

Part number configurator for solenoid valves

The diagram shows a solenoid valve configuration with the following callouts:

- Valve family:** DB (HD poppet solenoid operated)
- Thread port:** 1 (3/8 BSP), 2 (1/2 BSP)
- Air supply to solenoid:** 2 (Internal)
- Function:** 2 (2/2 NC), 3 (3/2 NC)
- Overrides:** A (None), C (Flush - Locking), D (Extended - non locking)
- Voltage:** 40 (12V AC), 42 (24V AC), 45 (12V DC), 49 (24V DC), 53 (120V AC), 57 (240V AC), XX (valve less solenoid/coil)

<sup>1</sup> 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

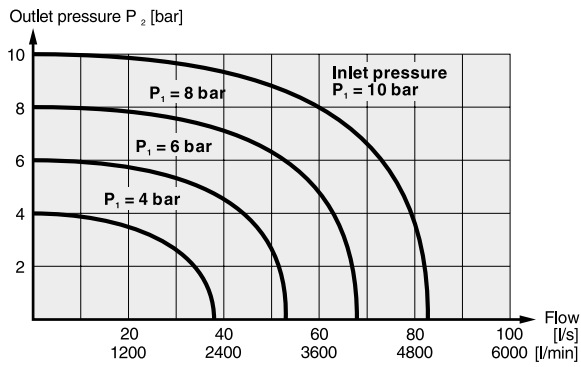
The diagram shows a manual & mechanical operated poppet valve configuration with the following callouts:

- Valve family:** B (HD poppet manual & mechanical)
- Thread port:** 1 (3/8 BSP), 2 (1/2 BSP)
- Function:** 2 (2/2 NC), 3 (3/2 NC)
- Operator:** C (Ball), L (Lever), P (Pilot pressure), R (Roller lever)

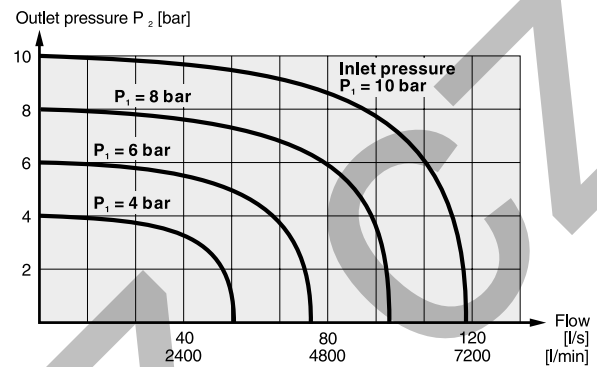
**Flow characteristics**

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

**B102**



**B202**



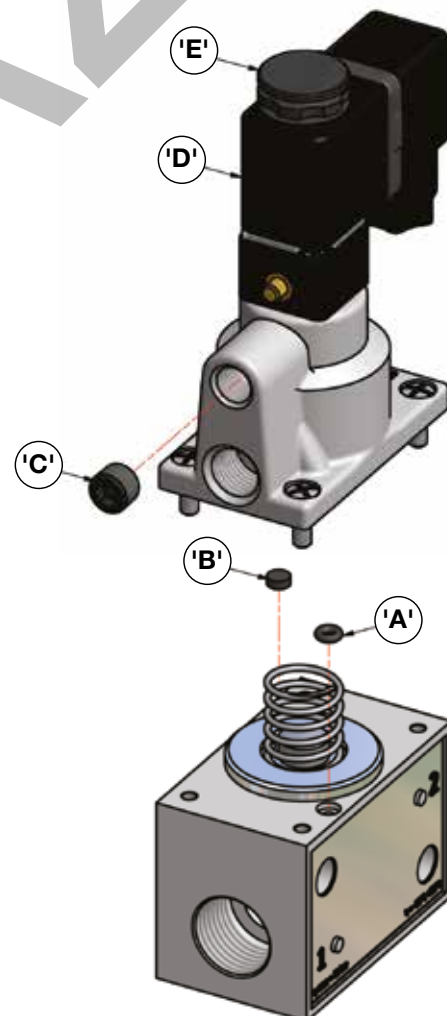
**Electrical Information**

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**

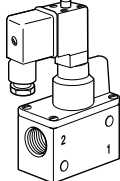




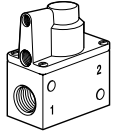




Solenoid pilot operated valves have an internal pilot air supply, but provisions for external pilot supply is provided. To use with external supply interchange 'O'-ring (Item 'A') and Plug (Item 'B') to block off the internal pilot supply. Remove hexagon socket plug (Item 'C') from the external pilot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



