

Directional seated valves type VP

The valves type VP 1 are zero leakage, seated cone valves available as 2/2-, 3/2- and 4/2-way directional valves. The internal pressure balance enables an arbitrary flow direction and maximum pressure for all ports. The actuation is separated from the hydraulic fluid, therefore any interaction between control elements and the pressure fluid is prevented, side effect is that gumming/sticking due to excessive fluid temperature is prevented.

Main field of application are lube systems especially when lubricants with high viscosity e.g. oil or grease are used. Any other fluid with similar viscosity may be suited as well, as long as it is compatible with the seal material.



Nomenclature: Directional seated valve, zero leakage

Design: Manifold mounting

Actuation: Solenoid
Hydraulic
Pneumatic

P_{max} : 400 bar

Q_{max} : 15 lpm

Basic types and general parameters

Basic type and size

Manifold mounting valve	Flow Q_{max} (lpm)	Oper. pressure P_{max} (bar)	Tapped ports (BSPP) A, B, C	Symbol				
				R	S	Z	G	W
VP 1	15	400	G 1/4, G 3/4					

Actuations

	Actuation parameter	Symbol
Solenoid	Solenoid voltage: 12V DC; 24V DC; 230V AC 50/60 Hz	
Hydraulic	Control pressure: $P_{contr\ min}$ = 24 bar $P_{contr\ max}$ = 320 bar	
Pneumatic	Control pressure: $P_{contr\ min}$ = 2 ... 3,5 bar $P_{contr\ max}$ = 15 bar	

Solenoid voltage

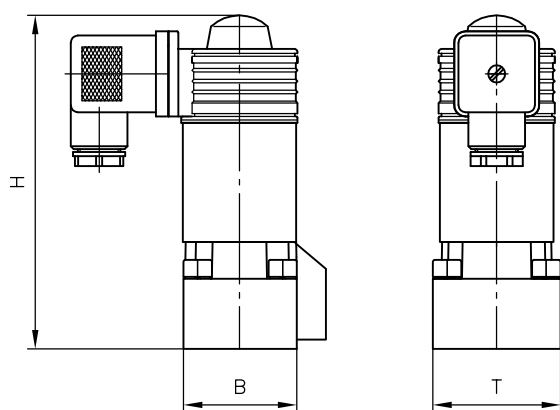
- 12V DC, 24V DC, 230V AC 50/60 Hz
- Other voltage on request
- also versions conforming ATEX
- Plug with LED, improving EMC, or with economy circuit
(see also section "Additional information")

Order examples**VP 1 R - G 24**

Directional seated valve type VP 1 with flow pattern symbol R (2/2-way function), solenoid voltage 24V DC

Dimensions

Individual valve (see order example)



All dimensions in mm, subject to change without notice!

Basic type	$H_{max}^{1)}$	T_{max}	B_{max}	m_{max} (kg)
VP 1	127	50	40	1.0

¹⁾ Max. figures apply to solenoid actuation

²⁾ Valve with connection block

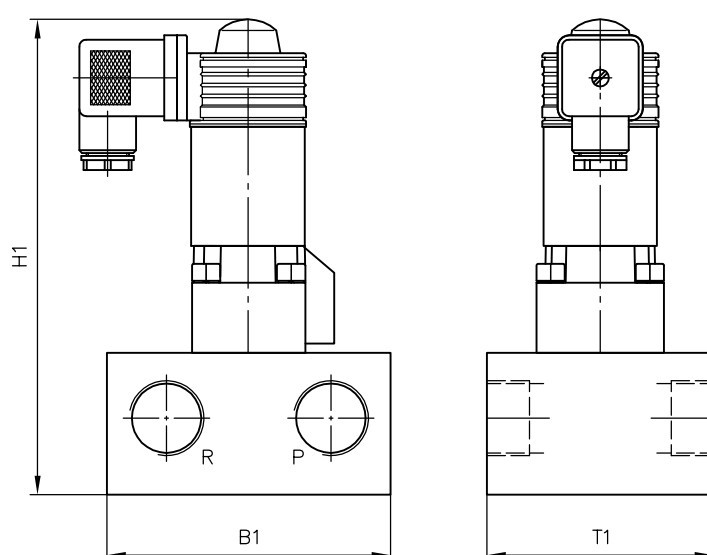
Additional versions

- Version with mechanical actuation (roller, pin)
- Version with manual actuation (key lever, turn-knob.)

VP 1 W - 3/4 - WG 230

Directional seated valve type VP 1 with flow pattern symbol W (4/2-way function), connection block for pipe connection, solenoid voltage 230V AC 50/60 Hz

Valve with sub-plate (see order example)



Basic type	$H_{max}^{1)}$	T_{max}	B_{max}	m_{max} (kg) ²⁾
VP 1	147 ... 177	45 ... 80	50 ... 100	1.5 ... 2.2

Additional information

• Directional seated valves type VP	D 7915
type BVG, BVP	D 7400
type BVG1, BVP1	D 7765
type BVE	D 7921
type NBVP16	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