



Viking Xtreme

High performance directional control valves
G1/8 - G1/2 body ported



Extreme Environments

*Demand The **Viking Xtreme***

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

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

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

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


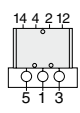

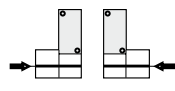

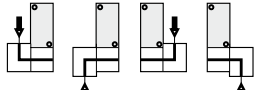

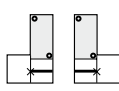

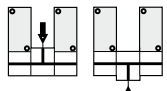

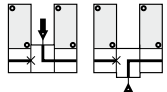


Max operating pressure 16 bar (A & B) 12 bar (C & D). temp range -40°C to +60°C

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 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		

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 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 banjo-bolts. 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 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)

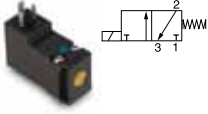
Order code (with Non-locking (monostable m/o)	Weight Kg
P2FP13H4D	0.05kg

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.

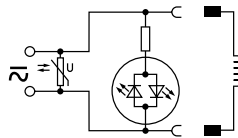
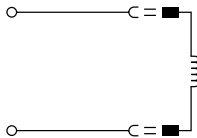
Solenoid Operators - Electrical connection EN175301-803 C/ISO15217 (Ex DIN 43650C)**Solenoids 15 mm NC, standard**

	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

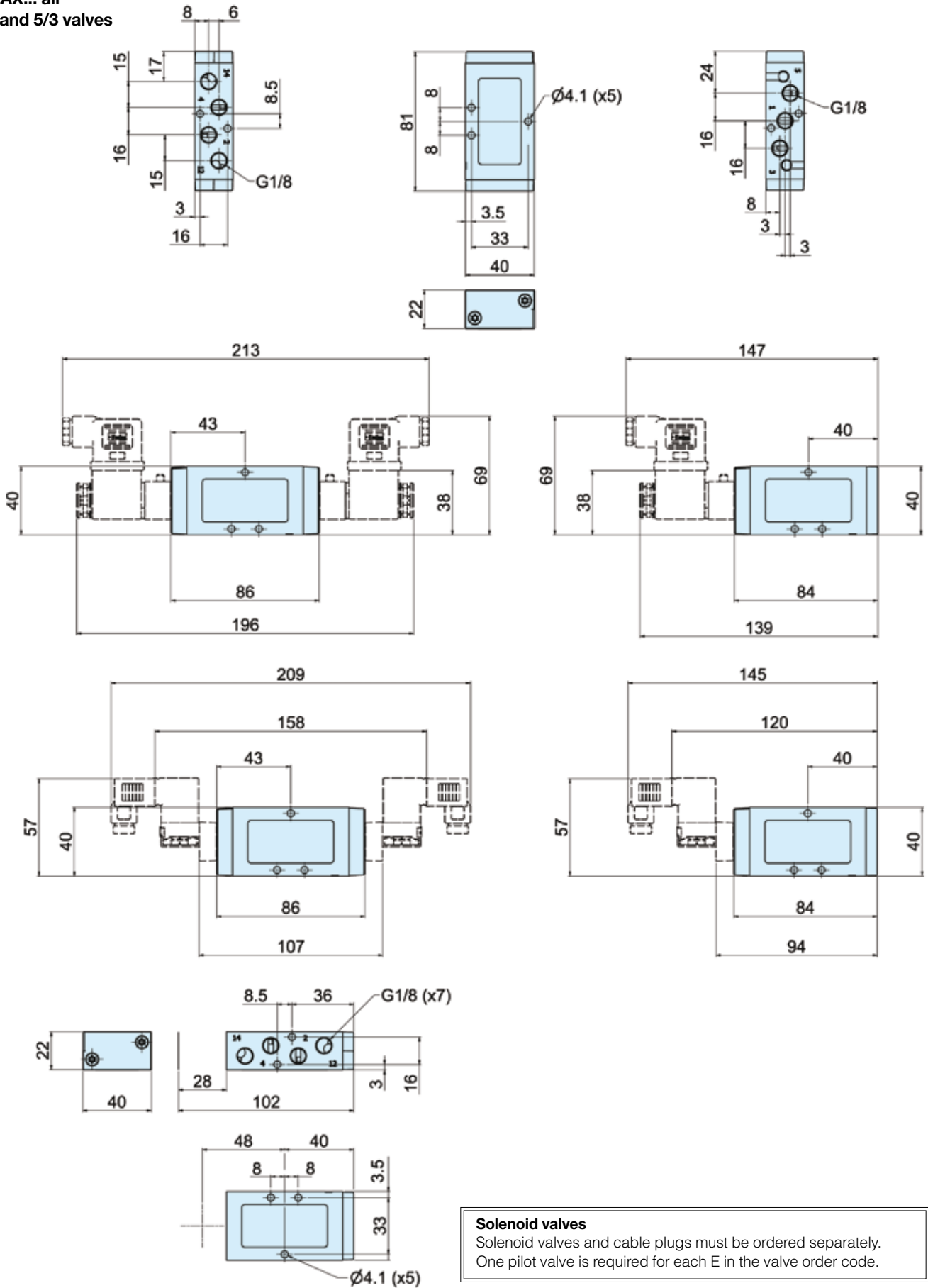
	Description	Order code 15mm Form C/ISO15217	Order code 22mm Industrial Form B
With large headed screw suitable for mounting in inaccessible or recess position 	Standard IP65	P8C-C	
	24V DC LED and protection IP65	P8C-C26C	
	110V AC LED and protection IP65	P8C-C21E	
With standard screw 	Standard IP65 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

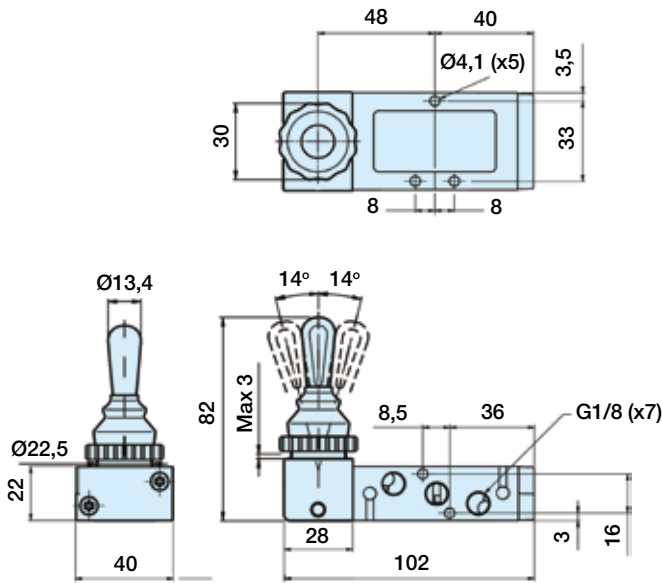
P2LAX... all
5/2 and 5/3 valves



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

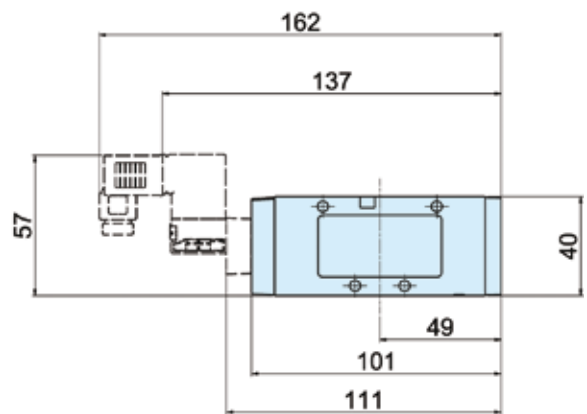
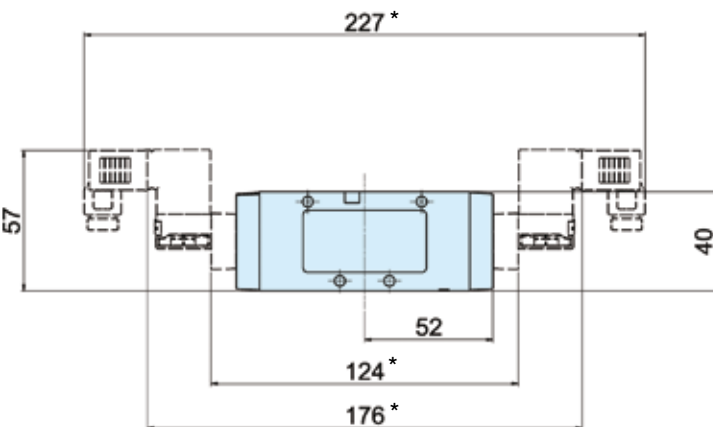
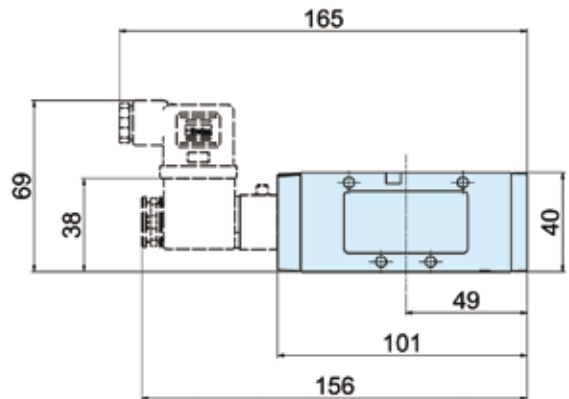
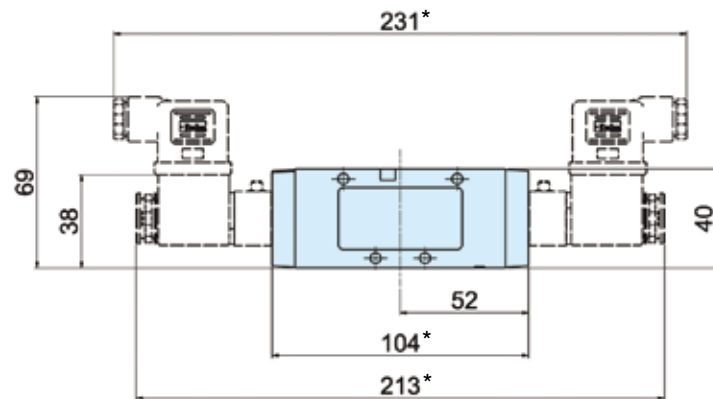
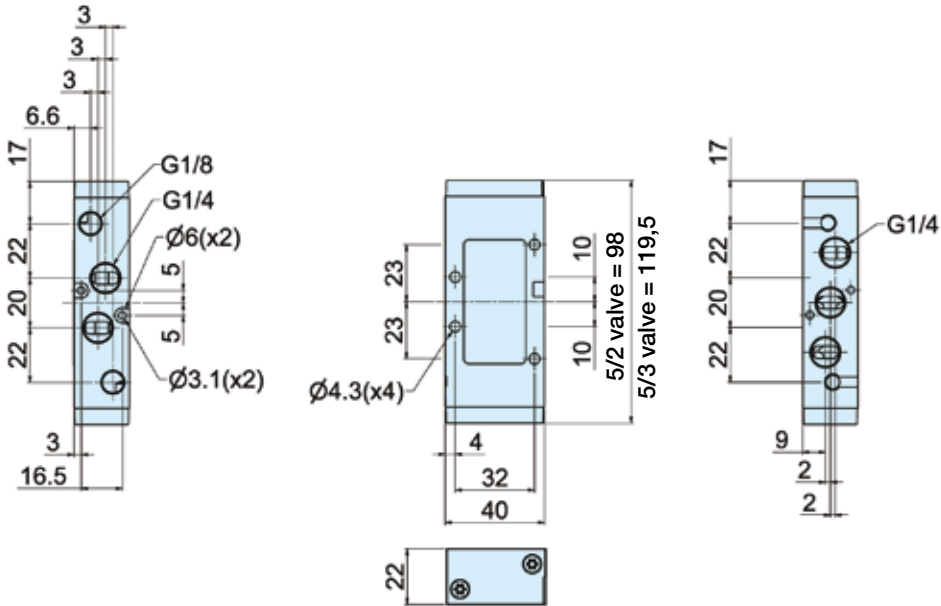
Dimensions

