

Directional seated valves type WN and WH

These directional seated valves type WN and WH use spring loaded balls as valve elements and therefore do not show any leakage. They are manifold mounting and are available in four sizes. These valves are very compact as the functional valve parts are partly integrated in the solenoid body. The basic versions are designed as 2/2- and 3/2-way directional valves. Whereas 3/3- , 4/3-way functions require two valves to be installed on one valve sub-plate.

These valves may be directly installed in pipe systems, when equipped with sub-plates enabling pipe connection. Many optional functions incorporated in these sub-plates e.g. pressure limiting valve or restrictor check valve

widen the field of application for this valve type.

The type WN (size 1 only) is more simply designed as type WH making its pricing more competitive but the max. permissible pressure is reduced as there are no moving seals and the armature cavity is not separately de-pressurized. Valve banks of these valve type are also available featuring several valves connected in parallel (see type BWN and BWH).



Nomenclature: Directional seated valve, zero leakage

Design: Individual valve, manifold mounting combination with connection blocks for pipe connection

Actuation: Solenoid

p_{max} : 350 ... 450 bar

Q_{max} : 5 ... 60 lpm

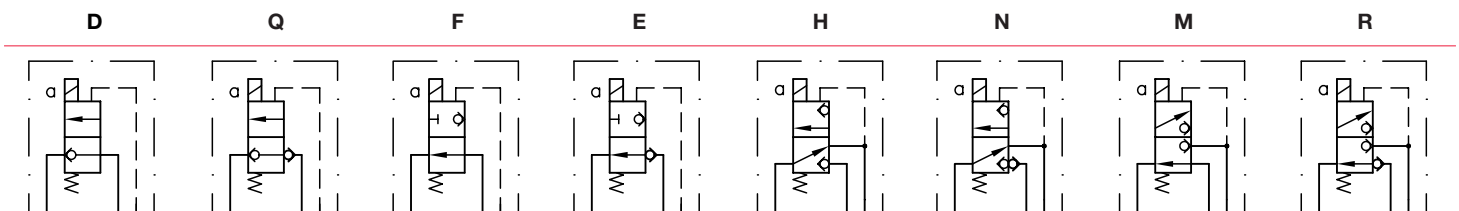
Basic types and general parameters

Basic type and size	Flow Q_{max} (lpm)	Oper. pressure p_{max} (bar)	Tapped ports ¹⁾ (BSPP) P, R, A
WN 1	5	320...350	G 1/4
WH 1	8	450	G 1/4
WH 2	15	350	G 1/4
WH 3	30	350	G 3/8
WH 4	60	350	G 1/2

¹⁾ When combined with sub-plate for pipe connection

Symbols

(symbols show type WH)



Type WN 1 without de-pressuring duct for the solenoid (add. leakage duct is not necessary)

Solenoid voltage

- 12V DC, 24V DC, 230V AC 50/60 Hz
- Other voltage on request

Additional versions

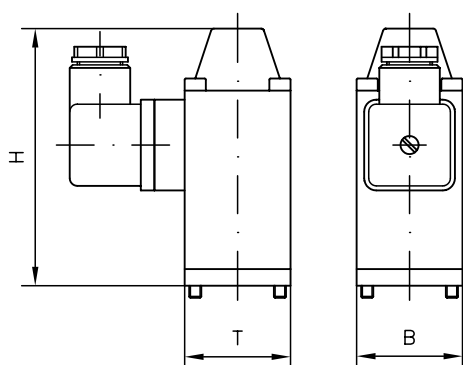
- 3/3- and 4/3-way functions, if two valves are combined on one sub-plate (only version for pipe connection)
- 4/2-way function (directional spool valve)
- Two separate 3/2-way functions mounted on one sub-plate (twin directional valve)

Order examples**WH2 M - G24**

Directional seated valve type WH, size 2 with flow pattern M, solenoid voltage 24V DC

Dimensions**Individual valve**

(see order example)



Basic type	H	B	T	m (kg)
WN 1	86.5	35	35	0.6
WH 1	86.5	35	35	0.6
WH 2	97.0	35	35	0.65 ... 0.7
WH 3	95.5	45	45	1.2 ... 1.3
WH 4	118.0	60	60	2.7 ... 3.0

Additional information

- Directional seated valves type WN, WH D 7470 A/1
- Valve banks type BWN, BWH D 7470 B/1

- Version with plug M12-design and solenoid 8 Watt-design
- Plug with LED, improving EMC or with economy circuit (see also section "Additional information")

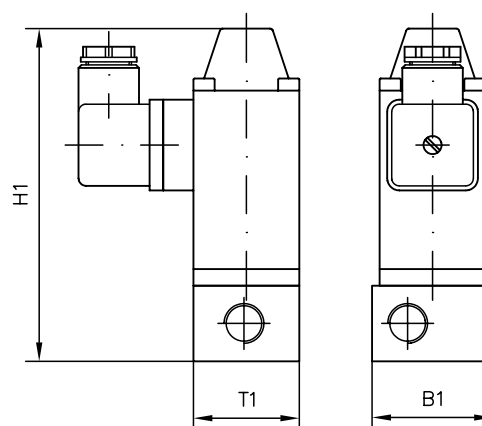
- Individual valve with orifice insert, check valve insert in port P and/or return pressure stop in port R
- Sub-plate with restrictor check valve or pressure limiting valve between ports P and R
- Version with solenoids in 8-Watt-technique

WH1 H - 1/4 - WG230

Directional seated valve type WH, size 1 with flow pattern H, sub-plate for pipe connection G 1/4 (BSP) and solenoid voltage 230V AC 50/60 Hz

Valve with sub-plate for pipe connection

(see order example)



Basic type	H1	B1	T1	m (kg)
WN 1.. -1/4	111.5	40	35	0.9
WH 1.. -1/4	111.5	40	35	0.9
WH 2.. -1/4	125	40	40	1.0
WH 3.. -3/8	128	50	50	1.8
WH 4.. -1/2	158 ... 173	70	70	3.6 ... 4.0

- 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