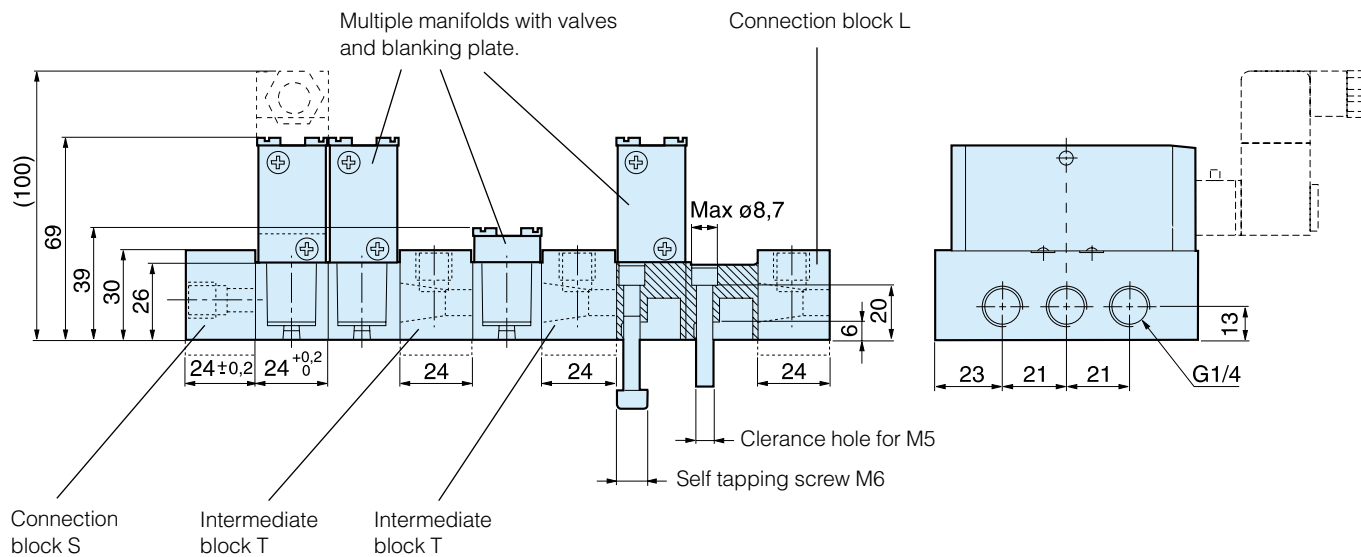
Solenoid valves

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

PDE2600PNUK

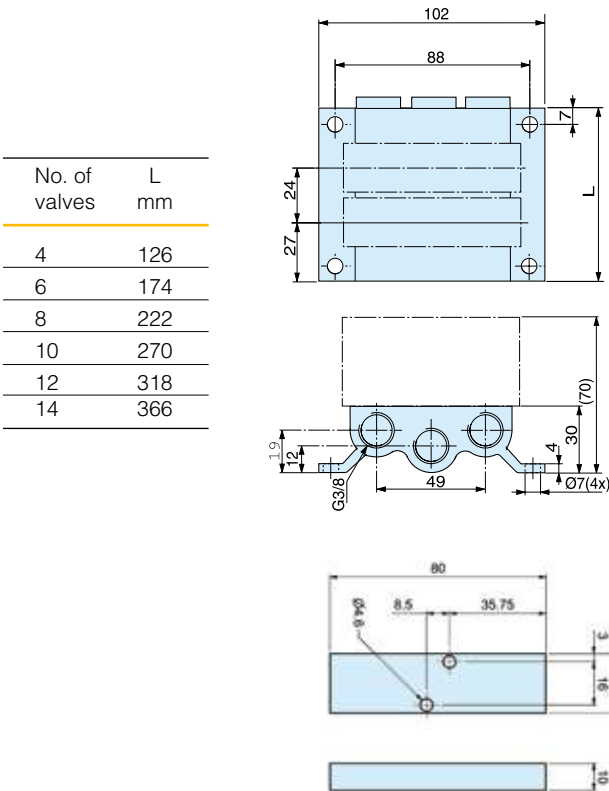

$$L = 34 + (\text{Number of manifolds and Intermediate blocks} \times 24)$$

Connection block L and intermediate blocks L and T can be turned so that connection can be made from above or below.
Multiple manifolds must be fitted with the top indication line (a 10 mm long line) facing the same side on all manifolds.



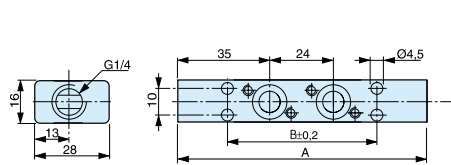
Dimensions

Manifold bar, P2LA

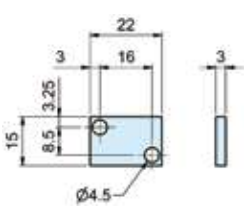


No. of valves	L mm
4	126
6	174
8	222
10	270
12	318
14	366

Pressure bar, P2LA

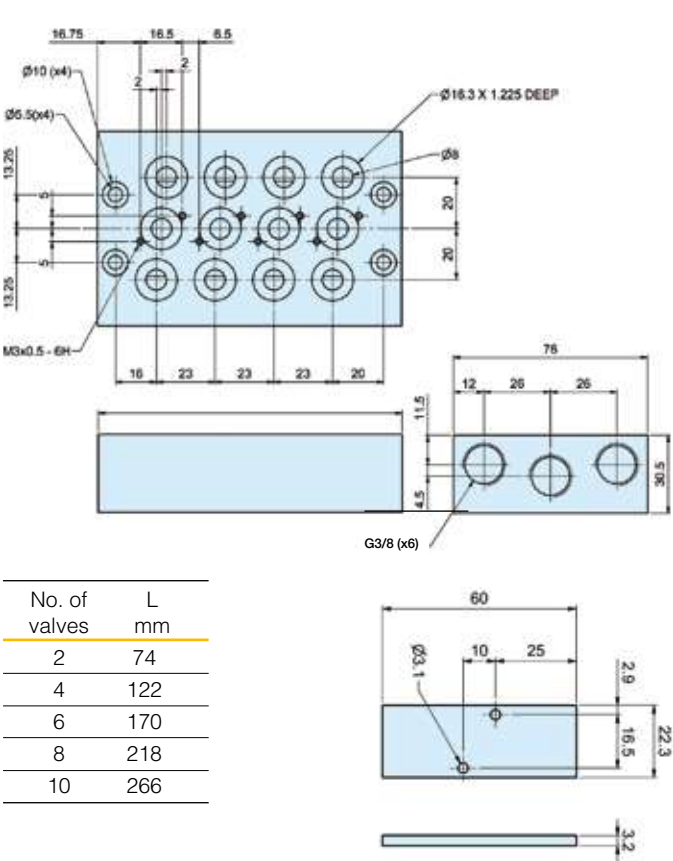


Pressure bar, P2LA



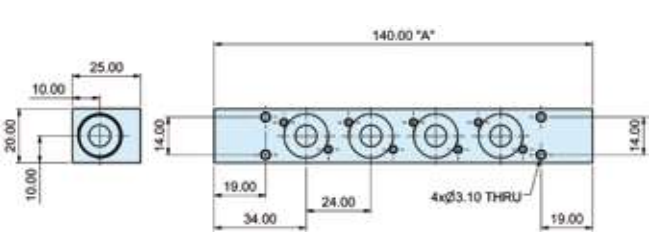
No. of valves	A mm	B mm
2	94	56
4	142	104
6	190	152
8	238	200

Manifold bar, P2LB

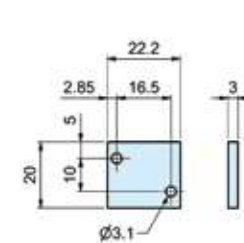


No. of valves	L mm
2	74
4	122
6	170
8	218
10	266

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 more information see www.parker.com/euro_pneumatic

Directional control valves A05R and A12R series, inline / IEM manifold - Voltage 24V DC

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

Directional control valves A05P/A12P series, sub-base version - Voltage 24V DC

Description (Electrically Actuated)	Order code A05P	Order code A12P
5/2 single solenoid 	A05PS251P	A05PS251P
5/2 double solenoid 	A05PD251P	A05PD251P
5/3 closed centre 	A05PD351P	A05PD351P

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

A05R/A12R Series Manifolds

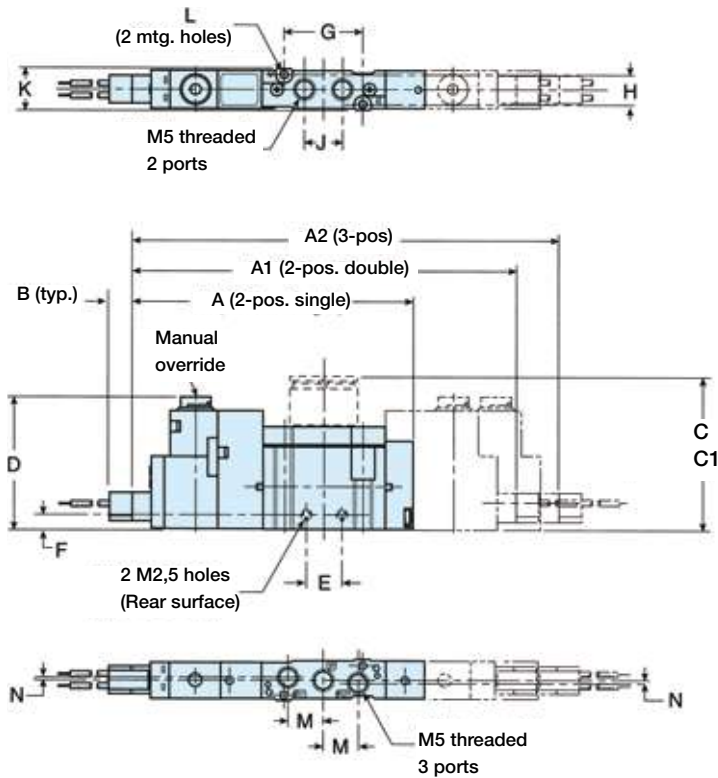
Manifold for individual wiring threaded type

	No. of stations	Port size	Size	Order Code Manifold
	4	M5	A05	MMFS4A05GM5
		G1/8	A12	MMFS4A12GG1
	6	M5	A05	MMFS6A05GM5
		G1/8	A12	MMFS6A12GG1
	8	M5	A05	MMFS8A05GM5
		G1/8	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

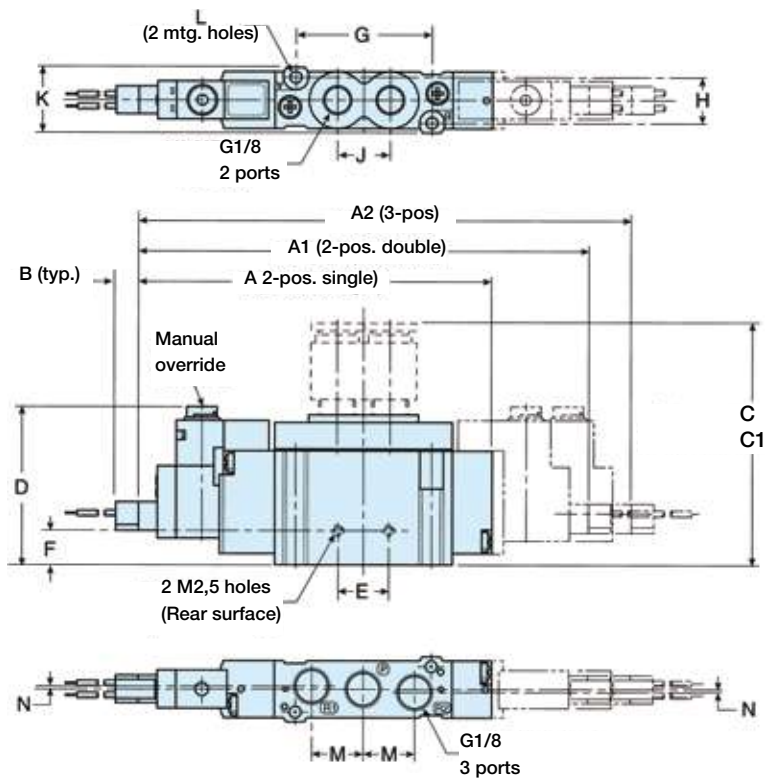


A05R - Body ported

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

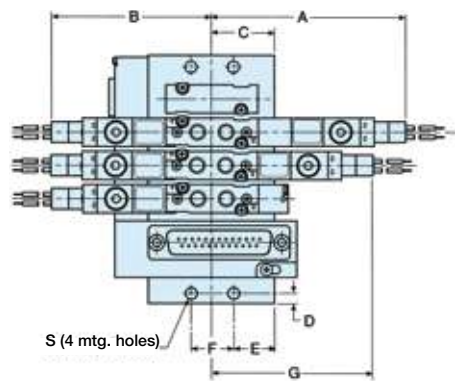


A12R - Body ported

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

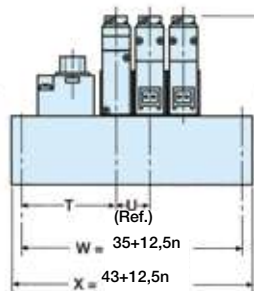
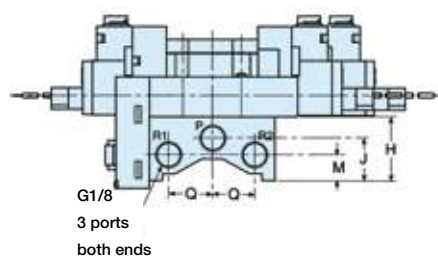
A05R - Manifold - Valve body ports



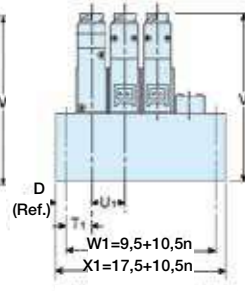
A05R - Manifold - valve body port

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



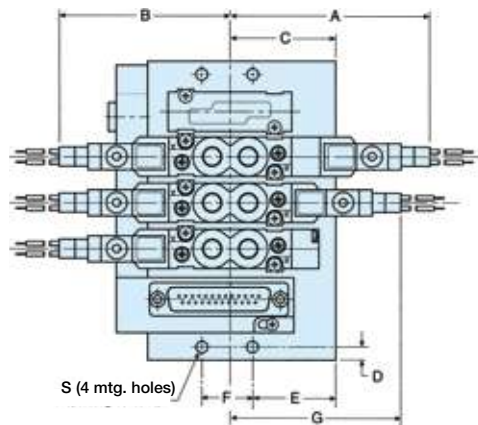
MMCU...



MMFU...

n = number of stations

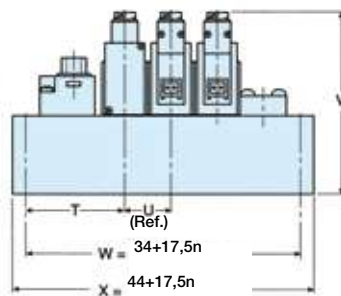
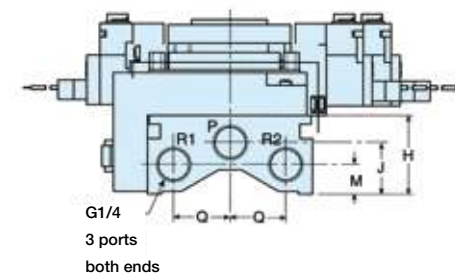
A12R - Manifold - Valve body ports



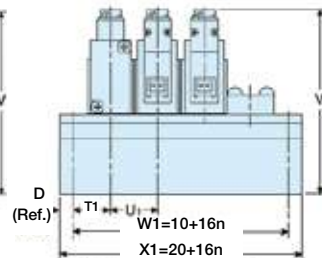
A12R - Manifold - valve body port

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



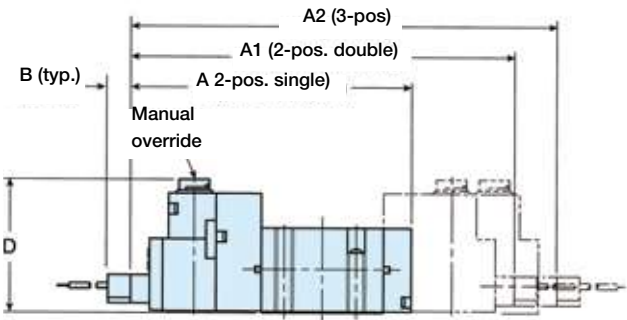
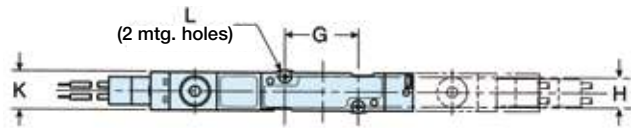
MMCU...



MMFU...

n = number of stations

A05P - Single and double operators - Subbase

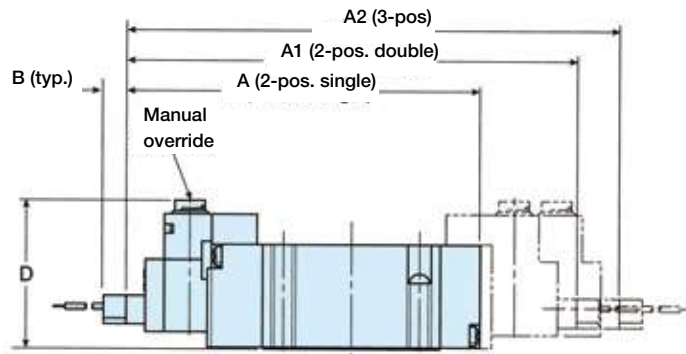
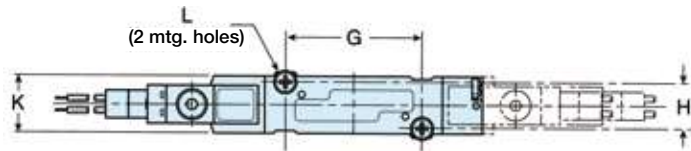


A05P - Subbase

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

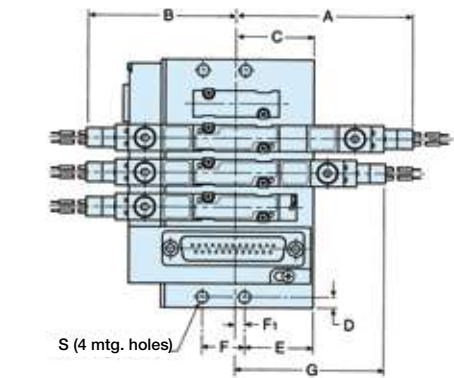


A12P - Subbase

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

Dimensions in mm

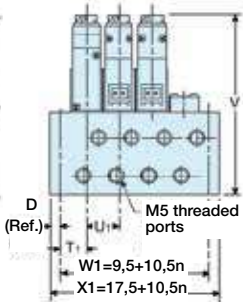
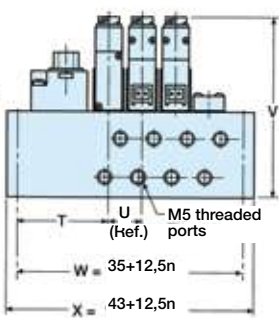
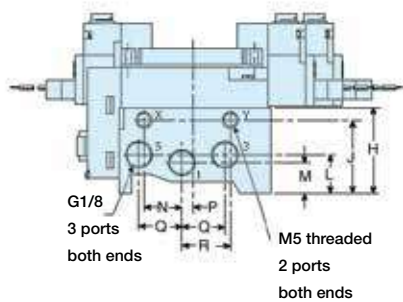
A05P - Manifold - Side ports



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

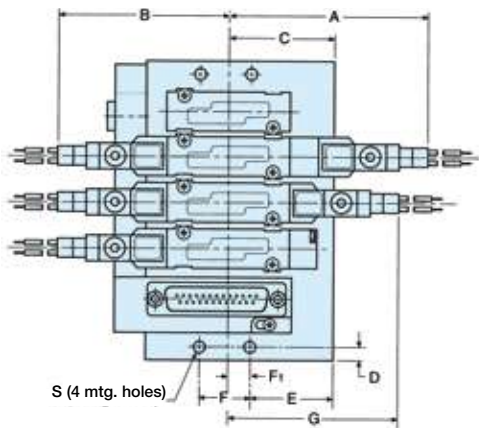


n = number of stations

MMCS...

MMFS...

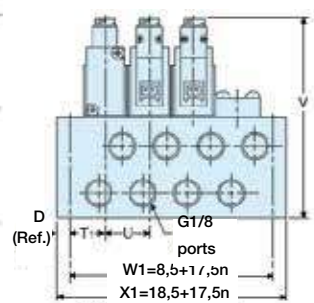
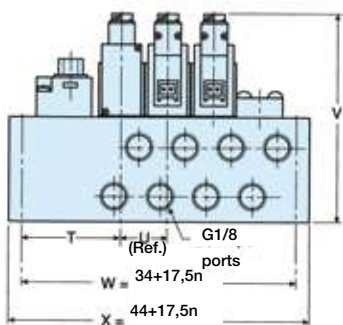
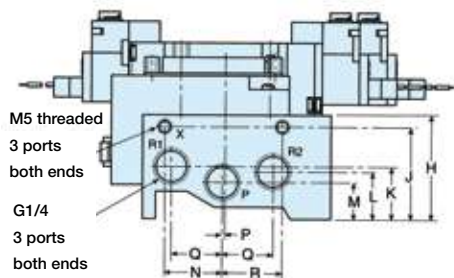
A12P - Manifolds - Side ports



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



n = number of stations

MMCS...

MMFS...

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

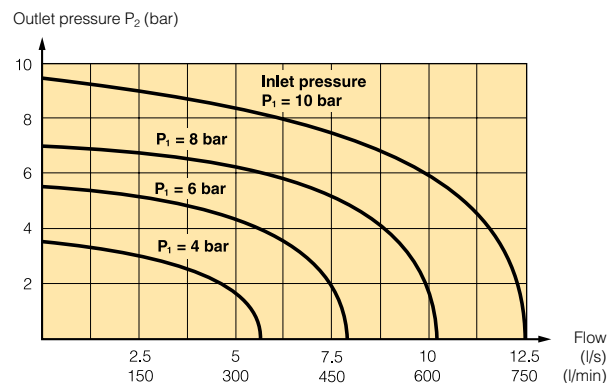
Working medium: Dry, filtered compressed air to ISO 8573-1 class 3.4.3.

Flow characteristics

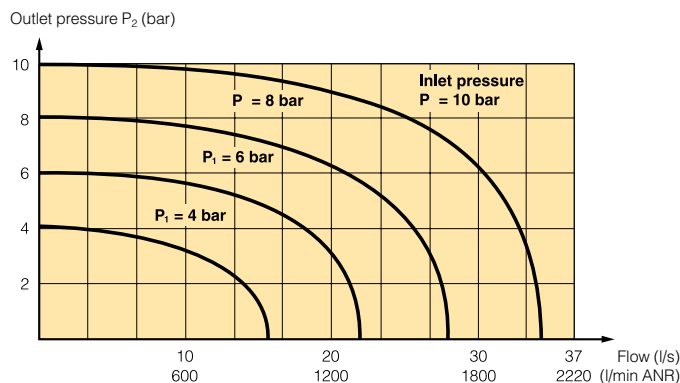
Flow capacities in accordance with ISO 6358

The flow curves shown below are typical.

Midget B43 series valves



Intermediate B53 series valves



Midget mechanically operated valves, B43 series - G1/8

Symbol	Type	Actuator Button	Return	Operating force at 6 bar, N	Order code
	3/2	Plunger	Spring	36	B43003CS
	3/2	Plunger	Air	14	B43003CP
	5/2	Plunger	Spring	36	B43004CS
	5/2	Plunger	Air	14	B43004CP
	3/2	Roller Lever	Spring	20	B43003RS
	3/2	Roller Lever	Air	7	B43003RP
	5/2	Roller Lever	Spring	20	B43004RS
	5/2	Roller Lever	Air	7	B43004RP
	3/2	One way lever	Spring	20	B43003RTS
	3/2	One way roller lever	Air	7	B43003RTP
	5/2	One way roller lever	Spring	20	B43004RTS
	5/2	One way roller lever	Air	7	B43004RTP

Midget manually operated valves, B43 series - G1/8

Symbol	Type	Actuator Button	Return	Operating force at 6 bar, N	Order code
	3/2	Black	Spring	36	B43003BXS
	3/2	Black	Button	13	B43003HXS
	5/2	Black	Spring	36	B43004BXS
	5/2	Black	Button	13	B43004HXS
	3/2	Black	Air	13	B43003BXP
	3/2	Black	Air or Button	13	B43003HXP
	5/2	Black	Air	13	B43004BXP
	5/2	Black	Air or Button	13	B43004HXP
	3/2	Lock down lever	Spring	9	B43003LS
	3/2	Lock down lever	Spring	9	B43004LS
	3/2	Lock down lever	Air	3	B43003LP
	3/2	Lock down lever	Air	3	B43004LP

Intermediate mechanically operated valves, B53 series - G1/4

Symbol	Type	Actuator Button	Return	Operating force at 6 bar, N	Order code
	3/2	Plunger	Spring	53	B53003CS
	3/2	Plunger	Air	27	B53003CP
	5/2	Plunger	Spring	53	B53004CS
	5/2	Plunger	Air	27	B53004CP
	3/2	Roller	Spring	53	B53003RS
	3/2	Roller	Air	27	B53003RP
	5/2	Roller	Spring	53	B53004RS
	5/2	Roller	Air	27	B53004RP

Intermediate manually operated valves, B53 series - G1/4

Symbol	Type	Actuator Button	Return	Operating force at 6 bar, N	Order code
	3/2	Black	Spring	53	B53003HXS
	3/2	Black	Button	27	B53003HXP
	3/2	Black	Air	27	B53003HXP
	5/2	Black	Spring	53	B53004HXS
	5/2	Black	Button	27	B53004HXP
	5/2	Black	Air	27	B53004HXP
	5/3	Button closed centrer position	Button self centring	13	B53005HXX
	5/3	Button vented centrer position	Air self centring	13	B53004HXY
	5/3	Button pressurised centrer position	Air self centring	13	B53004HXZ

Intermediate lever operated valve,
B53 series - G1/4

Symbol	Type	Actuator Button	Return	Operating force at 6 bar, N	Order code
	3/2	Lever	Spring	14	B53003LS
	3/2	Lever	Air	9	B53003LP
	3/2	Lever	Lever	9	B53003LT
	3/3	Lever closed centre position	Lever	9	B53003L
	3/3	Lever closed centre position	Lever self centring	14	B53003LX
	5/2	Lever	Spring	14	B53004LS
	5/2	Lever	Air	14	B53004LP
	5/2	Lever	Lever	14	B53004LT
	5/3	Lever closed centre position	Lever held in three positions	9	B53004L
	5/3	Lever vented centre position	Lever held in three positions	9	B53004LW
	5/3	Lever pressurised centre position	Lever held in three positions	9	B53004LN
	5/3	Lever closed centre position	Lever self centring	14	B53004LX
	5/3	Lever vented centre position	Lever self centring	14	B53004LY
	5/3	Lever pressurised centre position	Lever self centring	14	B53004LZ

Mounting kit



Panel mounting kit

M53004L-10AKit includes panel plate and
M5 counter sunk head screwsMidget foot operated valves,
B43 series - G1/8

Symbol	Type	Actuator Button	Return	Operating force at 6 bar, N	Order code
	3/2	Foot pedal	Spring	16	B43003FS
	5/2	Foot pedal	Spring	16	B43004FS

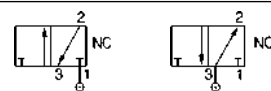
Intermediate foot operated valves,
B53 series - G1/4

Symbol	Type	Actuator Button	Return	Operating force at 6 bar, N	Order code
Single pedal operated					
	3/2	Foot pedal	Spring	95	B53003FS
	5/2	Foot pedal	Spring	95	B53004FS
Rocker pedal operated					
	3/2	Foot pedal	Foot pedal	18	B53003G
	5/2	Foot pedal	Foot pedal	18	B53004G
	5/3	Foot pedal closed centre position	Foot pedal self centring	18	B53004GX
	5/3	Foot pedal vented centre position	Foot pedal self centring	18	B53004GY
	5/3	Foot pedal pressurised centre position	Foot pedal self centring	18	B53004GZ

Accessories



Foot guard kit

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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

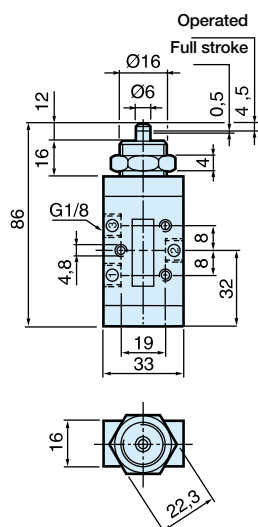
Dimensions, G1/8 ported spool valves

All dimensions in mm unless otherwise stated

Mechanically operated valves

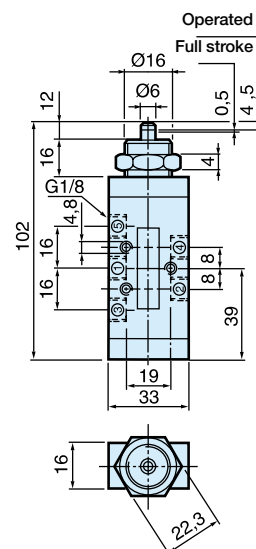
3/2 valves

Plunger operated spring return



5/2 valves

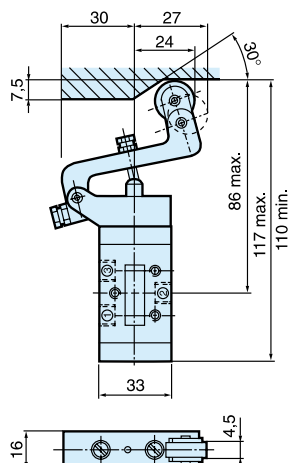
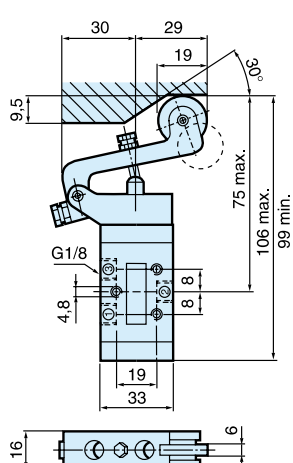
Plunger operated spring return



3/2 valves

Roller operated spring return

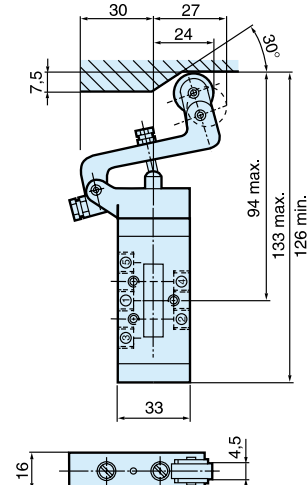
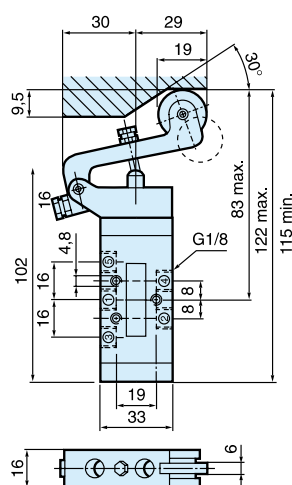
One way roller trip operate spring return



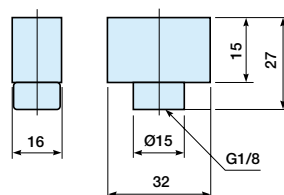
5/2 valves

Roller operated spring return

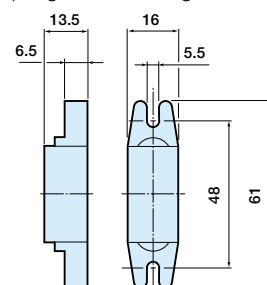
One way roller trip operate spring return



Air Pilot Return



Optional foot mounted - Spring return housing



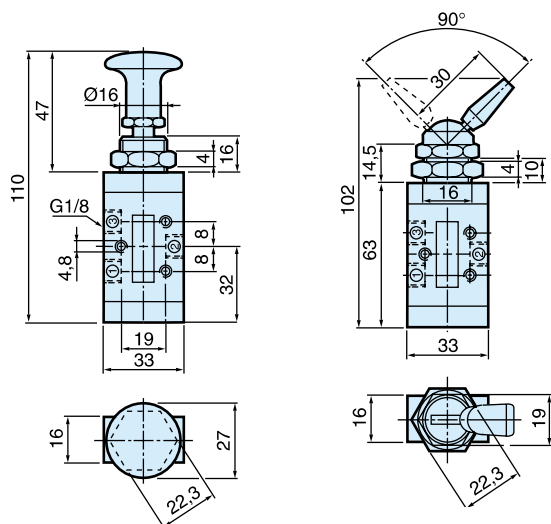
Dimensions, G1/8 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

3/2 valves

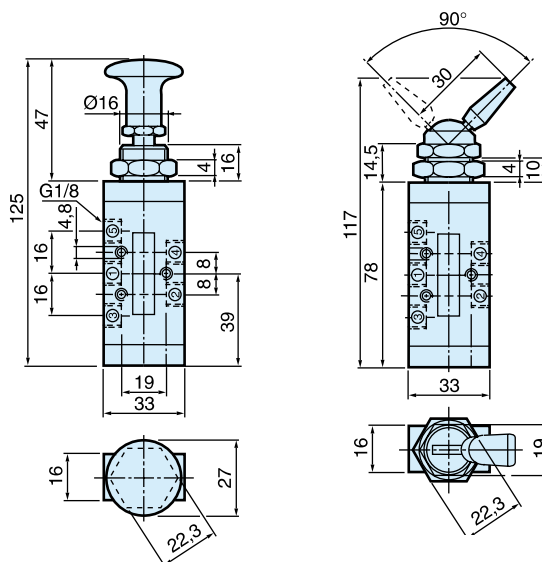
Button operated spring return
or button returned



Lock down lever
operated spring return

5/2 valves

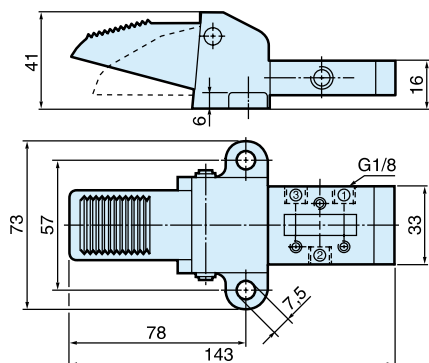
Button operated spring return
or button returned



Lock down lever
operated spring return

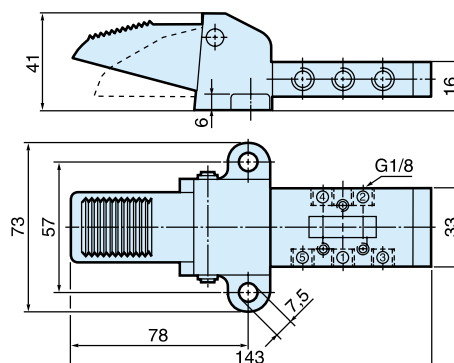
3/2 valves

Foot pedal operated spring return

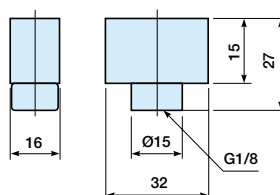


5/2 valves

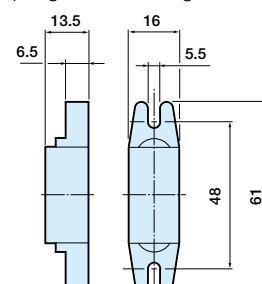
Foot pedal operated spring return



Air Pilot Return



Optional foot mounted -
Spring return housing



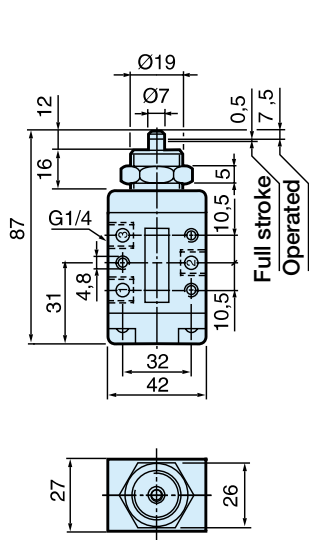
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Mechanically operated valves

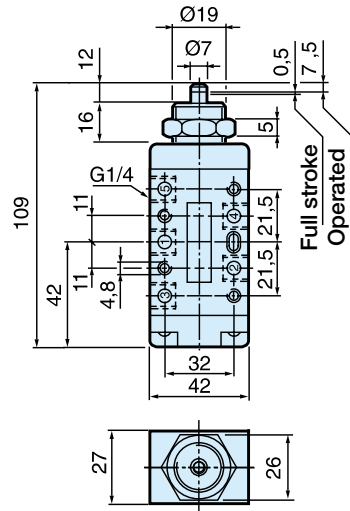
3/2 valves

Plunger operated spring return



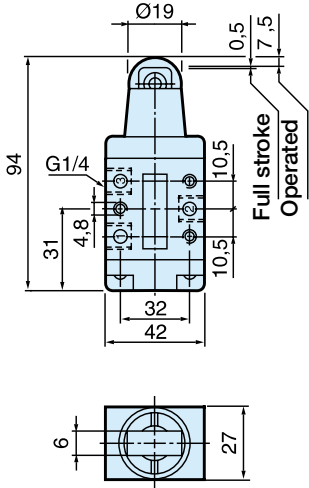
5/2 valves

Plunger operated spring return



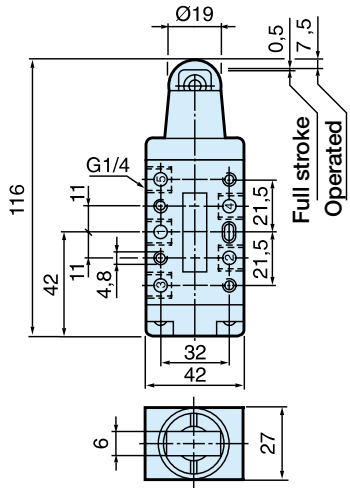
3/2 valves

Roller operated spring return

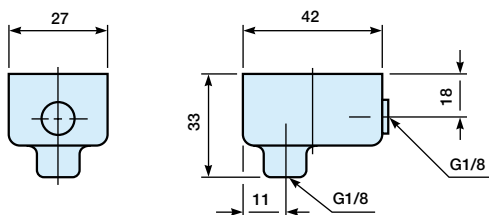


5/2 valves

Roller operated spring return



Air Pilot Return



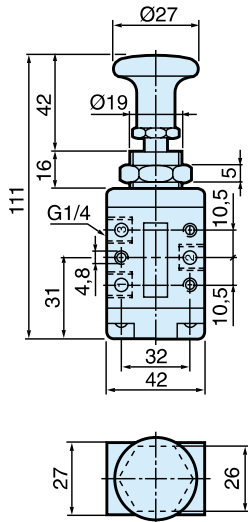
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

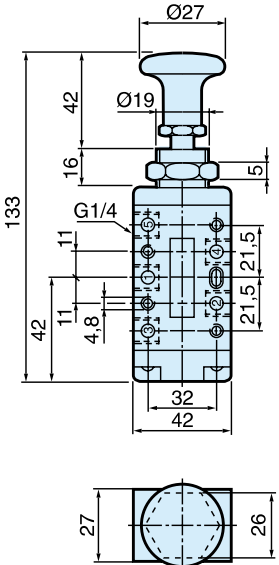
3/2 valves

Button operated spring return
or button returned



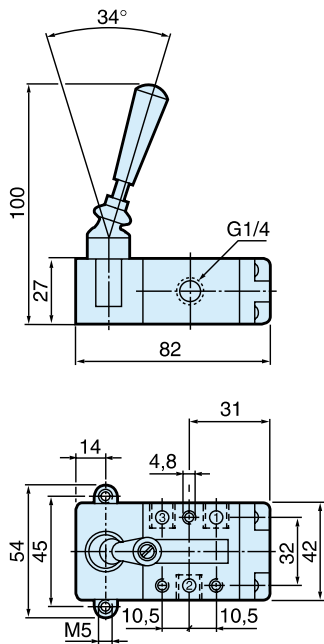
5/2 valves

Button operated spring return
or button returned



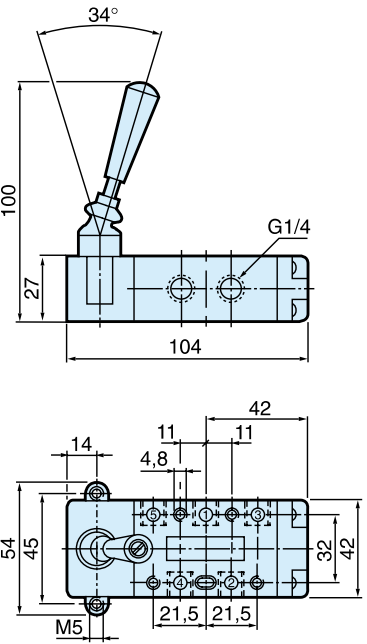
3/2 valves

Lever operated

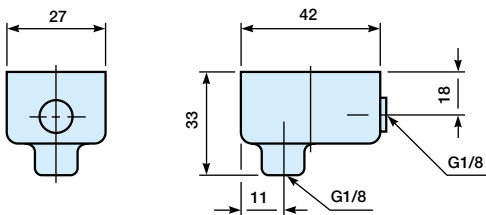


5/2 valves

Lever operated



Air Pilot Return



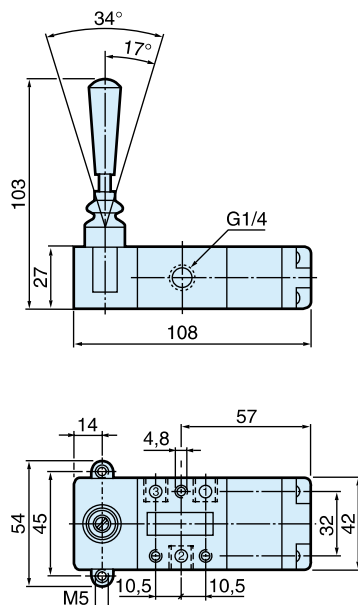
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

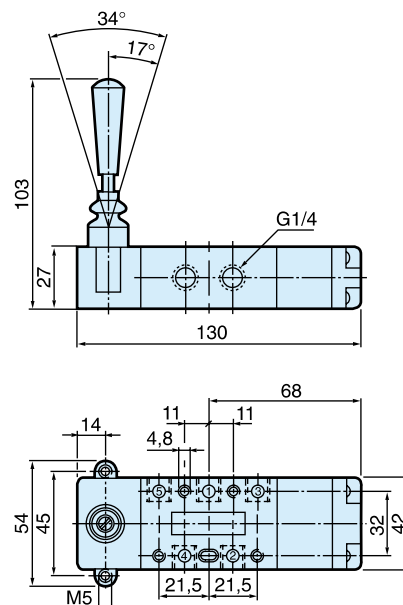
3/3 valves (Self centring)

Lever operated



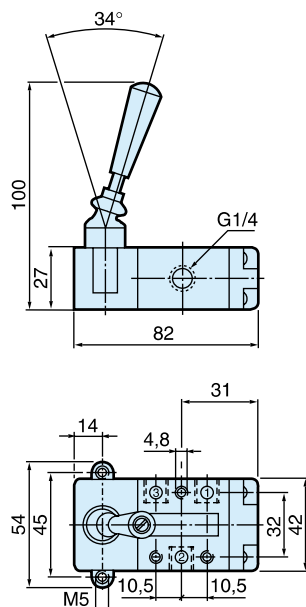
5/3 valves (Self centring)

Lever operated



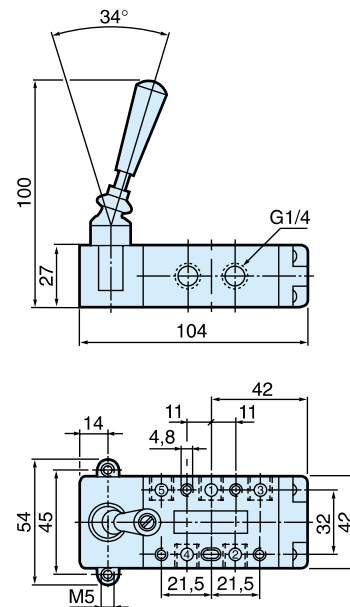
3/3 valves (3 positions)

Lever operated

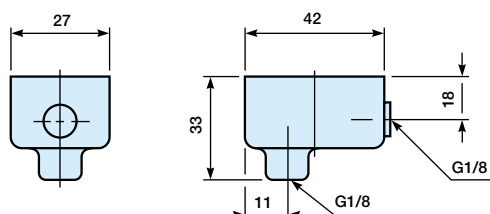


5/3 valves (3 positions)

Lever operated



Air Pilot Return



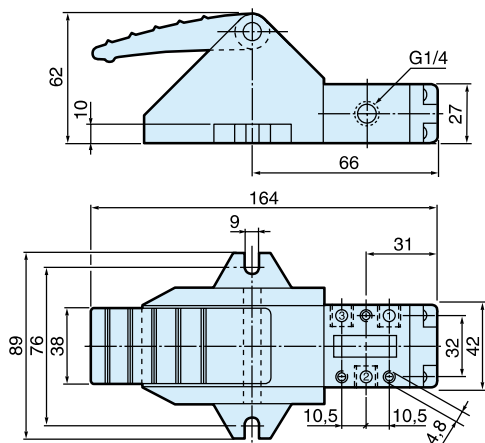
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

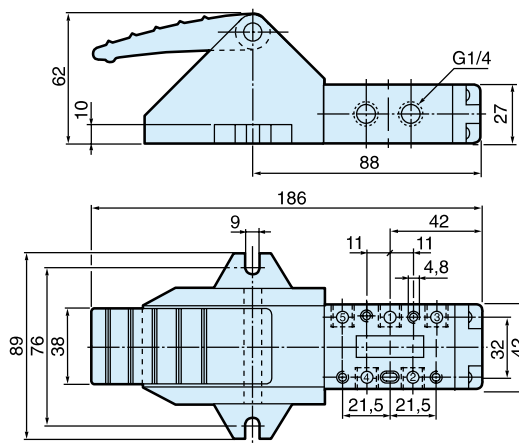
3/2 valves

Foot pedal operated spring return



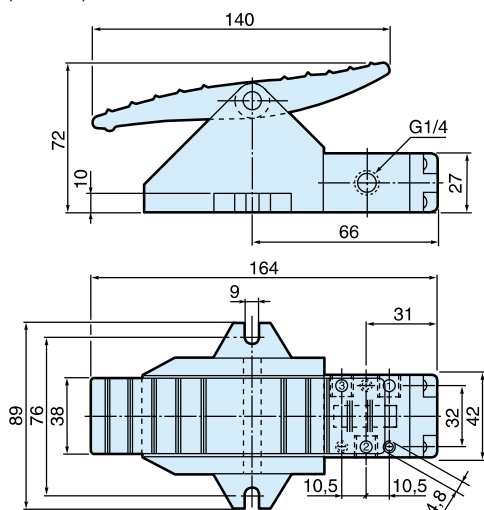
5/2 valves

Foot pedal operated spring return



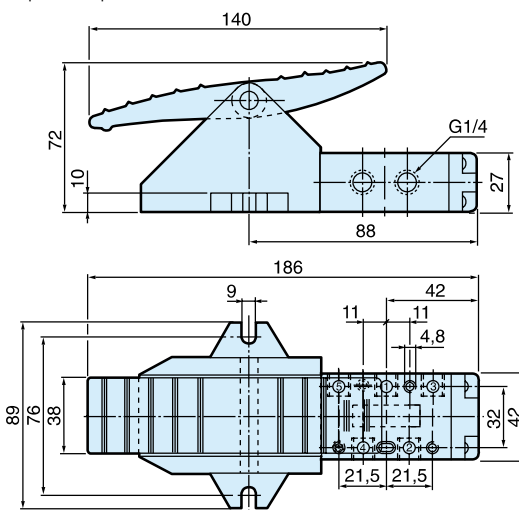
3/2 valves

Foot pedal operated



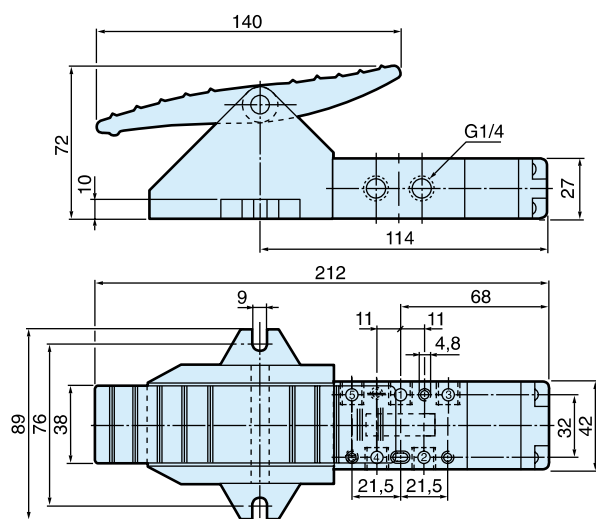
5/2 valves

Foot pedal operated



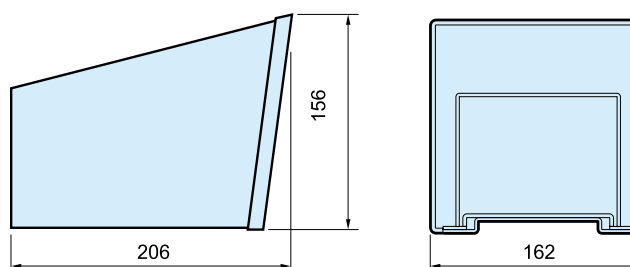
5/3 valves

Foot pedal operated



Foot guard kit

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Service and Replacement Parts

B43 Series Manually Operated Valves

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

B53 Series Manually Operated Valves

Order code	Actuator	Replacement actuator	Repair kit
B53003HXS	Button		
B53004HXS	Button		
B53003HX	Button, Push/Pull		
B53004HX	Button, Push/Pull	53004HX-100	Body seal 53007
B53004HXX	Button, Self centring		
B53004HXY	Button, Self centring		
B53004HXZ	Button, Self centring		
B53003FS	Foot	53004F-100	
B53004FS	Foot		
B53003LS	Lever	53004L-198	
B53004LS	Lever		
B53003LT	Lever, 2 positions	53004L-196	Body seal 53007
B53004LT	Lever, 2 positions		
B53004L	Lever, 3 positions	53004L-100	Lever kit 53004L-300R
B53004LW	Lever, 3 positions		
B53004LX	Lever, Self centring	53004L-198	
B53004LY	Lever, Self centring		

B43 Series Mechanically Operated Valves

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

B53 Series Mechanically Operated Valves

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



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 -40 °C to +70 °C

Working pressure Max 10 bar

Flow (Qmax): 380 l/min

For more information see www.parker.com/euro_pneumatic

Push button valves, VA13 Series - G $\frac{1}{8}$

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 2 positions	Hand lever	8	Panel	VA13-HB24
	Hand lever Held in 2 positions	Hand lever	8	Side	VA13-HB2
	Button, red, 2 positions	Button	3	Panel	VA13-KL24
	Button, red, 2 positions	Spring	31,5	Panel	VA13-KS4
	Button, red, 2 positions	Button	3	Side	VA13-KL2
	Button, red, 2 positions	Spring	31,5	Side	VA13-KS
	Button, red, 2 positions	Knob/Air signal	6	Side	VA13-KL2A

Accessories for VA13/15HI... Series valves

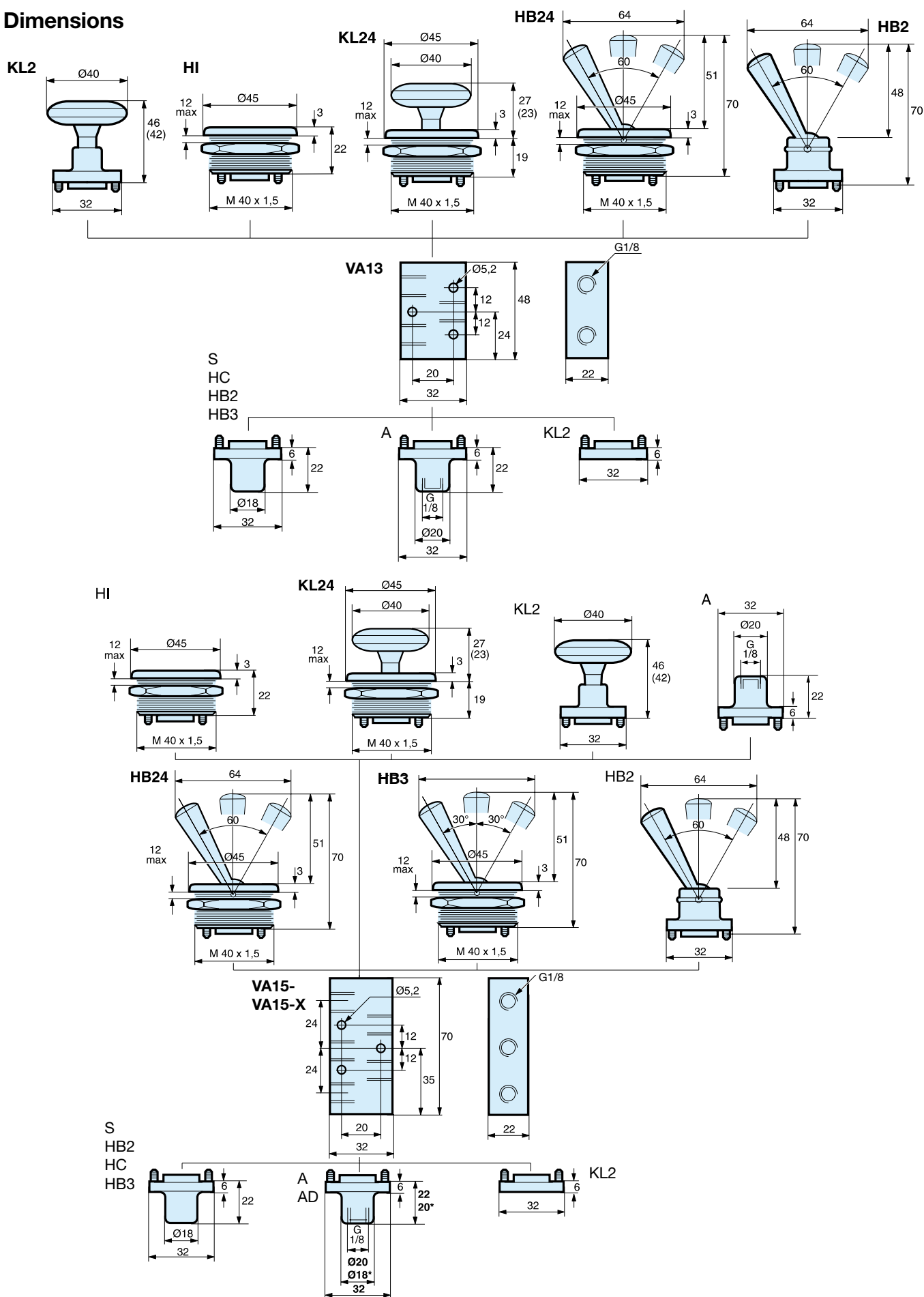
	Description	Order code
	Diaphragm, black	9127359331
	Diaphragm, yellow	9127359332
	Mounting ring	9127359334

Push button valves, VA15 Series - G $\frac{1}{8}$ 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 2 positions	Hand lever	9	Panel	VA15-HB24
	Hand lever Held in 3 positions closed centre position	Hand lever	9	Panel	VA15-HB34
	Hand lever Held in 3 positions vented centre position	Hand lever	9	Panel	VA15-XHB34
	Hand lever 3 positions closed centre position	Hand lever	9	Panel	VA15-HC4
	Hand lever 3 positions self centring vented centre position	Hand lever	9	Panel	VA15-XHC4
	Hand lever Held in 2 positions	Hand lever	9	Side	VA15-HB2
	Button, red, 2 positions	Button	5	Panel	VA15-KL24
	Button, red, 2 positions	Button	5	Side	VA15-KL2
	Air signal	Air signal	3/3	Side	VA15-AA
	Air signal	Spring	4/-	Side	VA15-AS

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

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.



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 msecs
Response time (solenoid de-energised)	75 msecs

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

Material specification

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

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	particle size (µm)	Pollution max. concentration (mg/m ³)	Water max. press. dew point (°C)	Oil 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	-

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	

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

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 air 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').

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Parker Hannifin Corporation
Pneumatic Division - Europe

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	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

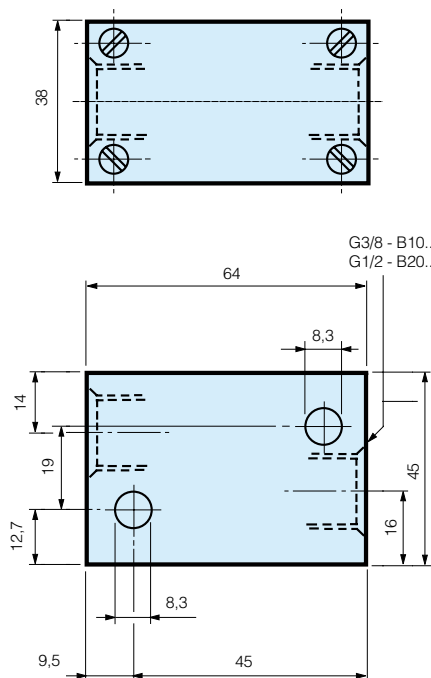
Order electrical connectors for solenoids separately.

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

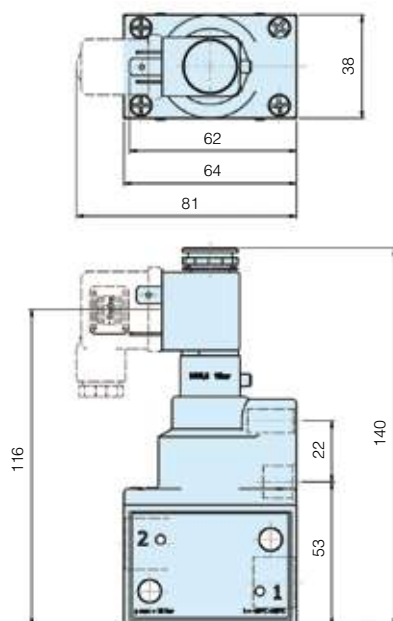
Symbol	Type	Connection	Actuator	Return	Operating force at 6 bar, N	Weight Kg	Order code
	2/2	G3/8	Lever	Lever	22	0.65	B102L
	3/2	G3/8	Lock down	Lever lever	22	0.65	B103L
	2/2	G1/2	Lock down	Lever lever	22	0.65	B202L
	3/2	G1/2	Lock down	Lever lever	22	0.65	B203L
	2/2	G3/8	Roller lever	Spring	36	0.642	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

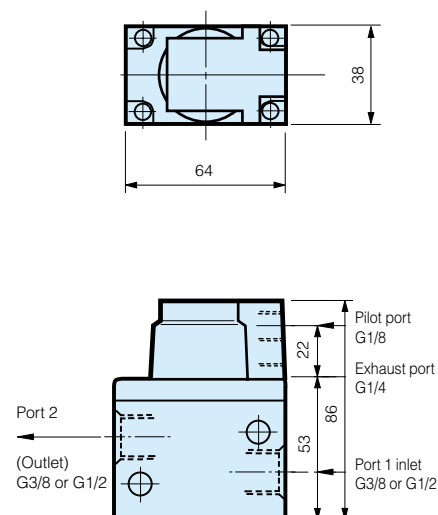
Basic body dimensions



Solenoid pilot operated spring return
DB122, DB123, DB222, DB223

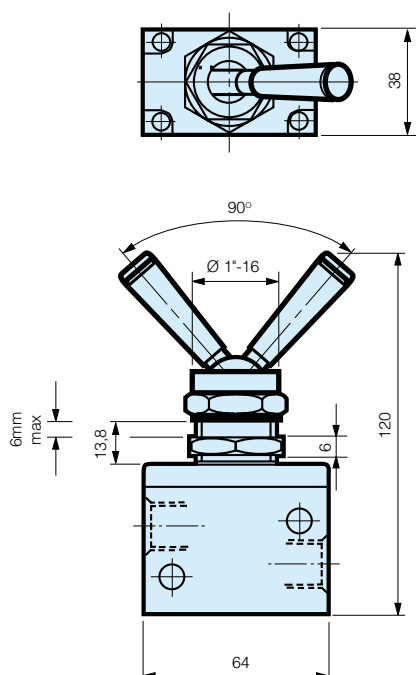


Air pilot operated spring return
B102P, B103P, B202P, B203P



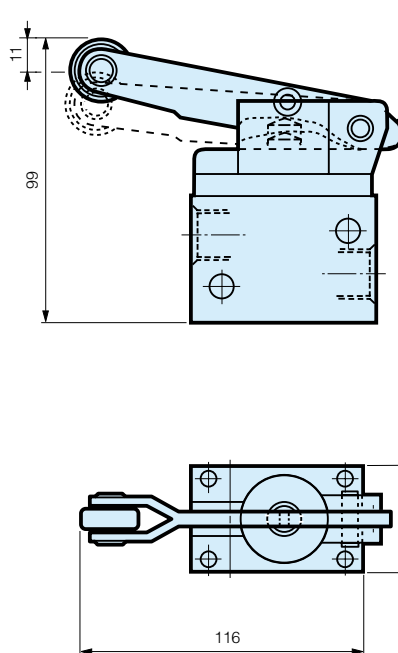
Lock down lever

B102L, B103L, B202L, B203L



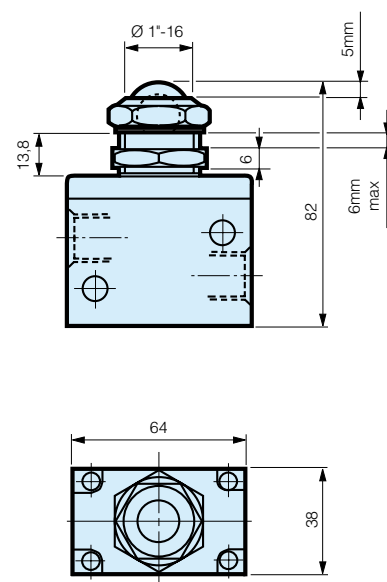
Roller lever operated spring return

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)

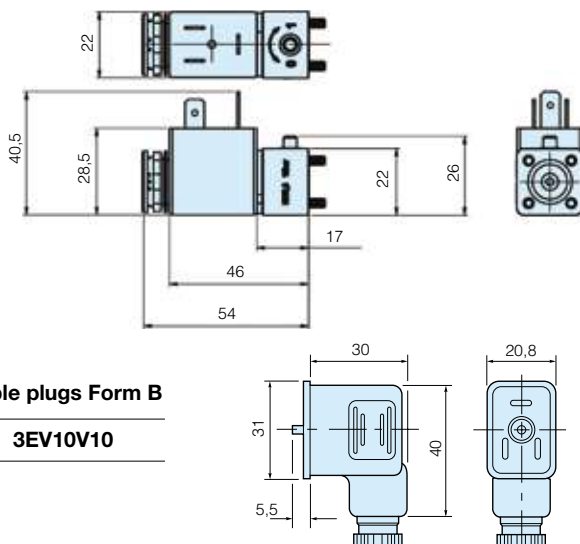
Order code (with locking bi-stable m/o)	Weight Kg
P2FP13N4C	0.05
Order code (with Non-locking monostable m/o)	Weight Kg
P2FP13N4D	0.05
Order code (with no m/o)	Weight Kg
P2FP13N4A	0.05

Note.

The operators are supplied with mounting screws and interface 'O' rings.
Coils and connectors must be ordered separately.

Cable Plug Dimensions (mm)

Solenoid operators P2E-•V...

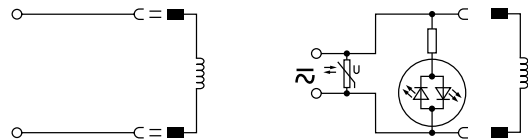


Cable plugs Form B

3EV10V10

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

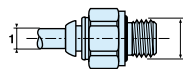
Accessories

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

DX Global ISO Valves

A complete range of pneumatic
ISO valves



Rust and corrosion resistant body

With the valve body in polyamide reinforced fiberglass and the casting in anodised aluminium, the Isomax range presents a comprehensive modern design to suit most industrial environments.

- **ISO 15407-1 Sizes 02 & 01 and ISO 5599-1 Sizes 1, 2 & 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**

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

Ceramic technology

All ISOMAX products use high-tech ceramic switching technology :

• Excellent reliability :

Long life in excess of 100 million operations*.
Operates with lubricated or non lubricated air.
Low sensitivity to air quality changes switching without seal.
Stiction free.

• High performances :

Slide valve concept allows high flow / size ratio and short response time due to short slide stroke and low friction.



• Switchable selector

Valves fitted with switchable selector to give internal or external pilot supply

Ceramic plate



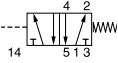
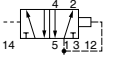
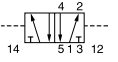
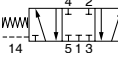
• Size 02 & Size 01

Solenoid exhaust pilot

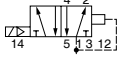
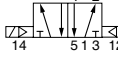
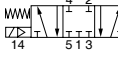
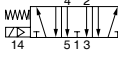
• Stable long lasting performances

Low friction switching : minimum wear of the valve member/seal assembly.

Isomax - ISO 15407-1 - Sizes 02 & 01**Pneumatic remote pilot operated****Without valve spool manual override**

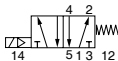
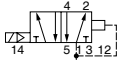
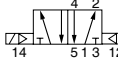
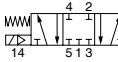
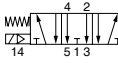
	Symbol	Description	Size	Weight (g)	Order code
		5/2 Air pilot - Spring return	02 - 18 mm	90	DX02-421-60
			01 - 26mm	130	DX01-421-60
		5/2 Air pilot - Differential	02 - 18 mm	90	DX02-451-60
			01 - 26mm	130	DX01-451-60
		5/2 Double air pilot	02 - 18 mm	90	DX02-406-60
			01 - 26mm	130	DX01-406-60
		5/3 Closed Centre (APB)	02 - 18 mm	90	DX02-416-60
			01 - 26mm	130	DX01-416-60
		5/3 Vented Center	02 - 18 mm	90	DX02-411-60
			01 - 26mm	130	DX01-411-60

Isomax - ISO 15407-1 - Sizes 02 & 01**15 mm DIN C / 24 Vdc / 1,2 W solenoid valve operator**

	Symbol	Description	Size	Weight (g)	Order code
		5/2 Single solenoid - Spring return	02 - 18 mm	130	DX02-621-951M
			01 - 26mm	170	DX01-621-951M
		5/2 Single solenoid - Differential	02 - 18 mm	130	DX02-651-951M
			01 - 26mm	170	DX01-651-951M
		5/2 Double solenoid	02 - 18 mm	130	DX02-606-951M
			01 - 26mm	170	DX01-606-951M
		5/3 Closed Centre (APB)	02 - 18 mm	130	DX02-616-951M
			01 - 26mm	170	DX01-616-951M
		5/3 Vented Center	02 - 18 mm	160	DX02-611-951M
			01 - 26mm	170	DX01-611-951M

Solenoid connectors & cable plugs to be ordered separately. See solenoid section

Isomax - ISO 15407-1 - Sizes 02 & 01**Without 15 mm DIN C solenoid valve operator**

	Symbol	Description	Size	Weight (g)	Order code
		5/2 Single solenoid - Spring return	02 - 18 mm	130	DX02-621-60
			01 - 26mm	170	DX01-621-60
		5/2 Single solenoid - Differential	02 - 18 mm	130	DX02-651-60
			01 - 26mm	170	DX01-651-60
		5/2 Double solenoid	02 - 18 mm	130	DX02-606-60
			01 - 26mm	170	DX01-606-60
		5/3 Closed Centre (APB)	02 - 18 mm	130	DX02-616-60
			01 - 26mm	170	DX01-616-60
		5/3 Vented Center	02 - 18 mm	160	DX02-611-60
			01 - 26mm	170	DX01-611-60

15mm solenoid valve operator, solenoid connectors & cable plug to be ordered separately. See solenoid section

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



**For ATEX specific products
contact Sales Office**



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		

Isomax - ISO 5599-1 - Sizes 1, 2 & 3 Pneumatic remote pilot operated With direct valve spool manual override

Symbol	Description	Size	Weight (g)	Order code
	5/2 Air pilot - Spring return	1 - 43 mm	350	DX1-421-70
		2 - 56 mm	600	DX2-421-70
		3 - 71 mm	1100	DX3-421-70
	5/2 Air pilot - Differential	1 - 43 mm	350	DX1-451-70
		2 - 56 mm	600	DX2-451-70
		3 - 71 mm	1100	DX3-451-70
	5/2 Double air pilot	1 - 43 mm	350	DX1-406-70
		2 - 56 mm	600	DX2-406-70
		3 - 71 mm	1100	DX3-406-70
	5/3 Closed Center (APB)	1 - 43 mm	350	DX1-416-70
		2 - 56 mm	600	DX2-416-70
		3 - 71 mm	1100	DX3-416-70
	5/3 Vented Center	1 - 43 mm	350	DX1-411-70
		2 - 56 mm	600	DX2-411-70
		3 - 71 mm	1100	DX3-411-70
	5/3 Pressurised Center	1 - 43 mm	350	DX1-413-70
		2 - 56 mm	600	DX2-413-70

Isomax - ISO 5599-1 - Sizes 1, 2 & 3 Pneumatic remote pilot operated Without direct valve spool manual override

Symbol	Description	Size	Weight (g)	Order code
	5/2 Air pilot - Spring return	1 - 43 mm	350	DX1-421-60
		2 - 56 mm	600	DX2-421-60
		3 - 71 mm	1100	DX3-421-60
	5/2 Air pilot - Differential	1 - 43 mm	350	DX1-451-60
		2 - 56 mm	600	DX2-451-60
		3 - 71 mm	1100	DX3-451-60
	5/2 Double air pilot	1 - 43 mm	350	DX1-406-60
		2 - 56 mm	600	DX2-406-60
		3 - 71 mm	1100	DX3-406-60
	5/3 Closed Center (APB)	1 - 43 mm	350	DX1-416-60
		2 - 56 mm	600	DX2-416-60
		3 - 71 mm	1100	DX3-416-60
	5/3 Vented Center	1 - 43 mm	350	DX1-411-60
		2 - 56 mm	600	DX2-411-60
		3 - 71 mm	1100	DX3-411-60
	5/3 Pressurised Center	1 - 43 mm	350	DX1-413-60
		2 - 56 mm	600	DX2-413-60

Isomax - ISO 5599-1 - Sizes 1, 2 & 3**CNOMO operator with 30 x 30 DIN Form A / 24 Vdc / 2,7 W solenoid**

With non locking manual override on solenoid valve operator - Without direct valve spool manual override

Symbol	Description	Size	Weight (g)	Order code
	5/2 Single solenoid - Spring return	1 - 43 mm	500	DX1-621-BL49
		2 - 56 mm	750	DX2-621-BL49
		3 - 71 mm	1250	DX3-621-BL49
	5/2 Single solenoid - Differential	1 - 43 mm	500	DX1-651-BL49
		2 - 56 mm	750	DX2-651-BL49
		3 - 71 mm	1250	DX3-651-BL49
	5/2 Double solenoid	1 - 43 mm	650	DX1-606-BL49
		2 - 56 mm	900	DX2-606-BL49
		3 - 71 mm	1400	DX3-606-BL49
	5/3 Closed Center (APB)	1 - 43 mm	560	DX1-616-BL49
		2 - 56 mm	900	DX2-616-BL49
		3 - 71 mm	1400	DX3-616-BL49
	5/3 Vented Center	1 - 43 mm	650	DX1-611-BL49
		2 - 56 mm	900	DX2-611-BL49
		3 - 71 mm	1400	DX3-611-BL49
	5/3 Pressurised Center	1 - 43 mm	650	DX1-613-BL49
		2 - 56 mm	900	DX2-613-BL49

Solenoid connectors & cable plug to be ordered separately. See solenoid section

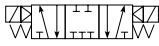
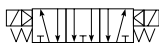
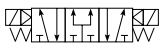
Isomax - ISO 5599-1 - Sizes 1, 2 & 3**CNOMO operator without coil**

With non locking manual override on solenoid valve operator - Without direct valve spool manual override

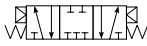
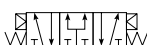
Symbol	Description	Size	Weight (g)	Order code
	5/2 Single solenoid - Spring return	1 - 43 mm	400	DX1-621-BN
		2 - 56 mm	650	DX2-621-BN
		3 - 71 mm	1150	DX3-621-BN
	5/2 Single solenoid - Differential	1 - 43 mm	400	DX1-651-BN
		2 - 56 mm	650	DX2-651-BN
		3 - 71 mm	1150	DX3-651-BN
	5/2 Double solenoid	1 - 43 mm	550	DX1-606-BN
		2 - 56 mm	800	DX2-606-BN
		3 - 71 mm	1300	DX3-606-BN
	5/3 Closed Center (APB)	1 - 43 mm	550	DX1-616-BN
		2 - 56 mm	800	DX2-616-BN
		3 - 71 mm	1300	DX3-616-BN
	5/3 Vented Center	1 - 43 mm	550	DX1-611-BN
		2 - 56 mm	800	DX2-611-BN
		3 - 71 mm	1300	DX3-611-BN
	5/3 Pressurised Center	1 - 43 mm	550	DX1-613-BN
		2 - 56 mm	800	DX2-613-BN

30 x 30 DIN Form A or 22 x 30 DIN Form B coil & coil connectors to be ordered separately. See solenoid section

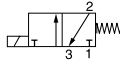
Isomax - ISO 5599-1 - Sizes 1, 2 & 3**Valve alone without operator****With direct valve spool manual override**

Symbol	Description	Size	Weight (g)	Order code
	5/2 Air pilot - Spring return 	1 - 43 mm	350	DX1-621-70
		2 - 56 mm	600	DX2-621-70
		3 - 71 mm	1100	DX3-621-70
	5/2 Air pilot - Differential 	1 - 43 mm	350	DX1-651-70
		2 - 56 mm	600	DX2-651-70
		3 - 71 mm	1100	DX3-651-70
	5/2 Double air pilot 	1 - 43 mm	350	DX1-606-70
		2 - 56 mm	600	DX2-606-70
		3 - 71 mm	1100	DX3-606-70
	5/3 Closed Center (APB) 	1 - 43 mm	350	DX1-616-70
		2 - 56 mm	600	DX2-616-70
		3 - 71 mm	1100	DX3-616-70
	5/3 Vented Center 	1 - 43 mm	350	DX1-611-70
		2 - 56 mm	600	DX2-611-70
		3 - 71 mm	1100	DX3-611-70
	5/3 Pressurised Center 	1 - 43 mm	350	DX1-613-70
		2 - 56 mm	600	DX2-613-70

Isomax - ISO 5599-1 - Sizes 1, 2 & 3**Valve alone without operator****Without direct valve spool manual override**

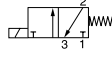
Symbol	Description	Size	Weight (g)	Order code
	5/2 Air pilot - Spring return 	1 - 43 mm	350	DX1-621-60
		2 - 56 mm	600	DX2-621-60
		3 - 71 mm	1100	DX3-621-60
	5/2 Air pilot - Differential 	1 - 43 mm	350	DX1-621-60
		2 - 56 mm	600	DX2-621-60
		3 - 71 mm	1100	DX3-621-60
	5/2 Double air pilot 	1 - 43 mm	350	DX1-606-60
		2 - 56 mm	600	DX2-606-60
		3 - 71 mm	1100	DX3-606-60
	5/3 Closed Center (APB) 	1 - 43 mm	350	DX1-616-60
		2 - 56 mm	600	DX2-616-60
		3 - 71 mm	1100	DX3-616-60
	5/3 Vented Center 	1 - 43 mm	350	DX1-611-60
		2 - 56 mm	600	DX2-611-60
		3 - 71 mm	1100	DX3-611-60
	5/3 Pressurised Center 	1 - 43 mm	350	DX1-613-60
		2 - 56 mm	600	DX2-613-60

15 mm DIN Form C (8mm spacing) pilot solenoid valve - Standard version

	Voltage	W (g)	Manual Overrides		Flush (Not Extended)		Extended	
			Without Manual Override	Order code	Blue Override, non locking	Yellow Override, Locking	Blue Override, non locking	Yellow Override, Locking
 Pins/Air Opposite (Pins UP)	12 Vdc	38		P2E-KV32B0	P2E-KV32B1	P2E-KV32B2	P2E-KV32B3	P2E-KV32B4
	24 Vdc	38		P2E-KV32C0	P2E-KV32C1	P2E-KV32C2	P2E-KV32C3	P2E-KV32C4
	48 Vdc	38		P2E-KV32D0	P2E-KV32D1	P2E-KV32D2	P2E-KV32D3	P2E-KV32D4
	24 Vac 50Hz	38		P2E-KV31C0	P2E-KV31C1	P2E-KV31C2	P2E-KV31C3	P2E-KV31C4
	48 Vac 50/60Hz	38		P2E-KV34D0	P2E-KV34D1	P2E-KV34D2	P2E-KV34D3	P2E-KV34D4
	115 Vac 50Hz	38		P2E-KV31F0	P2E-KV31F1	P2E-KV31F2	P2E-KV31F3	P2E-KV31F4
	120 Vac 60 Hz							
	230 Vac 50Hz	38		P2E-KV31J0	P2E-KV31J1	P2E-KV31J2	P2E-KV31J3	P2E-KV31J4
	240 Vac 60 Hz							

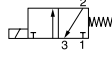
Mounting screws included with the DX valve body

15mm DIN Form C (8mm spacing) pilot solenoid valve - Mobile version

	Voltage	W (g)	Without Manual Override	Order code	Not Extended Blue Override non locking flush	Order code
 Pins/Air Opposite (Pins UP)	12 Vdc	38		P2E-MV35B0	P2E-MV35B1	
	24 Vdc	38		P2E-MV35C0	P2E-MV35C1	
	37,5 Vdc	38		P2E-MV35W0	P2E-MV35W1	
	48 Vdc	38		P2E-MV35D0	P2E-MV35D1	
	72 Vdc	38		P2E-MV35T0	P2E-MV35T1	
	78 Vdc	38		P2E-MV35Y0	P2E-MV35Y1	
	96 Vdc	38		P2E-MV35V0	P2E-MV35V1	
	110 Vdc	38		P2E-MV35E0	P2E-MV35E1	

Mounting screws included with the DX valve body

15mm DIN Form C (8mm spacing) pilot solenoid valve - Food Industry version

	Voltage	W (g)	Without Manual Override	Order code	Not Extended Blue Override non locking flush	Order code	Extended Blue Override non locking flush	Order code	Yellow Override Locking flush	Order code
 Pins/Air Opposite (Pins UP)	24 Vdc	38		P2E-QV32C0	P2E-QV32C1	P2E-QV32C2	P2E-QV32C3	P2E-QV32C4		
	48 Vdc	38		P2E-QV32D0	P2E-QV32D1	P2E-QV32D2				
	24 Vac 50 Hz	38		P2E-QV31C0	P2E-QV31C1	P2E-QV31C2	P2E-QV31C3	P2E-QV31C4		
	48 Vac 50/60Hz	38		P2E-QV34D0	P2E-QV34D1	P2E-QV34D2				
	115 Vac 50Hz/	38		P2E-QV31F0	P2E-QV31F1	P2E-QV31F2	P2E-QV31F3	P2E-QV31F4		
	120 Vac 60Hz									
	230 Vac 50Hz	38		P2E-QV31J0	P2E-QV31J1	P2E-QV31J2	P2E-QV31J3	P2E-QV31J4		
	240 Vac 60Hz/									

Mounting screws included with the DX valve body

Solenoid Connectors 15 mm DIN Form C / ISO15217

	Description	Characteristic	Visualisation	Cable length	W (g)	Order code
	With large headed screw suitable for mounting in inaccessible or recess position	Standard IP65	No LED	No cable	20	P8C-C
			24 Vdc LED	No cable	20	P8C-C26C
			110 Vac LED	No cable	20	P8C-C21E
	With standard screw	Standard IP65	No LED	No cable	15	P8C-D
				2 meters	115	P8L-C2
				5 meters	240	P8L-C5
			24 Vdc/Vac LED	No cable	15	P8C-D26C
				2 meters	170	P8L-C226C
				5 meters	240	P8L-C526C
			110 Vac LED	10 meters	440	P8L-CA26C
				No cable	115	P8C-D21E
				2 meters	115	P8L-C221E
				5 meters	230	P8L-C521E

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

3/2 N.C. CNOMO Operator - Without Coil

	Description	Manual override	W (g)	Order code
	Solenoid operator for 30 x 30 DIN Form A Coil Dedicated to Low Power 2,5W / 3VA Coil	No manual override	65	P2FP23N4A
		Pulse non locking	65	P2FP23N4B
		Locking	65	P2FP23N4C
	Solenoid operator for 30 x 30 DIN Form A Coil Dedicated to High Power 4,5W / 5VA Coil	No manual override	65	EV3000100
		Pulse non locking	65	EV3001100
		Locking	65	EV3003100
	Solenoid operator for 22 x 30 DIN Form B Coil Dedicated to Low Power 2,5W / 4,5VA Coil	No manual override	65	1EV0*310
		Pulse non locking	65	1EV1*310
		Locking	65	1EV3*310

30 x 30 DIN Form A and 22 x 30 DIN Form B Coils for CNOMO Operator

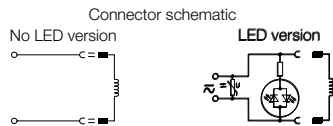
	Voltage	W (g)	30 x 30 DIN Form A		22 x 30 DIN Form B	
			Low Power (to be used with P2FP23N4x)	High Power (to be used with EV300x100)	Low Power (to be used with 1EVx*310)	
			Order code	Order code	W (g)	Order code
	12 Vdc	105	P2FCA445	P2FCA545	93	P2FCB345
	24 Vdc	105	P2FCA449	P2FCA549	93	P2FCB349
	48 Vdc	105	P2FCA451	P2FCA551	93	P2FCB351
	12 Vac 50/60 Hz	105	P2FCA440	P2FCA540	93	P2FCB340
	24 Vac 50/60 Hz	105	P2FCA445	P2FCA545	93	P2FCB345
	48 Vac 50/60 Hz	105	P2FCA449	P2FCA549	93	P2FCB349
	110 Vac 50 Hz / 120 Vac 60 Hz	105	P2FCA453	P2FCA553	93	P2FCB353
	230 Vac 50 Hz / 240 Vac 60 Hz	105	P2FCA457	P2FCA557	93	P2FCB357

Spare Solenoid Nuts

	Description	Usage	W (g)	Order code
	Plastic knurled nut	For valve requiring Captured exhaust	5	P2FNPA
	Diffuser plastic nut	For valve requiring Vented exhaust	5	P2FNDA

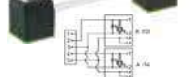
30 x 30 DIN Form A and 22 x 30 DIN Form B Solenoid Connectors

	Description	Characteristic	Visualisation	Cable length	W (g)	Order code
	30 x 30 DIN Form A connector With standard screw	Standard IP65	No LED	No cable	15	3EV290V10
			24 Vdc/Vac LED	No cable	30	3EV290V20-24
				5 meters	355	3EV290V20-24L5
			110 Vac LED	No cable	30	3EV290V20-110
				5 meters	470	3EV290V20-110L5
			230 Vac LED	No cable	30	3EV290V20-230
				5 meters	350	3EV290V20-230L5
	22 x 30 DIN Form B connector With standard screw	Standard IP65	No LED	No cable	15	3EV10V10
			24 Vdc/Vac LED	No cable	20	3EV10V20-24
				5 meters	350	3EV10V20-24L5
			110 Vac LED	No cable	25	3EV10V20-110
				5 meters	355	3EV10V20-110L5
			230 Vac LED	No cable	25	3EV10V20-230
				5 meters	360	3EV10V20-230L5



M12 Adaptor for 30 x 30 DIN Form A Coil

	Description	Characteristics	Visualisation	Cable	W (g)	Order code
	M12 Connector for one coil	24 V AC/DC - 4A	LED	No cable	30	P8C-A626C
	M12 Connector for two coils	24 V AC/DC - 4A	LED	No cable	70	P8C-AM26C



Note: Solenoid pilot operators are fitted to the ISO 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.

H Series ISO Valves

A complete range of pneumatic
ISO valves



Flexibility, fast response, and high performance

Parker's H Series ISO valve line offers a complete ISO valve package, from ISO 15407 18mm and 26mm valves, to the larger ISO 5599 size 1, 2, and 3 valves, all available in either plug-in -2 or individual connector -1 options.

