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3-way Ball Valves vertical, DN15 - DN80



Application field

Motorized 3-way Ball Valves are used as diverter valves for building control (e.g. heating, air-conditioning, solar) and sorts of industrial applications.

Standard execution with 90° rotation is particularly suitable for heat pumps due to dead center free switchover (no high pressure dysfunction, e.g. when switching between storage charge and heating).

Execution with 180° rotation has a dead center when switching and thus prevents mixing of the circuits.

The Valves are ready for operation with TICOVAL - Actuators EA80(R), EA100(R) and EA500(R).

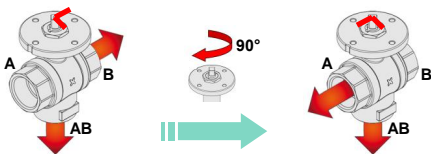
See reverse for overview of the appropriate Actuators, technical data in accordance with separate data sheets .

Quality features

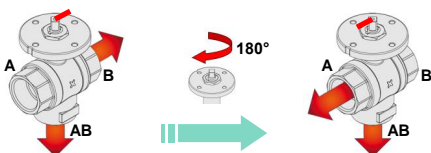
- function free of water hammer
- seat leakage 0.0001 % of kvs-value
- flow possible in any direction
- mounting of Actuator in any 90° position possible
- max. differential pressure with Actuator = PN10 (observe flow noise)
- maintenance-free
- stem seals can be replaced
- optimized for maximum flow, high kvs-value
- high quality design, high durability
- seats supported with O-rings for consistently low torque with guaranteed tightness
- EPDM-O-rings (NBR on request, e.g. for applications with mineral oil-based liquids)

Valve positions

3-way vertical 90° rotation



3-way vertical 180° rotation



Product range 3-way vertical / with female thread

Article-No. 90° rotation	Article-No. 180° rotation	DN	Thread
750.0227.000	750.0225.000	15	1/2"
750.0327.000	750.0325.000	20	3/4"
750.0427.000	750.0425.000	25	1"
750.0527.000	750.0525.000	32	1 1/4"
750.0627.000	750.0625.000	40	1 1/2"
750.0727.000	750.0725.000	50	2"
750.0927.000	750.0925.000	80	3"

DN65 2 1/2" with female thread only in horizontal execution available, see data sheet 3-way Ball Valves horizontal

Product range 3-way vertical / with flanges PN16

Article-No. 90° rotation	Article-No. 180° rotation	DN	Dim.
750.0827.00F	750.0825.00F	65	2 1/2"
750.0927.00F	750.0925.00F	80	3"

Technical data	
Max. pressure (valve body)	16 bar
Max. differential Δp with Actuator	DN15 - DN32: 10 bar DN40 - DN80: 6 bar <i>(observe flow noise)</i>
Temperature range	-10°C to +120°C
Leakage on seats	0,0001% of kvs-value
Connections	female thread ISO 7/1 or 3x flanges PN16, rotating
Bore	reduced bore
Ball support	2 seats, with O-rings supported
Stem seals	2 x O-rings
Installation positions	upright to horizontal <i>(based on stem)</i>
Medium	hot / cold water , customary water additives and antifreeze ethylene and propylene-based / no mineral oil

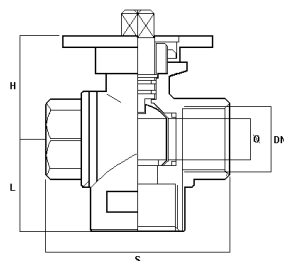
Materials	
Valve body	brass 58, nickel plated
Ball	brass 58, chrome plat.
Stem	brass 58
Flanges	steel, galvanized
Seats	PTFE
Seals	EPDM (NBR on request)

! Instructions of installation

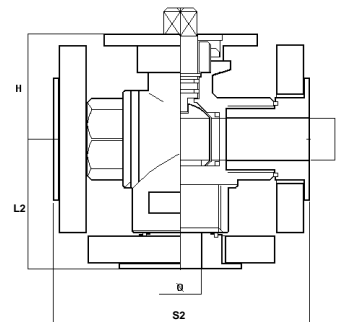
- before commissioning check for proper operation (rotation / position of the ball / flow direction).
- mounting of Actuator on Valve in any 90° position possible.
- see separate installation instructions!

Dimensions / kvs-values

female thread

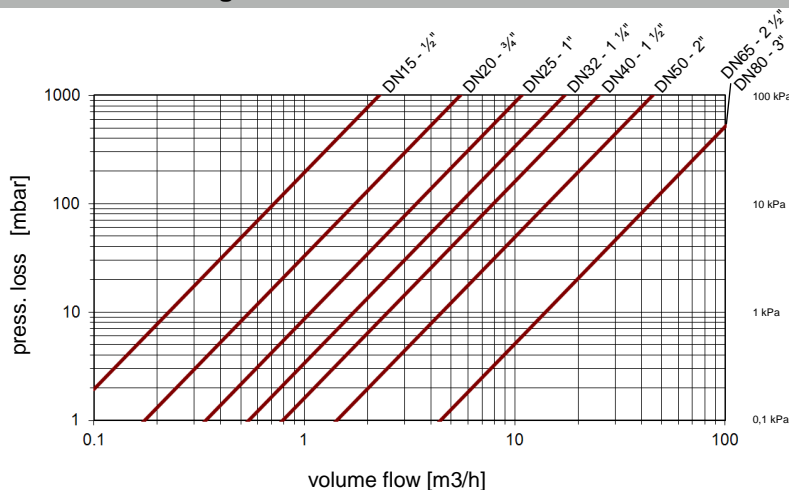


flanges PN16



DN - Dim.	Ø bore [mm]	S [mm]	S2 [mm]	H [mm]	L [mm]	L2 [mm]	kvs-value
DN15 - 1/2"	10	55	-	43	30	-	2,3
DN20 - 3/4"	15	67	-	45	34	-	5,5
DN25 - 1"	20	78	-	49	40	-	11
DN32 - 1 1/4"	25	90	-	56	46	-	17
DN40 - 1 1/2"	32	99	-	60	53	-	25
DN50 - 2"	39	115	-	67	62	-	45
DN65 - 2 1/2"	68	-	235	104	-	143	140
DN80 - 3"	68	180	235	104	115	143	140

Pressure loss diagram



Accessories

Pipe connector Typ 331 1/2" DN15 to 2" DN50 (see price list)

Combinations Actuators / Valves

Range of Actuators (detailed information see corresponding data sheets)

	EA80(R)		EA100(R)		EA500(R)	EA103 / EA502
	45 sec. - 9 nm	60 sec. - 13 nm	60 sec. - 20 nm	30 sec. - 17 nm	60 sec. - 60 nm	proportional signal
Dimensions	use for:					
DN15 - 1/2"	✓	✓	✓	✓		✓
DN20 - 3/4"	✓	✓	✓	✓		✓
DN25 - 1"	✓	✓	✓	✓		✓
DN32 - 1 1/4"		✓	✓	✓		✓
DN40 - 1 1/2"			✓	✓		✓
DN50 - 2"			✓	✓		✓
DN65 - 2 1/2"					✓	✓
DN80 - 3"					✓	✓