

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).

Features and benefits:

- Excellent price/performance ratio
- Compact design
- Zero leakage directional seated valves
- Solenoid version in 8-Watt techniques

Intended applications:

- Machines for forestry and agricultural purposes
- Machines for construction and construction material
- Clamping, punching and jigs
- Process technology

Design and order coding example

WN1	H	1	- 1/4	- G24	
					Solenoid voltage
					12V DC, 24V DC, 110V AC, 230V AC
					■ Versions with M12-plug and 8-Watt solenoid
					Indiv. connection block
					Port size G 1/4, G 3/8, G 1/2 (BSPP)
					■ By-pass check valve or pressure limiting valve between P and R
					Additional elements
					■ Return pressure stop for port R
					■ Check valve insert for port P
					■ Pressure limiting valve
					Function
					■ 2/2-way directional valve (F, D, Q, E)
					■ 3/2-way directional valve (H, R, M, N)
					■ 3/3-way directional valve (J, U)
					■ 4/2-way directional valve (W)
Basic type, size					Type WN, size 1
					Type WH, size 1 to 4



Nomenclature: Directional seated valve, zero leakage

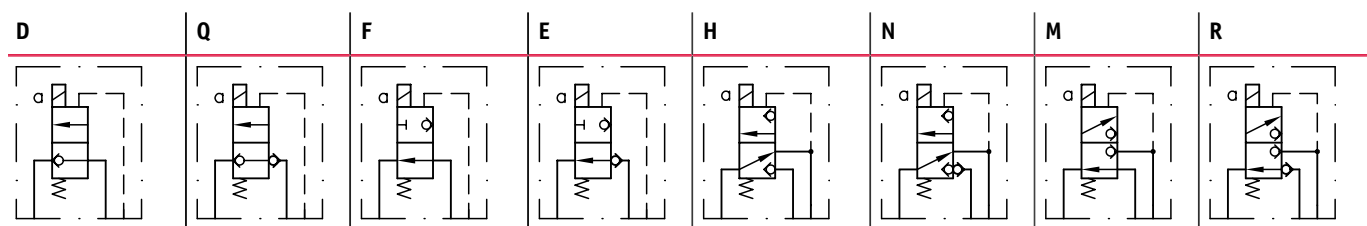
Design: Individual valve, manifold mounting combination with connection blocks for pipe connection

Actuation: Solenoid

P_{max}: 350 ... 450 bar

Q_{max}: 5 ... 60 lpm

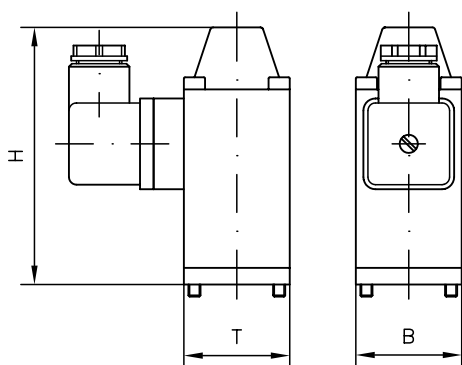
Function



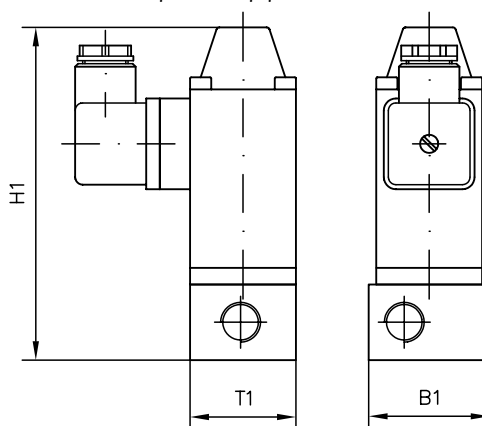
- Symbols show type WH
- Type WN 1 without de-pressuring duct for the solenoid (add. leakage duct is not necessary)

General parameters and dimensions

Individual valve



Valve with sub-plate for pipe connection



	Q_{max} [lpm]	p_{max} [bar]	Ports (BSPP)	Dimensions (individual valve) [mm]			m_{max} [kg]	Dimensions (with sub-plate) [mm]			m [kg]
				H	B	T		H1	B1	T1	
WN 1	5	320 ... 350	G 1/4	86.5	35	35	0.6	111.5	40	35	0.9
WH 1	8	450	G 1/4	86.5	35	35	0.6	111.5	40	35	0.9
WH 2	15	350	G 1/4	97.0	35	35	0.65 ... 0.7	125	40	40	1.0
WH 3	30	350	G 3/8	95.5	45	45	1.2 ... 1.3	128	50	50	1.8
WH 4	60	350	G 1/2	118.0	60	60	2.7 ... 3.0	158 ... 173	70	70	3.6 ... 4.0

Associated technical data sheets:

- Directional seated valves type WN1, WH: **D 7470 A/1**

Valve banks:

- Type BWN1, BWH: **page**

Plugs:

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