- **ISO 15407-1 & 15407-2 Sizes 02 & 01 and ISO 5599-1 & 5599-2 Sizes 1, 2 & 3**
- **From vacuum up to 10 bar applications**
- **Internal or external pilot supply with same valves**

H Series ISO Valves - Heavy Duty Applications

Market Applications

- Automotive
- Machine tools
- Mobile



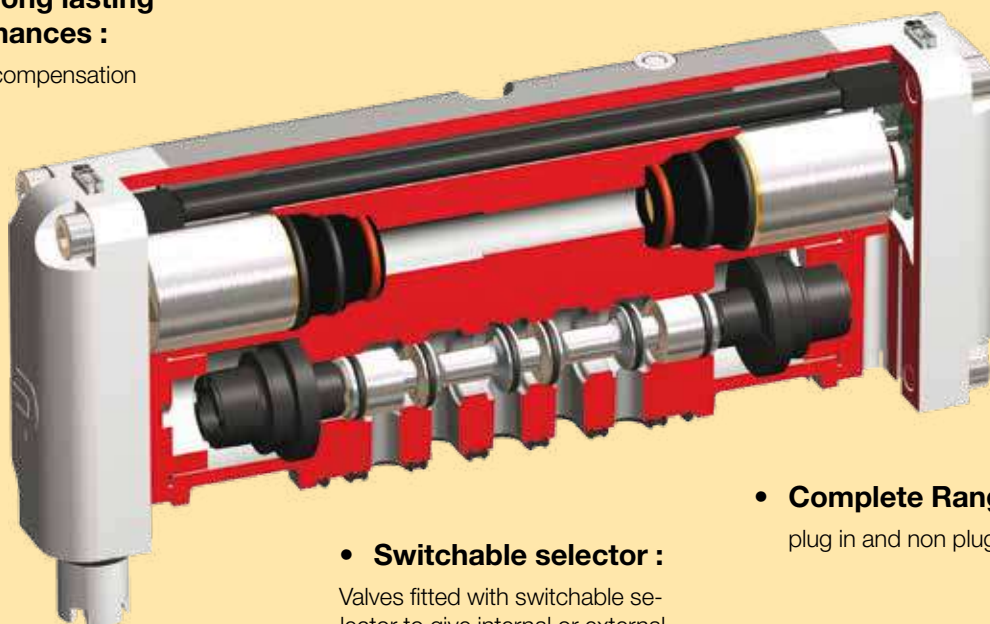
- **Excellent reliability :**

Long life in excess of 30 million operations.

- **Heavy Duty Metal Body**

- **Stable long lasting performances :**

due to wear compensation

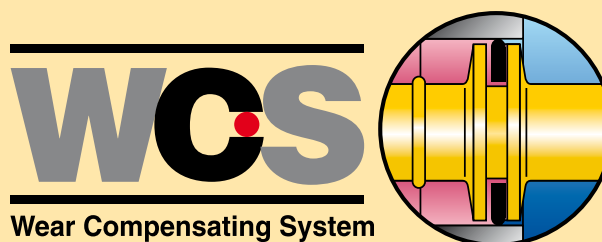


- **Complete Range :**
plug in and non plug in

- **Switchable selector :**

Valves fitted with switchable selector to give internal or external pilot supply

- **WCS Spool Technology**



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

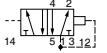
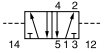
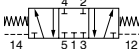
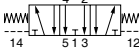
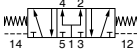
- Size HA and HB (26mm and 18mm)
- Heavy duty and corrosion resistant body
- Internal led & rectifier
- Internal or external pilot supply with same valve
- M12 common wiring



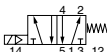
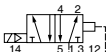
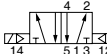
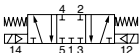
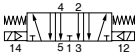
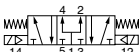
Operation information

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

H Series ISO 15407-1 - Sizes 02 & 01
Pneumatic remote pilot operated

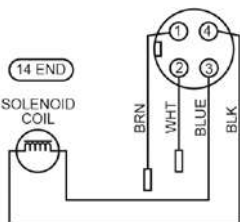
	Symbol	Description	Size	Weight (g)	Order code
 HB 18 mm		5/2 Air pilot - Spring return	02 - 18 mm	150	HBFWX000XXA
			01 - 26 mm	250	HAFWX000XXA
 HA 26 mm		5/2 Air pilot - Differential	02 - 18 mm	150	HB3WX000XXA
			01 - 26 mm	250	HA3WX000XXA
		5/2 Double air pilot	02 - 18 mm	165	HB4WX000XXA
			01 - 26 mm	265	HA4WX000XXA
		5/3 Closed Center (APB)	02 - 18 mm	165	HB8WX000XXA
			01 - 26 mm	265	HA8WX000XXA
		5/3 Vented Center	02 - 18 mm	165	HB9WX000XXA
			01 - 26 mm	265	HA9WX000XXA
		5/3 Pressurised Center	02 - 18 mm	165	HB0WX000XXA
			01 - 26 mm	265	HA0WX000XXA

H Series ISO 15407-1 - Sizes 02 & 01
With 24 Vdc / 1 W built-in coil - Integrated M12 connector
Oriented side 14, LED & Surge suppressor

	Symbol	Description	Size	Weight (g)	Order code
 HB 18 mm		5/2 Air pilot - Spring return	02 - 18 mm	150	HBEXWBG2G9000FA
			01 - 26 mm	250	HAEXWBG2G9000FA
 HA 26 mm		5/2 Air pilot - Differential	02 - 18 mm	150	HB1WXBG2G9000FA
			01 - 26 mm	250	HA1WXBG2G9000FA
		5/2 Double air pilot	02 - 18 mm	165	HB2WXBG2G9000FA
			01 - 26 mm	265	HA2WXBG2G9000FA
		5/3 Closed Center (APB)	02 - 18 mm	165	HB5WXBG2G9000FA
			01 - 26 mm	265	HA5WXBG2G9000FA
		5/3 Vented Center	02 - 18 mm	165	HB6WXBG2G9000FA
			01 - 26 mm	265	HA6WXBG2G9000FA
		5/3 Pressurised Center	02 - 18 mm	165	HB7WXBG2G9000FA
			01 - 26 mm	265	HA7WXBG2G9000FA

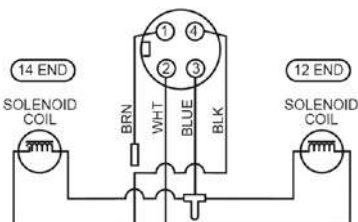
ISO 20401
4-Pin Male / Single Solenoid

4-PIN Micro
(Top Cover)



ISO 20401
4-Pin Male / Double Solenoid

4-PIN Micro
(Top Cover)



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

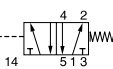
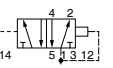
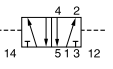
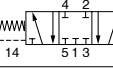
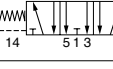
- Size 1, 2, 3
- Heavy duty and corrosion resistant body
- Vacuum to 10 bar
- Internal or external pilot supply with same valve
- Din A, M12, M23 connections



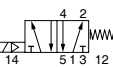
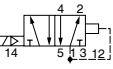
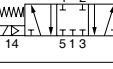
Operation information

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

H Series ISO 5599-1 - Sizes 1, 2 & 3 Pneumatic Remote Pilot operated valve

Symbol	Description	Size	Weight (g)	Order code
	5/2 Single solenoid - Spring return	1 - 43 mm	600	H1FWX000XXD
		2 - 56 mm	1020	H2FWX000XXD
		3 - 71 mm	1300	H3FWX000XXD
	5/2 Single solenoid - Differential	1 - 43 mm	600	H13WX000XXD
		2 - 56 mm	1020	H23WX000XXD
		3 - 71 mm	1300	H33WX000XXD
	5/2 Double solenoid	1 - 43 mm	600	H14WX000XXD
		2 - 56 mm	1020	H24WX000XXD
		3 - 71 mm	1300	H34WX000XXD
	5/3 Closed Center (APB)	1 - 43 mm	600	H18WX000XXD
		2 - 56 mm	1020	H28WX000XXD
		3 - 71 mm	1300	H38WX000XXD
	5/3 Vented Center	1 - 43 mm	600	H19WX000XXD
		2 - 56 mm	1020	H29WX000XXD
		3 - 71 mm	1300	H39WX000XXD
	5/3 Pressurised Center	1 - 43 mm	600	H10WX000XXD
		2 - 56 mm	1020	H20WX000XXD
		3 - 71 mm	1300	H30WX000XXD

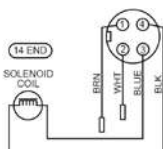
H Series ISO 5599-1 - Sizes 1, 2 & 3 CNOMO operator with Central M12 connector / 24 Vdc / 2,7 W solenoid

Symbol	Description	Size	Weight (g)	Order code
	5/2 Single solenoid - Spring return	1 - 43 mm	770	H1EWXBG2B9000FD
		2 - 56 mm	1290	H2EWXBG2B9000FD
		3 - 71 mm	1570	H3EWXBG2B9000FD
	5/2 Single solenoid - Differential	1 - 43 mm	770	H11WXBG2B9000FD
		2 - 56 mm	1290	H21WXBG2B9000FD
		3 - 71 mm	1570	H31WXBG2B9000FD
	5/2 Double solenoid	1 - 43 mm	1040	H12WXBG2B9000FD
		2 - 56 mm	1460	H22WXBG2B9000FD
		3 - 71 mm	1740	H32WXBG2B9000FD
	5/3 Closed Center (APB)	1 - 43 mm	1040	H15WXBG2B9000FD
		2 - 56 mm	1460	H25WXBG2B9000FD
		3 - 71 mm	1740	H35WXBG2B9000FD
	5/3 Vented Center	1 - 43 mm	1040	H16WXBG2B9000FD
		2 - 56 mm	1460	H26WXBG2B9000FD
		3 - 71 mm	1740	H36WXBG2B9000FD
	5/3 Pressurised Center	1 - 43 mm	1040	H17WXBG2B9000FD
		2 - 56 mm	1460	H27WXBG2B9000FD
		3 - 71 mm	1740	H37WXBG2B9000FD

ISO 20401

4-Pin Male / Single Solenoid

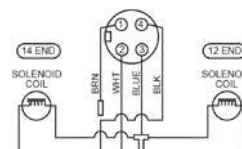
4-PIN Micro
(Top Cover)



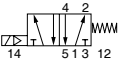
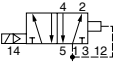
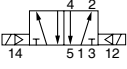
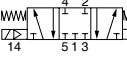
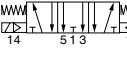
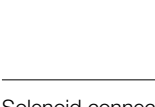
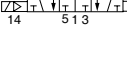
ISO 20401

4-Pin Male / Double Solenoid

4-PIN Micro
(Top Cover)

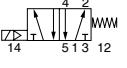
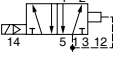
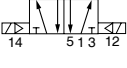
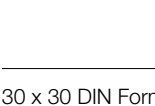
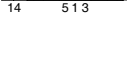


H Series ISO 5599-1 - Sizes 1, 2 & 3**CNOMO operator with 30 x 30 DIN Form A / 24 Vdc / 2,7 W solenoid**

Symbol	Description	Size	Weight (g)	Order code
 	5/2 Single solenoid - Spring return	1 - 43 mm	770	H1EWXBBL49D
		2 - 56 mm	1190	H2EWXBBL49D
		3 - 71 mm	1470	H3EWXBBL49D
 	5/2 Single solenoid - Differential	1 - 43 mm	770	H11WXBBL49D
		2 - 56 mm	1190	H21WXBBL49D
		3 - 71 mm	1470	H31WXBBL49D
 	5/2 Double solenoid	1 - 43 mm	940	H12WXBBL49D
		2 - 56 mm	1360	H22WXBBL49D
		3 - 71 mm	1640	H32WXBBL49D
 	5/3 Closed Center (APB)	1 - 43 mm	940	H15WXBBL49D
		2 - 56 mm	1360	H25WXBBL49D
		3 - 71 mm	1640	H35WXBBL49D
 	5/3 Vented Center	1 - 43 mm	940	H16WXBBL49D
		2 - 56 mm	1360	H26WXBBL49D
		3 - 71 mm	1640	H36WXBBL49D
 	5/3 Pressurised Center	1 - 43 mm	940	H17WXBBL49D
		2 - 56 mm	1360	H27WXBBL49D
		3 - 71 mm	1640	H37WXBBL49D

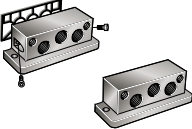
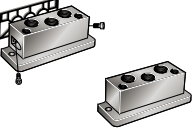
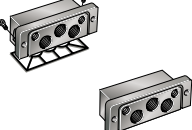
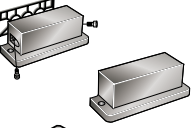
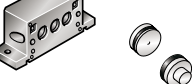
Solenoid connectors & cable plug to be ordered separately. See solenoid section

H Series ISO 5599-1 - Sizes 1, 2 & 3**CNOMO operator without coil**

Symbol	Description	Size	Weight (g)	Order code
 	5/2 Single solenoid - Spring return	1 - 43 mm	650	H1EWXBBNXXD
		2 - 56 mm	1070	H2EWXBBNXXD
		3 - 71 mm	1350	H3EWXBBNXXD
 	5/2 Single solenoid - Differential	1 - 43 mm	650	H11WXBBNXXD
		2 - 56 mm	1070	H21WXBBNXXD
		3 - 71 mm	1350	H31WXBBNXXD
 	5/2 Double solenoid	1 - 43 mm	700	H12WXBBNXXD
		2 - 56 mm	1120	H22WXBBNXXD
		3 - 71 mm	1400	H32WXBBNXXD
 	5/3 Closed Center (APB)	1 - 43 mm	700	H15WXBBNXXD
		2 - 56 mm	1120	H25WXBBNXXD
		3 - 71 mm	1400	H35WXBBNXXD
 	5/3 Vented Center	1 - 43 mm	700	H16WXBBNXXD
		2 - 56 mm	1120	H26WXBBNXXD
		3 - 71 mm	1400	H36WXBBNXXD
 	5/3 Pressurised Center	1 - 43 mm	700	H17WXBBNXXD
		2 - 56 mm	1120	H27WXBBNXXD
		3 - 71 mm	1400	H37WXBBNXXD

30 x 30 DIN Form A or 22 x 30 DIN Form B solenoid & solenoid connectors to be ordered separately. See solenoid section

Bottom ported manifold & End plate - ISO 15407-1 - Sizes 02 & 01

Description		Size	Port Size	Weight (g)	Order code		
	Two valve position manifold	Int. pilot supply	02 - 18 mm	1/8 BSPP	200	P2V-AM511PB	
			01 - 26 mm	1/4 BSPP	400	P2V-BM512PB	
	Including seal, fitting screws and plugs.	Ext. pilot supply	02 - 18 mm	1/8 BSPP	200	P2V-AM511NB	
			01 - 26 mm	1/4 BSPP	400	P2V-BM512NB	
	Side ported		Left end plate	02 - 18 mm	1/4 BSPP	180	P2V-AM512GS
			Including seal and fitting screws	01 - 26 mm	3/8 BSPP	210	P2V-BM513GS
			Right end plate	02 - 18 mm	1/4 BSPP	180	P2V-AM512HS
				01 - 26 mm	3/8 BSPP	210	P2V-BM513HS
	Top ported		Left end plate	02 - 18 mm	1/4 BSPP	180	P2V-AM512GT
			Including seal and fitting screws	01 - 26 mm	3/8 BSPP	210	P2V-BM513GT
			Right end plate	02 - 18 mm	1/4 BSPP	180	P2V-AM512HT
				01 - 26 mm	3/8 BSPP	210	P2V-BM513HT
	Bottom ported		Left end plate	02 - 18 mm	1/4 BSPP	180	P2V-AM512GB
			Including seal and fitting screws	01 - 26 mm	3/8 BSPP	220	P2V-BM513GB
			Right end plate	02 - 18 mm	1/4 BSPP	180	P2V-AM512HB
				01 - 26 mm	3/8 BSPP	220	P2V-BM513HB
	End cover		Left end plate	02 - 18 mm		190	P2V-AM500G0
			Including seal and fitting screws	01 - 26 mm		240	P2V-BM500G0
			Right end plate	02 - 18 mm		190	P2V-AM500H0
				01 - 26 mm		240	P2V-BM500H0
Size manifolds adaptor plate			02 to 01		330	P2V-AM500BE	
	Plug	Left end plate	02 - 18 mm		4	P2V-AK0P	
			01 - 26 mm		10	P2V-BK0P	

Side ported individual subbase - ISO 15407-1 - Sizes 02 & 01

Description		Size	Port Size	Weight (g)	Order code
	Individual Subbase Can be used for External pilot supply or Single or Double pneumatic remote pilot	02 - 18 mm	1/8 BSPP	70	PL02-01-70
			1/8 NPT	70	PL02-01-80
		01 - 26 mm	1/4 BSPP	120	PL01-02-70
			1/4 NPT	120	PL01-02-80

Front ported manifold & End plate - ISO 15407-1 - Sizes 02 & 01

Description		Size	Port Size	Weight (g)	Order code
	Two position manifold base Can be used for External pilot supply Cannot be used for remote pilot	02 - 18 mm	1/8 BSPP	140	PJLP02-201-70
			1/8 NPT	140	PJLP02-201-80
		01 - 26 mm	1/4 BSPP	700	PJLP01-202-70
			1/4 NPT	700	PJLP01-202-80
	Two position manifold base Can be used for External pilot supply using #14 or Single or Double pneumatic remote pilot	01 - 26 mm	1/4 BSPP	730	PJL01-202-70
			1/4 NPT	730	PJL01-202-80
	End plate kit	02 - 18 mm	1/4 BSPP	150	PEJ02-02-70
			1/4 NPT	150	PEJ02-02-80
		01 - 26 mm	3/8 BSPP	520	PEJ01-03-70
			3/8 NPT	520	PEJ01-03-80

Accessories

	Description	Size	Weight (g)	Order code
	Blanking plate	02 - 18 mm	40	DX02BLK
		01 - 26 mm	50	DX01BLK
	Blanking plug	02 - 18 mm	10	D02BD0
		01 - 26 mm	20	D01BD0
	Bolt, Washer and Nut	02 - 18 mm & 01 - 26 mm	120	DX02M2MB

VDMA Side Ported Subbases

	Description	Size	Port size	Weight (g)	Order code
	Subbases VDMA	1 - 43mm	G1/4	160	P2N-VS512SD
	Side port according to VDMA	2 - 56mm	G3/8	280	P2N-WS513SD
		3 - 71mm	G1/2	350	P2N-YS514SD

VDMA Bottom Ported Manifold

	Description	Size	Port size	Weight (g)	Order code
	VDMA Form C	1 - 43mm	G1/4	240	P2N-VM512MB
	Bottom port according to VDMA	2 - 56mm	G3/8	360	P2N-WM513MB
		3 - 71mm	G1/2	700	P2N-YM514MB
	VDMA Transition plate	1 to 3	G1/4		P2N-VM500AK
	Size 1 to Size 3				
	Kit includes: Transition plate only				
	VDMA Form D - End plate	1 - 43mm	G3/8	210	P2N-VM513ES
	According to VDMA	2 - 56mm	G1/2	360	P2N-WM514ES
		3 - 71mm	G1	680	P2N-YM518ES
	VDMA Isolation - Main galley	1 - 43mm			P2N-VK0P
	According to VDMA	2 - 56mm			P2N-WK0P
	Kit includes: (1) Isolator plug.	3 - 71mm			P2N-YK0P

Accessories

	Description	Size	Port size	Weight (g)	Order code
	Blanking plate	1 - 43mm	G1/4	100	P2N-AA5B
	Kit includes: (1) Blanking plate, (1) Gasket	2 - 56mm	G3/8	150	P2N-BA5B
	and (4) Mounting bolts	3 - 71mm	G1/2	200	P2N-CA5B

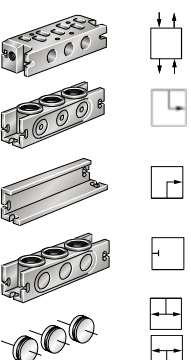
Side ported subbases

	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	

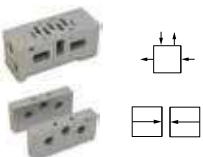
Bottom ported subbases

	Description	Size	Port size	Weight	Order code BSP	Order code NPT
	Single subbase with bottom 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	PD2-3/8-80
		3 - 71mm	G1/2	0.59	PD3-1/2-70	

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

Plug-in 15407-2, Size 02 (18mm - HB) & 01 (26mm - HA) End Plate Kits

Left and Right end plates, with pressure exhaust and auxilliary ports

Individual connection

	Description	ISO Size	Port size	Weight (g)	Order code
	No connector To be used with individually wired base	02 & 01	G3/8"	-	PS5631011P

Multiwiring connection

	Description	ISO Size	Port size	Weight (g)	Order code
	16-Points Terminal Strip	02 & 01	G3/8"	-	PS5620L51P
	25-Pin, D-Sub	02 & 01	G3/8"	-	PS5620L21P
	19-Pin, Round, Brad Harrison	02 & 01	G3/8"	-	PS5620L31P
	M23, 12-Pin	02 & 01	G3/8"	-	PS5620L41P
	M23, 19-Pin	02 & 01	G3/8"	-	PS5620M21P

Accessories

	Description	Protection	Length	Weight (g)	Order code
	25-Pin - D-Sub cable	IP40	3 meters	380	P8LMH25M3A
			9 meters	780	P8LMH25M9A
		IP65	9 meters	790	P8LMH25B9A

Adaptors for Industrial Communication

	Description	ISO Size	Port size	Weight (g)	Order code
	Turck BL76 Valve Driver Module Without 16 DO module 16 outputs and blank module to be ordered seaparely (See Turck BL67 section)	02 & 01	G3/8"	-	PS5620T01P
	Turck BL76 Valve Driver Module For configuration up to 16 solenoids Including 1 x 16 DO & 1 blank module	02 & 01	G3/8"	-	PS5620T11P
	Turck BL76 Valve Driver Module For configuration up to 32 solenoids Including 2 x 16 DO modules	02 & 01	G3/8"	-	PS5620T21P
	Industrial Communication Valve Driver Module For configuration up to 32 solenoids	02 & 01	G3/8"	-	PS5620L61P
	Moduflex Fieldbus module adaptor	02 & 01	G3/8"	-	PS5620M41P

For Turck BL67, Moduflex communication gateways and I/O modules, refer to respective sections in following pages.

Plug-in 15407-2, Size 02 (18mm - HB) & 01 (26mm - HA) Manifold Kits

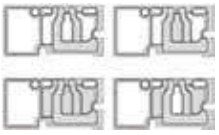
2 Position Front Ported Manifold

	Description	ISO Size	Port size	Weight (g)	Order code	
	Non collective wiring	Terminal strip For single or double solenoid valves	01	G1/4"	520	PS551154CP
	Collective wiring	Single address board For single solenoid valves	02	G1/8"	450	PS561152JP
			01	G1/4"	520	PS551154JP
		Double address board For double solenoid valves	02	G1/8"	450	PS561152MP
			01	G1/4"	520	PS551154MP
	Extension Manifold Including ribbon cable	Single address board For single solenoid valves	02	G1/8"	450	PS561152NP
			01	G1/4"	520	PS551154NP
		Double address board For double solenoid valves	02	G1/8"	450	PS561152PP
			01	G1/4"	520	PS551154PP

2 Position Front and Bottom Ported Manifold

Description		ISO Size	Port size	Weight (g)	Order code	
	Non collective wiring	Terminal strip For single or double solenoid valves	01	G1/4"	520	PS551164CP
	Collective wiring	Single address board For single solenoid valves	02	G1/8"	450	PS561162JP
			01	G1/4"	520	PS551164JP
		Double address board For double solenoid valves	02	G1/8"	450	PS561162MP
			01	G1/4"	520	PS551164MP
	Extension Manifold Including ribbon cable	Single address board For single solenoid valves	02	G1/8"	450	PS561162NP
			01	G1/4"	520	PS551164NP
		Double address board For double solenoid valves	02	G1/8"	450	PS561162PP
			01	G1/4"	520	PS551164PP

Accessories

Description		Blocked ports	ISO Size	Port size	Weight (g)	Order code
	Blanking Plate		02	G1/8"	-	PS5634P
			01	G1/4"	-	PS5534P
	Manifold to Manifold gasket kit	No port plugged	02 & 01		-	PS5611AP
		#1	02 & 01		-	PS5611BP
		#1, 3 & 5	02 & 01		-	PS5611CP
		#3 & 5	02 & 01		-	PS5611DP

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 Turck BL67 Remote I/O System or Moduflex Bus



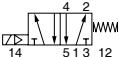
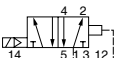
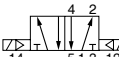
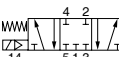
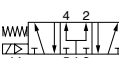
Operation information

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

H Series ISO Plug-in 15407-2 - Sizes 02 & 01

With 24 Vdc / 1 W built-in coil

Manual override non locking, LED & surge suppressor

	Symbol	Description	Size	Weight (g)	Order code
 HB 18 mm		5/2 single solenoid - Spring return	02 - 18mm	130	HBEVXBG0G9A
			01 - 26mm	230	HAEVXBG0G9A
		5/2 single solenoid - Differential	02 - 18mm	130	HB1VXBG0G9A
			01 - 26mm	230	HA1VXBG0G9A
 HA 26 mm		5/2 double solenoid	02 - 18mm	145	HB2VXBG0G9A
			01 - 26mm	245	HA2VXBG0G9A
		5/3 Closed center (APB)	02 - 18mm	145	HB5VXBG0G9A
			01 - 26mm	245	HA5VXBG0G9A
		5/3 Vented center	02 - 18mm	145	HB6VXBG0G9A
			01 - 26mm	245	HA6VXBG0G9A
		5/3 Pressurised center	02 - 18mm	145	HB7VXBG0G9A
			01 - 26mm	245	HA7VXBG0G9A

Plug-in 5599-2, Sizes 1, 2 & 3 End Plate Kits

Left and Right end plates, with pressure exhaust and auxilliary ports

Individual connection

	Description	ISO Size	Port size	Weight (g)	Order code
	No connector	Size 1	G1/2"	1360	PS4031011CP
	To be used with individually wired base	Size 2	G3/4"	1600	PS4131011CP
		Size 3	G3/4"	2800	PS4231011CP

Multiwiring connection

	Description	ISO Size	Port size	Weight (g)	Order code
	25-Pin, D-Sub	Size 1	G1/2"	1360	PS4020L21CP
		Size 2	G3/4"	1600	PS4120L21CP
		Size 3	G3/4"	2800	PS4220L21CP
	19-Pin, Round, Brad Harrison	Size 1	G1/2"	1360	PS4020L31CP
		Size 2	G3/4"	1600	PS4120L31CP
		Size 3	G3/4"	2800	PS4220L31CP
	19-Pin, M23	Size 1	G1/2"	1360	PS4020M21CP
		Size 2	G3/4"	1600	PS4120M21CP
		Size 3	G3/4"	2800	PS4220M21CP
	12-Pin, M23	Size 1	G1/2"	1360	PS4020L41CP
		Size 2	G3/4"	1600	PS4120L41CP
		Size 3	G3/4"	2800	PS4220L41CP

Accessories

	Description	Protection	Length	Weight (g)	Order code
	25-Pin - D-Sub cable	IP40	3 meters	380	P8LMH25M3A
			9 meters	780	P8LMH25M9A
		IP65	9 meters	790	P8LMH25B9A

Adaptors for Industrial Communication

	Description	ISO Size	Port size	Weight (g)	Order code
	Turck BL76 Valve Driver Module Without 16 DO module 16 outputs and blank module to be ordered seaparely (See Turck BL67 section)	Size 1	G1/2"	1400	PS4020T01CP
		Size 2	G3/4"	1600	PS4120T01CP
		Size 3	G3/4"	2800	PS4220T01CP
	Turck BL76 Valve Driver Module For configuration up to 16 solenoids Including 1 x 16 DO & 1 blank module	Size 1	G1/2"	1520	PS4020T11CP
		Size 2	G3/4"	1720	PS4120T11CP
		Size 3	G3/4"	2920	PS4220T11CP
	Turck BL76 Valve Driver Module For configuration up to 32 solenoids Including 2 x 16 DO modules	Size 1	G1/2"	1520	PS4020T21CP
		Size 2	G3/4"	1720	PS4120T21CP
		Size 3	G3/4"	2920	PS4220T21CP
	Industrial Communication Valve Driver Module For configuration up to 32 solenoids	Size 1	G1/2"	1580	PS4020L61CP
		Size 2	G3/4"	1800	PS4120L61CP
		Size 3	G3/4"	3000	PS4220L61CP
	Moduflex Fieldbus module adaptor	Size 1	G1/2"	1300	PS4020M41CP
		Size 2	G3/4"	1500	PS4120M41CP
		Size 3	G3/4"	2700	PS4220M41CP

For Turck BL67, Moduflex communication gateways and I/O modules, refer to respective sections in following pages.

Plug-in 5599-2, Sizes 1, 2 & 3 Manifold Kits

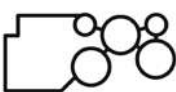
Single Position Front Ported Manifold

Description			ISO Size	Port size	Weight (g)	Order code
	Non collective wiring	Terminal strip For single or double solenoid valves	2 - 56 mm	G1/2"	-	PS411158CCP
			3 - 71 mm	G3/4"	-	PS421150CCP
	Collective wiring	Single address board For single solenoid valves	2 - 56 mm	G1/2"	-	PS411158JCP
			3 - 71 mm	G3/4"	-	PS421150JCP
		Double address board For double solenoid valves	2 - 56 mm	G1/2"	-	PS411158MCP
			3 - 71 mm	G3/4"	-	PS421150MCP

Single Position Front & Bottom Ported Manifold

Description			ISO Size	Port size	Weight (g)	Order code
	Non collective wiring	Terminal strip For single or double solenoid valves	1 - 43 mm	G3/8"	-	PS401166CCP
			2 - 56 mm	G1/2"	-	PS411168CCP
			3 - 71 mm	G3/4"	-	PS421160CCP
	Collective wiring	Single address board For single solenoid valves	1 - 43 mm	G3/8"	-	PS401166JCP
			2 - 56 mm	G1/2"	-	PS411168JCP
			3 - 71 mm	G3/4"	-	PS421160JCP
		Double address board For double solenoid valves	1 - 43 mm	G3/8"	-	PS401166MCP
			2 - 56 mm	G1/2"	-	PS411168MCP
			3 - 71 mm	G3/4"	-	PS421160MCP

Accessories

Description			ISO Size	Port size	Weight (g)	Order code
	Blanking Plate		1 - 43 mm	G3/8"	-	PS4034CP
			2 - 56 mm	G1/2"	-	PS4134CP
			3 - 71 mm	G3/4"	-	PS4234CP
	Insulating Plugs		1 - 43 mm	G3/8"	-	PS4032CP
			2 - 56 mm	G1/2"	-	PS4132CP
			3 - 71 mm	G3/4"	-	PS4232CP
	Manifold to Manifold Gasket Kit		1 - 43 mm	G3/8"	-	PS4013P
			2 - 56 mm	G1/2"	-	PS4113P
			3 - 71 mm	G3/4"	-	PS4213P

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 Turck BL67 Remote I/O System or Moduflex Bus

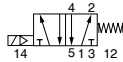
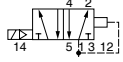
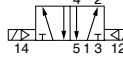
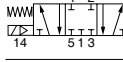
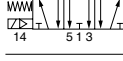
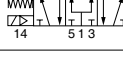


Operation information

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

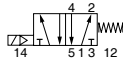
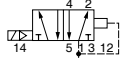
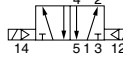
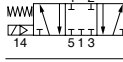
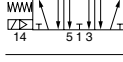
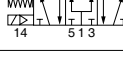
H Series ISO 5599-2 - Sizes 1, 2 & 3

Solenoid operated ISO valve with operator and 24 Vdc / 2,7 W Plug-in coil

Symbol	Description	Size	Weight (g)	Order code
	5/2 single solenoid - Spring return	1 - 43 mm	770	H1EVXBG0B9D
		2 - 56 mm	1190	H2EVXBG0B9D
		3 - 71 mm	1470	H3EVXBG0B9D
	5/2 single solenoid - Differential	1 - 43 mm	770	H11VXBG0B9D
		2 - 56 mm	1190	H21VXBG0B9D
		3 - 71 mm	1470	H31VXBG0B9D
	5/2 double solenoid	1 - 43 mm	940	H12VXBG0B9D
		2 - 56 mm	1360	H22VXBG0B9D
		3 - 71 mm	1640	H32VXBG0B9D
	5/3 Closed center (APB)	1 - 43 mm	940	H15VXBG0B9D
		2 - 56 mm	1360	H25VXBG0B9D
		3 - 71 mm	1640	H35VXBG0B9D
	5/3 Vented center	1 - 43 mm	940	H16VXBG0B9D
		2 - 56 mm	1360	H26VXBG0B9D
		3 - 71 mm	1640	H36VXBG0B9D
	5/3 Pressurised center	1 - 43 mm	940	H17VXBG0B9D
		2 - 56 mm	1360	H27VXBG0B9D
		3 - 71 mm	1640	H37VXBG0B9D

H Series ISO 5599-2 - Sizes 1, 2 & 3

Solenoid operated ISO valve with operator without Plug-in coil

Symbol	Description	Size	Weight (g)	Order code
	5/2 single solenoid - Spring return	1 - 43 mm	650	H1EVXBG0NXXD
		2 - 56 mm	1070	H2EVXBG0NXXD
		3 - 71 mm	1350	H3EVXBG0NXXD
	5/2 single solenoid - Differential	1 - 43 mm	650	H11VXBG0NXXD
		2 - 56 mm	1070	H21VXBG0NXXD
		3 - 71 mm	1350	H31VXBG0NXXD
	5/2 double solenoid	1 - 43 mm	700	H12VXBG0NXXD
		2 - 56 mm	1120	H22VXBG0NXXD
		3 - 71 mm	1400	H32VXBG0NXXD
	5/3 Closed center (APB)	1 - 43 mm	700	H15VXBG0NXXD
		2 - 56 mm	1120	H25VXBG0NXXD
		3 - 71 mm	1400	H35VXBG0NXXD
	5/3 Vented center	1 - 43 mm	700	H16VXBG0NXXD
		2 - 56 mm	1120	H26VXBG0NXXD
		3 - 71 mm	1400	H36VXBG0NXXD
	5/3 Pressurised center	1 - 43 mm	700	H17VXBG0NXXD
		2 - 56 mm	1120	H27VXBG0NXXD
		3 - 71 mm	1400	H37VXBG0NXXD

Plug-in Coil for 5599-2 ISO Valve - Sizes 1, 2 & 3

Description	Voltage	Weight (g)	Order code
Plug-in coil	12 Vdc	-	PS404145P
	24 Vdc	-	PS4041B9P
	24 Vac	-	PS404142P
	120 Vac	-	PS404123P
	240 Vac	-	PS404157P



Sandwich regulator for Plug-in or not Plug-in ISO 15407 (Sizes 02 & 01) and 5599 (Sizes 1, 2 & 3)

Order chart

Function Description see below

PS40 **37** **1** **6** **6** **CP**

ISO Size	
ISO 15407	
PS56	Size 02 (HB - 18 mm)
PS55	Size 01 (HA - 26 mm)
ISO 5599	
PS40	Size 1 (H1 - 43 mm)
PS41	Size 2 (H2 - 56 mm)
PS42	Size 3 (H3 - 71 mm)

ISO Version	
P	For ISO 15407
CP	For ISO 5599

Connecting version	
37	ISO-1 : For Non Plug-in Valve
38	ISO-2 : For Plug-in Valve

Regulator function	
1	Common Pressure Regulator
2	Independent Pressure Regulator

Port 4	
0	Line By-Pass Plate**
1	0-2 Bar - without gauge
2	0-4 Bar - without gauge
3	0-8 Bar - without gauge
4	0-2 Bar - with gauge
5	0-4 Bar - with gauge
6	0-8 Bar - with gauge

* For Common Pressure Regulator Option, Regulator Gauge callout must be the same number for both port #4 and Port #2 (Example: 166)

** For H1, H2 & H3 only. Pressure Line By-Pass Option can only be used with Independent Pressure Regulators

Pressure Regulators functions

Common port regulation

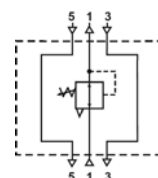
Provides adjustable regulated air pressure to the valves #1 port which gives the same regulated pressure to both the #2 and #4 port of the manifold or subbase. The regulator is always on the 14 end of the valve.



For HB & HA



For H1, H2 & H3



Part number code 1 X X

Independent port regulation

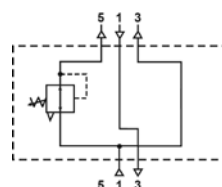
Single Port Regulator

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.



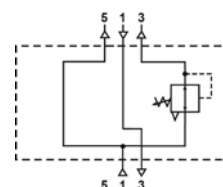
For H1, H2 & H3

Regulation on port #4



Part number code 2 X 0

Regulation on port #2



Part number code 2 0 Y

Dual Port Regulator

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.

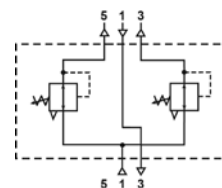


For HB & HA



For H1, H2 & H3

Regulation on both ports #4 & #2



Part number code 2 X Y

Sandwich regulator with Gauge

	ISO Size	Regulator function	Pressure On port 4 and / or port 2	Order code	
				ISO-1 Non Plug-in	ISO-2 Plug-in
	02 - 18 mm	Common	0 to 4 bar	PS5637155P	PS5638155P
			0 to 8 bar	PS5637166P	PS5638166P
		Independent	0 to 4 bar	PS5637255P	PS5638255P
			0 to 8 bar	PS5637266P	PS5638266P
	01 - 26 mm	Common	0 to 4 bar	PS5537155P	PS5538155P
			0 to 8 bar	PS5537166P	PS5538166P
		Independent	0 to 4 bar	PS5537255P	PS5538255P
			0 to 8 bar	PS5537266P	PS5538266P
	1 - 43 mm	Common	0 to 4 bar	PS4037155CP	PS4038155CP
			0 to 8 bar	PS4037166CP	PS4038166CP
		Independent	0 to 4 bar	PS4037255CP	PS4038255CP
			0 to 8 bar	PS4037266CP	PS4038266CP
	2 - 56 mm	Common	0 to 4 bar	PS4137155CP	PS4138155CP
			0 to 8 bar	PS4137166CP	PS4138166CP
		Independent	0 to 4 bar	PS4137255CP	PS4138255CP
			0 to 8 bar	PS4137266CP	PS4138266CP
	3 - 71 mm	Common	0 to 4 bar	PS4237155CP	PS4238155CP
			0 to 8 bar	PS4237166CP	PS4238166CP
		Independent	0 to 4 bar	PS4237255CP	PS4238255CP
			0 to 8 bar	PS4237266CP	PS4238266CP

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 through 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 through the regulator to feed the 12 galley of the valve.

Sandwich Regulator Accessories

	Description	Pressure range	w (g)	Order code
	Gauge kit Including: Gauge 1/8" female to 1/8" female coupling 1/8" male to 1/8" male long nipple	0 to 8 bar	80	PS5651160P

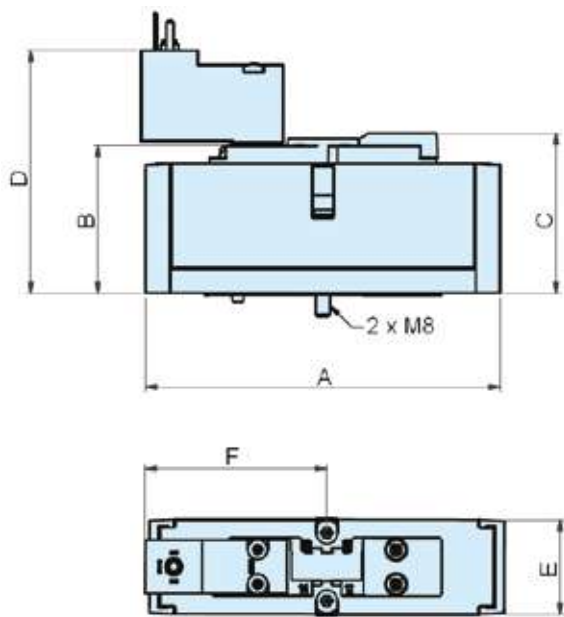
Sandwich Flow Control

	ISO Size	w (g)	Order code	
			ISO-1 Non Plug-in	ISO-2 Plug-in
	02 - 18 mm	180	PS5635P	PS5642P
	01 - 26 mm	240	PS5535P	PS5542P
	1 - 43 mm	340	PS4035CP	PS4042CP
	2 - 56 mm	520	PS4135CP	PS4142CP
	3 - 71 mm	1180	PS4235CP	PS4242CP

Note:

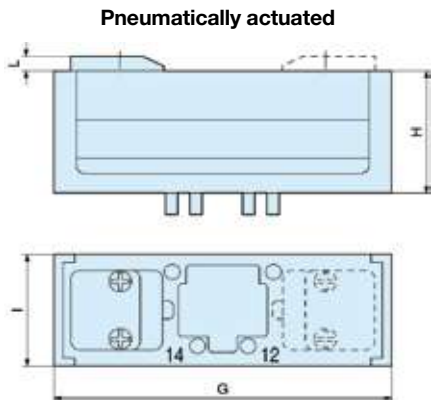
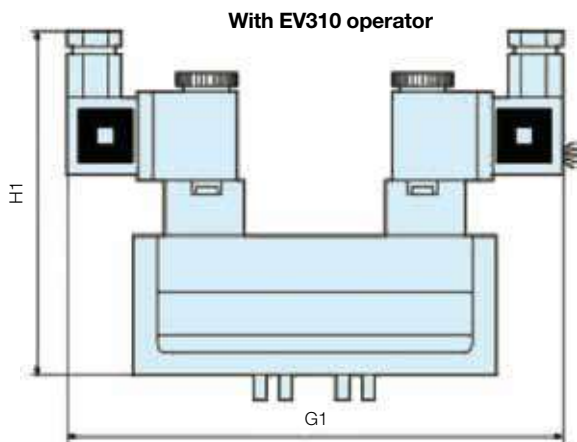
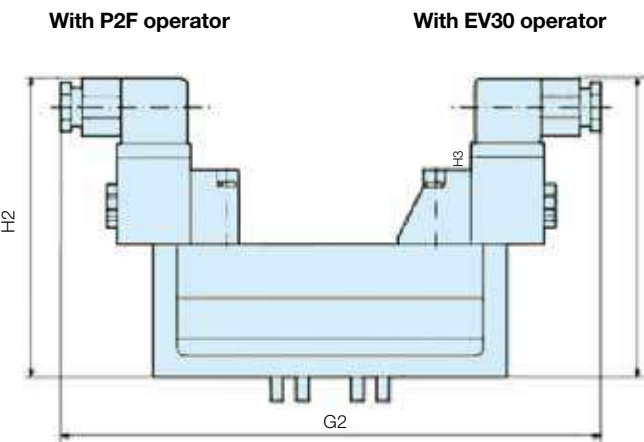
- Both adjustment screws are located on the same 12 end of the unit
- Sandwich Flow Control mounts with its own studs, which means the valve uses standard bolts for mounting
- Sandwich Flow Control is not to be used as a shut off device and is not bubble tight when needles are fully turned down

ISOMAX - ISO 15407-1 - Sizes 02 & 01



	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

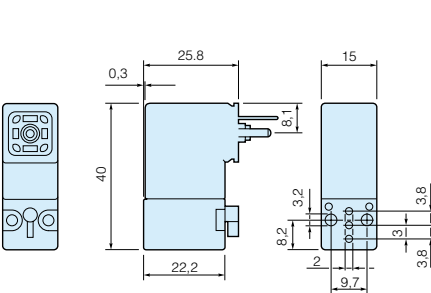
ISOMAX - ISO 5599-1 - Sizes 1, 2 & 3



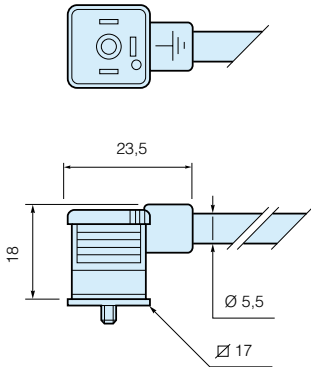
	G	G1	G2	H	H1	H2	I	L
Size 1	120	164	202,5	47	115	119	42	5
Size 2	140	179,5	218	58,5	126,5	130	54	5
Size 3	170	198	235,5	71	139	142,5	68	5

15 mm DIN Form C solenoid operators and connectors

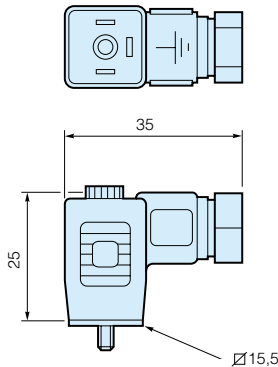
P2E Operator



Connector with standard screw

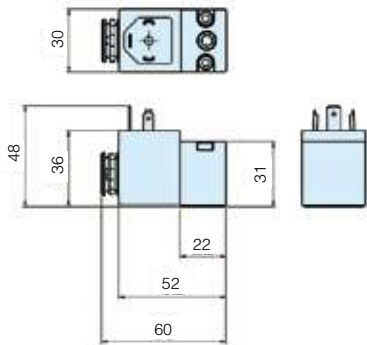


Connector with large headed screw

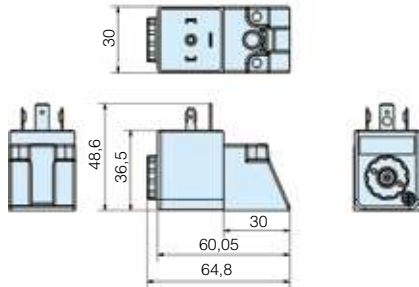


CNOMO 22 x 30 solenoid operators and connectors

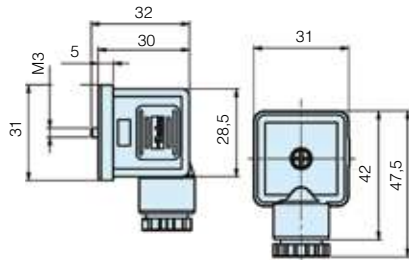
**P2F Operator
with 30 x 30 DIN form A coil**



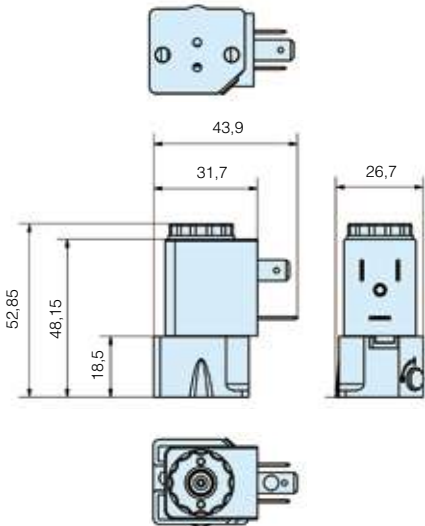
**EV30 Operator
with 30 x 30 DIN form A coil**



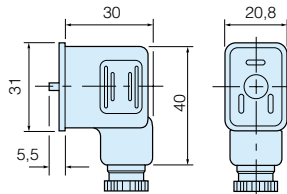
30 x 30 DIN form A connector



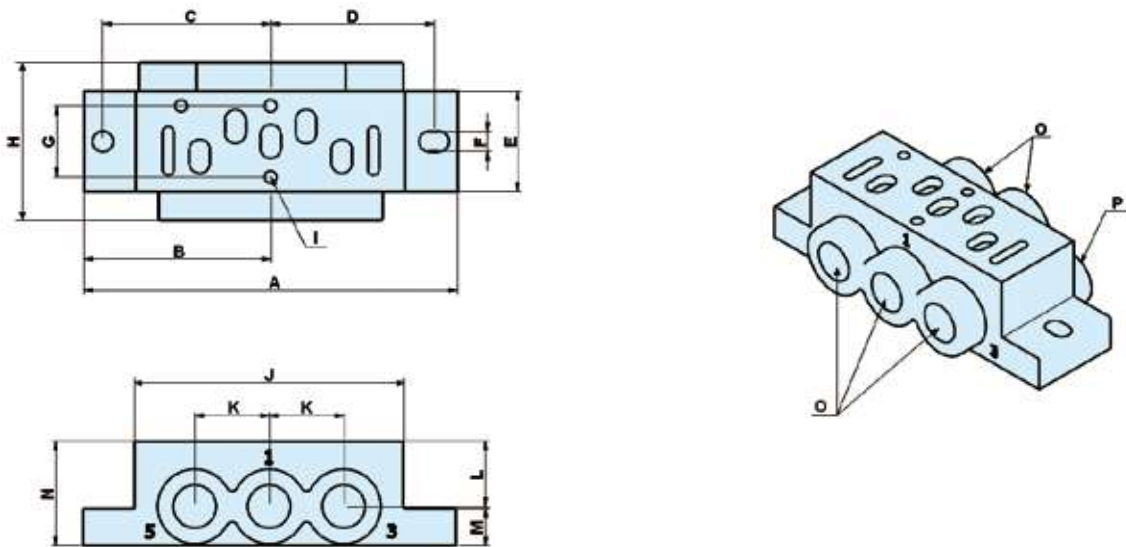
EV310 Operator with 22 x 30 DIN form B coil



22 x 30 DIN form B connector

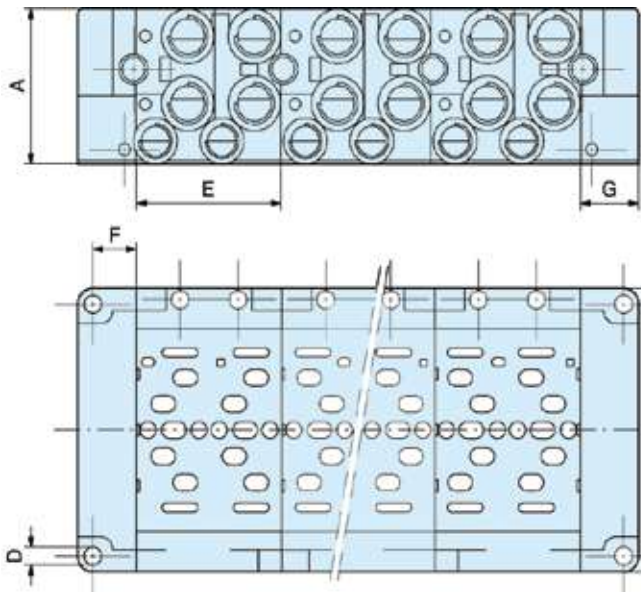


Side ported individual subbase - ISO 15407-1 - Sizes 02 & 01



		Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
PL02-01-70	BSPP	02	80	40	35	33.75	19	5.5	12.5	27	M8	50	16	14	8	22.5	1/8	1/8
PL02-01-80	NPT	02	80	40	35	33.75	19	5.5	12.5	27	M8	50	16	14	8	22.5	1/8	1/8
PL01-02-70	BSPP	01	100	50	45	43.75	27	5.5	19	42,5	M8	72	20	17,5	10	28	1/4	1/8
PL01-02-80	NPT	01	100	50	45	43.75	27	5.5	19	42,5	M8	72	20	17,5	10	28	1/4	1/8

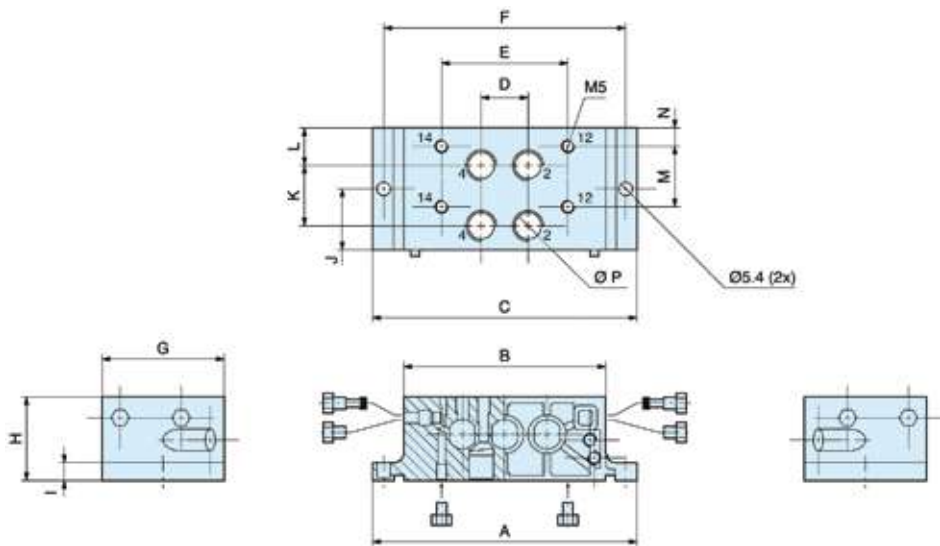
Front ported manifold & End plate - ISO 15407-1 - Sizes 02 & 01



		Size	A	B	C	D	E	F	G	H
PJLP02-201-70	BSPP	02	38,5	80	-	-	38	-	-	-
PJLP02-201-80	NPT	02	38,5	80	-	-	38	-	-	-
PJLP01-202-70	BSPP	01	55	100	-	-	54	-	-	-
PJLP01-202-80	NPT	01	55	100	-	-	54	-	-	-
PJL01-202-70	BSPP	01	55	100	-	-	54	-	-	-
PJL01-202-80	NPT	01	55	100	-	-	54	-	-	-
PEJ02-02-70	BSPP	02	38,5	80	12	Ø4,2	-	14	18	70
PEJ02-02-80	NPT	02	38,5	80	12	Ø4,2	-	14	18	70
PEJ01-03-70	BSPP	01	55	100	24	Ø5,5	-	17	22	90
PEJ01-03-80	NPT	01	55	100	24	Ø5,5	-	17	22	90

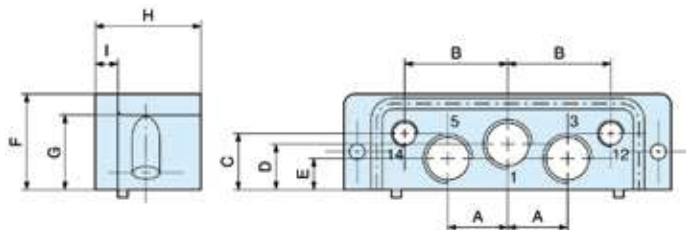
PJLP01-201-70
PJLP01-202-70

Bottom ported manifold - ISO 15407-1 - Sizes 02 & 01



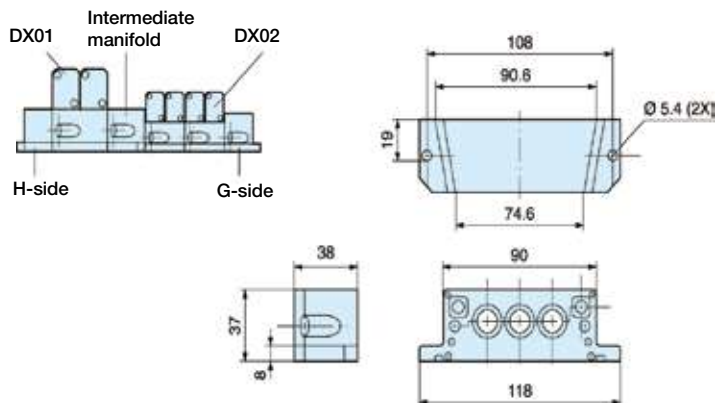
	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
P2V-AM511PB	02	102	74	74,6	16	43	92	38	26	7	19	19	11	19	5	G1/8
P2V-BM512PB	01	118	90	90,6	21	56,5	108	54	37	8	27	27	16,5	27	8	G1/4

Bottom ported End plate - ISO 15407-1 - Sizes 02 & 01



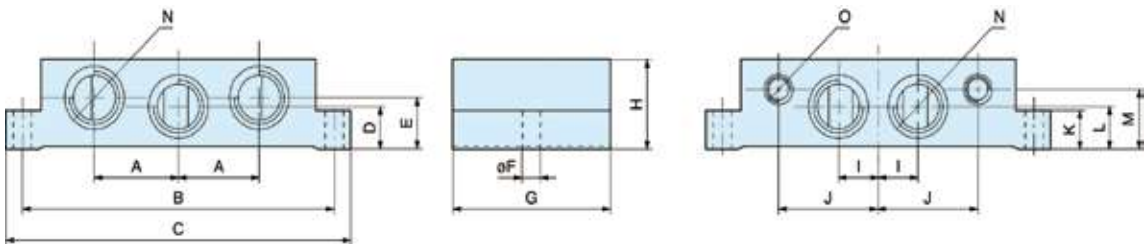
	Size	Port size 1,2,3	Port size 12, 14	A	B	C	D	E	F	G	H	I
P2V-AM512XX and P2V-AM512XX	02	G1/4	G1/8	17	29	21	18,5	9,5	35,5	28	33	7
P2V-BM513XX and P2V-BM513XX	01	G3/8	G1/8	21,5	37	20	16	11	34,5	28	38	8

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



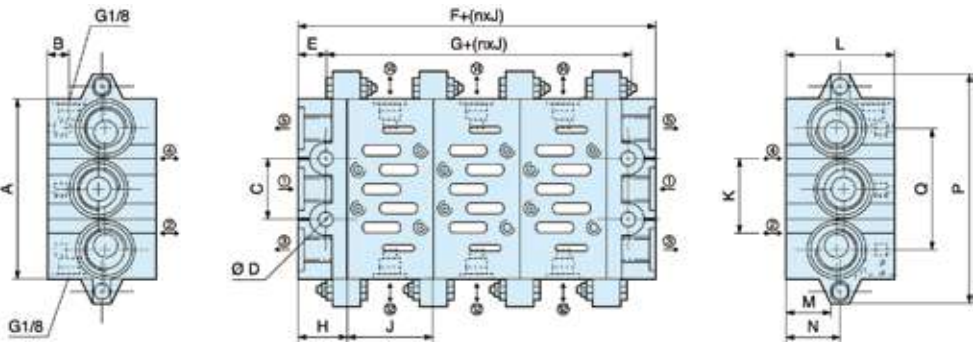
ISO 5599-1 Subbase & Manifolds

VDMA Side Ported Subbases



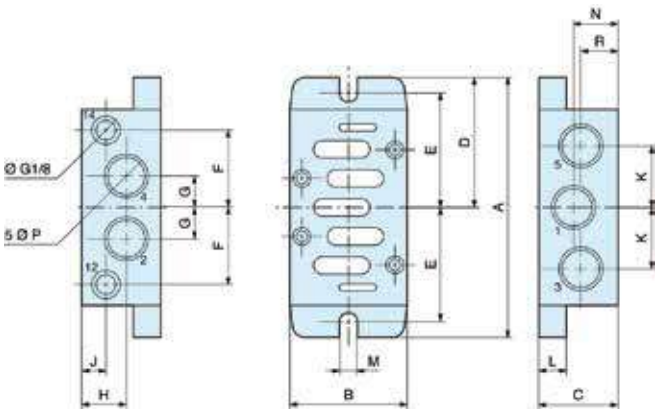
Order code	ISO Size	Port Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
P2N-VS512SD	1	G1/4	21,5	98	110	11	20	5,5	48	32	12	29	10	11	23	G1/4	G1/8
P2N-WS513SD	2	G3/8	28	112	124	14	26	6,6	56	40	15	37	13	14	30	G3/8	G1/8
P2N-YS514SD	3	G1/2	34	136	149	17	17	6,6	71	32	16	45	18	17	22	G1/2	G1/8

VDMA Bottom Ported Manifold



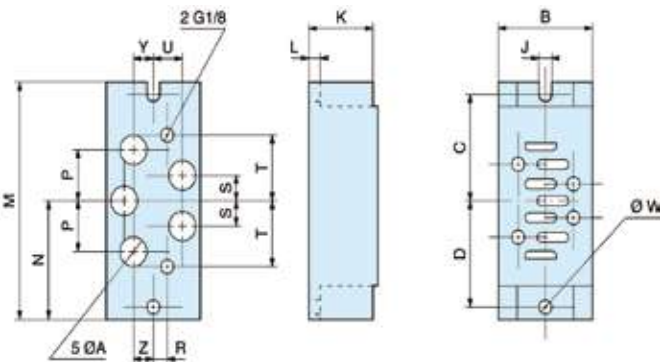
Order code	ISO Size	Port 1, 3, 5	Port 2, 4	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
P2N-VM512MB	1	G3/8	G1/4	85	8,5	28	7	11	44	22	22	43	26	46	21	24	56	110
P2N-WM513MB	2	G1/2	G3/8	100	9	35	9	13	52	26	26	56	30	47	22	24	68	135
P2N-YM514MB	3	G1	G1/2	140	10	52	12	15	60	30	30	71	38	56	31	34	104	190

Side ported subbases



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

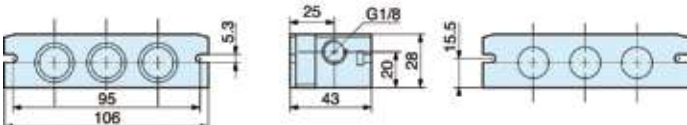
Bottom ported subbases



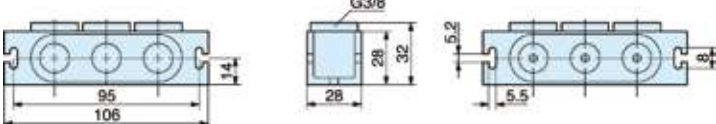
Order code	ISO Size	A	B	C	D	J	K	L	M	N	P	R	S	T	U	W	Y	Z
PD1-1/4-70	1	G1/4	46	49	49	5,5	29	6	110	55	22	10	11	30	10	5,5	10	10
PD2-3/8-70	2	G3/8	56	55	55	5,5	37	6	124	62	29	10	14,5	37	12,5	5,5	12,5	12,5
PD3-1/2-70	3	G1/2	77	68	68	6,6	32	18	149	74,5	34	10	17	45	17	6,5	17	17

Size 1 bottom ported manifold

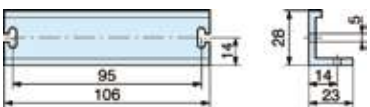
Manifold P2N-AM512MB



Connecting block P2N-AM513GT



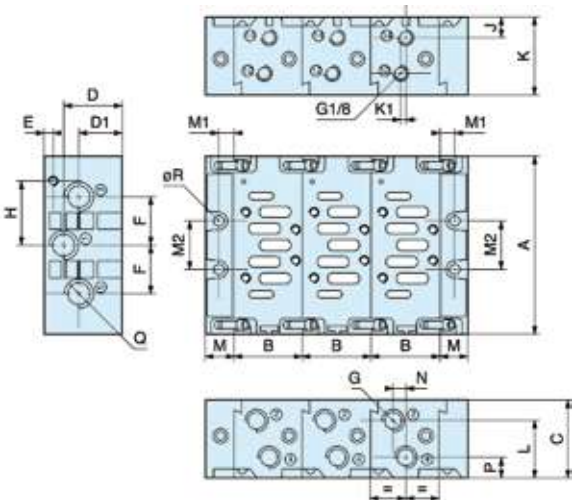
End piece P2N-AM500J



Intermediate supply P2N-AM513BT



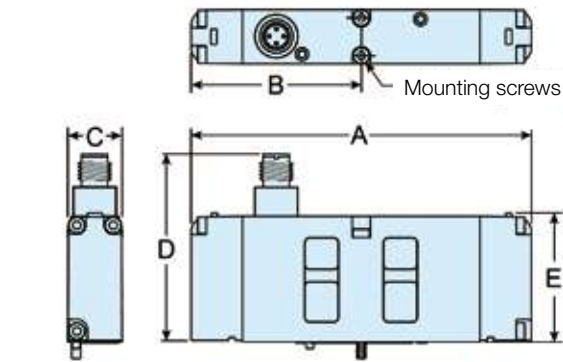
Sizes 1 & 2 side ported manifold



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

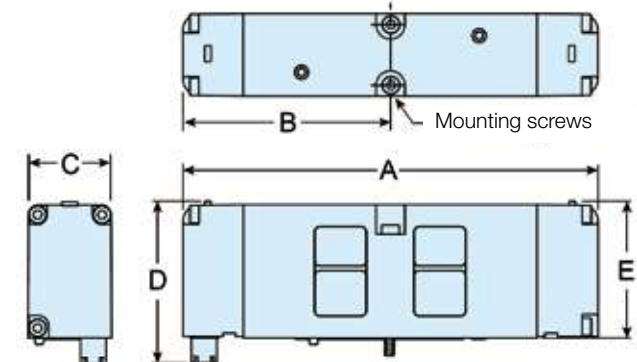
H Series ISO Valves

HA / HB Series - ISO 15407-1



	A	B	C	D	E
HB	113	56	18	61	43
HA	130	65	26	61	42

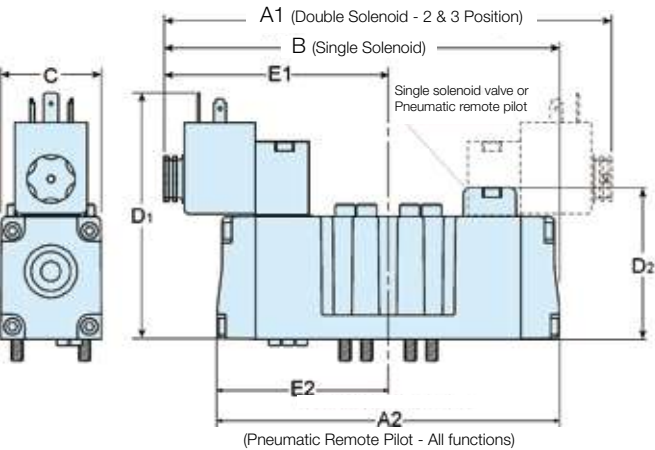
HA / HB Series - ISO 15407-2



	A	B	C	D	E
HB	113	56	18	50	43
HA	130	65	26	50	42

H1 / H2 / H3 Series - ISO 5599-1

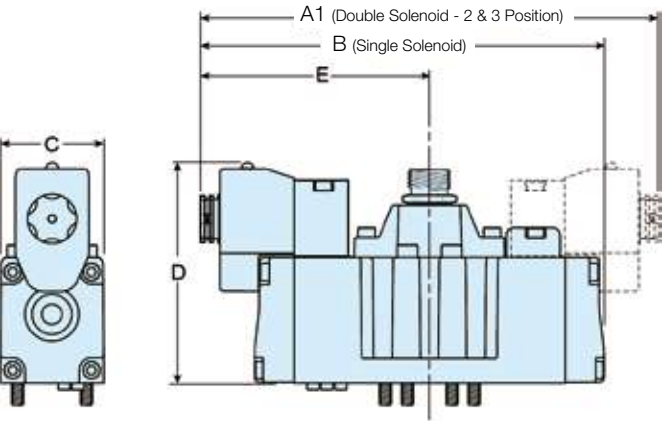
CNOMO Operator or Remote Pilot



	A1	A2	B	C	D1	D2	E1	E2
H1	186	142	164	42	109	63,5	93	71
H2	212	168	190	55	122	76	106	84
H3	241	177	209	55	122	76	121	89

H1 / H2 / H3 Series - ISO 5599-2

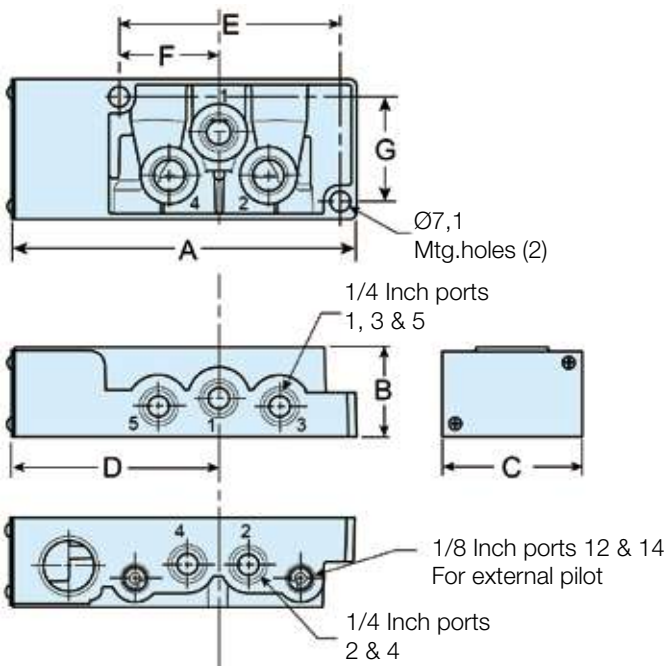
Plug-in and M12 Connector Versions



	A	B	C	D	E
H1	186	164	42	90	93
H2	212	190	55	103	106
H3	241	209	55	103	121

H Series ISO Valves Subbases

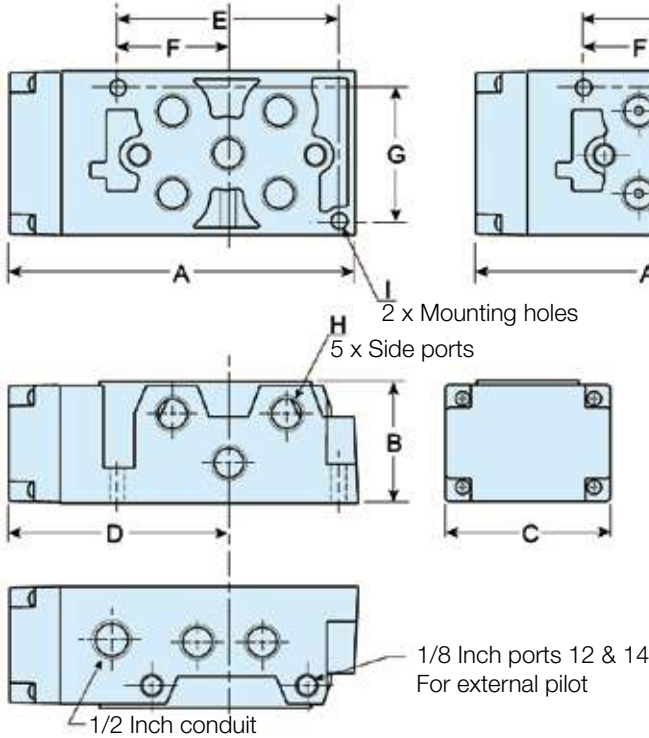
HA Series - ISO 15407-1 & -2



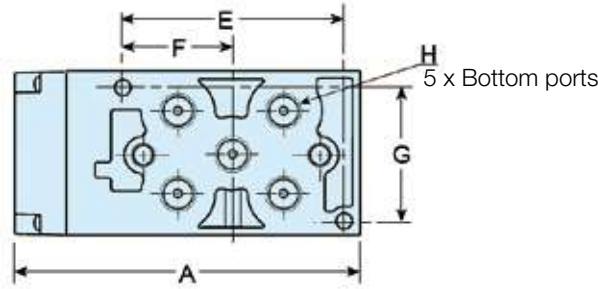
	A	B	C	D	E	F	G
HA	124	32,5	50,8	74	36,2	80,2	37,9

H1 / H2 / H3 Series - ISO 5599-1 & -2

Side Ported Subbase



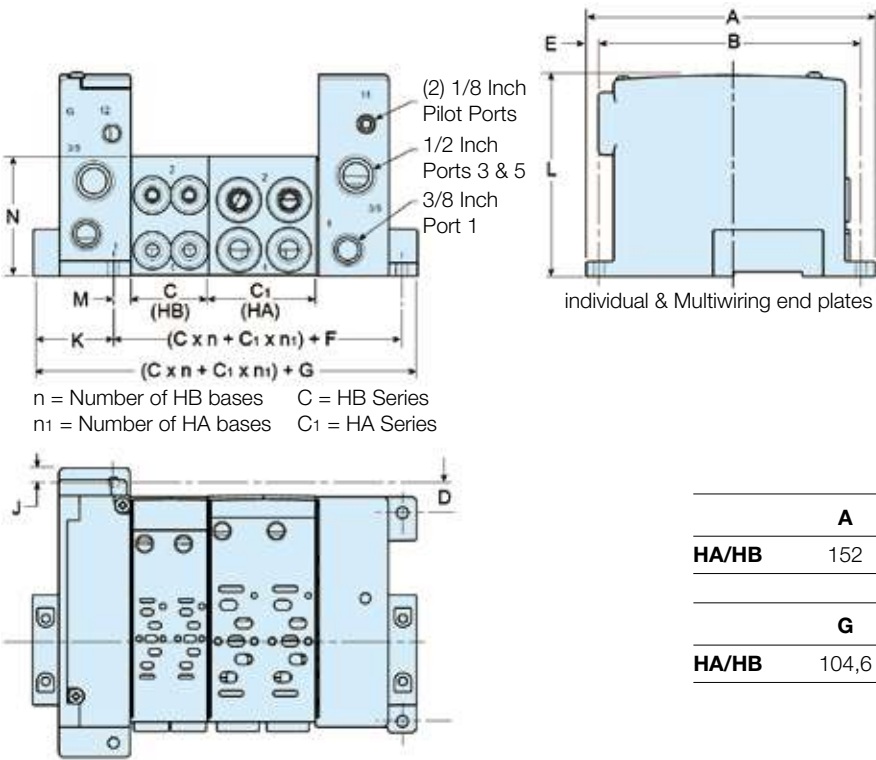
Bottom Ported Subbase



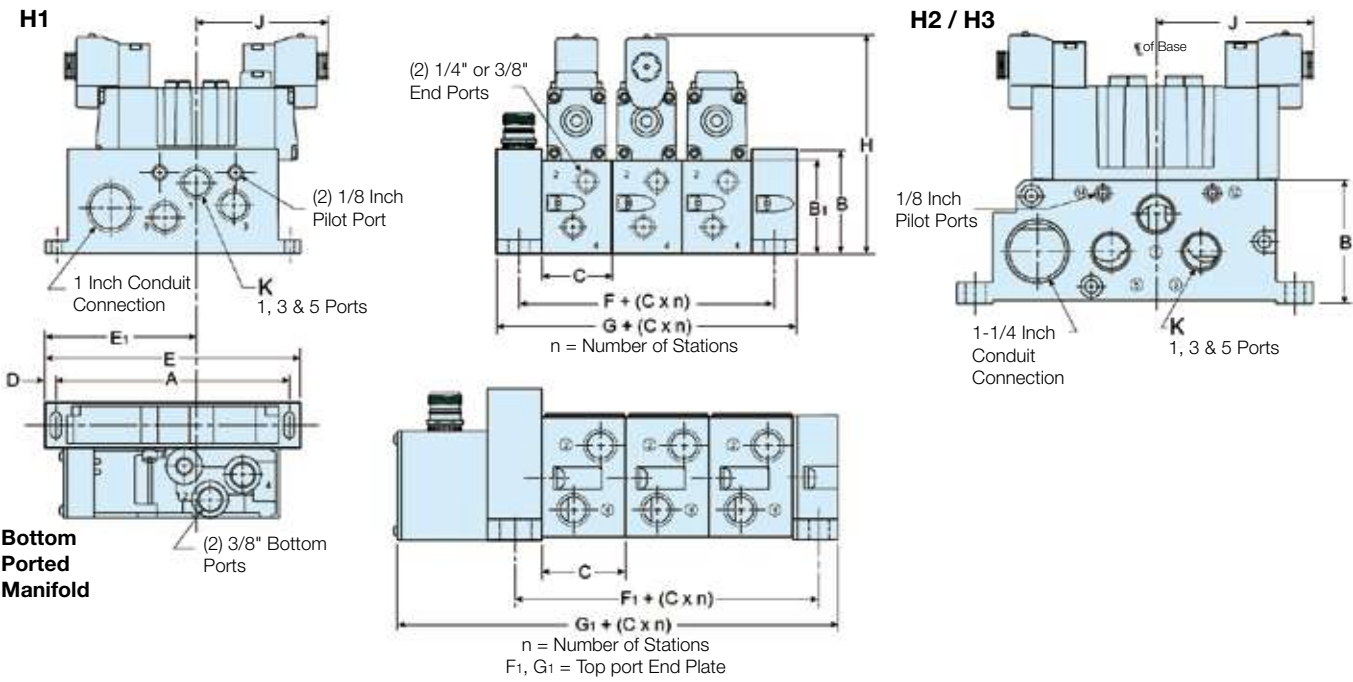
	A	B	C	D	E	F	G	H	I
H1	148	38	64	98	84	40	51	3/8"	5,5
H2	170	59	80	108	107	52	65	1/2"	7,1
H3	201	75	99	125	131	64	82	3/4"	9

H Series ISO Valve Manifolds

HA/HB Series - ISO 15407-2

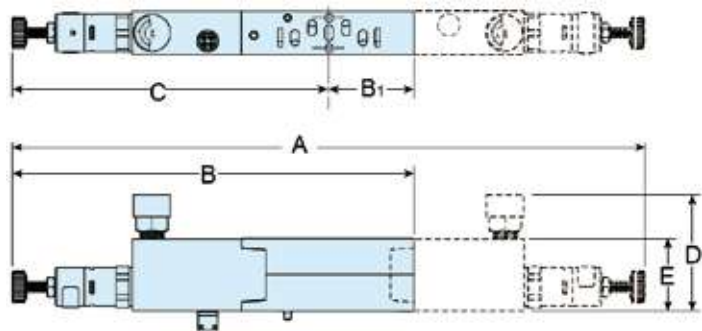


H1 / H2 / H3 Series - ISO 5599-2



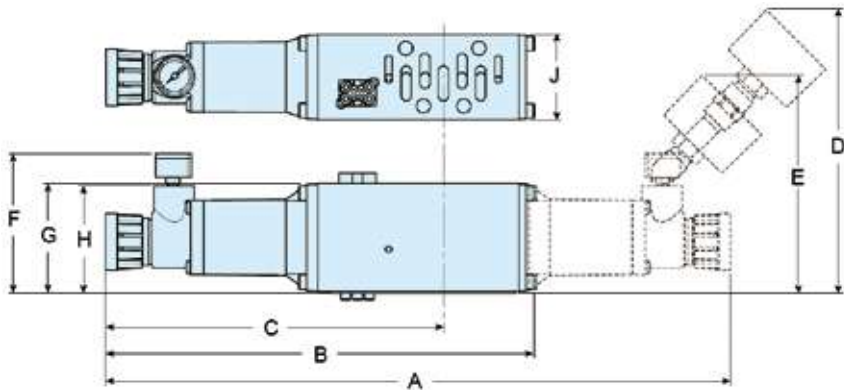
Sandwich Regulator with Gauge

HA / HB Series



	A	B	B1	C	D	E
HB	261	156	26	130	66	30
HA	254	163	36	127	69	30

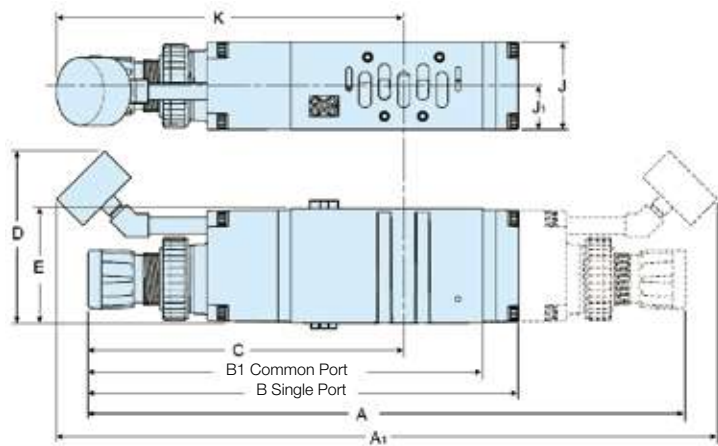
H1 Series



Liquid Gauge &
Large Air Gauge
Dimensions

	A	B	C	D	E	F	G	H	J
H1	301	207	163	138	108	72	53	52	41

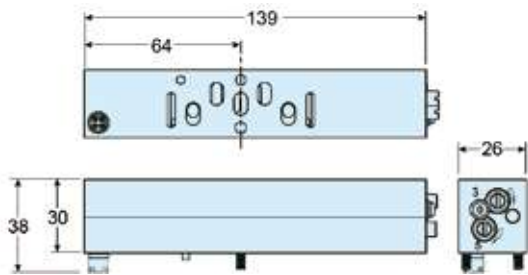
H2 / H3 Series



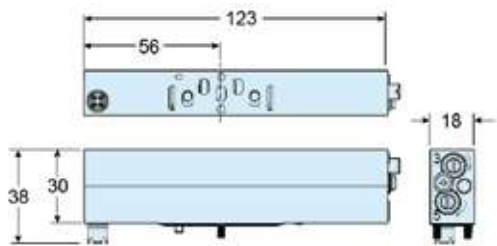
	A	A1	B	B1	C	D	E	J	J1	K
H2	372	411	268	250	196	107	71	55	27	216
H3	398	436	293	271	213	107	75	64	32	231

Sandwich Flow Control

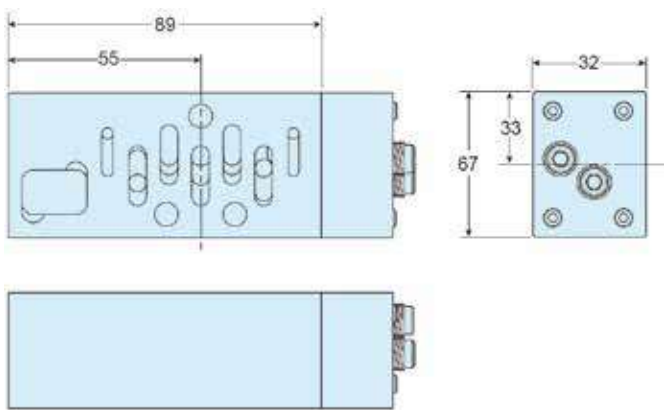
HA Series



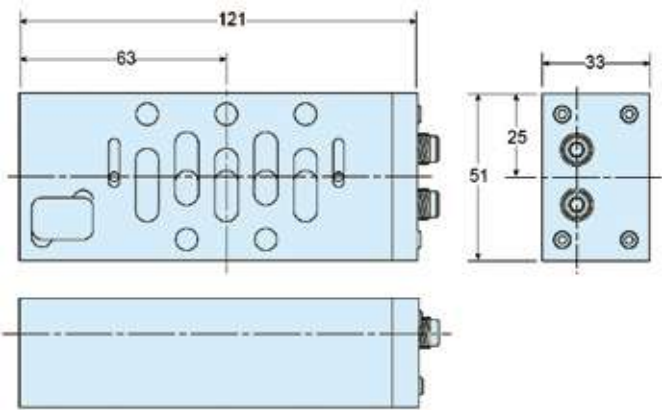
HB Series



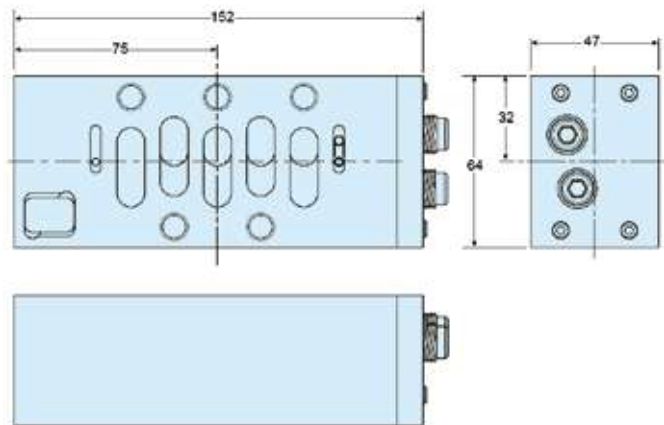
H1 Series



H2 Series



H3 Series

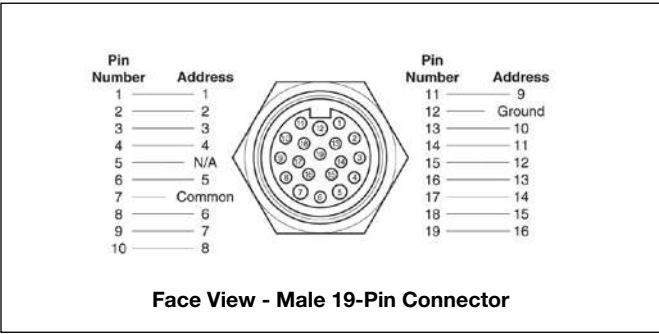


Maximum Solenoids Energized Simultaneously

HA HB code	Voltage D-Sub	25-pin round	19-pin M23	Single 12-pin		
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	Industrial Commu- nication	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

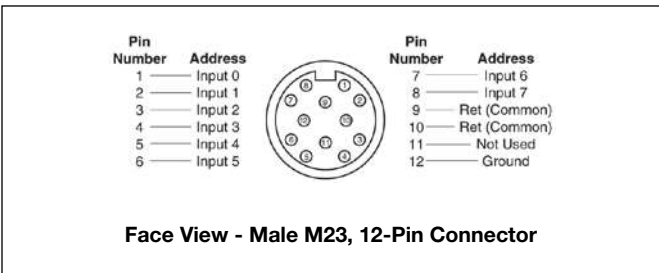
Common Pin "7" is rated for 8 amps. Cable common wire must be greater than total amperage of solenoids on Add-A-Fold assembly.

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.

