

Directional seated valves type BVG, BVE, BVP, and NBVP

The directional cone seated valves types BVG, BVE, and BVP are 2/2- and 3/2-way directional valves which are available in two sizes. Size 1 valves feature optionally a version with industrial standard connection pattern NG6 (type NBVP) and a version with 4/3-way function. All ports are equally pressure resistant due to an internal, static pressure balance. The valves may be connected directly via pipes (type BVG), mounted at customer furnished manifolds (type BVP and BVE) or industrial standard sub-plates (type NBVP). Various actuation modes (BVE only with solenoid actuation) enable use of these valves in a wide field of applications. Additional elements for ports P, R, A, and B (e.g. screw-in orifices, restrictor check valves) can be incorporated in the valve body and allow tailoring the valve exactly to the special requirements of the customer.



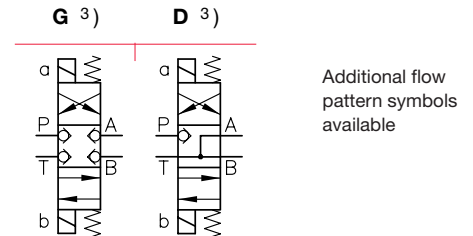
Nomenclature:	Directional seated valve, zero leakage
Design:	Individual valve for pipe connection Individual valve, Manifold mounting
Actuation:	Solenoid Hydraulic Pneumatic Manual
p_{max}:	400 bar
Q_{max}:	20 ... 70 lpm

Basic types and general parameters

Basic type and size	Flow Q_{max} (lpm)	Oper. pressure p_{max} (bar)	Tapped ports A, B, C ²⁾	Symbol			
				R	S	Z	
Individual valve for pipe connection	Manifold mounting valve						
BVG 1	BVP 1	20	400 / 250 ¹⁾	G 1/4, G 3/8 ⁵⁾			
	NBVP 16	20	400 / 250 ¹⁾	NG 6			
BVG 3	BVP 3	50	320	G 1/2 ⁵⁾			
BVE 3 ⁴⁾		70	400	G 1/2 ⁵⁾			

Actuations

	Available for	Actuation parameter	Symbol
Solenoid	All types	Solenoid voltage: 12V DC; 24V DC; 230V AC 50/60 Hz	
Hydraulic	All types excl. BVE	Control pressure: $p_{contr min} = 24$ bar $p_{contr max} = 320$ bar	
Pneumatic	All types excl. BVE	Control pressure: $p_{contr min} = 2 \dots 3.5$ bar $p_{contr max} = 15$ bar	
Manual	Only BVG 1 and NBVP16	Actuation moment approx. 1.5 ... 3 Nm	



1) With electrical actuation: GM.. and WGM
2) With type BVG, BVE
3) Only size 1 and only with solenoid actuation
4) Cartridge valve, also available with connection block for pipe connection
5) (BSPP)

Solenoid voltage

- 12V DC, 24V DC, 230V AC 50/60 Hz
- Other voltage on request
- BVP 1, NBVP 16 (also versions conforming ATEX)
- Plug with LED, improving EMC, or with economy circuit (see also section “Additional information”)
- Version with plug M12-design and solenoid 8 Watt-design

Order examples

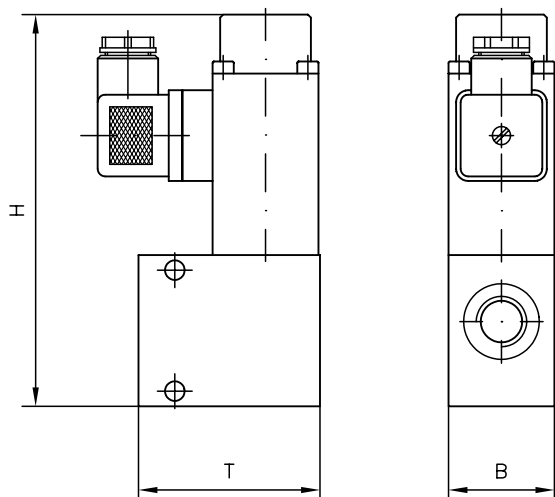
BVG 1 - R/B2 - 3/8 - WG230

Valve for pipe connection type BVG, size 1, flow pattern R (2/2-way function) and orifice- \varnothing 2 mm in the port A (coding B2), tapped ports G3/8, solenoid voltage 230V AC 50/60 Hz

Dimensions

Type BVG for pipe connection

(solenoid actuation, see order example)



Basic type	H _{max} ⁵⁾	T _{max}	B _{max}	m _{max} (kg)
BVG 1	115 (130)	60	40	1.6
BVG 3	145	80	50	3.3

Additional versions

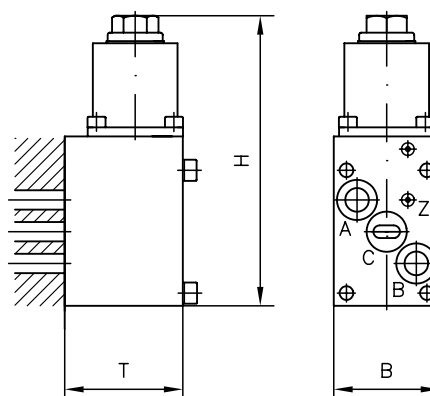
- Individual valve with orifice in one port
- 2/2-way valve with by-pass check valve
- Twin valve version
- Ancillary blocks with restrictor check valve/pressure switch (type BVG 1)
- Individual valves type NBVP16 with throttle and/or check valve in port P, throttle or restrictor check valve in the ports A, B and/or return pressure stop
- Version with solenoids in 8-Watt-technique

BVP 1 - Z - H

Individual valve, manifold mounting type BVP, size 1, flow pattern Z (3/2-way function) and hydraulic actuation

Type BVP, NBVP for manifold mounting

(hydraulic actuation, see order example)



All dimensions in mm, subject to change without notice!

Basic type	H _{max} ⁵⁾	T _{max}	B _{max}	m _{max} (kg)
BVP 1	115 (130)	35	39	1.0
NBVP16	230	45	45	2.1
BVP 3	155	50	76	2.4

⁵⁾ Max. figures apply to solenoid actuation, figures in brackets for flow pattern symbol “G”

Additional information

- Directional seated valves type BVG, BVP D 7400
- type BVG1, BVP1 D 7765
- type VP D 7915
- type BVE D 7921
- type NBVP 16 D 7765 N

- Plug with LED etc. D 7163
- Plug with economy circuit D 7813, D 7833

For page and section of the devices additionally listed, see type index