P2LAX - Lever operated directional control valves



Dimensions

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



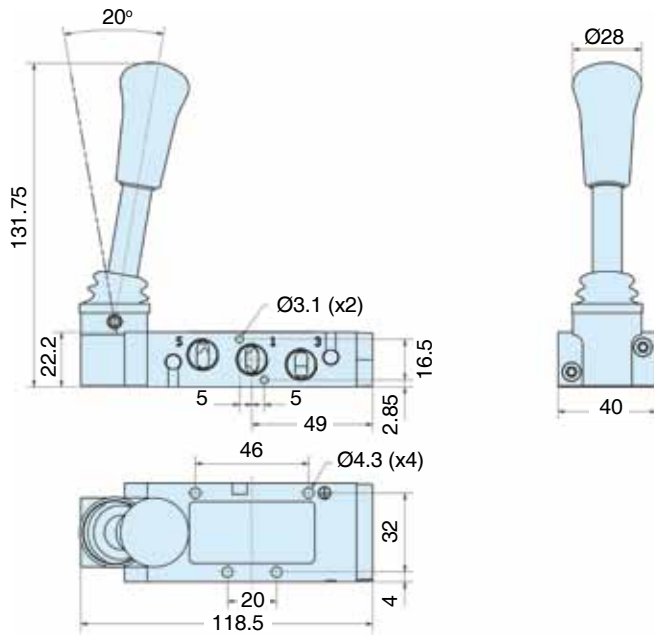
* Note: 5/3 valves - add 21.5mm

Solenoid valves

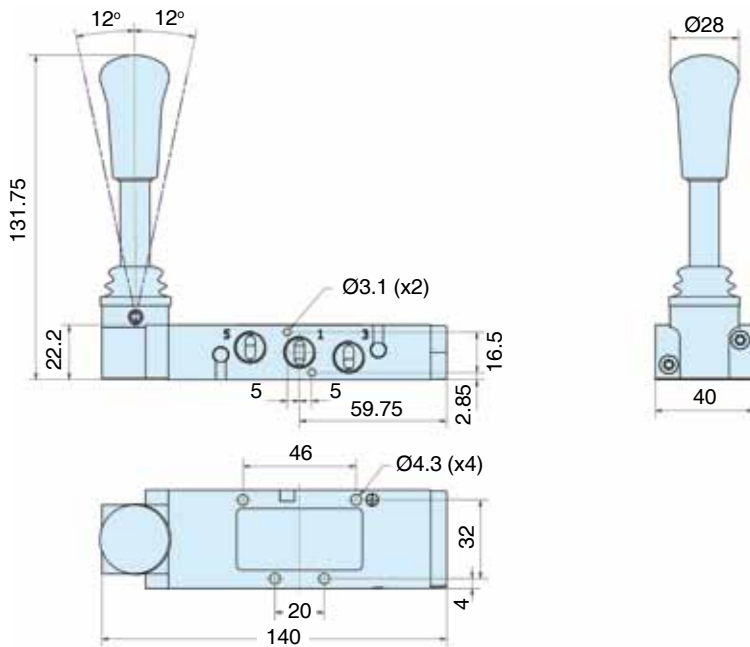
Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

Dimensions

P2LBX - 5/2 Lever operated directional control valves

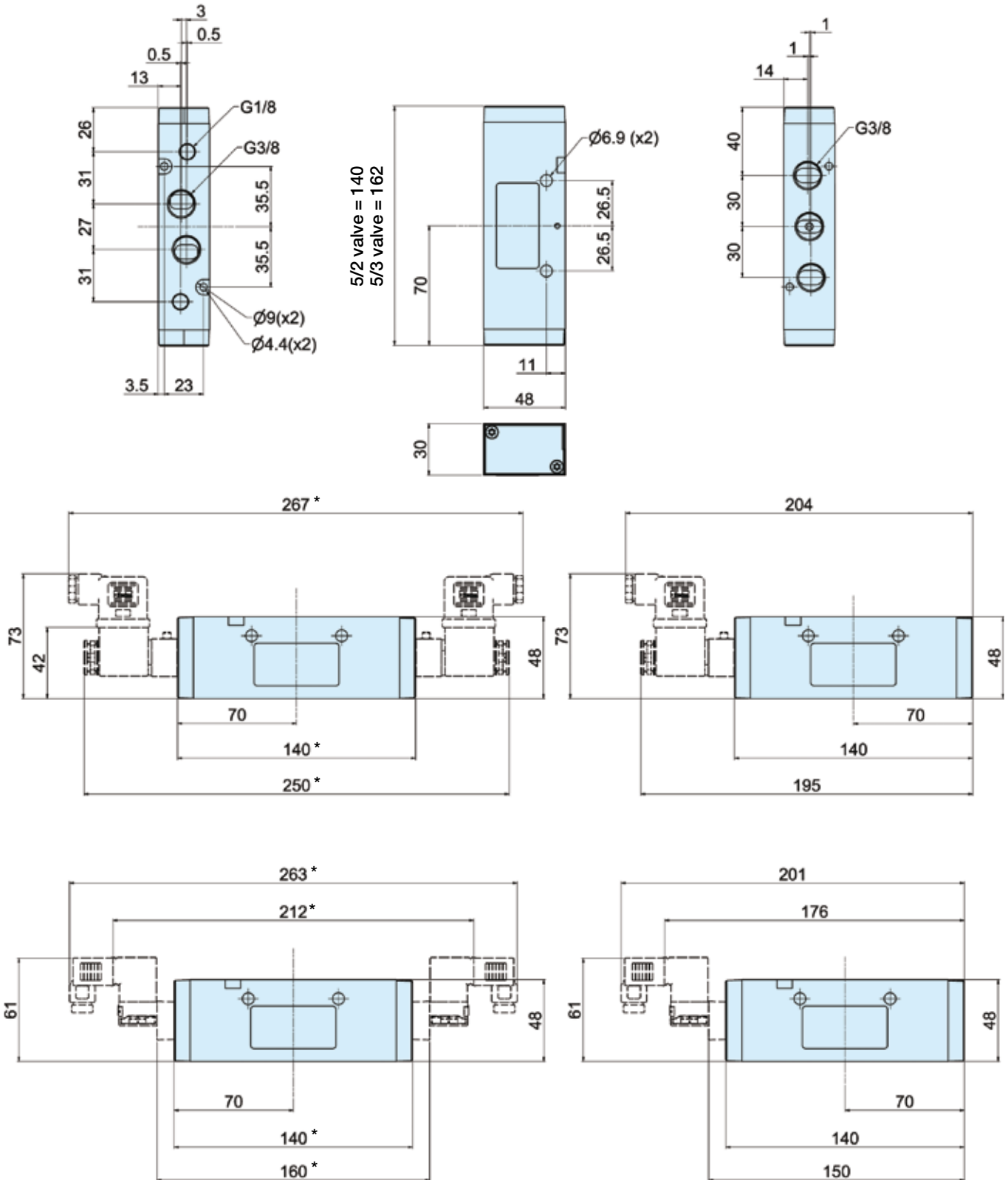


P2LBX - 5/3 Lever operated directional control valves



Dimensions

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

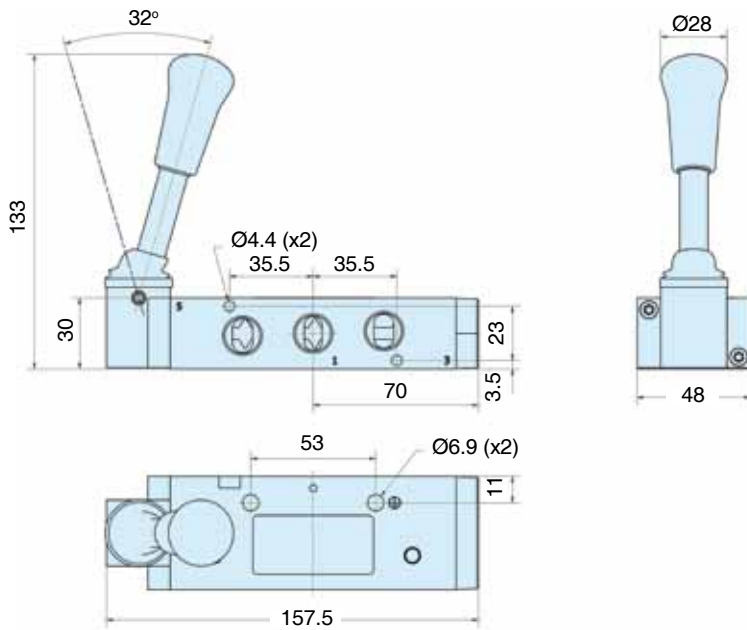


* Note: 5/3 valves - add 22.0mm

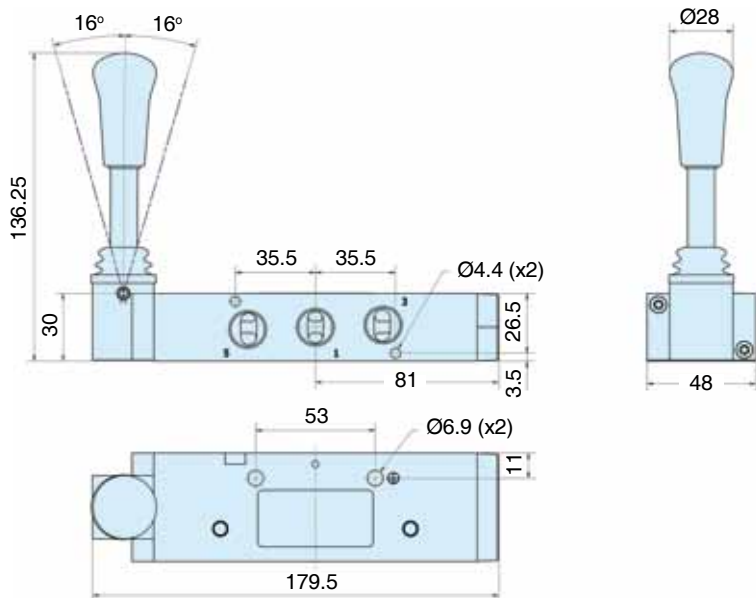
Solenoid valves
Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

