

2.2 Directional seated valve type WN and WH

Directional seated valves are a type of directional valve. As ball valves they have zero leakage in the closed state.

The directional seated valves type WN and WH are manifold mounting valves. 2/2 and 3/2 directional seated valves are available. These are also available combined as 3/3 and 4/3 directional seated valves. The type WH contains an internal pressure balance. As a result, the permissible operating pressure is higher than the type WN.

Appropriate connection blocks enable direct pipe connection. The directional seated valves are available in a combination of valves in valve bank type BWN and BWH.

Features and benefits:

- Excellent price/performance ratio
- Compact design
- Directional seated valves with zero leakage
- Solenoid version with 8-watt technology

Intended applications:

- Machines for forestry and agricultural purposes
- Clamping, punching and jigs
- Clamping equipment, punching tools, jigs
- Process engineering systems

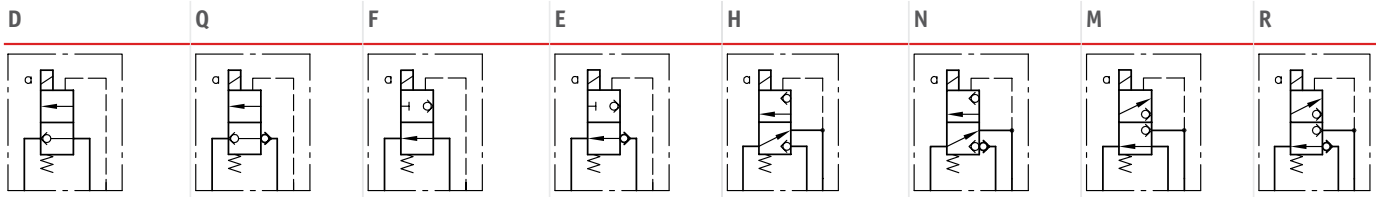


Nomenclature:	Directional seated valve, zero leakage
Design:	Individual valve, manifold mounting combination with connection blocks for pipe connection
Actuation:	Solenoid
p_{max}:	450 bar
Q_{max}:	60 l/min

Design and order coding example

WN1 H 1 - 1/4 - G24

<p>Solenoid voltage</p> <p>Single connection block</p> <p>Additional elements</p> <p>Function</p> <p>Basic type, size</p>	<p>12V DC, 24V DC, 110V AC, 230V AC</p> <ul style="list-style-type: none"> ▪ Versions with M12-plug and 8-Watt solenoid <p>Port size G 1/4, G 3/8, G 1/2 (BSPP)</p> <ul style="list-style-type: none"> ▪ By-pass check valve or pressure limiting valve between P and R <ul style="list-style-type: none"> ▪ Return pressure stop for port R ▪ Check valve insert for port P ▪ Pressure limiting valve <ul style="list-style-type: none"> ▪ 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) <p>Type WN, size 1 Type WH, size 1 to 4</p>
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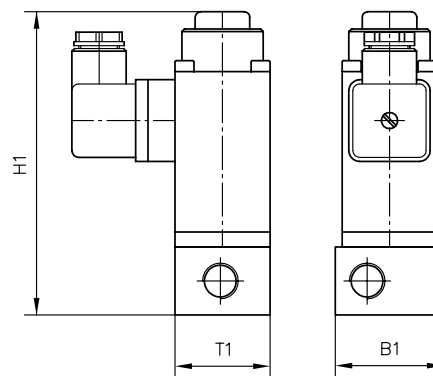
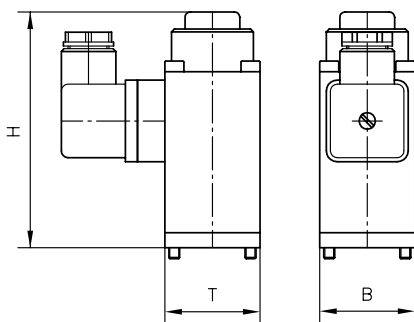
Function


- Symbols show type WH
View type WH
- Type WN 1 without de-pressuring duct for the solenoid (add. leakage duct is not necessary)
Type WN1 without solenoid relief (no leakage line)

General parameters and dimensions

Individual valve

Valve with sub-plate for pipe connection



	Q_{\max} [lpm]	p_{\max} [bar]	Ports	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	87	35	35	0.6	112	40	35	0.9
WH 1	8	450	G 1/4	87	35	35	0.6	112	40	35	0.9
WH 2	15	350	G 1/4	95.2 ... 101.7	35	35	0.65 ... 0.7	125.2 ... 131.7	40	40	1.0
WH 3	30	350	G 3/8	93.5 ... 103.5	45	45	1.2 ... 1.3	128.5 ... 138.5	50	50	1.8
WH 4	60	350	G 1/2	118 ... 133	60	60	2.7 ... 3.0	158 ... 173	70	70	3.6 ... 4.0

Associated technical data sheets:

- [Directional seated valve type WN and WH: D 7470 A/1](#)

Valve banks:

- Type BWN1, BWH: [Page 120](#)

Male connectors:

- [Line connector type MSD and others: D 7163](#)
- With economy circuit: [D 7813](#), [Economy circuit type MSD 4 P55: D 7833](#)