



# HYDROFIRE ΕΠΕ

Buildings - Industry - Marine – Waterworks  
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# oventrop

## Two-way valve PN 16 (may also be used as three-way valve)

Technical information

### Application:

The two-way valve (a three-way valve may also be used) is installed in heating and cooling systems with a closed water circuit (e.g. central heating systems, fan coil units, chilled ceilings or fan convectors) and serves the flow volume and temperature control in combination with Oventrop actuators and thermostats. When used as a three-way valve, it is for mixing or distributing the volume flows in bivalent heating systems or hot water storage cylinders, for instance in solar or heat pump installations.

### Technical data:

Max. operating temperature  $t_s$ : 130°C  
 Min. operating temperature  $t_s$ : 0°C  
 Max. operating pressure  $p_s$ : 16 bar (PN 16)  
 Permissible pressure difference  $\Delta p_{max}$ : (see table)  
 Characteristic line:  
 A → AB: equal percentage  
 B → AB: linear

### Use with actuators:

Model for DN 15 – DN 50: Actuator with squeeze connection 24 V, steady 0-10 V, 2 or 3 point	Item no.: 115 80 11
Models for DN 65 – DN 150: Actuator with squeeze connection 24 V, steady 0-10 V and 4-20 mA, 2 or 3 point	115 80 30
Actuator with squeeze connection 24 V, steady 0-10 V and 4-20 mA, 2 or 3 point, with return spring (A → AB is opened completely if the power supply is interrupted)	115 80 31
Actuator with squeeze connection 24 V, steady 0-10 V and 4-20 mA, 2 or 3 point, with return spring (A → AB is closed completely if the power supply is interrupted)	115 80 32

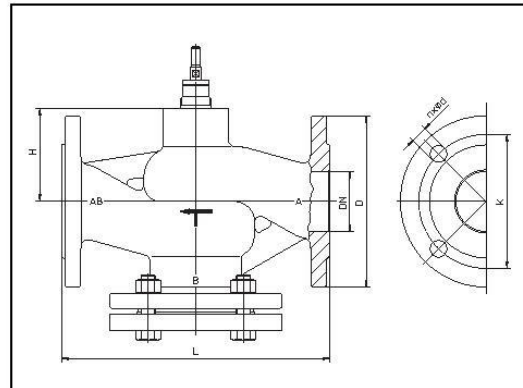
### Material:

Valve body made of cast iron, disc made of brass, stainless steel stem and EPDM O-rings.  
 DN 15 up to DN 50: Metal to metal seal between disc and seat  
 DN 65 up to DN 150: Soft sealing with EPDM seal between disc and seat

### Models:

DN	Item no.:	$k_{vs}$ -value	$\Delta p_{max}$	
			2-way + mixing valve	Diverting valve
15	113 08 75	1.0	12.1	6.0
15	113 08 65	1.6	12.1	6.0
15	113 08 45	2.5	12.1	6.0
20	113 08 66	4.0	9.2	4.5
20	113 08 46	6.3	9.2	4.5
25	113 08 47	10.0	5.0	2.5
32	113 08 48	16.0	3.5	1.7
40	113 08 49	25.0	1.5	0.7
50	113 08 50	35.0	0.7	0.3
65	113 08 51	63.0	5.6	2.8
80	113 08 52	100.0	3.6	1.8
100	113 08 53	160.0	2.2	1.1
125	113 08 54	220.0	1.3	0.6
150	113 08 55	320.0	0.8	0.4

The values for  $\Delta p_{max}$  are valid when using the indicated Oventrop actuators. The installation instructions of the actuator can be obtained from the corresponding installation and operating instructions.



DN	L	H	D	K	n x Ød	Piston stroke	Weight (kg)
15	130	47	95	65	4 x 14	10	4
20	150	47	105	75	4 x 14	10	5
25	160	53	115	85	4 x 14	10	6.5
32	180	57	140	100	4 x 19	10	9.5
40	200	65	150	110	4 x 19	10	11.5
50	230	65	165	125	4 x 19	10	15
65	290	101	185	145	4 x 19	30	22
80	310	111	200	160	8 x 19	30	28.5
100	350	126	220	180	8 x 19	30	40
125	400	159	250	210	8 x 19	40	61.5
150	480	180	285	240	8 x 19	40	85

Dimensions

### Function:

When used as a two-way valve, the Oventrop two-/three-way valve has one inlet port (A) and one outlet port (AB). If the stem is pressed down, the straight port (A → AB) is opened.

The central nipple is closed with a blind flange. The valve can be used as three-way valve after removal of the blind flange.

When used as a three-way mixing valve, the valve has two inlet ports (A and B) and one outlet port (AB). Depending on the position of the valve disc, the cold and hot water is mixed. If the stem is pressed down, the inlet port A is opened and the inlet port B is closed.

When used as a three-way diverting valve, the valve has one inlet port (AB) and two outlet ports (A and B). Depending on the position of the valve disc, the direction of flow is diverted from one to the other outlet port.



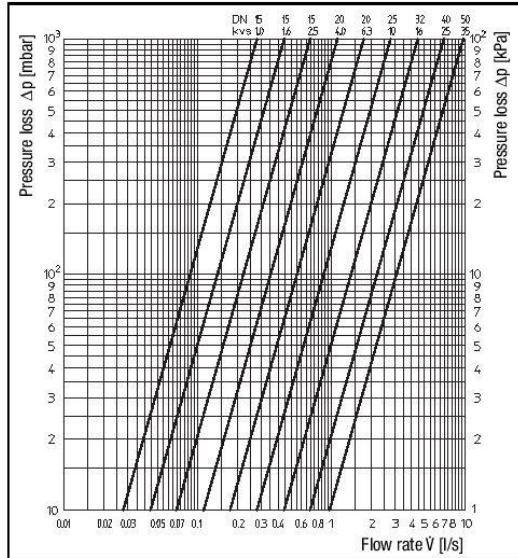
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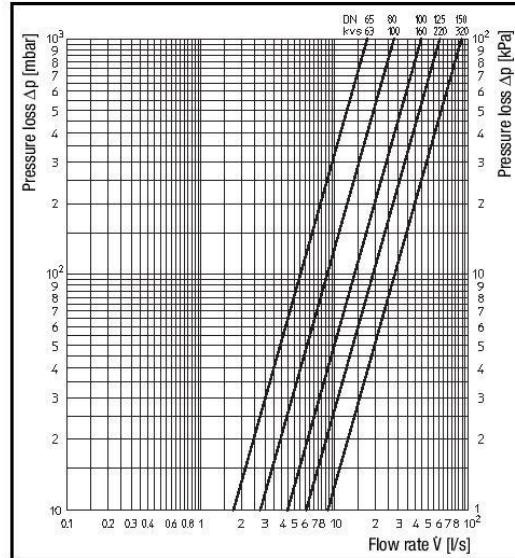
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## Two-way valve PN 16 (may also be used as three-way valve)



Performance data DN 15 - DN 50



Performance data DN 65 - DN 150

Subject to technical modifications.  
 Product range 3  
 ti 293-0/10/MW  
 Edition 2014