Dimensions

P2LCX - 5/2 Lever operated directional control valves

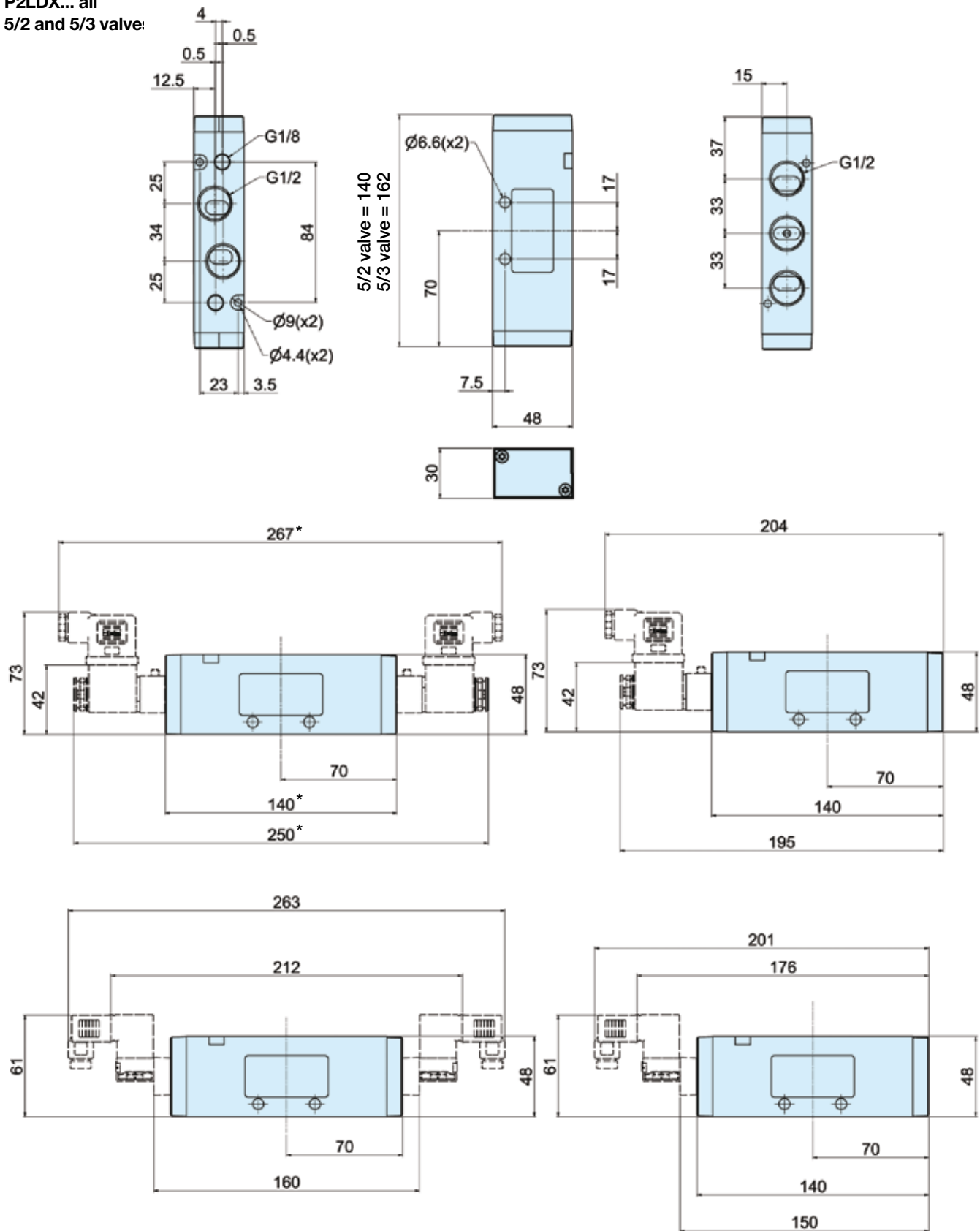


P2LCX - 5/3 Lever operated directional control valves



Dimensions

P2LDX... all
5/2 and 5/3 valve:

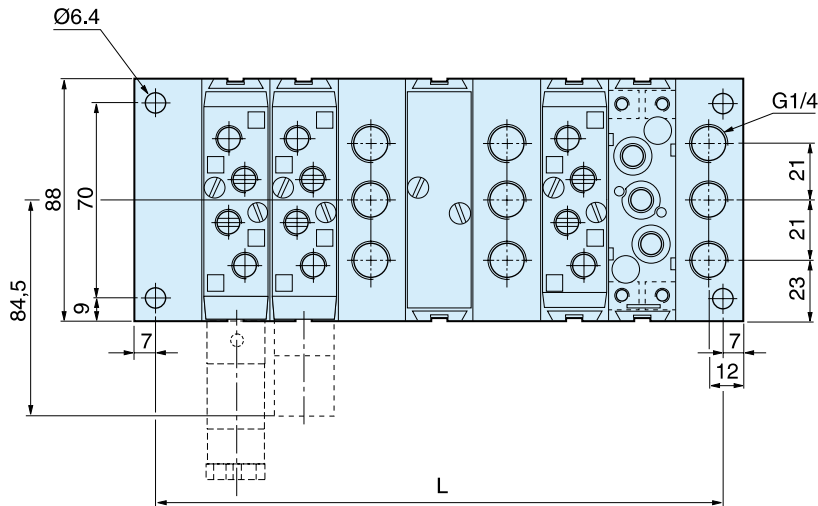


* Note: 5/3 valves - add 22.0mm

Solenoid valves

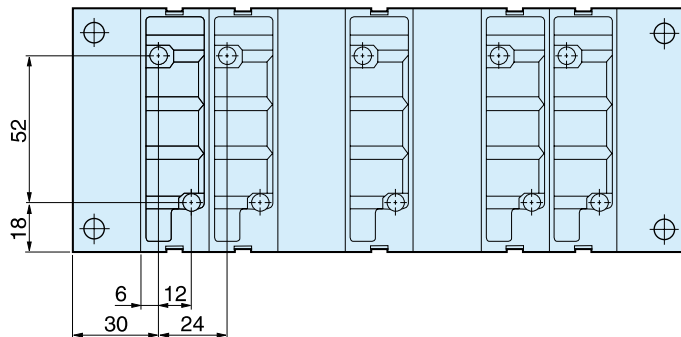
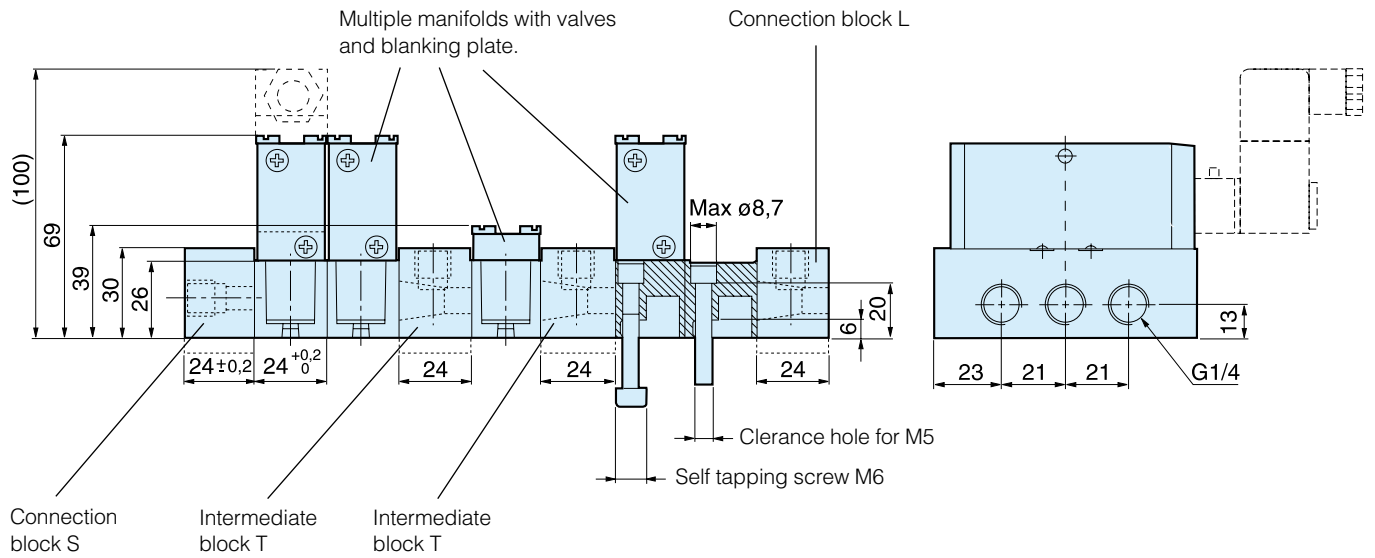
Solenoid valves and cable plugs must be ordered separately. One pilot valve is required for each E in the valve order code.

Dimensions



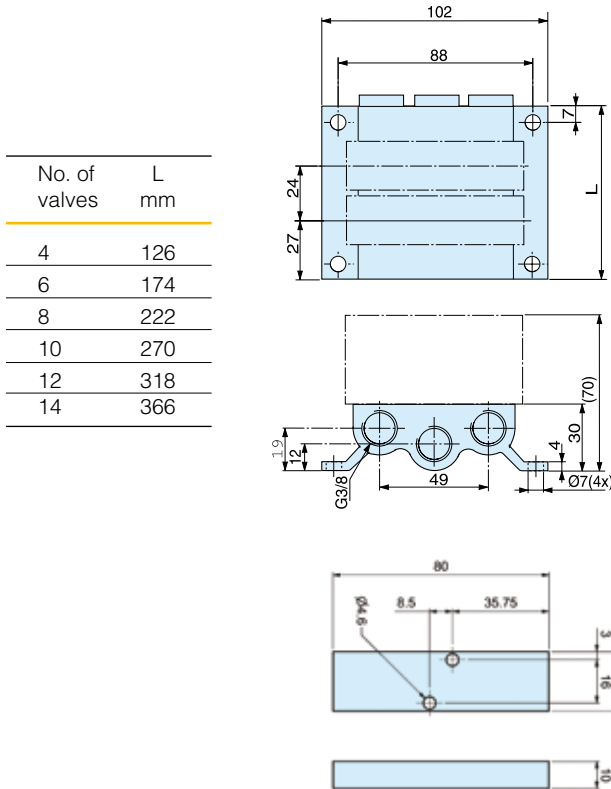
$L = 34 + (\text{Number of manifolds and Intermediate blocks} \times 24)$

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.



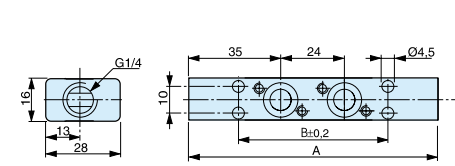
Dimensions

Manifold bar, P2LA

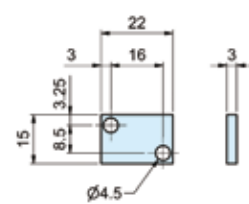


No. of valves	L mm
4	126
6	174
8	222
10	270
12	318
14	366

Pressure bar, P2LA

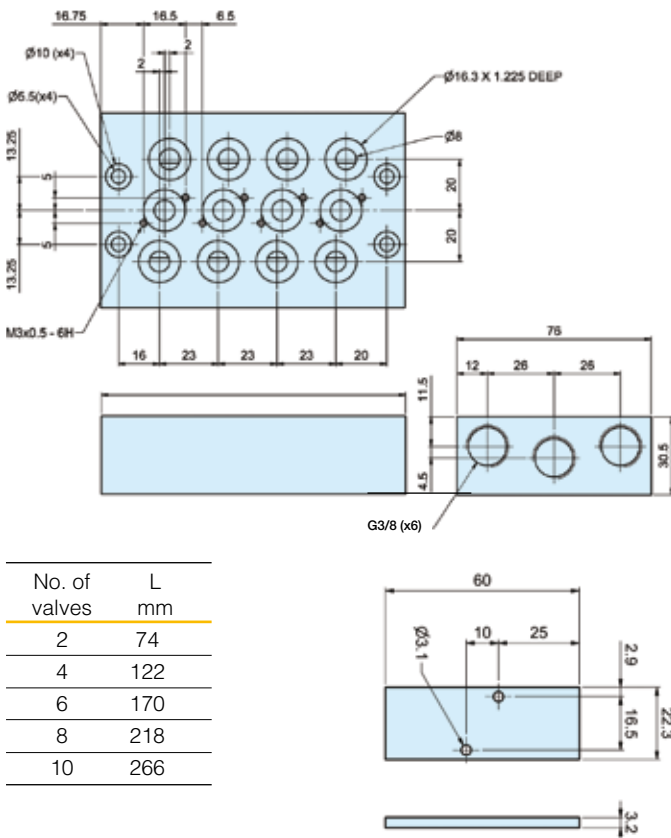


Pressure bar, P2LA



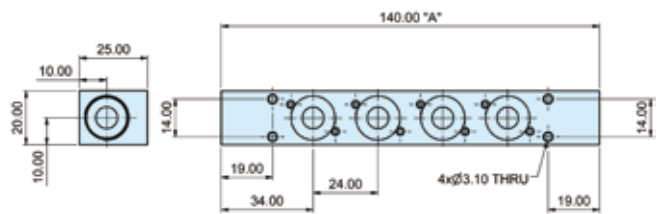
No. of valves	A mm	B mm
2	94	56
4	142	104
6	190	152
8	238	200

Manifold bar, P2LB

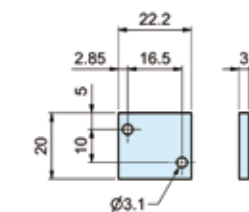


No. of valves	L mm
2	74
4	122
6	170
8	218
10	266

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

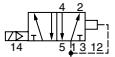
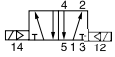
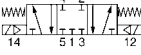
Symbol	Description (Electrically Actuated)	Voltage	Order code A05R - M5 ports	Order code A12R - G1/8 ports
	5/2 single solenoid	24V DC	A05RS251PM5MF	A12RS251PG1MF
	5/2 double solenoid	24V DC	A05RD251PM5MF	A12RD251PG1MF
	5/3 closed centre	24V DC	A05RD351PM5MF	A12RD351PG1MF