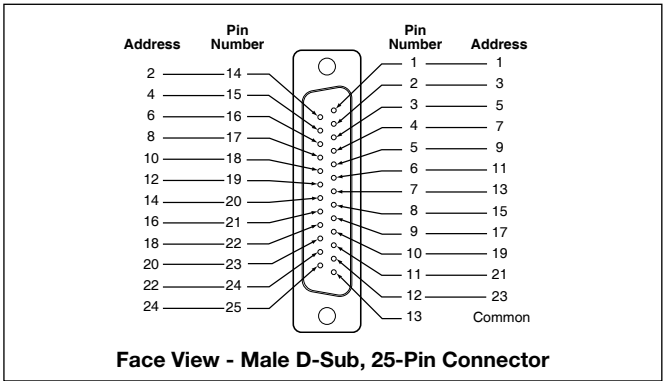
Brad Harrison #333030P80M050 16.40 ft. (Female to Male Cable)

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

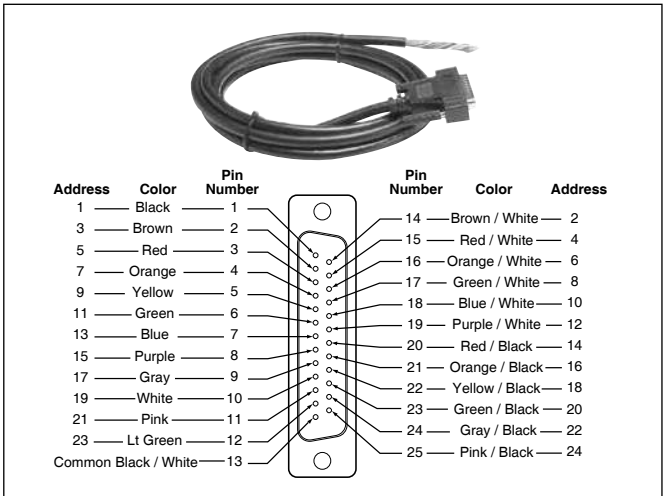
M23, 12-Pin Round Connector (Male)



25-Pin, D-Sub Connector (Male)



25-Pin, D-Sub Cable (Female)

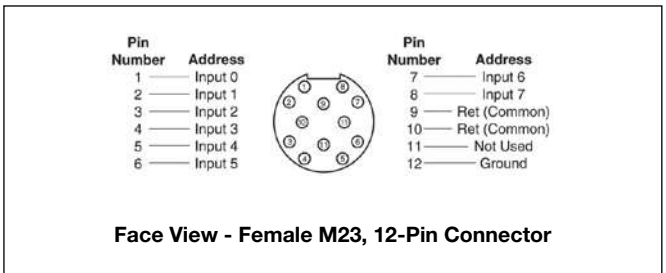


25-Pin, D-Sub Cable Specifications

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.

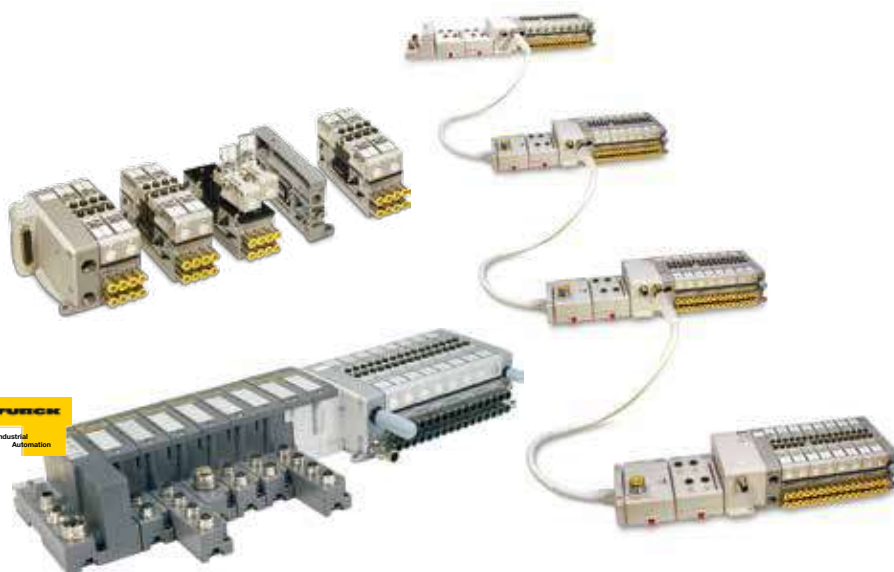
M23, 12-Pin Round Connector (Female)



H Series Micro

Plug-in valve island

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



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

Flexible in use

The H Series 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.

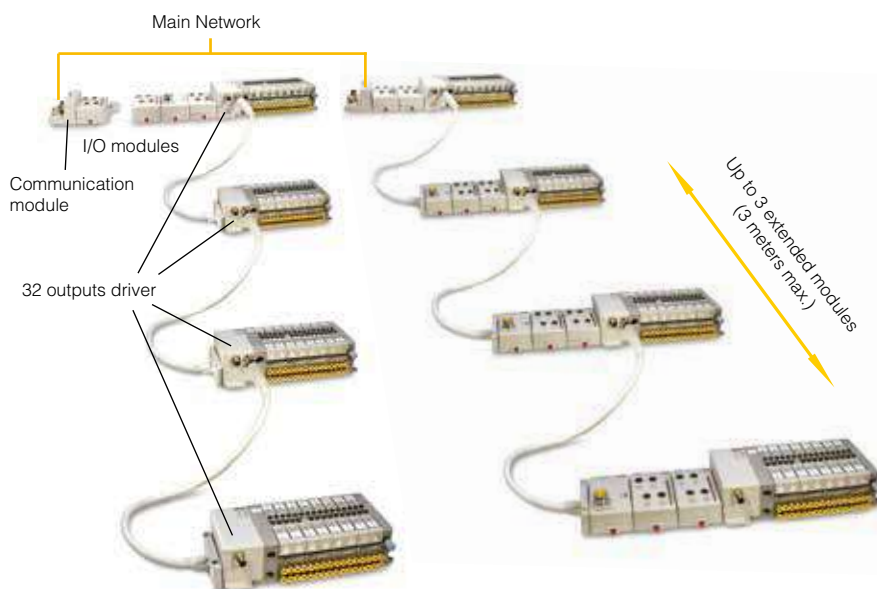
From a centralized application high complexity level to a basic configuration, with H Series Industrial Communication or traditional multi-connection, an H Series Micro valve island can be designed.

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 H Series 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.



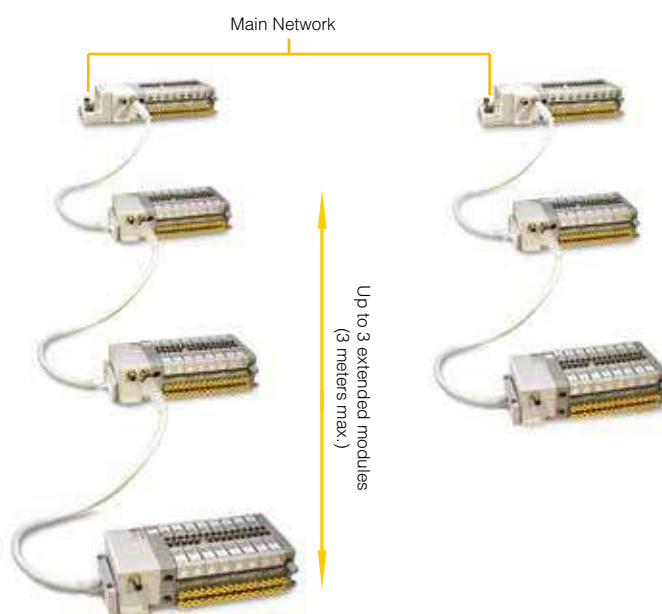
Up to 128 solenoid valves configuration

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).

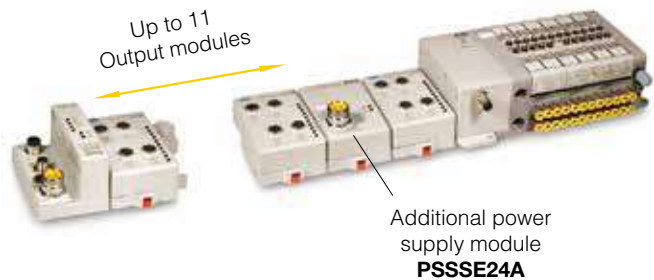
In this configuration, the 32 outputs driver module, on the main island and the extended island, have to be equipped with a "bus extension" M12 connector, excepted for the last extended island.

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



Up to 256 electrical outputs including 32 solenoid valves

Communication modules include a main 24 VDC power supply for the Bus and up to 10 digital or analogical output modules. Additional power supply is only requested if there are more than 11 output modules.



Up to 32 solenoid valves

Communication modules include a main 24 VDC power supply for the bus and the 32 output driver modules. All solenoids can be energized at the same time.



Island up to 16 or 32 solenoid valves linked to the Turck BL67 remote I/O device series



This electro-mechanical interface allows, with its modularity up to 16 or 32 solenoid valves, an inter-connection to the TURCK BL67 Series, offering a wide choice of H Series Industrial Communication with Field bus and Industrial Ethernet protocols and a complete range of electrical I/O modules.



Island for fieldbus communication in decentralized application

In a decentralized application where a serial communication is required and only a few valves are necessary, different fieldbus protocol modules are also available.

In that case, the valve island has to be equipped with a bus communication head module adaptor.

Depending on the protocol, the head module can pilot up to 16 solenoid valves.



Island with multi-pole connection

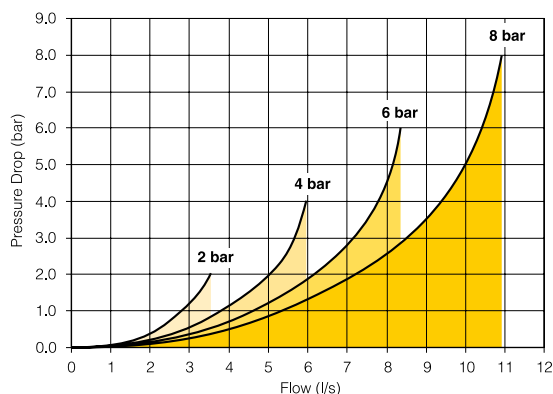
In a decentralized application, when a multi-pole connection is required, the valve island head module can be equipped with a standard Sub-D25 connector.

With this Sub-D25 connection, up to 24 solenoid valves can be piloted.



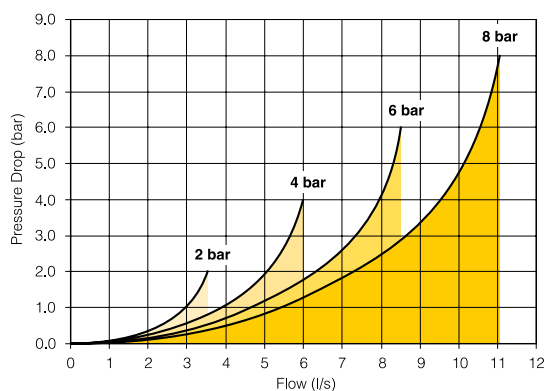
Flow Characteristics

Dual 3/2



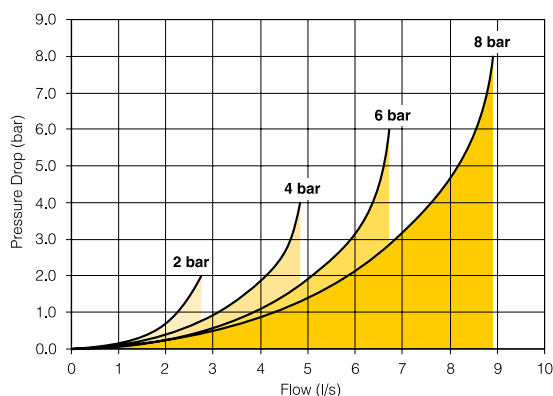
Operating pressure :	2,7 to 8,3 bar
Change-over time (side 14)	Actua. 15 ms Return 20 ms P = 6b
Change-over time (side 12)	15 ms / 25 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1,2 NI/s x bar b = 0,13 Qn = 4,6 NI/s Qmax = 8,4 NI/s

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

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
		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)	5	PSM002x
	Set of 10 manifold to manifold M3 screws	20	PSM0014

32 output driver end modules ordering chart



P

S

M

L

6

1

A

P

32 Output driver end modules		
	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

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



Up to 32 solenoid valves per island

M6 type

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



Up to 32 solenoid valves per island

M7 type

- 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



Up to 32 solenoid valves per island

M5 type

- 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

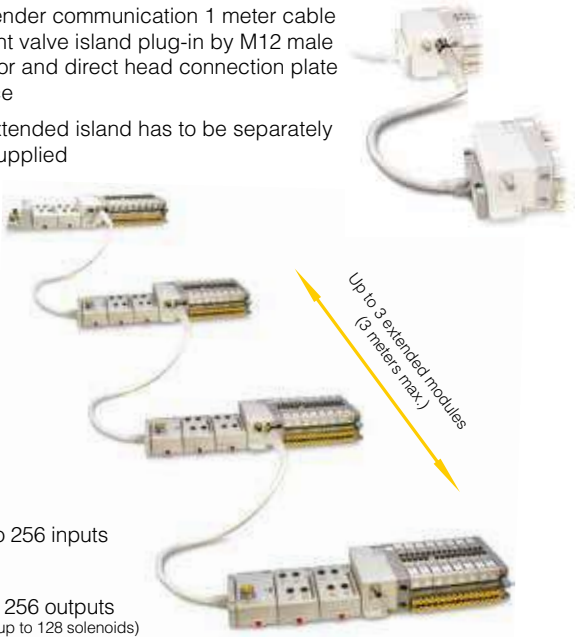


Up to 32 solenoid valves per island

Bus extender

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

Every extended island has to be separately power supplied



Up to 3 extended modules
(3 meters max.)

Up to 256 inputs

Up to 256 outputs
(including up to 128 solenoids)

Technical data

32 Outputs driver modules

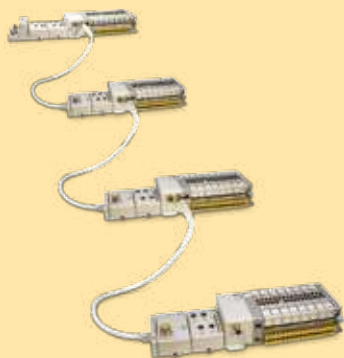
- Number of Outputs : 32
- Operating Voltage Range : 20,4 to 26.4 VDC
- Output current rating Nom. : 50 mA per chanel (100 mA Max)
3.2A per module
- Pointbus current : 200 mA
- Working temperature : -15°C to 50°C
- Dust and water protection : IP65

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

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

H Series Industrial Communication and I/O modules

H Series Industrial Communication modules

H Series Industrial Communication modules are available in :

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



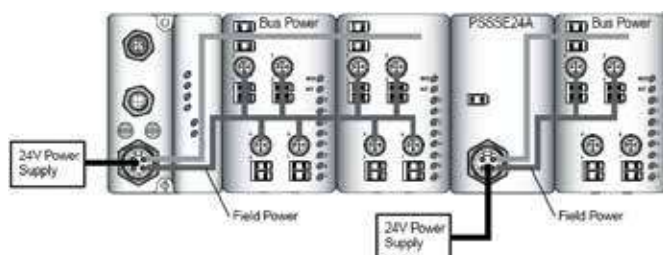
Digital or Analogical electrical I/O modules

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



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

Industrial 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

Analogue Input modules

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

Analogue Output modules

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

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

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

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

H Series Industrial 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

Electrical I/O modules

	Description	Polarity	Connector type	Weight (g)	Order code
	8 Digital Inputs	PNP	8 x M8	400	PSSN8M8A
			4 x M12	380	PSSN8M12A
	8 Digital Outputs	PNP	4 x M12	380	PSSP8M12A
			8 x M8	400	PSST8M8A
			4 x M12	380	PSST8M12A
	4 Digital Outputs	Relay	1 x M23	400	PSST8M23A
	2 Analogue Inputs	0 - 10 V	4 x M12	410	PSSTR4M12A
		4 - 20 mA	2 x M12	400	PSSNAVM12A
	2 Analogue Outputs	0 - 10 V	2 x M12	400	PSSNACM12A
		4 - 20 mA	2 x M12	400	PSSTAVM12A
					PSSTACM12A

Auxiliary electrical modules

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

Bus extender

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

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 female connector	DeviceNet	M12 - A coding	25	P8CS1205AA
		Profibus DP	M12 - B coding	25	P8CS1205AB
	Bus OUT male connector	DeviceNet	M12 - A coding	25	P8CS1205BA
		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



P S M T 2 1 A P

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



Valve driver Module for 16 or 32 Outputs

Modularity up to 16 or 32 Outputs :

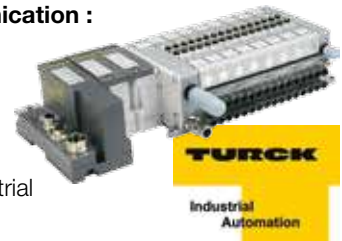
- Populated with 1 or 2 standard TURCK 16 Output modules BL67-16DO-0. 1A-P, the Valve Driver Module can handle up to 16 or 32 solenoid valves.
- For a 16 Outputs configuration, the second slot has to be populated with 1 standard TURCK blank module BL67-E.



TURCK BL67 communication gateway

H Series 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.

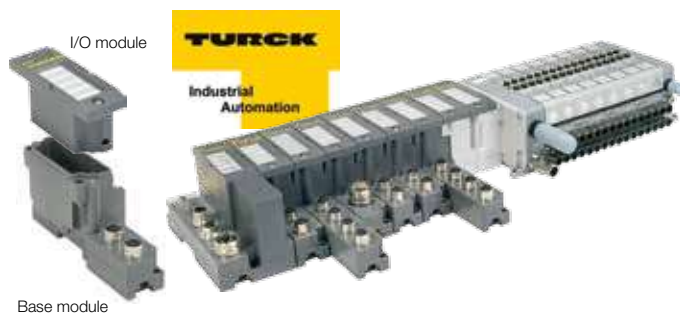


TURCK BL67 I/O and Base modules

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



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 adaptator



P S M M C 1 A P

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

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

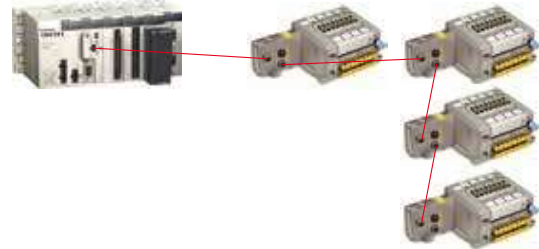
Moduflex Bus 16 Outputs

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
 End modules adaptator without Moduflex Bus module	All	Side ported	3/8" BSPP	200	PSMM41AP
		Bottom ported	3/8" BSPP	200	PSMM42AP

Also available, AS-i interface protocol, standard version or extended version (A - B coded). See Moduflex Valve catalogue.

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	All	M12 - A coding	25	P8CS1205AA
	DeviceNet CANopen Profibus DP	M12 - A coding	25	P8BPA00MA
		M12 - B coding	25	P8BPA00MB
 P8CSY1212A	DeviceNet CANopen	M12 - A coding	25	P8CS1205AA
		M12 - B coding	25	P8CS1205AB
	Profibus DP	M12 - A coding	25	P8CS1205BA
Cable quick connect connector		M12 - B coding	25	P8CS1205BB
		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



Address	Pin Number	Pin Number	Address
2	14	1	1
4	15	2	3
6	16	3	5
8	17	4	7
10	18	5	9
12	19	6	11
14	20	7	13
16	21	8	15
18	22	9	17
20	23	10	19
22	24	11	21
24	25	12	23
		13	Common



Address	Color	Pin Number	Pin Number	Color	Address
1	Black	1	14	Brown / White	2
3	Brown	2	15	Red / White	4
5	Red	3	16	Orange / White	6
7	Orange	4	17	Green / White	8
9	Yellow	5	18	Blue / White	10
11	Green	6	19	Purple / White	12
13	Blue	7	20	Red / Black	14
15	Purple	8	21	Orange / Black	16
17	Gray	9	22	Yellow / Black	18
19	White	10	23	Green / Black	20
21	Pink	11	24	Gray / Black	22
23	Lt Green	12	25	Pink / Black	24
	Common Black / White	13			

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

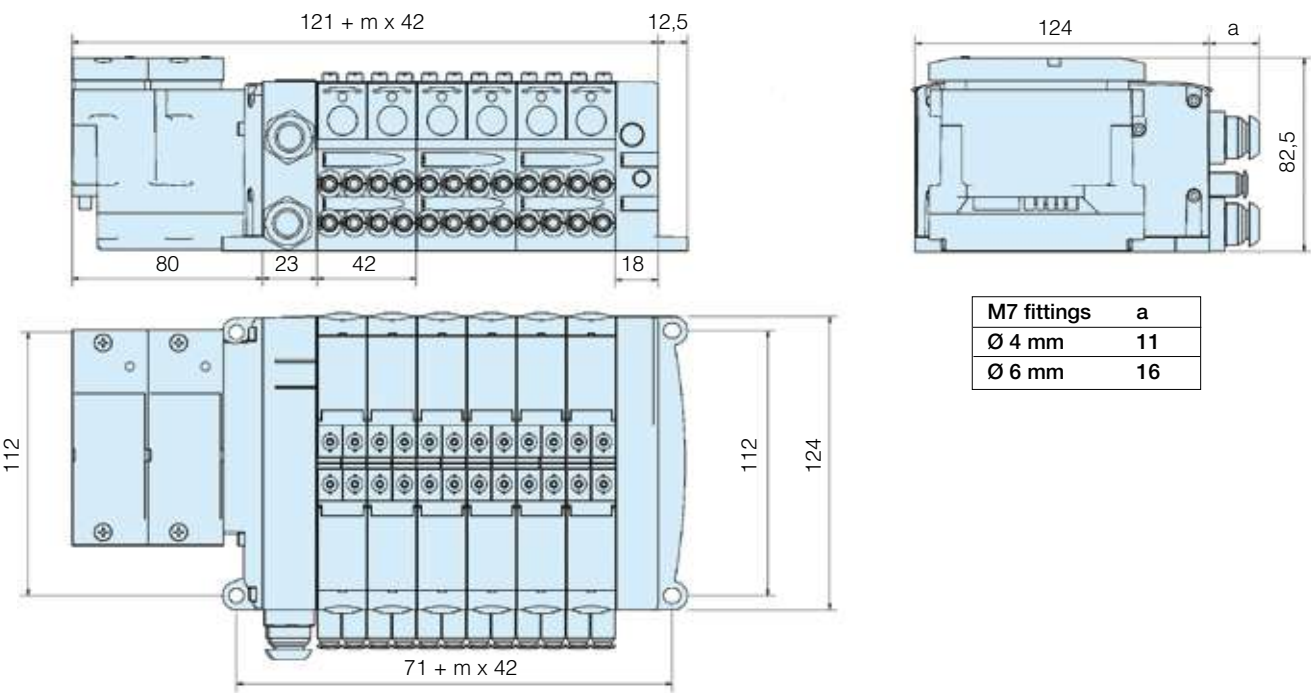
Electrical multi-pole end modules

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

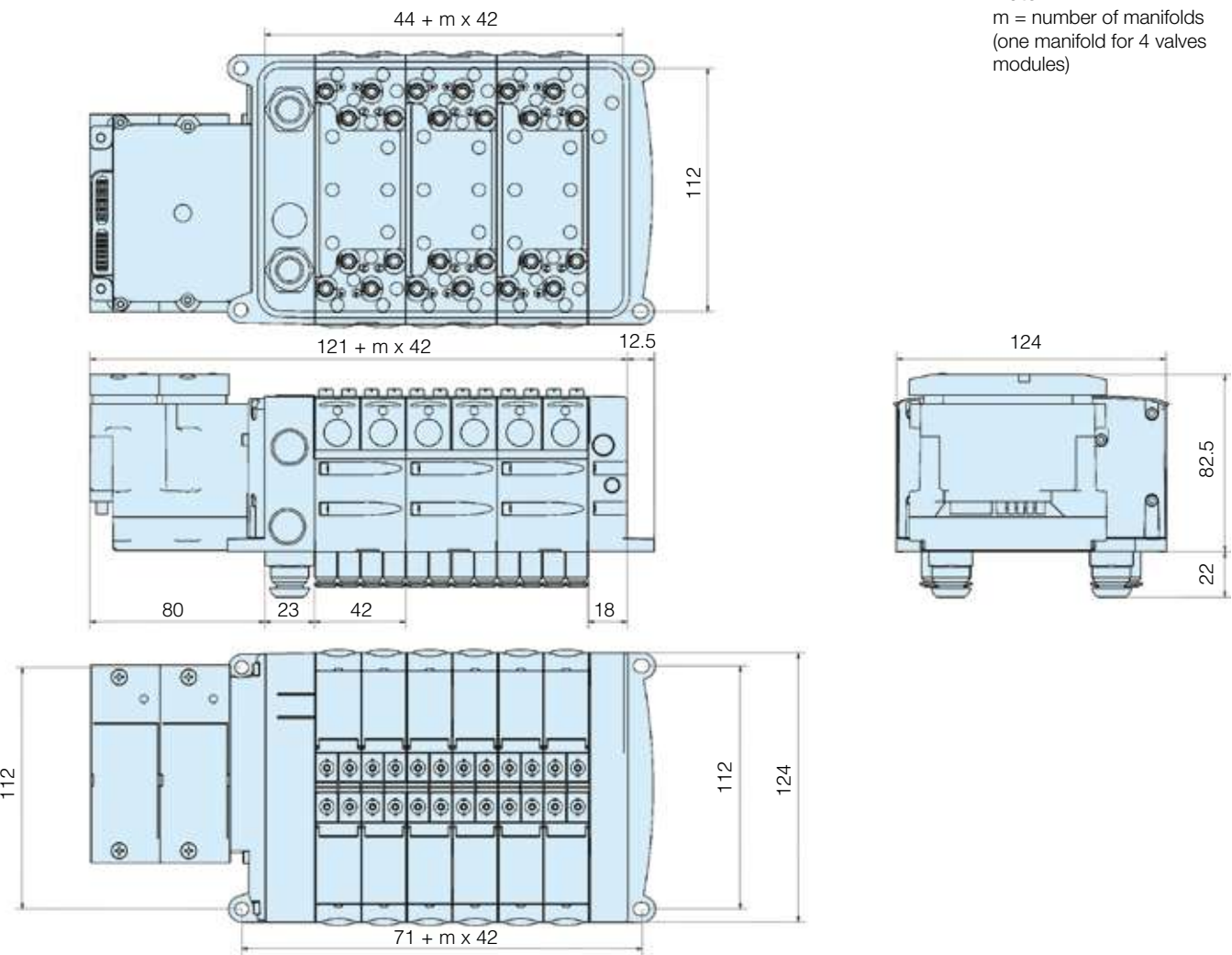
Electrical accessories

Description	Cable length	Weight (g)	Order code
	3 m	380	P8LMH25M3A
	9 m	780	P8LMH25M9A
 P8LMH25M3A	9 m	790	P8LMH25B9A

H Series Micro Valve with TURCK BL67 adaptor - Side ported

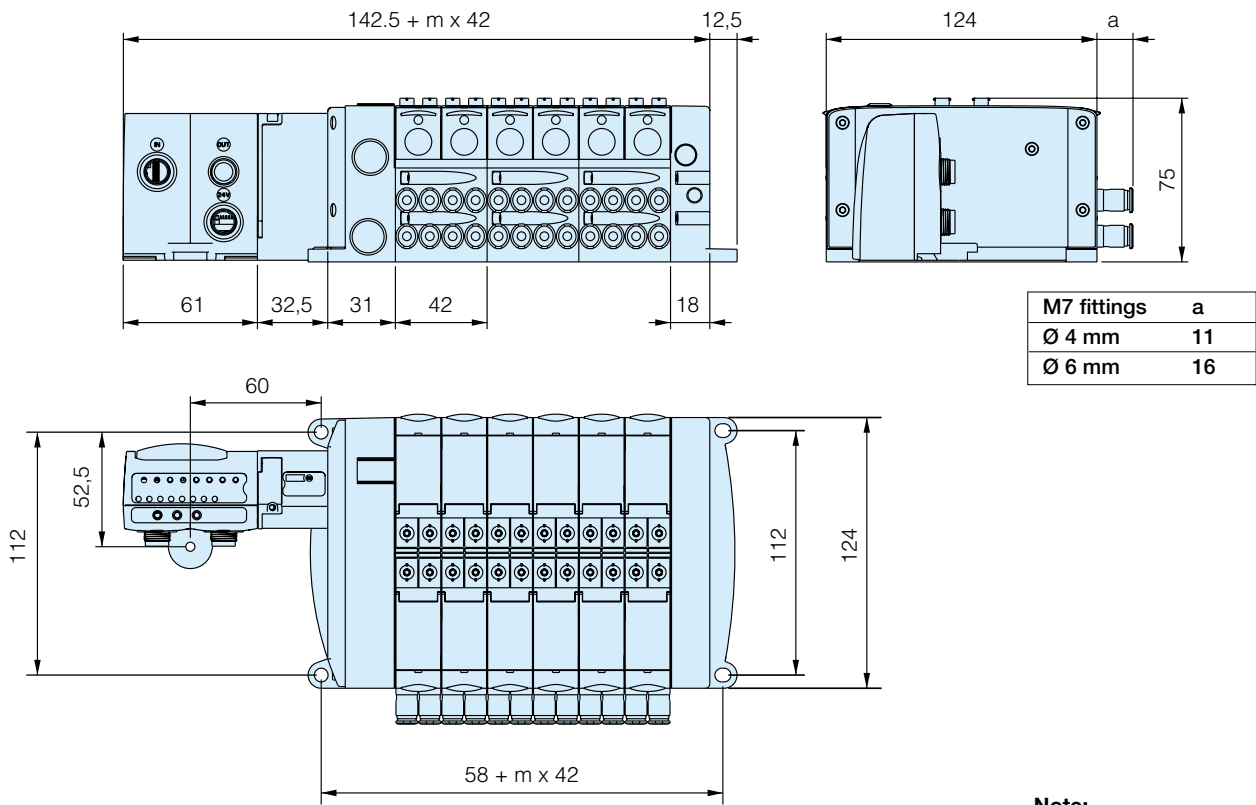


H Series Micro Valve with TURCK BL67 adaptor - Bottom ported



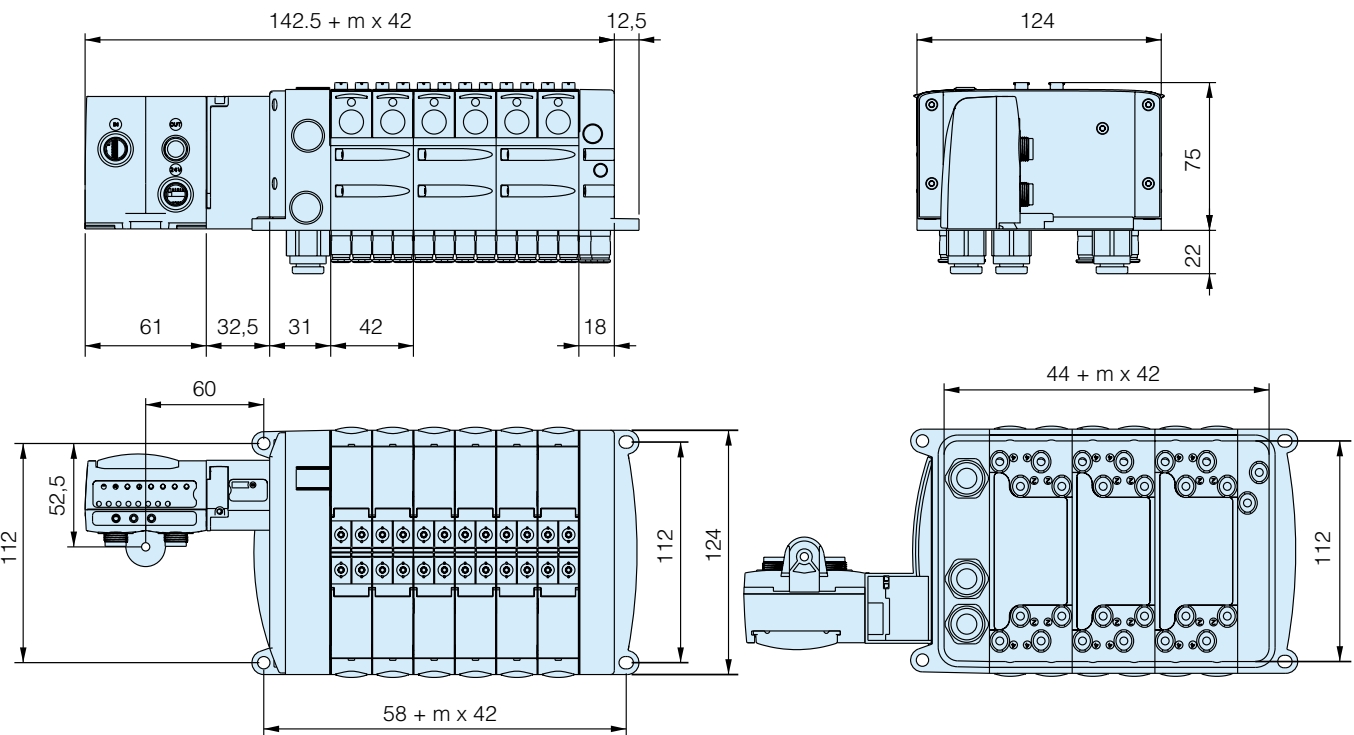
Note:
m = number of manifolds
(one manifold for 4 valves
modules)

Fieldbus - Side ported

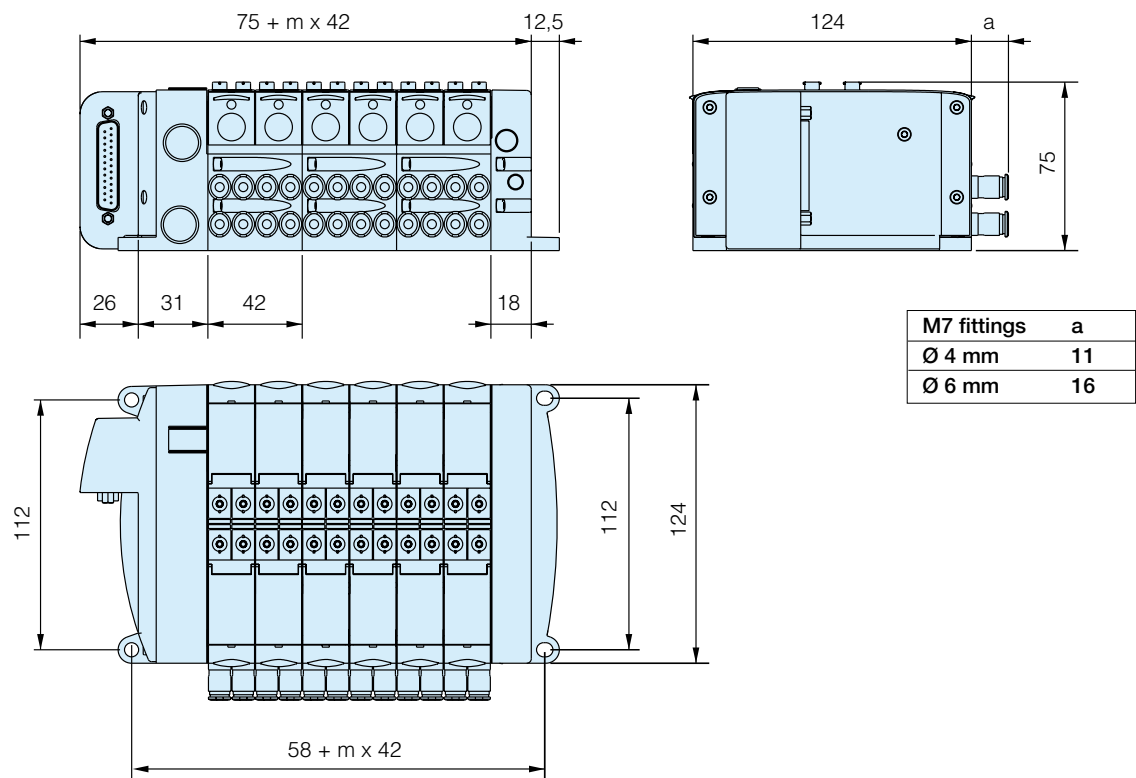


Note:
m = number of manifolds
(one manifold for 4 valves
modules)

Fieldbus - Bottom ported

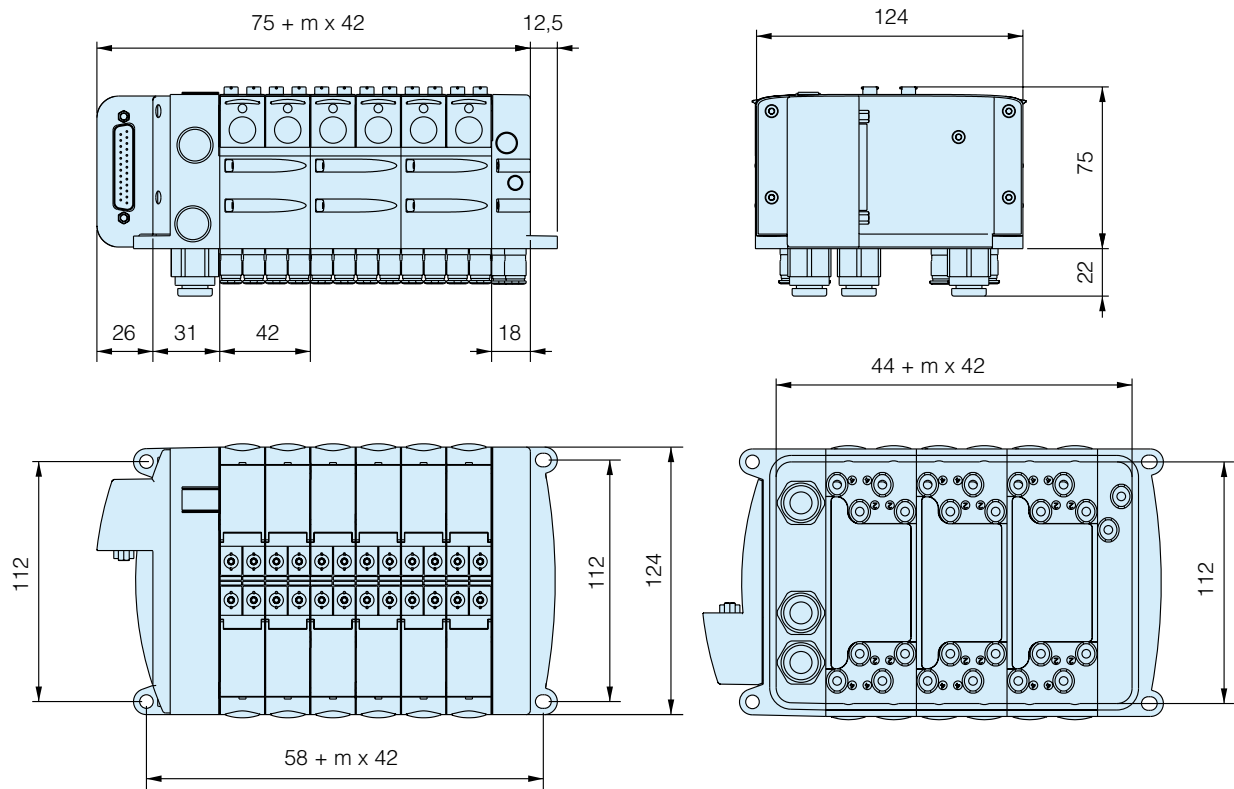


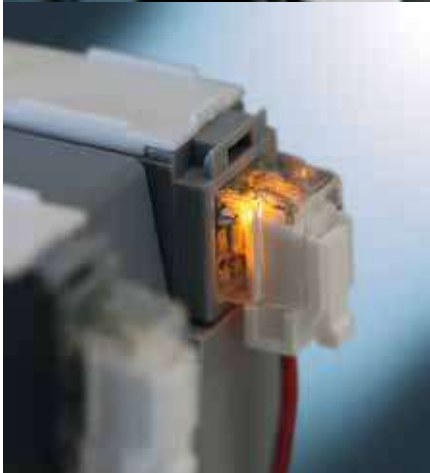
SubD25 - Side ported



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 System

The Moduflex Valve System redefines 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.



V Series



T Series



Lockable Connector IP67



Clip Connector IP40

S Series



Lockable Connector IP67



Clip Connector IP40

P Series



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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.

Light-weight

An As-i compatible valve manifold with 8 electrical inputs and 8 pneumatic outputs weighs a mere 800grams, making the Moduflex Valve System the perfect choice for end of arm tooling application.

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

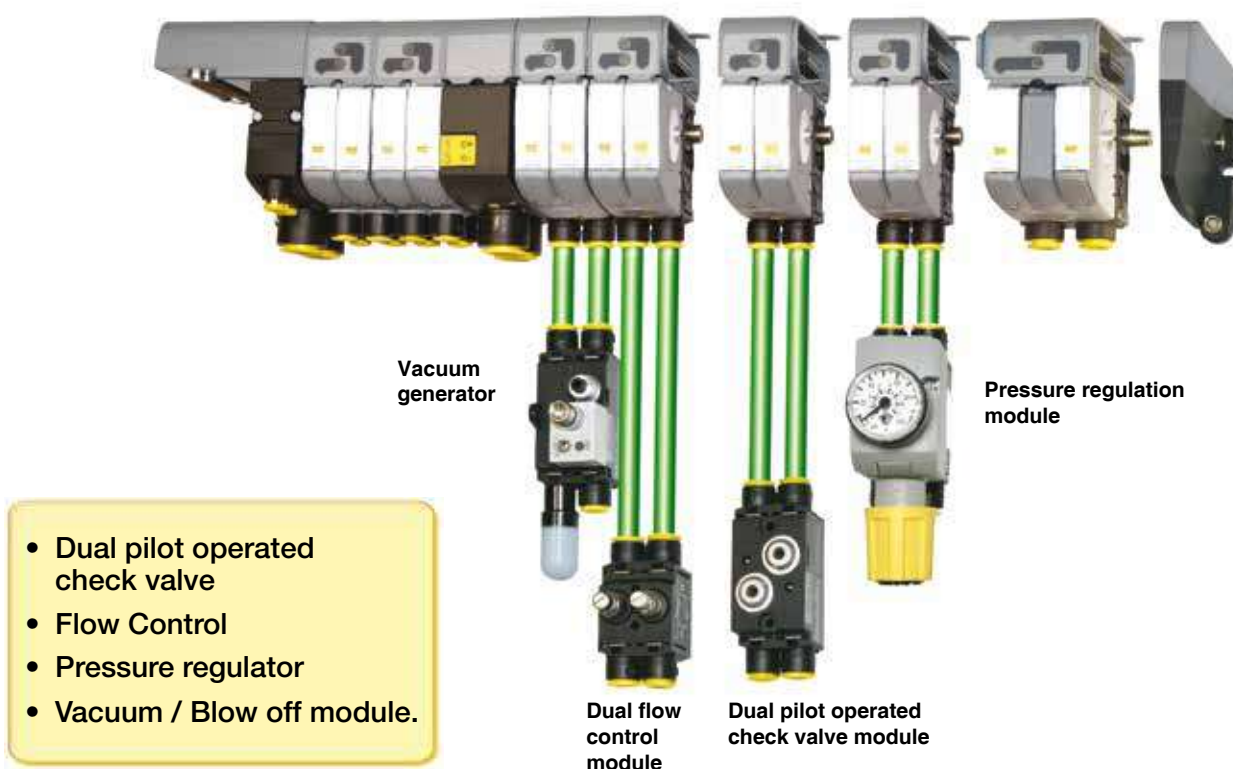


4/2 Valve



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.

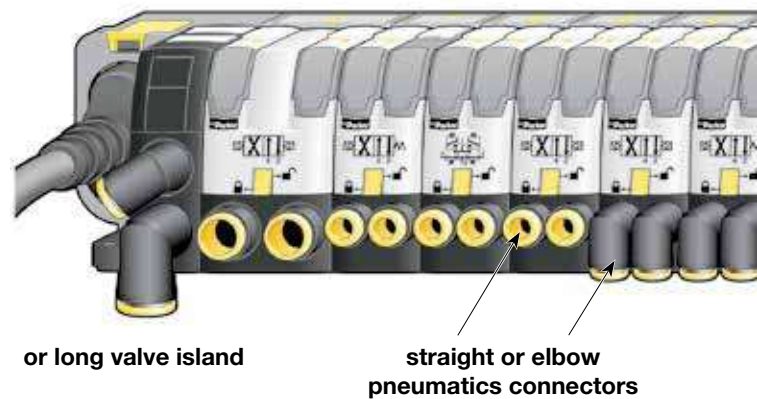
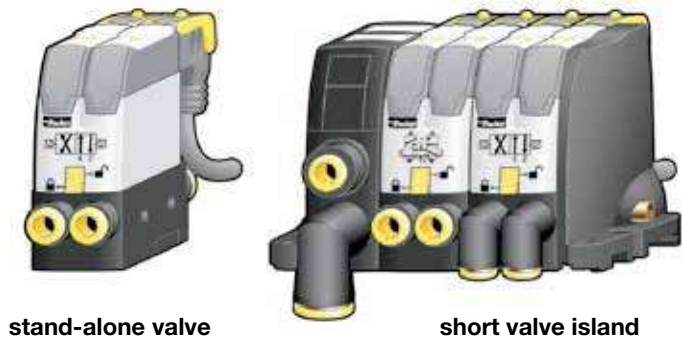


With high performance technology, Moduflex opens a new era in the field of electro-pneumatic automation. Valves are easily assembled into compact islands that conform to any application requirement.

Adaptive pneumatic

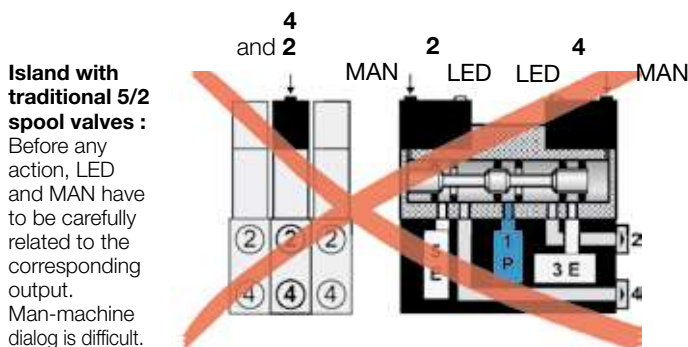
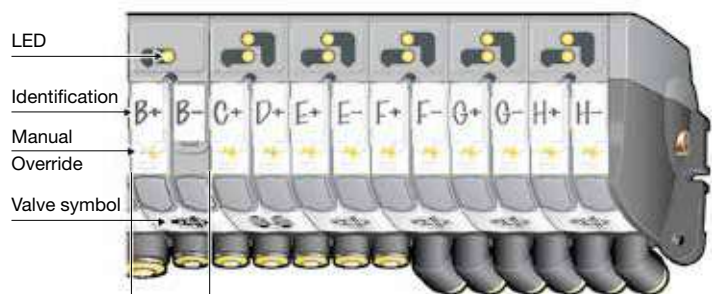
With the Moduflex Valve design, pneumatic automation is now totally flexible.

- Valves may be stand-alone or assembled into short or long islands, depending on application.
- IP 65-67 water and dust protection allows valve to be installed near the cylinders for shorter response time and lower air consumption.
- The IP40 water and dust protection allows an optimized electrical connection for applications into cabinet or soft and none aggressive environments.
- Valve island electrical connections may be integrated.
- Push-in pneumatic connectors may be straight or elbow, for 4, 6, 8 or 10 mm OD tubes.
- A given island may incorporate different valve sizes in order to fulfill each cylinder flow requirement. A single island will accommodate all cylinders, up to 100 mm bore size.
- Island modifications are easy : add or remove a valve, change a valve function, change tubing size, change piloting in minutes.
- Manual overrides are also adaptive : locking for set up, non-locking for production, ...



Easy man-machine dialog

- Moduflex incorporates LED indicators, manual overrides (MAN), in conjunction with valve symbols and identification.
- As compared to traditional 5/2 valve islands, Moduflex offers a more user friendly dialog : each marking, LED and MAN are all lined up with the corresponding cylinder output.



Island with traditional 5/2 spool valves :
Before any action, LED and MAN have to be carefully related to the corresponding output. Man-machine dialog is difficult.

Island with Moduflex 4/2 slides valves:
Each marking, LED and MAN line up with the corresponding output. Man-machine dialog is easy.

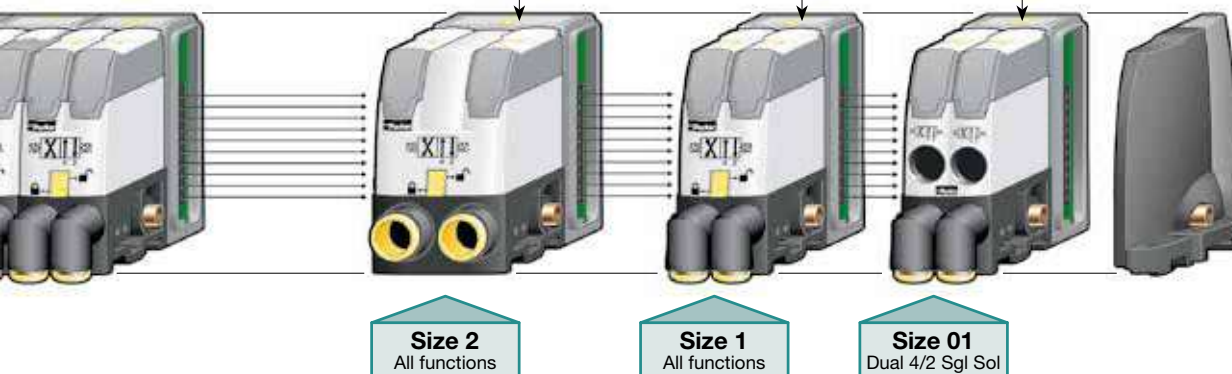
Adaptive design

individual electrical connector
Lockable M8 Connector - IP67 or Clip Connector - IP40



or Valve Bank with integrated IP65 electrical connections

3 valves sizes in the same valve bank



Flows and tube connections



Optimal nominal section for a full flow with appropriate fitting

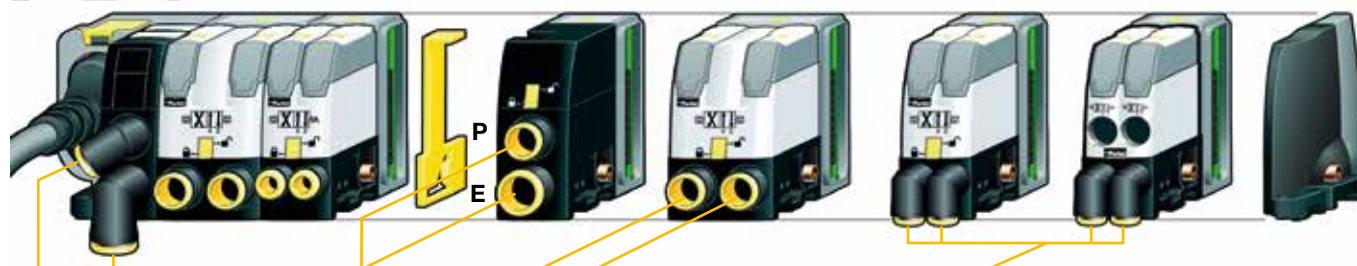
3 valve sizes lead to a global choice of tube sizes, thus covering all usual applications

Tube size to cylinder
Cylinder bore size

Size 2	
Nominal section 40 mm ²	
Qn 800 Nl/mn* Qmax 1340 Nl/mn*	
*) For 3/2 functions Qn 450 Nl/mn Qmax 800 Nl/mn	
Ø Ext. 10 mm	Ø Ext. 8 mm
Ø 63 to Ø 100 mm	Ø 40 to Ø 63 mm

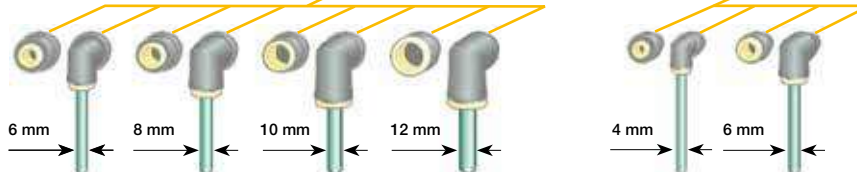
Size 1	
Nominal section 12 mm ²	
Qn 310 Nl/mn* Qmax 510 Nl/mn*	
*) For 3/2 functions Qn 235 Nl/mn Qmax 415 Nl/mn	
Ø Ext. 6 mm	Ø Ext. 4 mm
Ø 25 to Ø 40 mm	Ø 6 to Ø 25 mm

Size 01	
Nominal section 4 mm ²	
Qn 165 Nl/mn* Qmax 275 Nl/mn*	
Ø Ext. 4 mm	
Ø 6 to Ø 25 mm	



Adaptive pneumatic connection

Valve outputs are equipped with clip-on push-in tube connectors with a choice of straight or elbow in different sizes



Typical cylinder speeds are shown on next pages. Module size, tube diameter and length, cylinder size, load and exhaust collection are taken into account.

Operating information

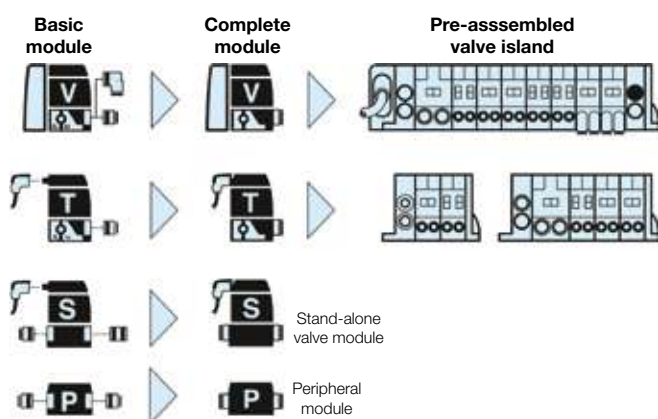
Working pressure	-0,9 to 8 bar
Pilot pressure	3 to 8 bar *
Working temperature	-15 °C to 60 °C
Protection individual connectors	IP 67 NEMA4
Protection integrated connectors	IP 65
Voltage	24 V DC

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

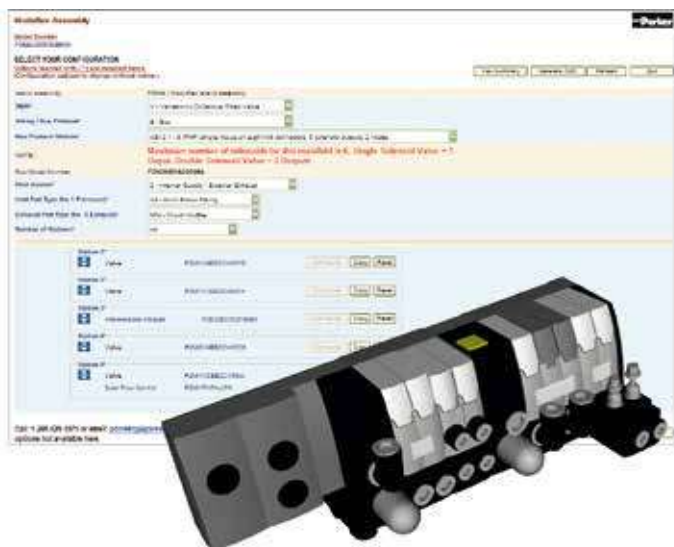
		Dual 4/2	Dual 3/2	3/2	4/2
Size 1	Qmax.	275 l/min	415 l/min	415 l/min	510 l/min
	Qn	165 l/min	235 l/min	235 l/min	310 l/min
Size 2	Qmax.	-	805 l/min	805 l/min	1340 l/min
	Qn	-	450 l/min	440 l/min	800 l/min

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 in-line e-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 in-line e-Configurator software is an easy way for a clear definition of the requested valve island configuration.

V series

Integrated connection field bus
or multi-connector valve island



T series

Individual connector valve islands
Solenoid clip or lockable connector
or remote air pilot



S series

Stand alone valves
Solenoid clip or lockable connector
or remote air pilot



P series

Peripheral modules
Flow control, check valves,
pressure regulator, vacuum



Moduflex Valve in-line e-Configurator



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.



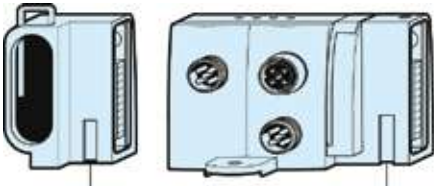
Valve island configuration

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...

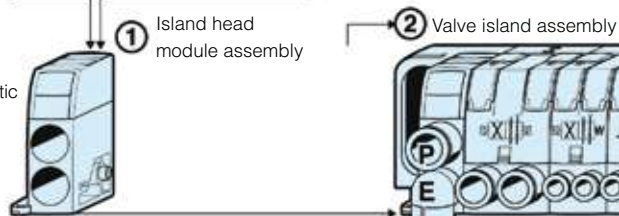
To receive its pressure supply and collect its exhaust, the island also requires a pneumatic

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 electrical head module :
multi-connector or field bus connection



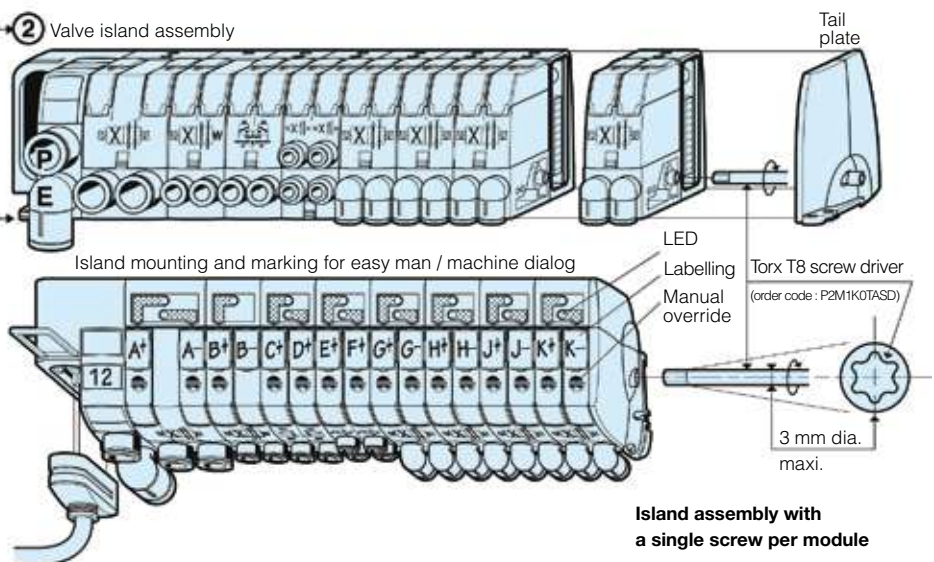
Pneumatic head module



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.

Field bus head module :
■ width : 94 mm

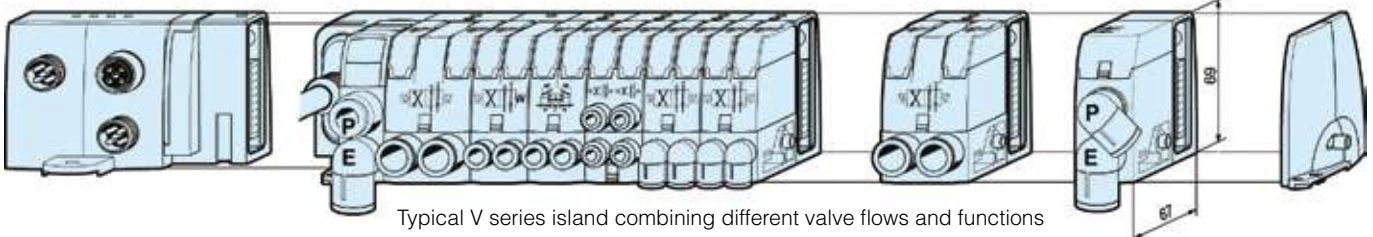
Multi-connector head module :
■ guillotine, width : 47 mm
■ sub-D 25, width : 56 mm

Valve modules
size 1 :
■ width : 25 mm

Valve module
size 2 :
■ width : 37.5 mm

Intermediate
module :
■ width : 25 mm

Tail
plate :
■ width : 16 mm



Typical V series island combining different valve flows and functions

Basic modules (without connector)

Valve Modules		Size 1		Size 2	
	Symbol	Description	Weight (g)	Order code	Weight (g) Order code
 Size 1		4/2 Solenoid spring	94	P2M1V4ES2CV	100 P2M2V4ES2CV
		4/2 Double solenoid	103	P2M1V4EE2CV	110 P2M2V4EE2CV
		2 x 3/2 NC + NC with exhaust check valves	106	P2M1VDEE2CV	115 P2M2VDEE2CV
		2 x 3/2 NO + NO with exhaust check valves	106	P2M1VCEE2CV	115 P2M2VCEE2CV
 Size 2		2 x 3/2 NC + NO with exhaust check valves	106	P2M1VEEE2CV	115 P2M2VEEE2CV
		2 x 4/2 Solenoid spring with exhaust check valves	114	P2M1VJEE2CV	
		3/2 NC with exhaust check valves	102	P2M1V3ES2CV	110 P2M2V3ES2CV
		4/3 Centre exhaust 2 x 3/2 NC + NC without exhaust check valves	106	P2M1VGEE2CV	115 P2M2VGEE2CV

Island head and intermediate module sets

Valve Modules		Size 2	
	Description	Weight (g)	Order code
 P2M2HXT01	Valve island pneumatic head and tail module set	64	P2M2HXT01
	Valve island intermediate supply module with a set of 4 configuration plates	68	P2M2BXV0A

Clip-On pneumatic connectors *

Valve Modules		Size 1		Size 2	
	Description	Tube OD	Weight (g)	Order code	Weight (g) Order code
	Straight connector	G1/8"	2	FMDG1-1	
		4 mm	2	FMD04-1	
		6 mm	3	FMD06-1	3 FMD06-2
		8 mm			4 FMD08-2
		10 mm			5 FMD10-2
		12 mm			6 FMD12-2
	Elbow connector	G1/8"	3	CMDG1-1	
		4 mm	3	CMD04-1	
		6 mm	5	CMD06-1	5 CMD06-2
		8 mm			6 CMD08-2
		10 mm			7 CMD10-2
		12 mm			8 CMD12-2
	Silencer				5 MMDVA2
	Plug		3	PMDXX1	5 PMDXX2

* Fittings and plugs pack quantity : 10

Electrical multi-connection and field bus head modules

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

V series valve island : Electrical multi-connector head module

	Description	Protection	Cable length	Weight (g)	Order code
	Guillotine type			38	P2M2HEV0A
	Multi-connection head module				
	Guillotine connector	IP65	2 m	335	P8LMH20M2A
	with flying leads		5 m	802	P8LMH20M5A
	multi-cable		9 m	1425	P8LMH20M9A
	Standard Sub-D 25 type			60	P2M2HEV0D
	Multi-connection head module				
	Sub-D 25 connector	IP40	3 m	435	P8LMH25M3A
	with flying leads		9 m	1425	P8LMH25M9A
	multi-cable	IP65	9 m	1425	P8LMH25B9A

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



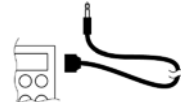
Standard AS-i protocol (up to 31 nodes) electrical head modules

	Electrical module for 8 outputs max.	Input connections	Weight(g)	Order code
	- V series islands may have up to 8 solenoid pilots 2 nodes per module, 4 I / 4 O per node	no input	150	P2M2HBVA10800
		8 M8 inputs	200	P2M2HBVA10808A
		8 inputs on 4 M12	200	P2M2HBVA10808B
	Electrical module for 4 outputs max.	No inputs	150	P2M2HBVA10400
	- V series islands may have up to 4 solenoid pilots 1 node per module, 4 I / 4 O	4 inputs on 4 M12	200	P2M2HBVA10404B

AS-i version 2-1 protocol (up to 62 nodes) electrical head modules

	Electrical module for 6 outputs max.	none	150	P2M2HBVA20600
	- V series islands may have up to 6 solenoid pilots 2 nodes per module, 4 I / 3 O per node	8 M8 Inputs	200	P2M2HBVA20608A
		8 inputs on 4 M12	200	P2M2HBVA20608B

AS-i head module accessories

	Description	Connector type	Weight (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 1 meter	M12 Male - Jack	100	P8LS12JACK

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	Bus Protocol	Bus In / Bus Out	Power supply	Weight (g)	Order code
	Moduflex Bus Communication module	Profibus DP	M12 - B coding	M12 - A coding	250	P2M2HBVP21600
		For GSD file, go to http://www.parker.com/pneu/moduflex				
		DeviceNet	M12 - A coding	M12 - A coding	250	P2M2HBVD21600
			M12 - B coding		250	P2M2HBVD11600
		For EDS file, go to http://www.parker.com/pneu/moduflex				
		CANopen	M12 - A coding	M12 - A coding	250	P2M2HBVC21600
			M12 - B coding		250	P2M2HBVC11600
		For EDS file, go to http://www.parker.com/pneu/moduflex				
		InterBus-S	M23 - 9 Pins	M12 - A coding	300	P2M2HBVS11600

Device Bus connection accessories

	Description	Bus Protocol	Connector type	Weight (g)	Order code
	Power supply female straight connector	All	M12 - A coding	25	P8CS1205AA
		DeviceNet CANopen	M12 - B coding	25	P8CS1205AB
	Bus IN female connector	DeviceNet CANopen	M12 - A coding	25	P8CS1205AA
		Profibus DP	M12 - B coding	25	P8CS1205AB
	Bus OUT male connector	DeviceNet CANopen	M12 - A coding	25	P8CS1205BA
		Profibus DP	M12 - B coding	25	P8CS1205BB
	Line termination	DeviceNet CANopen	M12 - A coding	25	P8BPA00MA
		Profibus DP	M12 - B coding	25	P8BPA00MB



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 pilot connections

1 - Solenoid valve modules



In its IP40 version, each solenoid shows Clip connection integrating LED and voltage surge protection. The clip connector with flying leads may be ordered separately with independent or interconnected common.

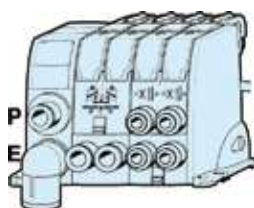
In its IP67 version, each solenoid shows a M8 connection. Lockable connectors, IP67 protected, with LED voltage surge protection and flying lead cable may be ordered for the required length.

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.

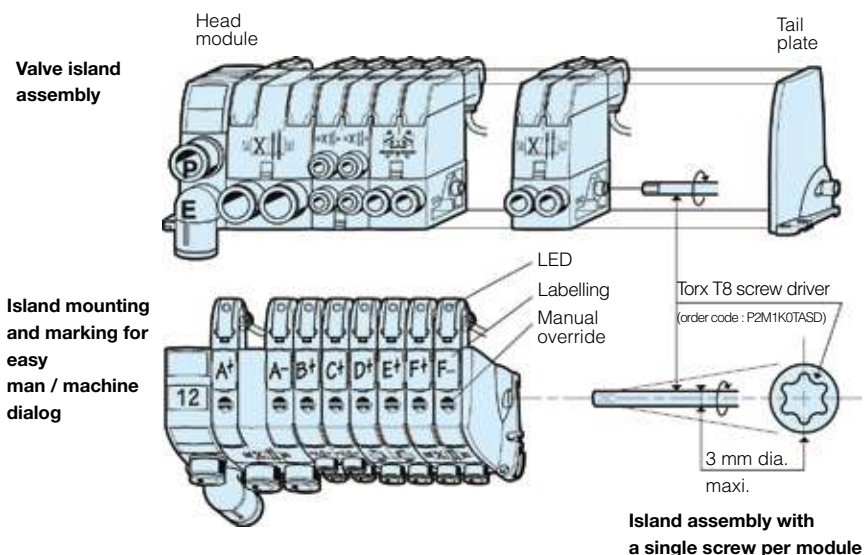


Valve island configuration

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 versions or air pilot versions. Mixing both versions into the same valve island is possible.



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 :

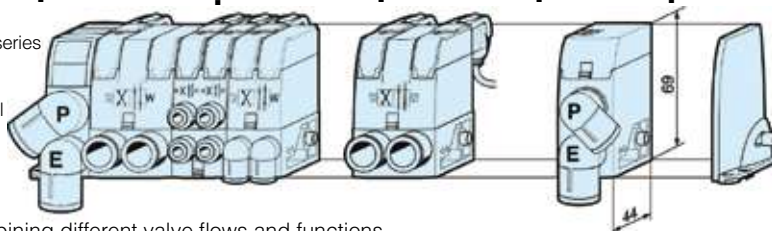
Page 265 shows the ordering chart for modules supplied with their connectors.

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.



Typical T series islands combining different valve flows and functions

Basic modules (without connector)

Valve Modules					Size 1		Size 2	
	Symbol	Description	Actuator	Pilot connector	W (g)	Order code	W (g)	Order code
		4/2 Spring return	Solenoid	M8 Lockable	68	P2M1T4ES2C	74	P2M2T4ES2C
			Air pilot	Clip	68	P2M1T4ES2CW	74	P2M2T4ES2CW
		4/2 Double pilot	Solenoid	M8 Lockable	63	P2M1T4PS	69	P2M2T4PS
			Air pilot	Clip	63	P2M1T4PS	69	P2M2T4PS
		2 x 3/2 NC + NC with exhaust check valves	Solenoid	M8 Lockable	77	P2M1T4EE2C	83	P2M2T4EE2C
			Air pilot	Clip	77	P2M1T4EE2CW	83	P2M2T4EE2CW
		2 x 3/2 NO + NO with exhaust check valves	Solenoid	M8 Lockable	67	P2M1T4PP	73	P2M2T4PP
			Air pilot	Clip	67	P2M1T4PP	73	P2M2T4PP
		2 x 3/2 NC + NO with exhaust check valves	Solenoid	M8 Lockable	80	P2M1TDEE2C	94	P2M2TDEE2C
			Air pilot	Clip	80	P2M1TDEE2CW	94	P2M2TDEE2CW
		2 x 3/2 NO + NO with exhaust check valves	Solenoid	M8 Lockable	80	P2M1TCEE2C	94	P2M2TCEE2C
			Air pilot	Clip	80	P2M1TCEE2CW	94	P2M2TCEE2CW
		2 x 3/2 NC + NO with exhaust check valves	Solenoid	M8 Lockable	80	P2M1TEEE2C	94	P2M2TEEE2C
			Air pilot	Clip	80	P2M1TEEE2CW	94	P2M2TEEE2CW
		2 x 4/2 Spring return with exhaust check valves	Solenoid	M8 Lockable	70	P2M1TCPP	84	P2M2TCPP
			Air pilot	Clip	70	P2M1TCPP	84	P2M2TCPP
		3/2 NC with exhaust check valves	Solenoid	M8 Lockable	88	P2M1TJEE2C	90	P2M2T3ES2C
			Air pilot	Clip	88	P2M1TJEE2CW	90	P2M2T3ES2CW
		4/3 Centre exhaust 2 x 3/2 NC + NC without exhaust check valves	Solenoid	M8 Lockable	76	P2M1T3ES2C	90	P2M2T3ES2C
			Air pilot	Clip	76	P2M1T3ES2CW	90	P2M2T3ES2CW
		4/3 Centre exhaust 2 x 3/2 NC + NC without exhaust check valves	Solenoid	M8 Lockable	71	P2M1T3PS	70	P2M2T3PS
			Air pilot	Clip	71	P2M1T3PS	70	P2M2T3PS
		4/3 Centre exhaust 2 x 3/2 NC + NC without exhaust check valves	Solenoid	M8 Lockable	80	P2M1TGEE2C	94	P2M2TGEE2C
			Air pilot	Clip	80	P2M1TGEE2CW	94	P2M2TGEE2CW
		4/3 Centre exhaust 2 x 3/2 NC + NC without exhaust check valves	Solenoid	M8 Lockable	80	P2M1TGPP	84	P2M2TGPP
			Air pilot	Clip	80	P2M1TGPP	84	P2M2TGPP

Island head and intermediate module sets

Valve Modules			Size 2	
	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

Clip-On pneumatic connectors *

Valve Modules					Size 1		Size 2	
	Description	Tube OD	W (g)	Order code	W (g)	Order code	W (g)	Order code
	Straight connector	G1/8"	2	FMDG1-1				
		4 mm	2	FMD04-1				
		6 mm	3	FMD06-1	3	FMD06-2		
		8 mm					4	FMD08-2
		10 mm					5	FMD10-2
		12 mm					6	FMD12-2
	Elbow connector	G1/8"	3	CMDG1-1				
		4 mm	3	CMD04-1				
		6 mm	5	CMD06-1	5	CMD06-2		
		8 mm					6	CMD08-2
		10 mm					7	CMD10-2
		12 mm					8	CMD12-2
	Silencer						5	MMDVA2
	Plug		3	PMDXX1			5	PMDXX2

* Fittings and plugs pack quantity : 10

Electrical connectors

  	M8 connector	Description	Connector type	Cable length	W (g)	Order code
	Clip connector	Individual Clip-on connector – IP67	M8 / 2 x Flying leads	2 meters	62	P8LS08L226C
		Including LED and surge protection		5 meters	155	P8LS08L526C
		2 Flying leads		9 meters	180	P8LS08L926C
	Clip-on connector – IP40	1 x Clip connector	1 meter	8	P8LW021C	
	Individual : Including 2 flying leads	2 x Clip connectors	1 meter	12	P8LW021C02	
	Multiple : Including 1 common (0 Vdc)	4 x Clip connectors	1 meter	20	P8LW021C04	
	and 1 flying lead per connector	8 x Clip connectors	1 meter	36	P8LW021C08	
	Straight cable quick connect to thread connector, IP67 protected	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

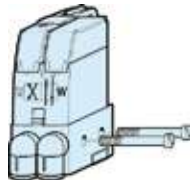
- Outlets to cylinders (ports 2 and 4) on one side.
- Supply P (port 1) and exhaust E (port 3) on the other side. At port 3, exhaust may be collected or receive a clip-on muffler.



Valve mounting

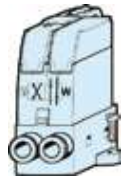
All valves may be mounted either with side screws or with their integrated retractable brackets.

Side screw mounting



The brackets are then retracted.

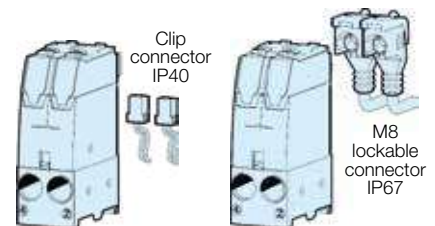
Optional foot mounting



The brackets are then extended.

Valve pilot connections

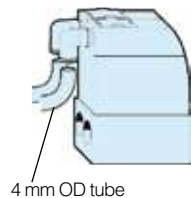
1- Solenoid valve modules



In its IP40 version, each solenoid shows Clip connection integrating LED and voltage surge protection. The clip connector with flying leads may be ordered separately with independent or interconnected common. In its IP67 version, each solenoid shows a M8 connection. Lockable 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.



Modules and island ordering

Choice between 2 approaches :

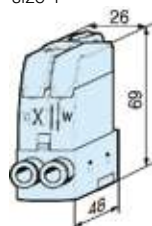
1 - Basic modules ordering :

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.

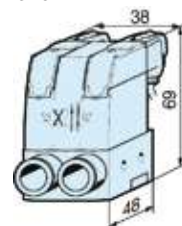
2 - Complete modules ordering :

Ordering chart for modules supplied with their pneumatic and electrical connectors and muffler.

Valve module size 1



Valve module size 2



Valve Modules

	Symbol	Description	Actuator	Pilot connector	Size 1		Size 2	
					W (g)	Order code	W (g)	Order code
 Size 1		4/2 Spring return	Solenoid	M8 Lockable	72	P2M1S4ES2C	78	P2M2S4ES2C
				Clip	72	P2M1S4ES2CW	78	P2M2S4ES2CW
			Air pilot		67	P2M1S4PS	73	P2M2S4PS
		4/2 Double pilot	Solenoid	M8 Lockable	87	P2M1S4EE2C	93	P2M2S4EE2C
				Clip	87	P2M1S4EE2CW	93	P2M2S4EE2CW
			Air pilot		77	P2M1S4PP	73	P2M2S4PP
 Size 2		2 x 3/2 NC + NC with exhaust check valves	Solenoid	M8 Lockable	85	P2M1SDEE2C	91	P2M2SDEE2C
				Clip	85	P2M1SDEE2CW	91	P2M2SDEE2CW
			Air pilot		75	P2M1SDPP	81	P2M2SDPP
		2 x 3/2 NO + NO with exhaust check valves	Solenoid	M8 Lockable	85	P2M1SC EE2C	91	P2M2SC EE2C
				Clip	85	P2M1SC EE2CW	91	P2M2SC EE2CW
			Air pilot		75	P2M1SCPP	81	P2M2SCPP
		2 x 3/2 NC + NO with exhaust check valves	Solenoid	M8 Lockable	85	P2M1SEEE2C	91	P2M2SEEE2C
				Clip	85	P2M1SEEE2CW	91	P2M2SEEE2CW
			Air pilot		75	P2M1SEPP	81	P2M2SEPP
		3/2 NC with exhaust check valves	Solenoid	M8 Lockable	80	P2M1S3ES2C	86	P2M2S3ES2C
				Clip	80	P2M1S3ES2CW	86	P2M2S3ES2CW
			Air pilot		70	P2M1S3PS	76	P2M2S3PS
		4/3 Centre exhaust 2 x 3/2 NC + NC without exhaust check valves	Solenoid	M8 Lockable	85	P2M1SGEE2C	91	P2M2SGEE2C
				Clip	85	P2M1SGEE2CW	91	P2M2SGEE2CW
			Air pilot		75	P2M1SGPP	81	P2M2SGPP

Clip-On pneumatic connectors *

Valve Modules

	Description	Tube OD	Size 1		Size 2	
			W (g)	Order code	W (g)	Order code
	Straight connector	G1/8"	2	FMDG1-1		
		4 mm	2	FMD04-1		
		6 mm	3	FMD06-1	3	FMD06-2
		8 mm			4	FMD08-2
		10 mm			5	FMD10-2
		12 mm			6	FMD12-2
	Elbow connector	G1/8"	3	CMDG1-1		
		4 mm	3	CMD04-1		
		6 mm	5	CMD06-1	5	CMD06-2
		8 mm			6	CMD08-2
		10 mm			7	CMD10-2
		12 mm			8	CMD12-2
	Silencer		3	MMDVA1	5	MMDVA2
	Plug		3	PMDXX1	5	PMDXX2

* Fittings and plugs pack quantity : 10

Electrical connectors

	M8 connector	Description	Connector type	Cable length	W (g)	Order code
	Clip connector	Individual Clip-on connector – IP67	M8 / 2 x Flying leads	2 meters	62	P8LS08L226C
		Including LED and surge protection		5 meters	155	P8LS08L526C
		2 Flying leads		9 meters	180	P8LS08L926C
		Clip-on connector – IP40	1 x Clip connector	1 meter	8	P8LW021C
		Individual : Including 2 flying leads	2 x Clip connectors	1 meter	12	P8LW021C02
		Multiple : Including 1 common (0 Vdc) and 1 flying lead per connector	4 x Clip connectors	1 meter	20	P8LW021C04
			8 x Clip connectors	1 meter	36	P8LW021C08
		Straight cable quick connect to thread connector, IP67 protected	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 :

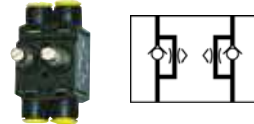
- Dual flow control, for cylinder speed adjusting;
- Dual pilot operated check valve, for cylinder positioning;
- Pressure regulator, for cylinder thrust adjusting;
- Vacuum generator, for vacuum pad controls.



Module function selection

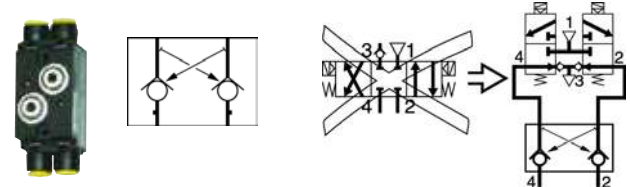
Dual flow control

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



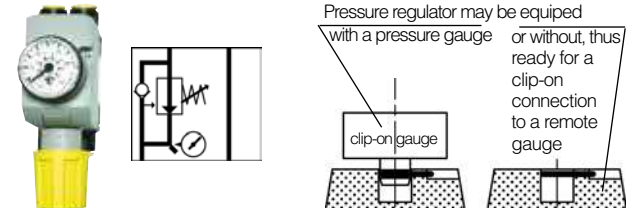
Dual pilot operated check valve

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.

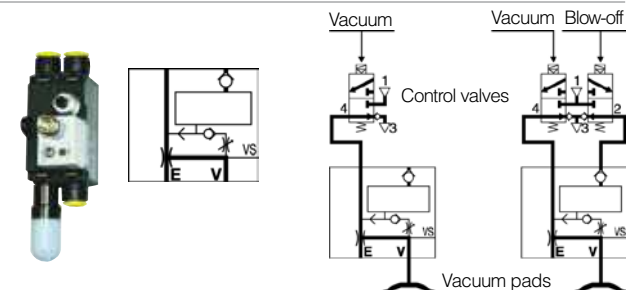


Vacuum generator

This multi-purpose module controls vacuum pads with a choice between two basics 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.

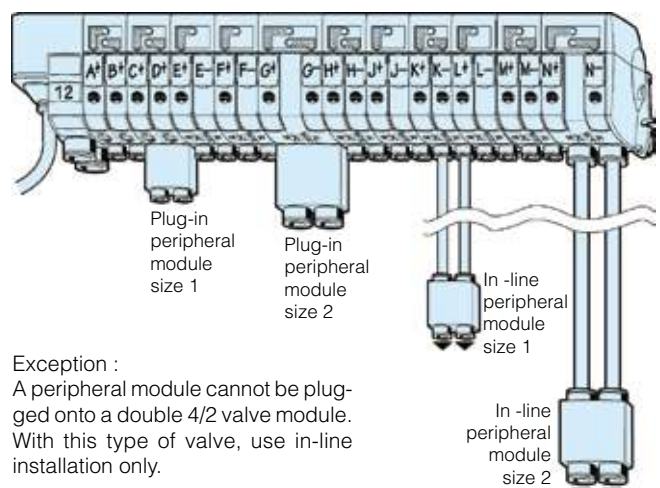
Integrated blow-off flow controller. Optional plug-in vacuum sensor.



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.

Peripheral Modules

Clip-On pneumatic connectors *

Valve Modules

* Fittings and plugs pack quantity : 10

Clip-on accessories

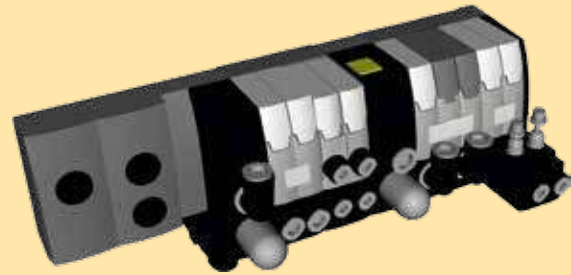


Moduflex Valve Island e-Configurator

The comprehensive **Moduflex Valve CAD e-Configurator** enable online Moduflex Valve Island configuration giving Bill of Material and 3D or 2D CAD download

Go to <http://www.parker.com/pde/cad> to start

Stacking Air Valve
Moduflex P2M Series



Valve island configuration practice :

Moduflex Assembly

Model Number
P2MAVB2C8MM08

SELECT YOUR CONFIGURATION
Options marked with () are required items.
(Configuration subject to change without notice.)*

Island Assembly: P2MA - Moduflex Island Assembly

Style*: V - Valvebionic Collective Wired Valve

Wiring / Bus Protocol*: B - Bus

Bus Protocol Module*: ASi 2-1-8 (PnP) single inputs on eight M8 connectors, 8 solenoid outputs, 2 nodes

NOTE: Maximum number of solenoids for this manifold is 6. Single Solenoid Valve = 1 Output. Double Solenoid Valve = 2 Outputs

Bus Model Number: P2M2HVA20008A

Pilot Source*: 2 - Internal Supply / External Exhaust

Inlet Port Type (No. 1 Pressure)*: CS - 3mm Elbow Fitting

Exhaust Port Type (No. 3 Exhaust)*: MM - Clip-In Muffler

Number of Stations*: 08

Step 1 : Head and tail definition

Step 2 : Valves definition

Station	Valve	Part Number	Configure	Copy	Reset
Station 1*	Valve	P2M1V4EE2CV00R6	Configure	Copy	Reset
Station 2*	Valve	P2M1V4EE2CV00F4	Configure	Copy	Reset
Station 3*	Intermediate Module	P2M2B3CV02F8MM	Configure	Copy	Reset
Station 4*	Valve	P2M2V4EE2CV00C8	Configure	Copy	Reset
Station 5*	Valve	P2M1VDEE2CV00JJ	Configure	Copy	Reset
	Dual Flow Control	P2M1FXFAJUF4	Configure	Copy	Reset

Call: 1.269.629.5575 or email: pdnmktg@parker.com for special options not available here.

