

#### Tender specification:

Oventrop six-way ball valve “Optibal W6” PN 16 for switching between heating and cooling operation in a four-pipe system with the help of the electromotive rotary actuator “Aktor R ST L”. The six-way ball valve can be used for volume flow control via the angle of rotation. When used with Kvs orifices, the heating and cooling circuit can be limited separately.

<b>Model:</b>		<b>Item no.:</b>
DN 15	G ¾	1132004
DN 20	G 1	1132006

#### Technical data:

Body material: Dezincification resistant brass  
 Pipework connection: DN 15: G ¾ male thread with inner taper (cone “Euro” according to EN 16313)  
 DN 20: G 1 male thread with inner taper

Max. flow rate without Kvs orifice: 3.2  
 Flow rate with Kvs with orifices: 2.5 / 1.6 / 1.0 / 0.63 / 0.4 / 0.25 (orifices to be ordered separately)

Weight: ~ 1.3 kg  
 Dimensions WxHxD: 85 x 58.5 x 115.5 mm  
 Max. operating pressure p<sub>s</sub>: 16 bar (PN 16)  
 Max. differential pressure: 2 bar  
 Operating temperature t<sub>s</sub>: 0 °C up to +90 °C

#### Application:

The Oventrop six-way ball valve “Optibal W6” is used for heating and cooling operation in a four-pipe system with radiant/chilled ceilings or fan coils.

It is used for switching between heating and cooling operation and, in combination with the Kvs orifices, for the limitation of the heating and cooling circuit.

#### Function:

The six-way ball valve “Optibal W6” is controlled (split-range-control) via the electromotive rotary actuator “Aktor R ST L”, item no. 1132030. The combination consisting of the six-way ball valve “Optibal W6” and the rotary actuator “Aktor R ST L” is used for:

Switching between heating and cooling operation via a control signal, two point operation:

Cooling:	0 V
Heating:	10 V or 24 V

Limitation of the heating and cooling circuit via a proportional control signal 0-10 V:

Cooling:	0 – 4 V
closed:	4 – 6 V
Heating:	6 – 10 V

The current position is transmitted via the 0-10 V output signal (connections 4 and 5).

The position of the balls is indicated by the markings at the end of the spindle, or, with the actuator in place, by the position of the rotary knob of the actuator.

With the operating current switched off and the gear disengaged, manual setting can be carried out with the help of the rotary knob of the actuator.

#### Installation advice:

The six connection points of the ball valve have to be equipped with suitable couplings (tailpipes for inner taper or flat sealing couplings in combination with inserts). Before fixing the valve at the M5 tapping at the lower side of the valve, the connections 1 and 2 can optionally be equipped with a Kvs orifice, see accessories.

The actuator is screwed onto the six-way ball valve with the help of the collar nut and is electrically connected to the centralised building control system.

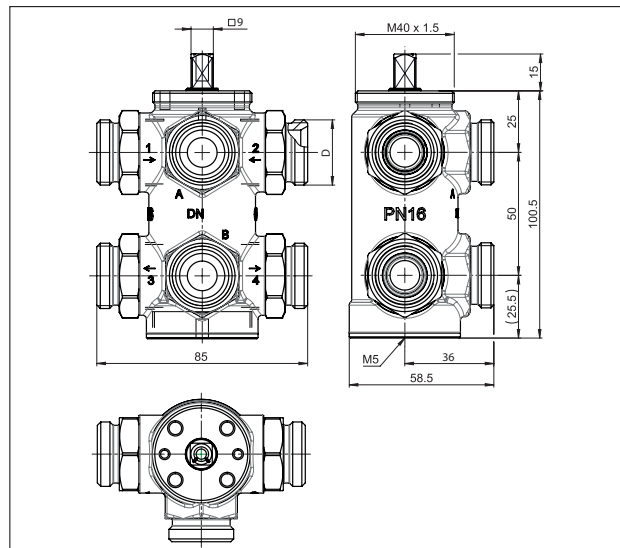
<b>Accessories:</b>		<b>Item no.:</b>
“Aktor R ST L”, 24 V, proportional rotary actuator 0-10 V (or 2 point via forced control 24 V)		1132030
Kvs orifice set orifices (2x per Kvs value), label and cable retainer (Kvs 0.25 / 0.4 / 0.63 / 1.0 / 1.6 / 2.5)		1132020

Subject to technical modifications without notice.

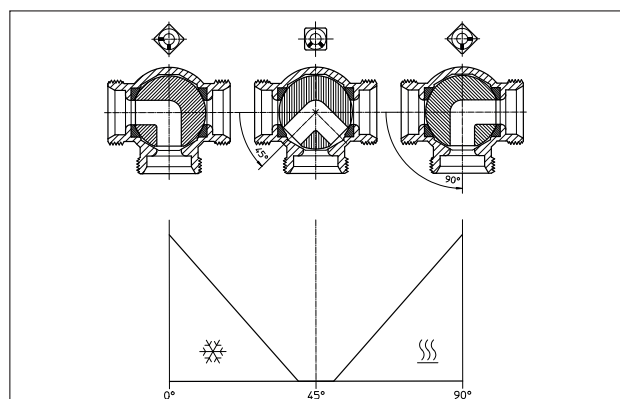
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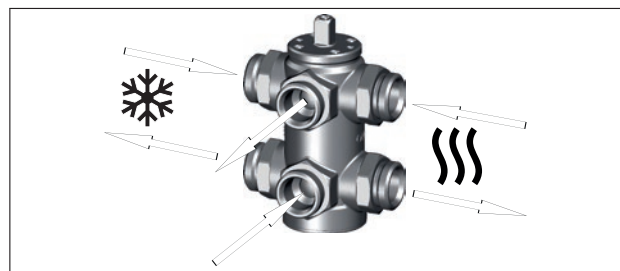
Six-way ball valve “Optibal W6” with actuator “Aktor R ST L”



Dimensions (DN / thread D: DN 15 / G ¾ and DN 20 / G 1)



Schematic sketch



Connection scheme