A05R/A12R Series Manifolds

Manifold for individual wiring threaded type


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

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



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

A05P/A12P Series manifold sub-bases

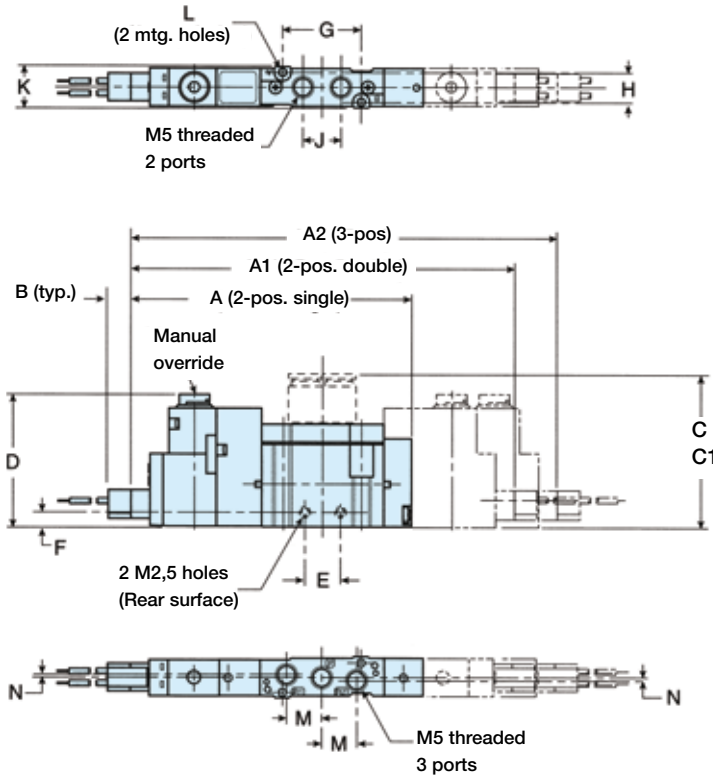
Manifolds individual wiring threaded type

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

Mounting and Wiring Accessories

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

A05R - Single and double operators - Body ported

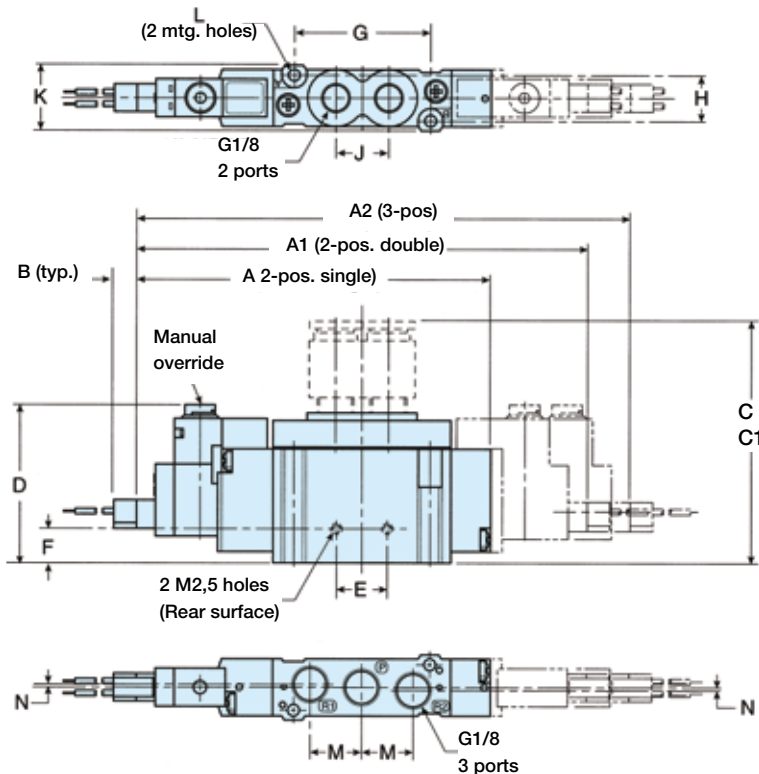


A05R - Body ported

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

Dimensions in mm

A12R - Single and double operators - Body ported

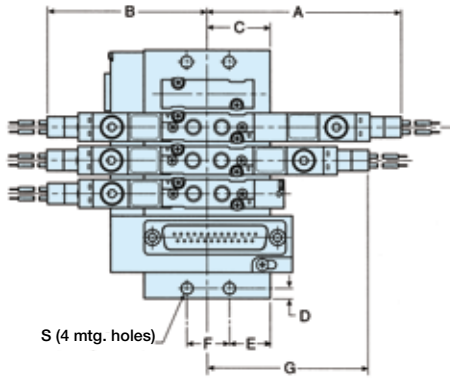


A12R - Body ported

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

Dimensions in mm

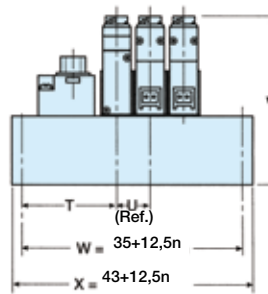
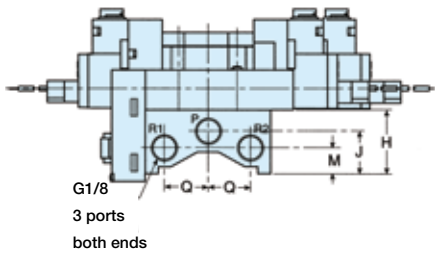
A05R - Manifold - Valve body ports



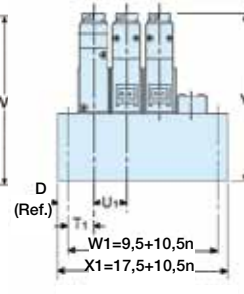
A05R - Manifold - valve body port

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

Dimensions in mm



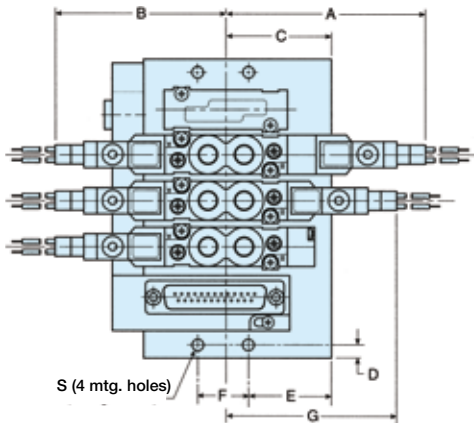
MMCU...



MMFU...

n = number of stations

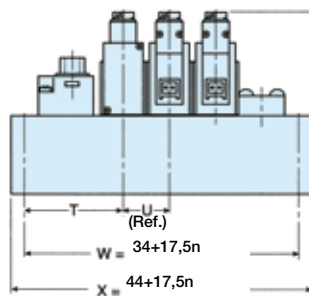
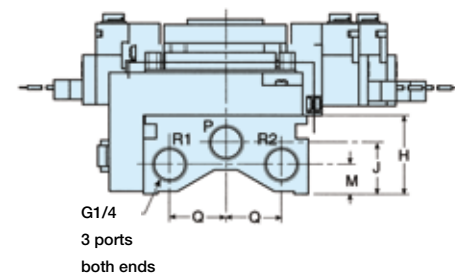
A12R - Manifold - Valve body ports



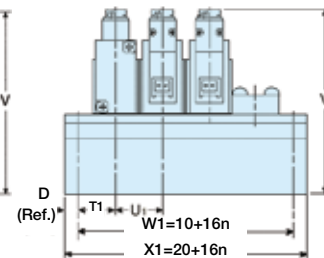
A12R - Manifold - valve body port

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



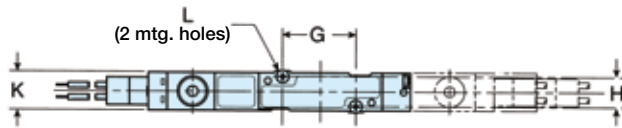
MMCU...



MMFU...

n = number of stations

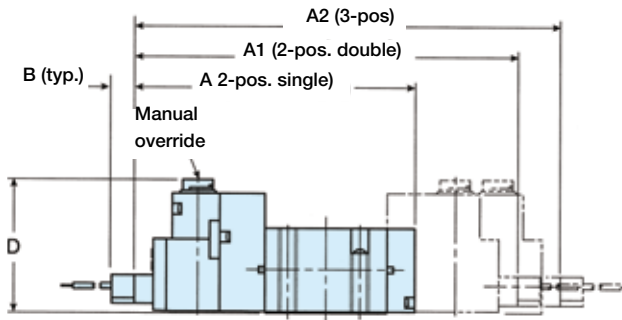
A05P - Single and double operators - Subbase



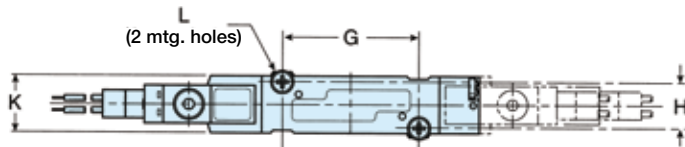
A05P - Subbase

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

Dimensions in mm



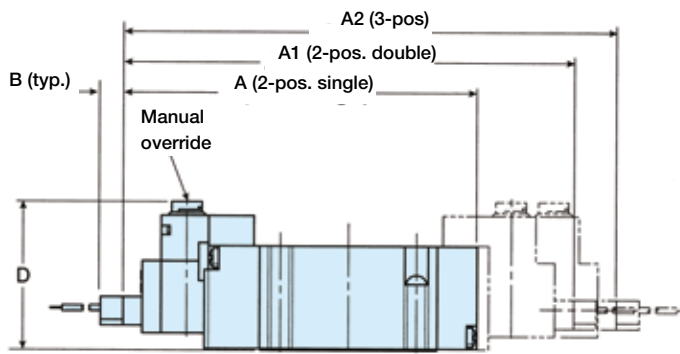
A12P - Single and double operators - Subbase



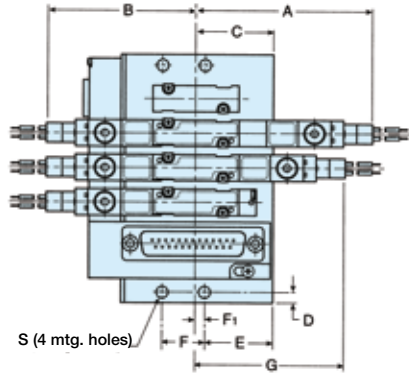
A12P - Subbase

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

Dimensions in mm



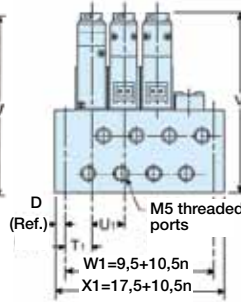
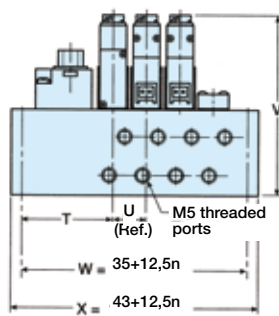
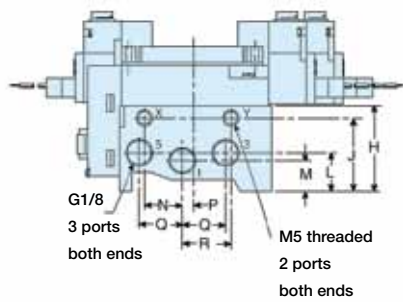
A05P - Manifold - Side ports



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

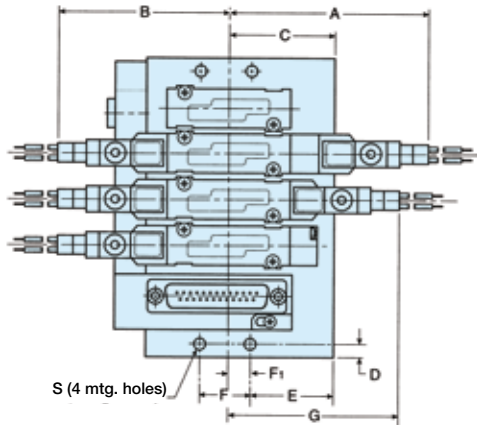


n = number of stations

MMCS...

MMFS...