View Summary Generate CAD Refresh Quit

Get the bill of material

By clicking on View Summary button :

- View the bill of material :
 - Head and Tail Set
 - Valves detail
- Click to Print



Download 2D or 3D CAD

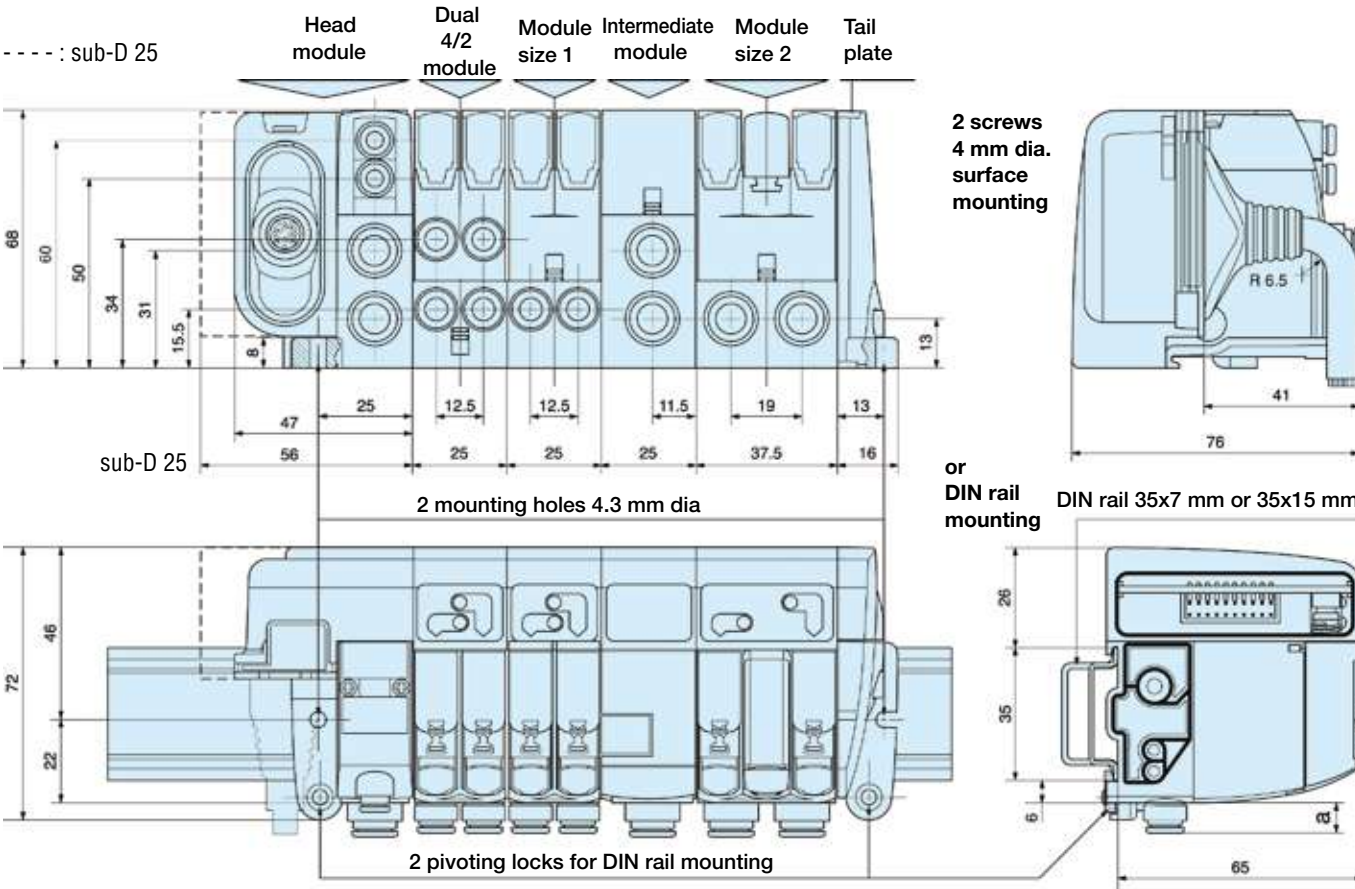
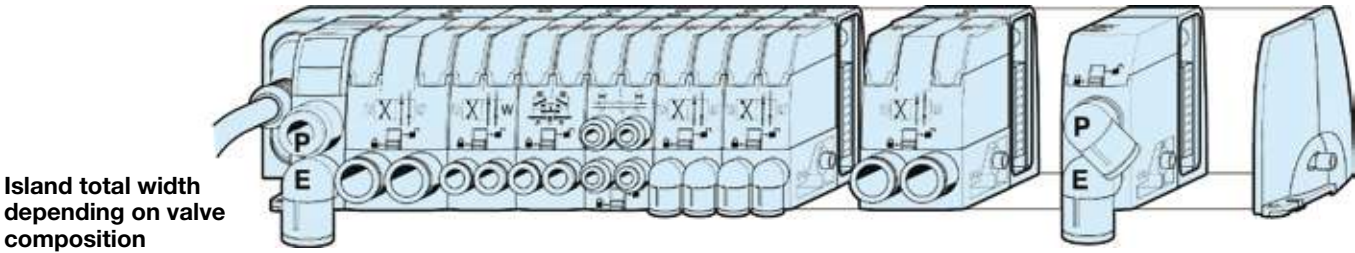
By clicking on Generate CAD button :

- Select to view, download or e-mail your CAD file
- Select your best file format
- Submit Request



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

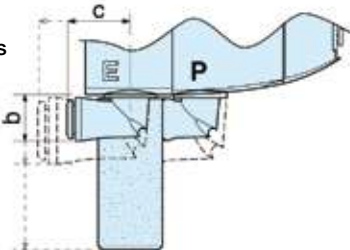
Multi-connector or sub-D 25 electrical head module width : 15 mm	Head and tail pneumatic module set width : 48 mm	Modules size 1 width : 25 mm	Modules size 2 width : 37.5 mm	Intermediate module width : 25 mm
---	--	------------------------------------	--------------------------------------	---



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.

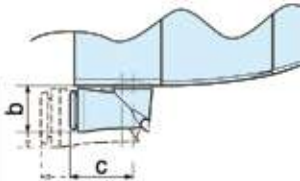
Island head and intermediate modules

	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



2 - Field bus connected islands

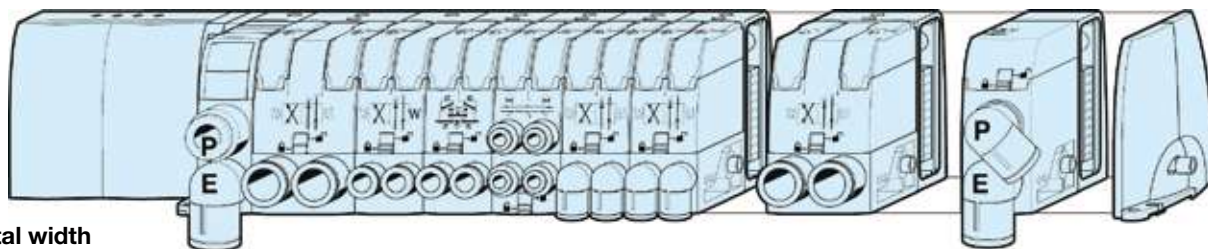
Electrical field
bus head module
width : 62 mm

Head and tail
pneumatic module set
width : 48 mm

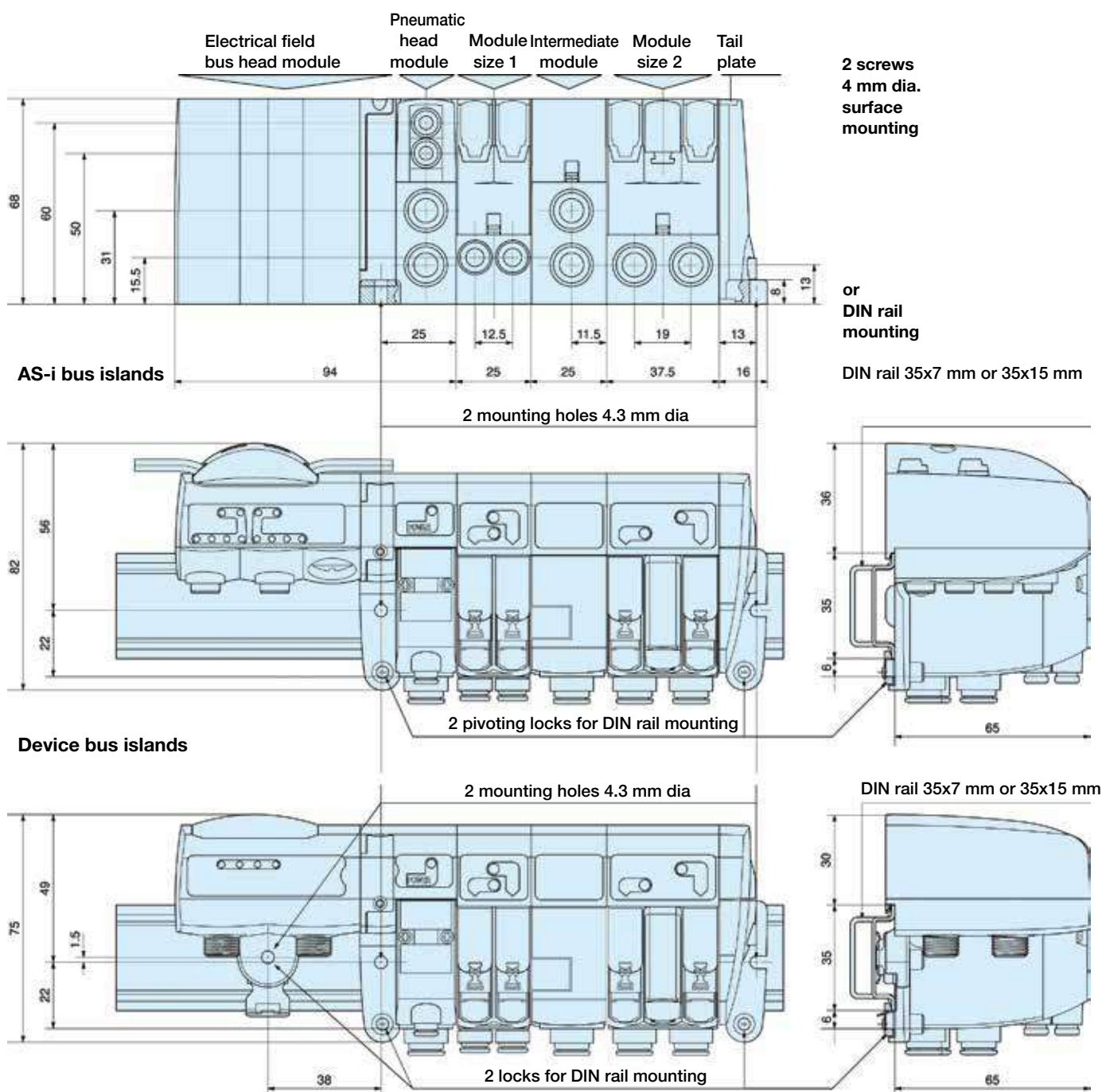
Modules
size 1
width : 25 mm

Modules
size 2
width : 37.5 mm

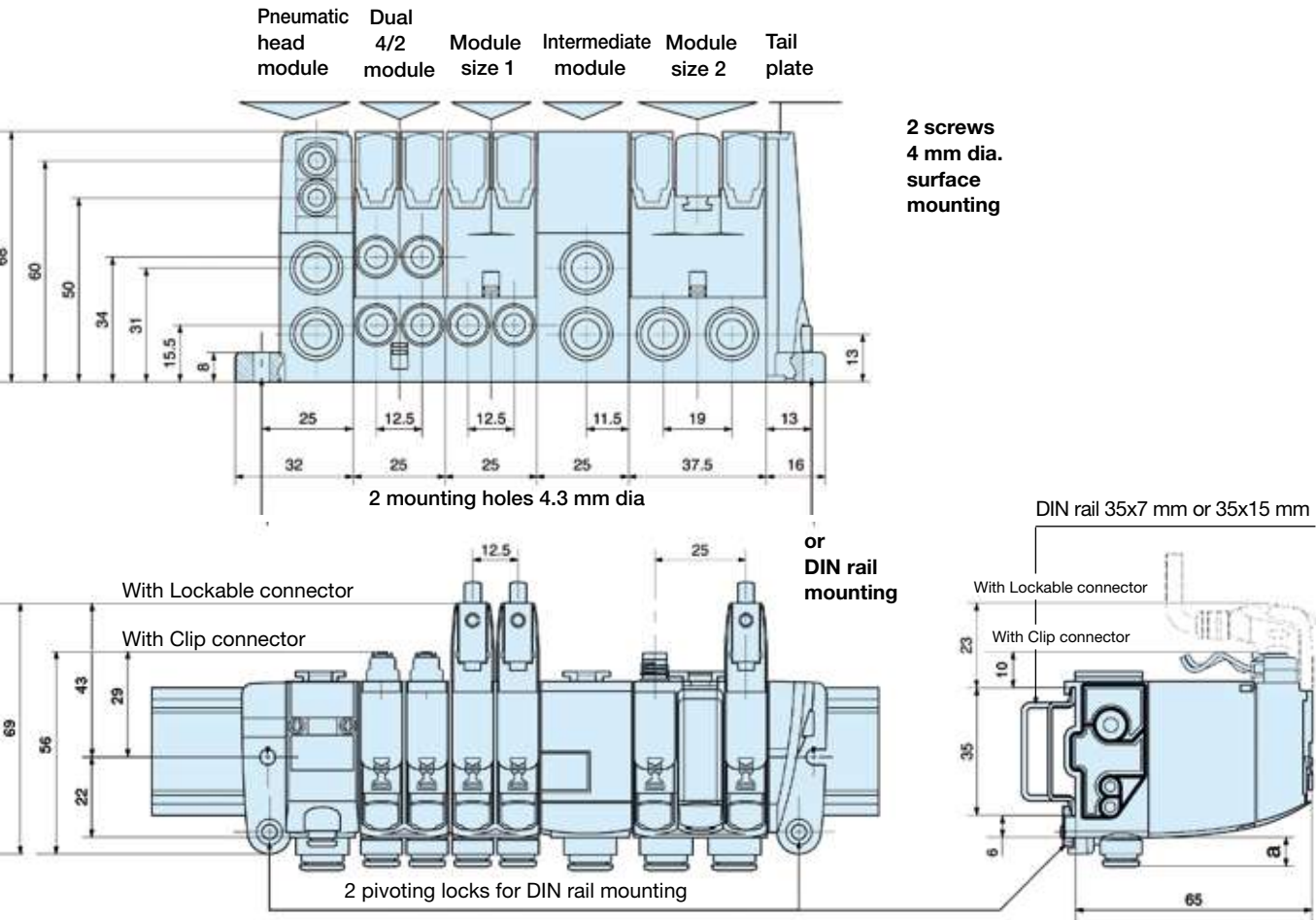
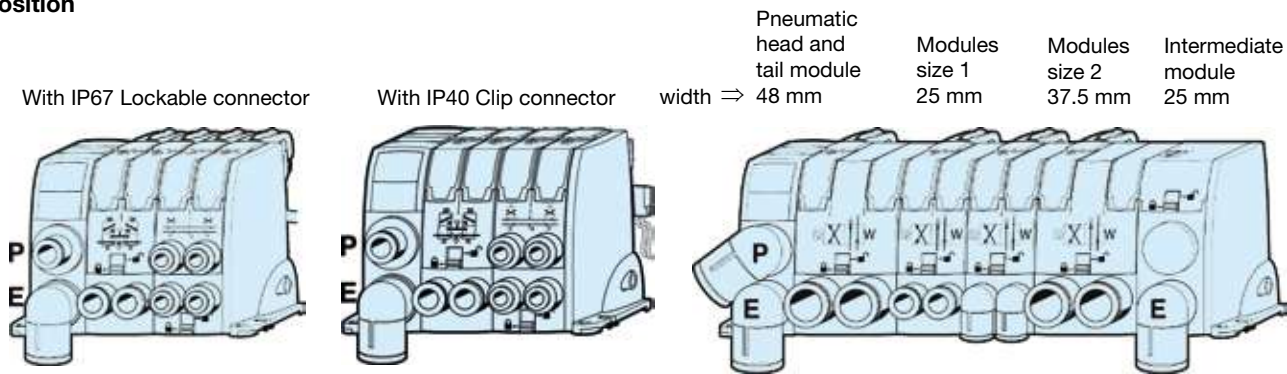
Intermediate
module
width : 25 mm



Island total width
depending on valve
composition



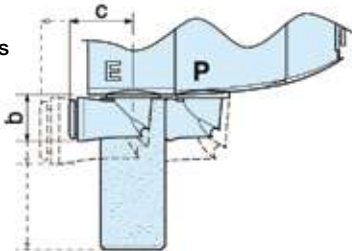
Island total width
depending on valve
composition



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.

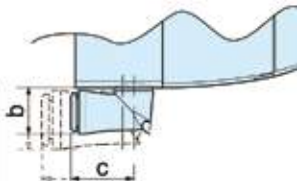
Island head and intermediate modules

	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	

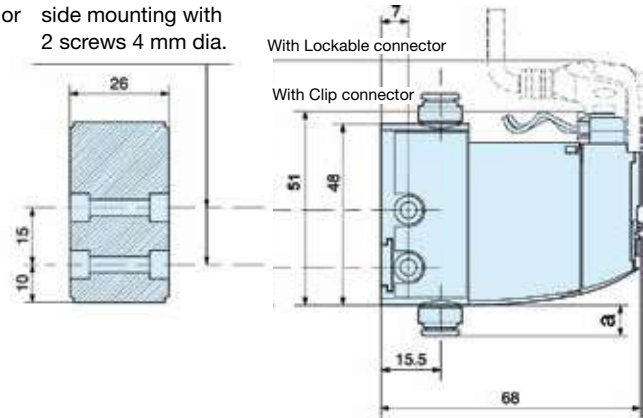
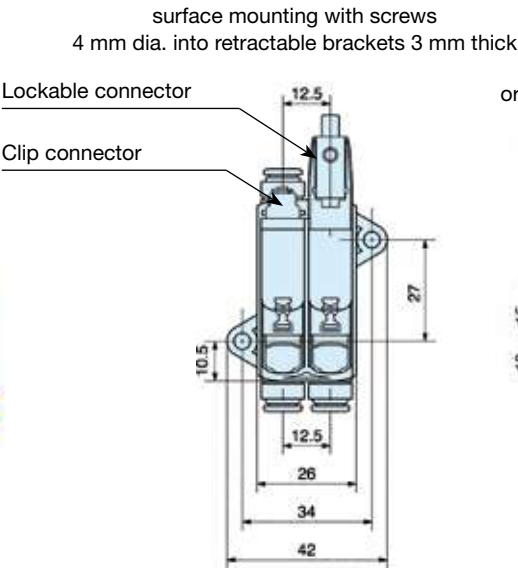


Island valves modules

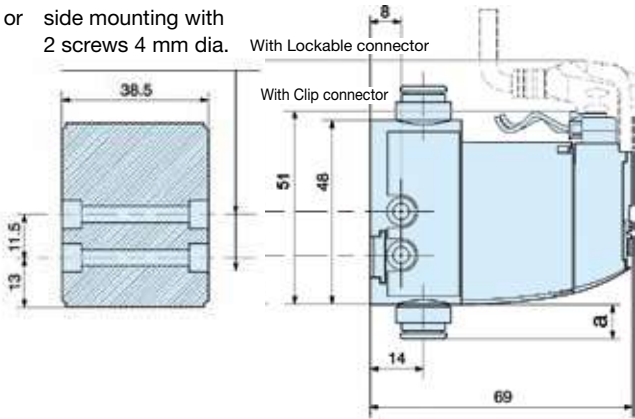
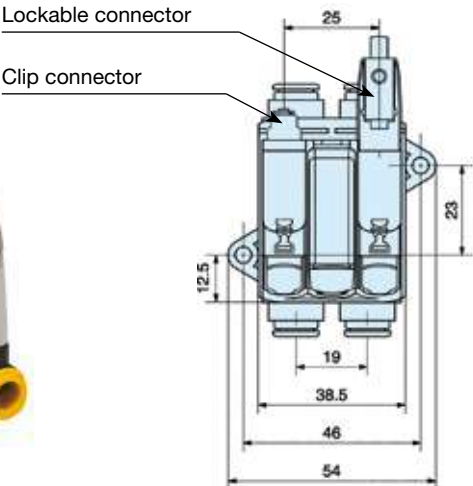
	OD tube	a	b	c
Size 1 modules	4 mm	8	10	12
	6 mm	8	13	16
Size 2 modules	8 mm	9	16	19
	10 mm	13	18	22



Stand-alone
valve
size 1



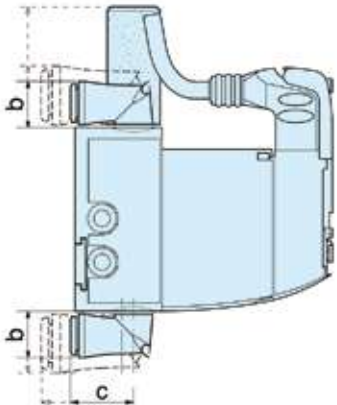
Stand-alone
valve
size 2



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.

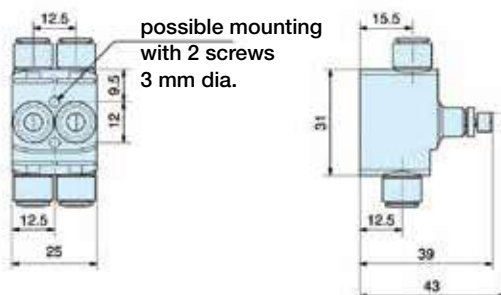
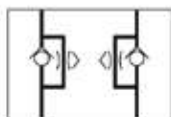
		a	b	c
Size 1 modules	4 mm tube OD	8	10	12
	6 mm tube OD	8	13	16
	muffler		31	
Size 2 modules	8 mm tube OD	9	16	19
	10 mm tube OD	13	18	22
	muffler		40	



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

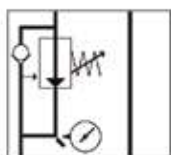


Dual flow control module size 1

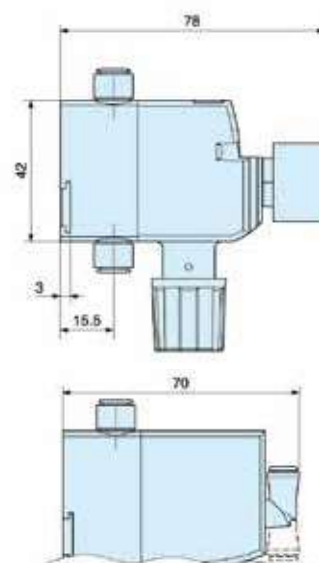


Pressure regulation module size 1

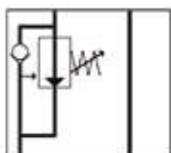
- with gauge



mounting with 2 screws 4 mm dia.
on retractable brackets

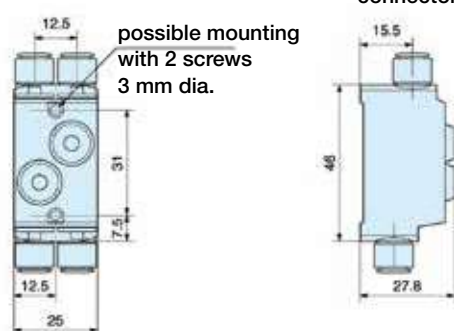
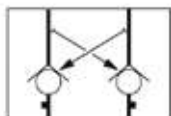


- without gauge

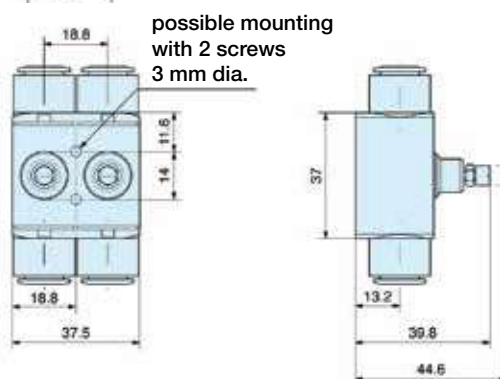
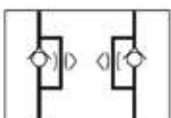


swivel elbow push-in
connector 4 mm OD tube

Dual P.O. check valve module size 1

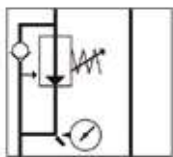


Dual flow control module size 2

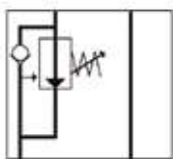
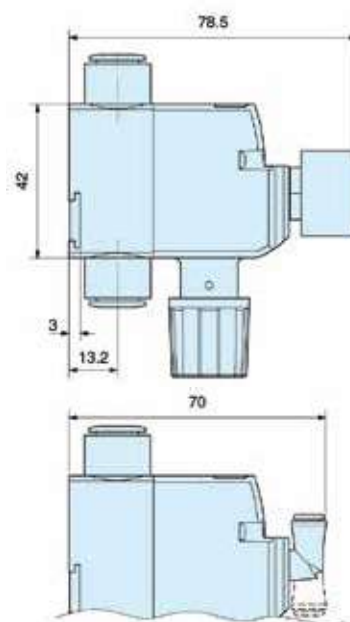
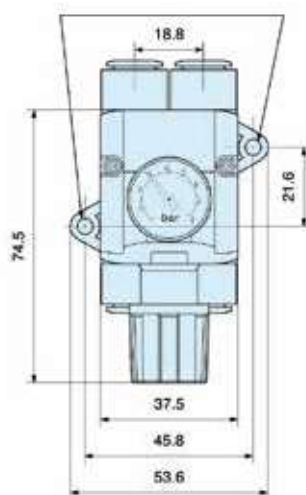


Pressure regulation module size 2

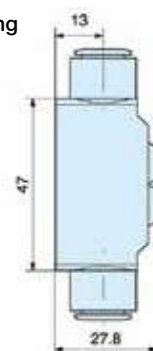
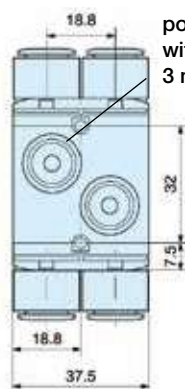
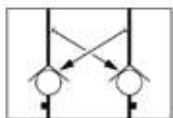
- with gauge



- without gauge

mounting with 2 screws 4 mm dia.
on retractable bracketsswivel elbow push-in
connector 4 mm OD tube

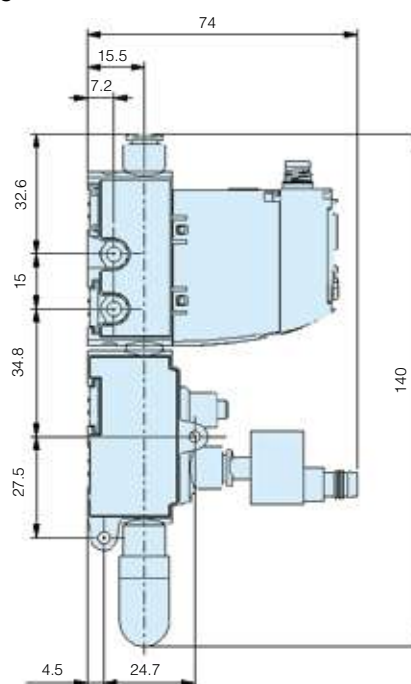
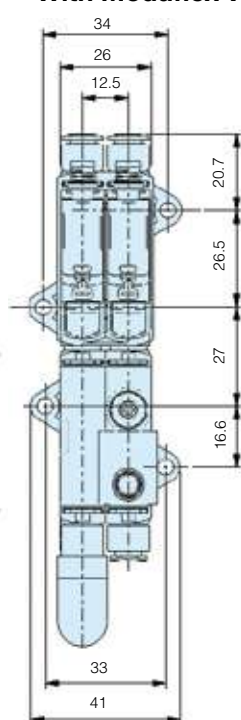
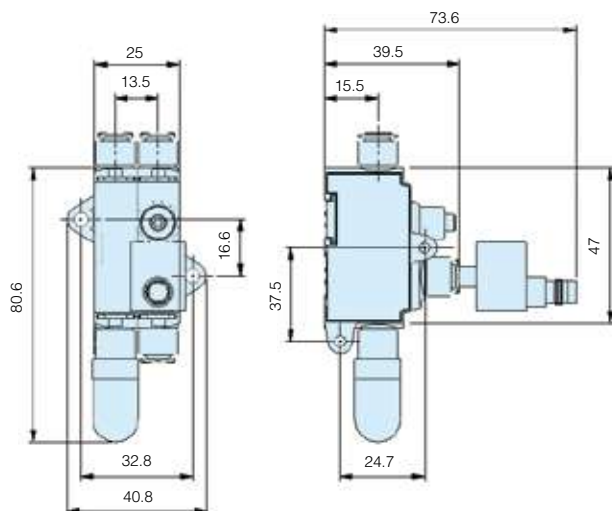
Dual P.O. check valve module size 2



Vacuum generator module

In-line

With Moduflex valve





H Series Industrial Communication System

Moduflex Bus / TURCK BL67

*H Series Industrial Communication System for **centralised** and **decentralised** applications*



H Series Industrial Communication System for Centralised applications

H Series Industrial Communication 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 H Series Industrial Communication System or multiple power supply

Moduflex Bus System for Decentralised applications

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

Pneumatic variants using H Series Industrial Communication system for Centralised applications

Device with electric modules only



H Series Industrial Communication with H Series Micro Valves extended device



H Series Industrial Communication with H Series Micro Valves island



H Series Industrial Communication with H Series ISO valves island

ISO 15407-2 – HA & HB
ISO 5599-2 – H1 to H3



Pneumatic variants using Moduflex Fieldbus modules for Decentralised applications

Moduflex Bus with Moduflex Valve System



Moduflex Bus with H Series Micro Valves island



Moduflex Bus With H Series ISO 15407-2 or 5599-2 valves island

ISO 15407-2 – HA & HB
ISO 5599-2 – H1 to H3



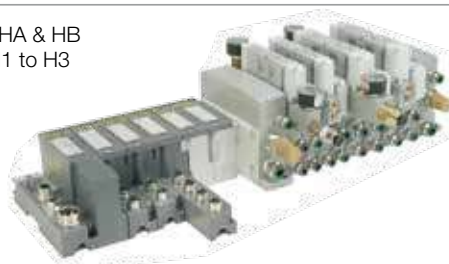
Pneumatic variants using TURCK BL67 H Series Industrial Communication system for Centralised applications

TURCK BL67 with H Series Micro Valves Island



TURCK BL67 with H Series ISO Valves Island

ISO 15407-2 – HA & HB
ISO 5599-2 – H1 to H3



H Series Industrial Communication Device constitution overview for a Centralised application

For main device



For both main and extended devices



For extended device



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 H Series Industrial Communication module or H Series 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

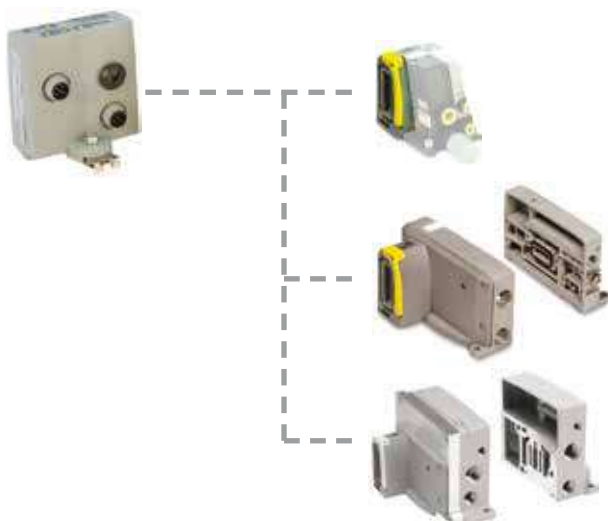
End section :

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

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 :

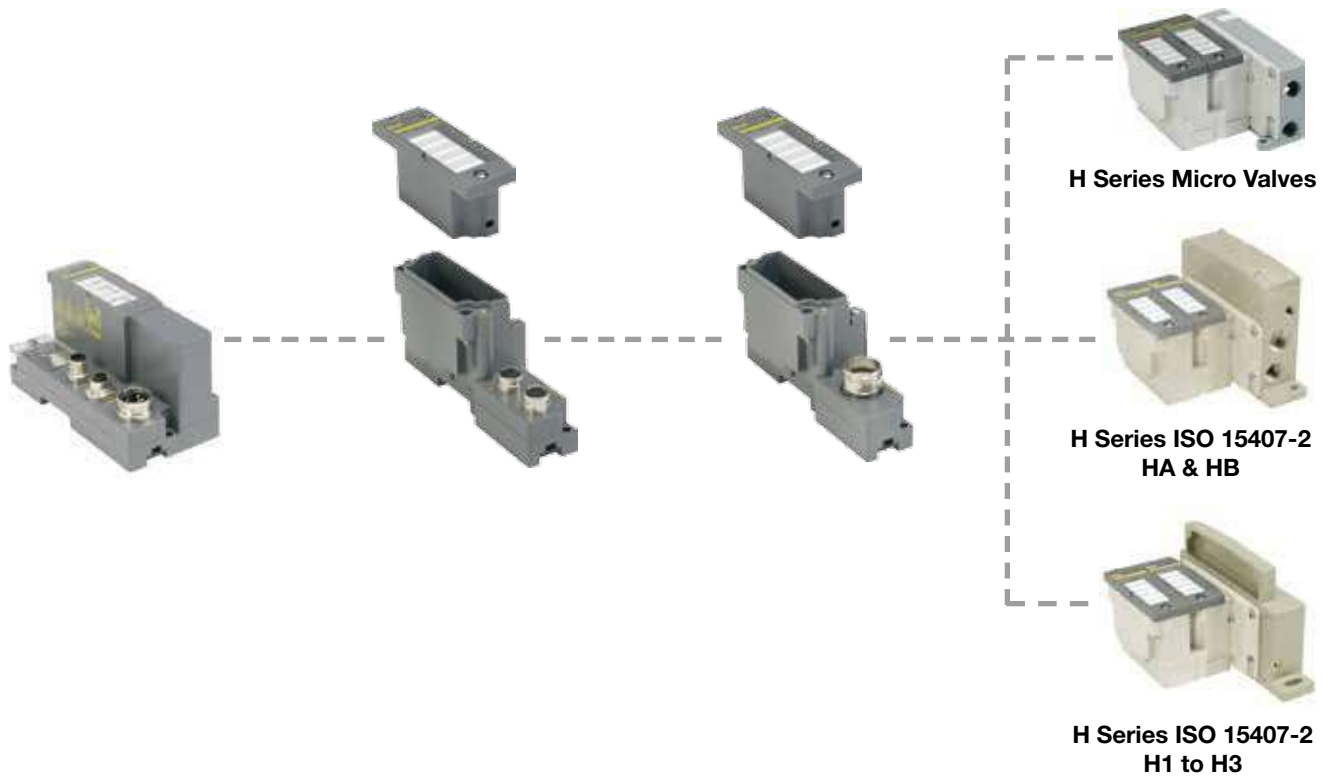
- Fieldbus protocols
- Network connection
- Separated power supply for communication and solenoid valves
- Addressing and speed communication configuration by coding wells
- Bus status display by LED

Bus module adaptor :

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

- Moduflex Valve System
- H Series Micro Valves
- H Series ISO 15407-2 – HA & HB
- H Series ISO 5599-2 – H1

TURCK BL67 Device constitution overview for a Centralised application



TURCK BL67 communication gateway

H Series Industrial Communication :

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

TURCK BL67 I/O and Base modules

The separation between electronic and base module for connectivity 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)

The complete resulting configuration can handle :

- Up to 32 electrical modules (up to 2 in the Valve Driver Module)
- Up to 512 digital I/O (up to 32 outputs in the Valve Driver Module)
- Up to 128 analog I/O

Other TURCK BL67 Electronic modules

Other electronic modules, as CANopen gateway allowing a sub-network connectivity with other CANopen slaves, RFID System or counting modules complet the full TURCK BL67 Remote I/O System.

Valve driver Module for 16 or 32 Outputs

Modularity up to 16 or 32 Outputs :

Thanks to its modularity, the H Series Micro Valve Driver Module to Turck BL67 Remote I/O System adaptor can be configure up to either a 16 or 32 solenoid valves configuration :

For a light configuration up to 16 solenoid valves (2 double address or 4 single address manifolds), the Valve Driver Module can be optimized being populated with:

- 1 Standard Turck 16 DO module BL67-16DO-0.1A-P in slot 1
- 1 blank module BL67-E in slot 2

For a full configuration up to 32 solenoid valves (4 double address or 8 single address manifolds), the Valve Driver Module must be fully populated with 1 Standard Turck 16 DO module BL67-16DO-0.1A-P in each slot.

H Series 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 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 range of digital or analogue inputs and outputs modules offers a choice of industrial connection :

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

Extension power supply module :



The auxiliary power from the communication module supports up to 10 I/O modules. For applications requiring a larger I/O module 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 the need for a separate power supply section in the H Series Industrial Communication device.

H Series Industrial Communication and H Series Micro Valve bus extender cable



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

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

32 Outputs driver for valve islands in centralised applications

32 Outputs driver for H Series Micro Valve Islands



- H Series 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

32 Outputs driver for H Series 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 H Series Micro and H Series ISO valve islands



Moduflex valve system



H Series Micro Valves

- 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.



ISO 15407-2
HA - HB



ISO 5599-2
H1

TURCK BL67 H Series Industrial Communication modules



- A choice of different protocols to connect the TURCK BL67 device to the requested industrial network:
 - CANopen
 - DeviceNet
 - Profibus DP
 - Ethernet Modbus TCP, EtherNet/IP™ and PROFINET

Programmable versions 
CODESYS

TURCK BL67 Electronic and Base Modules



The separation between electronic and base module for connectivity 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)

The complete resulting configuration can handle :

- Up to 32 electrical modules (up to 2 in the Valve Driver Module)
- Up to 512 digital I/O (up to 32 outputs in the Valve Driver Module)
- Up to 128 analog I/O

32 Outputs Driver for H Series Micro and H Series ISO Valve Islands



H Series Micro Valves



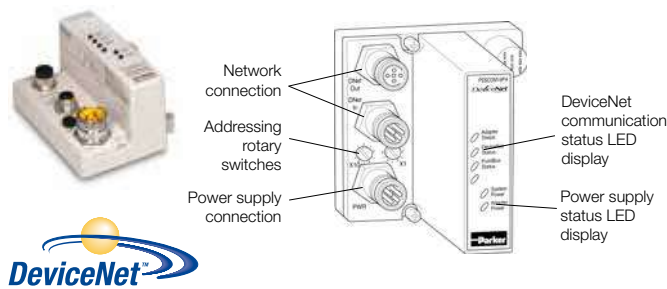
ISO 15407-2
HA & HB



ISO 15407-2
H1 to H3

- H Series Micro 4 valve function in 42 mm 280 NI/mn
- ISO 15407-2 Size 02 (HB) 18 mm 390 NI/mn
- ISO 15407-2 Size 01 (HA) 26 mm 920 NI/mn
- ISO 5599-2 Size 1 (H1) 42 mm 1200 NI/mn
- ISO 5599-2 Size 2 (H2) 56 mm 2500 NI/mn
- ISO 5599-2 Size 3 (H3) 71 mm 5000 NI/mn
- Modularity of 16 or 32 outputs per module to handle up to 32 solenoids per valve island.

DeviceNet communication module

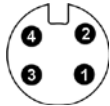


DeviceNet Adapters

DeviceNet module order code

PSSCDM12A**PSSCDM18PA**

Adapters connection

Power supply connection
7/8" - 4 PINs - Male :

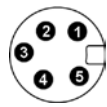
- PIN 1 : User power +
- PIN 2 : Adapter power +
- PIN 3 : Adapter power -
- PIN 4 : User power -

Bus IN connection

M12 - 5 PINs - Male - A coding



M18 - 5 PINs - Male :



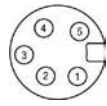
- PIN 1 : Drain
- PIN 2 : DeviceNet V+
- PIN 3 : DeviceNet V-
- PIN 4 : CAN High
- PIN 5 : CAN Low

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

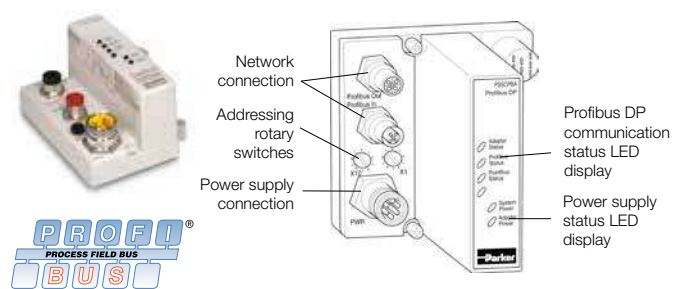
DeviceNet communication module connection accessories



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 terminaiton	M12 male - A coding	25	P8BPA00MA

Profibus DP communication module



Profibus DP Adapters

Profibus DP module order code

PSSCPBA

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

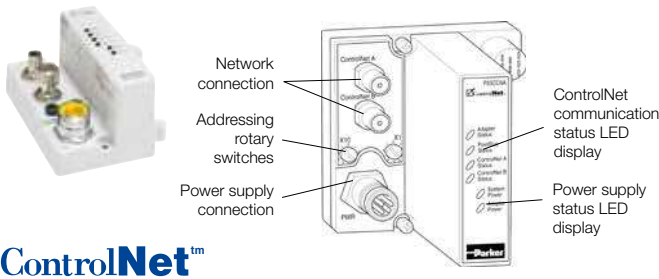
Profibus DP communication module connection accessories



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 terminaiton	M12 male - B coding	25	P8BPA00MB

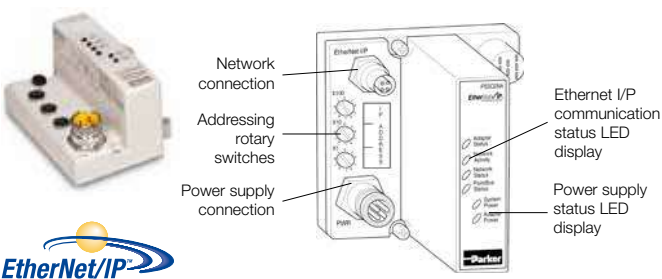
ControlNet communication module



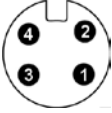
ControlNet™

ControlNet Adapters	
ControlNet module order code	
PSSCCNA	
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	

Ethernet I/P communication module



EtherNet/IP™

Ethernet I/P Adapters	
Ethernet I/P module order code	
PSSCENA	
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	

ControlNet communication module connection accessories



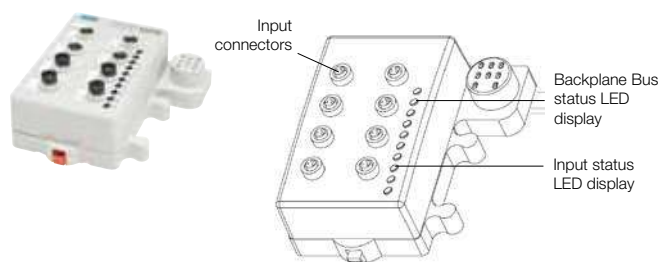
Description	Connector type	W (g)	Order code
Power supply connector	7/8" - 4 PINs	40	P8CS7804AA

Ethernet I/P communication module connection accessories



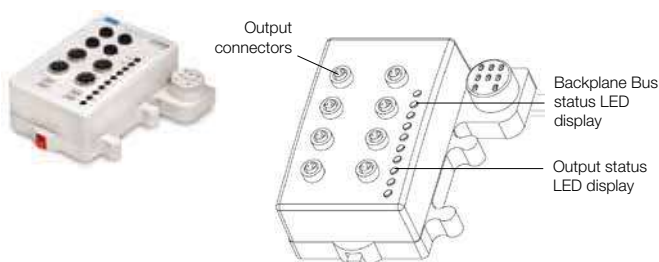
Description	Connector type	W (g)	Order code
Power supply connector	7/8" - 4 PINs	40	P8CS7804AA

Digital Input modules



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

Digital Output modules



Digital DC Output modules			
Output module order code			
PSST8M8A	PSST8M12A	PSST8M23A	PSSTR4M12A
Nb of Outputs			
8	8	8	8
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	M12 - 5 PINs Female	M23 - 12 PINs Female	M12 - 5 PINs Female
- PIN 1 : +24 VDC - PIN 3 : Common - PIN 4 : Outputs (0 to 7)	- 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	- 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	- 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)			
Module status : 1 x green / red Network status : 1 x green / red			

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
Cable quick connect connector	M8 male	25	P8CS0803J
	M12 male - A coding	25	P8CS1204J
Y shape	M12 male - 2 x M12 female	25	P8CSY1212A

Backplane Bus accessories



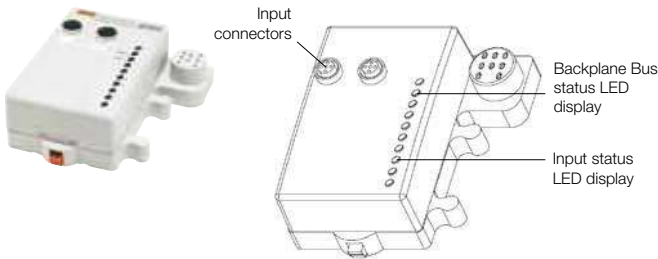
Description	Cable length	W (g)	Order code
Backplane Bus extender	1 meter	380	PSSEXT1
	3 meter	760	PSSEXT3
Termination module		200	PSSTERM

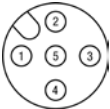
Connectors for outputs



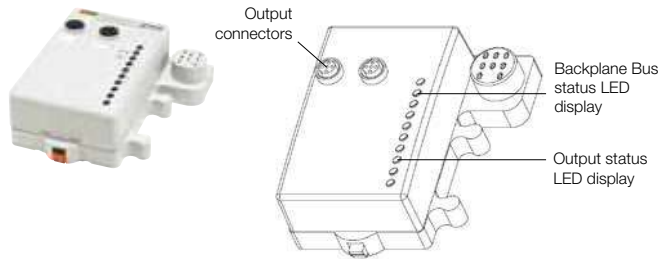
Description	Connector type	W (g)	Order code
Cable quick connect connector	M8 male	25	P8CS0803J
	M12 male - A coding	25	P8CS1204J
Y shape	M12 male - 2 x M12 female	25	P8CSY1212A

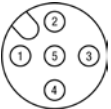
Analogue Input modules



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	

Analogue Output modules



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	

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

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

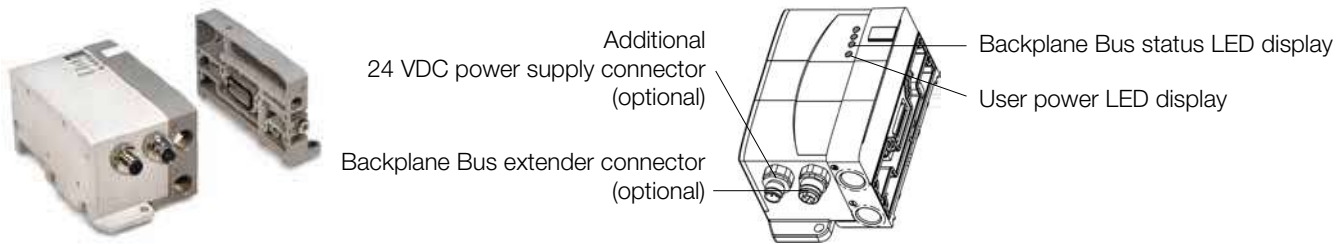
Backplane Bus accessories

			
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

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

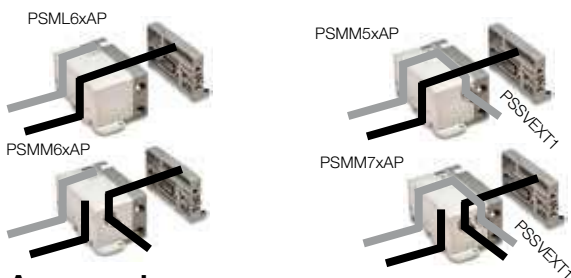
32 Output drivers



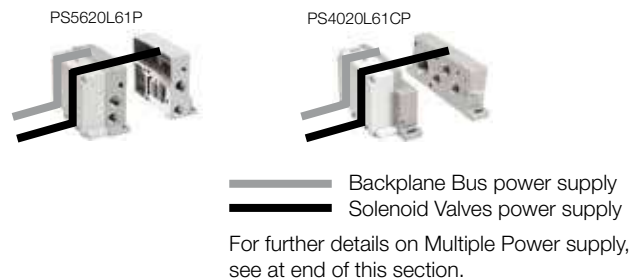
32 Output driver modules							
Dedicated valve range		H Series Micro Valves				H Series ISO 15407-2	H Series ISO 5599-2
32 Output driver modules order code	Side ported	PSML61AP	PSMM61AP	PSMM71AP	PSMM51AP	PS5620L61P	PS4020L61CP
	Bottom ported	PSML62AP	PSMM62AP	PSMM72AP	PSMM52AP	-	-
							
Pneumatic 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	
		M12 - 5 PINs - Male  - 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 :

H Series Micro 32 output driver modules



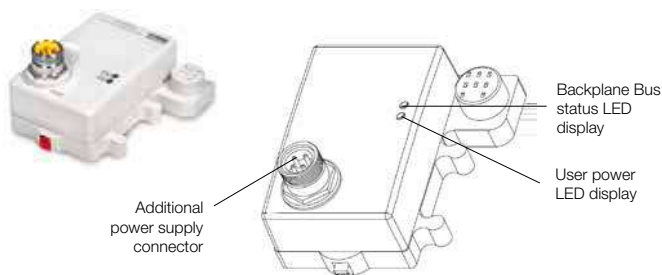
H Series ISO 32 output driver modules



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 termination	M12 Male - A coding	25	P8BPA00MA

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) 1 x green	Field power status : 1 x green 5 VDC system power status:

Backplane Bus connector



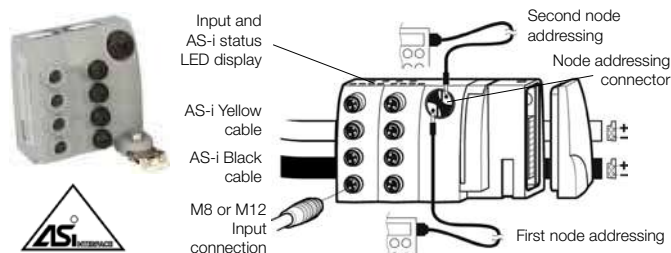
Description	Connector type	W (g)	Order code
Power supply connector	7/8" - 4 PINs	40	P8CS7804AA

Backplane Bus accessories



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

AS-interface communication module



AS-i Adapters

P2M2HBVA 10400	P2M2HBVA 10800	P2M2HBVA 20600	P2M2HBVA 10808A	P2M2HBVA 20608A	P2M2HBVA 10404B	P2M2HBVA 10404B	P2M2HBVA 20608B
							
AS-i Version							
V2.0	V2.0	V2.1	V2.0	V2.1	V2.0	V2.0	V2.1
Number of addresses							
1 / 31	2 / 31	2 / 31a + 31b	2 / 31	2 / 31a + 31b	1 / 31	2 / 31	2 / 31a + 31b
Nb of outputs for solenoid valves							
4	8	6	8	8	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		M12 - 5 Pins Female		
							
			- PIN 1 : +24 VDC - PIN 3 : Common - PIN 4 : Input		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



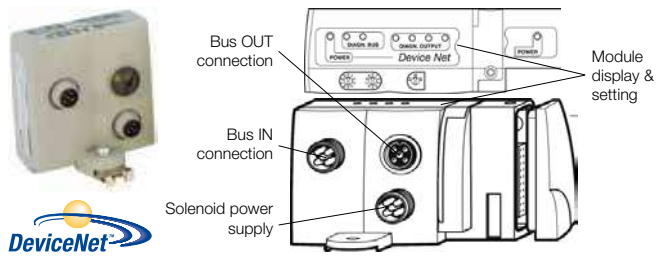
Description	Valve range	W (g)	Order code
Moduflex Bus adapter without communication module	Moduflex Valve	30	P2M2HEV0B
	H Series Side ported	200	PSMM41AP
	Micro Valve Bottom ported	200	PSMM42AP
	ISO 15407-2-HA-HB	200	PS5620M41P
	ISO 5599-2 - H1	300	PS4020M41CP

Connectors for Inputs



Description	Valve range	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

DeviceNet 16 outputs communication module



DeviceNet Adapters

Moduflex Valve System		H Series Micro
P2M2HBVD11600	P2M2HBVD21600	Side ported : PSMMD1AP Bottom ported : PSMMD2AP

Adapter connection

Power supply connection

M12 - 5 PINs
Male - B coding



- PIN 1 : n/a
- PIN 2 : n/a
- PIN 3 : 0 VDC Solenoid
- PIN 4 : 24 VDC Solenoid
- PIN 5 : Protected earth (PE)

M12 - 5 PINs
Male - A coding



- PIN 1 : n/a
- PIN 2 : n/a
- PIN 3 : 0 VDC Solenoid
- PIN 4 : 24 VDC Solenoid
- 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

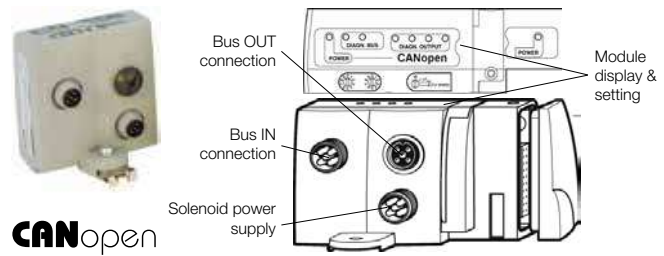


- PIN 1 : Drain
- PIN 2 : CAN V+
- PIN 3 : CAN V-
- PIN 4 : CAN High
- PIN 5 : CAN Low

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

CANopen 16 outputs communication module



CANopen Adapters

Moduflex Valve System		H Series Micro
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 Solenoid
- PIN 4 : 24 VDC Solenoid
- PIN 5 : Protected earth (PE)

M12 - 5 PINs
Male - A coding



- PIN 1 : n/a
- PIN 2 : n/a
- PIN 3 : 0 VDC Solenoid
- PIN 4 : 24 VDC Solenoid
- 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
	H Series Side ported	200	PSMM41AP
	Micro valves Bottom ported	200	PSMM42AP
	ISO 15407-2-HA-HB	200	PS5620M41P
	ISO 5599-2 - H1	300	PS4020M41CP

DeviceNet communication module connection accessories



Description	Connector type	W (g)	Order code
Power supply connection	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 termination	M12 Male - A coding	25	P8BPA00MA

Valve range adapters



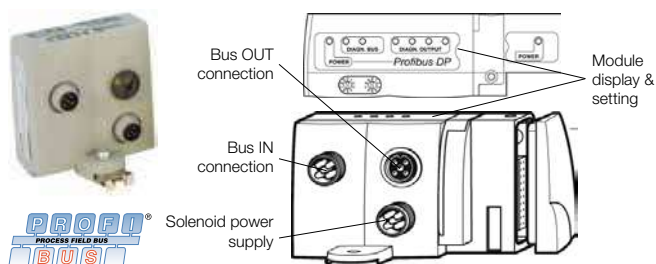
Description	Valve range	W (g)	Order code
Moduflex Bus adapter without communication module	Moduflex Valve	30	P2M2HEV0B
	H Series Side ported	200	PSMM41AP
	Micro valves Bottom ported	200	PSMM42AP
	ISO 15407-2-HA-HB	200	PS5620M41P
	ISO 5599-2 - H1	300	PS4020M41CP

CANopen communication module connection accessories



Description	Connector type	W (g)	Order code
Power supply connection	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 termination	M12 Male - A coding	25	P8BPA00MA

Profibus DP 16 outputs communication module



Profibus DP Adapters

Moduflex Valve System	H Series Micro Valves
P2M2HBVC11600	Side ported : PSMMC1AP Bottom ported : PSMMC2AP
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



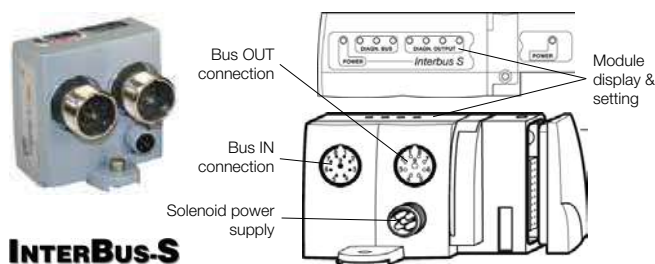
Description	Valve range	W (g)	Order code
Moduflex Bus adapter without communication module	Moduflex Valve	30	P2M2HEV0B
	H Series Side ported	200	PSMMC41AP
	Micro valves Bottom ported	200	PSMMC42AP
	ISO 15407-2-HA-HB	200	PS5620M41P
	ISO 5599-2 - H1	300	PS4020M41CP

Profibus DP communication module connection accessories

P8CS1205BB

Description	Connector type	W (g)	Order code
Power supply connection	M12 Female - A coding	40	P8CS1205AA
Bus IN connector	M12 Female - B coding	25	P8CS1205AB
Bus OUT connector	M12 Male - B coding	25	P8CS1205BB
Line termination	M12 Male - B coding	25	P8BPA00MB

InterBus-S 16 outputs communication module



InterBus-S Adapters

Moduflex Valve System
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 : 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
	H Series Side ported	200	PSMMC41AP
	Micro valves Bottom ported	200	PSMMC42AP
	ISO 15407-2-HA-HB	200	PS5620M41P
	ISO 5599-2 - H1	300	PS4020M41CP

InterBus S communication module connection accessories

P8CS1205AA

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

TURCK BL67 Communication Gateway

	Protocol	Network connection	Power Sup. Connection	Weight (g)	Order code
	CANopen (Bus IN & OUT)	M12 - A coding	7/8" - 5 Pin's	375	BL67-GW-CO
	DeviceNet™	7/8" - 5 Pin's	7/8" - 5 Pin's	360	BL67-GW-DN
	Profibus-DP (DPV0/DPV1)	M12 - B coding	7/8" - 5 Pin's	370	BL67-GW-DPV1
	Multiprotocol Ethernet: Modbus TCP, EtherNet/IP™ and PROFINET	M12 - D coding	7/8" - 5 Pin's	375	BL67-GW-EN

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

TURCK BL67 Programmable Communication Gateway

	Protocol	Network connection	Power Sup. Connection	Weight (g)	Order code
	Profibus-DP	M12 - B coding	7/8" - 5 Pin's	380	BL67-PG-DP
	EtherNet/IP™	M12 - D coding	7/8" - 5 Pin's	375	BL67-PG-EN-IP
	Modbus TCP	M12 - D coding	7/8" - 5 Pin's	375	BL67-PG-EN

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

TURCK BL67 Electronic Modules

	Description	Characteristic	Polarity	Weight (g)	Order code
	Blank module			15	BL67-E
	4 Digital Inputs		PNP	55	BL67-4DI-P
			NPN	55	BL67-4DI-N
	8 Digital Inputs	Channel diagnostics	PNP	55	BL67-4DI-PD
			PNP	55	BL67-8DI-P
			NPN	55	BL67-8DI-N
		Channel diagnostics	PNP	55	BL67-8DI-PD
	16 Digital Inputs		PNP	55	BL67-16DI-P
	4 Digital Outputs	0.5 A	PNP	55	BL67-4DO-0.5A-P
		2.0 A	PNP	55	BL67-4DO-2A-P
			NPN	55	BL67-4DO-2A-N
		4.0 A	PNP	55	BL67-4DO-4A-P
	8 Digital Outputs	0.5 A	PNP	55	BL67-8DO-0.5A-P
			NPN	55	BL67-8DO-0.5A-N
	16 Digital Outputs	0.1 A	PNP	55	BL67-16DO-0.1A-P
	4 Digital Inputs & Outputs	0.5 A - Channel Diagnostic	PNP	55	BL67-4DI4DO-PD
	8 Configurable Digital Channels	0.5 A	PNP	55	BL67-8XSG-P
		0.5 A - Channel Diagnostics	PNP	55	BL67-8XSG-PD
	8 Isolated Relay Outputs	Normally open		55	BL67-8DO-R-NO
	2 analogue Inputs	16 bit resolution	Current	55	BL67-2AI-I
			Voltage	55	BL67-2AI-V
		For Pt and Ni sensors		55	BL67-2AI-PT
		For thermoelements		55	BL67-2AI-TC
	4 analogue Inputs	16 bit resolution	Current / Voltage	55	BL67-4AI-V/I
		For thermoelements		55	BL67-4AI-TC
	2 analogue Outputs	16 bit resolution	Current	55	BL67-2AO-I
			Voltage	55	BL67-2AO-V
	4 analogue Outputs	16 bit resolution	Voltage	55	BL67-4AO-V

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

The complete TURCK BL67 Remote I/O System range on <http://www.turck.com> and <http://www.parker.com/pneu/fieldbus>

TURCK BL67 Base modules for Digital and Analog I/O Modules



Description	Connector Type	Con. Number	Weight (g)	Order code
Base Modules	M8, 3-pole, female	4	160	BL67-B-4M8
		8	215	BL67-B-8M8
	M8, 4-pole, female	8	215	BL67-B-8M8-4
	M12, 5-pole, female, A-coded	2	185	BL67-B-2M12
	M12, 5-pole, female, A-coded, paired	2	185	BL67-B-2M12-P
	M12, 5-pole, female, A-coded	4	245	BL67-B-4M12
	M12, 5-pole, female, A-coded, paired	4	245	BL67-B-4M12-P
	M23, 12-pole, female	1	190	BL67-B-1M23
	M23, 19-pole, female	1	190	BL67-B-1M23-19

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

Electronic and Base Module Combinations

	BL67-B-4M8	BL67-B-8M8	BL67-B-2M12	BL67-B-2M12-P	BL67-B-4M12	BL67-B-4M12-P	BL67-B-1M23	BL67-B-1M23-19	BL67-B-8M8-4
Digital Input Modules									
BL67-4DI-P	✓		✓	✓	✓		✓		
BL67-4DI-N	✓		✓	✓	✓		✓		
BL67-4DI-PD	✓		✓	✓	✓				
BL67-8DI-P		✓			✓	✓	✓		
BL67-8DI-N		✓			✓	✓	✓		
BL67-8DI-PD		✓			✓	✓			
BL67-16DI-P							✓	✓	
Digital Output Modules									
BL67-4DO-0.5A-P	✓		✓	✓	✓		✓		
BL67-4DO-2A-P	✓		✓	✓	✓		✓		
BL67-4DO-2A-N	✓		✓	✓	✓		✓		
BL67-4DO-4A-P	✓		✓	✓	✓		✓		
BL67-8DO-0.5A-P		✓			✓	✓	✓		
BL67-8DO-0.5A-N		✓			✓	✓	✓		
BL67-16DO-0.1A-P							✓	✓	
BL67-4DI4DO-PD		✓			✓	✓			
Configurable Digital Input/Output Modules									
BL67-8XSG-P		✓			✓	✓			
BL67-8XSG-PD		✓			✓	✓			
Relay Output Module									
BL67-8DO-R-NO						✓			
Analogue Input Module									
BL67-2AI-I			✓						
BL67-2AI-V			✓						
BL67-2AI-PT			✓						
BL67-2AI-TC			✓						
BL67-4AI-V/I					✓				
BL67-4AI-TC					✓				
Analogue Output Module									
BL67-2AO-I			✓						
BL67-2AO-V			✓						
BL67-4AO-V					✓				

The complete TURCK BL67 Remote I/O System range on <http://www.turck.com>

TURCK BL67 Power Feeding and Base Modules



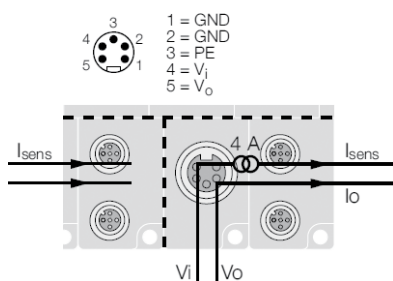
Description	Connector Type	Weight (g)	Order code
Power Feeding Module for 24 VDC additional sourcing		55	BL67-PF-24VDC
Base Modules	1 x 7/8", 5-pole, male	VI / VO Sourcing	55
		VO Sourcing	55
	1 x 7/8", 4-pole, male	55	BL67-B-1RSM-4

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

Power Feeding Base Modules Connection

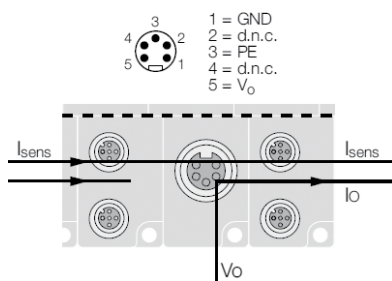
Standard version

BL67-B-1RSM

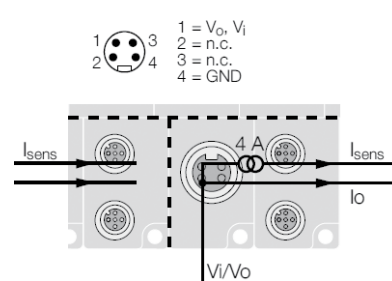


Other possible versions

BL67-B-1RSM-VO



BL67-B-1RSM-4



TURCK BL67 CANopen Gateway and Base Module



Description	Connector Type	Weight (g)	Order code
CANopen Gateway Module for CANopen Valve Island Interface		55	BL67-1CVI
Base Modules	1 x M12, 5-pole, female, A-coded	170	BL67-B-1M12

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

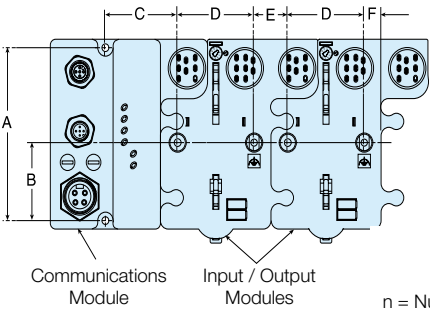
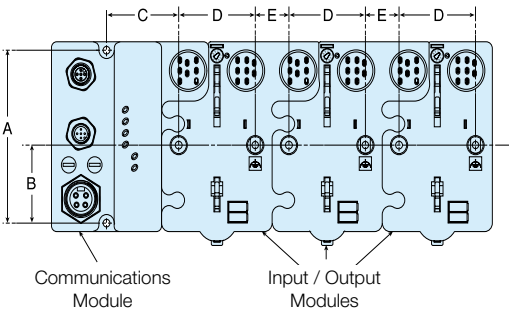
BL67-1CVI electronic module with BL67-B-1M12

- Offering a CANopen Sub-Network connectivity up to 8 CANopen slaves

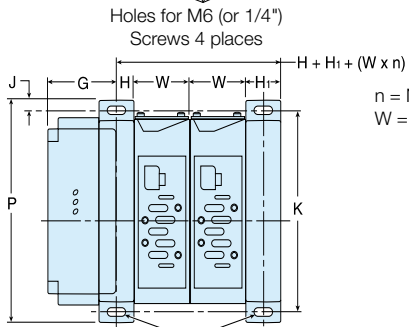
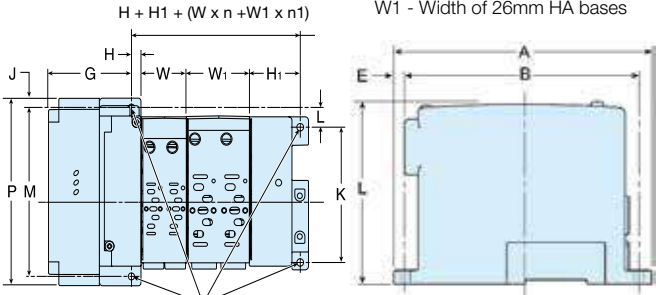


The complete TURCK BL67 Remote I/O System range on <http://www.turck.com>

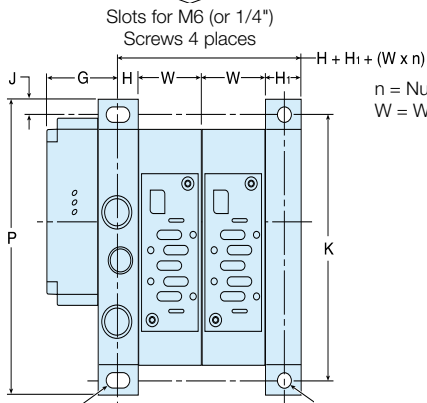
H Series ISO 15407-2 & 5599-2 Sizes 02 to 3 with H Series Industrial Communication
Fieldbus System



n = Number of 18mm HB bases
N1 = Number of 26mm HA bases
W = Width of 18mm HB bases
W1 = Width of 26mm HA bases



n = Number of H1 bases
W = Width of H1 bases



HA / HB Dimensions

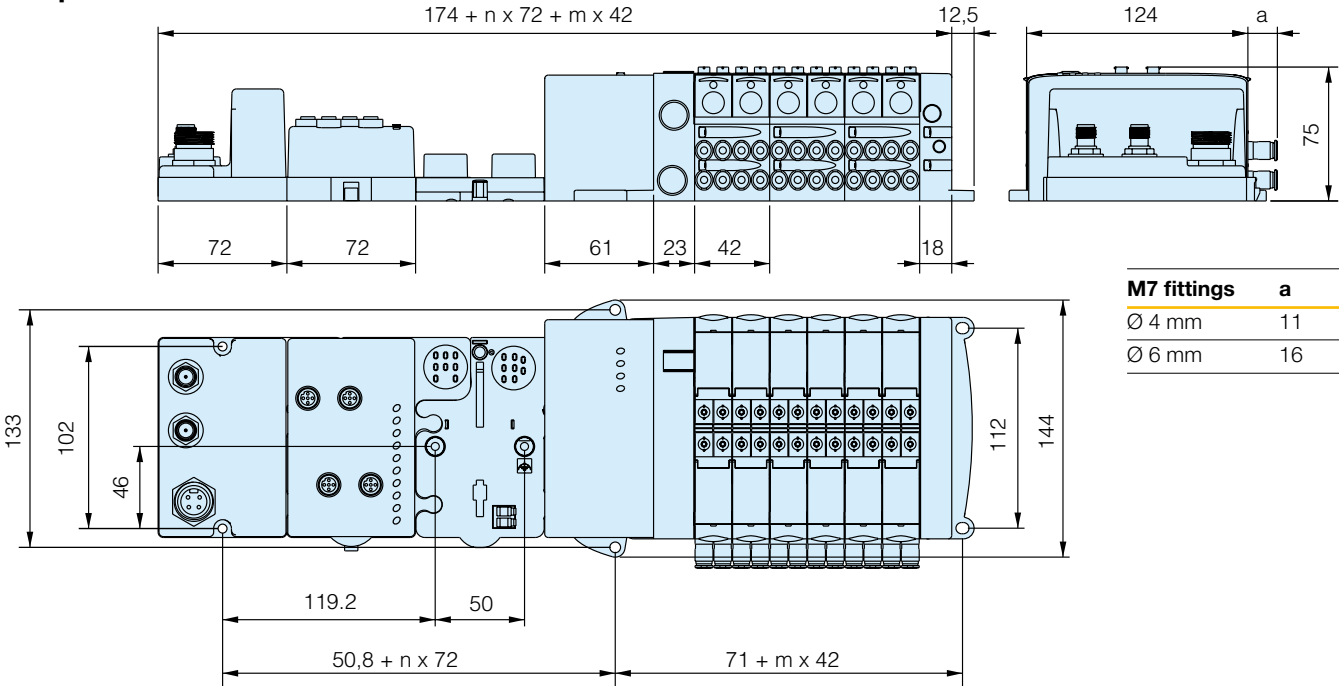
	A	B	C	D	E	F
HA/HB	102	46	48	51	22	11

	A	B	E	L	G	H	H ₁
HA/HB	152	137	7,5	106	68	8,4	45,8
	J	K	L	M	P	W	W ₁
HA/HB	4	110	16	137	152	40,8	56,8

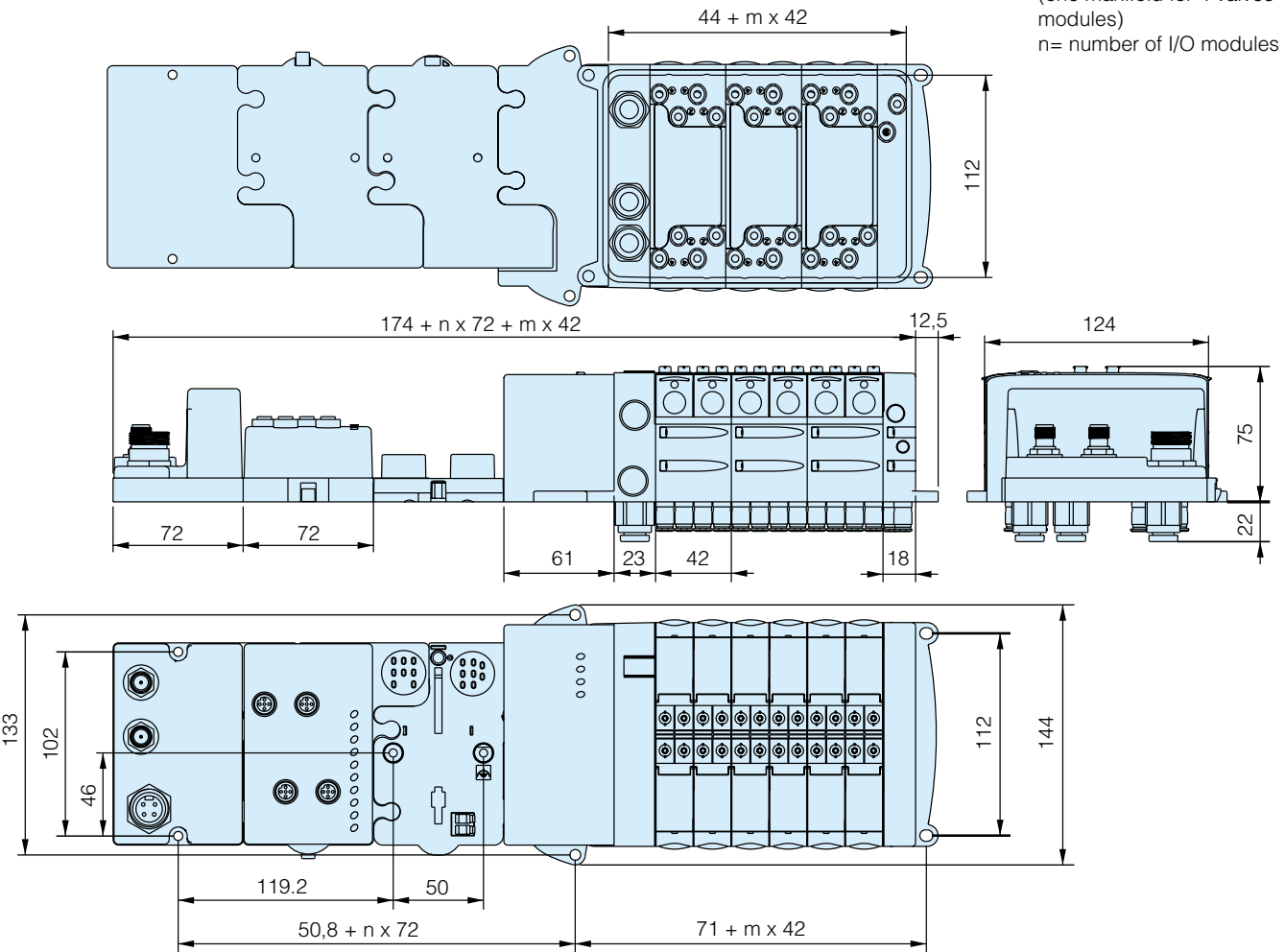
	G	H	H ₁	J	K	P	W
H1	56	15,9	15,9	8,5	165	182	49
H2	58	18	15	12	215	239	56
H3	64	24	16,5	15	265	295	71

H Series Industrial Communication with H Series Micro Valves

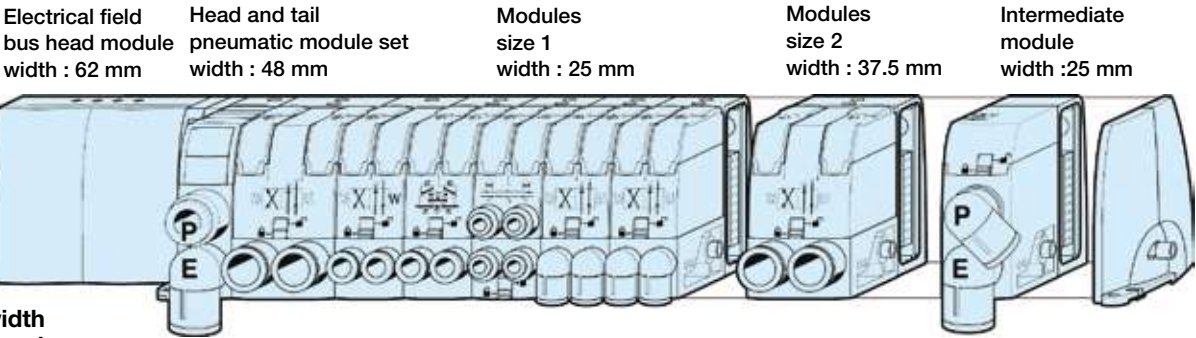
Side ported



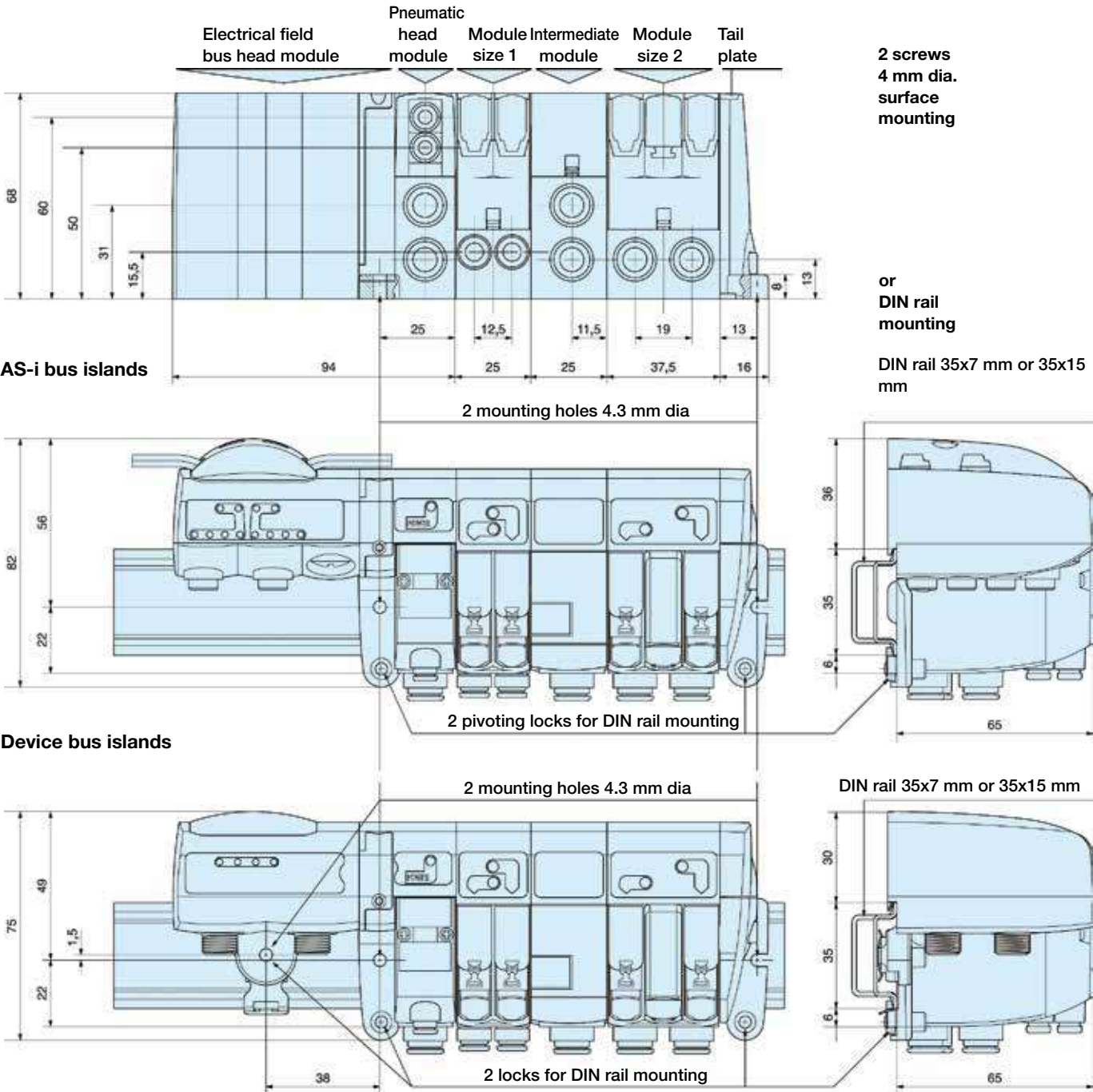
Bottom ported



Moduflex Bus with Moduflex Valve

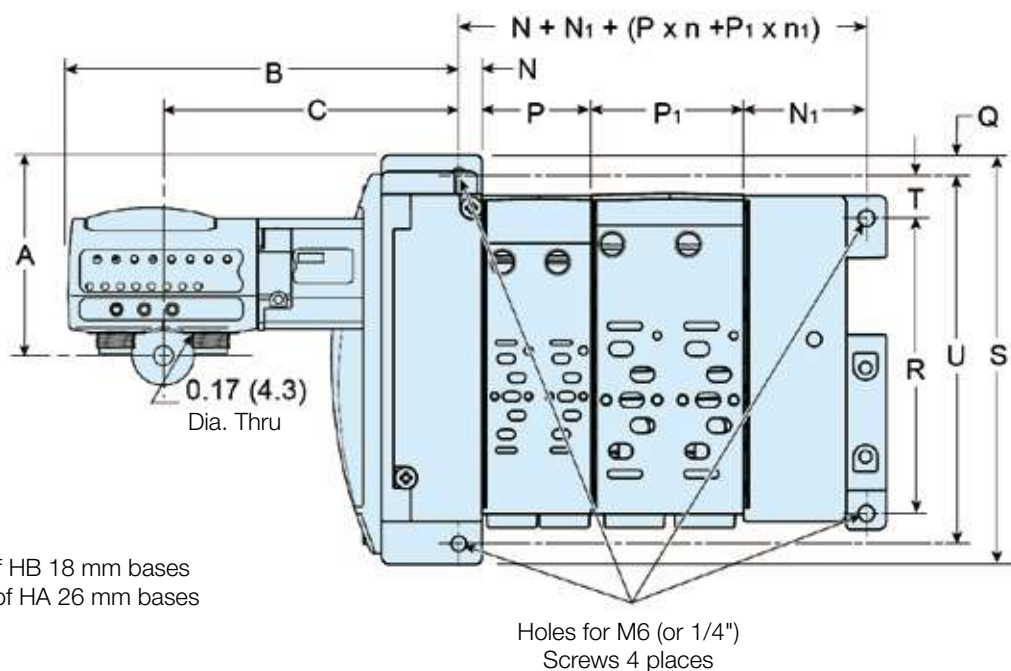


Island total width depending on valve composition

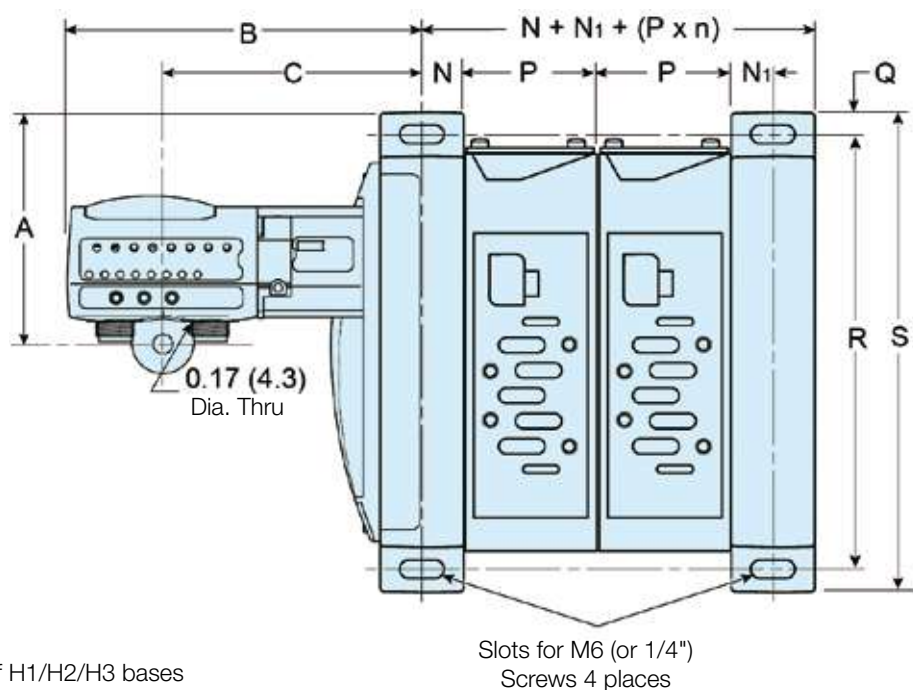


H Series ISO 15407-2 & 5599-2 Sizes 02 to 3 with Moduflex Bus

HA/HB Series



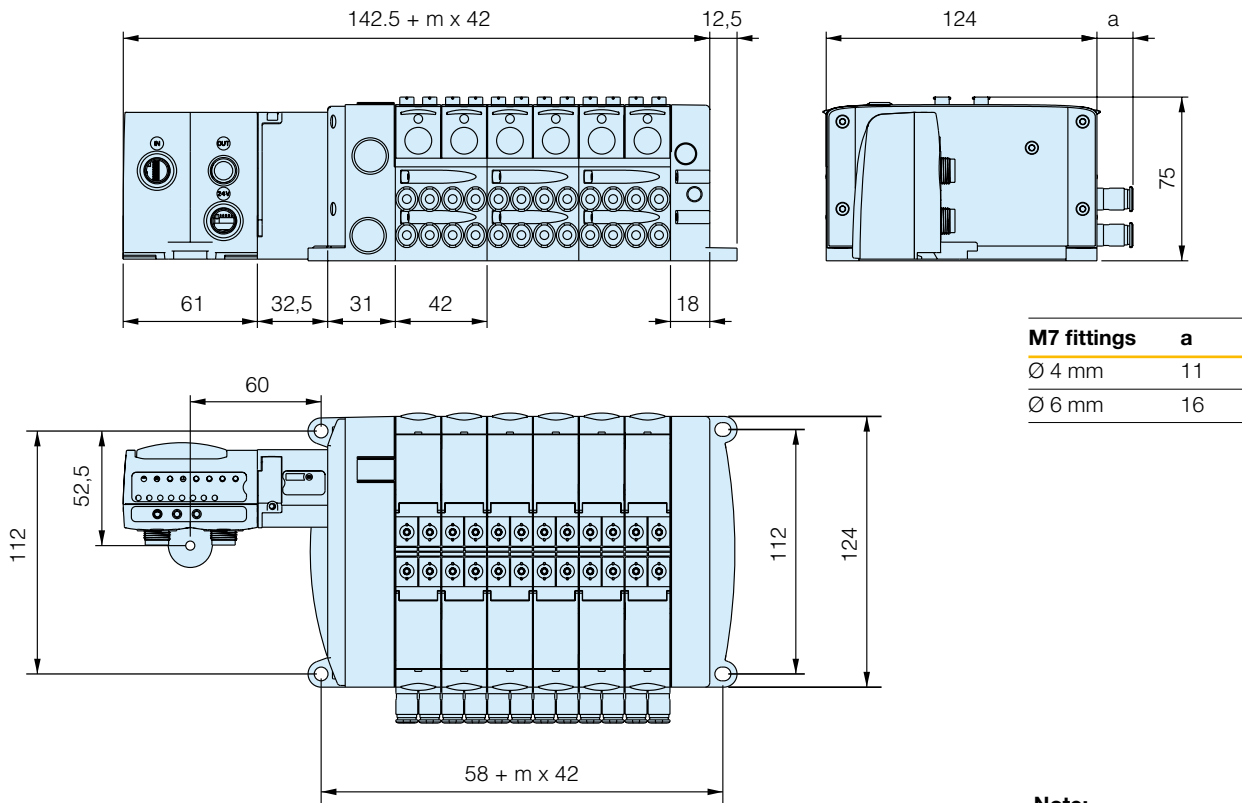
H1/H2/H3 Series



	A	B	C	N	N1	P	P1	Q	R	S	T	U
HA/HB	69,8	142,5	111,8	8,4	45,8	40,8	56,8	4	110	152	16	137
H1	82	130,2	160,9	15,9	15,9	49	-	8,5	165	182	-	-
H2	78,2	130,3	161	18	15	56	-	12	215	239	-	-
H3	84,2	138,2	168,9	24	16,5	71	-	15	265	295	-	-

