

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.

Features and benefits:

- Zero leakage seated cone design
- Pressure switch directly mounted
- Combination with compact hydraulic power packs result in cost efficient turn-key solutions
- Versions conforming ATEX

Intended applications:

- Machine tools
- Woodworking and processing machines
- Testing machines



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

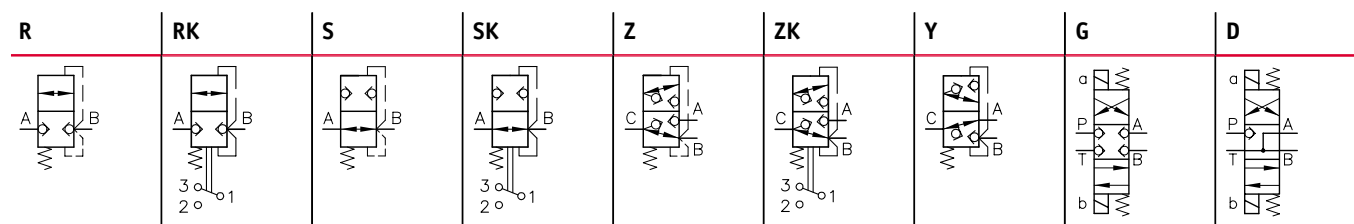
Design and order coding example

BVG1	- R	/B2	- 1/4	- WGM 230	
					Actuations Solenoid, hydraulic, pneumatic, manually
					Connection size or connection block
					Additional elements ■ Orifice in one port ■ NBVP: Orifice and/or check valve in gallery P, orifice, restrictor check valve and/or pressure switch at A, B, return pressure stop in T
					Function ■ 2/2-way directional valve (R, S), also with lift monitoring (RK, SK) ■ 3/2-way directional valve (Z, Y), also with lift monitoring (ZK) ■ 4/3-way directional valve (G, D)
Basic type, size	Type BVG and BVP, size 1 and 3 Type BVE, size 1, 3 and 5 Type NBVP (with industrial standard connection pattern NG 6), size 1				

Actuations:

Solenoid	Hydraulic	Pneumatic	Manually
Voltage of the actuation solenoids: 12V DC, 24V DC, 110V AC, 230V AC ■ BVP 1, NBVP16 also available version conforming ATEX ■ Version with M12-plug and 8-Watt-solenoid	Control pressure: p _{contr. min} = 24 bar p _{contr. max} = 320 bar	Control pressure: p _{contr. min} = 2 ... 3.5 bar p _{contr. max} = 15 bar	Actuation torque: approx. 1.5 ... 3 Nm

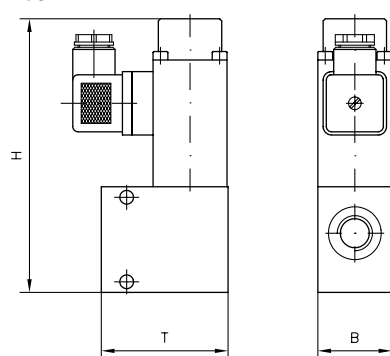
Function



- Additional flow pattern symbols available
- **G, D:** only type NBVP16

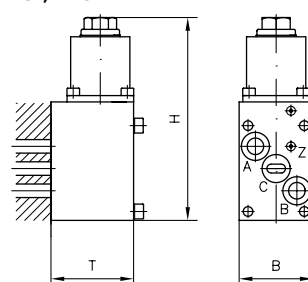
General parameters and dimensions

BVG



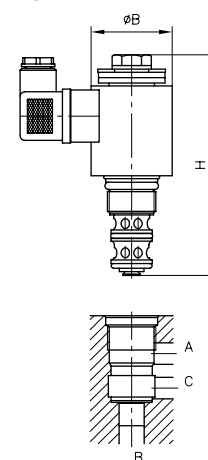
For pipe connection
(solenoid actuation)

BVP, NBVP



For manifold mounting
(hydraulic actuation)

BVE



	Q_{max} [lpm]	p_{max} [bar]	Ports (BSPP)	Dimensions [mm]			m_{max} [kg]
				H_{max}	B_{max}	T_{max}	
BVG 1	20	400 / 250 ¹⁾	G 1/4, G 3/8	115 (130)	60	40	1.6
BVP 1					35	39	1.0
NBVP 16	20	400 / 250 ¹⁾	NG 6	230	45	45	2.1
BVG 3	50	320	G 1/2	145	80	50	3.3
BVP 3				155	50	76	2.4
BVE 1	20	500	-	121	37	-	0.4
BVE 3	70	400	-	122.5	45	-	0.7
BVE 5	300	400	-	206.5	72	-	1.5

¹⁾ With electrical actuation: GM.. and WGM

- BVE 3: Cartridge valve, also available with connection block for pipe connection

Associated technical data sheets:

Directional seated valves

- Type BVG, BVP: **D 7400**
- Type BVG1, BVP1: **D 7765**
- Type BVE: **D 7921**
- Type NBVP: **D 7765 N**

Products:

- Type BA: **page**
- Type NZP: **page**
- Type BVH: **page**

Plugs:

- With LED etc.: **D 7163**
- With economy circuit: **D 7813, D 7833**