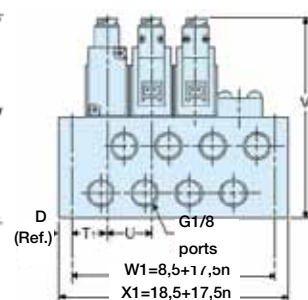
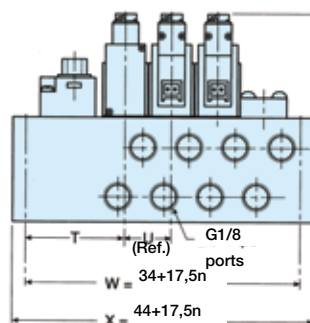
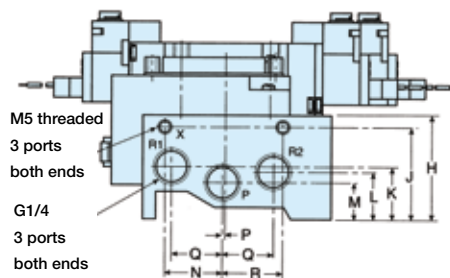
A12P - Manifolds - Side ports



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.



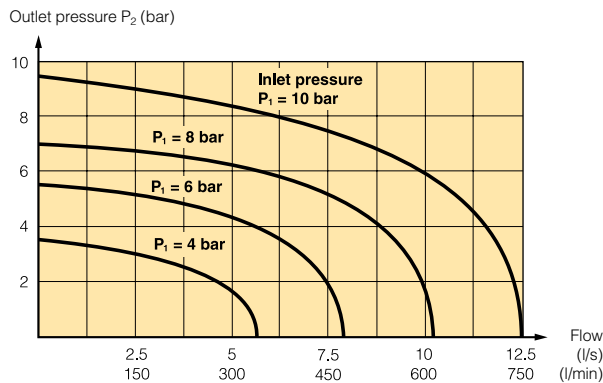
- B 43 - 1/8" ported, B53 - 1/4 ported
- Manual and mechanical operation
- Stainless steel spools
- Viton seals
- 3/2, 5/2, 3/3 and 5/3 versions.
- Integral mounting holes

Operating information		Material specification	
Type	Spool valves	Valve body	Aluminium
Style	Body ported	Spool	Stainless steel
Port size	G1/8 & G1/4	Seal spacers	Zinc die cast
Mounting	Any plane	Seals	Viton
Pressure range	Vacuum to 10 bar	Spring housing	Nylon
Temperature range	-10°C to +80°C	Spring	Zinc plated
Flow acc. (to ISO 6358)		End covers	Zinc die cast
	Midget B43 series	Actuators	Zinc die cast
	Intermediate B53 series	End cover screws	Zinc plated
	c = 1.13 NI/s x bar		
	c = 3.69 NI/s x bar		
	b = 0.36		
	b = 0.33		
	Qn = 5.5 l/s		
	Qn = 17.5 l/s		
	Qmax = 9.0 l/s		
	Qmax = 29 l/s		
	Cv = 0.24		
	Cv = 1.02		
		Working medium, air quality	
		Working medium:	Dry, filtered compressed air to ISO 8573-1 class 3.4.3.

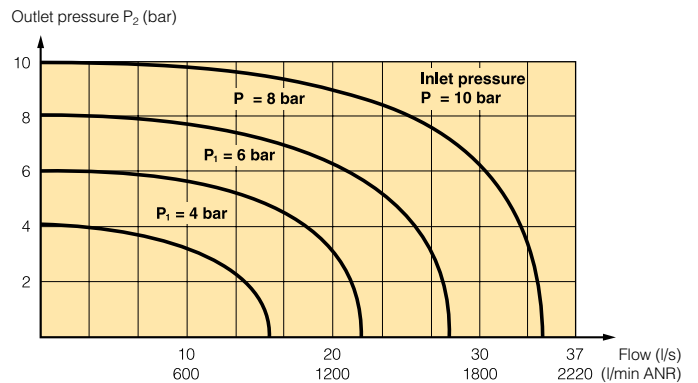
Flow characteristics

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	Spring Lever	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

**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

**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	B43004XHP
	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 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	B53003HX
	3/2	Black	Air	27	B53003HXP
	5/2	Black	Spring	53	B53004HXS
	5/2	Black	Button	27	B53004HX
	5/2	Black	Air	27	B53004HXP
	5/3	Button closed centre position	Button self centring	13	B53005HXX
	5/3	Button vented centre position	Air self centring	13	B53004HXY
	5/3	Button pressurised centre 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-10A**
 Kit includes panel plate and M5 counter sunk head screws

**Midget 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

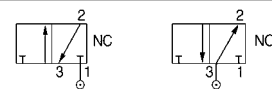
**Intermediate foot operated valves,
B53 series - G1/4**

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 **3117**



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

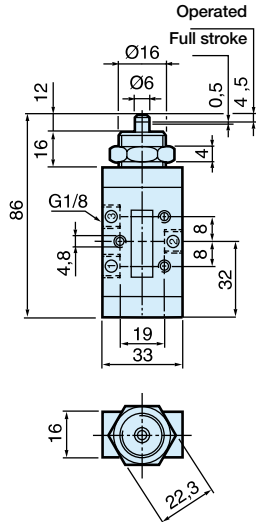
Dimensions, G1/8 ported spool valves

All dimensions in mm unless otherwise stated

Mechanically operated valves

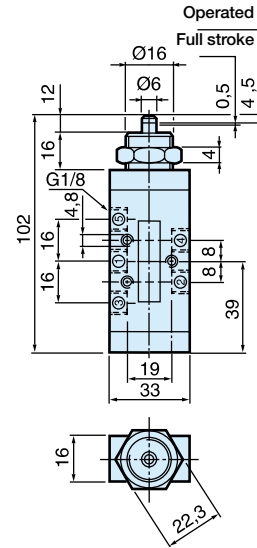
3/2 valves

Plunger operated spring return



5/2 valves

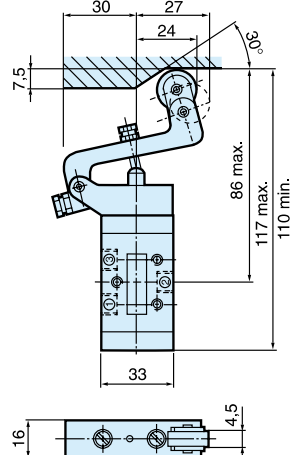
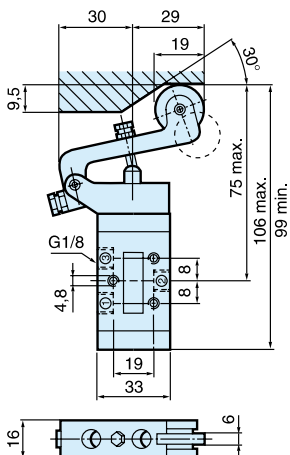
Plunger operated spring return



3/2 valves

Roller operated spring return

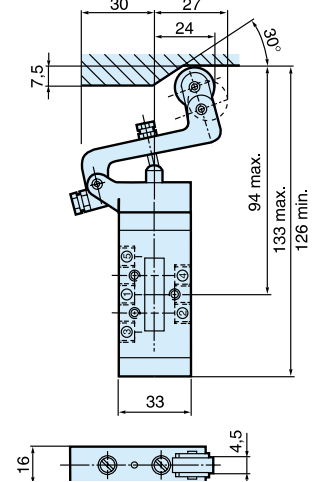
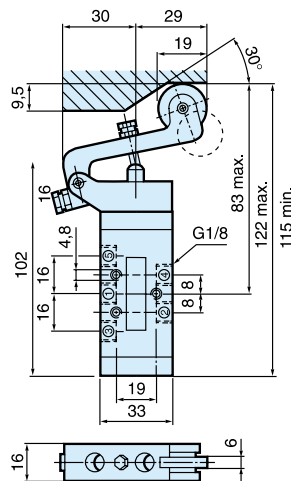
One way roller trip operate spring return



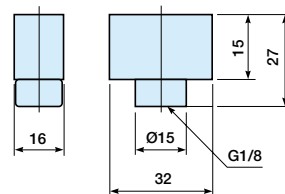
5/2 valves

Roller operated spring return

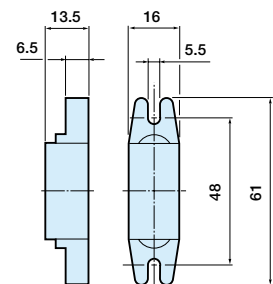
One way roller trip operate spring return



Air Pilot Return



Optional foot mounted - Spring return housing



Dimensions, G1/8 ported spool valves

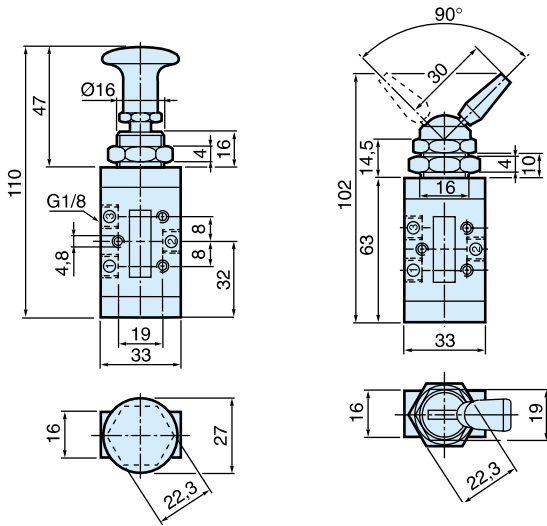
All dimensions in mm unless otherwise stated

Manually operated valves

3/2 valves

Button operated spring return or button returned

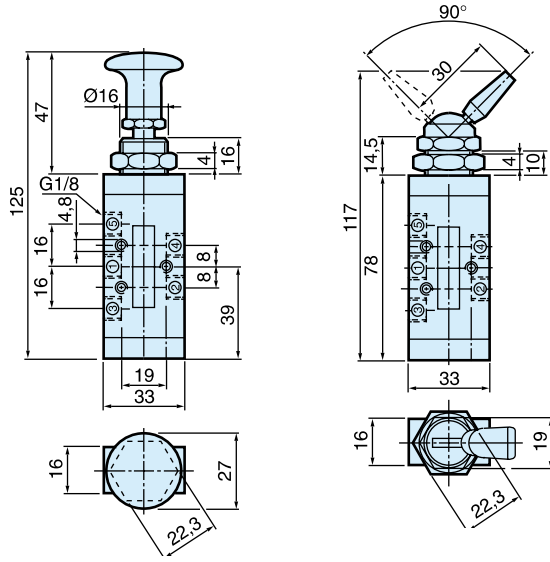
Lock down lever operated spring return



5/2 valves

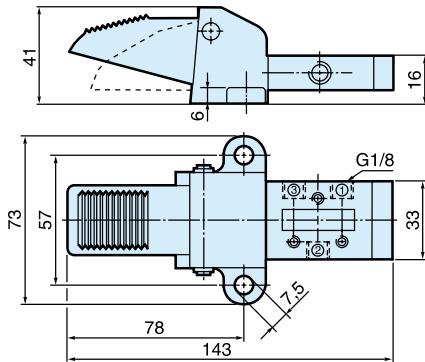
Button operated spring return or button returned

Lock down lever operated spring return



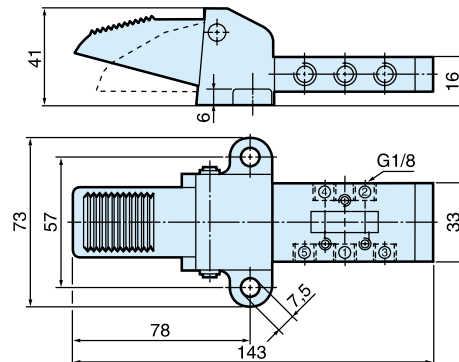
3/2 valves

Foot pedal operated spring return

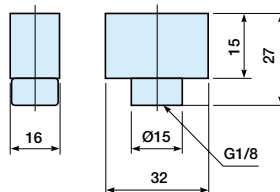


5/2 valves

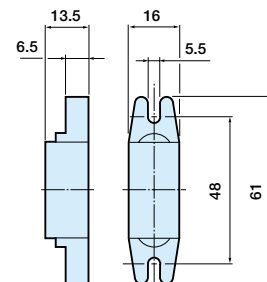
Foot pedal operated spring return



Air Pilot Return



Optional foot mounted - Spring return housing



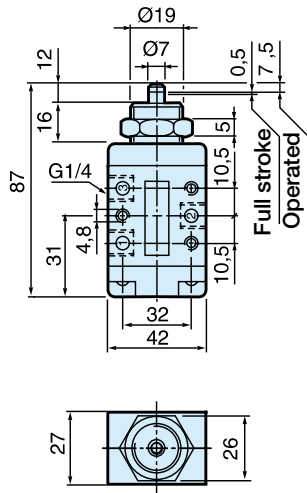
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Mechanically operated valves