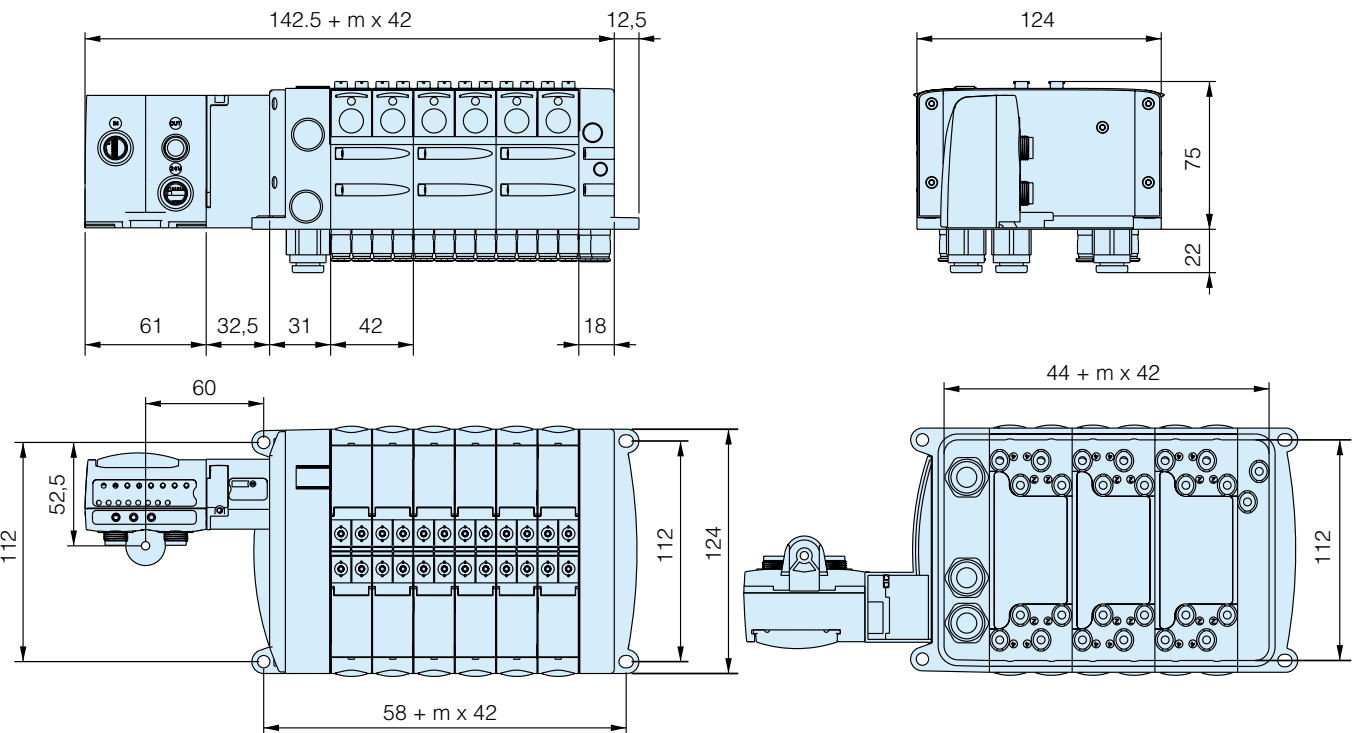
Moduflex Bus with H Series Micro Valves

Side ported



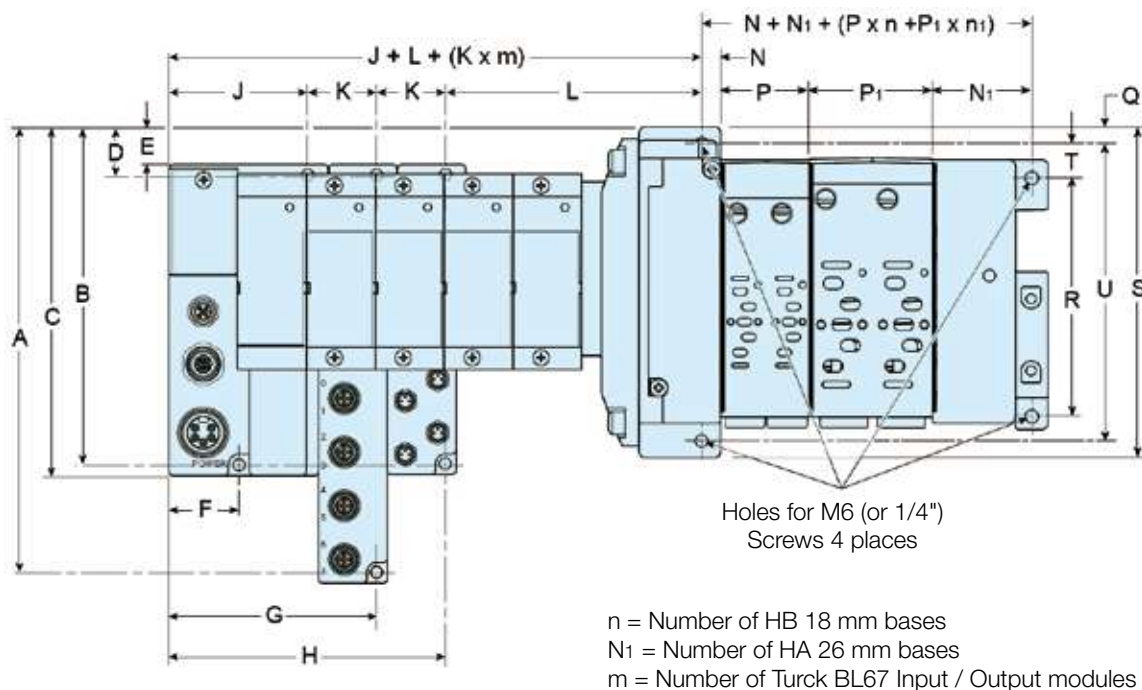
Note:
m = number of manifolds
(one manifold for 4 valves
modules)

Bottom ported

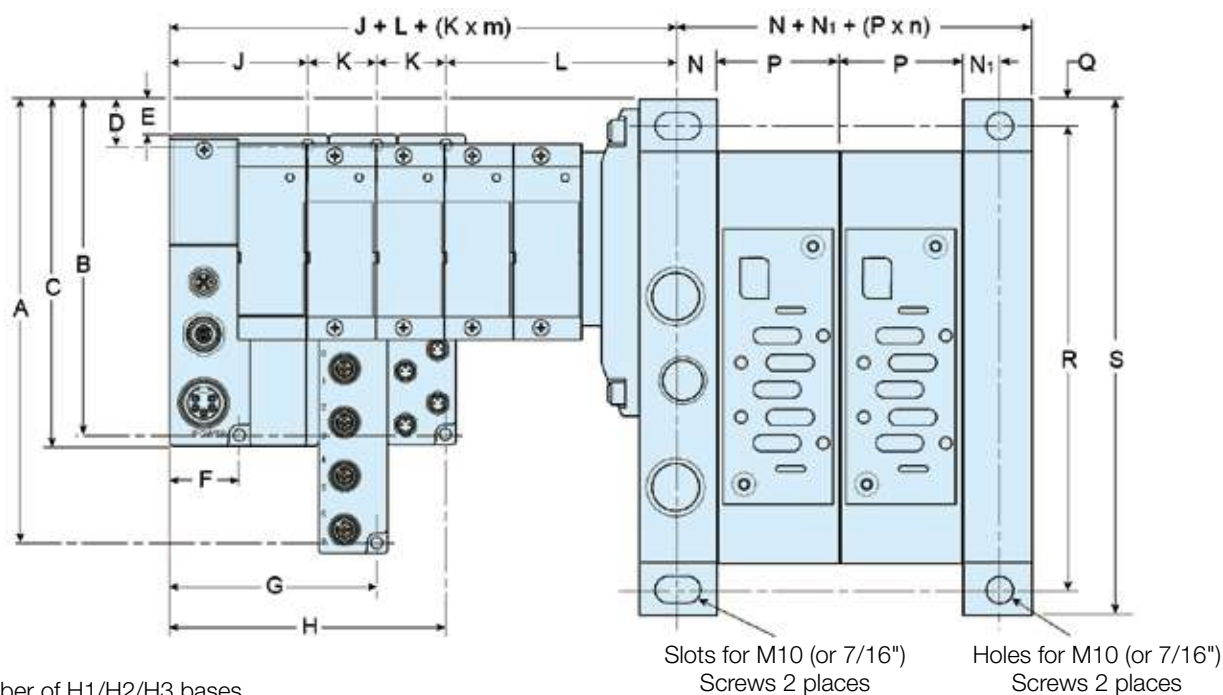


H Series ISO 15407-2 & 5599-2 Sizes 02 to 3 with Turck BL67 Remote IO System

HA/HB Series

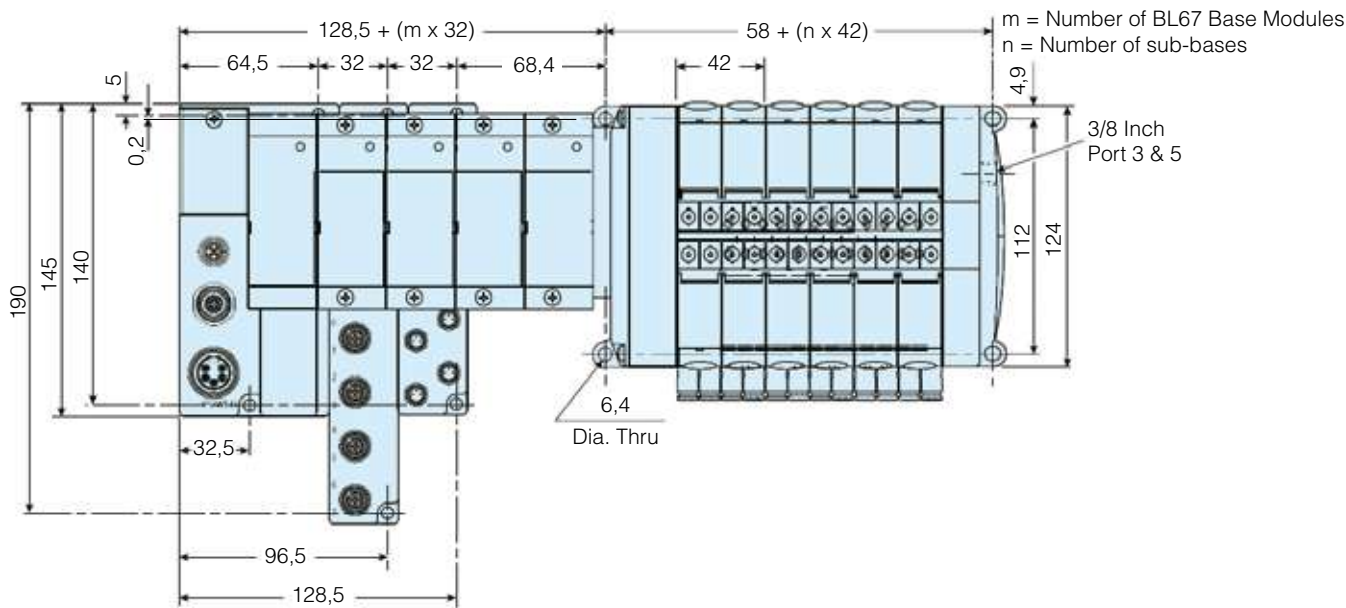


H1/H2/H3 Series

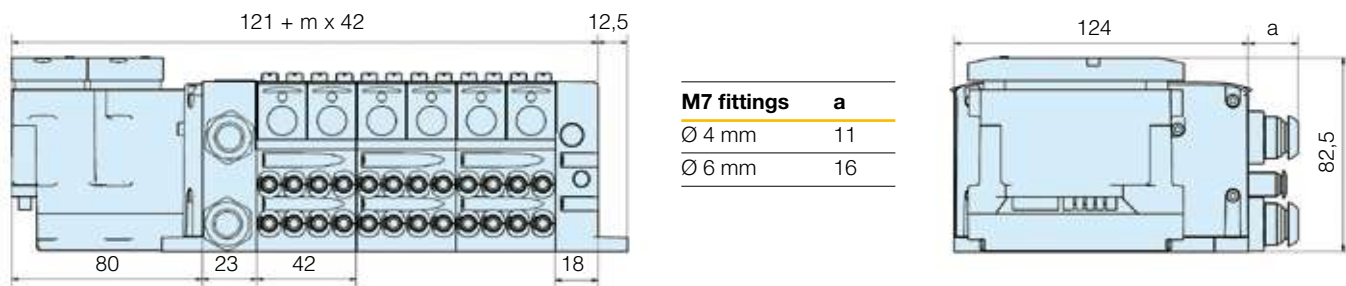


	A	B	C	D	E	F	G	H	J	K	L	N	N ₁	P	P ₁	Q	R	S	T	U
HA/HB	204,5	154,5	159,5	19,5	14,5	32,5	96,5	128,5	64,5	32	120,8	8,4	45,8	40,8	56,8	4	110	152	16	137
H1	216,7	166,7	171,7	31,7	26,7	32,5	96,5	128,5	64,5	32	108,5	15,9	15,9	49	-	8,5	165	182	-	-
H2	212,9	162,9	167,9	27,9	22,9	32,5	96,5	128,5	64,5	32	108,6	18	15	56	-	12	215	239	-	-
H3	218,9	168,9	173,9	33,9	28,9	32,5	96,5	128,5	64,5	32	116,6	24	16,5	71	-	15	265	295	-	-

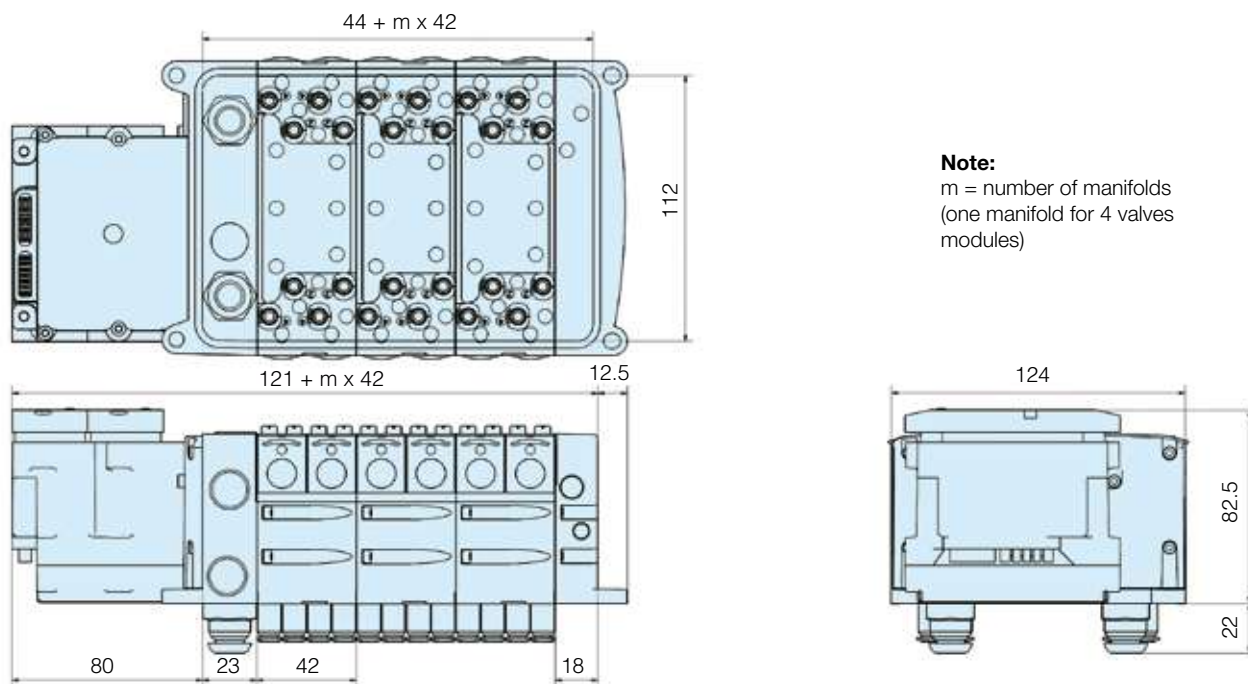
H Series Micro Valves with TURCK BL67 Remote I/O System



H Series Micro Valves with TURCK BL67 adaptor - Side ported



H Series Micro Valves with TURCK BL67 adaptor - Bottom ported



High speed poppet type solenoid valves with individual electrical connections. Light weight plastic bodies with DIN rail manifold. Ideal for cabinet installations.

- High speed poppet valve
- Push-in connection
- Built-in terminal block
- Pneumatic output indicator
- DIN rail mounting

Poppet valve, not suitable for use with Soft or Slow start Valves. When pressure is applied, the double solenoid interface takes a pre-determined position (non activated). In the absence of electrical signal, output 2 (yellow indicator) is activated, output 4 (red indicator) is non activated. Double solenoid version is delivered as standard with Non locking flush override.



Operating information

Working pressure;
 3/2 and 4/2: 3-8 bar
 Low pressure interface 3/2: 1-8 bar
 Flow (Qmax): 200 l/min
 Working temperature -15 °C to +60 °C
 For more information see www.parker.com/euro_pneumatic

Head and tail sets - intermediate supply modules

For 3/2 and 4/2 interface modules

	Description	Characteristics	Pneumatic connection	Weight (g)	Order code
	Set for single air supply connection	1 electrical common terminal 1 main air supply port 1 exhaust port	Push-in Ø 6 mm	100	PS1-E101
			G1/8	100	PS1-E1018
	Set for double air supply connection	1 electrical common terminal 2 main air supply ports 2 exhaust ports	Push-in Ø 6 mm	125	PS1-E102
			G1/8	125	PS1-E1028
	Intermediate air supply module	1 air supply port 1 exhaust port (see description below)	G1/8	45	PS1-E1038

Incorporating an intermediate air supply module into a group of electro-pneumatic modules gives the following options :

Air supply connection

- Additional G1/8 port to supplement the air supply to the manifold
- Blank the common air supply, enabling different pressures to be supplied to groups of modules within the manifold.

Exhaust connection

- Additional exhaust flow through the G1/8 port
- Blank the common exhaust, enabling separation of exhaust from module groups

The intermediate air supply module is supplied with 4 interchangeable connectors to enable the above supply options to be achieved.

Electro-pneumatic modules

Modules without solenoid valve

Visual indication of pneumatic output status : Closed = Red Open = Yellow

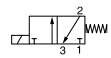
Symbol function	Description	Pneumatic connection	Weight (g)	Order code
	3/2 normally closed (NC)	Push-in Ø 4 mm	52	PS1-E111
		M5	55	PS1-E115
		Push-in Ø 6 mm	55	PS1-E116
	3/2 normally open (NO)	Push-in Ø 4 mm	52	PS1-E121
		M5	55	PS1-E125
		Push-in Ø 6 mm	55	PS1-E126
	4/2 single solenoid / spring return	Push-in Ø 4 mm	120	PS1-E181
		M5	120	PS1-E185
		Push-in Ø 6 mm	125	PS1-E186
	4/2 double solenoid	Push-in Ø 4 mm	120	PS1-E191
		M5	120	PS1-E195
		Push-in Ø 6 mm	125	PS1-E196

Low pressure Electro-Pneumatic modules 3/2 (1 to 8 bar)

Modules without solenoid valve

Visual indication of pneumatic output status : Closed = Red

Open = Yellow

	Symbol	Description	Pneumatic connection	Weight (g)	Order code
		3/2 normally closed (NC)	Push-in Ø 4 mm	52	PS1-E311
			M5	52	PS1-E315
			Push-in Ø 6 mm	52	PS1-E316

15mm DIN Form C (8mm spacing) pilot solenoid valve

For use with Valve module

	Voltage	Manual Overrides 	Without Manual Override Order code	Flush (Not Extended)		Extended	
				Blue Override, non locking Order code	Yellow Override, Locking Order code	Blue Override, non locking Order code	Yellow Override, Locking Order code
	12 Vdc	38	P2E-KS32B0	P2E-KS32B1	P2E-KS32B2	P2E-KS32B3	P2E-KS32B4
	24 Vdc	38	P2E-KS32C0	P2E-KS32C1	P2E-KS32C2	P2E-KS32C3	P2E-KS32C4
	48 Vdc	38	P2E-KS32D0	P2E-KS32D1	P2E-KS32D2	P2E-KS32D3	P2E-KS32D4
	24 Vac 50Hz	38	P2E-KS31C0	P2E-KS31C1	P2E-KS31C2	P2E-KS31C3	P2E-KS31C4
	48 Vac 50/60Hz	38	P2E-KS34D0	P2E-KS34D1	P2E-KS34D2	P2E-KS34D3	P2E-KS34D4
	115 Vac 50Hz	38	P2E-KS31F0	P2E-KS31F1	P2E-KS31F2	P2E-KS31F3	P2E-KS31F4
	120 Vac 60 Hz	38					
	230 Vac 50Hz	38	P2E-KS31J0	P2E-KS31J1	P2E-KS31J2	P2E-KS31J3	P2E-KS31J4
	240 Vac 60 Hz	38					

Mounting screws included with the valve module

Suppressor and LED indicators

For 8 mm solenoid pin spacing - For mounting between the valve body and the 15 mm pilot solenoid valve

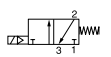
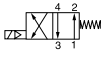
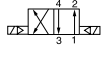
	Symbol	Description	Pneumatic connection	Weight (g)	Order code
		LED indicator	24 VAC/DC	3	P8V-CR26C
			115 VAC 50 Hz - 120 VAC 60 Hz	3	P8V-CR24F
			230 VAC 50 Hz - 240 VAC 60 Hz	3	P8V-CR24J

Electro-pneumatic modules

Modules including 24 VDC solenoid valve - Flush non locking manual override (using P2E-KS32C1 solenoid)

Visual indication of pneumatic output status : Closed = Red

Open = Yellow

	Symbol	Description	Manual override	Pneumatic connection	Weight (g)	Order code
		3/2 normally closed (NC) Spring return	Push-in Ø 4 mm 90	PS1-E21102B		
		3/2 normally open (NO)	Spring return	Push-in Ø 4 mm	90	PS1-E22102B
		4/2 single solenoid / spring return	Spring return	Push-in Ø 4 mm	160	PS1-E28102B
		4/2 double solenoid	-	Push-in Ø 4 mm	200	PS1-E29102B

Maintenance avertissement - Solenoid pin spacing

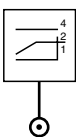


The electro-pneumatic interface modules have been re-designed to accept both 8 mm and 9,4 mm solenoid pin spacing. If you are purchasing a solenoid or a suppressor & LED indicator for maintenance on an electro-pneumatic interface module purchased before June 2004, above solenoid P2E-KS3xxx and P8V-CRxxx (8 mm pin spacing) will not be compatible. Please, contact your Parker customer service.

Accessories : Pressure switch

With Ø4 push in connection (pneumatic input)

With electrical terminals 1,5 mm² (electric output)

Type	Symbol	Electrical characteristics	Pneumatic characteristics	Override	Weight (g)	Order code
		Pressure switch 1 CO contact 5 A/250 V	Fixed operating threshold < 1,3 bar	Manual override	50	PS1-P1081
			Adjustable operating threshold 2 to 5 bar	Manual override	50	PS1-P1091

Technical characteristics : Pressure switch

- Effective detection for preventing hazardous risks linked with equipments operating at to low pressure
- Manual override
- Easy clip on DIN rail mounting
- Fixed or adjustable threshold versions
- Recessed Electrical Terminals

Electrical durability

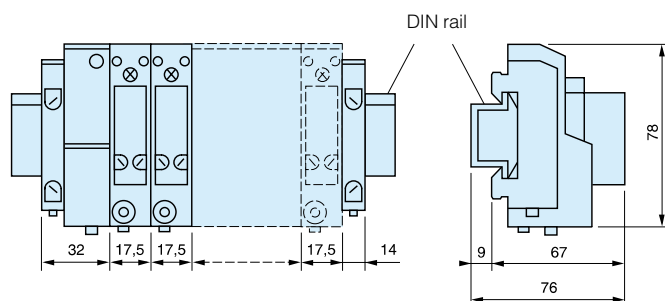
	24 VAC	48 VAC	115 VAC	24 VDC	48 VDC	115 VDC
1 million	25 VA	56 VA	115 VA	24 W	37 W	50 W
2 million	-	-	-	14 W	25 W	40 W
5 million	10 VA	14 VA	19 VA	-	-	-

Working pressure	Max 10 bar
Working temperature	-15 °C to +60 °C
Minimum actuating pressure, non adjustable	≤1,3 bar
Minimum actuating pressure, adjustable 2 to 5 bar	
Operating frequency	Max 10 Hz
Nominal isolation voltage	660 V AC or DC
Nominal thermal current	10 A
Operating voltage	250 V
Pending current	5 A
Protection level	IP 40
According Power switches (inductive load)	

Dimensions, PS1 valve Series

Electropneumatic interface modules 3/2 NC or NO

3/2 modules equipped with solenoid
Head and tail set for single air supply connection

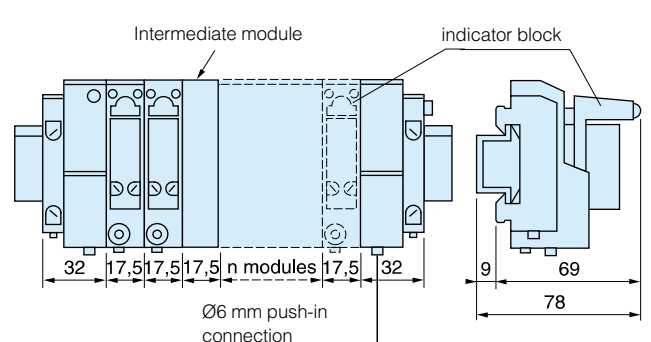


Total length (mm)

$$L = 46 + (n \times 17,5)$$

n = number of modules

3/2 modules equipped with solenoid, suppressor and LED indicator
Head and tail set for double air supply connection



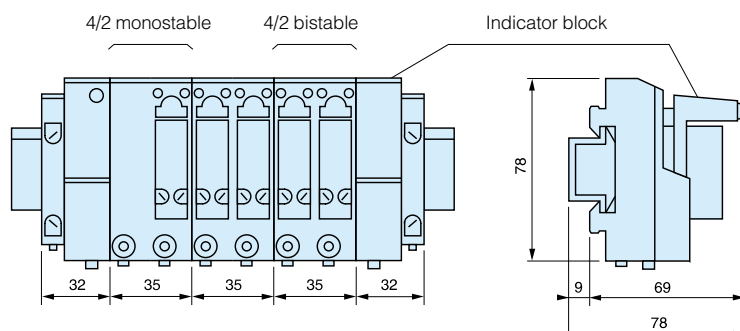
Total length (mm)

$$L = 64 + (n \times 17,5)$$

n = number of modules

Electropneumatic interface modules 4/2 single or double solenoid

4/2 modules equipped with solenoid, suppressor and LED indicator
Head and tail set for double air supply connection



Total length (mm)

$$L = 64 + (n \times 35)$$

n = number of modules



PVL-B2

Stackable and Stand-alone Inline Valves



PVL-B21 - Stand-alone Series

Stand-alone high flow valves with 10 or 15mm DIN C Pilot Solenoid Valve. Light weight plastic bodies feature push-in or threaded connection.

PVL-B22 - Stackable Series

Stacking high flow valves with 10 or 15mm DIN C Pilot Solenoid Valve. Light weight plastic bodies feature push-in or threaded connection. Stacking valves feature modular inlet and exhaust facility.

- High flow – Compact size with a 18 mm width body
- Push-in fitting diameter 6mm, 8mm or threaded G1/8"
- DIN rail or surface mounting
- Enonomic clip connector (IP40) or DIN Form C connection (IP65)
- Light weight construction

PVL-B2 Valve Range

18mm width

10mm 24 Vdc Pilot Valve

Economic electrical connection (IP40)



15mm Pilot Valve

Standard DIN form C electrical connection (IP65)



10mm Pilot Valve

Series Overview

15mm Pilot Valve



PVL-B21 : Stand- alone Series – Traditional wiring

Very useful to control isolated cylinders, these stand-alone valve Series are compact and easy to mount on the machines close to the actuator with neat electrical pilot. Available with either 15 or 10 mm pilot solenoid valve traditional wiring, these Series can also be stacked and mixed into a stacking valve island Series



PVL-B22 : Stackable Series – Traditional wiring

The PVL-B2 Series stacking system permits assembly of several valves into one stack. Supply is connected at either a single or a dual head/tail set. Two common exhaust galleries are provided. Connections to outlet ports 2 and 4 on each valve can be accomplished by G1/8" threaded pipe or instant tube fittings, 6 or 8 mm OD. Electrical connection is made to each solenoid using either a 15 mm - 3 pin - 8 mm spacing DIN Form C connector plug or Clip Connector. Each stack assembly can handle any combination of single or double solenoid valves



Compatibility with original PVL-B & PVL-C Series

Issued from the original PVL-B Series, the new PVL-B2 Series can be associated in one configuration mixing PVL-B & PVL-C Valves. For further details on the PVL-B & PVL-C Series, you can refer to the dedicated technical catalogue PDE2628TCUK



PVL-B2

3 Porting options for an optimized flow

2 Electrical Pilot options

10 mm Pilot Solenoid Valve

Pins-UP option

Non locking Manual Override

24 Vdc – Low power (1W)

Economic electrical connection
by Clip Connector – IP40

Push-In Fittings

- 6 mm OD Qn 490 NI/mn (Qmax. 780 NI/mn)
- 8 mm OD Qn 710 NI/mn (Qmax. 1100 NI/mn)

Threaded ports

- G1/8" Qn 640 NI/mn (Qmax. 900 NI/mn)

Integrated
LED Indicator

Pneumatic Symbol

15 mm DIN For C Pilot Solenoid Valve

Standard DIN Form C connectors – IP65
8 mm spacing

Wide range of DC and AC Voltage options

5 manual override options

Common Supply and Exhaust Channels
for stackable design

Pins-DOWN option

Supply and Exhaust Bottom Ported
for Stand-alone design

PVL-B22 - Stackable Series

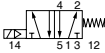
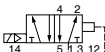
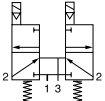
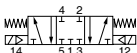
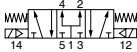
Stacking high flow valves with 10 or 15mm DIN C Pilot Solenoid Valve. Light weight plastic bodies feature push-in or threaded connection. Stacking valves feature modular inlet and exhaust facility.

- High flow – Compact size with a 18 mm width body
- Push-in fitting diameter 6mm, 8mm or threaded G1/8"
- DIN rail or surface mounting
- Economic clip connector (IP40) or DIN Form C connection (IP65)
- Light weight construction



PVL-B22 - Valve module

Equipped with 10mm - 24 Vdc - 1W pilot solenoid valve – LED Indicator – Pins Down*

	Symbol	Description	Pilot Man. Overr.	Connection	W (g)	Order code
		5/2 single acting spring return	Non-locking flush	Push-in 6mm	165	PVL-B2213062C1
				Push-in 8mm	165	PVL-B2213082C1
				G1/8"	165	PVL-B2213182C1
		5/2 single acting air spring return	Non-locking flush	Push-in 6mm	165	PVL-B2233062C1
				Push-in 8mm	165	PVL-B2233082C1
				G1/8"	165	PVL-B2233182C1
		Dual 3/2 N.C. air spring return	Non-locking flush	Push-in 6mm	210	PVL-B2253062C1
				Push-in 8mm	210	PVL-B2253082C1
				G1/8"	210	PVL-B2253182C1
		5/2 Double acting	Non-locking flush	Push-in 6mm	200	PVL-B2223062C1
				Push-in 8mm	200	PVL-B2223082C1
				G1/8"	200	PVL-B2223182C1
		5/3 Closed center (APB)	Non-locking flush	Push-in 6mm	210	PVL-B2273062C1
				Push-in 8mm	210	PVL-B2273082C1
				G1/8"	210	PVL-B2273182C1
		5/3 Vented center	Non-locking flush	Push-in 6mm	210	PVL-B2283062C1
				Push-in 8mm	210	PVL-B2283082C1
				G1/8"	210	PVL-B2283182C1
		5/3 Pressurised center	Non-locking flush	Push-in 6mm	210	PVL-B2293062C1
				Push-in 8mm	210	PVL-B2293082C1
				G1/8"	210	PVL-B2293182C1

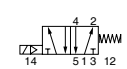
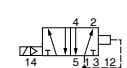
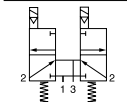
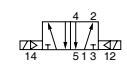
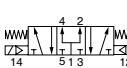
* Other electrical connection orientations or low voltages DC on demand (can be subject to quantity)

10 mm Pilot solenoid valve electrical clip connector

	Description	Connector type	Cable length	W (g)	Order code
	Clip-on connector – IP40 Individual : Including 2 flying leads Multiple : Including 1 common (0 Vdc) and 1 flying lead per connector	1 clip connector	1 meter	8	P8LW021C
		2 clip connectors	1 meter	12	P8LW021C02
		4 clip connectors	1 meter	20	P8LW021C04
		8 clip connectors	1 meter	36	P8LW021C08

PVL-B22 - Valve module

Equipped with 15mm DIN Form C (8mm spacing) - 24 Vdc - 1,2W pilot solenoid valve – Pins Up

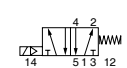
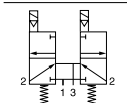
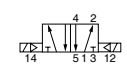
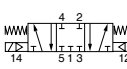
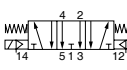
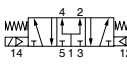
	Symbol	Description	Pilot Man. Overr.	Connection	W (g)	Order code
		5/2 single acting spring return	Locking flush	Push-in 6mm	165	PVL-B2216062C2
				Push-in 8mm	165	PVL-B2216082C2
				G1/8"	165	PVL-B2216182C2
		5/2 single acting air spring return	Locking flush	Push-in 6mm	165	PVL-B2236062C2
				Push-in 8mm	165	PVL-B2236082C2
				G1/8"	165	PVL-B2236182C2
		Dual 3/2 N.C. air spring return	Locking flush	Push-in 6mm	210	PVL-B2256062C2
				Push-in 8mm	210	PVL-B2256082C2
				G1/8"	210	PVL-B2256182C2
		5/2 Double acting	Non-locking flush	Push-in 6mm	200	PVL-B2226062C1
				Push-in 8mm	200	PVL-B2226082C1
				G1/8"	200	PVL-B2226182C1
		5/3 Closed center (APB)	Locking flush	Push-in 6mm	210	PVL-B2276062C2
				Push-in 8mm	210	PVL-B2276082C2
				G1/8"	210	PVL-B2276182C2
		5/3 Vented center	Locking flush	Push-in 6mm	210	PVL-B2286062C2
				Push-in 8mm	210	PVL-B2286082C2
				G1/8"	210	PVL-B2286182C2
		5/3 Pressurised center	Locking flush	Push-in 6mm	210	PVL-B2296062C2
				Push-in 8mm	210	PVL-B2296082C2
				G1/8"	210	PVL-B2296182C2

For other 15mm pilot valve options (voltage, manual override or pins orientation), valve body and 15mm pilot valve must be ordered separately (see below)

PVL-B22 - Valve module

(Without Pilot solenoid valve – including 2 mounting screws for Pilot solenoid valve)

For use with 15mm DIN Form C (8mm spacing) Pins UP or Pins DOWN pilot solenoid valve

	Symbol	Description	Connection	W (g)	Order code
		5/2 single acting spring return	Push-in 6mm	125	PVL-B221606
			Push-in 8mm	125	PVL-B221608
			G1/8"	125	PVL-B221618
		5/2 single acting air spring return	Push-in 6mm	125	PVL-B223606
			Push-in 8mm	125	PVL-B223608
			G1/8"	125	PVL-B223618
		Dual 3/2 N.C. air spring return	Push-in 6mm	130	PVL-B225606
			Push-in 8mm	130	PVL-B225608
			G1/8"	130	PVL-B225618
		5/2 Double acting	Push-in 6mm	120	PVL-B222606
			Push-in 8mm	120	PVL-B222608
			G1/8"	120	PVL-B222618
		5/3 Closed center (APB)	Push-in 6mm	130	PVL-B227606
			Push-in 8mm	130	PVL-B227608
			G1/8"	130	PVL-B227618
		5/3 Vented center	Push-in 6mm	130	PVL-B228606
			Push-in 8mm	130	PVL-B228608
			G1/8"	130	PVL-B228618
		5/3 Pressurised center	Push-in 6mm	130	PVL-B229606
			Push-in 8mm	130	PVL-B229608
			G1/8"	130	PVL-B229618

15mm DIN Form C (8mm spacing) pilot solenoid valve – Pin's UP or Pin's DOWN – must be ordered separately (Refer to 15 mm pilot valve section)

Head and Tail sets – Intermediate supply modules

	Description	Mounting	Air supply	Port size	W (g)	Order code
	Head and tail set	On DIN rail	Left end	G1/4"	175	PVL-B1719
			Both left and right ends	G1/4"	195	PVL-B1729
		On surface	Left end	G1/8"	175	PVL-B1818
			Both left and right ends	G1/8"	195	PVL-B1828
	Intermediate module	On DIN rail	Up side	G1/8"	150	PVU-LBB118

Pneumatic accessories

	Description	Size	Orientation	Material	Tube OD	W (g)	Order code
 3101 ...	Push-in fitting for Pressure and Exhaust ports	G1/4"	Straight	Metal	8 mm	16	3101 08 13
					10 mm	18	3101 10 13
					12 mm	27	3101 12 13
 3199 ...			Elbow	Metal/Plastic	8 mm	21	3199 08 13
					10 mm	28	3199 10 13
					12 mm	44	3199 12 13
 P6M-PAB2	Silencer	G1/4"	Straight	Plastic		10	P6M-PAB2
				Sintered metal		20	P6M-BAA2
 3101 ...	Push-in fitting for PVL-B2 Valve	G1/8"	Straight	Metal	4 mm	6	3101 04 10
					6 mm	7	3101 06 10
					8 mm	11	3101 08 10
 3169 ...			Elbow prolonged	Plastic	4 mm	8	3169 04 10
					6 mm	11	3169 06 10
					8 mm	18	3169 08 10
 3199 ...			Elbow short	Plastic	4 mm	6	3199 04 10
					6 mm	6	3199 06 10
					8 mm	9	3199 08 10
 3184 ...		6 mm	Elbow prolonged	Plastic	4 mm	2	3184 04 06
					6 mm	4	3184 06 00
			Elbow short	Plastic	4 mm	3	3182 04 06
					6 mm	1	3182 06 00
		8 mm	Elbow prolonged	Plastic	6 mm	7	3184 06 08
					8 mm	10	3184 08 00
			Elbow short	Plastic	6 mm	7	3182 06 08
					8 mm	10	3182 08 00

Spare mounting and assembly kits

	Description	W (g)	Order code
	Sealing kit for supply/exhaust common channels Included : • 3 common blanking plugs • 2 drilled and threaded rods • 2 screws for extended tie rod	35	PVL-B1901
	Pack of 10 common blanking	35	PVL-B1902
	Pack of 10 stacking rods	35	PPR-V21
	Pack of 20 rail clip assembly	70	PPR-L09
	Pack of 30 O-ring seals for supply/exhaust common channels	15	PPR-V23

Mounting on 35 mm DIN Rail

Valve stacks mount quickly and easily to 35 mm DIN rail with the use of a pneumatic head / tail set. The dual head / tail set provides input and exhaust ports at both ends and is recommended if more than 5 valves are to be operated simultaneously.

Surface mounting

For single or dual air supply

This mounting does not use DIN rail and can be directly fixed on the panel. Particularly compact and threaded G1/8", it is recommended for combinations of only a few power valves (maximum 5 valves) since the supply and exhaust common ports 1-3-5 are not G1/4" oversized.

Removal or Replacement

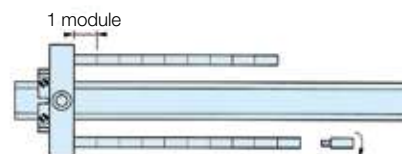
Modules are removed in reverse of the order shown at right. Before removing a module for service or replacement, loosen the pneumatic tail piece.

Mounting Procedure

- 1 - Clip on and tighten the pneumatic head piece.



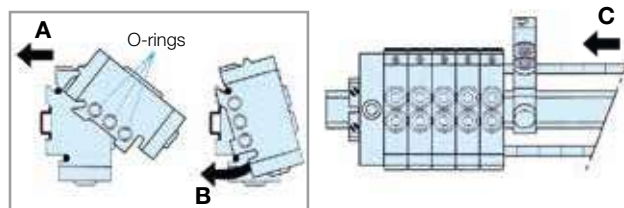
- 2 - Assemble the two parallel mounting rods using cross rod provided with modules.



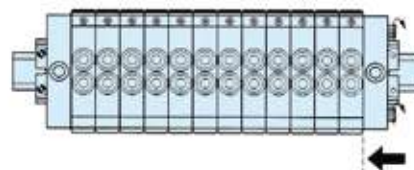
- 3 - Clip on the pneumatic tail piece. Start screws into mounting rod but leave loose for modules insertion.



- 4 - To mount valves, position upper slot then push-lock lower slot. Mount modules (valves, modules, transition pieces, etc...) and press together.



- 5 - Tighten the assembly.



PVL-B21 - Stand-alone Series

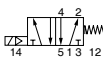
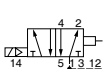
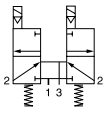
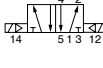
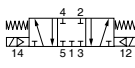
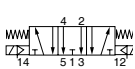
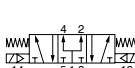
Stand-alone high flow valves with 10 or 15mm DIN C Pilot Solenoid Valve. Light weight plastic bodies feature push-in or threaded connection.

- High flow – Compact size with a 18 mm width body
- Push-in fitting diameter 6mm, 8mm or threaded G1/8"
- Enonomic clip connector (IP40) or DIN Form C connection (IP65)
- Light weight construction
- Compatible with stackable version



PVL-B21 - Valve module

Equipped with 10mm - 24 Vdc - 1W pilot solenoid valve – LED Indicator – Pins Down*

	Symbol	Description	Pilot Man. Overr.	Connection	W (g)	Order code
		5/2 single acting spring return	Non-locking flush	Push-in 6mm	165	PVL-B2113062C1
				Push-in 8mm	165	PVL-B2113082C1
				G1/8"	165	PVL-B2113182C1
		5/2 single acting air spring return	Non-locking flush	Push-in 6mm	165	PVL-B2133062C1
				Push-in 8mm	165	PVL-B2133082C1
				G1/8"	165	PVL-B2133182C1
		Dual 3/2 N.C. air spring return	Non-locking flush	Push-in 6mm	210	PVL-B2153062C1
				Push-in 8mm	210	PVL-B2153082C1
				G1/8"	210	PVL-B2153182C1
		5/2 Double acting	Non-locking flush	Push-in 6mm	200	PVL-B2123062C1
				Push-in 8mm	200	PVL-B2123082C1
				G1/8"	200	PVL-B2123182C1
		5/3 Closed center (APB)	Non-locking flush	Push-in 6mm	210	PVL-B2173062C1
				Push-in 8mm	210	PVL-B2173082C1
				G1/8"	210	PVL-B2173182C1
		5/3 Vented center	Non-locking flush	Push-in 6mm	210	PVL-B2183062C1
				Push-in 8mm	210	PVL-B2183082C1
				G1/8"	210	PVL-B2183182C1
		5/3 Pressurised center	Non-locking flush	Push-in 6mm	210	PVL-B2193062C1
				Push-in 8mm	210	PVL-B2193082C1
				G1/8"	210	PVL-B2193182C1

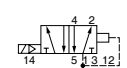
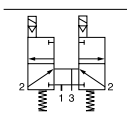
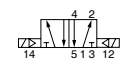
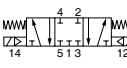
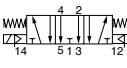
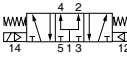
* Other electrical connection orientations or low voltages DC on demand (can be subject to quantity)

10 mm Pilot solenoid valve electrical clip connector

	Description	Connector type	Cable length	W (g)	Order code
	Clip-on connector – IP40	1 clip connector	1 meter	8	P8LW021C
	Individual : Including 2 flying leads	2 clip connectors	1 meter	12	P8LW021C02
	Multiple : Including 1 common (0 Vdc) and 1 flying lead per connector	4 clip connectors	1 meter	20	P8LW021C04
		8 clip connectors	1 meter	36	P8LW021C08

PVL-B21 - Valve module

Equipped with 15mm DIN Form C (8mm spacing) - 24 Vdc - 1,2W pilot solenoid valve – Pins Up

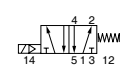
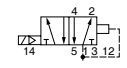
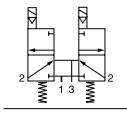
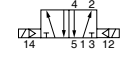
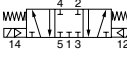
	Symbol	Description	Pilot Man. Overr.	Connection	W (g)	Order code
		5/2 single acting spring return	Locking flush	Push-in 6mm	165	PVL-B2116062C2
				Push-in 8mm	165	PVL-B2116082C2
				G1/8"	165	PVL-B2116182C2
		5/2 single acting air spring return	Locking flush	Push-in 6mm	165	PVL-B2136062C2
				Push-in 8mm	165	PVL-B2136082C2
				G1/8"	165	PVL-B2136182C2
		Dual 3/2 N.C. air spring return	Locking flush	Push-in 6mm	210	PVL-B2156062C2
				Push-in 8mm	210	PVL-B2156082C2
				G1/8"	210	PVL-B2156182C2
		5/2 Double acting	Non-locking flush	Push-in 6mm	200	PVL-B2126062C1
				Push-in 8mm	200	PVL-B2126082C1
				G1/8"	200	PVL-B2126182C1
		5/3 Closed center (APB)	Locking flush	Push-in 6mm	210	PVL-B2176062C2
				Push-in 8mm	210	PVL-B2176082C2
				G1/8"	210	PVL-B2176182C2
		5/3 Vented center	Locking flush	Push-in 6mm	210	PVL-B2186062C2
				Push-in 8mm	210	PVL-B2186082C2
				G1/8"	210	PVL-B2186182C2
		5/3 Pressurised center	Locking flush	Push-in 6mm	210	PVL-B2196062C2
				Push-in 8mm	210	PVL-B2196082C2
				G1/8"	210	PVL-B2196182C2

For other 15mm pilot valve options (voltage, manual override or pins orientation), valve body and 15mm pilot valve must be ordered separately (see below)

PVL-B21 - Valve module

(Without Pilot solenoid valve – including 2 mounting screws for Pilot solenoid valve)

For use with 15mm DIN Form C (8mm spacing) Pins UP or Pins DOWN pilot solenoid valve

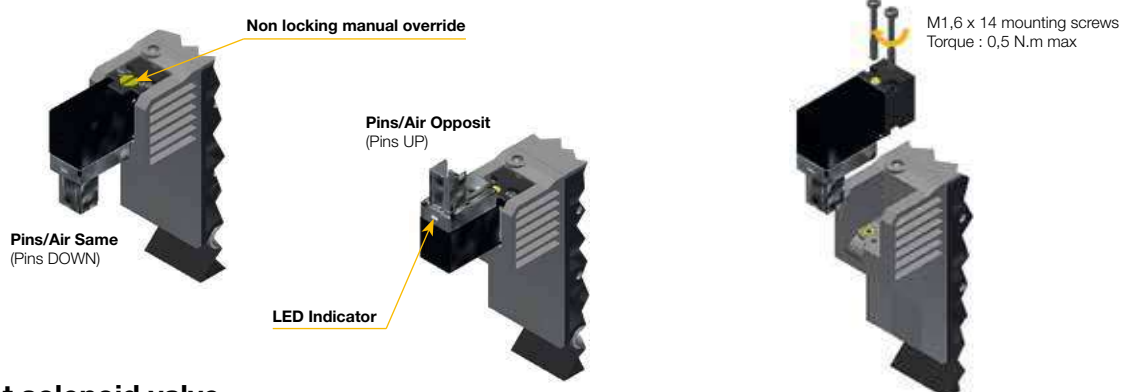
	Symbol	Description	Connection	W (g)	Order code
		Dual 3/2 N.C. air spring return	Push-in 6mm	130	PVL-B215606
			Push-in 8mm	130	PVL-B215608
			G1/8"	130	PVL-B215618
		5/2 single acting spring return	Push-in 6mm	125	PVL-B211606
			Push-in 8mm	125	PVL-B211608
			G1/8"	125	PVL-B211618
		5/2 single acting air spring return	Push-in 6mm	125	PVL-B213606
			Push-in 8mm	125	PVL-B213608
			G1/8"	125	PVL-B213618
		5/2 Double acting	Push-in 6mm	120	PVL-B212606
			Push-in 8mm	120	PVL-B212608
			G1/8"	120	PVL-B212618
		5/3 Closed center (APB)	Push-in 6mm	130	PVL-B217606
			Push-in 8mm	130	PVL-B217608
			G1/8"	130	PVL-B217618
		5/3 Vented center	Push-in 6mm	130	PVL-B218606
			Push-in 8mm	130	PVL-B218608
			G1/8"	130	PVL-B218618
		5/3 Pressurised center	Push-in 6mm	130	PVL-B219606
			Push-in 8mm	130	PVL-B219608
			G1/8"	130	PVL-B219618

15mm DIN Form C (8mm spacing) pilot solenoid valve – Pin's UP or Pin's DOWN – must be ordered separately (Refer to 15 mm pilot valve section)

Pneumatic accessories

	Description	Size	Orientation	Material	Tube OD	W (g)	Order code
 3101 ...	Push-in fitting for PVL-B2 Valve	G1/8"	Straight	Metal	4 mm	6	3101 04 10
					6 mm	7	3101 06 10
					8 mm	11	3101 08 10
 3169 ...			Elbow prolonged	Plastic	4 mm	8	3169 04 10
					6 mm	11	3169 06 10
					8 mm	18	3169 08 10
 3184 ...			Elbow short	Plastic	4 mm	6	3199 04 10
					6 mm	6	3199 06 10
					8 mm	9	3199 08 10
		6 mm	Elbow prolonged	Plastic	4 mm	2	3184 04 06
					6 mm	4	3184 06 00
					8 mm	7	3184 06 08
			Elbow short	Plastic	4 mm	3	3182 04 06
					6 mm	1	3182 06 00
					8 mm	10	3182 08 00
		8 mm	Elbow prolonged	Plastic	6 mm	7	3184 06 08
					8 mm	10	3184 08 00
					6 mm	7	3182 06 08
			Elbow short	Plastic	6 mm	7	3182 06 08
					8 mm	10	3182 08 00

PVL-B2 – 10 mm pilot solenoid valve options



10 mm pilot solenoid valve

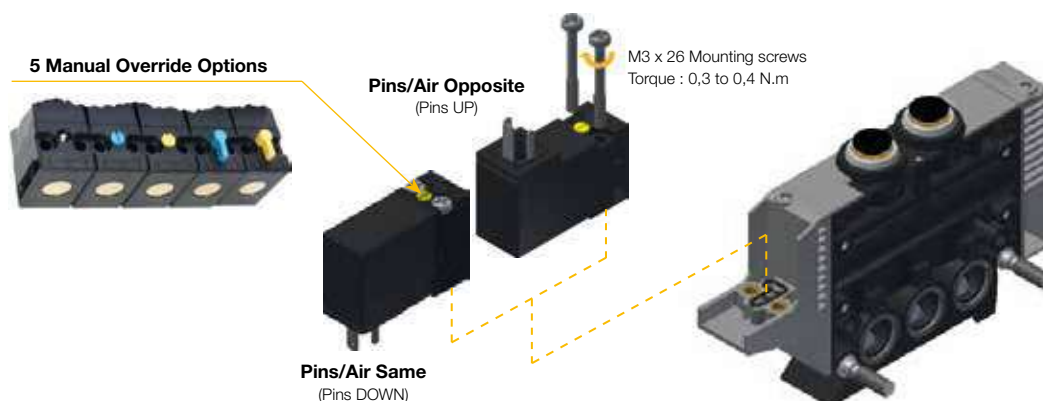
	Voltage	Electrical connection orientation	Manual Override	W (g)	Order code
	24 Vdc	 PINs /AIR same (PINs down)	Non-locking flush	20	P2D-KS32C1
		 PINs/AIR opposit (PINs UP)	Non-locking flush	20	P2D-KV32C1

Other electrical connection orientations or low voltages DC on demand (can be subject to quantity)

10 mm Pilot solenoid valve electrical clip connector

Description	Connector type	Cable length	W (g)	Order code
	1 clip connector	1 meter	8	P8LW021C
	2 clip connectors	1 meter	12	P8LW021C02
	4 clip connectors	1 meter	20	P8LW021C04
	8 clip connectors	1 meter	36	P8LW021C08

PVL-B2 – 15 mm pilot solenoid valve options



15mm DIN Form C (8mm spacing) pilot solenoid valve

For use with 15mm pilot solenoid valve PVL-B2 body

	Voltage	W (g)	Manual Overrides		Flush (Not Extended)		Extended	
			Without Manual Override	Order code	Blue Override, non locking	Yellow Override, Locking	Blue Override, non locking	Yellow Override, Locking
 Pins/Air Opposite (Pins UP)	12 Vdc	38		P2E-KV32B0	P2E-KV32B1	P2E-KV32B2	P2E-KV32B3	P2E-KV32B4
	24 Vdc	38		P2E-KV32C0	P2E-KV32C1	P2E-KV32C2	P2E-KV32C3	P2E-KV32C4
	48 Vdc	38		P2E-KV32D0	P2E-KV32D1	P2E-KV32D2	P2E-KV32D3	P2E-KV32D4
	24 Vac 50Hz	38		P2E-KV31C0	P2E-KV31C1	P2E-KV31C2	P2E-KV31C3	P2E-KV31C4
	48 Vac 50/60Hz	38		P2E-KV34D0	P2E-KV34D1	P2E-KV34D2	P2E-KV34D3	P2E-KV34D4
	115 Vac 50Hz	38		P2E-KV31F0	P2E-KV31F1	P2E-KV31F2	P2E-KV31F3	P2E-KV31F4
 Pins/Air Same (Pins DOWN)	120 Vac 60 Hz	38		P2E-KV31F0	P2E-KV31F1	P2E-KV31F2	P2E-KV31F3	P2E-KV31F4
	230 Vac 50Hz	38		P2E-KV31J0	P2E-KV31J1	P2E-KV31J2	P2E-KV31J3	P2E-KV31J4
	240 Vac 60 Hz	38		P2E-KV31J0	P2E-KV31J1	P2E-KV31J2	P2E-KV31J3	P2E-KV31J4
	12 Vdc	38		P2E-KS32B0	P2E-KS32B1	P2E-KS32B2	P2E-KS32B3	P2E-KS32B4
	24 Vdc	38		P2E-KS32C0	P2E-KS32C1	P2E-KS32C2	P2E-KS32C3	P2E-KS32C4
	48 Vdc	38		P2E-KS32D0	P2E-KS32D1	P2E-KS32D2	P2E-KS32D3	P2E-KS32D4
	24 Vac 50Hz	38		P2E-KS31C0	P2E-KS31C1	P2E-KS31C2	P2E-KS31C3	P2E-KS31C4
	48 Vac 50/60Hz	38		P2E-KS34D0	P2E-KS34D1	P2E-KS34D2	P2E-KS34D3	P2E-KS34D4
	115 Vac 50Hz	38		P2E-KS31F0	P2E-KS31F1	P2E-KS31F2	P2E-KS31F3	P2E-KS31F4
	120 Vac 60 Hz	38		P2E-KS31F0	P2E-KS31F1	P2E-KS31F2	P2E-KS31F3	P2E-KS31F4
	230 Vac 50Hz	38		P2E-KS31J0	P2E-KS31J1	P2E-KS31J2	P2E-KS31J3	P2E-KS31J4
	240 Vac 60 Hz	38		P2E-KS31J0	P2E-KS31J1	P2E-KS31J2	P2E-KS31J3	P2E-KS31J4

Mounting screws included with the valve body

Pilot solenoid valve mounting screw

	Description	Size	Material	W (g)	Order code
	Kit of 10 mounting screws	M23 x 26	Steel	20	P2E-KP026PM3

Cable plugs 15 mm - IP65

(8 mm pin spacing)

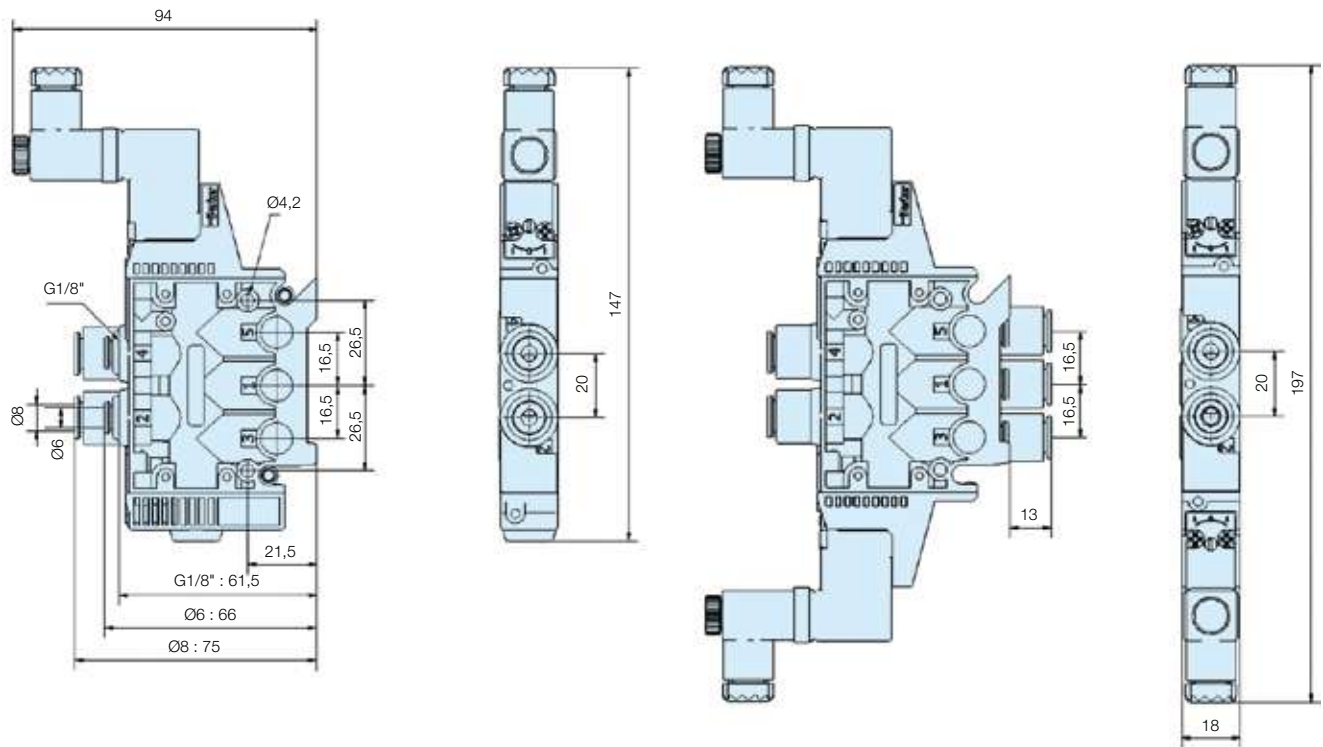
	Description	Electrical protection	Cable length	W (g)	Order code
		No protection	No cable	11	P8C-D
	Standard screw		2 meter	97	P8L-C2
			5 meter	228	P8L-C5
		LED + Protection 24 VDC	No cable	11	P8C-D26C
		LED + Protection 24 VDC/AC	2 meter	97	P8L-C226C
			5 meter	229	P8L-C526C

Suppressor and LED indicators

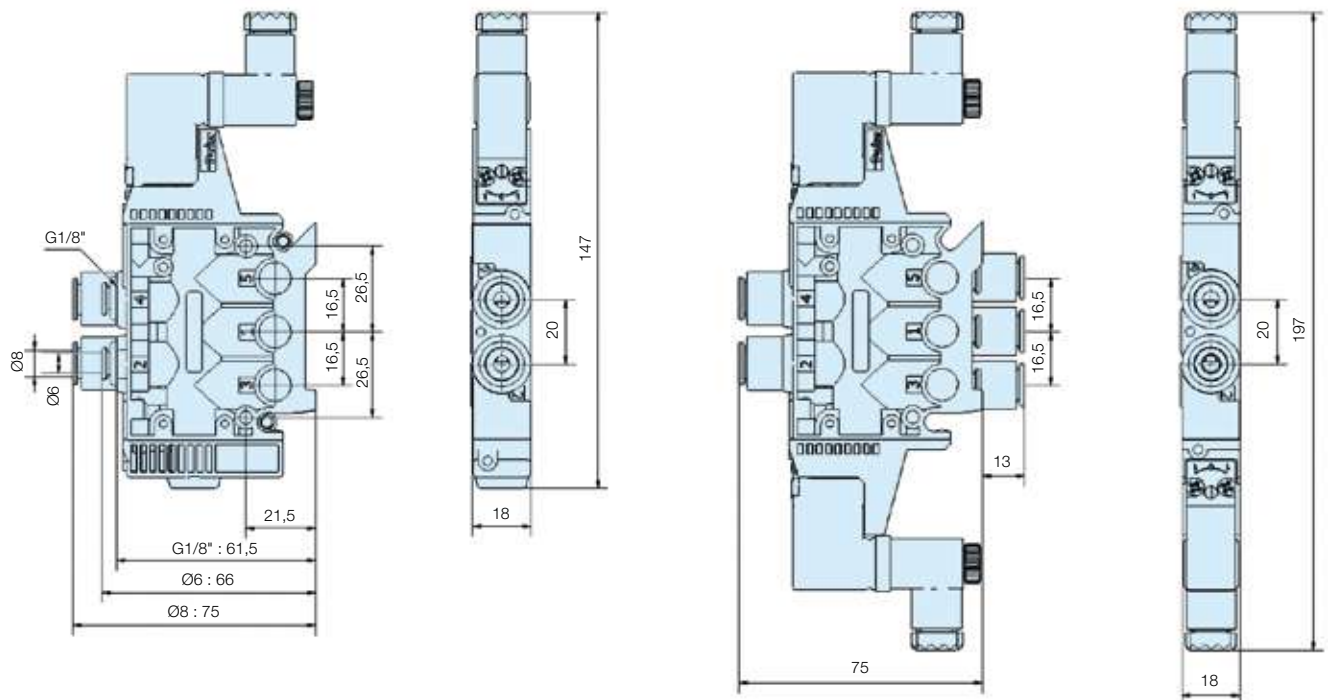
For 8 mm solenoid pin spacing - For mounting between the solenoid valve and the cable plug

	Symbol	Description	Pneumatic connection	W (g)	Order code
		LED indicator	24 VAC/DC	3	P8V-CR26C
			115 VAC 50 Hz - 120 VAC 60 Hz	3	P8V-CR24F
			230 VAC 50 Hz - 240 VAC 60 Hz	3	P8V-CR24J

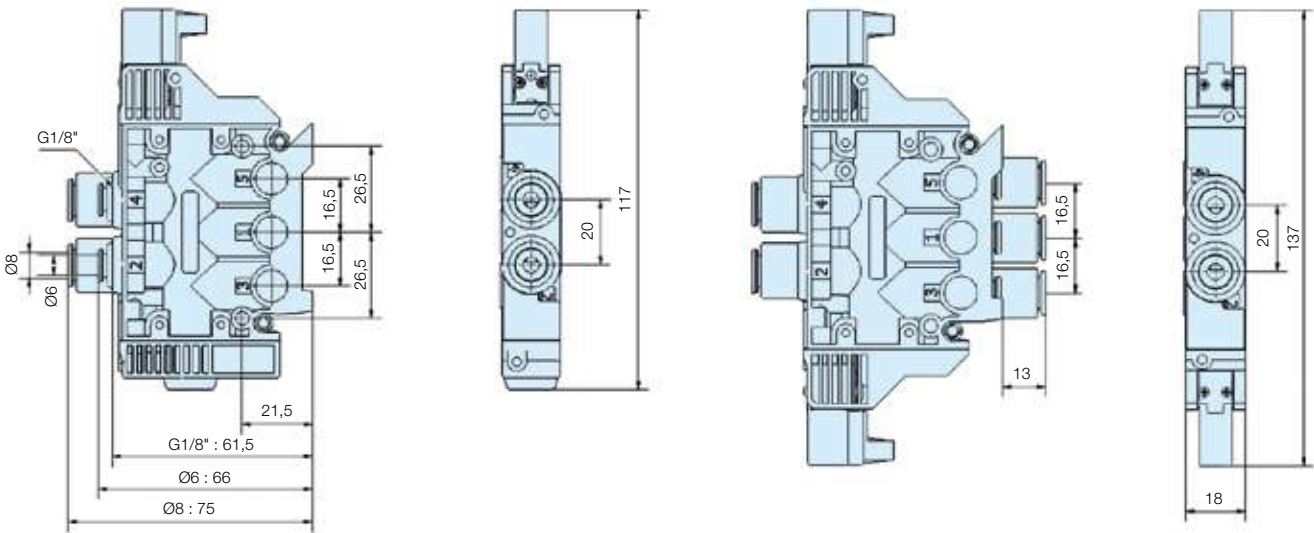
PVL-B21 (Stand-alone) & PVL-B22 (Stackable) – with 15 mm pilot solenoid valve – Pins UP



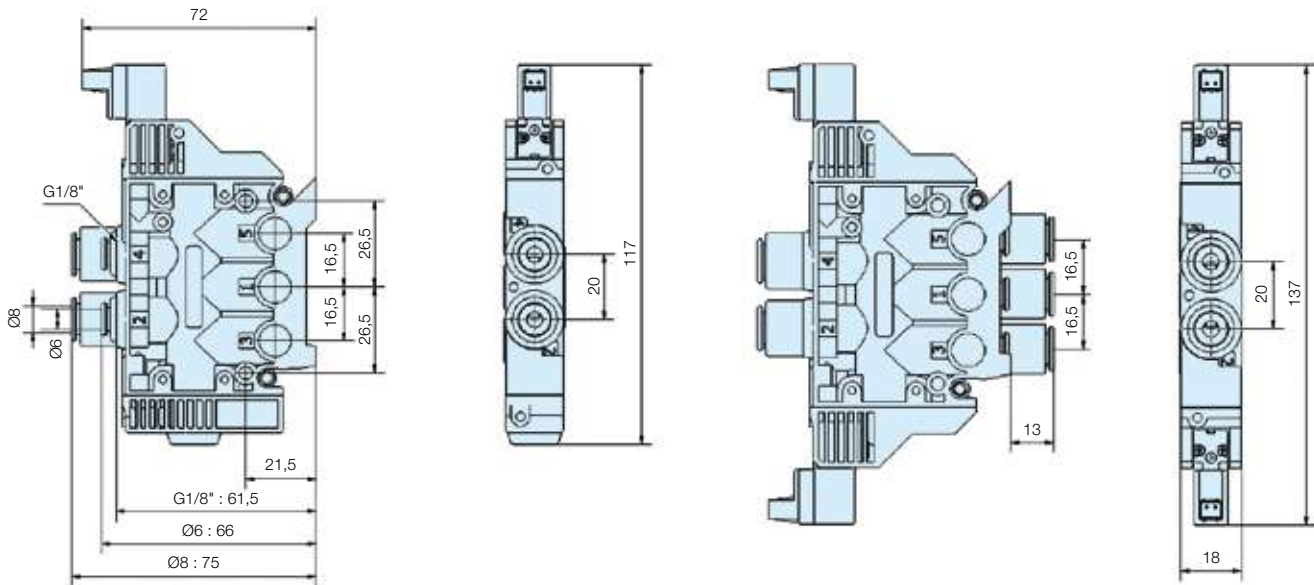
PVL-B21 (Stand-alone) & PVL-B22 (Stackable) – with 15 mm pilot solenoid valve – Pins DOWN



PVL-B21 (Stand-alone) & PVL-B22 (Stackable) – with 10 mm pilot solenoid valve – Pins DOWN

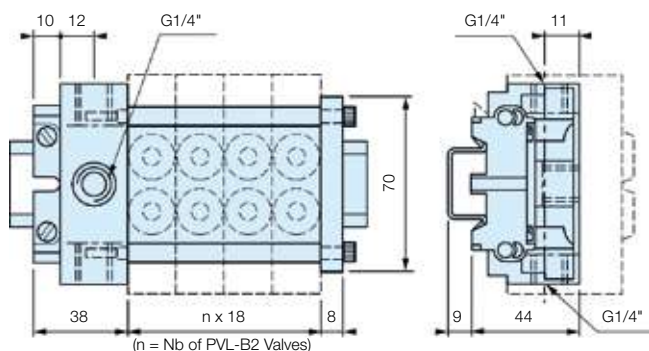


PVL-B21 (Stand-alone) & PVL-B22 (Stackable) – with 10 mm pilot solenoid valve – Pins UP

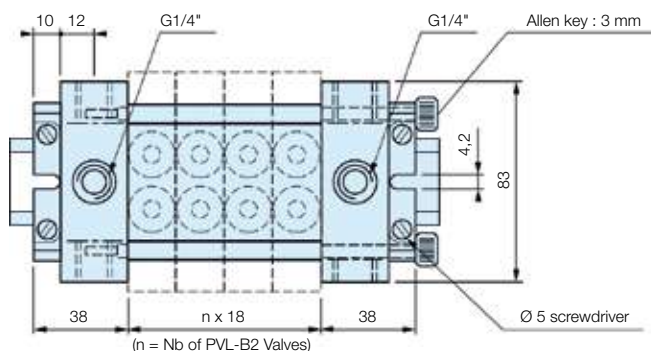


PVL-B22 (Stackable) – Head and Tail sets – DIN rail mounting

Single air supply – PVL-B1719

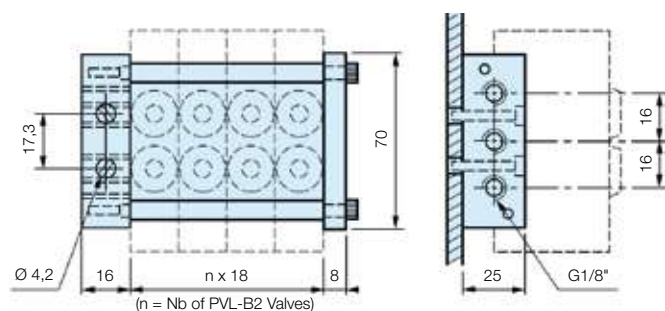


Dual air supply – PVL-B1729

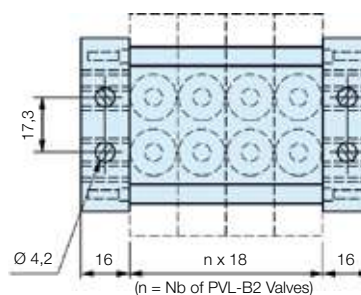


PVL-B22 (Stackable) – Head and Tail sets – Surface mounting

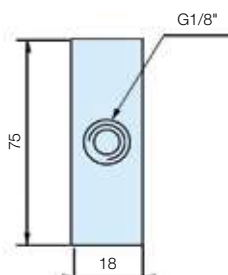
Single air supply – PVL-B1818



Dual air supply – PVL-B1828



PVL-B22 (Stackable) – Intermediate supply module – PVU-LBB118



Stacking high flow valves with air pilot or solenoid actuation. Lightweight plastic bodies feature push-in or threaded connections. Stacking valves feature modular inlet and exhaust facility.



- High flow, compact size
- Push-in or threaded connection
- DIN rail or block mounting
- Light weight construction



**For ATEX specific products
contact Sales Office**

Operating information

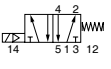
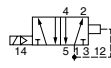
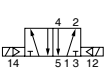
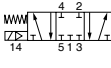
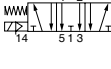
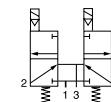
Working pressure;
Pneumatically operated: 2-10 bar
Electrically operated, bistable: 2-10 bar
Electrically operated, monostable: 3-10 bar
Working temperature -15 °C to +60 °C

	PVL-B	PVL-C
Flow (Q _{max}):	900 l/min	1800 l/min
Flow Q _n :	540 l/min	1100 l/min

Flow measured with valve stacked in island.

PVL-B & PVL-C Valve body - Stand alone and stackable design - Without pilot

Pneumatic or 15 mm electric pilot must be ordered separately

Symbol	Description	Valve size	Connection	Weight (g)	Stand Alone	Stackable
					Order code	Order code
	5/2 single acting / Spring return	PVL-B	Push-in Ø 6 mm	125	PVL-B111606	PVL-B121606
			G 1/8	125	PVL-B111618	PVL-B121618
		PVL-C	Push-in Ø 8 mm	240	PVL-C111608	PVL-C121608
			G 1/4	240	PVL-C111619	PVL-C121619
	5/2 single acting / Air spring return	PVL-B	Push-in Ø 6 mm	125	PVL-B113606	PVL-B123606
			G 1/8	125	PVL-B113618	PVL-B123618
		PVL-C	Push-in Ø 8 mm	240	PVL-C113608	PVL-C123608
			G 1/4	240	PVL-C113619	PVL-C123619
	5/2 double acting	PVL-B	Push-in Ø 6 mm	120	PVL-B112606	PVL-B122606
			G 1/8	120	PVL-B112618	PVL-B122618
		PVL-C	Push-in Ø 8 mm	230	PVL-C112608	PVL-C122608
			G 1/4	230	PVL-C112619	PVL-C122619
	5/3 APB (All Ports Blocked)	PVL-B	Push-in Ø 6 mm	130	PVL-B117606	PVL-B127606
			G 1/8	130	PVL-B117618	PVL-B127618
		PVL-C	Push-in Ø 8 mm	250	PVL-C117608	PVL-C127608
			G 1/4	250	PVL-C117619	PVL-C127619
	5/3 Vented centre	PVL-B	Push-in Ø 6 mm	130	PVL-B118606	PVL-B128606
			G 1/8	130	PVL-B118618	PVL-B128618
		PVL-C	Push-in Ø 8 mm	250	PVL-C118608	PVL-C128608
			G 1/4	250	PVL-C118619	PVL-C128619
	Double 3/2 Normally Closed (NC)	PVL-B	Push-in Ø 6 mm	130	PVL-B115606	PVL-B125606
			G 1/8	130	PVL-B115618	PVL-B125618

Head and tail sets and intermediate supply modules

	Type of mounting	Description	Valve size	Port size	Weight (g)	Order code
	On DIN rail	Single air supply	PVL-B	G1/4	175	PVL-B1719
		head and tail set	PVL-C	G3/8	195	PVL-C1713
		Dual air supply	PVL-B	G1/4	245	PVL-B1729
		head and tail set	PVL-C	G3/8	285	PVL-C1723
	Surface	Single air supply	PVL-B	G1/8	200	PVL-B1818
		head and tail set	PVL-C	G1/4	225	PVL-C1819
		Dual air supply	PVL-B	G1/8	260	PVL-B1828
		head and tail set	PVL-C	G1/4	280	PVL-C1829
	On DIN rail	Intermediate supply module	PVL-B	G1/8	150	PVU-LBB118
			PVL-C	G1/4	200	PVU-LCC119
	On DIN rail	Kit for stacking	PVL-C/B	G1/4-G1/8	640	PVU-LCB119
		PVL-B & PVL-C				
		Including :				
		- 1 transfert / take-off module				
		- 1 PVL-C head module				
		- 1 PVL-B end plate				

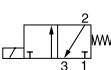
Air-pilot actuator for PVL-B and PVL-C valve

For use with PVL-B and PVL-C valve body

	Description	Pneumatic connection	Weight (g)	Order code
	Air-pilot actuator for PVL-B & PVL-C 15mm solenoid body	Push-in Ø 4 mm	7	PVA-P111
		Threaded M5	2	PVA-P115

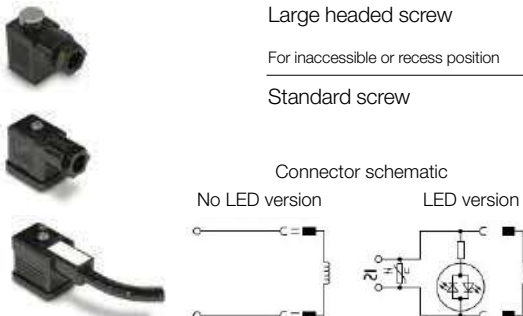
15mm DIN Form C (8mm spacing) pilot solenoid valve

For use with PVL-B and PVL-C valve body

		Manual Overrides		Flush (Not Extended)			Extended	
			Without Manual Override	Blue Override, non locking	Yellow Override, Locking	Blue Override, non locking	Yellow Override, Locking	
	Voltage	W (g)	Order code	Order code	Order code	Order code	Order code	
 Pins/Air Opposite (Pins UP) 	12 Vdc	38 	P2E-KV32B0	P2E-KV32B1	P2E-KV32B2	P2E-KV32B3	P2E-KV32B4	
	24 Vdc	38 	P2E-KV32C0	P2E-KV32C1	P2E-KV32C2	P2E-KV32C3	P2E-KV32C4	
	48 Vdc	38 	P2E-KV32D0	P2E-KV32D1	P2E-KV32D2	P2E-KV32D3	P2E-KV32D4	
	24 Vac 50Hz	38 	P2E-KV31C0	P2E-KV31C1	P2E-KV31C2	P2E-KV31C3	P2E-KV31C4	
	48 Vac 50/60Hz	38 	P2E-KV34D0	P2E-KV34D1	P2E-KV34D2	P2E-KV34D3	P2E-KV34D4	
	115 Vac 50Hz 120 Vac 60 Hz	38 	P2E-KV31F0	P2E-KV31F1	P2E-KV31F2	P2E-KV31F3	P2E-KV31F4	
	230 Vac 50Hz 240 Vac 60 Hz	38	P2E-KV31J0	P2E-KV31J1	P2E-KV31J2	P2E-KV31J3	P2E-KV31J4	

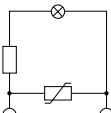
Cable plugs 15 mm - IP65

(8mm pin spacing)

	Description	Electrical protection	Cable length	Weight (g)	Order code
	Large headed screw	No protection	No cable	16	P8C-C
	For inaccessible or recess position	LED + Protection 24 VDC	No cable	16	P8C-C26C
	Standard screw	No protection	No cable	11	P8C-D
			2 m cable	97	P8L-C2
			5 m cable	228	P8L-C5
	Connector schematic No LED version LED version	LED + Protection 24 VDC	No cable	11	P8C-D26C
		LED + Protection 24 VDC/AC	2 m cable	97	P8L-C226C
			5 m cable	229	P8L-C526C

Suppressor and LED indicators

For 8 mm solenoid pin spacing - For mounting between the solenoid valve and the cable plug

	Symbol	Description	Pneumatic connection	Weight (g)	Order code
		LED indicator	24 VAC/DC	3	P8V-CR26C
			115 VAC 50 Hz - 120 VAC 60 Hz	3	P8V-CR24F
			230 VAC 50 Hz - 240 VAC 60 Hz	3	P8V-CR24J

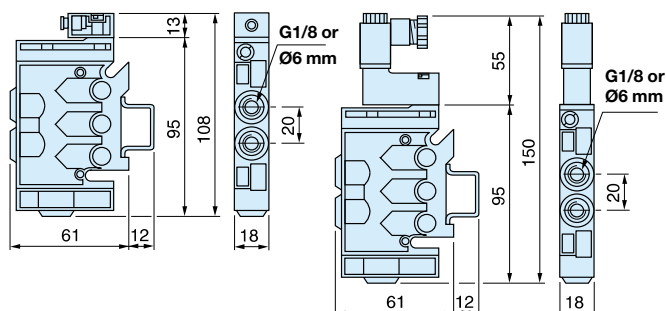
Spare mounting and assembly kits

	Description	Valve size	Port size	Weight (g)	Order code
	Kit for sealing the inlet/exhaust common gallery including :	PVL-B		35	PVL-B1901
	- 3 common blanking plugs	PVL-C		65	PVL-C1901
	- 2 drilled and threaded rods - 2 screws for extended tie rod				

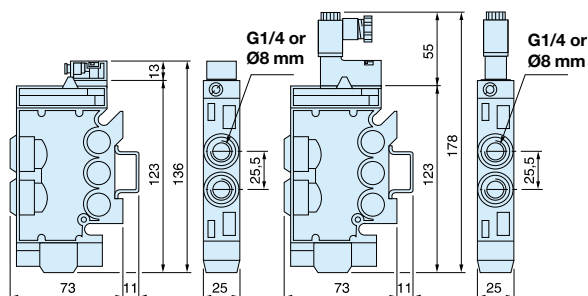
Dimensions, PVL valve Series

All dimensions in mm unless otherwise stated

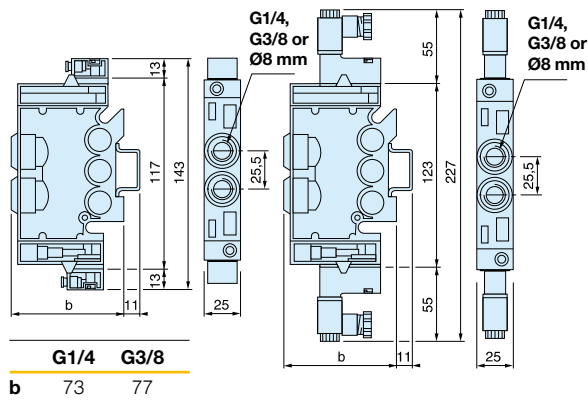
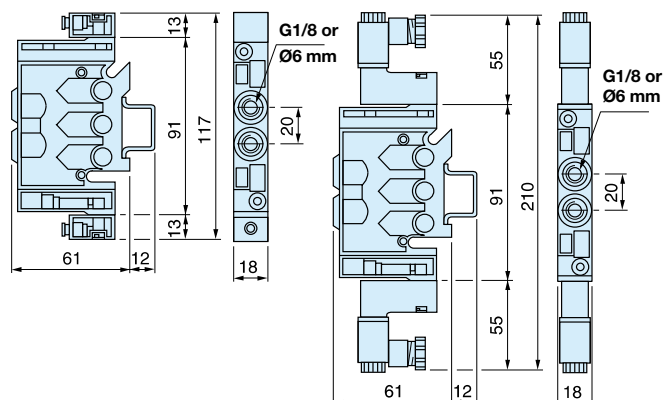
Stacking power valves 1/8" with pneumatic or electrical piloting - Monostable PVL-B1216••, PVL-B1236••



Stacking power valves 1/4" with pneumatic or electrical control - With 1 W solenoid actuator and suitable pneumatic connector - Monostable PVL-C1216••, PVL-C1236••



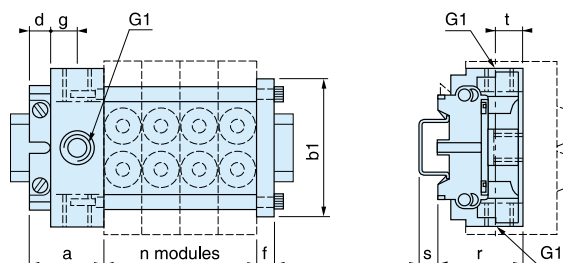
Bistable PVL-B1226••



Head and tail sets

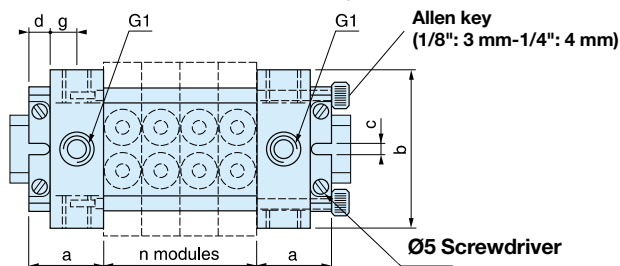
Single air supply

PVL-B1719, PVL-C1713, mounting on DIN rail



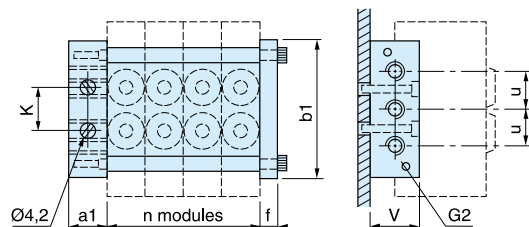
Dual air supply

PVL-B1729, PVL-C1723, mounting on DIN rail



Single air supply

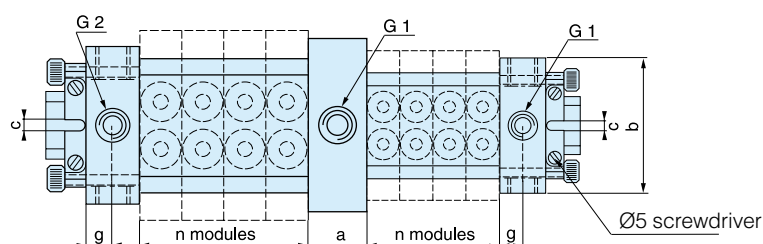
PVL-B1818, PVL-C1819, "stack mounting"



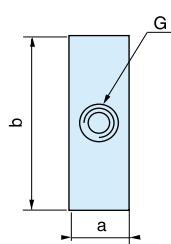
	a	a1	b	b1	c	d	f	g	G1	G2	k	r	s	t	u	v
1/8"	38	16	83	70	4,2	10	8	12	1/4"	1/8"	17,3	44	9	11	16	25
1/4"	38	20	108	100	4,2	10	8	12	3/8"	1/4"	63,5	55	9	13	20	30

"Transfer / take-off" module, intermediate supply module

For combination of sizes 1/4" - 1/8" - PVU-LCB119



PVUL-BB118 - PVU-LCC119



	a	b	G
1/8"	18	75	1/8
1/4"	25	100	1/4

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



**For ATEX specific products
contact Sales Office**



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 more information see www.parker.com/euro_pneumatic	

Logic sequencer

Step modules



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

Step module subbase



	Order code
Subbase	PSB-A12
Additional interlock	PSV-A12

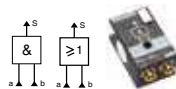
Set of head and tail modules and deviation modules



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

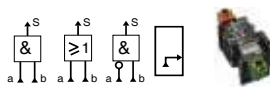
Logic elements

Line mounted elements



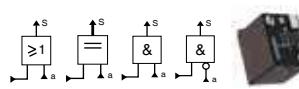
Logic Function	Order code
AND	PLL-A11
OR	PLK-A11
Clip on Din-rail	PZM-L199

Combinable elements



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

Subbase mounted elements



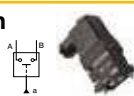
Logic Function	Order code
AND	PLL-C10
NOT inhibit standard	PLN-C10
NOT inhibit threshold	PLN-D10
OR	PLK-C10
YES regenerated	PLJ-C10

3 port subbase to be ordered separately.