## Heavy Duty Poppet Valves

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

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

Order electrical connectors for solenoids separately. See page 10

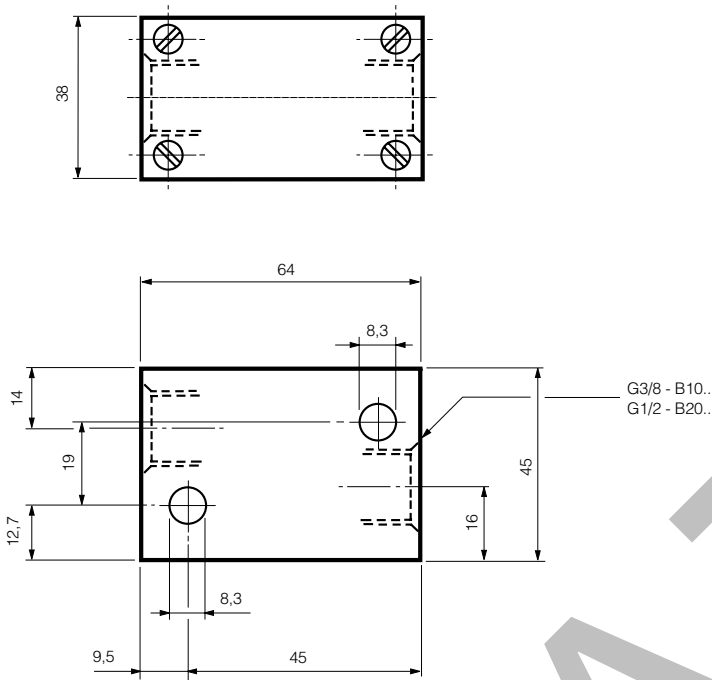
# Heavy Duty Poppet Valves

## 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	<b>B102L</b>	
		3/2	G3/8	Lock down lever	Lever	22	0.65	<b>B103L</b>
		2/2	G1/2	Lock down lever	Lever	22	0.65	<b>B202L</b>
		3/2	G1/2	Lock down lever	Lever	22	0.65	<b>B203L</b>
		2/2	G3/8	Roller lever	Spring	36	0.642	<b>B102R</b>
		3/2	G3/8	Roller lever	Spring	36	0.630	<b>B103R</b>
		2/2	G1/2	Roller lever	Spring	36	0.614	<b>B202R</b>
		3/2	G1/2	Roller lever	Spring	36	0.604	<b>B203R</b>
		2/2	G3/8	Ball	Spring	220	0.542	<b>B102C</b>
		3/2	G3/8	Ball	Spring	220	0.532	<b>B103C</b>
		2/2	G1/2	Ball	Spring	220	0.530	<b>B202C</b>
		3/2	G1/2	Ball	Spring	220	0.520	<b>B203C</b>

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

Basic body dimensions

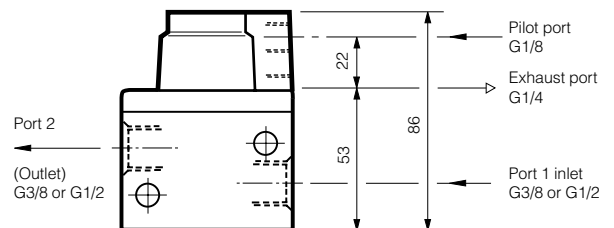
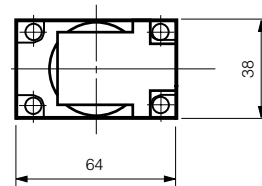
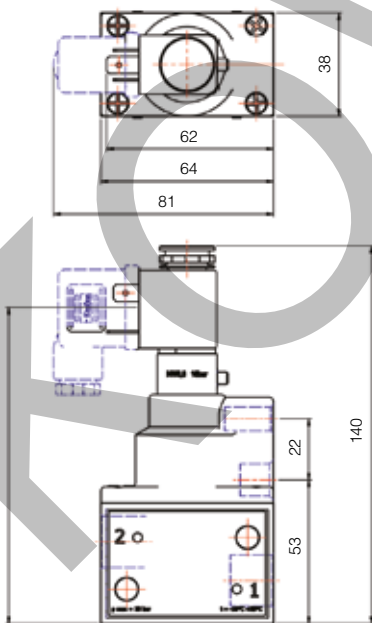