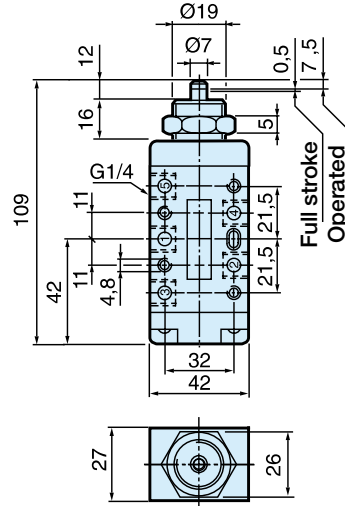
3/2 valves

Plunger operated spring return



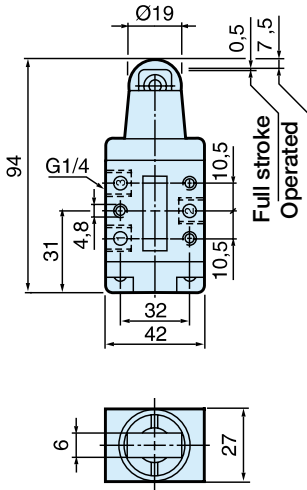
5/2 valves

Plunger operated spring return



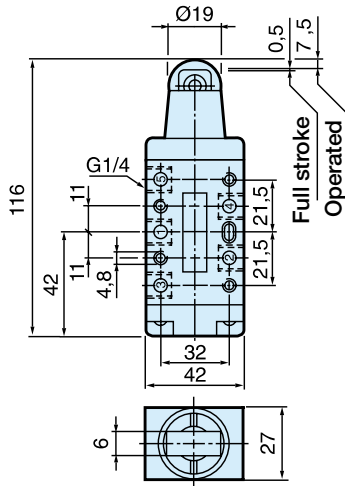
3/2 valves

Roller operated spring return

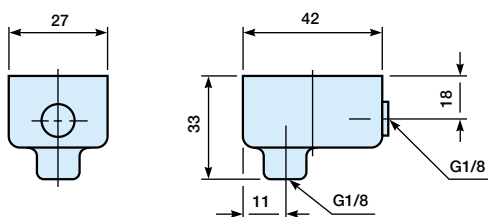


5/2 valves

Roller operated spring return



Air Pilot Return



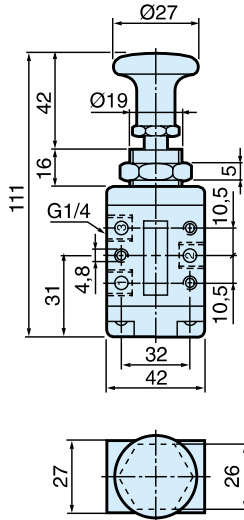
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

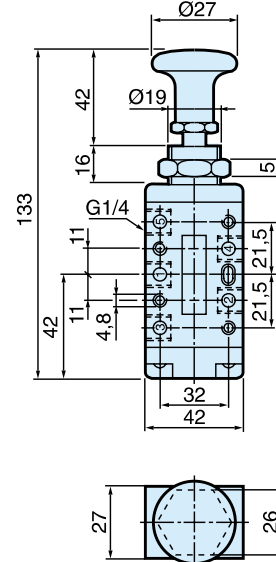
3/2 valves

Button operated spring return or button returned



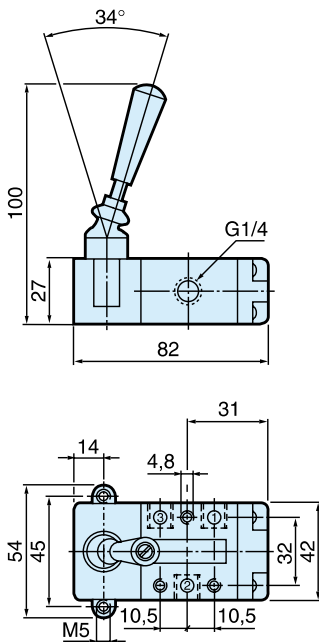
5/2 valves

Button operated spring return or button returned



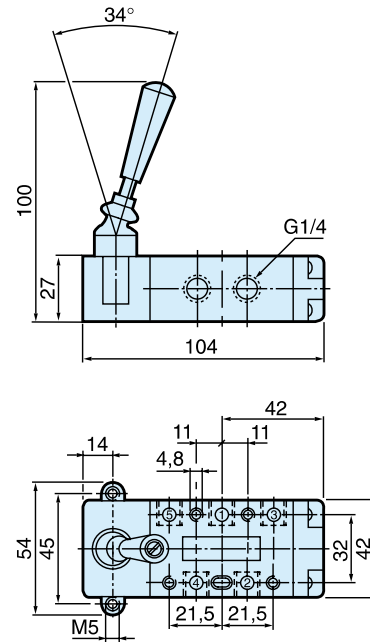
3/2 valves

Lever operated

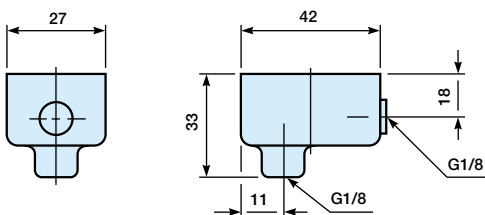


5/2 valves

Lever operated



Air Pilot Return



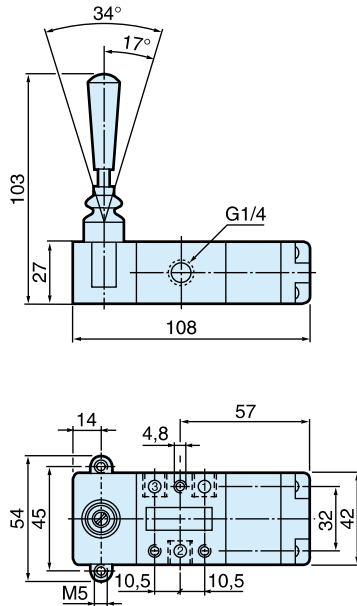
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

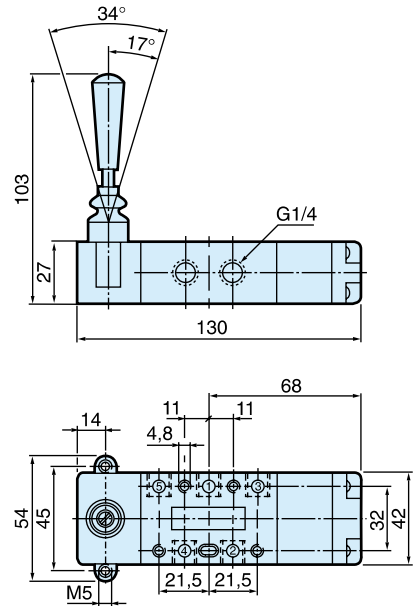
3/3 valves (Self centring)

Lever operated



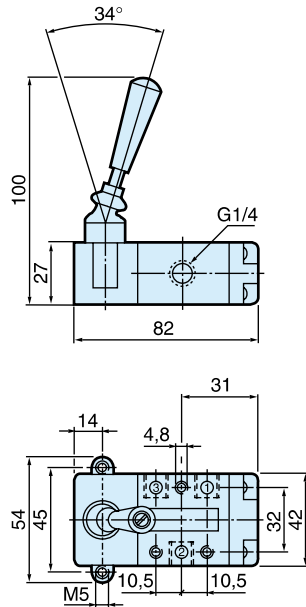
5/3 valves (Self centring)

Lever operated



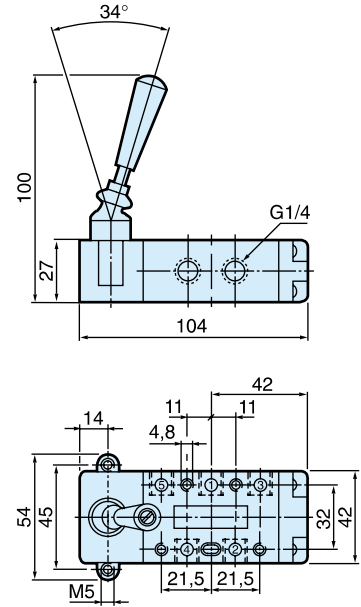
3/3 valves (3 positions)

Lever operated

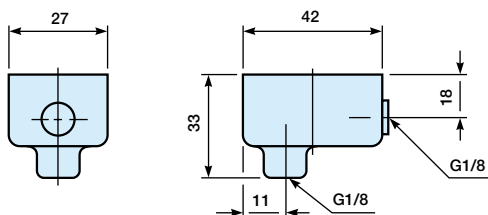


5/3 valves (3 positions)

Lever operated



Air Pilot Return



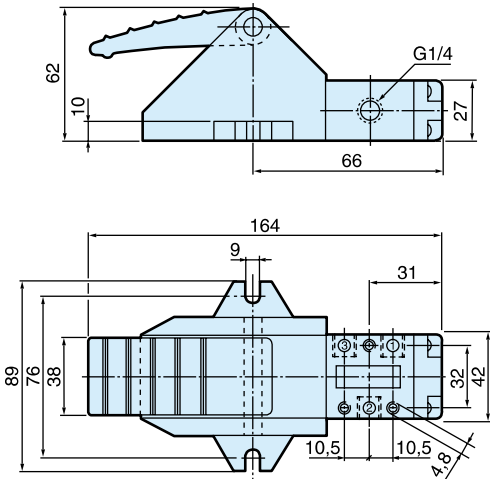
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