Logic relays

Pressure switch

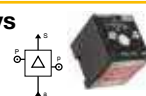
To be used with 3 port subbase



	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

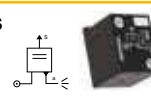
Memory relays

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

Time delay relays

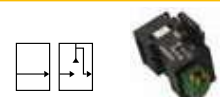
To be mounted on 3 port subbase



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

Subbase for logic elements and relays

3 port and 4 port subbases

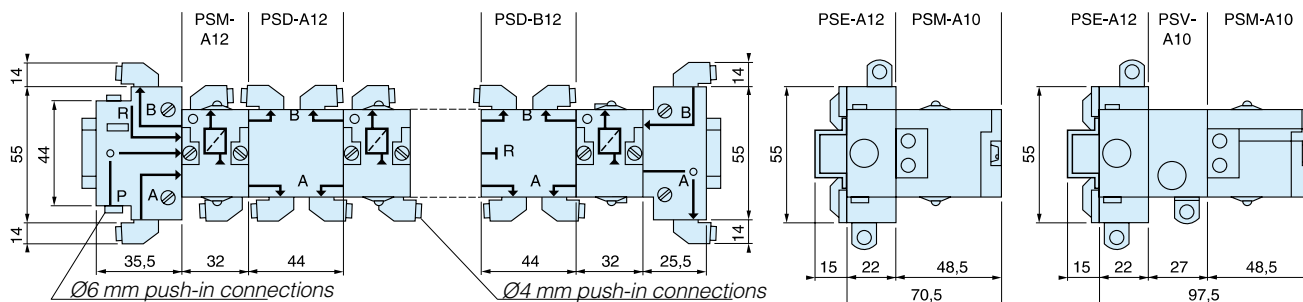


	Order code
Input module	PZU-E12
3 port "common input"	PZU-A12
3 port "cascade"	PZU-C12
4 port subbase*	PZU-B12

* For combination with memory relay and amplified relay.

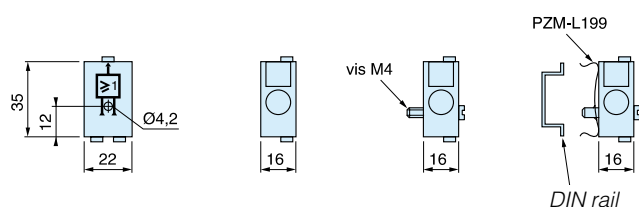
Dimensions, Logic processing

Modular sequencer



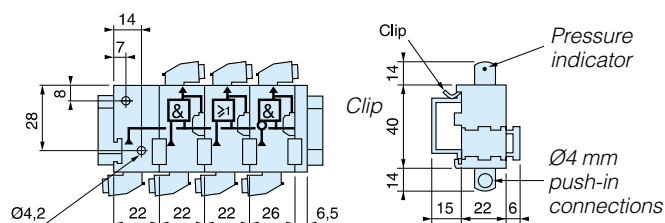
Line mounted logic elements

PLL-A11 and PLK-A11



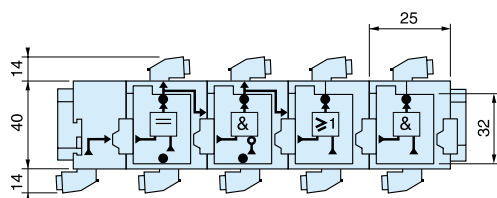
Combinable logic elements

PLE-B12 — PLL-B12 — PLK-B12 and PLN-B12

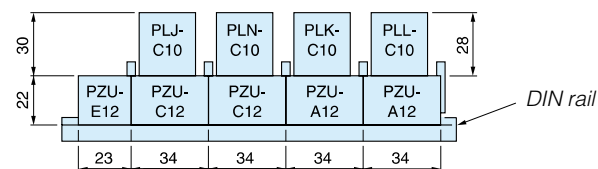


Logic elements mounted on 3-port modular subbases

PZU-E12

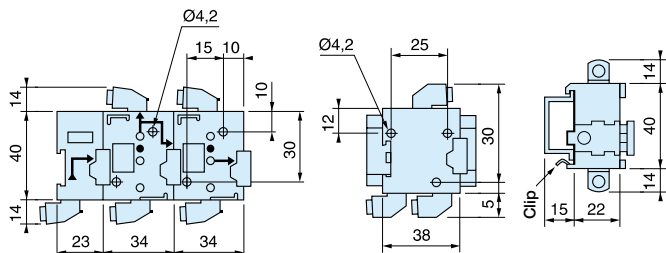


PLJ-C10 — PLN-C10 — PLK-C10 and PLL-C10 mounted on PZU-C12 and PZU-A12



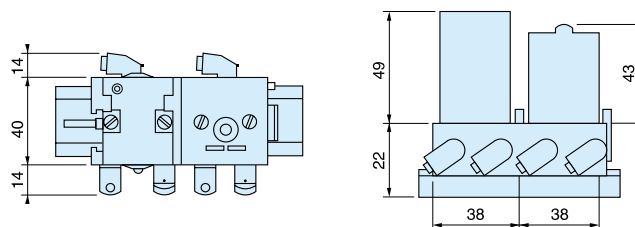
3 and 4-port modular subbases

PZU-E12 — PZU-C12 — PZU-A12 PZU-B12



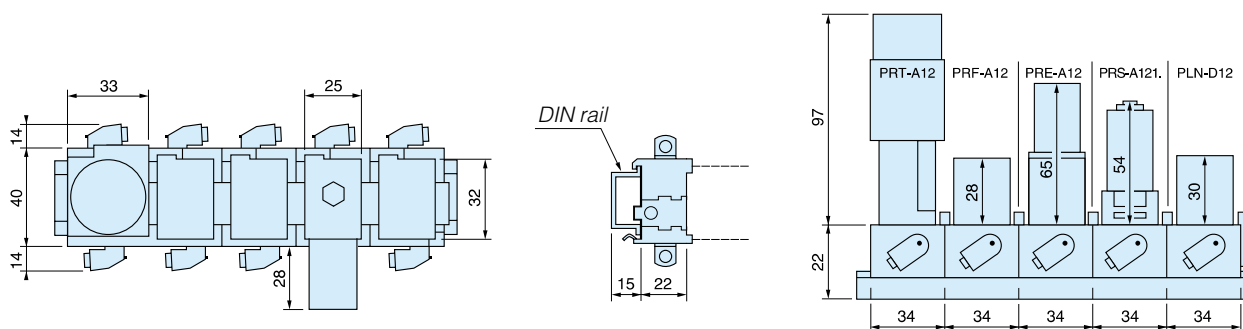
Relays mounted on 4-port modular subbases

PLM-A12 and PRD-A12



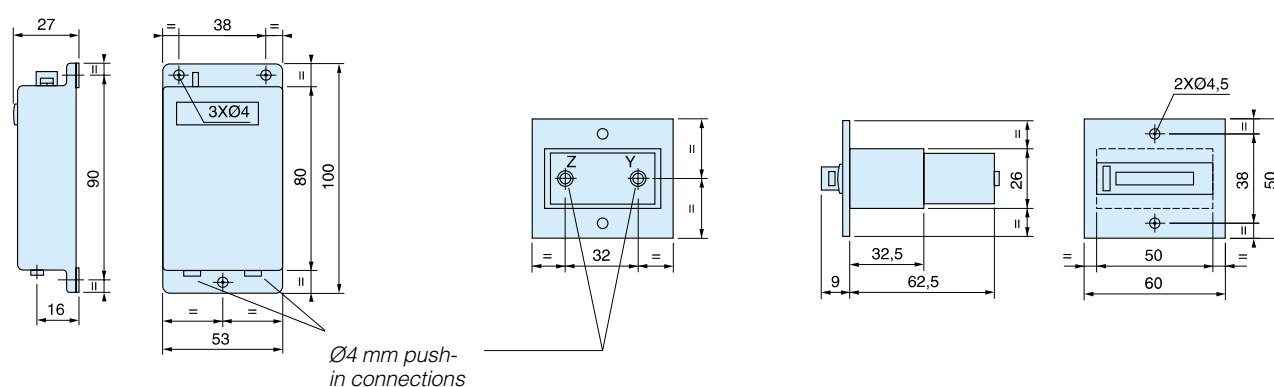
Relays mounted on 3-port modular subbases

PRT-A12 — PRF-A12 — PRE-A12 — PRS-A121 and PLN-D12

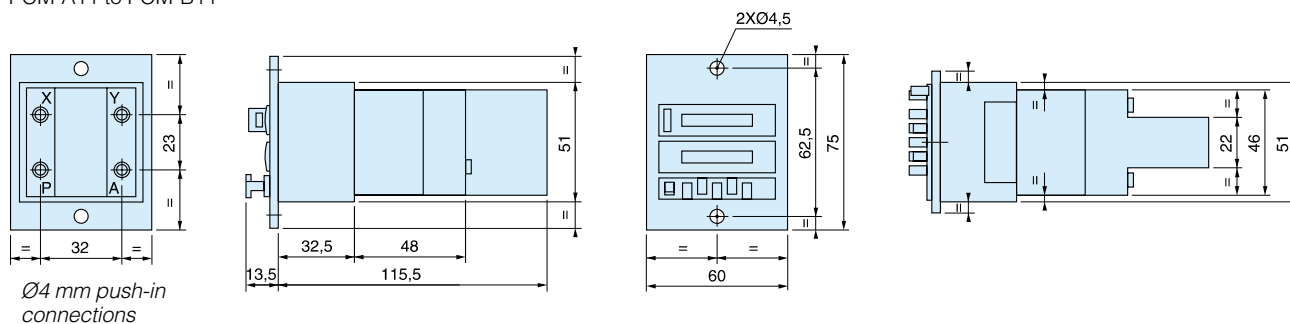
**Totalising counters**

PCT-A11

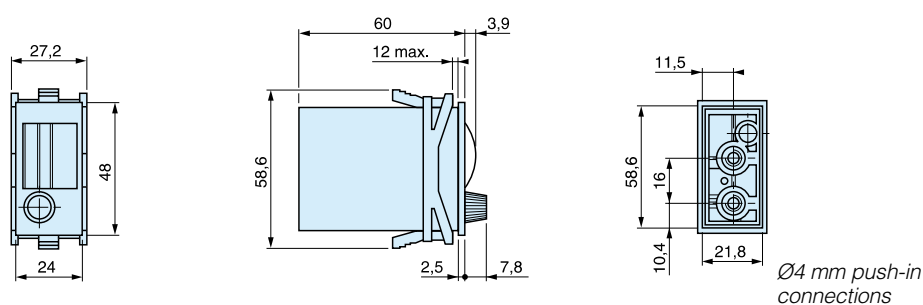
PCT-B11

**Digital display timers**

PCM-A11 to PCM-B11

**Timers with calibrated dial**

PCM-F11 and PCM-G11



Air Saver Unit ASC/ASV Series

An easy solution to your environmental protection efforts!
The air saving unit contributes to power savings and CO₂ reduction.

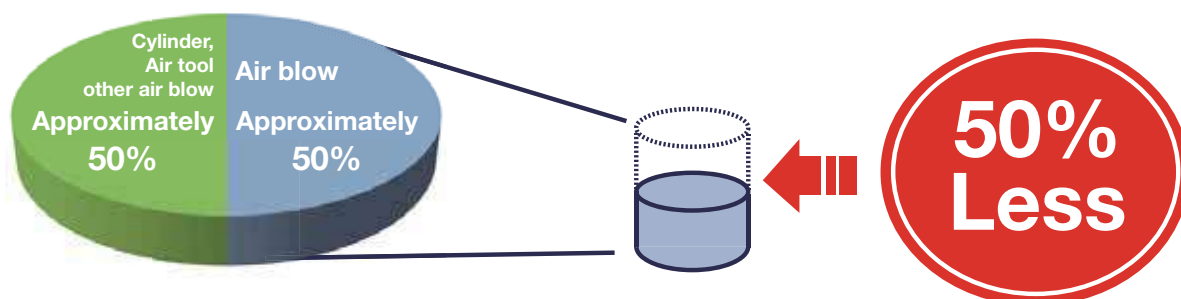


ASV2000



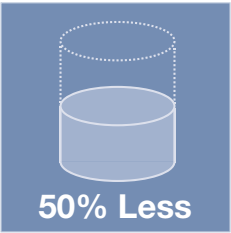
ASV5000

The air Saver Unit can reduce air consumption by up to 50% and improves blow efficiency in air blow applications.



Savings example (Using 100 ASC500, Unit 8 hours/day and 20 days)

Power Consumption	53,600kW / month	→	26,800kW / month
CO ₂ discharge	17 t	→	8.5 t
Cost	EUR 7,000 / month	→	EUR 3,500 / month



ASV200

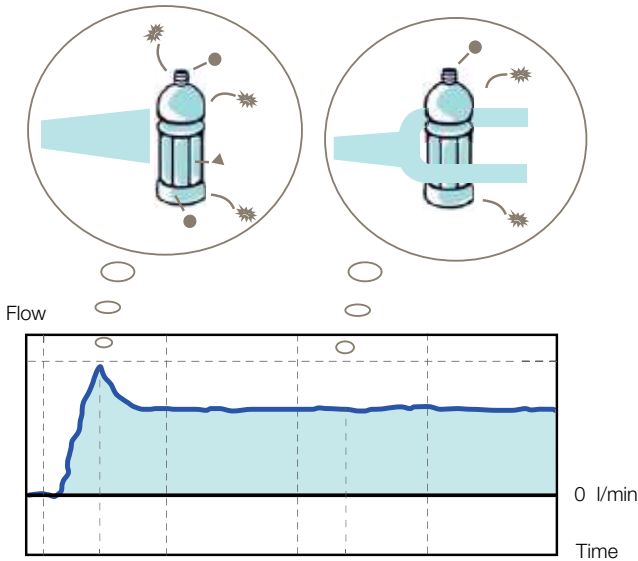


ASC/ASO500

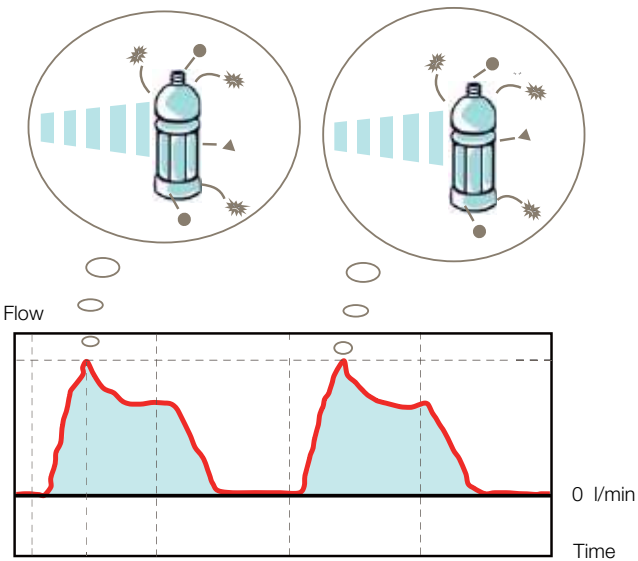
Pulsed air by Air Saver Unit reduces air consumption.

The Air saver unit is a valve that converts a continuous air blow to a pulsed air blow without the need for any other external control. Air is blown with a series of ON and OFF pulses. When the blow is OFF, there is no air consumption. This is how the air saver unit contributes to reduction in air consumption.

Continuous air blow



Pulsed air blow



Compared to continuous air blow, the pulsed air blow hits the work repeatedly, improving the efficiency of the air blow.

When an air saver unit is used, several positive effects can be expected. Air blow accounts for almost 50% of all compressed air used in plants. The air saver unit with a switching valve technology for air blow. Can reduce air consumption by up to 50% !

- Large reductions in plant air consumption.
- Savings in plant compressor power consumption.
- Reduction in plant CO₂ emissions.
- Big contribution to energy-saving activities.



Operating information

	ASV200	ASV2000	ASV5000	ASV13000	ASV15000	ASC500	ASO500
Function	Normally closed						Normally open
Fluid	Non lubricated air						
Flow l/min (ANR) (at 5 bar)	150	2000	5000	13000	15000	450	450
Port size (BSPP)	M5	3/8	1/2	1"	1 1/4"	1/8	1/8
Operating temperature	-5 to +50° C						
Pressure range (bar)	3 - 8	0 - 8				2 - 7	2 - 5
Pilot air supply (bar)	3 - 8	3 - 8				Internal pilot	
Blow	Pulse blow					Pulse/Continuous blow	
Rated voltage (V)	Electrical power is not necessary					DC 24 V	
Power consumption (W)	-					1.2 W	
Grade of Insulation	-					JIS grade E	
Permissible voltage fluctuation	-					± 10 %	
Wiring	-					e-CON standard 4 pole sockets	

(1) In case of using the Unit under 5°C, complete dry air by air dryer shall be supplied to prevent from freezing.

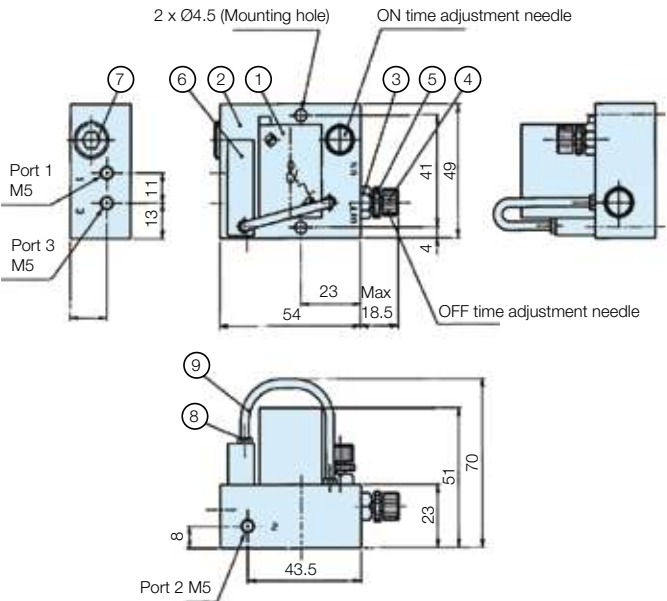
(2) Please note that supply air for port 1 should be more than 2 bar.

(3) Please note that supply air for port 1 should be more than 3 bar.

Order key

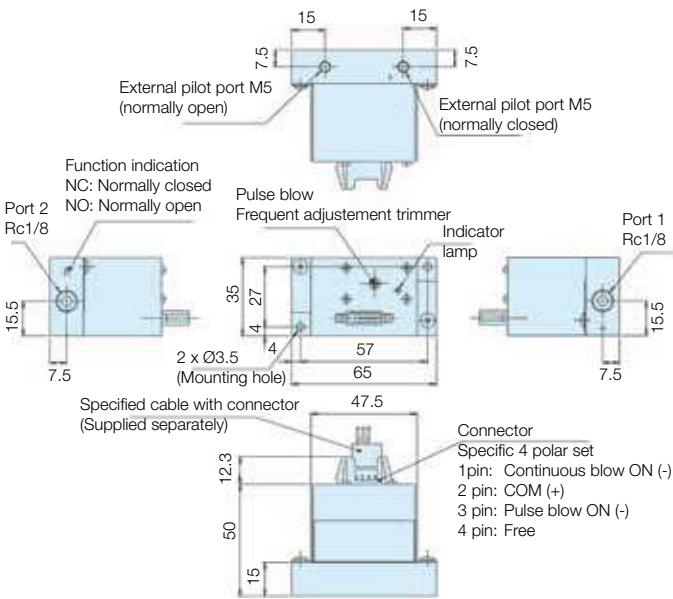
WP	AS	V	2000	-	AA	-	17
Grease Blank Standard grease WP Petrolatum grease (for painting applications.)		Type / Flow rate 200 2-position, internal air pilot / 200 liter/min 500 2-position, single solenoid / 500 liter/min 2000 2-position, external air pilot / 2000 liter/min 5000 2-position, external air pilot / 5000 liter/min 13000 2-position, external air pilot / 13000 liter/min 15000 2-position, external air pilot / 15000 liter/min			Port Size M5 M5 (ASV200 only) 10 BSPP 1/8 (ASC/O500 only) 17 BSPP 3/8 (ASV2000 only) 21 BSPP 1/2 (ASV5000 only) 34 BSPP 1 (ASV13000 only) 42 BSPP 1 1/4 (ASV15000 only)		
Series AS Air Saver Unit					Operation / Voltage AA Pneumatic operated (WP)ASV200, 2000, 5000, ASV13000 and 15000 1W Electrical operated 24VDC (ASC/O500)		
Operation method / Function V Pneumatic operated Normally Closed. C Electrical actuated. Normal Close. (ASC500 only) O Electrical actuated. Normal Open. (ASO500 only)					Note: Cable with e-CON connector (Model No. ASC-D24-CL10) will be ordered separately.		

ASV200-AA-M5



Part name	Qty	Material treatment
1 PLN-D10	1	Assembly
2 Flicker base	1	Aluminium alloy
3 Cover	2	Brass
4 Needle	2	Aluminium alloy
5 Lock nut	2	Aluminium alloy
6 VCC232-NB-Z12-005	1	Assembly
7 Plug R1/4	1	Black oxide finish
8 BC-03-M3	2	Stainless
9 TN-3.2	8cm	Polyamide resin

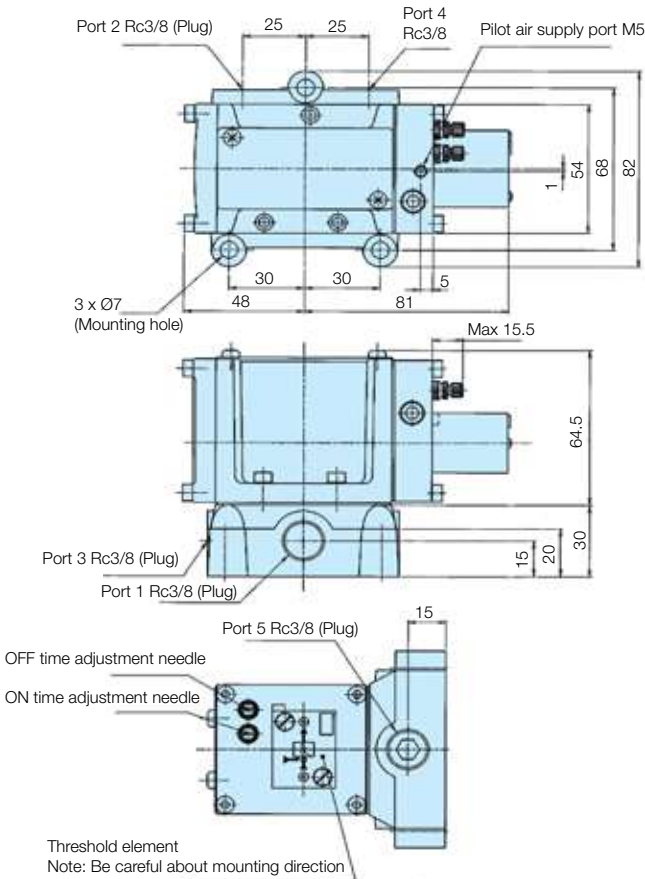
ASC500-1W-10 / ASO500-1W-10



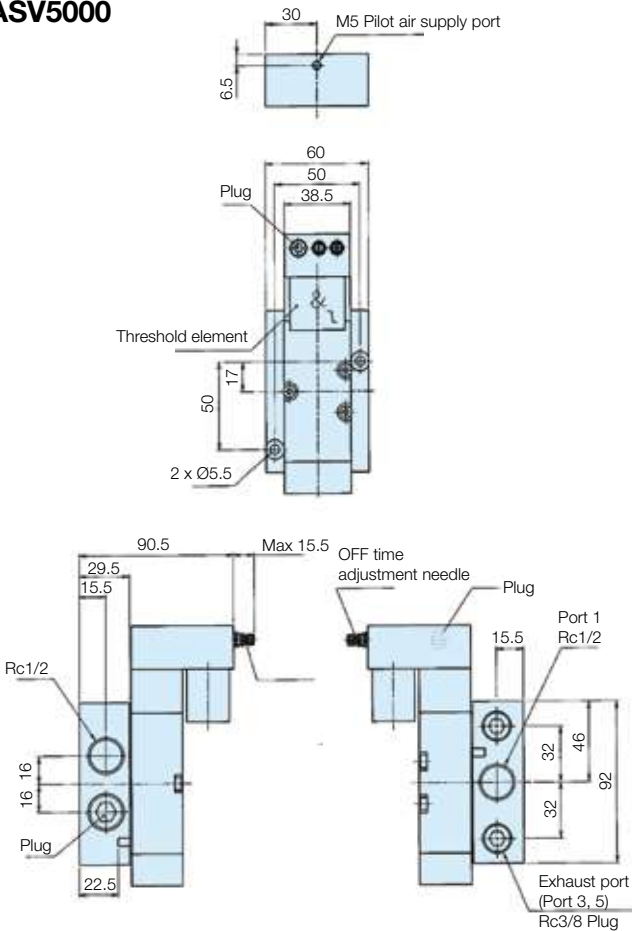
Pin no.	Colour
1	Black
2	Red
3	Yellow
4	(Free)

*Cable with specific connector "ASC-D24-CL10"
(AWG26 ASC/ASO in common)

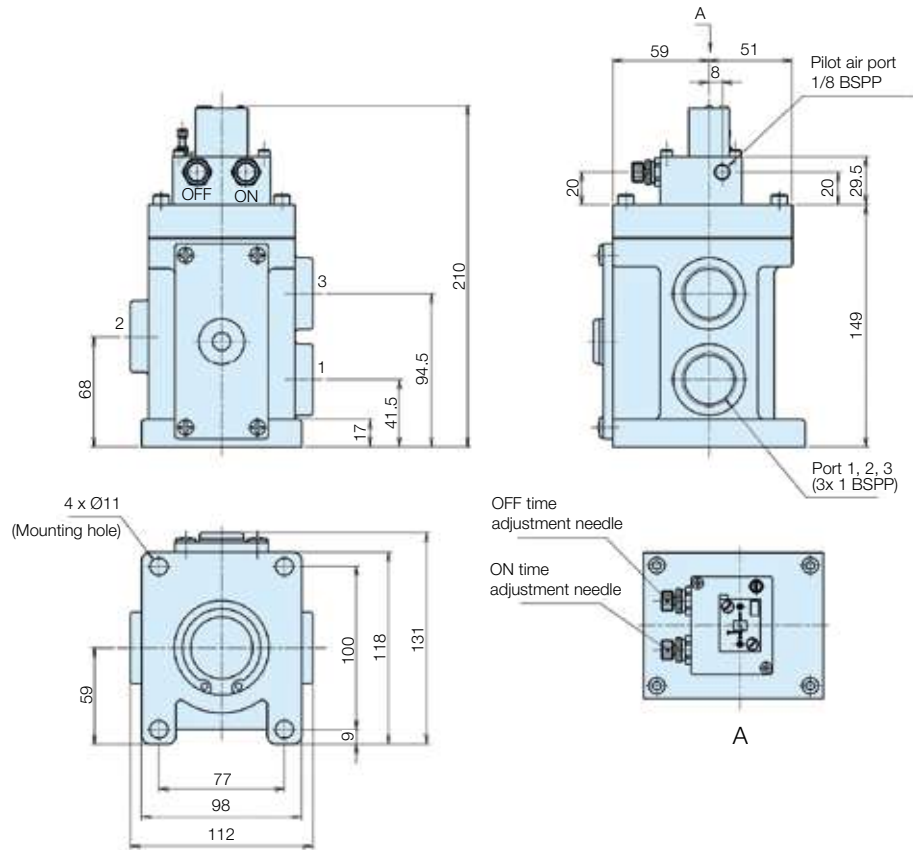
ASV2000



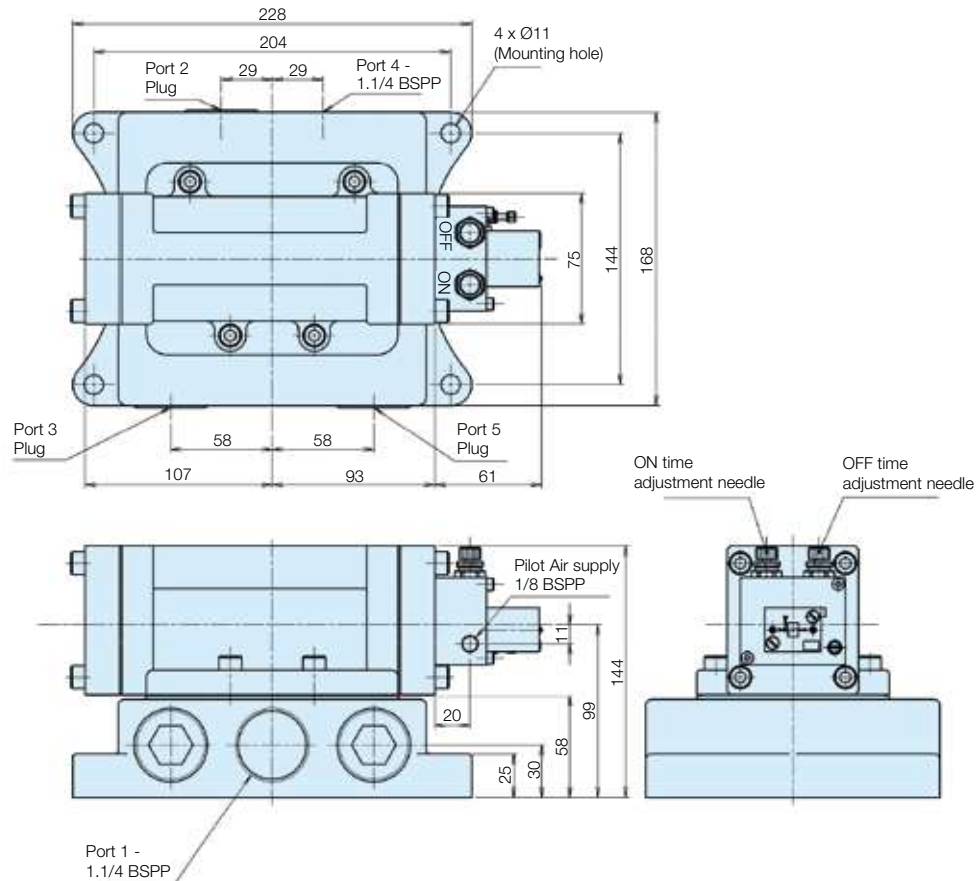
ASV5000



ASV13000_AA_34



ASV15000_AA_42



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



**For ATEX specific products
contact Sales Office**



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

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

Additional switch valves, electrical contact block and mounting brackets

Symbol	Flow	Order code
	60 l/min NC	PXB-B3911
	240 l/min NC	PXB-B4931
	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
	60 l/min NC	PXB-B3111B
	60 l/min NO	PXB-B3121B

Contact	Order code
Normally open NO	ZBE-101
Normally closed NC	ZBE-102
All PXB-B4 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.	
Description	Order code
Mounting block 	ZB4-BZ009

Spring return push buttons

Spring return

	Colour	Order code
	Black	ZB4-BA2
	Green	ZB4-BA3
	Red	ZB4-BA4

Mushroom head

	Colour	Order code
	Black	ZB4-BC2
	Green	ZB4-BC3
	Red	ZB4-BC4

Selector switches

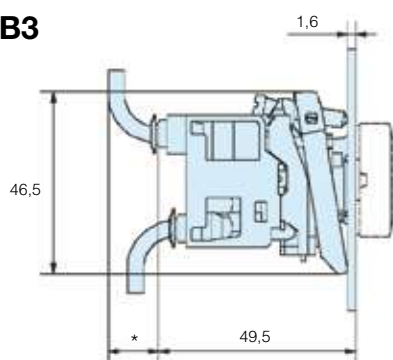
Black handle

	Function	Order code
	2 positions fixed	ZB4-BD2
	3 positions fixed	ZB4-BD3

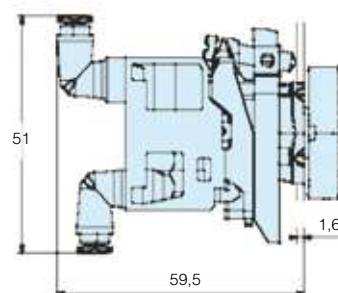
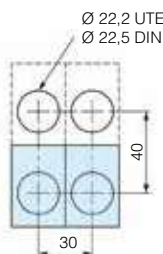
Visual indicators

	Colour actuated	Colour unactuated	Order code
	Green	Black	PXV-F131
	Red	Black	PXV-F141
	Yellow	Black	PXV-F151
	Blue	Black	PXV-F161
	White	Black	PXV-F111
	Green	Red	PXV-F1314

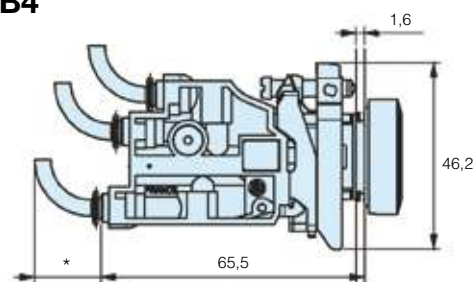
PXB-B3



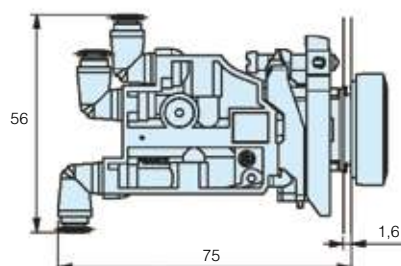
Body width 30mm
 * With 2 x 4mm tube = 10
 With 2,7 x 4mm tube = 15



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



**For ATEX specific products
contact Sales Office**

Bore Ø1,5 mm, flow 60 NI/min

Symbol	Actuator	Return at 6 bar, N	Operating forces	Order code
	Steel plunger	Spring	11	PXC-M111

Bore Ø1,5 mm, flow 85 NI/min

Symbol	Actuator	Return at 6 bar, N	Operating forces	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 at 6 bar, N	Operating forces	Order code
	Plastic roller	Spring	7	PXC-M521

Dimensions, Limit switches, Series PXC

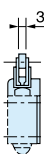
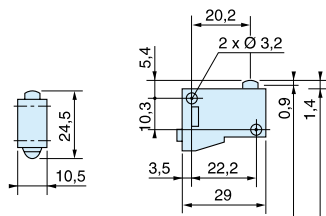
All dimensions in mm unless otherwise stated

3/2 miniature limit switches

PXC-M111

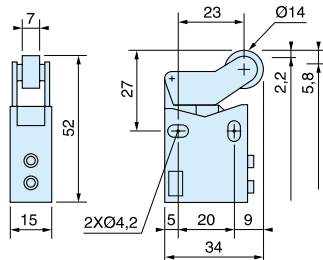
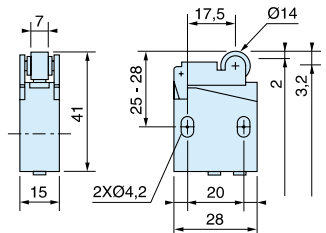
PXC-Z12

PXC-Z11



PXC-M121 - PXC-M131

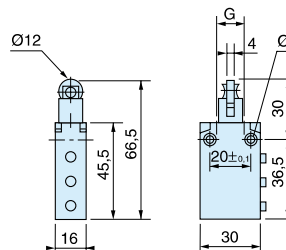
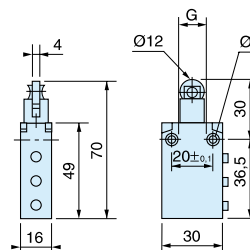
PXC-M521



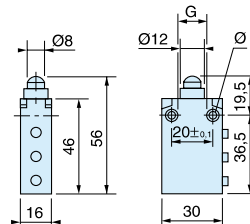
3/2 compact limit switches

PXC-M601A102

PXC-M601A103



PXC-M601A110



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

For more information see www.parker.com/euro_pneumatic

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 at 6 bar, N	Operating forces	Order code
	Steel plunger	Spring	24	PXC-M601A110
	Steel roller plunger	Spring	24	PXC-M601A102
	90° Steel roller plunger	Spring	24	PXC-M601A103

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 more information see www.parker.com/euro_pneumatic	

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

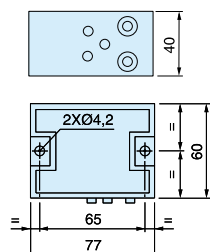
Symbol	Connections	Number of control modules	Order code
	Ø4 mm Push-in	1	PXP-C111
	Ø4 mm Push-in	2	PXP-D121

Metal enclosure, with two Ø60 push buttons, wrist restbar, built in protective guard and control module

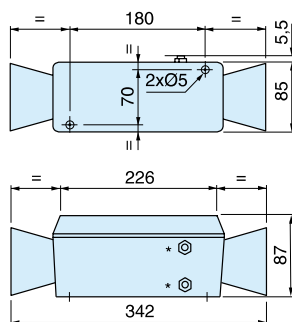
Symbol	Connections	Number of control modules	Order code
	Push-in Ø6 mm for supply Ø4 mm for output	1	PXP-S111
	Push-in Ø6 mm for supply Ø4 mm for output	2	PXP-S121

Dimensions

PXP-A11

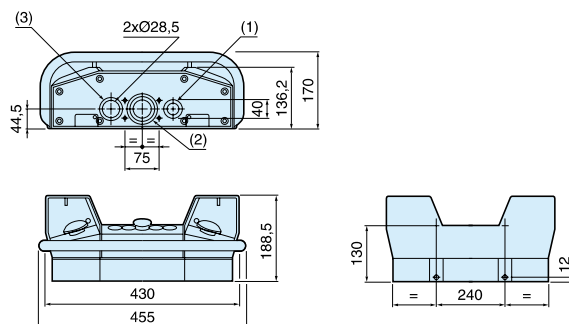


PXP-C111 and PXP-D121



* Ø4 mm push-in connections
** Ø6 mm push-in connections

PXP-S111 and PXP-S121



- 12 mm solenoids sub-base mounting type
- Instant push-in fittings for inlet (Ø 8 mm) and outlets (Ø 4 mm)
- Brass silencer
- Quick response time
- Multi-functional manual override



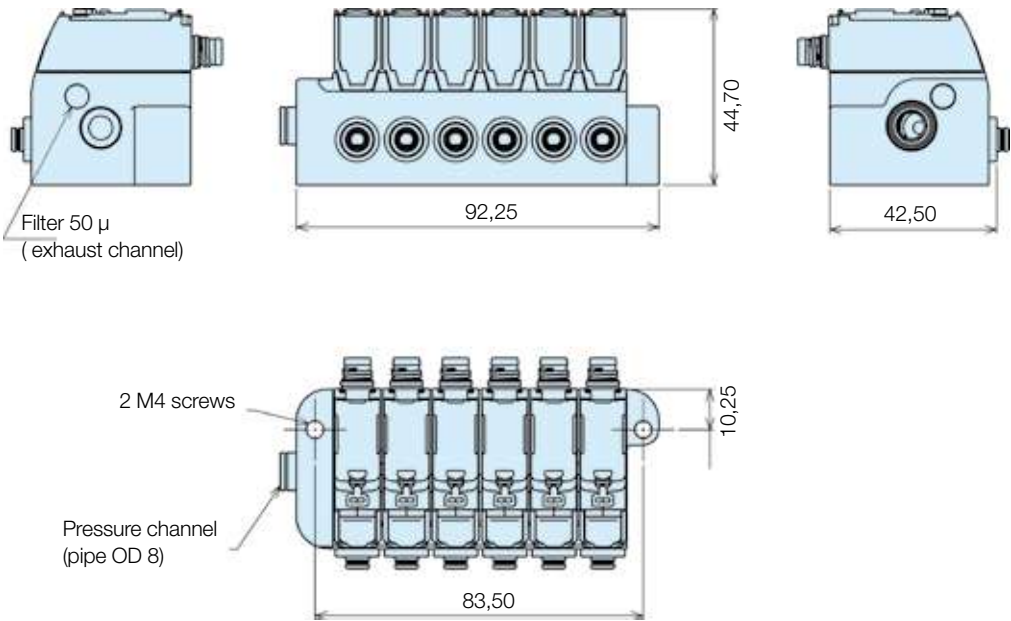
Operating Information		Materials		
Working pressure	0,9 to 8 bar	Manifold complete :	Polyamide	Aluminium
Power DC	1 W	Armature tube:	Brass	Stainless steel
Voltage	24 VDC	Plunger & core:	Corrosion resistant	Cr-Ni steel
Voltage tolerance	+/- 10 %	Seals:	FKM (Viton™)	Low temp FKM
Electrical connection	M8	Screws:	Zinc plated	Stainless steel
Flow rate at 6 bar input, 1 bar pressure drop	15NI/min	Coil	Thermoplastic as standard thermoset resin for M12 connection	
Valve function	3/2 NC			
Response time	5 ms			
Frequency	200 cycles/min	Encapsualtion material:		

Order codes

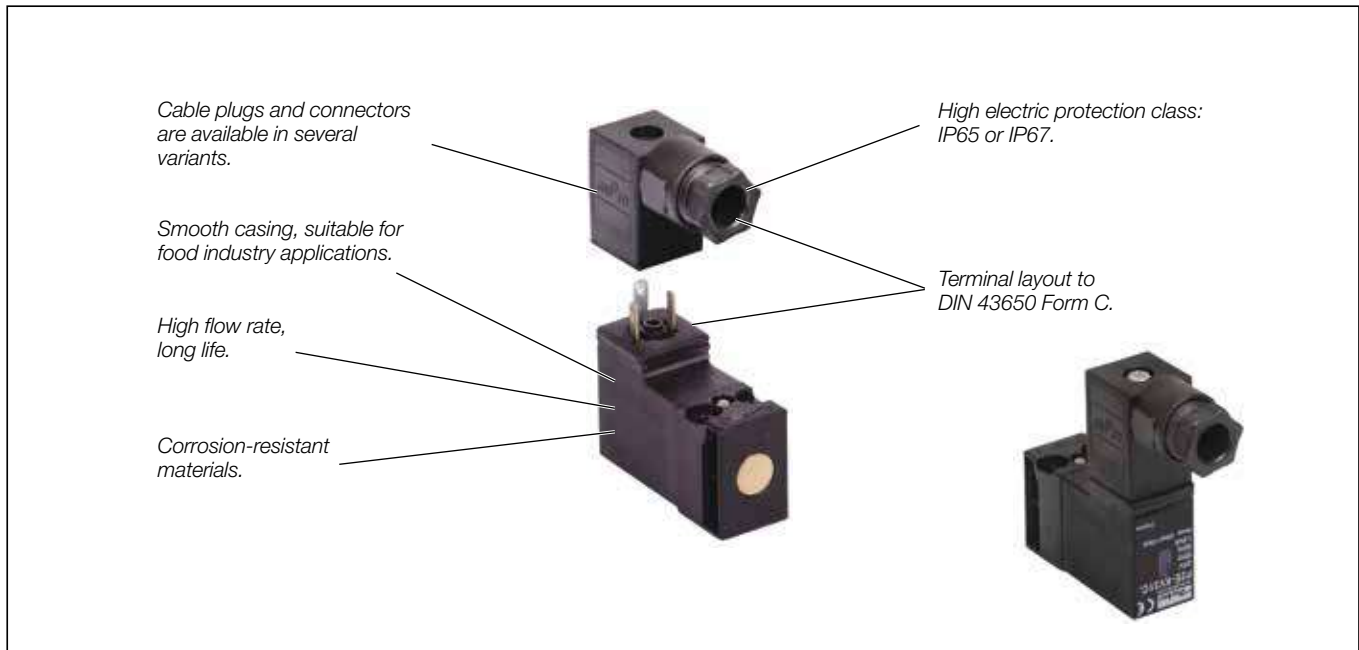
Designation		Weight (kg)	Order code
	5 stations manifold complete	0,130	P2DFIX5PC
	6 stations manifold complete	0,155	P2DFIX6PC
	Electrical connector * 2 m	-	P8LS08L226C
	5 m	-	P8LS08L526C
	9 m	-	P8LS08L926C

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

Dimensions (mm)



Solenoid operators - 15 mm



The P2E- •V solenoid operator range

The P2E-•V range of operators are normally closed (NC) 3/2 solenoid valves, with exceedingly compact dimensions in relation to their capacity.

International standard

The port connection pattern complies with a new French CNOMO standard (in process of drafting), with cable plug connections in accordance with DIN 43650 Form C.

Compact design

Overall dimensions of the P2E-•V operators are substantially less than those of earlier generations of solenoid operators.

High flow capacity

High flow capacity relative to the electrical operating power as a result of optimised internal flow paths.

Corrosion-resistant design

The valve is made of thermoplastic material and stainless steel, with Viton™ and nitrile rubber seals for excellent corrosion resistance.

Clean lines suitable for food industry applications, P2E-QV

The valve has been designed in conjunction with several machine manufacturers and organisations in the food processing industry, with corrosion-resistant materials and smooth lines being important starting points. The valve and its accessories have been designed so that there are no gaps or crevices in which dirt could collect.

High reliability

Few moving parts result in high reliability, rapid changeover and very long life.

Low power demand

The solenoids have a power demand of 1.2 W at 24 VDC and 1.6 VA at 24 VAC, 115 V AC and 230 VAC.

High protection class

The protection class is IP 67 when connected using the cable plug with a moulded cable. When using the standard cable plug for fitting by the user, the protection class is IP65, the valve, with Fast-on connectors, has an encapsulation class of IP 20.

Insensitive to dirty air

The use of generously sized flow paths (1.0 mm diameter) means that the valve can be used in normal industrial environments without problems of blocking.

Manual override as option

The operators can be supplied with or without manual override. The manual override device is available as a screwdriver groove or with a control arm, and is either spring return (blue) or lockable (yellow).

Order key, solenoid operators (15mm)

P	2	E	-	Q	V	3	2	C	3																									
<table><tr><th>Valve family</th></tr><tr><td>P2E Solenoid operator</td></tr></table>				Valve family	P2E Solenoid operator	<table><tr><th>Type of current</th></tr><tr><td>1 AC 50 Hz</td></tr><tr><td>2 DC</td></tr><tr><td>4 AC 50/60 Hz</td></tr><tr><td>5 Mobile and wide band only</td></tr></table>				Type of current	1 AC 50 Hz	2 DC	4 AC 50/60 Hz	5 Mobile and wide band only	<table><tr><th>Voltage</th></tr><tr><td>B 12 V</td></tr><tr><td>C 24 V</td></tr><tr><td>D 48 V</td></tr><tr><td>F 115 V*</td></tr><tr><td>J 230 V*</td></tr><tr><td>W 37,5 V**</td></tr><tr><td>T 72 V**</td></tr><tr><td>Y 78 V**</td></tr><tr><td>V 96 V**</td></tr><tr><td>E 110 V**</td></tr></table>		Voltage	B 12 V	C 24 V	D 48 V	F 115 V*	J 230 V*	W 37,5 V**	T 72 V**	Y 78 V**	V 96 V**	E 110 V**	<table><tr><th>Overrides</th></tr><tr><td>0 Without</td></tr><tr><td>1 Non locking (blue)</td></tr><tr><td>2 Locking (yellow)</td></tr><tr><td>3 Extended non locking (blue)</td></tr><tr><td>4 Extended locking (yellow)</td></tr></table>	Overrides	0 Without	1 Non locking (blue)	2 Locking (yellow)	3 Extended non locking (blue)	4 Extended locking (yellow)
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Subfamily																																		
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3 3/2 valve,normally closed (NC)																																		
1 3/2 valve,normally opened (NO)																																		

Technical data

	NC, Standard	NC, Food ¹⁾	NC, Mobile ²⁾	NC, Hight flow
Working pressure	0 to 10 bar	0 to 10 bar	0 to 10 bar	0 to 10 bar
Working temperature	-15 °C to +60 °C	-15 °C to +60 °C	-40 °C to +70 °C	-15 °C to +50 °C
Orifice	1,0 mm	1,0 mm	1,0 mm	1,4 mm
Flow Qmax	33 NI/min	33 NI/min	22 NI/min	50 NI/min
Power, hold	DC 1,2 W / AC 1,6 VA *	DC 1,2 W / AC 1,6 VA *	DC 1,4 W	DC 1,8 W / AC 2,4 VA
Power, surge	DC 1,2 W / AC 3,5 VA *	DC 1,2 W / AC 3,5 VA *	DC 1,4 W	DC 1,8 W / AC 5,5 VA
Connection time	100%	100%	100%	100%
Voltage tolerance	+10%/–15%	+10%/–15%	+25%/–30%	+10%/–15%
Electric connection:	DIN 43650 Form C			
Port pattern:	To future CNOMO standard			
Protection:	IP 65			
Approval:	Standard solenoids are UL 429 recognized and marked with the following symbol 			
Working media:	All neutral media, such as compressed air, water, hydraulic oil and many gases.			
1) Design:	Completely smooth exterior, suitable for food industry.			
2) Mobile standard	According to European standard EN 50 155.			



* Power , hold for 230VAC 2.4VA
Power, surge for 230VAC 5.5VA

Transients

Interrupting the current through the solenoid coil produces momentary voltage peaks which, under unfavourable conditions, can amount to several hundred times the rated operating voltage. Normally, these transients do not cause problems, but to achieve the maximum life of relays in the circuit (and particularly of transistors, thyristors and integrated circuits) it is desirable to provide protection by means of voltage-dependent resistors (varistors). All cable plugs with a yellow LED also incorporate such protection.

Service life

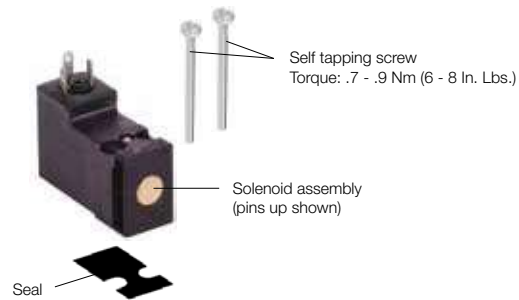
With compressed air at 6 bar, 20 °C and complying with the requirements for compressed air quality as set out in ISO8573-1 norm (class 4 for dry and class 5 for filtered air), the valves should have a life of at least 50 million cycles.

Materials

Operator	
Body, coil casing	Thermoplastic
Internal metal parts	Steel
Screws	Stainless steel
Bottom plug	Thermoplastic
Sealing materials	FPM (Viton™) and nitrile rubber
Cable head	
Sheath	Thermoplastic
Retaining screw	Stainless steel, zinc-plated steel

Solenoid Operators - 15 mm

Electrical connection EN175301-803 C/ISO15217 (Ex DIN 43650C)



Solenoids 15 mm NC, standard

(Note! Mounting screws included in basic valve)

	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 
	Voltage			Weight kg	Order code Override extended, blue, non locking flush	Weight kg	Order code Override extended, yellow, locking flush
	24 VDC			0,038	P2E-KV32C3 	0,038	P2E-KV32C4 
	24 VAC 50Hz			0,038	P2E-KV31C3 	0,038	P2E-KV31C4 

Solenoids 15 mm NC, mobile

(Note! Mounting screws included in basic valve)

	Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override, blue, non locking flush
	12 VDC	0,038	P2E-MV35B0 	0,038	P2E-MV35B1 
	24 VDC	0,038	P2E-MV35C0 	0,038	P2E-MV35C1 
	37,5 VDC	0,038	P2E-MV35W0 	0,038	P2E-MV35W1 
	48 VDC	0,038	P2E-MV35D0 	0,038	P2E-MV35D1 
	72 VDC	0,038	P2E-MV35T0 	0,038	P2E-MV35T1 
	78 VDC	0,038	P2E-MV35Y0 	0,038	P2E-MV35Y1 
	96 VDC	0,038	P2E-MV35V0 	0,038	P2E-MV35V1 
	110 VDC	0,038	P2E-MV35E0 	0,038	P2E-MV35E1 

Solenoids 15 mm NC, food industry version

(Note! Mounting screws included in basic valve)

	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
	24 VDC	0,038	P2E-QV32C0 	0,038	P2E-QV32C1 	0,038	P2E-QV32C2 
	48 VDC	0,038	P2E-QV32D0 	0,038	P2E-QV32D1 	0,038	P2E-QV32D2 
	24 VAC 50Hz	0,038	P2E-QV31C0 	0,038	P2E-QV31C1 	0,038	P2E-QV31C2 
	48 VAC 50/60Hz	0,038	P2E-QV34D0 	0,038	P2E-QV34D1 	0,038	P2E-QV34D2 
	115 V 50Hz/ 120 V 60Hz	0,038	P2E-QV31F0 	0,038	P2E-QV31F1 	0,038	P2E-QV31F2 
	230 VAC 50Hz/ 240 VAC 60Hz	0,038	P2E-QV31J0 	0,038	P2E-QV31J1 	0,038	P2E-QV31J2 
	Voltage			Weight kg	Order code Override extended, blue, non locking flush	Weight kg	Order code Override extended, yellow, locking flush
	24 VDC			0,038	P2E-QV32C3 	0,038	P2E-QV32C4 
	24 VAC 50Hz			0,038	P2E-QV31C3 	0,038	P2E-QV31C4 
	115 VAC 50 Hz			0,038	P2E-QV31F3 	0,038	P2E-QV31F4 
	230 VAC 50 Hz			0,038	P2E-QV31J3 	0,038	P2E-QV31J4 

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

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

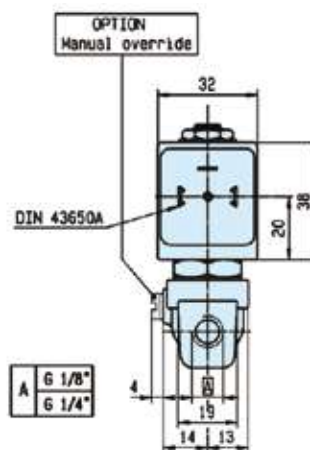
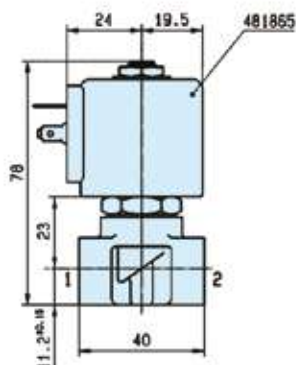
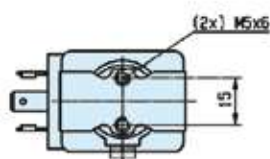
Advantages:

- 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 ¹	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 ¹	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 ¹	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 ¹	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 ¹	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	-

¹ Valve with Ruby seal is only compatible with hydraulic oil and neutral liquids

** Manual override standard



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:

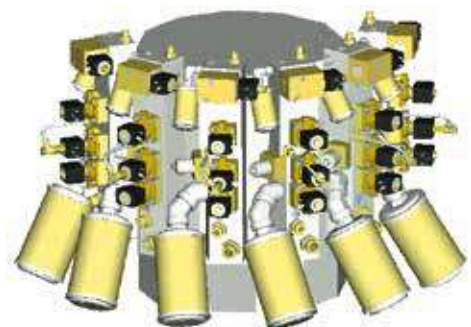
- Safety of operation
- Reliability
- Response time stability
- Repeatability
- No leakage
- Integrated non return valve (421version)



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 10 ⁶ cycles (dry and clean air) > 8 10 ⁶ 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.			

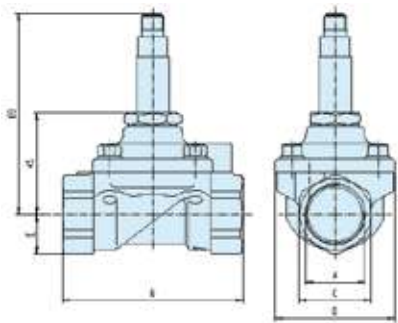
Port size	Orifice	Flow Factor (l/min)	Admissible differential pressure (bar)			Fluid Temp.	Seal Material (C°)	Reference number			Dim. Ref. N°	
G	mm	Gaz Qn	Min.	Max. DC	Max. AC	Gaz Max.		Global Ref. No.	Valve	Housing	Coil	
2/2 Valves - Direct Pipe Mounting											Normally CLOSED	
1/2"	15	3150	1.5	40	40	50	FKM	-	321H35	2995	481865	1
3/4"	15	3550	1.5	40	40	50	FKM	-	321H36	2995	481865	1
2/2 Valves - Direct Pipe Mounting											Normally OPEN	
1/2"	15	3150	1.5	40	40	50	FKM	-	322H35	2995	481865	2
3/4"	15	3550	1.5	40	40	50	FKM	-	322H36	2995	481865	2
2/2 Valves - Direct Pipe Mounting											Normally CLOSED	
1/2"	15	3150	2	40	40	50	FKM	-	421H35	2995	481865	3
3/4"	15	3550	2	40	40	50	FKM	-	421H36	2995	481865	3
2/2 Valves - Sub-base Mounting											Normally CLOSED	
-	14	2100	1.5	40	40	50	FKM	-	321F35	2995	481865	4
-	22	7000	5	40	40	50	FKM	-	321F37	2995	481865	-
2/2 Valves - Sub-base Mounting											Normally OPEN	
-	14	2100	1.5	40	40	50	FKM	-	322F35	2995	481865	5
-	22	7000	1.5	40	40	50	FKM	-	322F37	2995	481865	-
2/2 Valves - Sub-base Mounting											Normally CLOSED	
-	14	2100	2	40	40	50	FKM	-	421F35	2995	481865	6
3/2 Valves - Direct Pipe Mounting											Normally CLOSED	
1/4"	8	750	1	40	40	50	PUR	-	331B31	2995	481865	7
3/2 Valves - Sub-base Mounting											Normally CLOSED	
-	8	750	1	40	40	50	PUR	-	331F31	2995	481865	-

Available electrical parts:

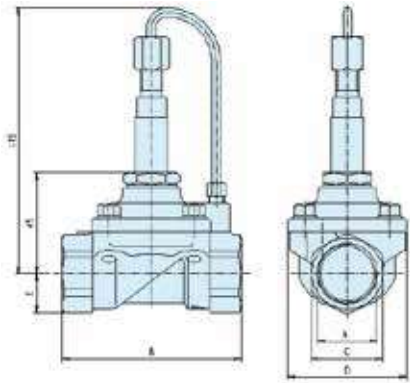
You will find standard available coil details on the next pages.

Dimensions

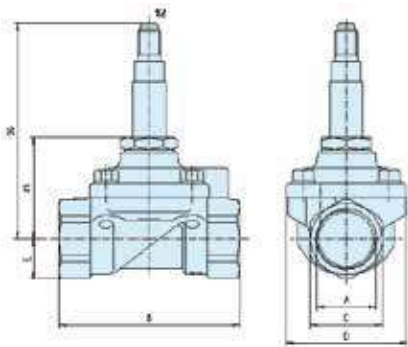
Dimensions Reference N° 1



Dimensions Reference N° 2

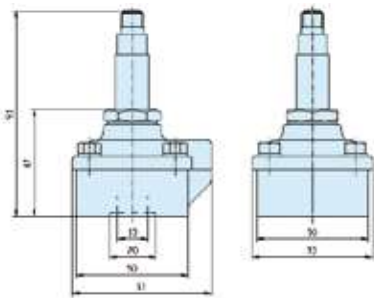


Dimensions Reference N° 3

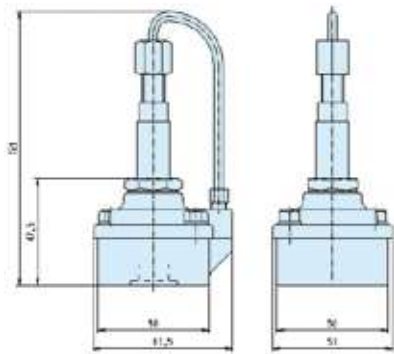


A	B	C	D	E
G3/4"	80	32	53	17.5
G1/2"	75	27	53	13.5

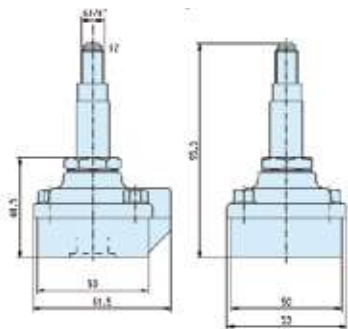
Dimensions Reference N° 4



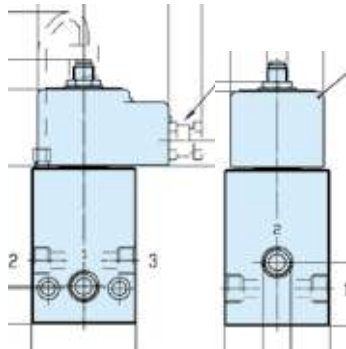
Dimensions Reference N° 5



Dimensions Reference N° 6



Dimensions Reference N° 7



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:**

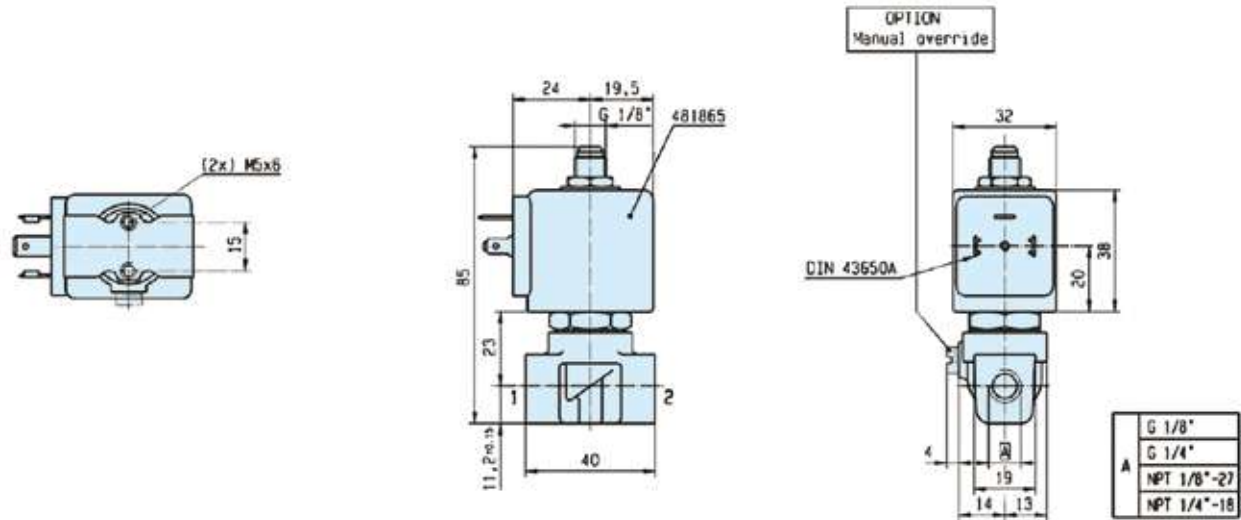
 - Min: -10°C | Max: see table
- Seals Material:**

 - 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
			Min.	Max.			Valve	Housing	Coil	
G	mm	l/min			C°					
3-Way Solenoid Valve - Direct Acting - Normally Closed										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.

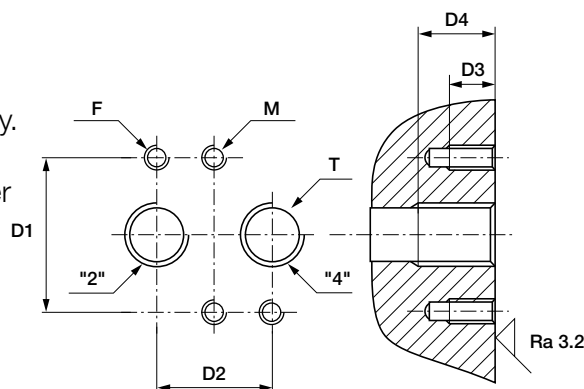
Valves for Pneumatic Actuator Control

NAMUR Interfaces 1/4" & 1/2"

NAMUR + piped versions in safe or dangerous areas.

The interface design conforms 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

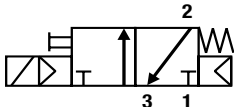
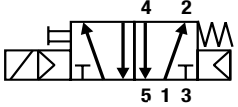
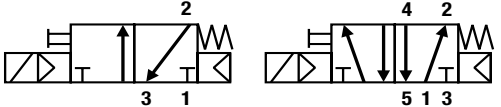
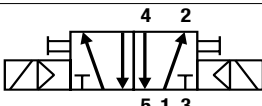
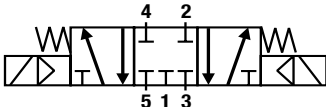
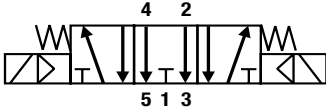
- High flow: 1.250 l/min (1/4"), 3.000 l/min (1/2")
- Compact design
- Long life expectancy
- N3x & P3x Series compatible with any Parker Lucifer coil (ATEX or not) of electrical group 2 (8/9 W coils)
- Fail safe standard
- Reduced inventory (3/2 & 5/2 functions with the same valve on 341Nx5 series)
- 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. B0x 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:	-20°C to +50°C
Electrical part:	N0x / P0x / Bxx Series are compatible with 22 mm coil 496131 / 496482 / 496637 size N3x / P3x Series are compatible with 32/37/40 mm coils part of electrical group 2 (8/9W), including 481865 / 495870 / 495905 Series / N3x90 Series are compatible with coils from electrical group 6,7,8 including coil 495900,495910,483580.
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.

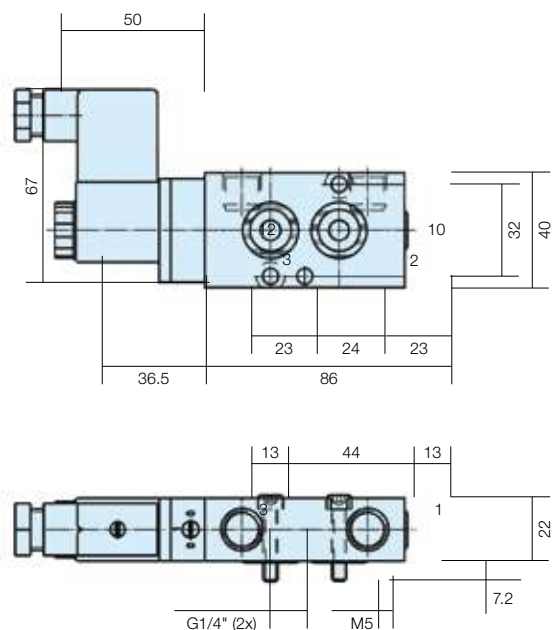
NAMUR Valves G1/4" Series

Solenoid Operated Versions N03-N05 Series with 22 mm Coil

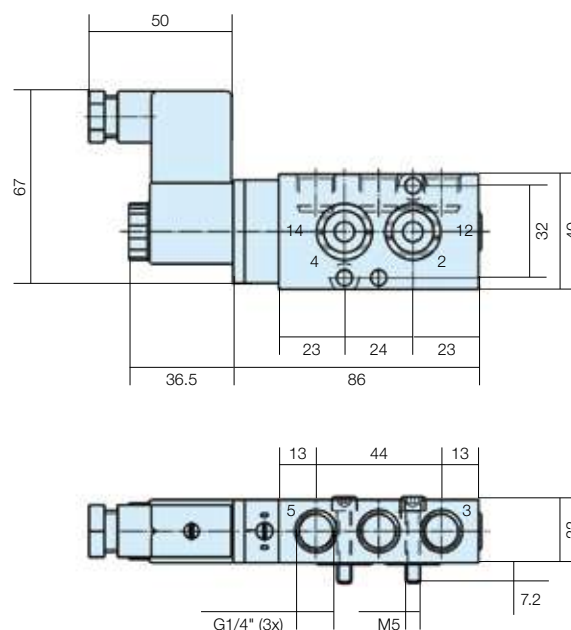
Port size	Orifice	Q _N	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.	DC=	AC~	min. = 0°C		Valve	Housing	Coil	DC	AC		
G	mm	l/min	min			Air & Neutral gases								
3/2 Solenoid 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
1/4	7	1250	2.5	10	10	50	NBR	341N0502*	-	496131	3	3	310	3
1/4	7	1250	2.5	10	10	50	NBR	341N0502*	-	496482	3	3	310	3
1/4	7	1250	2.5	10	10	50	NBR	341N0502*	-	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

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

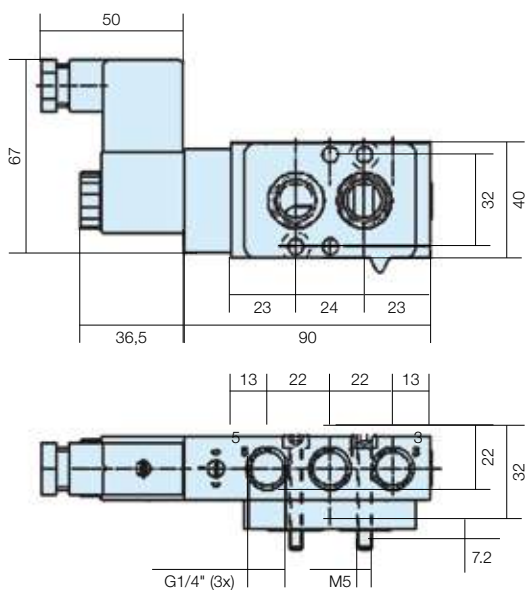
Dimensions Reference 1



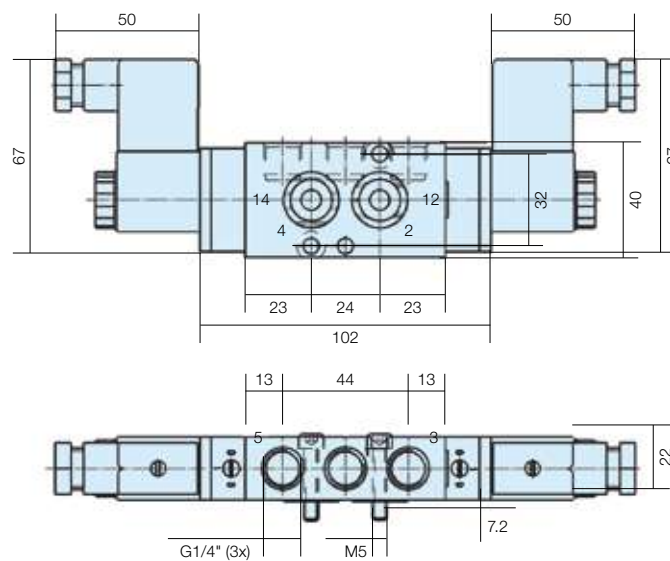
Dimensions Reference 2



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)			Maximum admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Group	Dim. Ref.
			min	DC=	AC~			Valve	Housing	Coil	DC	AC			
G	mm	l/min				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	-
1/4	7	1250	2.5	10	10	50	NBR	341N3502*	2995	481865	9	8	480	2	5
1/4	7	1250	2.5	10	10	50	NBR	341N3502*	2995	495870	9	8	700	2	-
1/4	7	1250	2.5	10	10	50	NBR	341N3502*	-	495905	8	8	740	2	-
1/4	7	1250	2.5	10	10	50	NBR	341N3590*	-	483580	0.5-3	-	560	7	5
1/4	7	1250	2.5	10	10	50	NBR	341N3590*	-	495910	0.3-3	-	920	8	-
1/4	7	1250	2.5	10	10	50	NBR	341N3590*	-	495900	2	2,5	920	6	-

* Valves without manual override

5/2 Solenoid operated and return

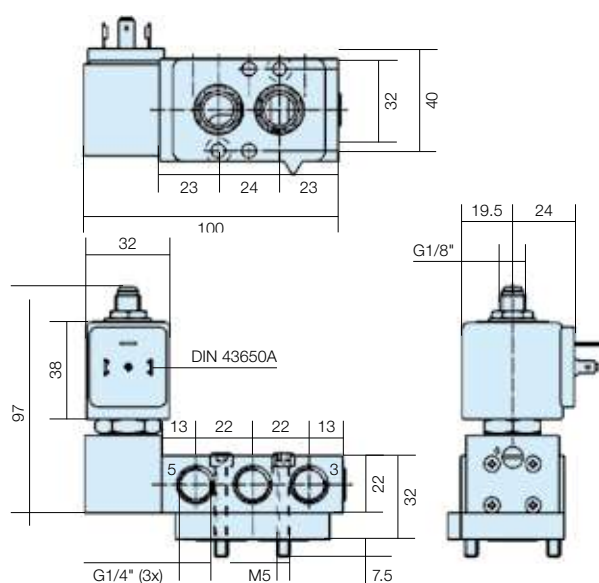
1/4	7	1250	2.5	10	10	50	NBR	347N33	2995	481865	9	8	750	2	6
1/4	7	1250	2.5	10	10	50	NBR	347N33	2995	495870	9	8	1190	2	-
1/4	7	1250	2.5	10	10	50	NBR	347N33	-	495905	8	8	1270	2	-
1/4	7	1250	2.5	10	10	50	NBR	347N3390*	-	483580	0.5-3	-	700	7	6
1/4	7	1250	2.5	10	10	50	NBR	347N3390*	-	495910	0.3-3	-	1420	8	-
1/4	7	1250	2.5	10	10	50	NBR	347N3390*	-	495900	2	2,5	1420	6	-

* Valves without manual override

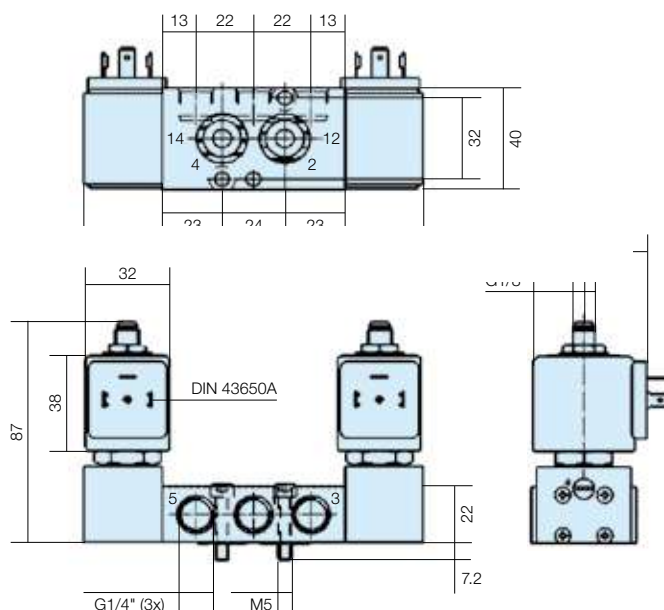
5/3 W1 Closed in center position Solenoid operated and return

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

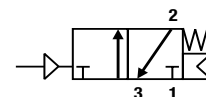


NAMUR Valves G1/4" Series

External Pressure Air Operated Series 5xx N03 Series

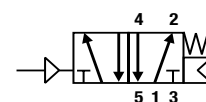
Port size	Orifice	Q _N	Admissible differential pressure (bar)		Maximum admissible fluid temperature (°C)		Seat disc	Reference number		Consumption Power (Watt)		Weight (g)	Elect. Group	Dim. Ref.
G	mm	l/min	min	DC= AC~	min	max	Air & Neutral gases	Valve	Housing	Coil	DC	AC		

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



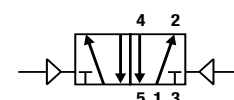
1/4	7	1250	2.5	10	10	50	NBR	531N03	-	w/o	-	-	210	-	7
-----	---	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---	---

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



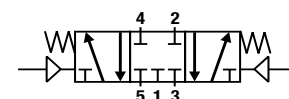
1/4	7	1250	2.5	10	10	50	NBR	541N03	-	w/o	-	-	210	-	8
-----	---	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---	---

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



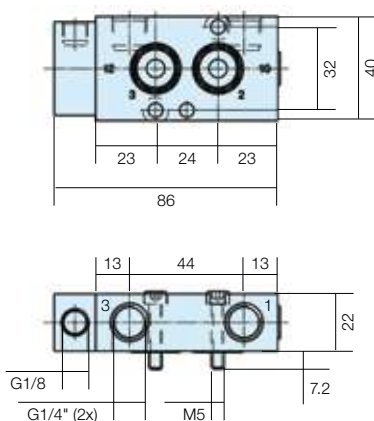
1/4	7	1250	2.5	10	10	50	NBR	547N03	-	w/o	-	-	240	-	9
-----	---	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---	---

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

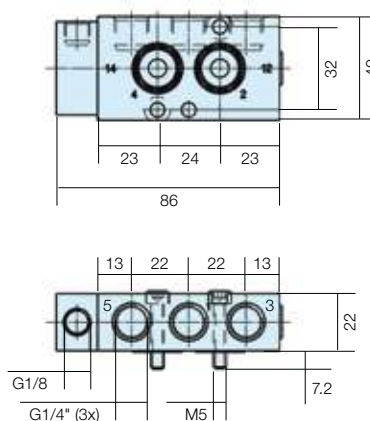


1/4	7	1250	2.5	10	10	50	NBR	542N03	-	w/o	-	-	240	-	9
-----	---	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---	---

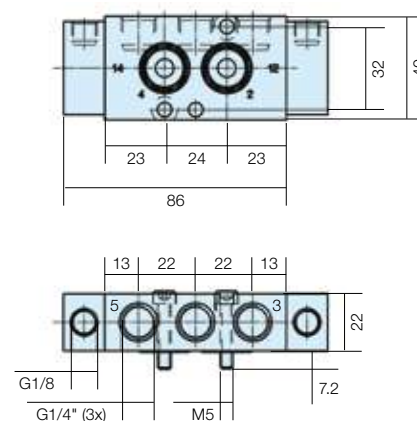
Dimensions Reference 7



Dimensions Reference 8



Dimensions Reference 9

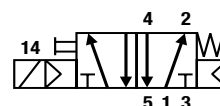


NAMUR Valves G1/2" Series

Solenoid Operated Versions N04 Versions with 22 mm Coil

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

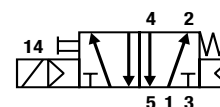
3/2 Solenoid operated Combined spring & air return (monostable)



1/2	12	3000	2.5	10	10	50	NBR	331N04	-	496131	3	3	910	-	10
1/2	12	3000	2.5	10	10	50	NBR	331N04	-	496482	3	3	925	-	10
1/2	12	3000	2.5	10	10	50	NBR	331N04	-	496637	3	3	925	-	10
1/2	12	3000	2.5	10	10	50	NBR	331N0402*	-	496131	3	3	910	-	10
1/2	12	3000	2.5	10	10	50	NBR	331N0402*	-	496482	3	3	925	-	10
1/2	12	3000	2.5	10	10	50	NBR	331N0402*	-	496637	3	3	925	-	10

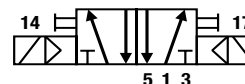
* Valves without manual override

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



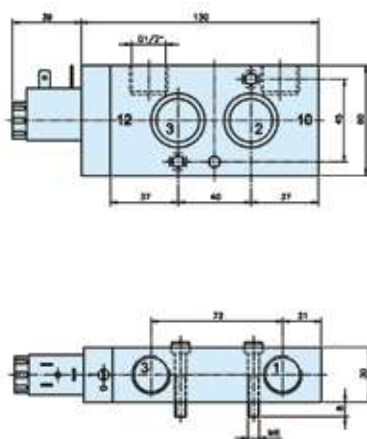
1/2	12	3000	2.5	10	10	50	NBR	341N04	-	496131	3	3	910	-	11
1/2	12	3000	2.5	10	10	50	NBR	341N04	-	496482	3	3	925	-	11
1/2	12	3000	2.5	10	10	50	NBR	341N04	-	496637	3	3	925	-	11

5/2 Solenoid operated and return (bistable)

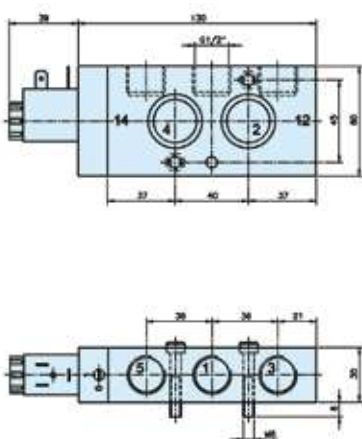


1/2	12	3000	2.5	10	10	50	NBR	347N04	-	496131	3	3	1240	-	12
1/2	12	3000	2.5	10	10	50	NBR	347N04	-	496482	3	3	1255	-	12
1/2	12	3000	2.5	10	10	50	NBR	347N04	-	496637	3	3	1255	-	12

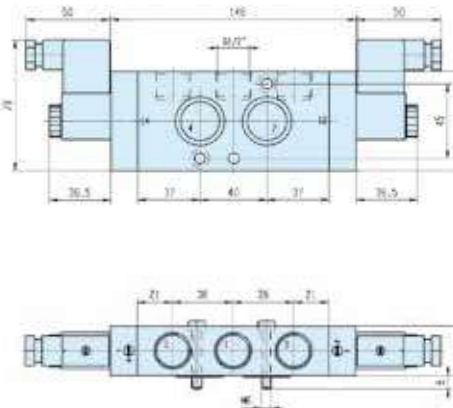
Dimensions Reference 10



Dimensions Reference 11



Dimensions Reference 12



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

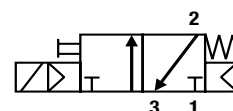
NAMUR Valves G1/2" Series

Solenoid Operated Versions

N34 Series with 32 / 37 / 40 mm Coil

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

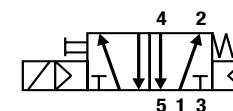
3/2 Solenoid operated Combined spring & air return (monostable)



1/2	12	3000	2.5	10	10	50	NBR	331N34	2995	481865	9	8	810	2	13
1/2	12	3000	2.5	10	10	50	NBR	331N34	2995	495870	9	8	830	2	-
1/2	12	3000	2.5	10	10	50	NBR	331N34	-	495905	8	8	1150	2	-
1/2	12	3000	2.5	10	10	50	NBR	331N3402*	2995	481865	9	8	810	2	13
1/2	12	3000	2.5	10	10	50	NBR	331N3402*	2995	495870	9	8	830	2	-
1/2	12	3000	2.5	10	10	50	NBR	331N3402*	-	495905	8	8	1150	2	-

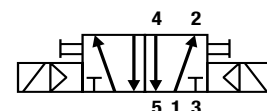
* Valves without manual override

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



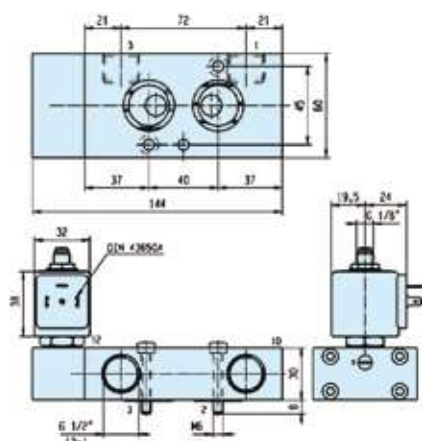
1/2	12	3000	2.5	10	10	50	NBR	341N34	2995	481865	9	8	800	2	14
1/2	12	3000	2.5	10	10	50	NBR	341N34	2995	495870	9	8	820	2	-
1/2	12	3000	2.5	10	10	50	NBR	341N34	-	495905	8	8	1140	2	-

5/2 Solenoid operated and return (bistable)

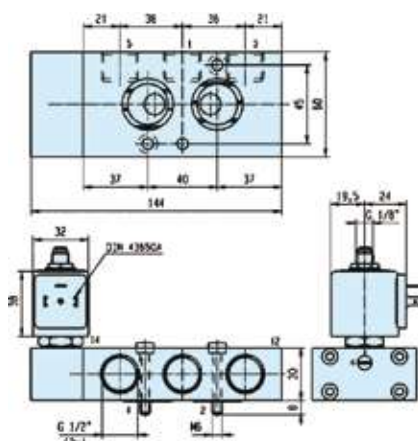


1/2	12	3000	2.5	10	10	50	NBR	347N34	2995	481865	9	8	960	2	15
1/2	12	3000	2.5	10	10	50	NBR	347N34	2995	495870	9	8	1000	2	-
1/2	12	3000	2.5	10	10	50	NBR	347N34	-	495905	8	8	1640	2	-

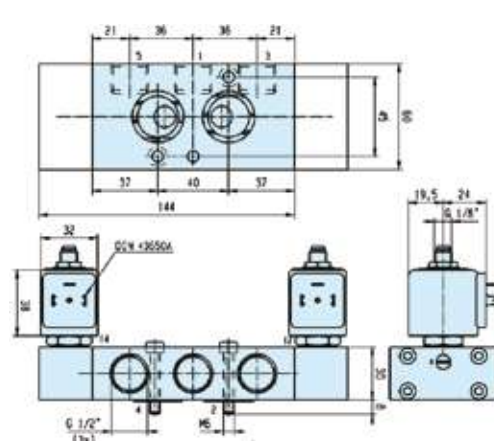
Dimensions Reference 13



Dimensions Reference 14



Dimensions Reference 15



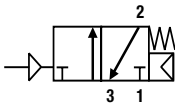
Please consult the "How to Order" part at the end of each coil chapter.