Solenoid pilot operated spring return

DB122, DB123, DB222, DB223

Air pilot operated spring return

B102P, B103P, B202P, B203P

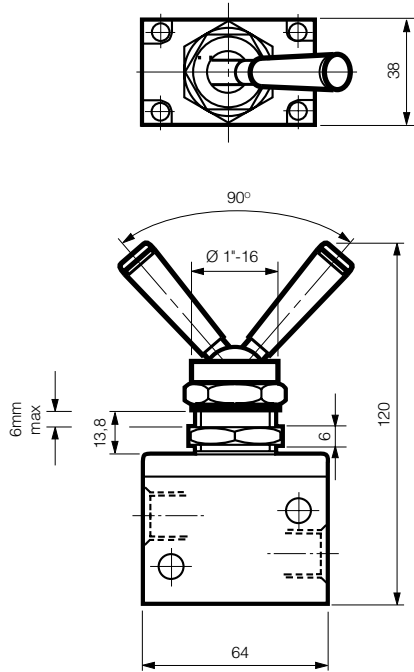


All dimensions in mm unless otherwise stated

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

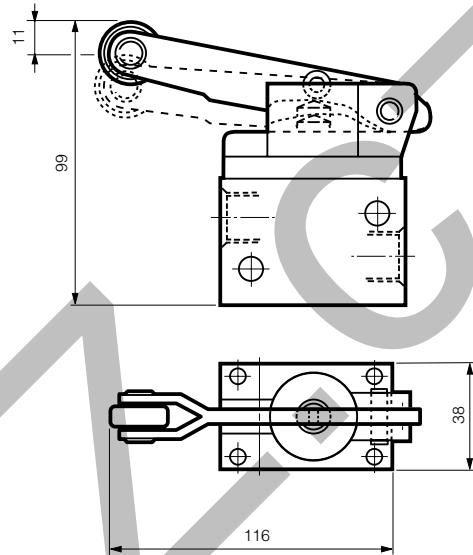
**Lock down lever**

B102L, B103L, B202L, B203L



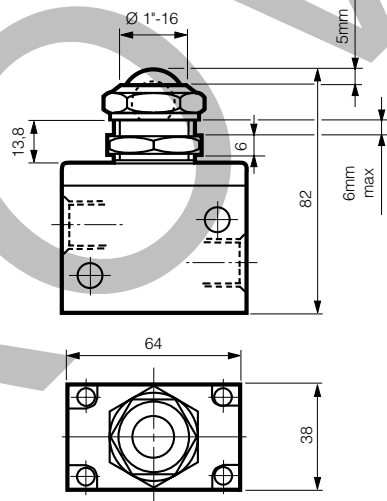
**Roller lever operated spring return**

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	<b>P2FCB440</b>	0.093
24V 50/60Hz	<b>P2FCB442</b>	0.093
12V DC	<b>P2FCB445</b>	0.093
12V DC Mobile	<b>P2FCB447</b>	0.093
24v DC Mobile	<b>P2FCB448</b>	0.093
24V DC	<b>P2FCB449</b>	0.093
48V DC	<b>P2FCB451</b>	0.093
110V/50Hz, 120V/60Hz	<b>P2FCB453</b>	0.093
230V/50Hz, 230V/60Hz	<b>P2FCB457</b>	0.093

Spare Solenoid Nuts

Valves with vented exhaust are fitted with diffuser plastic nut

Order Code
<b>P2FND</b>

Spare Solenoid Operators

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


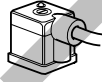
<b>Order code</b> (with locking bi-stable m/o)	Weight Kg
<b>P2FP13N4C</b>	0.05
<b>Order code</b> (with Non-locking monostable m/o)	Weight Kg
<b>P2FP13N4D</b>	0.05
<b>Order code</b> (with no m/o)	Weight Kg
<b>P2FP13N4A</b>	0.05

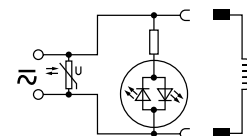
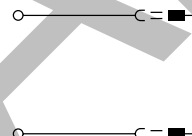
Note.

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

**Coils and connectors must be ordered separately.**

Solenoid Connectors / Cable Plugs EN175301-803

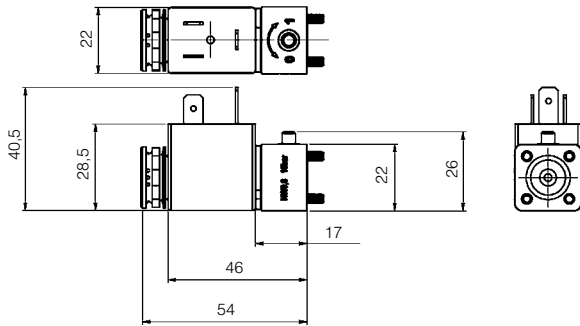
	Description	Order code 22mm Industrial Form B
With standard screw	Standard IP65 without flying lead	<b>3EV10V10</b>
	With LED and protection 24V AC/DC	<b>3EV10V20-24</b>
	With LED and protection 110V AC	<b>3EV10V20-110</b>
	With LED and protection 230V AC	<b>3EV10V20-230</b>
With cable	24V AC/DC, 5m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



<b>3EV10V10</b>	<b>3EV10V20-24</b>	<b>3EV10V20-24L5</b>
	<b>3EV10V20-110</b>	<b>3EV10V20-110L5</b>
	<b>3EV10V20-230</b>	<b>3EV10V20-230L5</b>

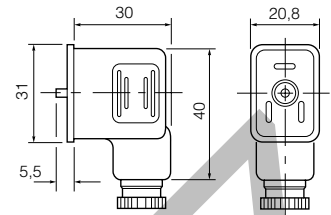
**Cable Plug Dimensions (mm)**

Solenoid operators P2E-•V...



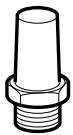
Cable plugs Form B

3EV10V10



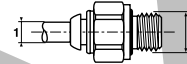
**Accessories**

**Sintered bronze series silencers**



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

**Male straight connectors - Parallel thread**



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