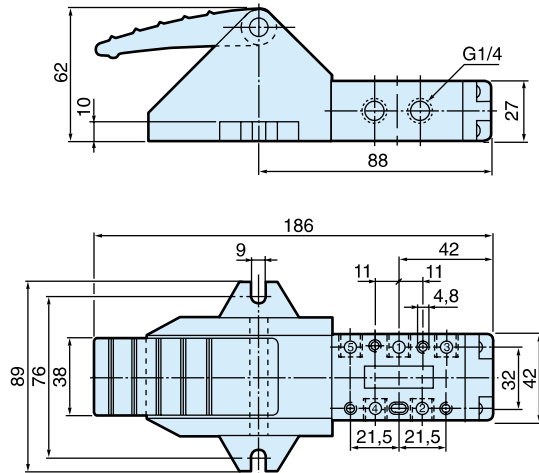
3/2 valves

Foot pedal operated spring return



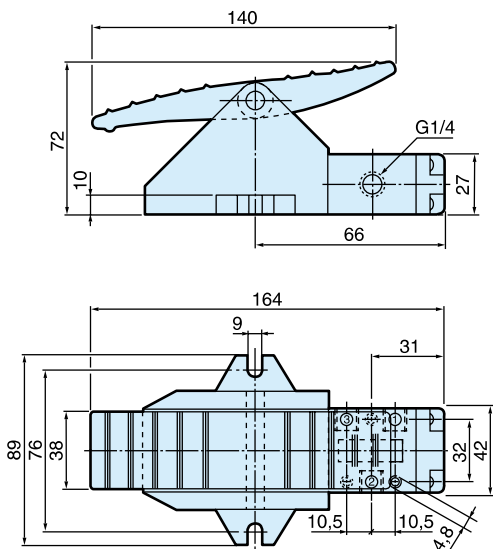
5/2 valves

Foot pedal operated spring return



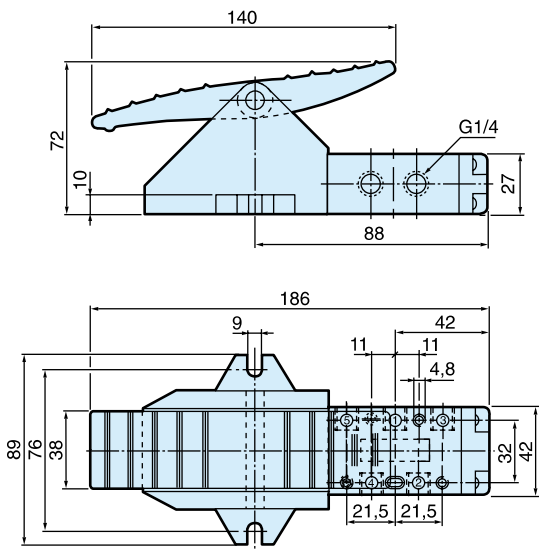
3/2 valves

Foot pedal operated



5/2 valves

Foot pedal operated



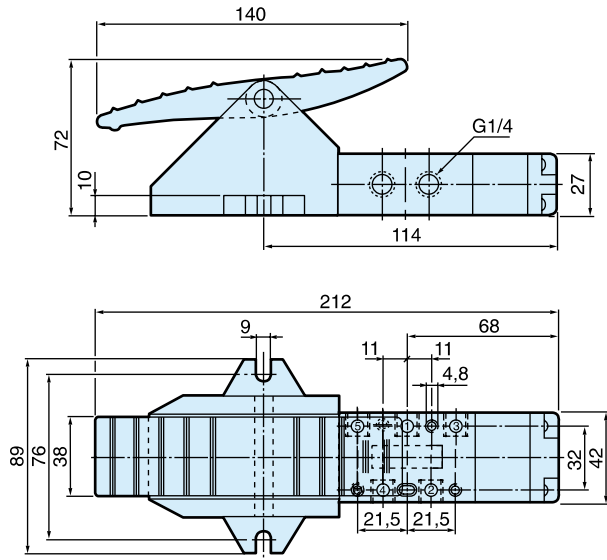
Dimensions, G1/4 ported spool valves

All dimensions in mm unless otherwise stated

Manually operated valves

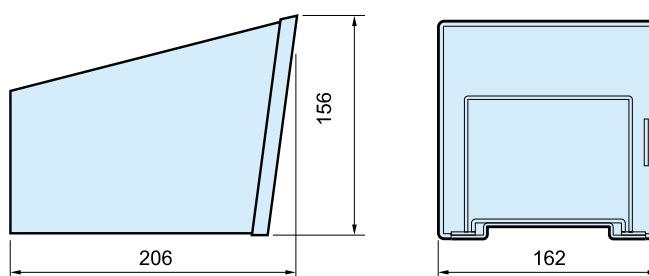
5/3 valves

Foot pedal operated



Foot guard kit

3117



Service and Replacement Parts

B43 Series Manually Operated Valves

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



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
B53004HXX	Button, Self centring		53007
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
B53004LT	Lever, 2 positions		53007
B53004L	Lever, 3 positions	53004L-100	Lever kit
B53004LW	Lever, 3 positions		53004L-300R
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
B43003RS	Roller Lever	43004R-200	43007A
B43004RS	Roller Lever		



B53 Series Mechanically Operated Valves

Order code	Actuator	Replacement actuator	Repair kit
B53003CS	Plunger	53004C-100	
B53004CS	Plunger		Body seal
B53003RS	Roller	53004R-100	53007
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 - G¹/₈

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

		All 3/2 type VA13 valves can be connected either as normally closed 3/2 valve (NC) or normally open 3/2 valve (NO) as required, by connecting the primary air supply to port 1 or port 3
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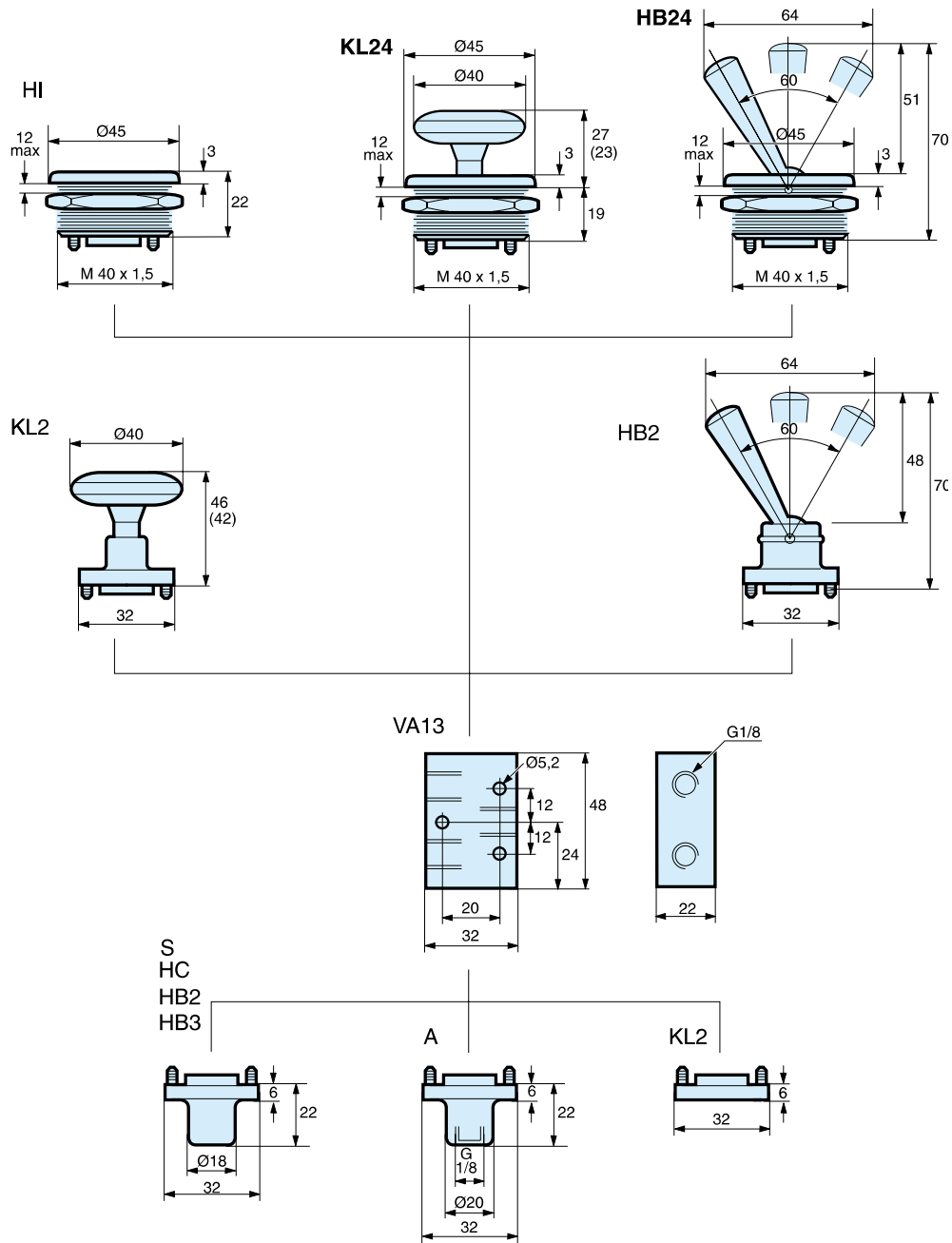
Push button valves, VA15 Series - G¹/₈ connection

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

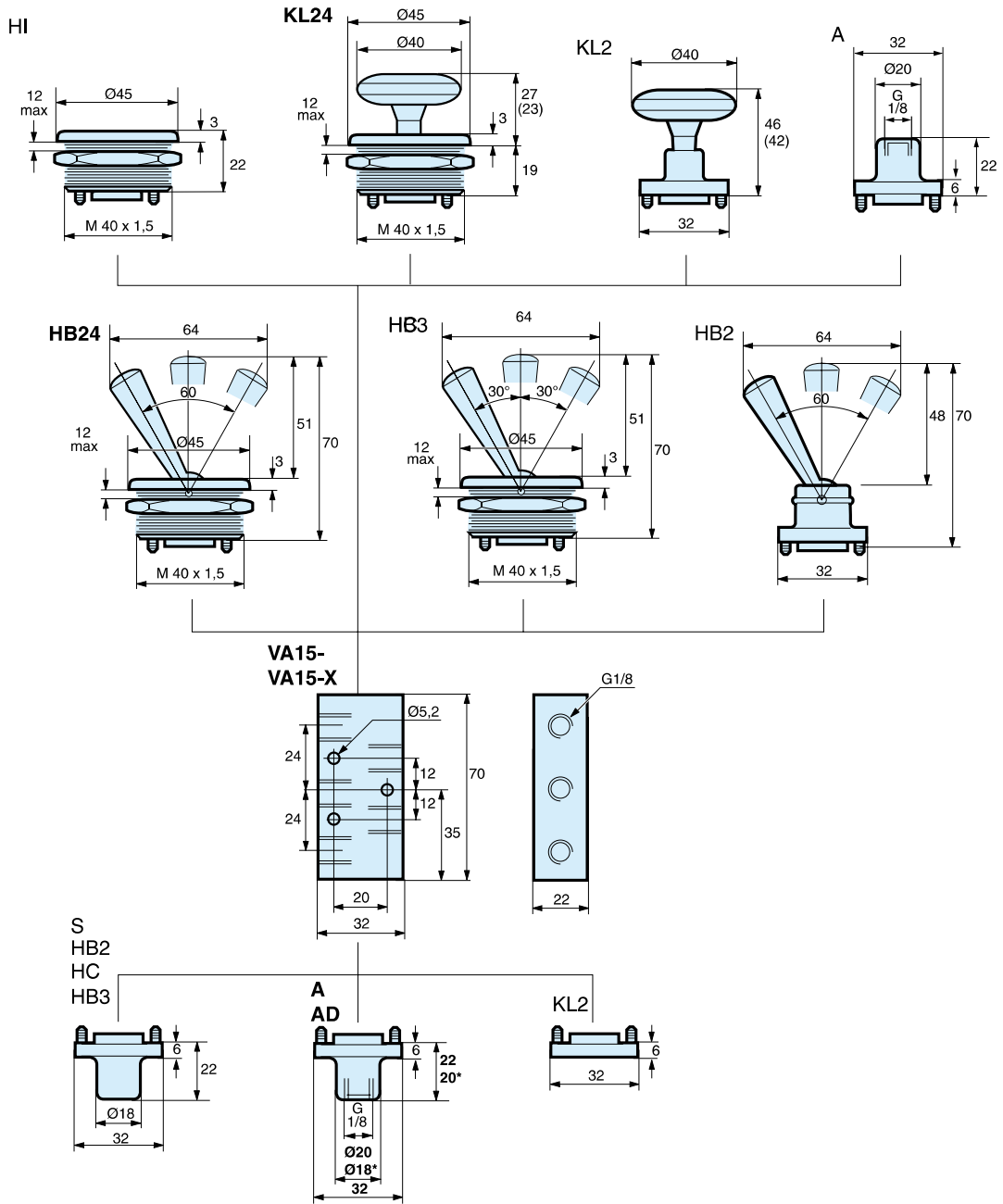
Accessories for VA13/15HI... Series valves

	Description	Order code
<p>Diaphragm</p> <p>Mounting ring</p>	Diaphragm, black	9127359331
	Diaphragm, yellow	9127359332
	Mounting ring	9127359334

Dimensions



Dimensions



Heavy duty poppet valves

2/2 & 3/2 - G³/₈" & G¹/₂"

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

The bodies are of block form construction for ease of mounting. Springs are stainless steel; internal seals being of nitrile rubber.

The 2/2 body allows air in one direction only, 3/2 versions having the facility of exhausting air through the actuator unit. This exhaust vent is unthreaded on all valves except the pilot and solenoid types which allows the piping away of exhaust air.

All mechanisms are spring returned.