NAMUR Valves G1/2" Series

External Pressure Air Operated Series
5 xx N04 Series

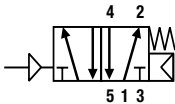
Port size	Orifice	Q _N	Admissible differential pressure (bar)		Maximum admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Group	Dim. Ref.
G	mm	l/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC			

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



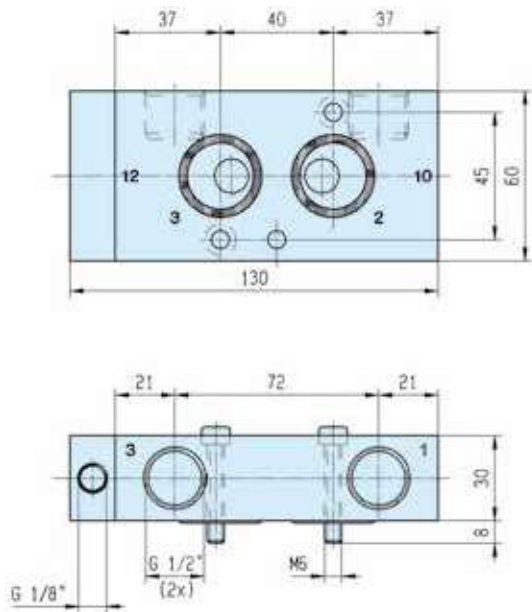
1/2	12	3000	2.5	10	10	50	NBR	531N04	-	w/o	-	-	620	-	16
-----	----	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---	----

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

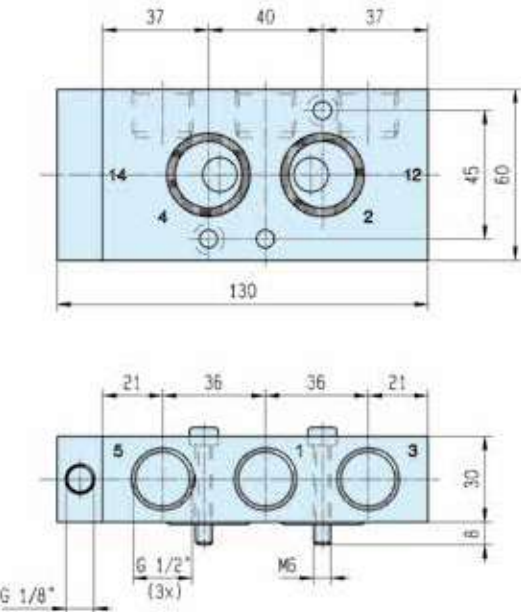


1/2	12	3000	2.5	10	10	50	NBR	541N04	-	w/o	-	-	600	-	17
-----	----	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---	----

Dimensions Reference 16



Dimensions Reference 17



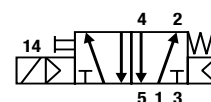
Please consult the "How to Order" part at the end of each coil chapter.

Piped Valves - G1/4" Series

Solenoid Operated Versions P03 Versions with 22 mm Coil

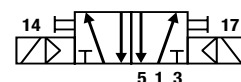
Port size	Orifice	Q _N	Admissible differential pressure (bar)			Maximum admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Group	Dim. Ref.
G	mm	l/min	min	DC=	AC~	Air & Neutral gases			Valve	Housing	Coil	DC	AC			

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



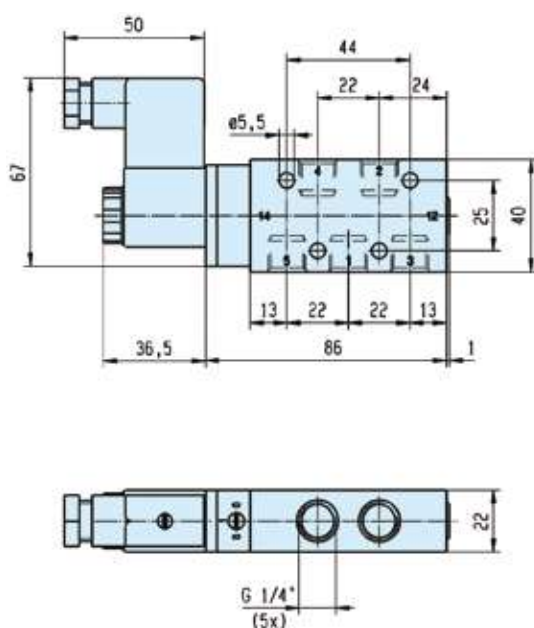
1/4	7	1250	2.5	10	10	50	NBR	341P03	-	496131	3	3	250	-	18
1/4	7	1250	2.5	10	10	50	NBR	341P03	-	496482	3	3	250	-	18
1/4	7	1250	2.5	10	10	50	NBR	341P03	-	496637	3	3	250	-	18

5/2 Solenoid operated and return (bistable)

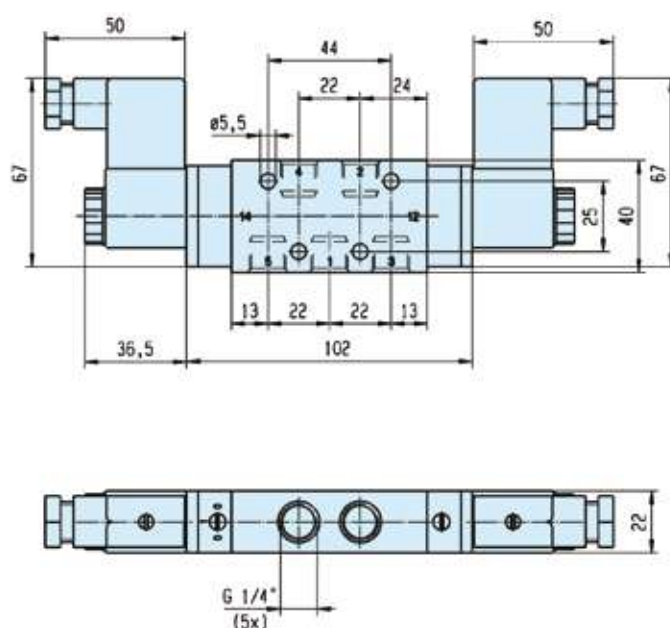


1/4	7	1250	2.5	10	10	50	NBR	347P03	-	496131	3	3	350	-	19
1/4	7	1250	2.5	10	10	50	NBR	347P03	-	496482	3	3	350	-	19
1/4	7	1250	2.5	10	10	50	NBR	347P03	-	496637	3	3	350	-	19

Dimensions Reference 18



Dimensions Reference 19



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

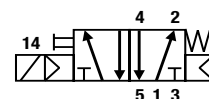
Piped Valves - G1/4" Series

Solenoid Operated Versions

P33 Versions with 32-37-40 mm Coil

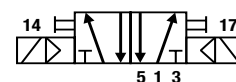
Port size	Orifice	Q _N	Admissible differential pressure (bar)			Maximum admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Group	Dim. Ref.
			maximum			minimum = 0°C									
G	mm	l/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC			

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



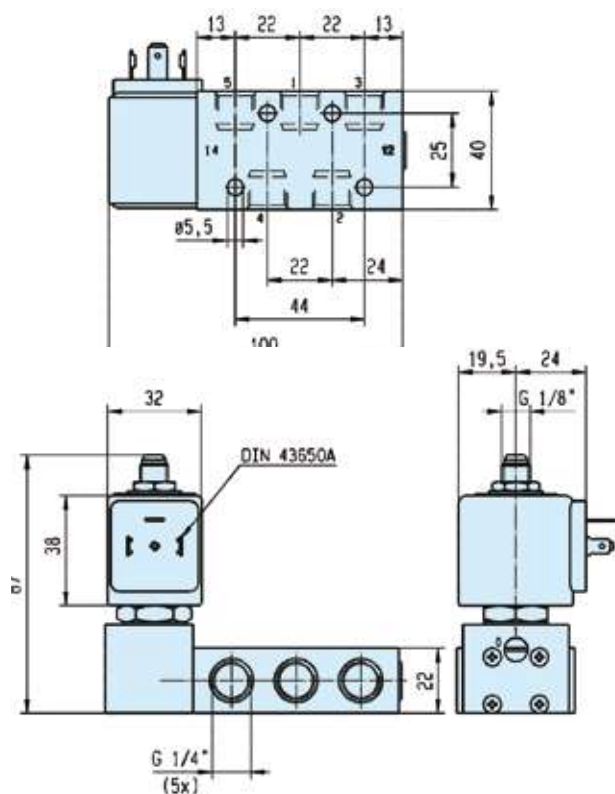
1/4	7	1250	2.5	10	10	50	NBR	341P33	2995	481865	9	8	470	2	20
1/4	7	1250	2.5	10	10	50	NBR	341P33	2995	495870	9	8	490	2	-
1/4	7	1250	2.5	10	10	50	NBR	341P33	-	495905	8	8	810	2	-

5/2 Solenoid operated and return (bistable)

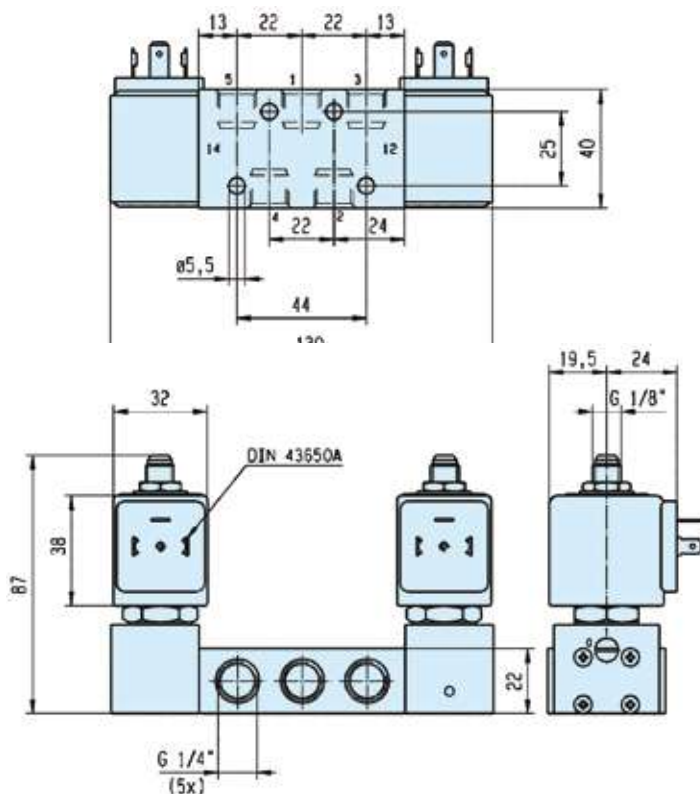


1/4	7	1250	2.5	10	10	50	NBR	347P33	2995	481865	9	8	620	2	21
1/4	7	1250	2.5	10	10	50	NBR	347P33	2995	495870	9	8	640	2	-
1/4	7	1250	2.5	10	10	50	NBR	347P33	-	495905	8	8	960	2	-

Dimensions Reference 20



Dimensions Reference 21

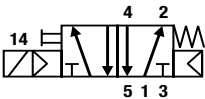


Piped Valves - G1/2" Series

Solenoid Operated Versions
P04 Versions with 22 mm Coil

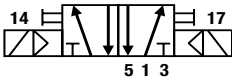
Port size	Orifice	Q _N	Admissible differential pressure (bar)			Maximum admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Group	Dim. Ref.
G	mm	l/min	min	DC=	AC~	Air & Neutral gases			Valve	Housing	Coil	DC	AC			

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



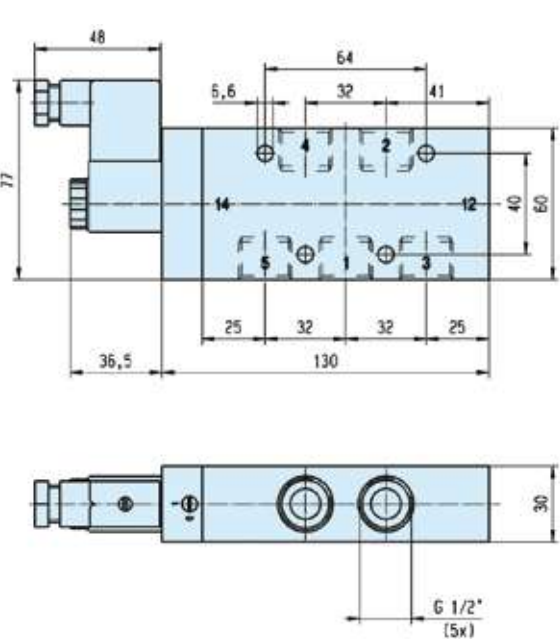
1/2	12	3000	2.5	10	10	50	NBR	341P04	-	496131	3	3	670	-	22
1/2	12	3000	2.5	10	10	50	NBR	341P04	-	496482	3	3	670	-	22
1/2	12	3000	2.5	10	10	50	NBR	341P04	-	496637	3	3	670	-	22

5/2 Solenoid operated and return (bistable)

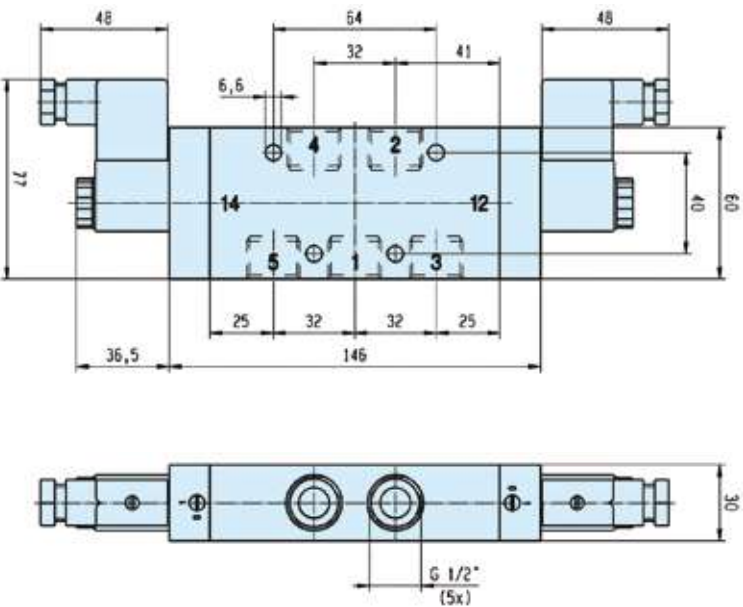


1/2	12	3000	2.5	10	10	50	NBR	347P04	-	496131	3	3	840	-	23
1/2	12	3000	2.5	10	10	50	NBR	347P04	-	496482	3	3	840	-	23
1/2	12	3000	2.5	10	10	50	NBR	347P04	-	496637	3	3	840	-	23

Dimensions Reference 22



Dimensions Reference 23



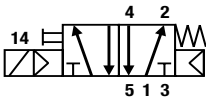
Please consult the "How to Order" part at the end of each coil chapter.

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) maximum			Maximum admissible fluid temperature (°C) minimum = 0°C		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Group	Dim. Ref.
G	mm	l/min	min	DC=	AC~	Air & Neutral gases			Valve	Housing	Coil	DC	AC			

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



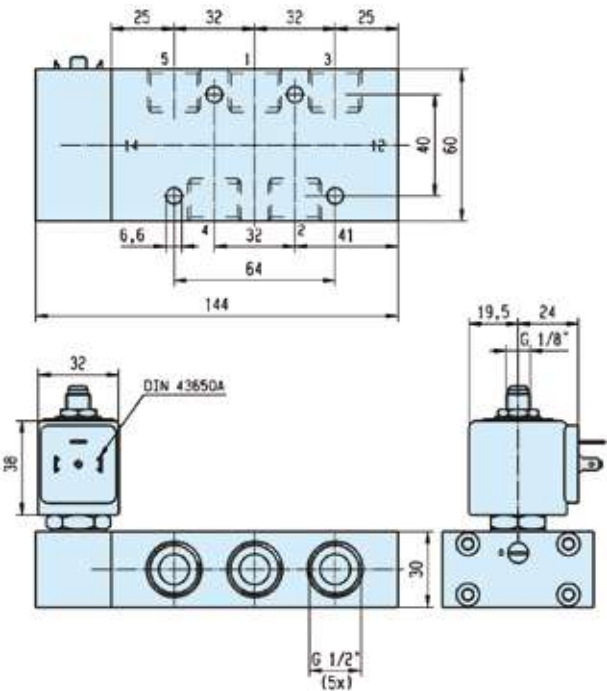
1/2	12	3000	2.5	10	10	50		NBR	341P34	2995	481865	9	8	900	2	24
1/2	12	3000	2.5	10	10	50		NBR	341P34	2995	495870	9	8	920	2	-
1/2	12	3000	2.5	10	10	50		NBR	341P34	-	495905	8	8	1240	2	-

5/2 Solenoid operated and return (bistable)

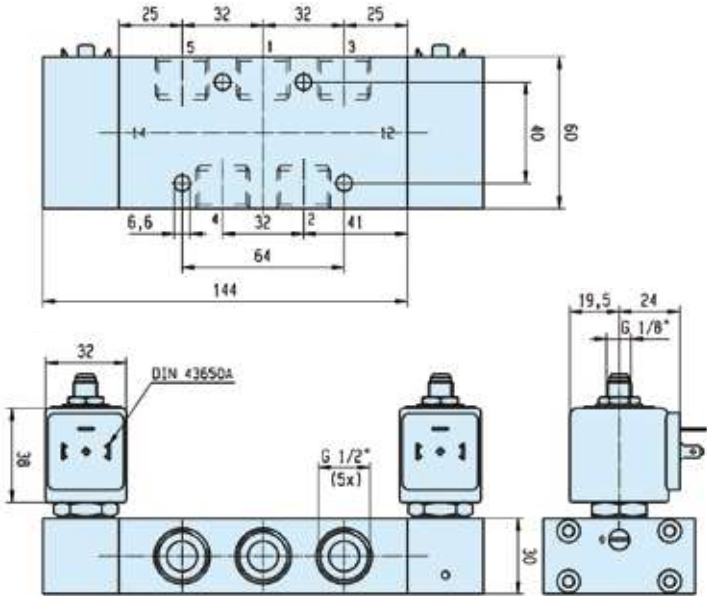


1/2	12	3000	2.5	10	10	50		NBR	347P34	2995	481865	9	8	1240	2	25
1/2	12	3000	2.5	10	10	50		NBR	347P34	2995	495870	9	8	1280	2	-
1/2	12	3000	2.5	10	10	50		NBR	347P34	-	495905	8	8	2080	2	-

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

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

These coils can be mounted with every Parker solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages. This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc. Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

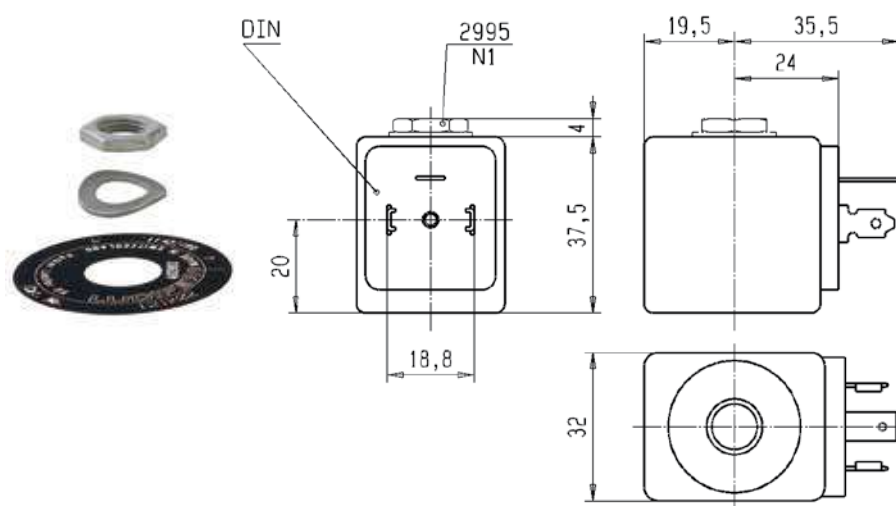
Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.



Specification			Standard			Double frequency		
Ref. (without DIN plug) Ref. (with DIN plug)			481865 482725			483510 482635		
Coil Group			2.0 / 2.1					
Degree of protection			IP65 according to IEC / EN 60529 standards (with DIN plug).					
Class of insulation			F 155°C					
Electrical connection			The coil is connected with a 2 P + E plug according to EN 175301-803 type A					
Ambient temperature			-40°C to +50°C - The application is limited also by the temperature range of the valve.					
Elect. Power	DC	Pn (hot)	9 W			-		
		P (cold) 20°C	12 W			-		
	AC	Pn (holding)	8 W			9 W		
		Attraction cold	26 VA (9 W)			32 VA (10 W)		
Weight			130 g (without plug)					
Voltages "Un"			VAC/Hz	Code	VDC	Code	VAC/Hz	Code
-10% to +10% of the Un			24/50	A2	24	C2	24/50, 24/60	P0
			48/50	A4	48	C4	48/50, 48/60	S4
			110/50	A5	110	C5	110-115/50, 120/60	S5
			220-230/50	3D			220-240/50, 240/60	S6

These coils must be used with suitable housings, see example below:

The coil assembly kit **Ref. 2995** corresponds to the "housing" of Lucifer® valve numbering system (Valve - housing - coiler - voltage). It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 32 mm coil and the valve.



How to Order

To Order a Coil choose Coil Ref + Voltage Code

Example: **481865** for 24VDC = **481865C2**

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

To Order a Valve + Coil Combination:

Example: **341N35-2995-481865C2**

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

ATEX Zone 2-22

REF. 495870

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

Application: Control of solenoid valves in dangerous areas where explosion-proof protection Ex nc AC IIC T3 to T6 is required.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc. Coils conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive.

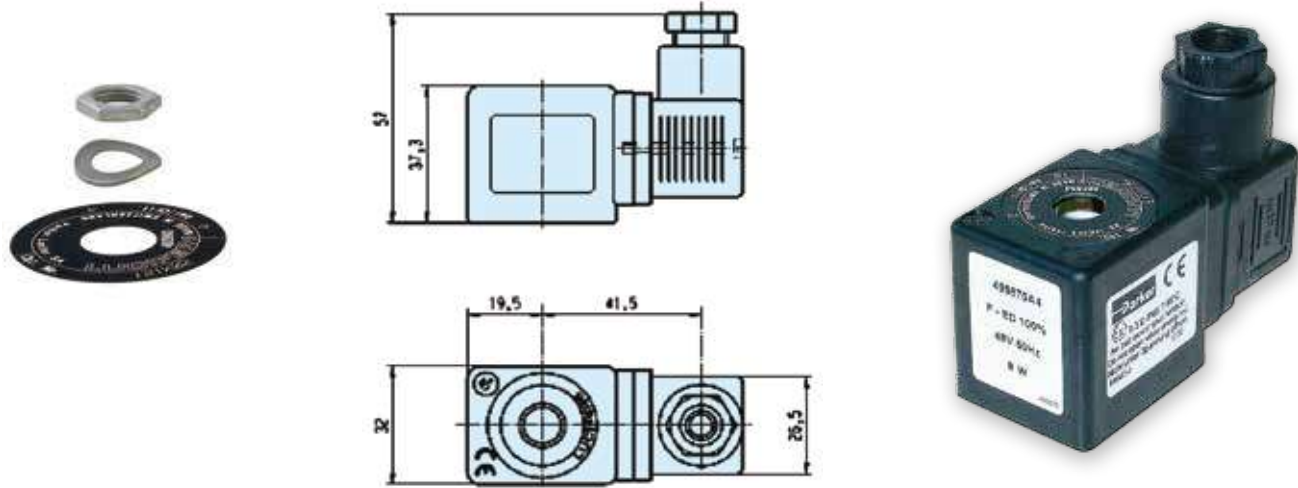
Small size for ease of mounting in confined spaces.



Reference			495870				496110	
Certificate			LCIE 05 ATEX 6003 X					
Coil Group			2.0 / 2.1					
Type of protection		Gas	II 3 G - Ex nc AC IIC T3 / T4			II 3 G - Ex nc AC IIC T3 / T4		
		Dust	II 3 D - Ex tc IIIC - T195°C / T130°C			II 3 D - Ex tc IIIC - T195°C / T130°C		
Degree of protection			IP65 (with plug) according to IEC/EN 60529					
Insulation Class			F (155°C)					
Duty cycle			100%					
Ambiant temperature			-40°C to +50°C The application is limited also by the temperature range of the valve.					
Elect. Power	DC	Pn (hot)	9 W			-		
		P (cold) 20°C	12 W			-		
	AC	Pn (holding)	8 W			9 W		
		Attraction cold	26 VA (9 W)			32 VA (10 W)		
Weight			150 g					
Voltages "Un"			VAC/Hz	Code	VDC	Code	VAC/Hz	Code
-10% to +10% of the Un			24/50	A2	24	C2	24/50-60	P0
			48/50	A4	48	C4	48/50-60	S4
			110/50	A5	110	C5	110/50-60	S5
			220-230/50	3D			220/50-60	S6

These coils must be used with suitable housings, see example below:

The coil assembly kit **Ref. 2995** corresponds to the "housing" of Lucifer® valve numbering system (Valve - housing - coil - voltage). It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 32 mm coil and the valve.



How to Order

To Order a Coil choose Coil Ref + Voltage Code

Example: 495870 for 24VDC = 495870C2

To Order a Valve + Coil Combination:

Example: 341N35-2995-495870C2

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

ATEX Zone 1-21

Ref. 495905

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

Application: Control of solenoid valves in dangerous areas where explosion-proof protection Ex db mb IIC T4 is required.

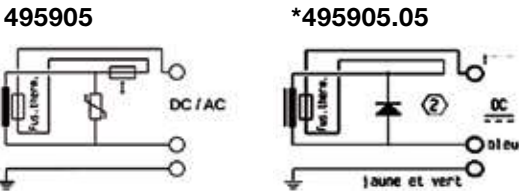
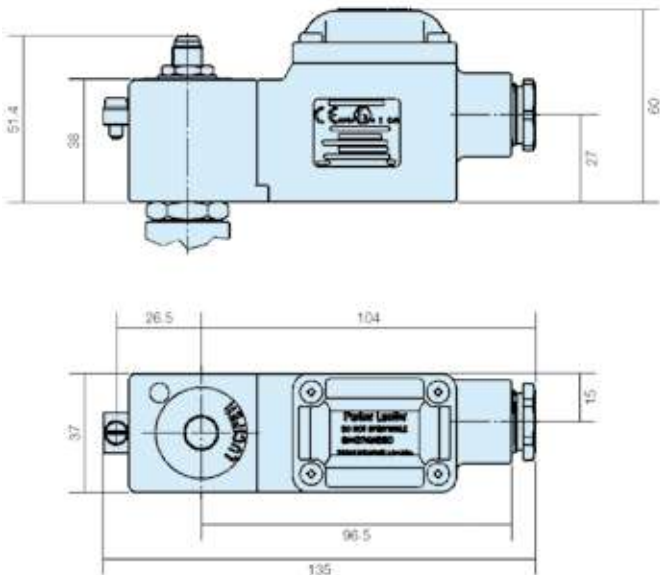
Benefits: Rotatable 360° fibreglass-reinforced plastic housing (class H). Solenoid coil, rectifier (silicium diodes), fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection.

The plastic housing is delivered with M20 x 1.5 cable gland certified for use "db" protection.

Small size for ease of mounting in confined space.



Reference			495905	495905.05		
Certificate			LCIE 03 ATEX 6451 X - IECEx LCI 06.0004 X			
Coil Group			2.0 / 2.1			
Type of protection		Gas	II 2 G - Ex db mb IIC T4			
		Dust	II 2 D - Ex tb IIIC - 130°C			
Degree of protection			IP67			
Ambient temperature			-40°C to +65°C The application is limited also by the temperature range of the valve.			
Class of insulation			H (180 °)			
Electrical connection			Electric connection is done in the connection box on an easily accessible connector terminals. The introduction of the cable (Ø min 5 mm, Ømax. 11 mm, section max. 2.5 mm²) in the connection box passes by the built in M20 x 1.5 cable gland.			
Elect. Power	DC	Pn (hot)	8 W			
		P (cold) 20°C	9 W			
	AC	Pn (holding)	8 W			
		Attraction cold	9 W			
Voltages "Un"			VAC/Hz	Code	VDC	Code
-10% to +10% of Un for AC - 10 % to + 10 % for Un DC.			24/50	A2	24	C2
			48/50	A4	48	C4
			115/50	E5	110	C5
			230/50	F4		



How to Order

To Order a Coil choose Coil Ref + Voltage Code

Example: 495905 for 24VDC = 495905C2

To Order a Valve + Coil Combination:

Example: 341N35-495905C2

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



G1/8 - 4/3 Way Flat Slide Valves
Series DRS

Actuation System:

- Rotary lever
- Rotary switch



Operating information

System	Flat slide valve without automatic return to neutral position		
Mounting	2 Screws M4		
Tube connection	Thread		
Port size	Port P, A, B: G1/8 Port R: M5		
Weight (mass)	0.500 kg		
Installation	In any position		
Ambient temperature range	-10 °C to +55 °C	Note: Please consult us for operating temperatures below 0° C	
Medium temperature range	-10 °C to +60 °C		
Medium	Filtered compressed air		
Lubrication	Oil mist lubrication compatible with Buna N		

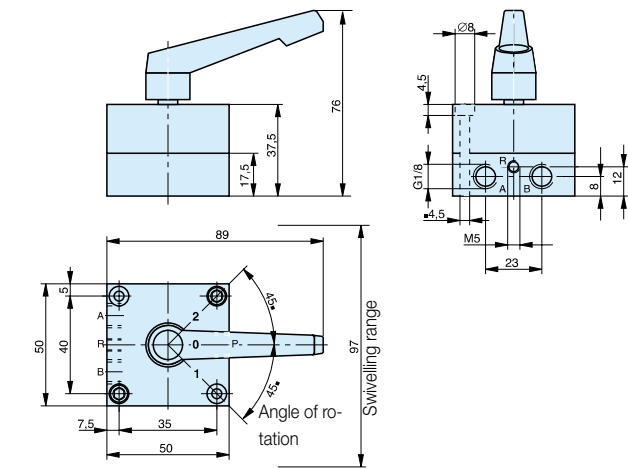
Pneumatic Characteristics

Nominal pressure	6 bar
Operating pressure range	0 – 10 bar
Nominal flow	350 l/min

Actuation

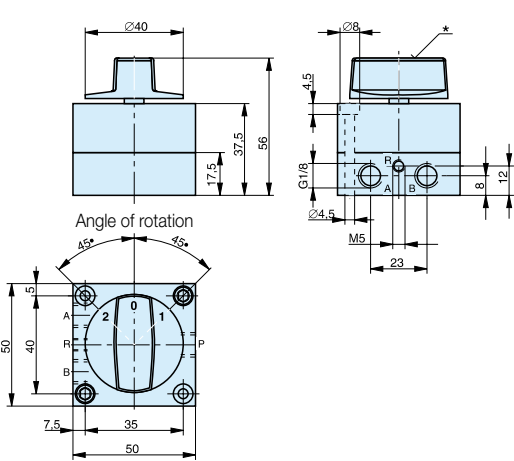
Manual control	Direct
Actuation force	ca. 6 N

Rotary Lever – Type: DRS 412 .-1/8



Port identification:
A = 4 Outlet
B = 2 Outlet
R = 5 Exhaust
P = 1 Pressure supply

Rotary Switch – Type: DRS 417 .-1/8



* After removing the cover and loosening the mounting screws, the rotary switch is infinitely variable.

Order Instructions – 4/3 Way Flat Slide Valves, Series DRS

Actuation	Symbol	Order Instructions	
		Type	Order code
Rotary lever Middle position pressurized		DRS 412 B-1/8	PA 10267
Rotary lever Middle position vented		DRS 412 E-1/8	PA 10266
Rotary lever Middle position closed		DRS 412G-1/8	PA 10268
Rotary switch Middle position pressurized		DRS 417 B-1/8	PA 10264
Rotary switch Middle position vented		DRS 417 E-1/8	PA 10263
Rotary switch Middle position closed		DRS 417 G-1/8	PA 10265

G1/4 - 3/2 and 5/2 Way Valves
Pedal Actuated - Series F

Actuation System:

- Pedal

Connections for
3/2 way version:

Version

„Normally closed“: P, B, S

„Normally open“: P, A, R

* Only for version “both switch positions indexed”
– return is only effected after actuating the locking pedal.

Mounting Instruction:

Use only screw connections with max. wrench size
across flats of 15.

Connection designation:

- A = 4 Outlet
B = 2 Outlet
R = 5 Exhaust
P = 1 Air supply
S = 3 Exhaust



Operating information

Type	Poppet Valve
Mounting	4 Screws M8 ⁽¹⁾
Tube connection	Thread
Port size	G1/4
Weight (mass)	1.5 kg
Installation	In any position
Ambient temperature range ⁽³⁾	-10 °C to +55 °C
Medium temperature range ⁽³⁾	-10 °C to +60 °C
Medium	Filtered and oiled or filtered, unoiled compressed air
Lubrication ⁽²⁾	Oil mist lubrication compatible with Buna N

Pneumatic Characteristics

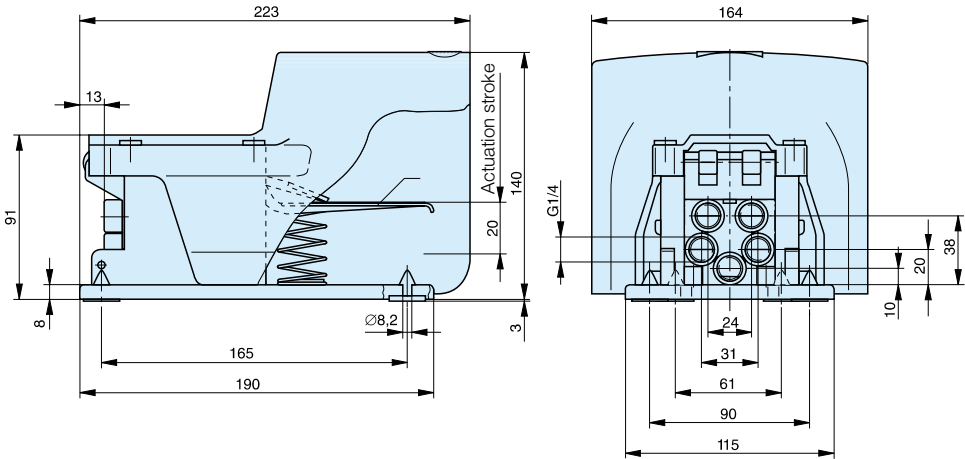
Nominal pressure	6 bar
Operating pressure range	0 – 10 bar
Nominal flow	1400 l/min
Actuation	
Manual control	Direct
Stroke	2 mm
Actuation force	ca. 30 N

⁽¹⁾ After removing the rubber footing

⁽²⁾ We recommend the use of mineral oil type VG 32 to ISO 3448

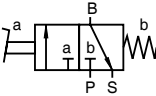
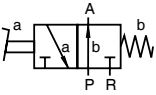
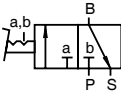
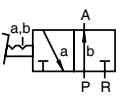
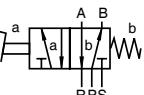
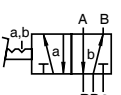
⁽³⁾ Note: Please consult us for operating temperatures below 0° C

Pedal actuated – Type: F331..-08.., F531..-08



Dimensions in mm

Order Instructions – 3/2 and 5/2 Way Valves

Actuation	Symbol	Order Instructions	
		Type	Order code
Pedal with spring return		F 331RF-08NG*	KZ 4410
		F 331RF-08NO*	KZ 4411
Pedal without reset		F 331-08NG*	KZ 4408
		F 331-08NO*	KZ 4409
Pedal with spring return		F 531RF-08	KZ 4413
Pedal both switch positions indexed		F 531-08	KZ 4412

* NC – Version normally closed
NO – Version normally open

G1/2 to G2 - 2/2-Way Stop Valves
Series ARKV

Actuation System:

- Pneumatic

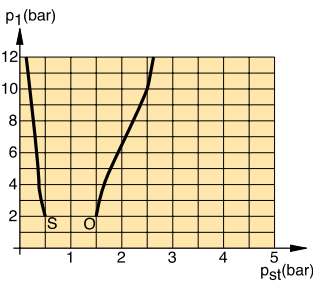


Operating information

Description	2/2 Way Valve	Medium	Compressed air, neutral gases, presswater (for low flow- und valve closingspeed only)
Type	Poppet valve normally closed		
Mounting	Direct in piping	Actuating medium	filtered compressed air
Tube connection	Thread	Pneumatic characteristics	
Port size	G1/2 G3/4 G1 G1 1/2 G2	Nominal pressure	6.3 bar
Weight (mass) Kg	0.745 1.115 1.365 2.695 4.290	Operating pressure range	0 – 10 bar
Installation	In any position	Nominal flow (l/min)	2200 5000 6900 22000 40000
Ambient temperature range	-20 °C to +80 °C	Actuation	
Medium temperature range	0 °C to +80 °C	Pneumatic	Direct

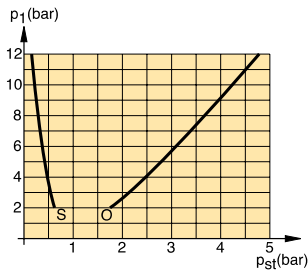
Note:
Please consult us for operating temperatures below 0 °C

Actuating Pressure
– Type: ARKV-15



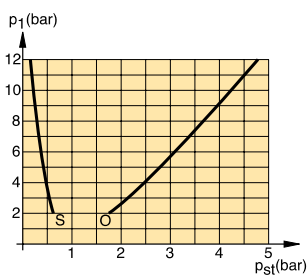
O = $p_{st \min}$ to open
S = $p_{st \max}$ to close

Actuating Pressure
– Type: ARKV-20



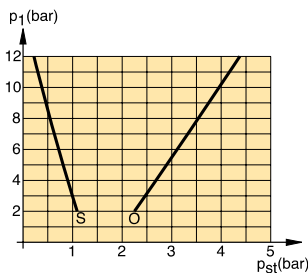
O = $p_{st \min}$ to open
S = $p_{st \max}$ to close

Actuating Pressure
– Type: ARKV-25



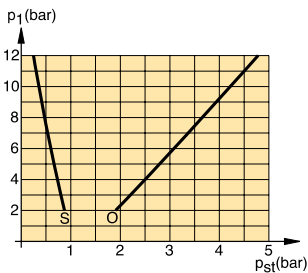
O = $p_{st \min}$ to open
S = $p_{st \max}$ to close

Actuating Pressure
– Type: ARKV-40



O = $p_{st \min}$ to open
S = $p_{st \max}$ to close

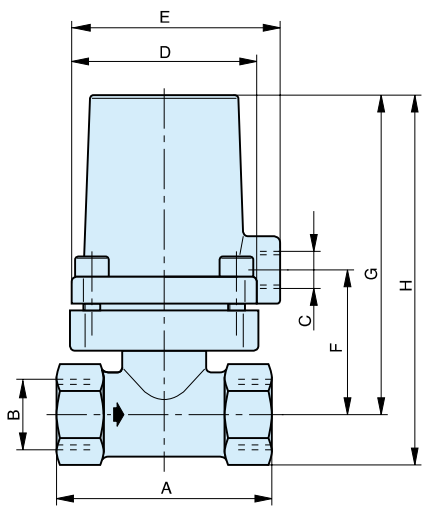
Actuating Pressure
– Type: ARKV-50



O = $p_{st \min}$ to open
S = $p_{st \max}$ to close

Dimensions in mm

Pneumatically actuated – Type: ARKV-..



Dimensions

Type	A	B	C	D	E	F	G	H
ARKV-15 NC	65	G1/2	G1/8	55	61	41.5	95	109.5
ARKV-20 NC	76	G3/4	G1/4	65	75	50	112	129
ARKV-25 NC	91	G1	G1/4	65	75	57	119	139
ARKV-40 NC	123	G1 1/2	G1/4	110	112	67	137	167.5
ARKV-50 NC	150	G2	G1/4	130	134	75	153	190

Order Instructions

Actuation System	Symbol	Order data	
		Type	Order code
Pneumatic		ARKV-15 NC	PD 07334
		ARKV-20 NC	PD 07580
		ARKV-25 NC	PD 07581
		ARKV-40 NC	PD 07757
		ARKV-50 NC	PD 07765

G1/8 - 3/2-Way Valves - Series K9

Actuation:

- Rotary lever, indexed
- Rotary lever, spring return
- Rotary lever, indexed, secured in two positions
- Pushbutton
- Cam operation
- Toggle cam operation
- Plunger operated
- Cam operated, free cam left or free cam right
- Pivoted lever
- Pedal
- Actuators for panel mounting



Operating information

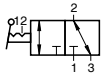
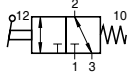
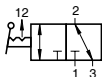
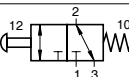
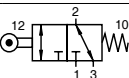
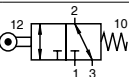
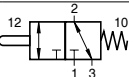
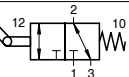
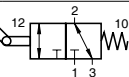
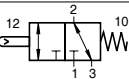
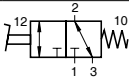
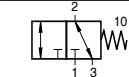
System	Poppet Valve	Pneumatic Characteristics	
Mounting	2 Screws M4		
Tube connection	Thread	Nominal pressure	6 bar
Port size	G1/8	Operating pressure range	0 – 10 bar
Installation	In any position	Nominal flow	220 l/min
Ambient temperature range	-10 °C to +55 °C	Flow direction	1 → 2 normally closed 3 → 2 normally open
Medium temperature range	+5 °C* to +60 °C	Actuation	Manual, mechanical and pedal actuated
	Note: Please consult us for operating temperatures below 0° C	Actuation	
Medium	Filtered and lubricated or filtered and unlubricated air	Stroke	1.5 – 3 mm
Lubrication	None or oil mist lubrication	* -10°C when using dry compressed air	

Actuation Forces, Rotation Angles and Weight

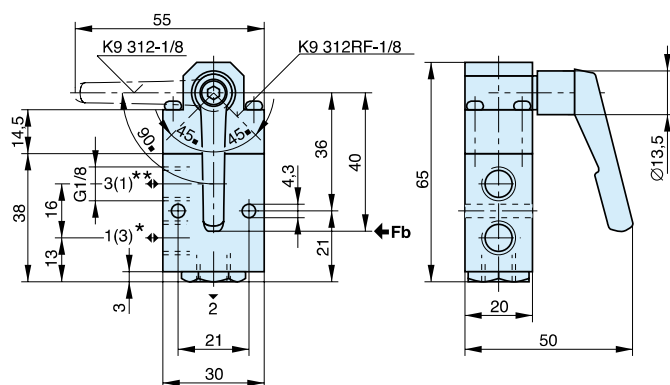
Description	Type	Actuation force (N)	Rotation angle	Weight mass (kg)
Rotary lever, indexed	K9 312-1/8	4.5	±45°, 90°	0.110
Rotary lever, spring return	K9 312RF-1/8	4.5	±45°, 90°	0.110
Rotary lever, indexed secured in both positions	K9 312S-1/8	4.5	±45°, 90°	0.110
Pushbutton	K9 314RF-1/8	25	–	0.075
Cam operation	K9 321RF-1/8	11	–	0.070
Toggle cam operation	K9 324RF-1/8	5	±40°	0.120
Plunger operated	K9 323RF-1/8	32	–	0.050
Cam operated free cam left	K9 325RF-1/8	5	±40°	0.120
Cam operated free cam right	K9 326RF-1/8	5	±40°	0.120
Pivoted lever	K9 329RF-1/8	2*	±40°	0.115
Pedal	K9 331RF-1/8	12	–	0.800
Basic valve for panel mounting actuators	K9 390RF-1/8	35	–	0.060

* at a distance of 100 mm from fulcrum

Order Instructions – 3/2 Way Poppet Valves, Series K9

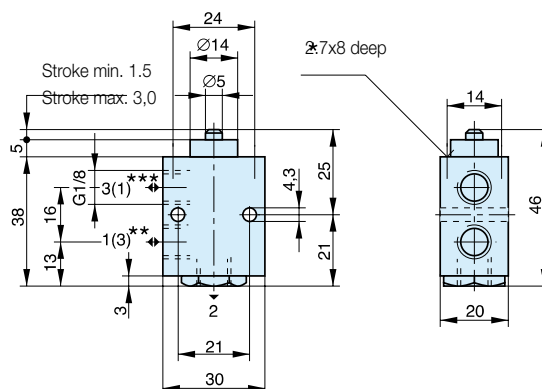
Actuation	Symbol	Mounting Ø (mm)	Order Instructions Type	Order code
Rotary lever, indexed			K9 312-1/8	PA 10269
Rotary lever, spring return			K9 312RF-1/8	PA 10270
Rotary lever, indexed secured in both positions			K9 312S-1/8	PA 10349
Pushbutton			K9 314RF-1/8	PA 10271
Cam operation			K9 321RF-1/8	PA 10272
Toggle cam operation			K9 324RF-1/8	PA 10273
Plunger operated			K9 323RF-1/8	PA 10235
Cam operated free cam left			K9 325RF-1/8	PA 10274
Cam operated free cam right			K9 326RF-1/8	PA 10275
Pivoted lever			K9 329RF-1/8	PA 10276
Pedal			K9 331RF-1/8	PA 10277
Panel mounting valve with adaptor for interchangeable actuation			K9 390RF-1/8	PA 10278
Rotary lever, indexed		22 30	12T-22 12T-30	KX 9355 KX 9314
Rotary lever, spring return		22 30	12T-RF-22 12T-RF-30	KX 9356 KX 9315
Pushbutton		22 30	13T-RF-22 13T-RF-30	KX 9357 KX 9316
Mushroom pushbutton		22 30	15T-RF-22 15T-RF-30	KX 9358 KX 9317
Locking switch		22 30	16T-22 16T-30	KX 9359 KX 9318
Rotary switch		22 30	17T-22 17T-30	KX 9360 KX 9319
Mushroom switch Emergency Shutdown		22 30	18T-22 18T-30	KX 9361 KX 9320

Rotary Lever – Type: K9 312..-1/8



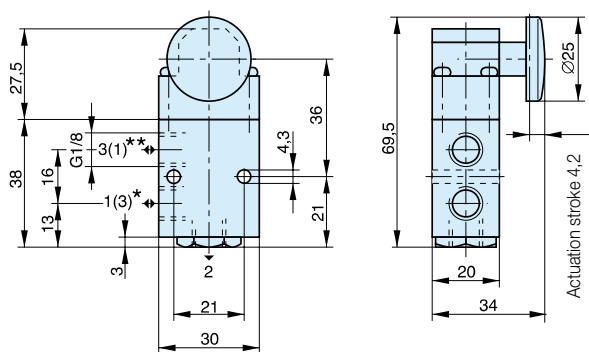
- * = P when used as “normally closed”
 ** = P when used as “normally open”

Plunger Operated – Type: K9 323RF-1/8



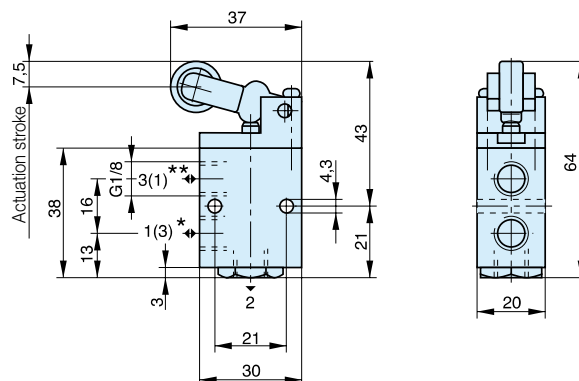
- * Self tapping screws CM 3x.. DIN 7500 to be used
 ** = P when used as “normally closed”
 *** = P when used as “normally open”

Pushbutton – Type: K9 314RF-1/8



- * = P when used as “normally closed”
 ** = P when used as “normally open”

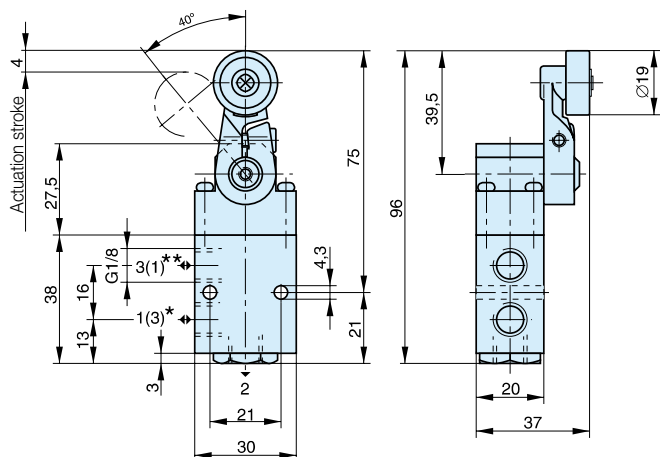
Cam operation– Type: K9 321RF-1/8



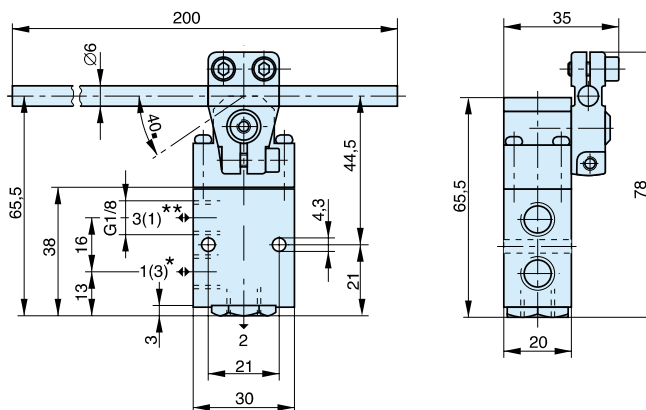
- * = P when used as “normally closed”
 ** = P when used as “normally open”

Toggle Cam Operation – Type: K9 324RF-1/8

Pivoted Lever – Type: K9 329RF-1/8



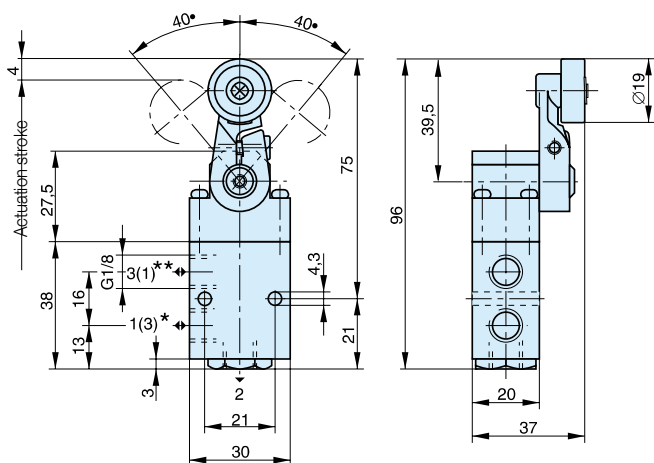
* = P when used as "normally closed"
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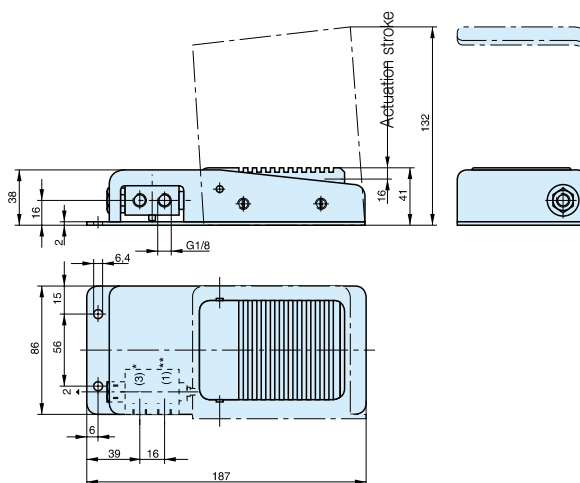
* = P when used as "normally closed"
 ** = P when used as "normally open"

Cam Operated free cam left / right
Type: K9 325RF-1/8, K9 326RF-1/8

Pedal – Type: K9 331RF-1/8

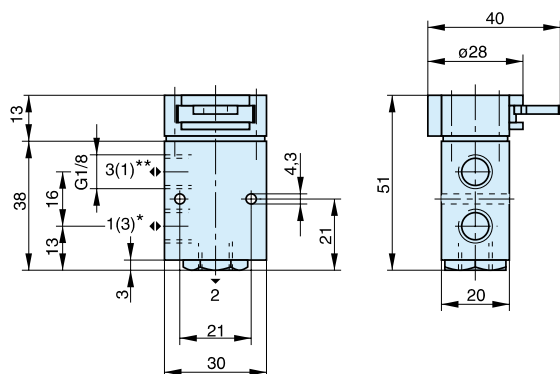


* = P when used as "normally closed"
 ** = P when used as "normally open"



* = P when used as "normally closed"
 ** = P when used as "normally open"

Basic Valve with adaptor for panel mounting Type: K9 390RF-1/8



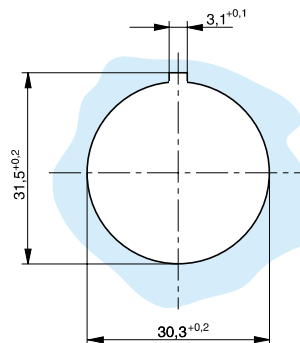
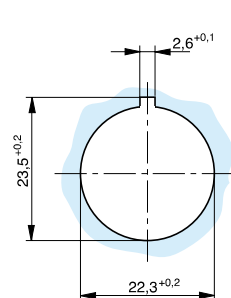
* = P when used as "normally closed"

** = P when used as "normally open"

Mounting holes for mounting diameters 22 and 30 mm

Mounting diameter Ø22 mm

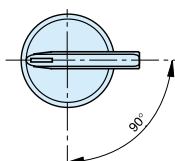
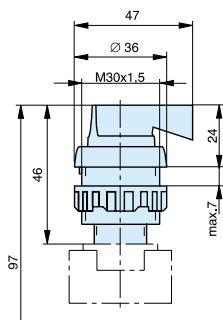
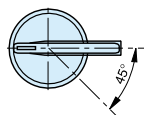
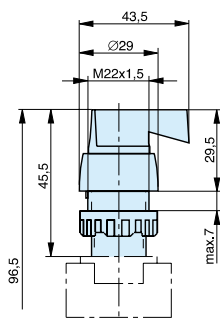
Mounting diameter Ø30 mm



Rotary Lever, indexed – Type: 12T-22, 12T-30

Mounting diameter Ø22 mm

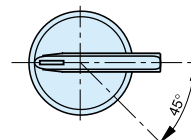
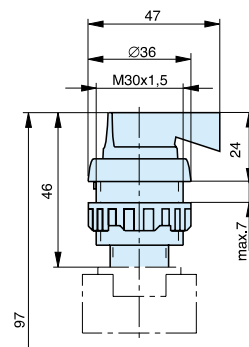
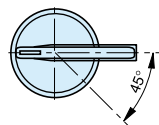
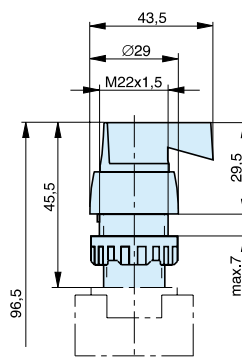
Mounting diameter Ø30 mm



Rotary Lever with spring return Type: 12T-RF-22, 12T-RF-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

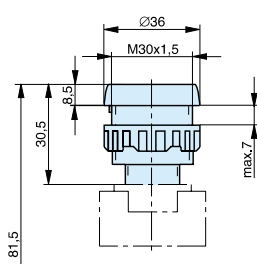
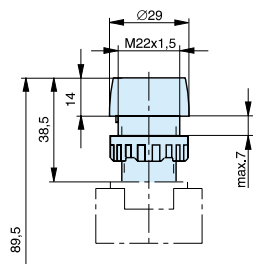


Pushbutton

Type: 13T-RF-22, 13T-RF-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

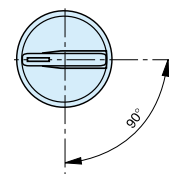
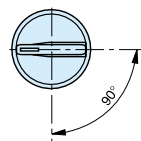
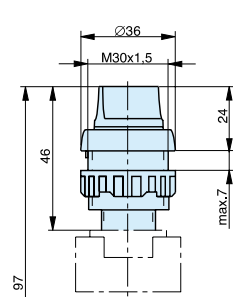
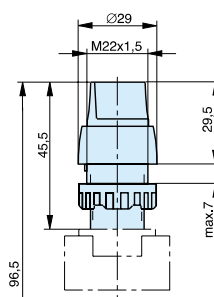


Rotary Switch

Type: 17T-22, 17T-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

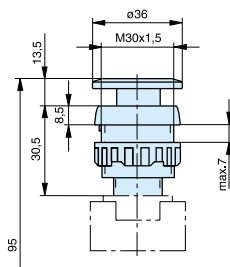
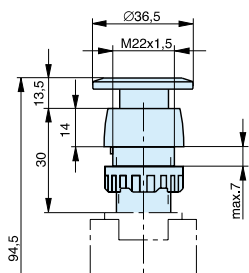


Mushroom Pushbutton

Type: 15T-RF-22, 15T-RF-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

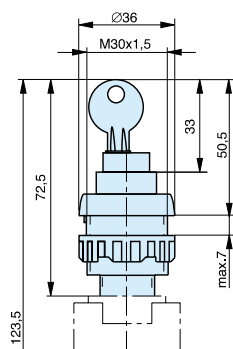
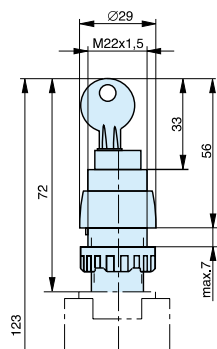


Locking Switch

Type: 16T-22, 16T-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

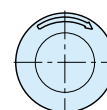
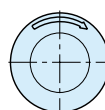
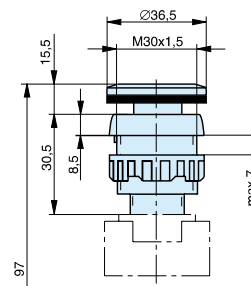
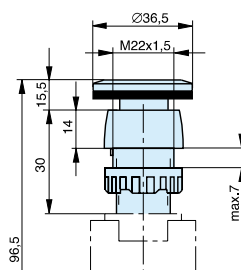


Mushroom Switch (Emergency Shutdown)

Type: 18T-22, 18T-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm



S9 Series Directional Control Valves

Actuation:

- Hand lever
- Pneumatic
- Electrical pilot operated
- Electrical pilot operated with external pilot air
- Panel mounting actuators for mounting diameter to DIN 43696

Versions:

- Normally closed
- Normally open
- With external pilot air
- With biased position
- Version to ATEX Standard

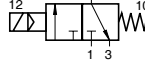
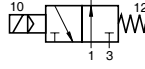
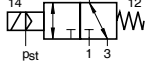
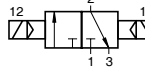
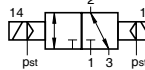
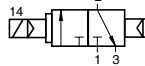
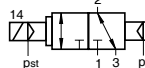


Note: The “normally open” valve S9 381S-RF-1/8 cannot be used on a P-supply manifold.

3/2 Way Valves – Standard versions

Actuation System	Symbol	Mounting Ø (mm)	Order Instructions Type	Order No.
Hand lever, indexed			S9 311-1/8	PA 10293
			S9 311-1/4	PA 12708
			S9 311-1/2	PA 16404
Hand lever, spring return			S9 311RF-1/8	PA 10294
			S9 311RF-1/4	PA 12709
			S9 311RF-1/2	PA 16405
Hand lever secured in 2 switching positions			S9 311S-1/4	PA 12710
			S9 311S-1/2	PA 16406
Rotary lever, indexed			S9 312-1/4	PA 12711
			S9 312-1/2	PA 16407
Rotary lever, spring return			S9 312RF-1/4	PA 12712
			S9 312RF-1/2	PA 16408
Pneumatic, by permanent signal			S9 361RF-1/8	PA 10295
			S9 361RF-1/4	PA 12713
			S9 361RF-1/2	PA 16409
Pneumatic, by impulse			S9 361-1/8	PA 10296
			S9 361-1/4	PA 12714
			S9 361-1/2	PA 16410
Pneumatic, by impulse, with biased position			S9 362-1/4	PA 12715
			S9 362-1/2	PA 16411
Basic valve for panel mounting			S9 390RF-1/8	PA 10307

3/2 Way Valves – Standard versions

Actuation System	Symbol	Mounting Ø (mm)	Order Instructions Type	Order No.
Rotary lever, indexed		22	12T-22	KX 9355
		30	12T-30	KX 9314
Rotary lever, spring return		22	12T-RF-22	KX 9356
		30	12T-RF-30	KX 9315
Pushbutton		22	13T-RF-22	KX 9357
		30	13T-RF-30	KX 9316
Mushroom pushbutton		22	15T-RF-22	KX 9358
		30	15T-RF-30	KX 9317
Locking switch		22	16T-22	KX 9359
		30	16T-30	KX 9318
Rotary switch		22	17T-22	KX 9360
		30	17T-30	KX 9319
Mushroom pushbutton emergency-Off		22	18T-22	KX 9361
		30	18T-30	KX 9320
Electrical by permanent signal			S9 381RF-1/8-NC-..	PA 10297-..33
			S9 381RF-1/4-NC-..	PA 12716-..33
			S9 381RF-1/2-NC-..	PA 16412-..33
			S9 381RF-1/8-NO-..	PA 10298-..33
			S9 381RF-1/4-NO-..	PA 12717-..33
			S9 381RF-1/2-NO-..	PA 16413-..33
with external pilot air			S9 381S-RF-1/8-..	PA 10300-..33
			S9 381S-RF-1/4-..	PA 12719-..33
			S9 381S-RF-1/2-..	PA 16415-..33
Electrical by impulse			S9 381-1/8-..	PA 10299-..33
			S9 381-1/4-..	PA 12718-..33
			S9 381-1/2-..	PA 16414-..33
Electrical, by impulse, with external pilot air			S9 381S-1/8-..	PA 10301-..33
			S9 381S-1/4-..	PA 12720-..33
			S9 381S-1/2-..	PA 16417-..33
Electrical by impulse, with biased position			S9 382-1/4-..	PA 12721-..33
			S9 382-1/2-..	PA 16418-..33
with external pilot air			S9 382S-1/4-..	PA 12722-..33
			S9 382S-1/2-..	PA 16419-..33
				
Solenoid version	Nominal voltage	Applicable for	Key code	ATEX Type additon
Standard version	230V 50/60Hz	110 V =	61	–
	24V =	60V 50/60Hz	02	–
Low wattage version	24V =		13	–
	230V 50/60Hz		69	–

EX Area versions to ATEX Standard

Category, type of ignition protection

Single valve: Ⓢ II 2G c T4 T135°C -10°C≤Ta≤+60°C

Solenoid/individual use: Ⓢ II 2G EEx m II T5 -20°C≤Ta≤+50°C

Solenoid/manifold mounting: Ⓢ II 2G EEx m II T5 -20°C≤Ta≤+40°C

Solenoid version	Nominal voltage	Applicable for	Key code	ATEX Type additon
Solenoid	24V =		48	ATEX
– with cable 1.2 m				
– with cable 3 m	24V =		45	ATEX
– with cable 5 m	24V =		46	ATEX
– with cable 10 m	24V =		47	ATEX
– with cable 1.2 m	24V 50/60Hz		99	ATEX
– with cable 1.2 m	110V 50/60Hz		97	ATEX
– with cable 1.2 m	230V 50/60Hz		98	ATEX

Example for valves in ATEX-Version:

– for valves Series S9-G1/8, S9-G1/4, S9-G1/2

Please add behind the Standard Order No. "ATEX"

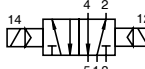
Type: S9 381RF-1/8-NC-4633

Order No. PA10297-4633ATEX

Order Instructions – 5/2 Way Valves – Standard versions

Actuation System	Symbol	Mounting Ø (mm)	Order Instructions Type	Order No.
Hand lever, indexed			S9 511-1/8	PA 10308
			S9 511-1/4	PA 12671
			S9 511-1/2	PA 16367
Hand lever, spring return			S9 511RF-1/8	PA 10309
			S9 511RF-1/4	PA 12672
			S9 511RF-1/2	PA 16366
Hand lever secured in 2 switching positions			S9 511S-1/8	PA 10368
			S9 511S-1/4	PA 12673
			S9 511S-1/2	PA 16368
Rotary lever, indexed			S9 512-1/4	PA 12674
			S9 512-1/2	PA 16378
Rotary lever, spring return			S9 512RF-1/4	PA 12675
			S9 512RF-1/2	PA 16379
Pneumatic, by permanent signal			S9 561RF-1/8	PA 10310
			S9 561RF-1/4	PA 12676
			S9 561RF-1/2	PA 16165
Pneumatic, by impulse			S9 561-1/8	PA 10311
			S9 561-1/4	PA 12677
			S9 561-1/2	PA 16166
Pneumatic, by impulse, with biased position			S9 562-1/4	PA 12678
			S9 562-1/2	PA 16167
Basic valve for panel mounting			S9 590RF-1/8	PA 10320
Rotary lever, indexed		22	12T-22	KX 9355
		30	12T-30	KX 9314
Rotary lever, spring return		22	12T-RF-22	KX 9356
		30	12T-RF-30	KX 9315
Pushbutton		22	13T-RF-22	KX 9357
		30	13T-RF-30	KX 9316
Mushroom pushbutton		22	15T-RF-22	KX 9358
		30	15T-RF-30	KX 9317
Locking switch		22	16T-22	KX 9359
		30	16T-30	KX 9318

Order Instructions - 5/2 Way Valves - Standard Versions

Actuation System	Symbol	Mounting Ø (mm)	Order Instructions Type	Order No.
Rotary switch		22	17T-22	KX 9360
		30	17T-30	KX 9319
Mushroom pushbutton Emergency-Off		22	18T-22	KX 9361
		30	18T-30	KX 9320
Electrical, by permanent signal			S9 581RF-1/8-..	PA 10312-..33
			S9 581RF-1/4-..	PA 12679-..33
			S9 581RF-1/2-..	PA 16171-..33
with external pilot air			S9 581S-RF-1/8-..	PA 10314-..33
			S9 581S-RF-1/4-..	PA 12681-..33
			S9 581S-RF-1/2-..	PA 16174-..33
Electrical, by impulse			S9 581-1/8-..	PA 10313-..33
			S9 581-1/4-..	PA 12680-..33
			S9 581-1/2-..	PA 16172-..33
with external pilot air			S9 581S-1/8-..	PA 10315-..33
			S9 581S-1/4-..	PA 12682-..33
			S9 581S-1/2-..	PA 16175-..33

Solenoid version	Nominal voltage	Applicable for	Key code	ATEX Type additon
Standard version	230V 50/60Hz	110 V =	61	–
	24V =	60V 50/60Hz	02	–
Low wattage version	24V =		13	–
	230V 50/60Hz		69	–

EX Area versions to ATEX Standard

Category, type of ignition protection

Single valve: Ⓢ II 2G c T4 T135°C -10°C ≤ Ta ≤ +60°C

Solenoid/individual use: Ⓢ II 2G EEx m II T5 -20°C ≤ Ta ≤ +50°C

Solenoid/manifold mounting: Ⓢ II 2G EEx m II T5 -20°C ≤ Ta ≤ +40°C

Solenoid version	Nominal voltage	Applicable for	Key code	ATEX Type additon
Solenoid	24V =		48	ATEX
– with cable 1.2 m				
– with cable 3 m	24V =		45	ATEX
– with cable 5 m	24V =		46	ATEX
– with cable 10 m	24V =		47	ATEX
– with cable 1.2 m	24V 50/60Hz		99	ATEX
– with cable 1.2 m	110V 50/60Hz		97	ATEX
– with cable 1.2 m	230V 50/60Hz		98	ATEX

Example for valves in ATEX-Version:

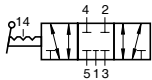
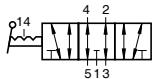
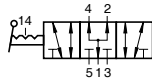
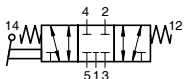
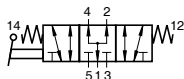
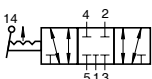
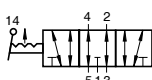
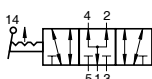
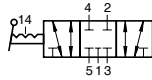
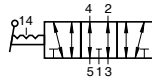
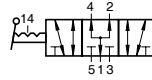
– for valves Series S9-G1/8, S9-G1/4, S9-G1/2

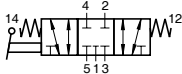
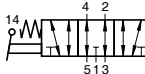
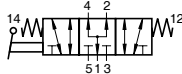
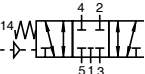
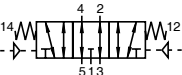
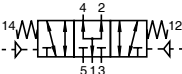
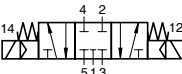
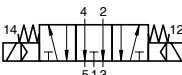
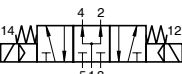
Please add behind the Standard Order No. "ATEX"

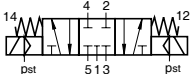
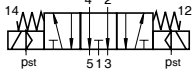
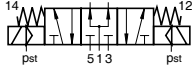
Type: S9 381RF-1/8-NC-4633

Order No. PA10297-4633ATEX

Order Instructions – 5/3 Way Valves – Standard versions

Actuation System	Symbol	Order Instructions Type	Order No.
Hand lever, secured in 3 operating positions		S9 511G-1/8	PA 10321
		S9 511G-1/4	PA 12687
		S9 511G-1/2	PA 16369
		S9 511E-1/8	PA 10322
		S9 511E-1/4	PA 12688
		S9 511E-1/2	PA 16370
		S9 511B-1/8	PA 10323
		S9 511B-1/4	PA 12689
		S9 511B-1/2	PA 16371
Hand lever, spring return to middle position		S9 511RFG-1/8	PA 10324
		S9 511RFG-1/4	PA 12690
		S9 511RFG-1/2	PA 16372
		S9 511RFE-1/8	PA 10325
		S9 511RFE-1/4	PA 12691
		S9 511RFE-1/2	PA 16373
		S9 511RFB-1/8	PA 10326
		S9 511RFB-1/4	PA 12692
		S9 511RFB-1/2	PA 16374
Hand lever, secured in 3 operating positions		S9 511SG-1/8	PA 10327
		S9 511SG-1/4	PA 12693
		S9 511SG-1/2	PA 16375
		S9 511SE-1/8	PA 10328
		S9 511SE-1/4	PA 12694
		S9 511SE-1/2	PA 16376
		S9 511SB-1/8	PA 10329
		S9 511SB-1/4	PA 12695
		S9 511SB-1/2	PA 16377
Rotary lever, indexed in 3 operating positions		S9 512G-1/4	PA 12696
		S9 512G-1/2	PA 16380
		S9 512E-1/4	PA 12697
		S9 512E-1/2	PA 16381
		S9 512B-1/4	PA 12698
		S9 512B-1/2	PA 16382

Actuation System	Symbol	Order Instructions Type	Order No.
Rotary lever, spring return to middle position		S9 512RFG-1/4	PA 12699
		S9 512RFG-1/2	PA 16383
		S9 512RFE-1/4	PA 12700
		S9 512RFE-1/2	PA 16384
		S9 512RFB-1/4	PA 12701
		S9 512RFB-1/2	PA 16385
Pneumatic, by permanent signal		S9 561RFG-1/8	PA 10330
		S9 561RFG-1/4	PA 12702
		S9 561RFG-1/2	PA 16168
		S9 561RFE-1/8	PA 10331
		S9 561RFE-1/4	PA 12703
		S9 561RFE-1/2	PA 16169
		S9 561RFB-1/8	PA 10332
		S9 561RFB-1/4	PA 12704
		S9 561RFB-1/2	PA 16170
Electrical by permanent signal		S9 581RFG-1/8-..	PA 10333-...33
		S9 581RFG-1/4-..	PA 12705-...33
		S9 581RFG-1/2-..	PA 16176-...33
		S9 581RFE-1/8-..	PA 10334-...33
		S9 581RFE-1/4-..	PA 12706-...33
		S9 581RFE-1/2-..	PA 16177-...33
		S9 581RFB-1/8-..	PA 10335-...33
		S9 581RFB-1/4-..	PA 12707-...33
		S9 581RFB-1/2-..	PA 16178-...33

Actuation System	Symbol	Order Instructions Type	Order No.
Electrical by permanent signal		S9 581S-RFG-1/8-.. S9 581S-RFG-1/4-..	PA 10377-..33 PA 12925-..33
spring return to middle position		S9 581S-RFE-1/8-.. S9 581S-RFE-1/4-..	PA 10379-..33 PA 12923-..33
with external pilot air		S9 581S-RFB-1/8-.. S9 581S-RFB-1/4-..	PA 10378-..33 PA 12924-..33

Solenoid version	Nominal voltage	Applicable for	Key code	ATEX Type additon
Standard version	230V 50/60Hz	110 V =	61	–
	24V =	60V 50/60Hz	02	–
Low wattage version	24V =		13	–
	230V 50/60Hz		69	–

Single valve: ☼ II 2G c T4 T135°C -10°C ≤ Ta ≤ +60°C

Solenoid/individual use: ☼ II 2G EEx m II T5 -20°C ≤ Ta ≤ +50°C

Solenoid/manifold mounting: ☼ II 2G EEx m II T5 -20°C ≤ Ta ≤ +40°C

Solenoid version	Nominal voltage	Applicable for	Key code	ATEX Type additon
Solenoid	24V =		48	ATEX
– with cable 1.2 m				
– with cable 3 m	24V =		45	ATEX
– with cable 5 m	24V =		46	ATEX
– with cable 10 m	24V =		47	ATEX
– with cable 1.2 m	24V 50/60Hz		99	ATEX
– with cable 1.2 m	110V 50/60Hz		97	ATEX
– with cable 1.2 m	230V 50/60Hz		98	ATEX

Example for valves in ATEX-Version:

– for valves Series S9-G1/8, S9-G1/4, S9-G1/2

Please add behind the Standard Order No. "ATEX"

Type: S9 381RF-1/8-NC-4633

Order No. PA10297-4633ATEX

3/2, 5/2 and 5/3 Directional Control Valves

Series S9-G1/8 / G1/4 / G1/2

Characteristics	Series S9 G1/8			Series S9 G1/4			Series S9 G1/2		
Actuation	Manual control	pneumatic	electrical	Manual control	pneumatic	electrical	Manual control	pneumatic	electrical
General Features									
Type	Spool valve			Spool valve			Spool valve		
Mounting	2 Screws M5			2 Screws M6			2 Screws M6		
Tube connection	Thread			Thread			Thread		
Thread	G1/8 – 7.4 deep			G1/4 – 11 deep			G1/2 – 16 deep		
Installation	In any position			In any position			In any position		
Ambient temperature range (°)	-10 °C to +60 °C *			-10 °C to +60 °C*			-10 °C to +60 °C*		
Medium temperature range (°)	-10 °C to +60 °C *			-10 °C to +60 °C*			-10 °C to +60 °C*		
Medium	Filtered compressed air								
Lubrication	With or without oil mist lubrication (We recommend the use of mineral oil type VG 32 to ISO 3448)								
Pneumatic Characteristics									
Nominal pressure (bar)	6			6			6		
Operating pressure range (bar)	0–10 (10)	–	–	0–10	–	–	0–10	–	–
– permanent signal version (bar)	–	0–10	2–10	–	0–10	2–10	–	0–10	2.2–10
– impulse version (bar)	–	0–10	2–10	–	0–10	2–10	–	0–10	2.2–10
– with external pilot air (bar)	–	–	0–10	–	–	0–10	–	–	0–10
Nominal flow	500 l/min (450 bei 3/2 Way Valve)			1300 l/min(7)			3500 l/min(8)		
Actuation									
Manual control	Direct			Direct			Direct		
Stroke	4.5 mm			6.5 mm			9.4 mm		
Actuation force (N)	7 (2) 10 (3)			10 (2) 15 (3)			15 (2) 40 (3)		
Pneumatic	Direct			Direct			Direct		
Actuation pressure range									
– permanent signal version (bar)	–	2–10	2–10	2–10	2–10	2–10	–	2.2–10(9)	2.2–10
– impulse version (bar)	–	1.5–10	1.5–10	1.5–10	1.5–10(4)	1.5–10(4)	–	1.5–10(5)	1.5–10(4)
Electrical	Electrical pilot operated						Electrical pilot operated		
Voltage type	Alternating current (50/60Hz)			Direct current			Alternating current (50/60Hz)		
Nominal voltage									
– Standard version	230 V ±10%			24 V ±10%			Other voltages on request		
– Low wattage version	230 V ±10%			24 V ±10%			230 V ±10%		
Initial power consumption	G1/8	G1/4	G1/2	G1/8	G1/4	G1/2	G1/8	G1/4	G1/2
– Standard version (VA)	8.5	8.5	11.0	2.5	2.5	4.8	8.5	8.5	11.0
– Low wattage version (VA)	6.6	6.6	7.8	2.1	2.1	2.7	6.6	6.6	7.8
Continuous consumption	G1/8	G1/4	G1/2	G1/8	G1/4	G1/2	G1/8	G1/4	G1/2
– Standard version (VA)	6.0	6.0	8.5	2.5	2.5	4.8	6.0	6.0	8.5
– Low wattage version (VA)	3.9	4.9	4.9	2.1	2.1	2.7	3.9	4.9	4.9
Duty cycle	100%			100%			100%		
Electrical protection	IP65 to DIN 40050 (applies only to solenoid with plug)								
Connection	Plug to DIN EN 175301-803 form B – industrial standard (6)								

* Valve Manifold Assemblies with electrically actuated valves -10 to +50°C

(1) Note: For use below freezing point please contact us

(2) Actuation force for valves without spring return, actuation with rotary lever: 5N

(3) Actuation force for valves with spring return, Actuation with rotary lever: 15N

(4) Only for version with biased position 2 – 10 bar, pneumatically actuated

2 – 10 bar, electrically actuated 2.5 – 10 bar

(5) Version with biased position 2.5 – 10 bar

(6) Low wattage version: Plug to DIN EN 175301-803 form A

(7) Version "middle position vented" 1000 l/min

(8) Version "middle position vented" 3300 l/min Version "middle position

pressured" 3600 l/min

(9) 5/3 Way Valve 2.5 – 10 bar

(10) Valves with panel mounting actuators 2 – 10 bar

3/2, 5/2 and 5/3 Way Valves for use in EX areas

Series S9-G1/8 / G1/4 / G1/2

Characteristics	Series S9 G1/8	Series S9 G1/4	Series S9 G1/2
Actuation	Manual Control pneumatic electrical	Manual Control pneumatic electrical	Manual Control pneumatic electrical
General Features			
Type	Spool valve	Spool valve	Spool valve
Mounting	2 screws M5	2 Screws M6	2 Screws M6
Tube connection	Thread	Thread	Thread
Thread	G1/8 – 7.4 deep	G1/4 – 11 deep	G1/2 – 16 deep
Installation	In any position	In any position	In any position
Ambient temperature range (°C)	-10 °C to +60 °C *	-10 °C to +60 °C *	-10 °C to +60 °C *
Medium temperature range (°C)	-10 °C to +60 °C *	-10 °C to +60 °C *	-10 °C to +60 °C *
Medium	Filtered, unlubricated compressed air – free from water and dirt to ISO8573-1	Solids: Class 7 particle size <40 µm for gas Water content: pressure dew point + 3°C, Class 4, but at least 5°C below minimum operating temperature	Solids: Class 7 particle size <40 µm for gas Water content: pressure dew point + 3°C, Class 4, but at least 5°C below minimum operating temperature
Pneumatic Characteristics			
Nominal pressure (bar)	6	6	6
Operating pressure range (bar)	0–8 ⁽¹⁰⁾ – –	0–8 – –	0–8 – –
– permanent signal version (bar)	– 0–8 2–8	– 0–8 2–8	– 0–8 2.2–8
– impulse version (bar)	– 0–8 1.5–8 ⁽⁴⁾	– 0–8 1.5–8 ⁽⁴⁾	– 0–8 1.5–8 ⁽⁴⁾
– with external pilot air (bar)	– – 0–8	– – 0–8	– – 0–8
Nominal flow	500 l/min (450 bei 3/2 Way Valve)	1300 l/min ⁽⁷⁾	3500 l/min ⁽⁸⁾
Actuation			
Manual control	Direct	Direct	Direct
Stroke	4.5 mm	6.5 mm	9.4 mm
Actuation force (N)	7 ⁽²⁾ 10 ⁽³⁾	10 ⁽²⁾ 15 ⁽³⁾	15 ⁽²⁾ 40 ⁽³⁾
Pneumatic	Direct	Direct	Direct
Actuation pressure range			
– permanent signal version (bar)	– 2–8 2–8	2–8 2–8 2–8	– 2.2–8 ⁽⁹⁾ 2.2–8
– impulse version (bar)	– 1.5–8 1.5–8 ⁽⁴⁾	1.5–8 1.5–8 ⁽⁴⁾ 1.5–8 ⁽⁴⁾	– 1.5–8 ⁽⁵⁾ 1.5–8 ⁽⁴⁾
Electrical	Electrical pilot operated		
Certification	EC Type Test Certificate for single valve: not required for mechanical units in II 2G	EC Type Test Certificate for solenoid: PTB-No. 03 Ex IEC 2019X and PTB 03 ATEX 2018X to T5	EC Type Test Certificate for solenoid: PTB-No. 03 Ex IEC 2019X and PTB 03 ATEX 2018X to T5
Category, type of ignition protection	Single valve II 2G c T4T135°C-10°C≤Ta≤+60°C	Solenoid/individual use: II 2G EEx m II T5 -20°C≤Ta≤+50°C Solenoid/manifold mounting: II 2G EEx m II T5 -20°C≤Ta≤+40°C	Solenoid/individual use: II 2G EEx m II T5 -20°C≤Ta≤+50°C Solenoid/manifold mounting: II 2G EEx m II T5 -20°C≤Ta≤+40°C
Voltage type	Alternating current (50/60Hz)	Direct current	
Nominal voltage	230 V ±10% 110 V ±10% 24 V ±10%	24 V ±10%	Other voltages on request
Power rating at U _N	G1/8, G1/4, G1/2	G1/8, G1/4, G1/2	
	3.1 VA (230V)	3.3 VA (24V)	
	3.0 VA (110V)		
	2.5 VA (24V)		
Max. power at U _N ⁽⁶⁾	G1/8, G1/4, G1/2	G1/8, G1/4, G1/2	
	2.9 VA (230V)	3.0 VA (24V)	
	2.8 VA (110V)		
	2.4 VA (24V)		
Electrical protection	IP65 (applies only to solenoid with cable)		
Connection	Cable – cable lengths see Order Instructions		

