

2.2 Directional seated valve type VZP

Directional seated valves are a type of directional valve. The seated valve type VZP is a manifold mounting valve. Zero-leakage ball-seated and cone-seated valves of the same size are combined.

The twin layout of the 3/2 and 2/2-way directional seated valves means that all functional elements for valve function and actuation share one housing, making them very compact. Depending on the pairing, these valves can realise either one 4/4, 4/3 or 3/3-way function, or two independent 3/2 and 2/2-way individual functions. Compared with individual valves for manifold mounting of conventional layout, the advantages are lower spatial requirements and the possibility of directly mounting pressure switches for monitoring the consumer pressure. A particularly compact option is to combine several valves connected in parallel in one valve bank (type BVZP).

Features and benefits:

- Good price-performance ratio
- Max. operating pressures up to 450 bar
- Adapter plates for flange-mounting on compact hydraulic power packs
- Option to incorporate additional functions in the sub-plate, such as pressure switches, throttle and check valve combinations etc.

Intended applications:

- Machine tools (cutting and non-cutting)
- Mining machinery (incl. oil production)
- Clamping equipment, punching tools, jigs
- Rubber and plastics machinery



Nomenclature:	Directional seated valve, zero leakage
Design:	Individual valve, manifold mounting
Actuation:	Solenoid
p_{max}:	450 bar
Q_{max}:	15 lpm

Design and order coding example

VZP1 H 12B1,0 - G12

Solenoid voltage 12V DC, 24V DC, 110V AC, 230V AC

- Versions with M12-plug and 8-Watt solenoid

Additional elements

- Indiv. valves with check valve insert in gallery P
- Indiv. valves with return pressure stop in gallery R
- Pressure switch for the consumer ports

Function

- 4/2-way functions via directional spool valve
- 4/3-way directional seated valve (G, D, E, O)
- 3/3-way directional seated valve (J, P)
- 2/2- and 3/2-way directional seated valve (F, D - H, M, N, R)

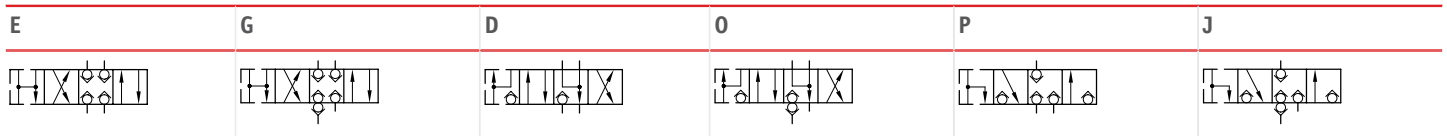
Basic type, size

Twin valve type VZP, size 1

- Connection blocks for pipe connection

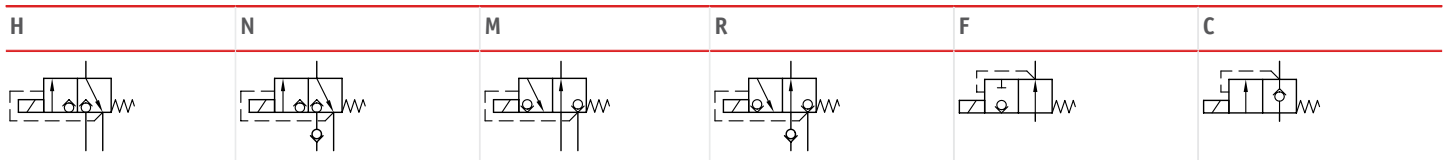
Function

Cone seated valves with 4/3- (4/4-) or 3/3- (3/4-) way functions up to 400 bar

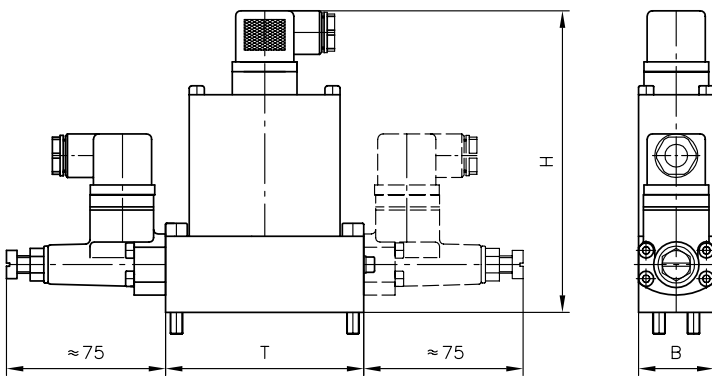


- 4. Switching position when both solenoids are energized simultaneously

Ball seated valves with 3/2- (2/2-) way functions up to 450 bar (always two valve functions in one valve body)


General parameters and dimensions

VZP 1 (example with mounted pressure switches)



	Q_{max} [lpm]	p_{max} [bar]	Dimensions [mm]			m [kg]
			H	B	T	
VZP 1	5... 15	250... 450	137... 142	35... 39	92	1.9... 2.2

- Weight m [kg] +0.3 kg per mounted pressure switch

Associated technical data sheets:

- [Directional seated valve type VZP: D 7785 A](#)

Accessories:

- Pressure switches type DG 3..., DG 5E: [Page 262](#)

Male connectors:

- [Line connector type MSD and others: D 7163](#)