Operating information		Material specification	
Working pressure	0 - 10 bar	Body	Zinc die cast
Working temperature	-10°C to +80°C	Roller	Zinc plated steel
Solenoid version	-10°C to +50°C	Mechanical arm	Zinc plated steel
Minimum pilot pressure	1.9 bar @ 6 bar supply	Poppet	Stainless steel
Response time (solenoid energised)	14 msecs	Seals	Nitrile
Response time (solenoid de-energised)	75 msecs	Spring	Stainless steel
		Bush	Aluminium
		Piston	Aluminium
Flow capacities in accordance with ISO6358			
Flow;	B102-B103 C = 7,54 b = 0,29 Qn = 33 l/s Qmax = 54 l/s Cv = 2,65	B202-B203 C = 10,75 NI/s x bar b = 0,24 Qn = 43 l/s Qmax = 75 l/s Cv = 3,20	

Working medium, air quality

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

Recommended air quality for valves

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

ISO 8573-1 quality classes

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

DB 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

0 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

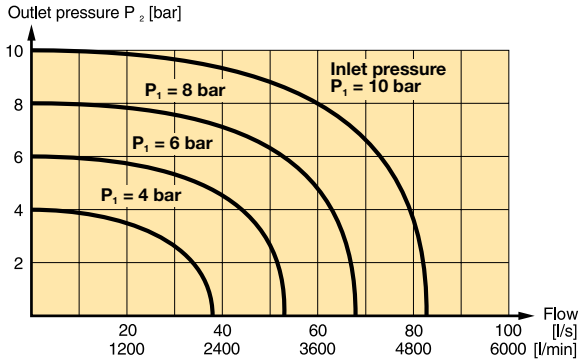
Flow characteristics

Flow capacities in accordance with ISO6358

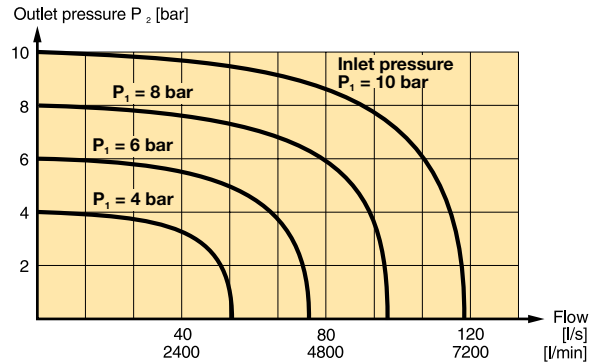
Flow measured with valve on manifold

All pressures = effective pressure

B102



B202



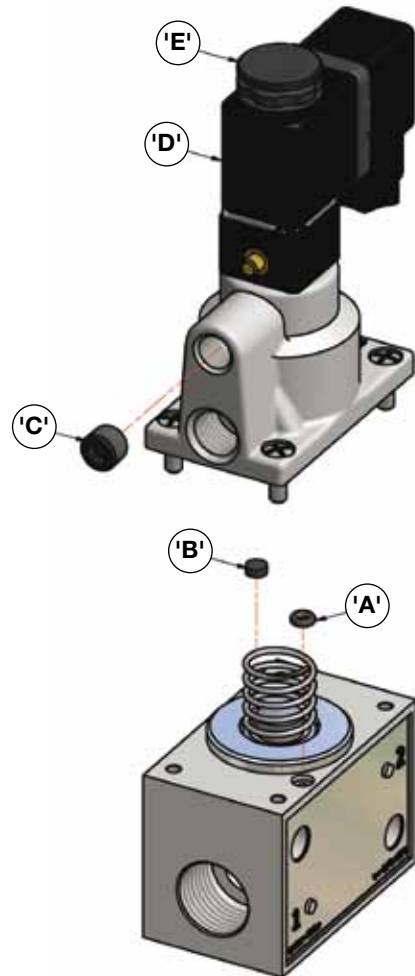
Electrical Information

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').

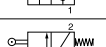
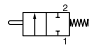


Main data for mechanically operated valves, Heavy duty poppet series (NC only)

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

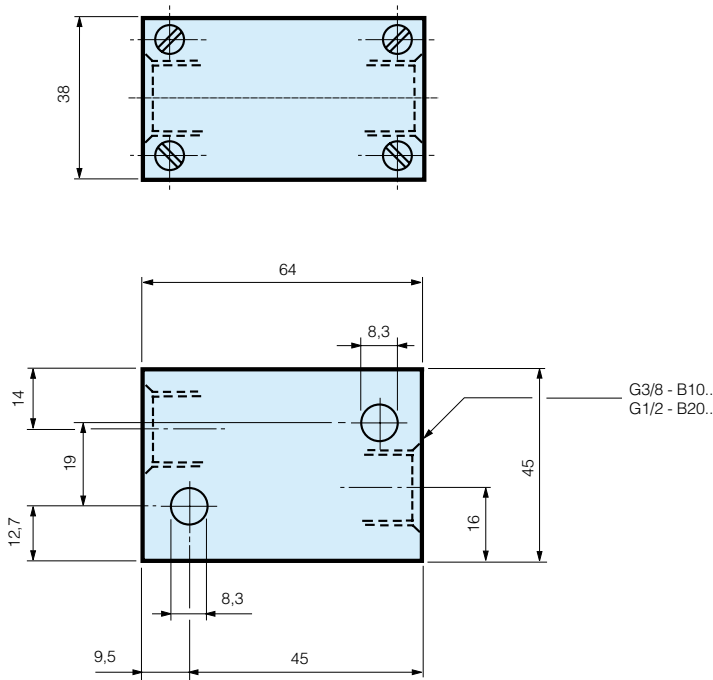
Order electrical connectors for solenoids separately.

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

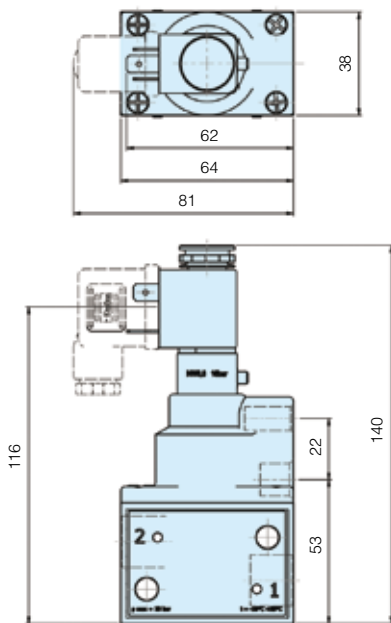
Symbol	Type	Connection	Actuator	Return	Operating force at 6 bar, N	Weight Kg	Order code
	2/2	G3/8	Lever	Lever	22	0.65	B102L
	3/2	G3/8	Lock down	Lever lever	22	0.65	B103L
	2/2	G1/2	Lock down	Lever lever	22	0.65	B202L
	3/2	G1/2	Lock down	Lever lever	22	0.65	B203L
	2/2	G3/8	Roller lever	Spring	36	0.642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

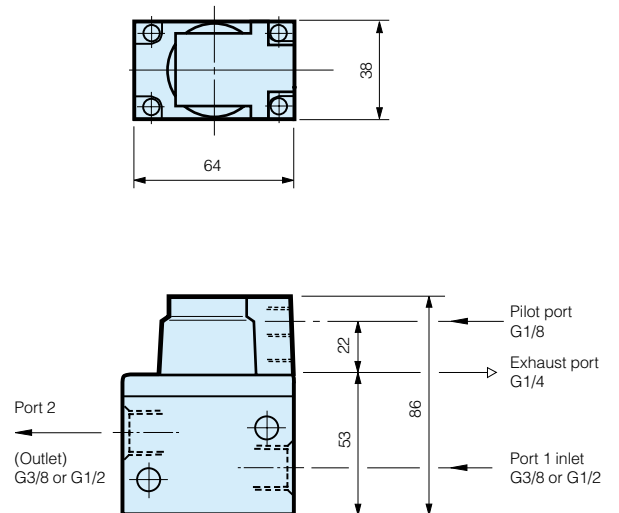
Basic body dimensions



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



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

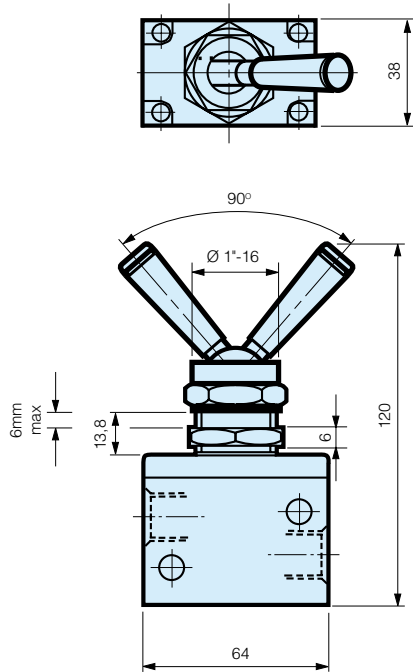


All dimensions in mm unless otherwise stated

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

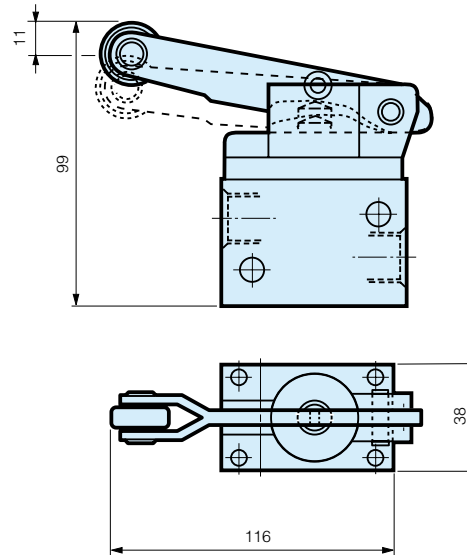
Lock down lever

B102L, B103L, B202L, B203L



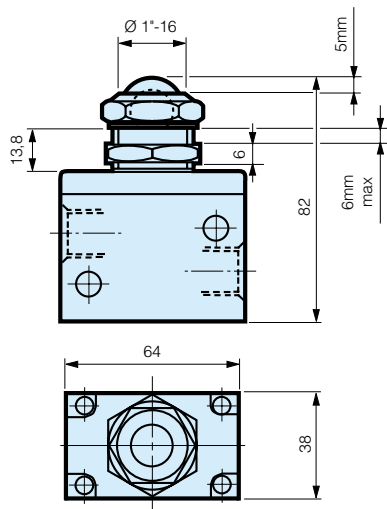
Roller lever operated spring return

B102R, B103R, B202R, B203R



Ball operated spring return

B102C, B103C, B202C, B203C



All dimensions in mm unless otherwise stated

22mm solenoid operator part numbers and spares

Solenoid coils for 22mm solenoid operators

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

Spare Solenoid Nuts

Valves with vented exhaust are fitted with diffuser plastic nut

Order Code

P2FND

Spare Solenoid Operators

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



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

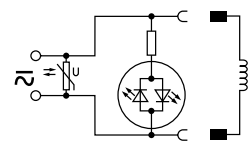
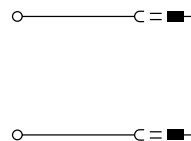
Note.

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

Coils and connectors must be ordered separately.

Solenoid Connectors / Cable Plugs EN175301-803

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



3EV10V10

3EV10V20-24

3EV10V20-24L5

3EV10V20-110

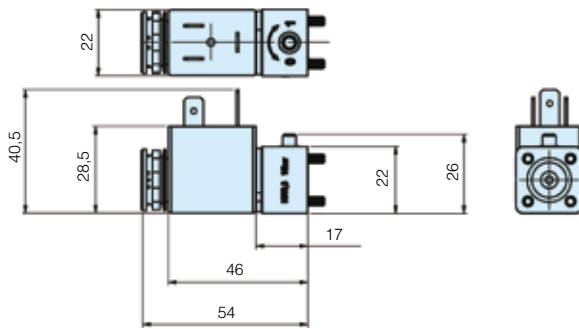
3EV10V20-110L5

3EV10V20-230

3EV10V20-230L5

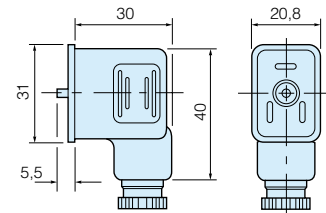
Cable Plug Dimensions (mm)

Solenoid operators P2E-•V...



Cable plugs Form B

3EV10V10



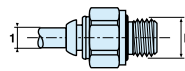
Accessories

Sintered bronze series silencers



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

Male straight connectors - Parallel thread



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