* Valve Manifold Assemblies with electrically actuated valves -10 to +50°C

⁽¹⁾ Note: For use below freezing point please contact us⁽²⁾ Actuation force for valves without spring return, Actuation with rotary lever: 5N⁽³⁾ Actuation force for valves with spring return, actuation with rotary lever: 15N⁽⁴⁾ Only for version with biased position pneumatically actuated 2 – 8 bar,

electrically actuated 2.5 – 8 bar

⁽⁵⁾ Version with biased position 2.5 – 8 bar⁽⁶⁾ Maximum power if warmed up to thermal load limit⁽⁷⁾ Version "middle position vented" 1000 l/min⁽⁸⁾ Version "middle position vented" 3300 l/min, Version "middle position pressured" 3600 l/min⁽⁹⁾ 5/3 Way Valve 2.5 – 8 bar⁽¹⁰⁾ Valves with panel mounting actuators 2 – 8 bar

Valve Combinations with Logic Elements
3/2, 5/2 and 5/3 Way Valves

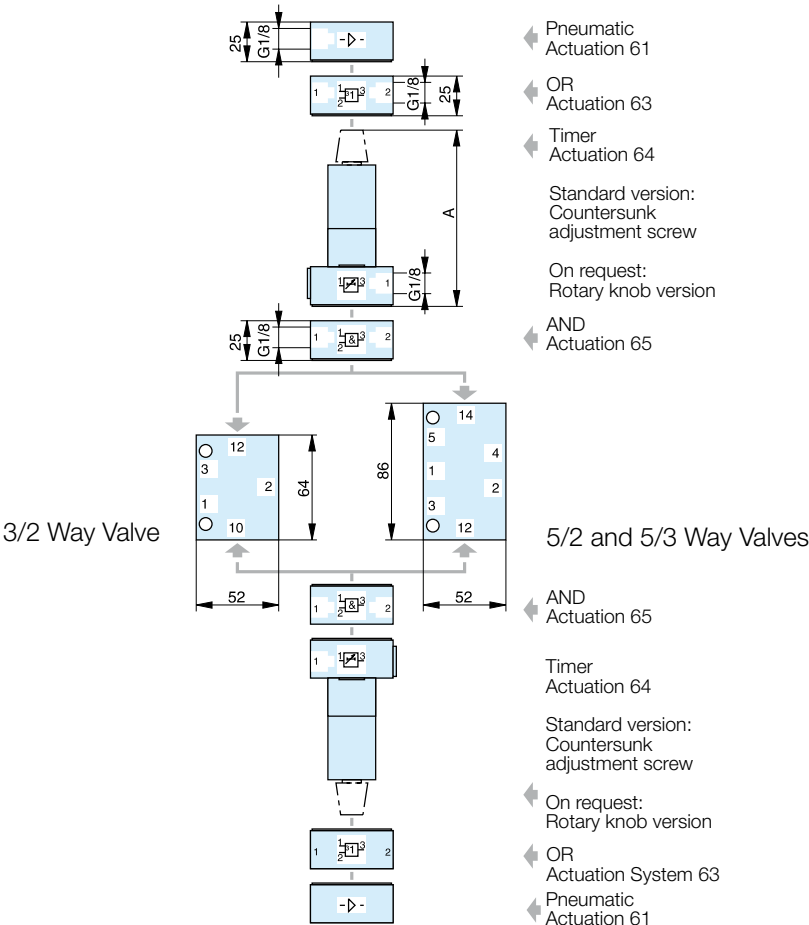
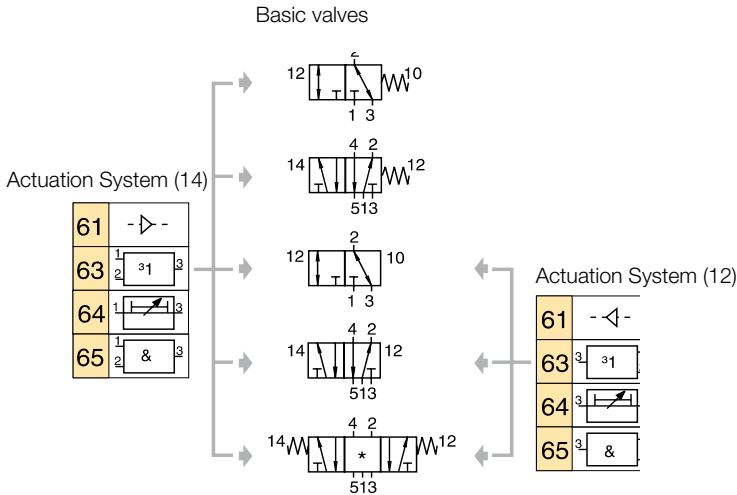
- Actuation Systems:
- Pneumatic
 - AND
 - OR
 - TIMER
 - Electrical pilot operated

- Versions:
- Freely selectable types
 - See Order information
 - All Timer-Versions on request



Possible combinations:

- * RFG = middle position closed
- RFE = middle position exhausted
- RFB = middle position pressurized



Dimension Table and adjustment ranges	
Adjustment range [s]	Dimension A [mm]
0.1 to 15	103 (133*)
0.1 to 30	117 (147*)
0.1 to 60	150 (180*)

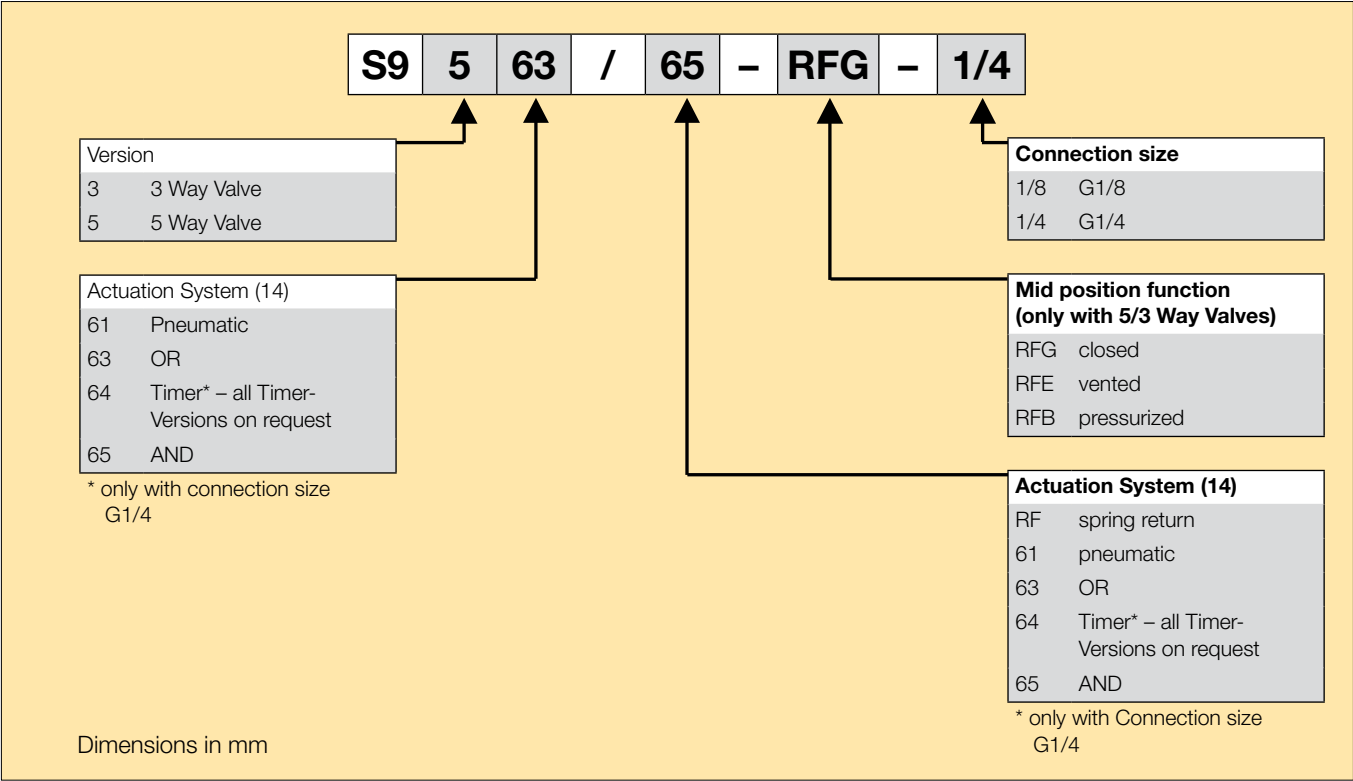
* Version with rotary knob (optional)

Dimension Table and adjustment ranges	
Adjustment range [s]	Dimension A [mm]
0.1 to 15	103 (133*)
0.1 to 30	117 (147*)
0.1 to 60	150 (180*)

* Version with rotary knob (optional)

Valve Combinations with Logic Elements
3/2, 5/2 and 5/3 Way Valves

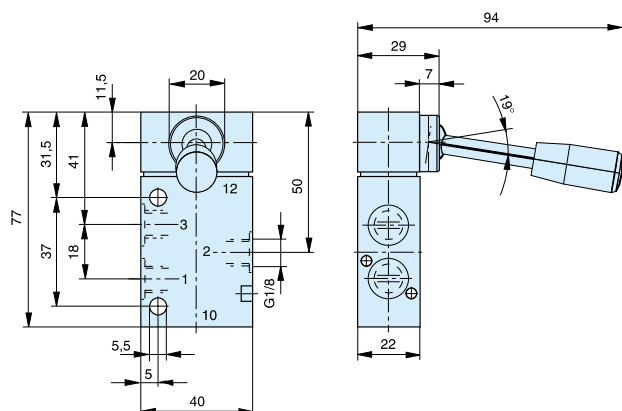
Order Instructions



3/2 Way Lever Operated Valves

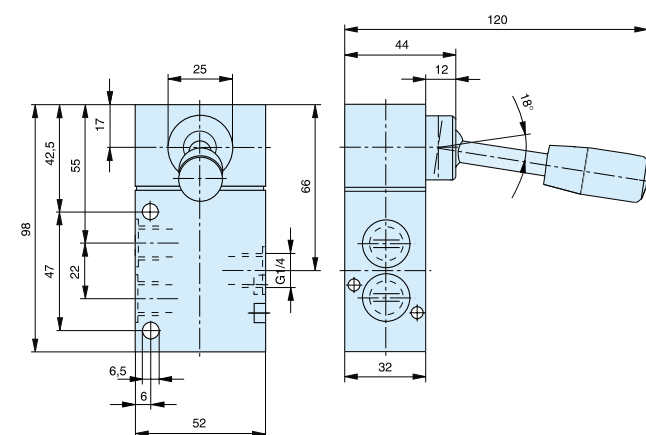
G1/8 Hand lever actuated

Type: S9 311-1/8, S9 311RF-1/8



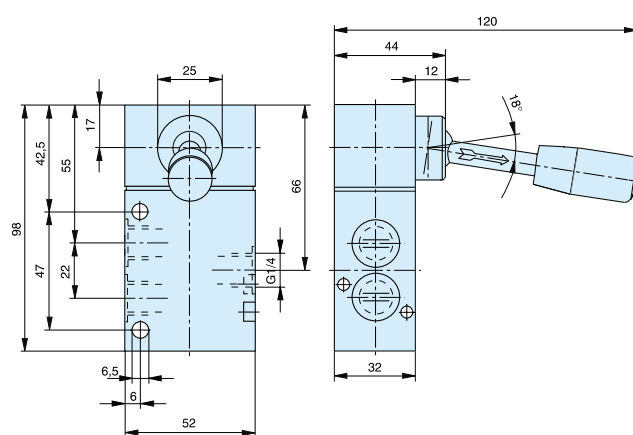
G1/4 Hand lever actuated

Type: S9 311-1/4, S9 311RF-1/4



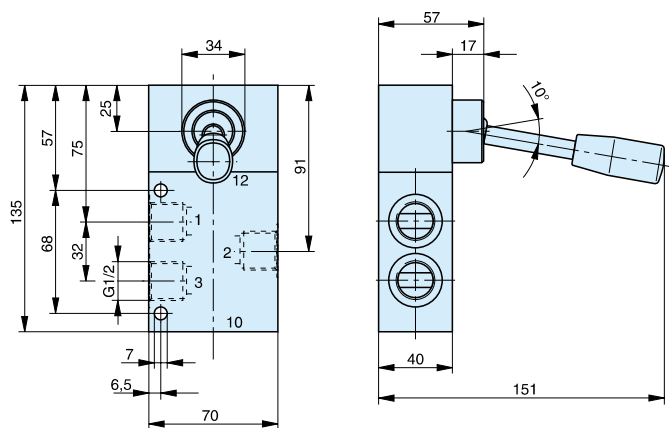
G1/4 Safety hand lever actuated

Type: S9 311S-1/4



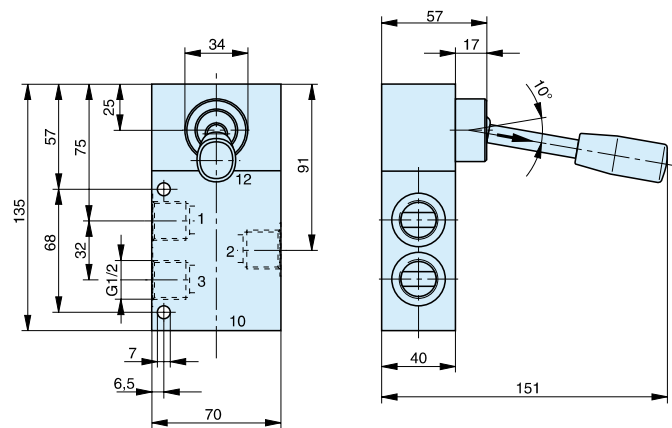
G1/2 Hand lever actuated

Type: S9 311-1/2, S9 311RF-1/2



G1/2 Safety hand lever actuated

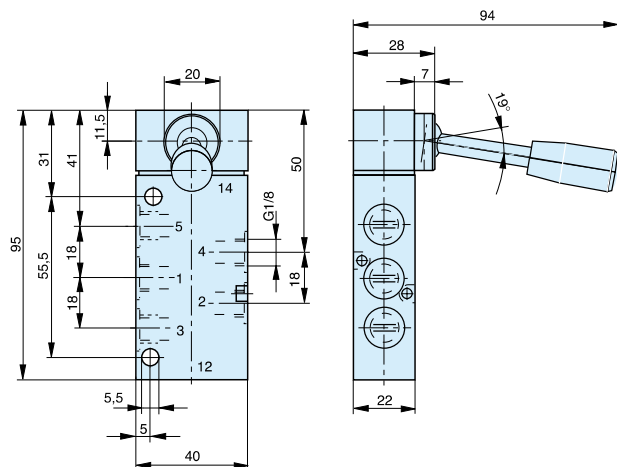
Type: S9 311S-1/2



5/2 Way Lever Operated Valves

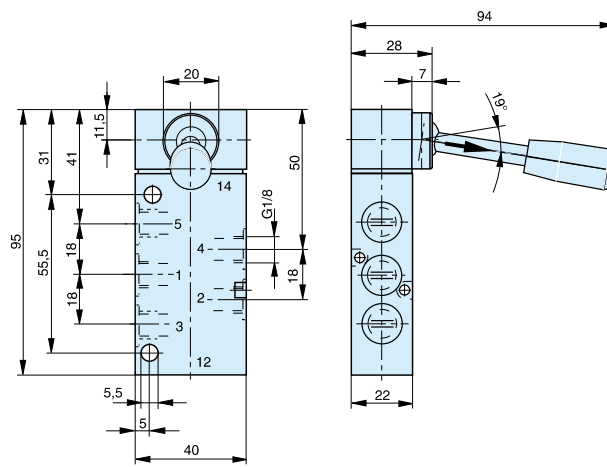
G1/8 Hand lever actuated

Type: S9 511-1/8, S9 511RF-1/8



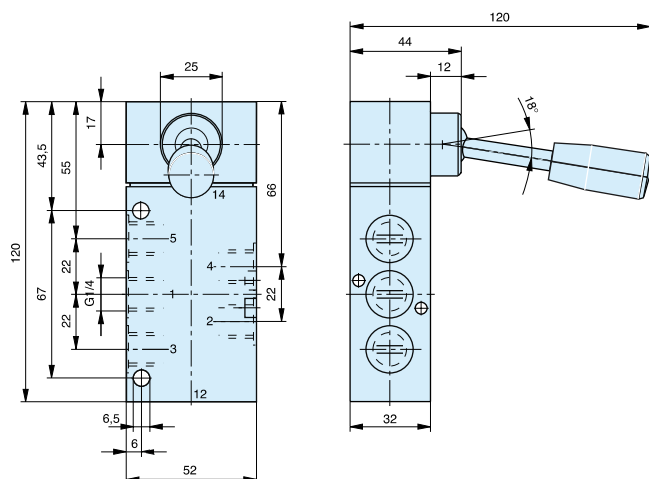
G1/8 Safety Hand lever actuated

Type: S9 511S-1/8



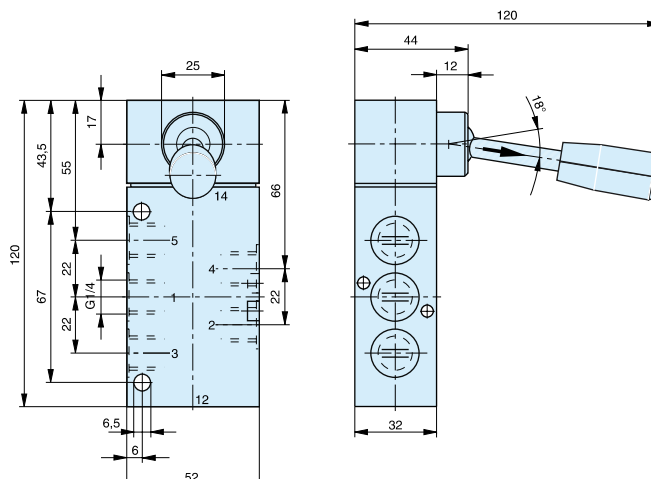
G1/4 Hand lever actuated

Type: S9 511-1/4, S9 511RF-1/4



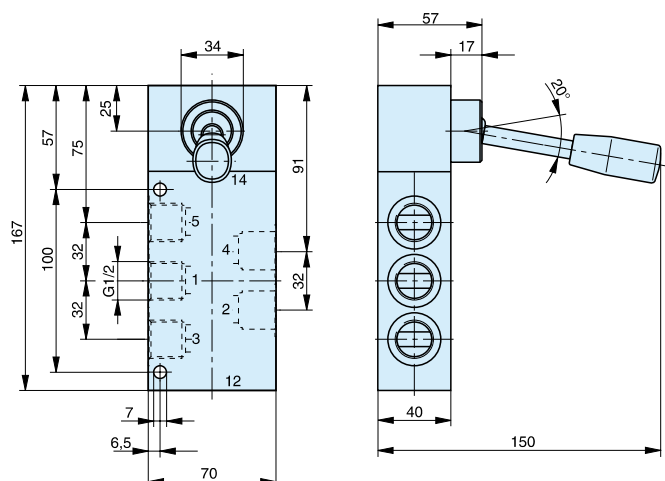
G1/4 Safety hand lever actuated

Type: S9 511S-1/4



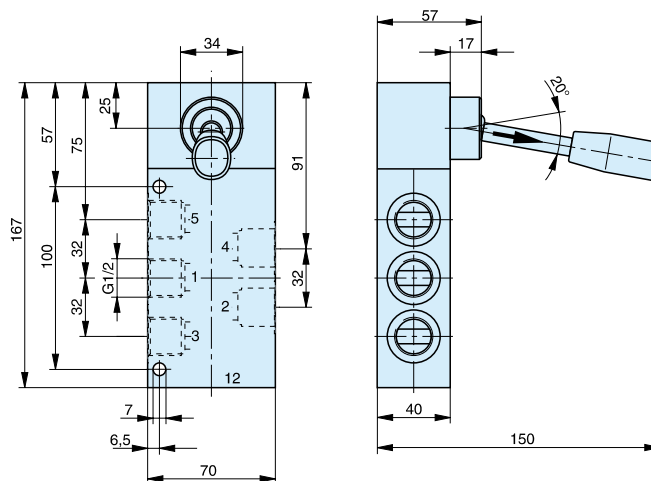
G1/2 Hand lever actuated

Type: S9 511-1/2, S9 511RF-1/2



G1/2 Safety hand lever actuated

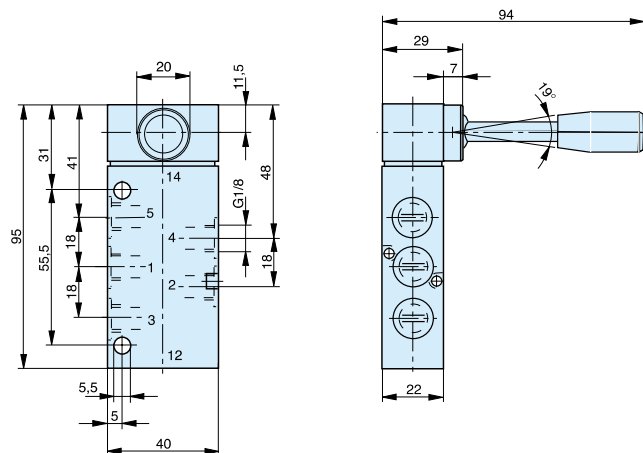
Type: S9 511S-1/2



5/3 Way Lever Operated Valves

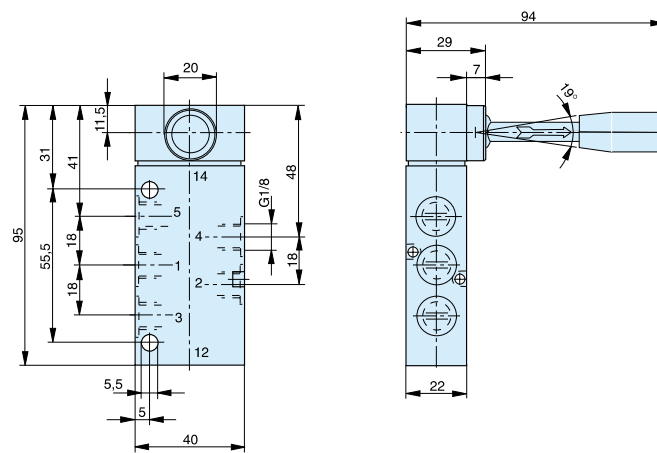
G1/8 Hand lever actuated

Type: S9 511.-1/8, S9 511RF.-1/8



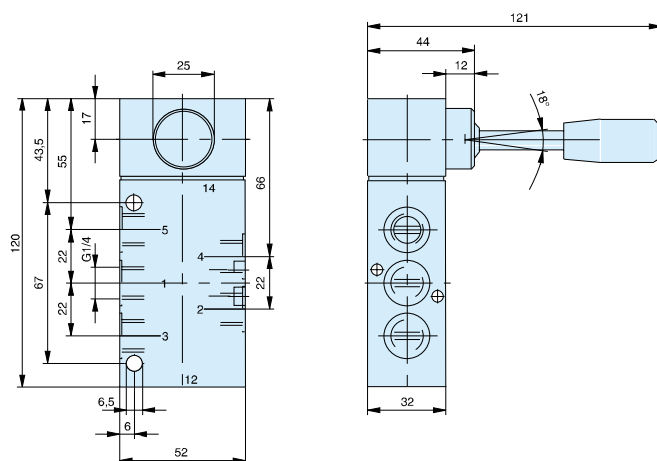
G1/8 Safety Hand lever actuated

Type: S9 511S.-1/8



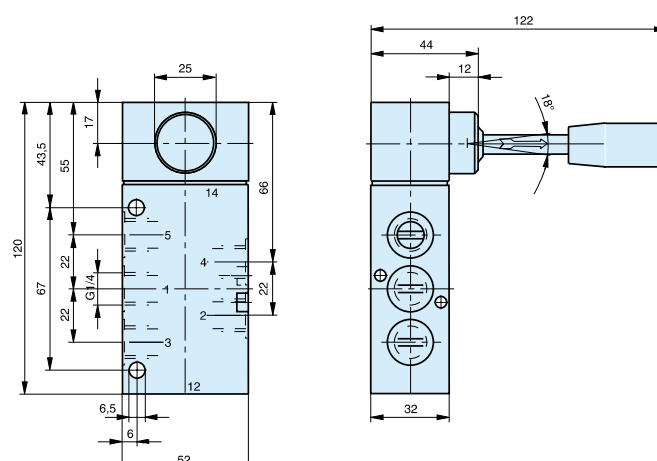
G1/4 Hand lever actuated

Type: S9 511.-1/4, S9 511RF.-1/4



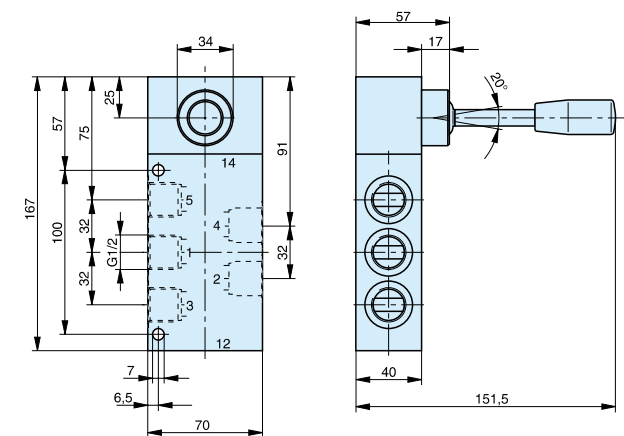
G1/4 Safety hand lever actuated

Type: S9 511S.-1/4



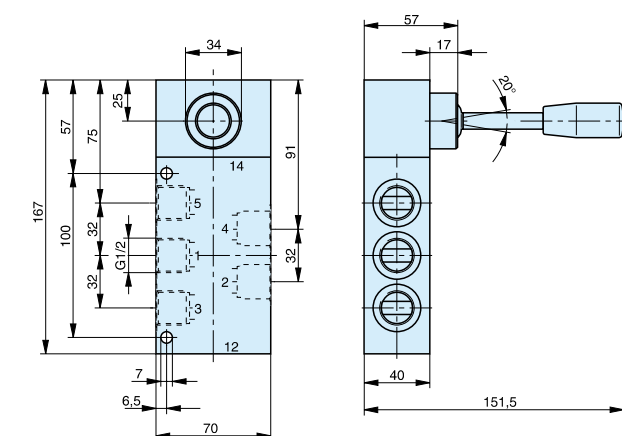
G1/2 Hand lever actuated

Type: S9 511.-1/2, S9 511RF.-1/2



G1/2 Safety hand lever actuated

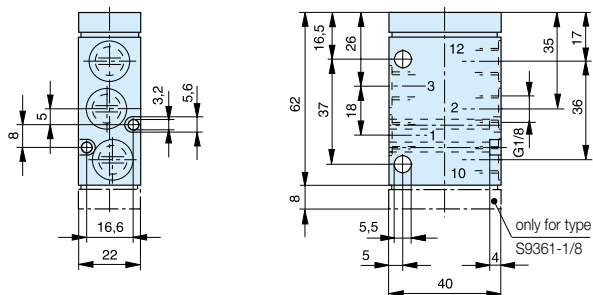
Type: S9 511S.-1/2



G1/8 - 3/2 Way Valves

Pneumatically actuated

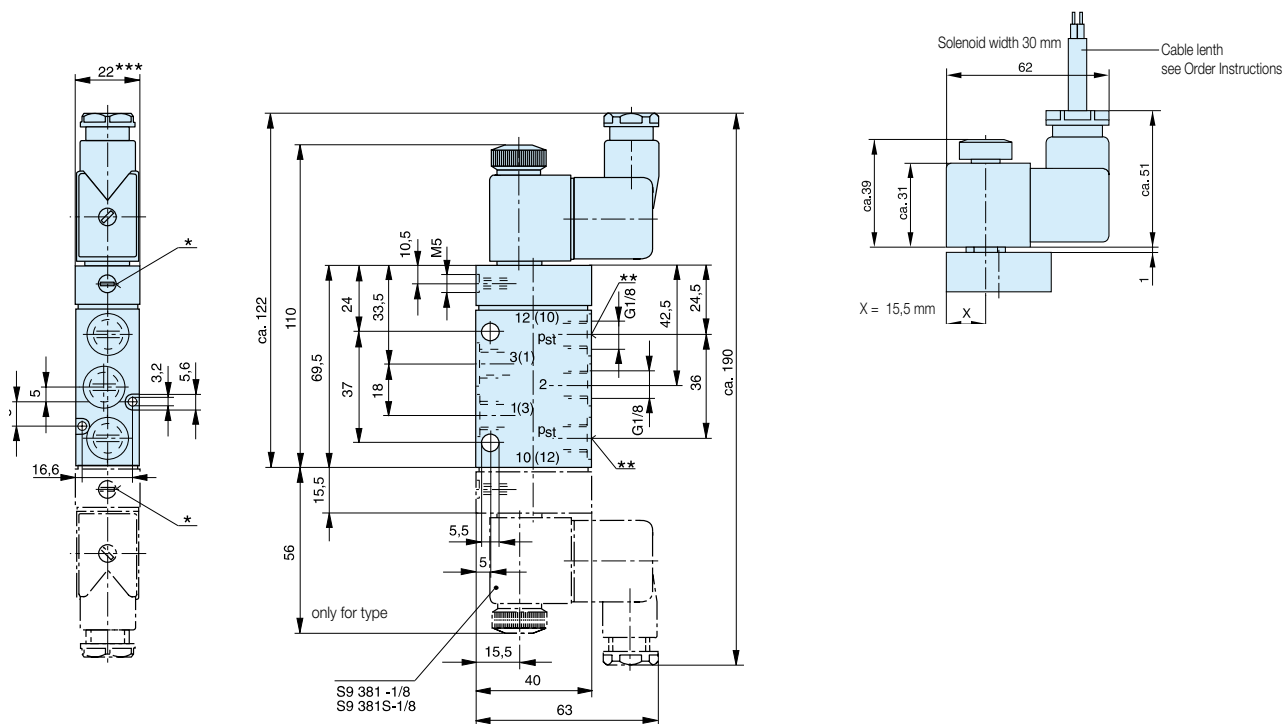
Type: S9 361-1/8, S9 361RF-1/8



Electrically actuated

Type: S9 381(S)-1/8, S9 381(S)RF-1/8

Solenoid for use in EX areas – Dimensions



* Manual override

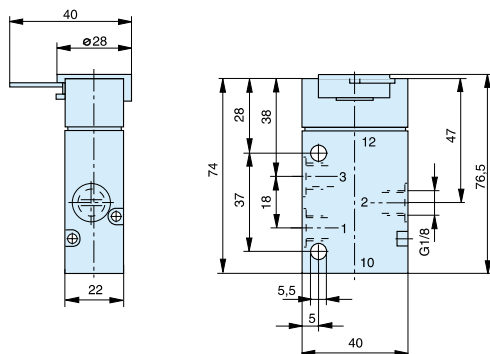
** Operating pressure supply p_{st} only for type S9 381S

*** Solenoid width = 30 mm on low wattage coil version

Dimensions in mm

G1/8 - 3/2 Way Valves

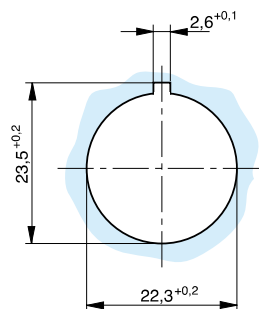
Basic valve for panel mounting actuators
Type: S9 390RF-1/8



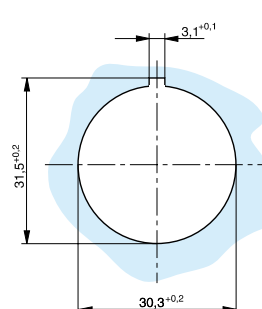
The actuators for these valves are interchangeable and can be mounted with 180° displacement on the basic valve. The actuators are not mounted upon delivery.

Mounting diameter

Mounting diameter Ø22 mm



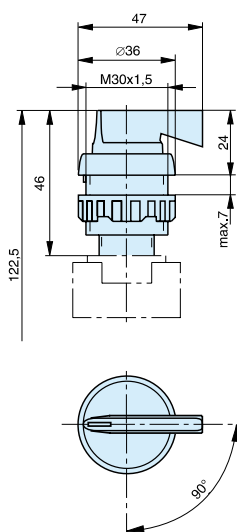
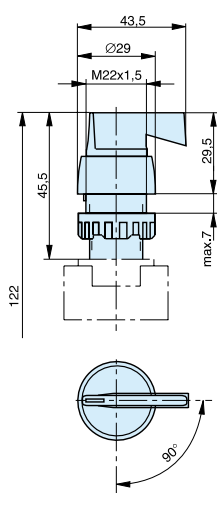
Mounting diameter Ø30 mm



Rotary lever, indexed – Type: 12T-22, 12T-30,

Mounting diameter Ø22 mm

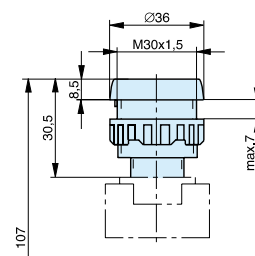
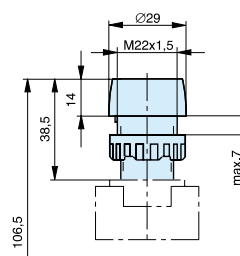
Mounting diameter Ø30 mm



Pushbutton – Type: 13T-RF-22, 13T-RF-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm



Dimensions in mm

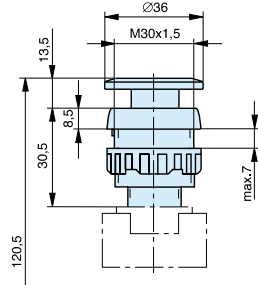
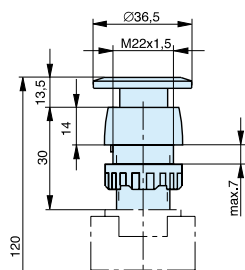
G1/8 - 3/2 Way Valves

Mushroom pushbutton

Type: 15T-RF-22, 15T-RF-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

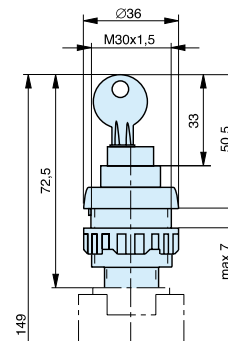
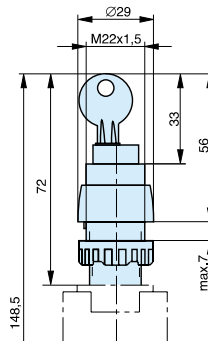


Locking switch

Type: 16T-22, 16T-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

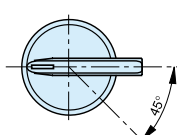
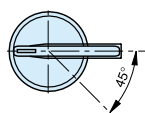
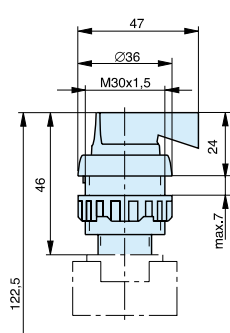
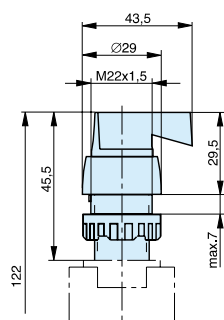


Rotary lever with spring return

Type: 12T-RF-22, 12T-RF-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

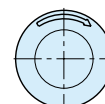
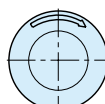
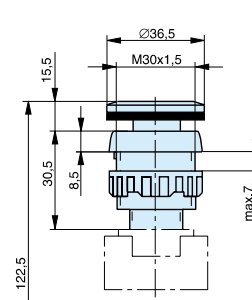
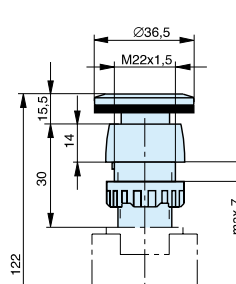


Mushroom pushbutton emergency-Off

Type: 18T-22, 18T-30

Mounting diameter Ø22 mm

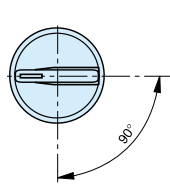
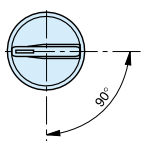
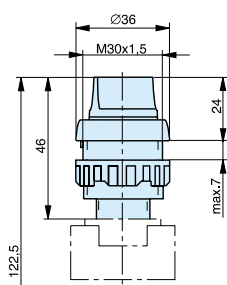
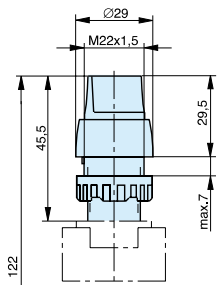
Mounting diameter Ø30 mm



Rotary switch – Type: 17T-22, 17T-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

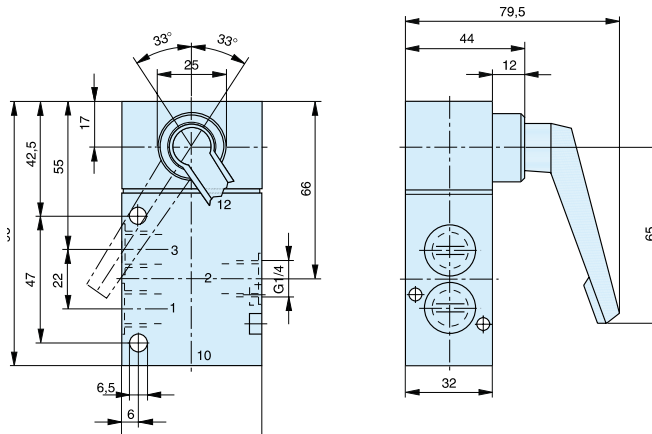


Dimensions in mm

G1/4 - 3/2 Way Valves

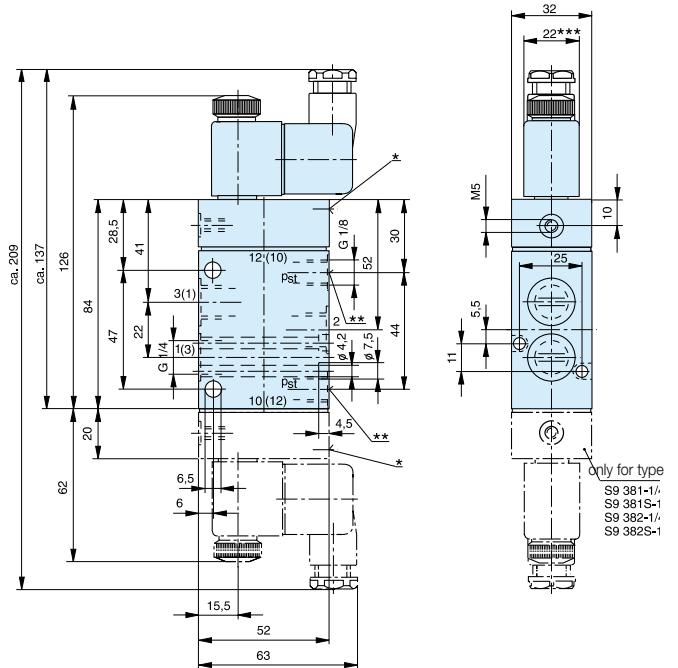
Rotary lever actuated

Type: S9 312-1/4, S9 312RF-1/4



Electrically actuated

– Type: S9 381(S)-1/4, S9 382(S)-1/4, S9 381(S)RF-1/4



* Manual override

** Operating pressure supply p_{st} only for type S9 381S

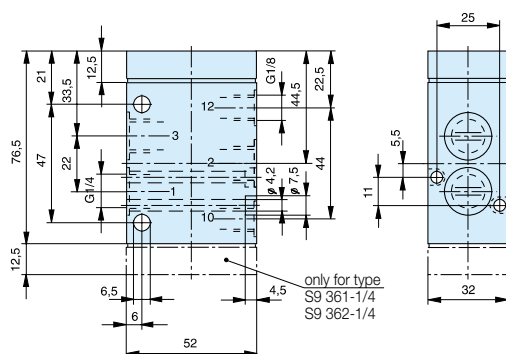
*** Solenoid width = 30 mm
on low wattage coil version

Note:

The “normally open” valve S9 381S-RF-1/4 cannot be used on a P-supply manifold.

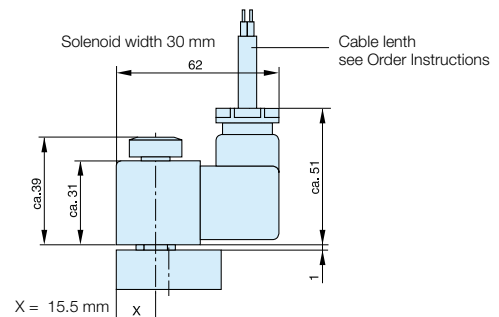
Pneumatically actuated

Type: S9 361-1/4, S9 362-1/4, S9 361RF-1/4



Solenoid for use in EX areas

Dimensions

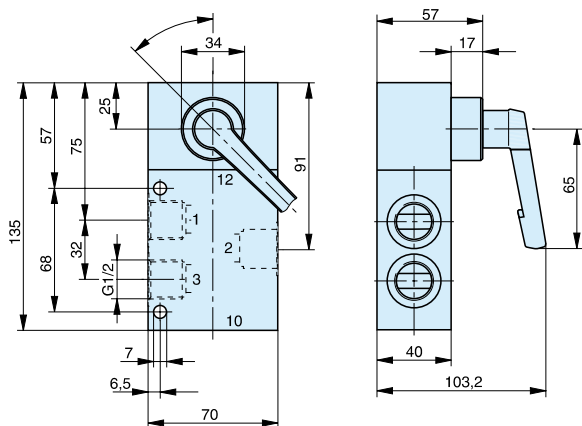


Dimensions in mm

G1/2 - 3/2 Way Valves

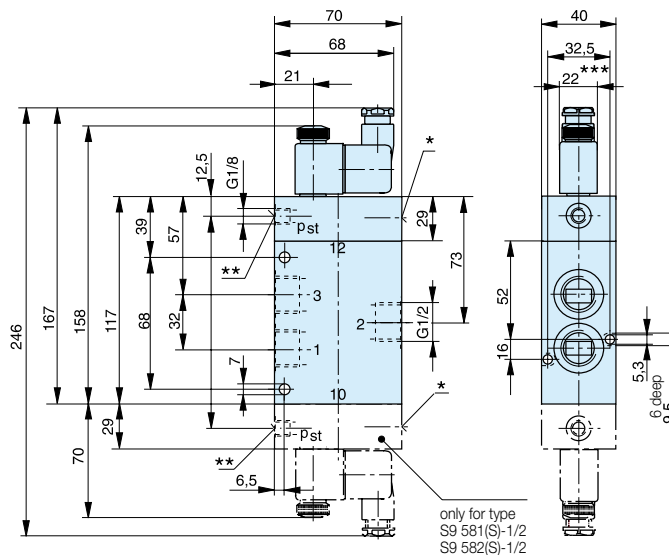
Rotary lever actuated

Type: S9 312-1/2, S9 312RF-1/2



Electrically actuated

Type: S9 381(S)-1/2, S9 382(S)-1/2, S9 381(S)RF-1/2



* Manual override

** Operating pressure supply p_{st} only for type S9 381S

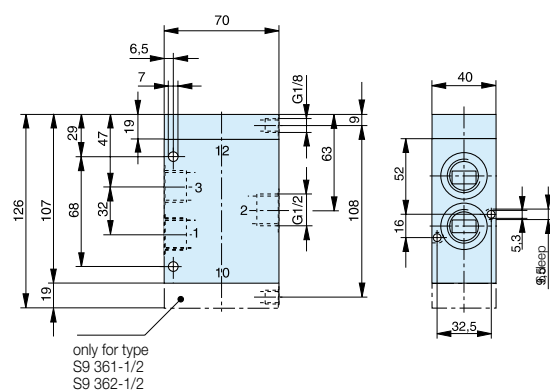
*** Solenoid width = 30 mm on low wattage coil version

Note:

The "normally open" valve S9 381S-RF-1/2 cannot be used on a P-supply manifold.

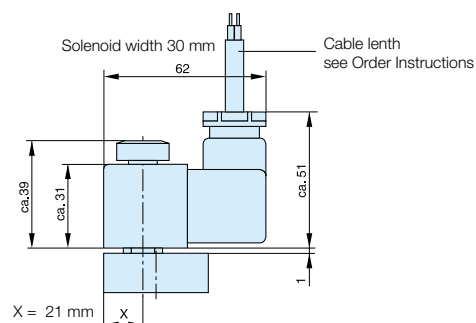
Pneumatically actuated

Type: S9 361-1/2, S9 361RF-1/2



Solenoid for use in EX areas

Dimensions

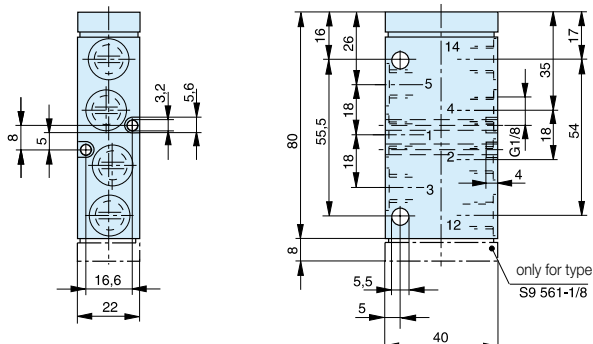


Dimensions in mm

G1/8 - 5/2 Way Valves

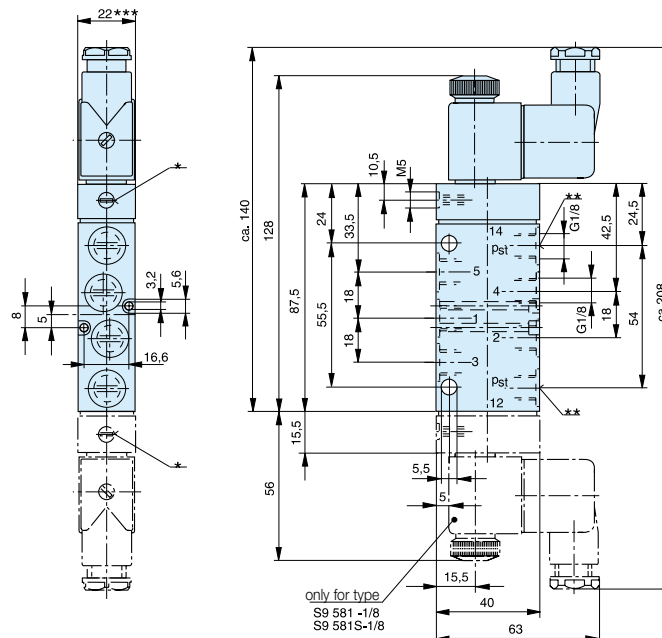
Pneumatically actuated

Type: S9 561-1/8, S9 561RF-1/8



Electrically actuated

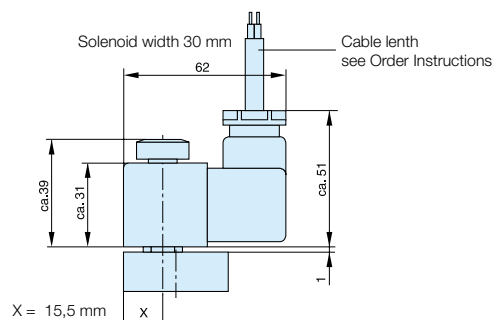
**Type: S9 581(S)-1/8, S9 581(S)RF-1/8,
S9 582-1/8**



- * Manual override
- ** Operating pressure supply p_{st} only for type S9 581S
- *** Solenoid width = 30 mm on low wattage coil version

Solenoid for use in EX areas

Dimensions

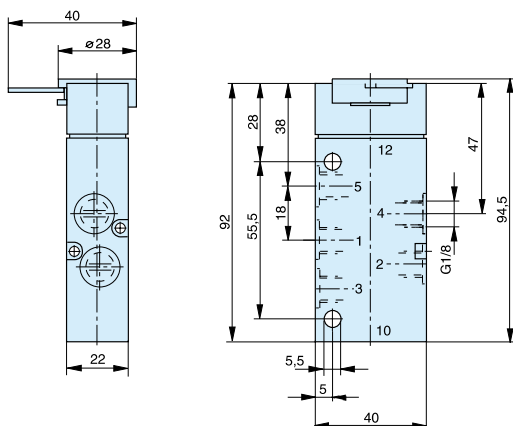


Dimensions in mm

G1/8 - 5/2 Way Valves

Basic valve for panel mounting actuators

Type: S9 590RF-1/8

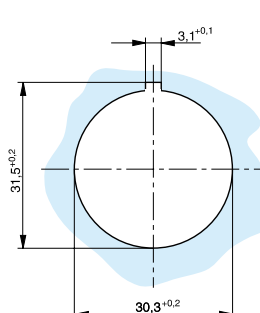
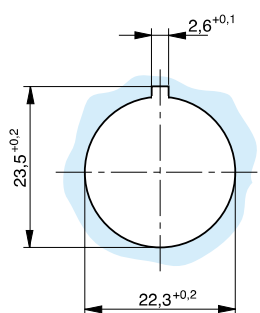


The actuators for these valves are interchangeable and can be mounted with 180° displacement on the basic valve.
The actuators are not mounted upon delivery.

Mounting diameter

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

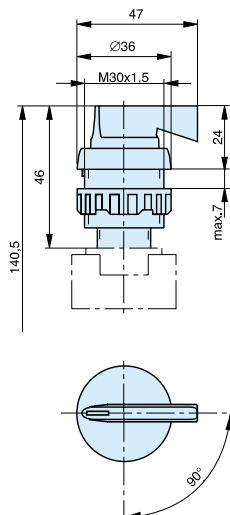
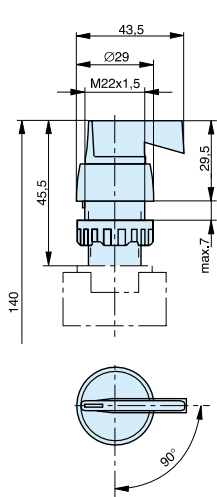


Rotary lever, indexed

Type: 12T-22, 12T-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

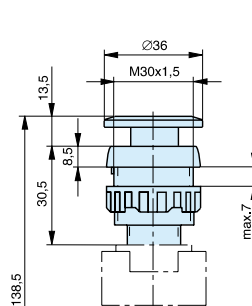
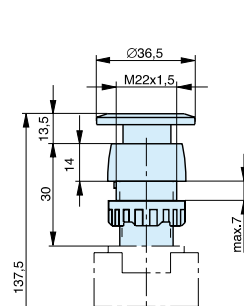


Mushroom pushbutton

Type: 15T-RF-22, 15T-RF-30

Mounting diameter Ø22 mm

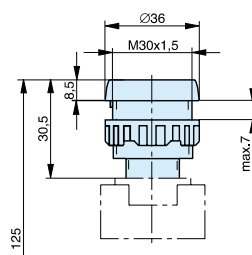
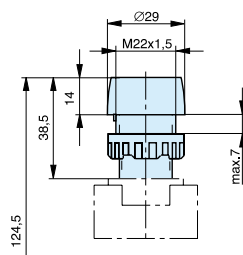
Mounting diameter Ø30 mm



Pushbutton – Type: 13T-RF-22, 13T-RF-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm



Dimensions in mm

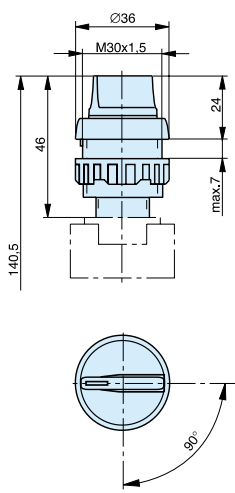
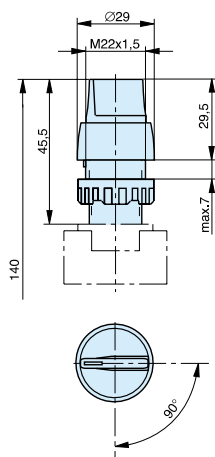
G1/8 - 5/2 Way Valves

Rotary switch

Type: 17T-22, 17T-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

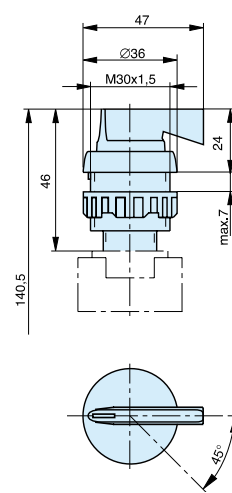
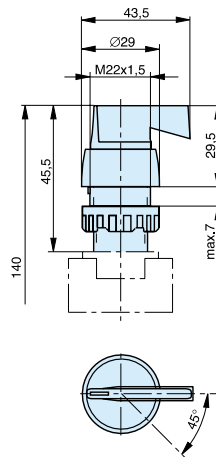


Rotary lever with spring return

Type: 12T-RF-22, 12T-RF-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

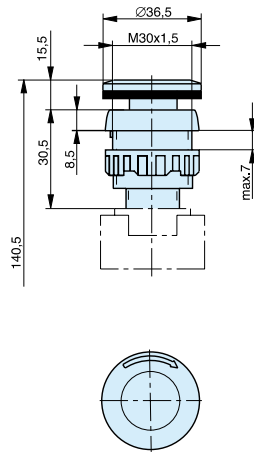
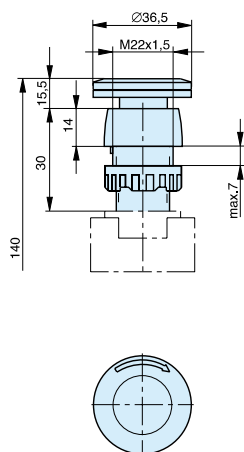


Mushroom pushbutton emergency-Off

Type: 18T-22, 18T-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

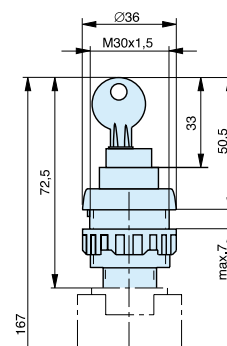
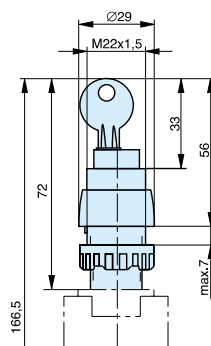


Locking switch

Type: 16T-22, 16T-30

Mounting diameter Ø22 mm

Mounting diameter Ø30 mm

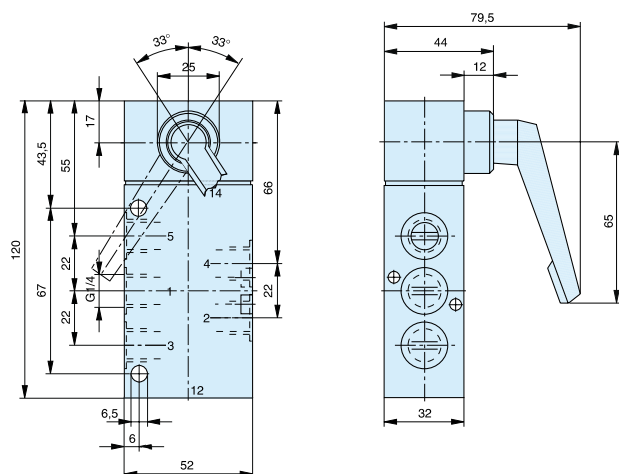


Dimensions in mm

G1/4 - 5/2 Way Valves

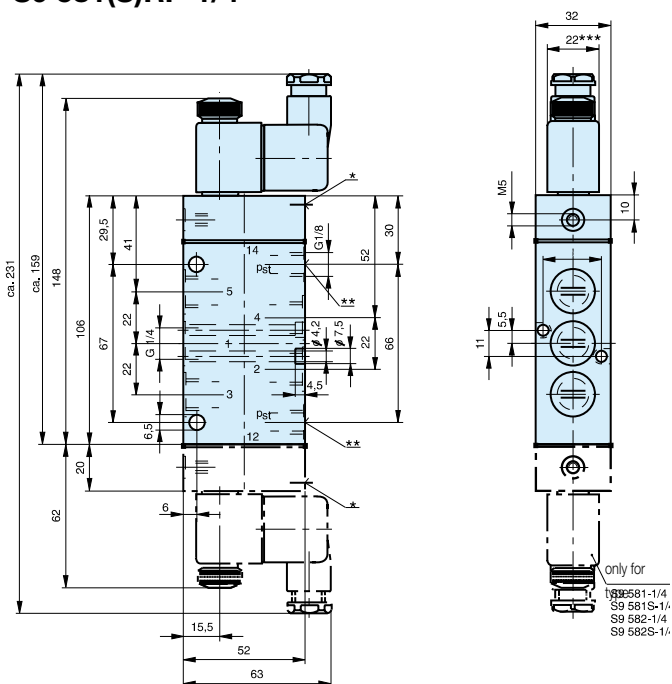
Rotary lever actuated

Type: S9 512-1/4, S9 512RF-1/4



Electrically actuated

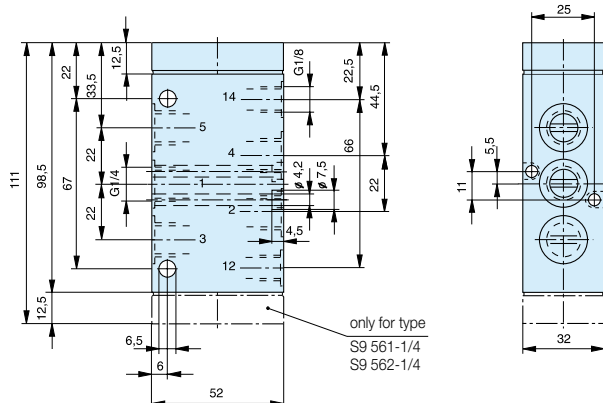
**Type: S9 581(S)-1/4, S9 582(S)-1/4,
S9 581(S)RF-1/4**



- * Manual override
 ** Operating pressure supply p_{st} only for type S9 581S
 *** Solenoid width = 30 mm on low wattage coil version

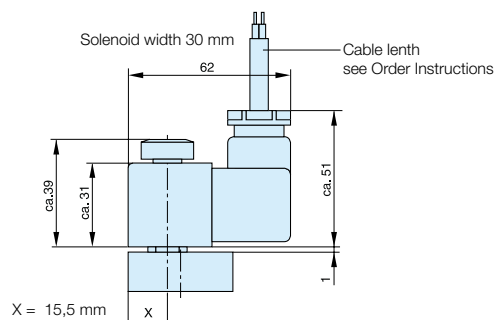
Pneumatically actuated

Type: S9 561-1/4, S9 562-1/4, S9 561RF-1/4



Solenoid for use in EX areas

Dimensions

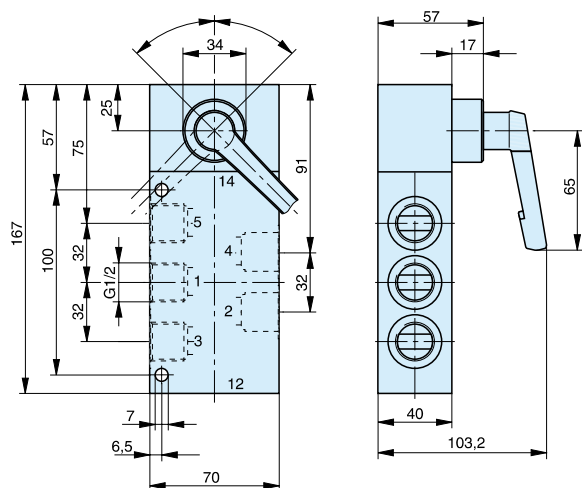


Dimensions in mm

G1/2 - 5/2 Way Valves

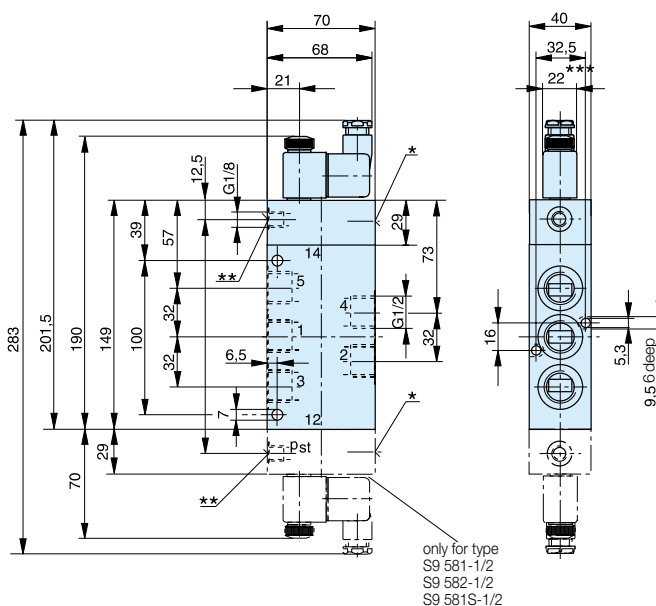
Rotary lever actuated

Type: S9 512-1/2, S9 512RF-1/2



Electrically actuated

Type: S9 581(S)-1/2, S9 582-1/2, S9 581(S)RF-1/2



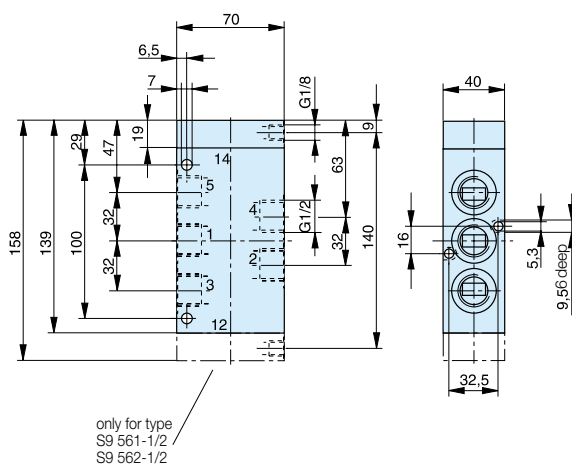
* Manual override

** Operating pressure supply p_{st} only for type S9 581S

*** Solenoid width is 30 mm on low wattage coil version

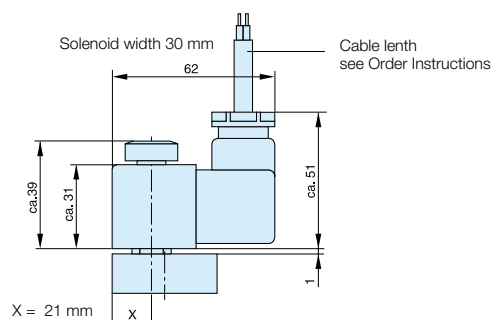
Pneumatically actuated

Type: S9 561-1/2, S9 561RF-1/2, S9 562-1/2



Solenoid for use in EX areas

Dimensions

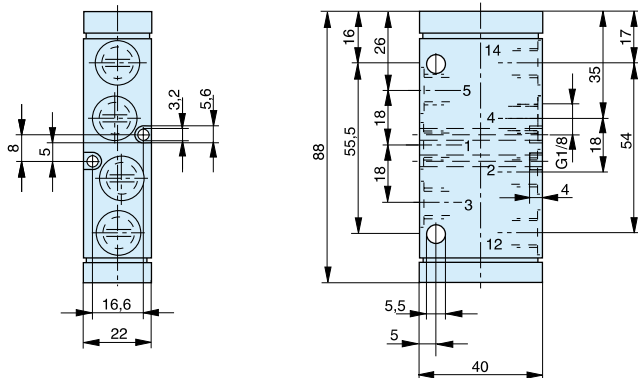


Dimensions in mm

G1/8 - 5/3 Way Valves

Pneumatically actuated

Type: S9 561RF.-1/8

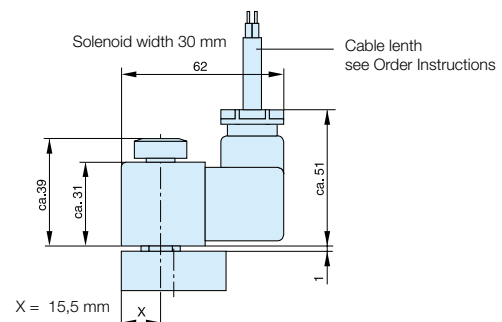
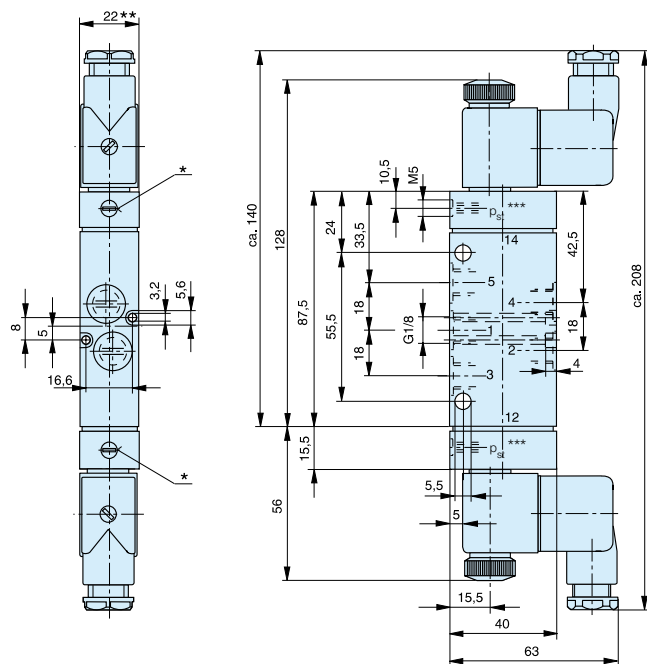


Electrically actuated

Type: S9 581(S-)RF.-1/8

Solenoid for use in EX areas

Dimensions



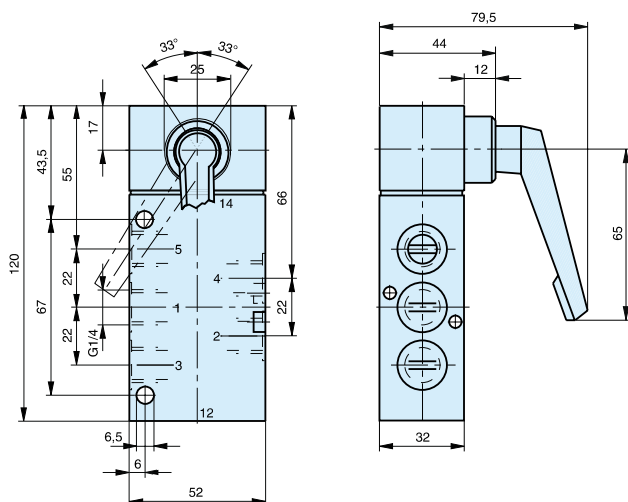
- * Manual override
- ** Solenoid width = 30 mm on low wattage coil version
- *** Operating pressure supply p_{st} only for type S9 581S

Dimensions in mm

G1/4 - 5/3 Way Valves

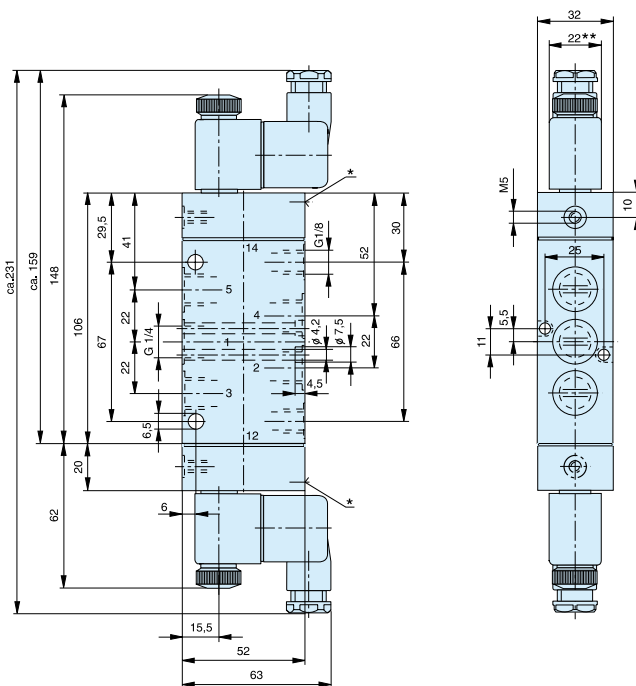
Rotary lever actuated

Type: S9 512.-1/4, S9 512RF.-1/4



Electrically actuated

Type: S9 581RF.-1/4

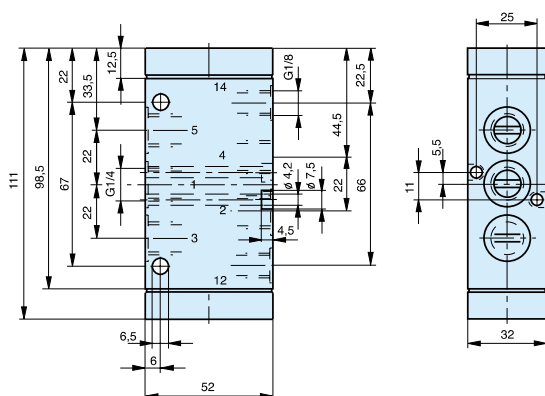


* Manual override

** Solenoid width is 30 mm on low wattage coil version

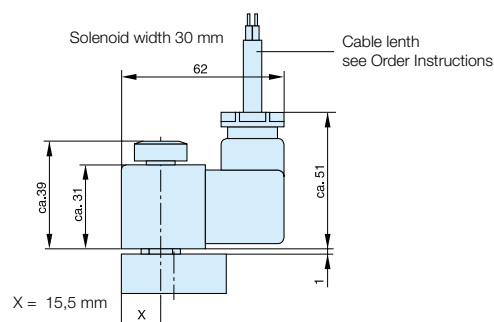
Pneumatically actuated

Type: S9 561RF.-1/4



Solenoid for use in EX areas

Dimensions

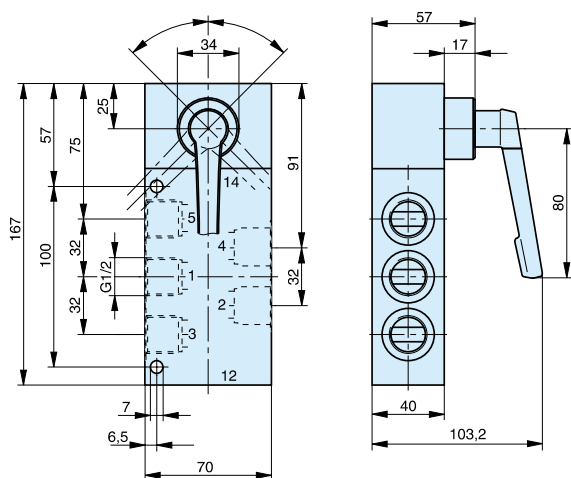


Dimensions in mm

G1/2 - 5/3 Way Valves

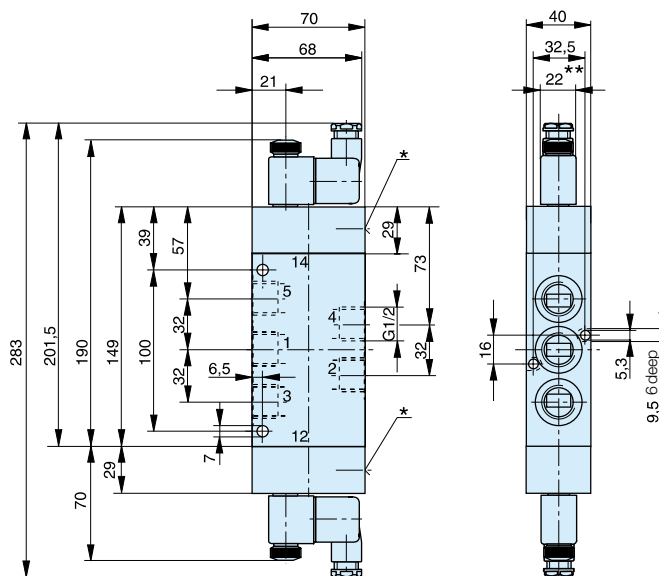
Rotary lever actuated

Type: S9 512.-1/2, S9 512RF.-1/2



Electrically actuated

Type: S9 581RF.-1/2

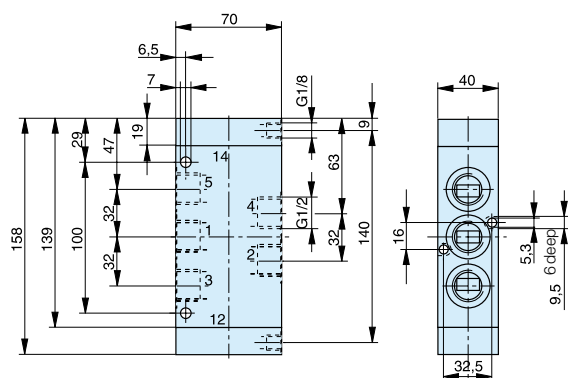


* Manual override

** Solenoid width is 30 mm on low wattage coil version

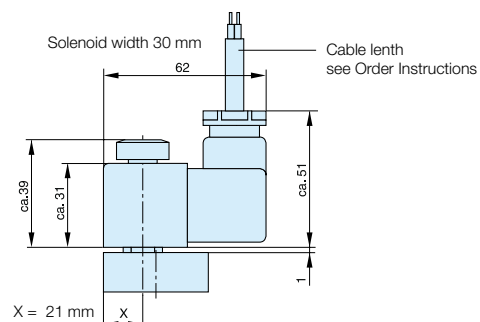
Pneumatically actuated

Type: S9 561RF.-1/2



Solenoid for use in EX areas

Dimensions



Dimensions in mm

5/2-Way Oscillating Valves

The oscillating valve generates oscillating movements such as e.g. shaking, hammering, plunging, feed motions etc.

Function:

If compressed air is introduced into inlet port 1, the outlet ports 4 and 2 are alternately supplied with compressed air.

The speed of the operated cylinder and also the stroke frequency are adjusted with two exhaust air throttles.

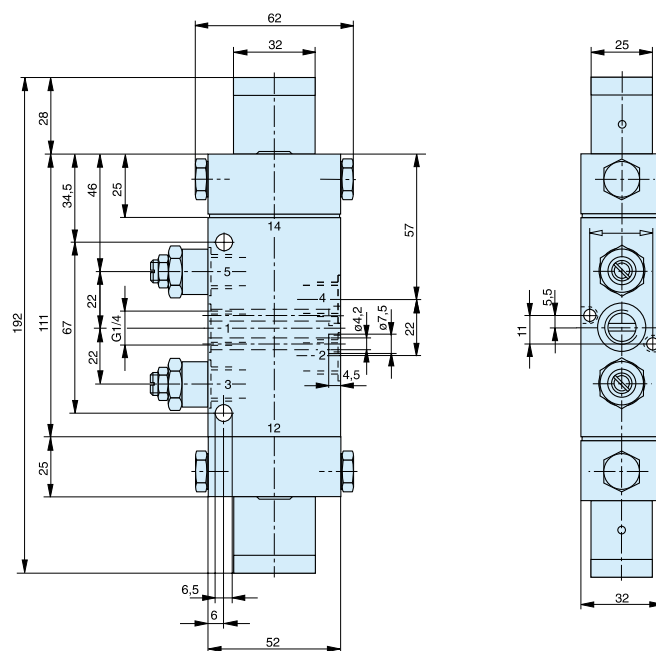


Operating information

Type	Spool valve	Lubrication *	None or oil mist lubrication
Mounting	2 Screws M6 (M4)	Pneumatic Characteristics	
Tube connection	Thread	Nominal pressure	6 bar
Connection size	G1/4, 11 deep	Operating pressure range	3–8 bar
Weight (mass)	0.65 kg	Nominal flow	1300 l/min
Installation	In any position	Actuation	
Ambient temperature range **	-10 °C to +60 °C	Pneumatic	Direct
		Actuation pressure range	3–8 bar
Medium temperature range **	-10 °C to +60 °C		
Medium	Filtered and oiled or filtered, unoled compressed air	* We recommend the use of mineral oil type VG 32 to ISO 3448 ** Note: Please consult us for operating temperatures below 0° C	

Pneumatic oscillating – Type: S9 568/68-1/4-SO

Symbol	Type	Order Code
	S9 568/68-1/4-SO	PD 34796



Dimensions in mm

3/2-Way Screw-In Valve Series EV



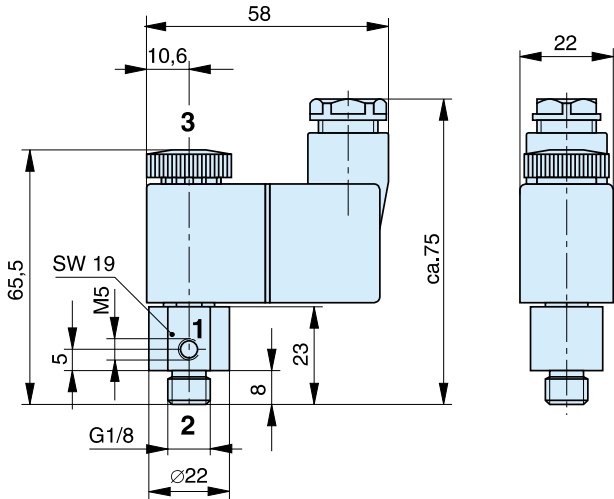
Operating information

Actuation	Electrical directly operated		Actuation		
Type	Poppet valve, normally closed		Electrical	Direct	
Mounting	Screws into thread G1/8		Voltage type	Alternating current (50/60Hz)	Direct current
Tube connection	Thread				
Port size	Port 1: M5, port 2: G1/8		Nominal voltage ⁽¹⁾		
Weight	0.1 kg		– Standard version **	230 ±10%	24 ±10%
Nominal diameter	1 mm		– Low wattage version	230 ±10%	24 ±10%
Installation	in any position		Initial power consumption		
Ambient temperature range	-10 °C to +60 °C	Note : Please consult us for operating temperatures below 0° C	– Standard version (VA)	11	4.8
Medium temperature range	-10 °C to +60 °C		– Low wattage version (VA)	7.8	2.7
			Continuous consumption		
			– Standard version (VA)	8.5	4.8
Medium	Filtered compressed air (30µ)		– Low wattage version (VA)	4.9	2.7
Lubrication	With or without oil mist lubrication (We recommend the use of mineral oil type VG 32 to ISO 3448)		Duty cycle	100%	
			Electrical protection	IP 65 to DIN 40050 (applies only to solenoid with plug)	
Pneumatic Characteristics			Connection	Plug to DIN EN 175301-803 form B – industrial standard, Low wattage version form A	
Nominal pressure	6 bar				
Operating pressure range	0 – 10 bar				
Nominal flow	30 l/min				
			⁽¹⁾ see Order Instructions		
			** other voltages on request		

Order Instructions – 3/2 Way Screw-In Valve – Series EV

Actuation	Symbol	Order Instructions	
		Type	Order code
Electrical, by permanent signal		EV 381RF-M5-..	PD25076-..33
Solenoid version		Nominal voltage	Key code
Cast		24V =	02
encapsulated housing		230V 50/60Hz	61
		Other voltages on request	

3/2 Way Valve – Type: EV 381RF-M5



Dimensions in mm

3/2-Way Valve Series V9

NW 1.3 and 2.5

Actuation System:

- Electrically actuated,
directly actuated

Versions:

Threaded version

- Normally closed
- Normally open
- With manual override



Operating information

Type	Poppet valve	
Mounting	2 Screws M3 (NW 2.5: 2 x M4)	
Tube connection	Thread	
Thread	G1/8 – 8 deep	
Weight	NW 1.3: 0.140 kg NW 2.5: 0.320 kg	
Installation	In any position	
Ambient temperature range (1)	-10 °C to +60 °C	Note : Please consult us for operating temperatures below 0° C
Medium temperature range (1)	-10 °C to +70 °C	
Medium	Filtered compressed air	
Lubrication	With or without oil mist lubrication (We recommend the use of mineral oil type VG 32 to ISO 3448)	

Pneumatic Characteristics

Nominal pressure	6 bar
Operating pressure range	NW 1.3: 0–10 bar NW 2.5: 0-7 bar
Nominal flow	NW 1.3: 37 l/min NW 2.5: 150 l/min

Actuation

Electrical	Direct	
Voltage type	Alternating current (50/60Hz)	Direct current

Nominal voltage

– Standard version	230 V ±10%	24 V ±10%	other voltages on request
– Low wattage version	230 V ±10% (not for V9-NW 2.5)	24 V ±10% (not for V9-NW 2.5)	

Initial power consumption

– Standard version	NW 1.3: 11 VA NW 2.5: 11.5 VA	NW 1.3: 4.8 VA NW 2.5: 10 VA
– Low wattage version	7.8 VA	2.7 VA

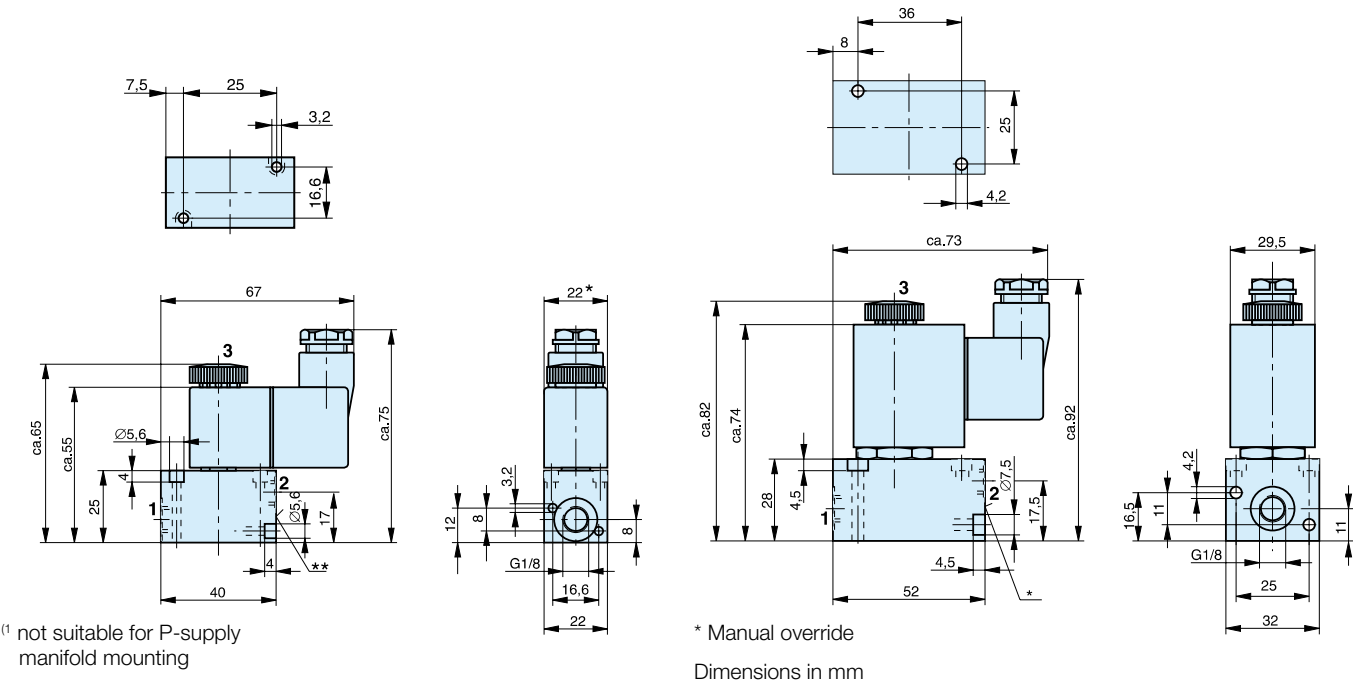
Continuous consumption

– Standard version	NW 1.3: 8.5 VA NW 2.5: 7.5 VA	NW 1.3: 4.8 VA NW 2.5: 7.5 VA
– Low wattage version	4.9 VA	2.7 VA

Duty cycle	100%	
Electrical protection	IP 65 to DIN 40050 (applise only to solenoid with connector)	
Connection	NW 1.3: connector to DIN EN 175301-803 form B – industrial standard NW 2.5: connector to DIN EN 175301-803 form A – industrial standard	

Type: V9 381RF-1/8NG (NO⁽¹⁾)– NW 1.3
Type: V9 381H-RF-1/8NG (NO⁽¹⁾)– NW 1.3

Type: V9 381RF-1/8NG – NW 2.5
Type: V9 381H-RF-1/8NG – NW 2.5



Order Instructions – 3/2 Way Valves – Series V9

Actuation System	Symbol	Nominal Size (mm)	Order Instructions Type	Order code
Electrical, by permanent signal		NW 1.3	V9 381RF-1/8-NC-..	PA 10362-..33
		NW 2.5	V9 381RF-1/8-NC-..	PA 10369-..33
		NW 1.3	V9 381H-RF-1/8-NC-..	PA 10363-..33
		NW 2.5	V9 381H-RF-1/8-NC-..	PA 10370-..33
		NW 1.3	V9 381H-RF-1/8-NO-..	PA 10367-..33

Solenoid version	Nominal voltage	Applicable for	Key code
Standard version	230V 50/60Hz	110 V =	61
	24V =	48V 50/60Hz	02
Low wattage version	24V =		13
	230V 50/60Hz		69

Other voltages on request

Order Instructions – Accessories for P-Supply Manifold Mounting

Description	for NW	Order No.
P-Manifold PL-1/8-..	1.3	PD32763-....*
P-Manifold PLK-1/8-..	1.3	PD37174-....*
P-Manifold PL-1/4-..	2.5	PD32765-....*
P-Manifold PLK-1/4-..	2.5	PD32175-....*

* Complete order no. with no. of valve

The delivery includes:
P-Manifold complete incl. mounting kit