

Tender specification:

Oventrop three-way diverting valve “Tri-D TR” PN 16 up to 120 °C.

Bronze body.

Steady or two point control with Oventrop temperature controllers or Oventrop actuators.

Oventrop three-way diverting valves “Tri-D TR” are supplied with collar nuts for the connection of weldable tailpipes made of steel or solder or screwed tailpipes made of brass.

Connection thread M 30 x 1.5.

Technical data:

Max. operating temperature t_s : 120 °C
(for short periods up to 130 °C)

Min. operating temperature t_s : 0 °C

Max. operating pressure p_s : 16 bar (PN 16)

Function:

Oventrop three-way diverting valves “Tri-D TR” have one inlet port and two outlet ports. Depending on the position of the valve disc, the direction of flow is directed from one to the other outlet port.

Actuators:

The three-way diverting valves “Tri-D TR” can be combined with the following Oventrop actuators (M 30 x 1.5):

Actuator	Voltage	Regulation behaviour		
		2 point	3 point	Proportional
Electro-thermal	24V	1012816/26 1012916/26		
	230V	1012815/25/17 1012915/25		
Electro-motive	24V		1012708	1012705/06 (0-10V)
	230V	1012710		
	EIB			1156065/66
	LON			1157065

When using a steady control, Oventrop temperature controllers* with immersion sensor (item no. 1140561 – 1140574 with connection thread M 30 x 1.5) or Oventrop temperature controllers with contact sensor (item no. 1142861 – 1142864 with connection thread M 30 x 1.5) are used. These are proportional controllers working without auxiliary energy and allowing intermediate positions. With the temperature at the sensor rising, the straight port is closed and the angle port is opened.

Model:

Valve body made of corrosion-resistant bronze, inner parts made of brass and stainless steel, washers of the valve insert made of EPDM.

Application:

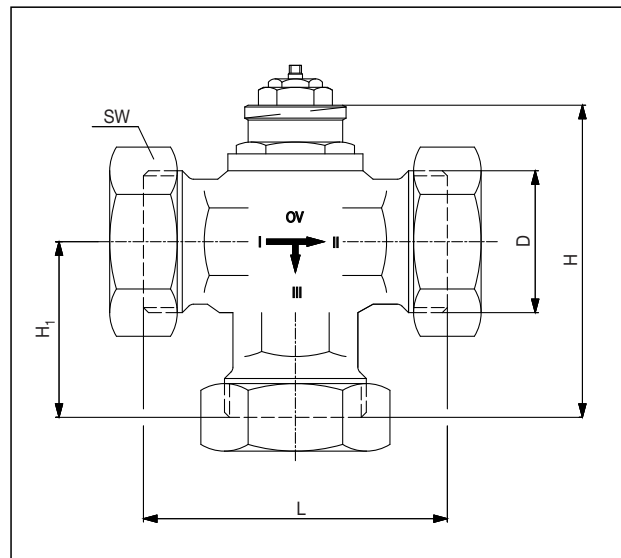
Diverting or changing-over of the flow in bivalent heating systems or hot water storage cylinders, for instance for solar and heat pump technology. Fluid temperature up to 120 °C; for short periods up to 130 °C.

Permissible pressure difference:

DN 20 \triangle 750 mbar, DN 25 \triangle 500 mbar, DN 40 \triangle 200 mbar (tight closing in final positions of the valve disc).

Max. operating pressure: 16 bar

*see separate technical information sheets
Oventrop actuators and temperature controllers



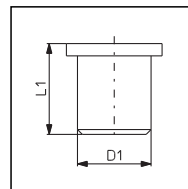
DN	D ISO 228	L	H	H ₁	SW*	Item no.
20	G 1	80	88	47	37	1130206
25	G 1 ¼	90	91	50	46	1130208
40	G 2	115	106	64	68	1130212

Dimensions

*SW = Spanner size

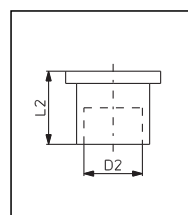
Accessories sets:

One set includes three tailpipes.



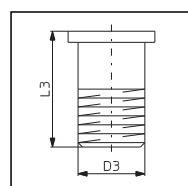
Weldable tailpipes

DN	D ₁	L ₁	Item no.
20	26	50	1130093
25	33	60	1130094
40	48.5	65	1130096



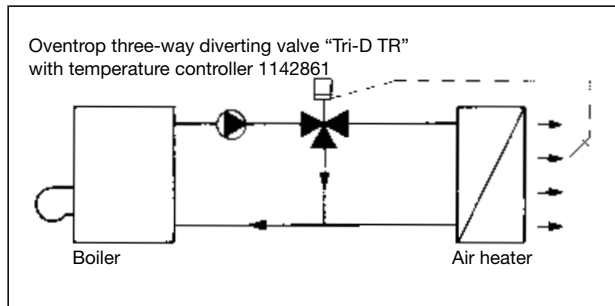
Solder tailpipes

DN	D ₂	L ₂	Item no.
20	15	20	1130192
20	18	23	1130193
20	22	24	1130194
25	28	27	1130195
40	35	40	1130196
40	42	32	1130197

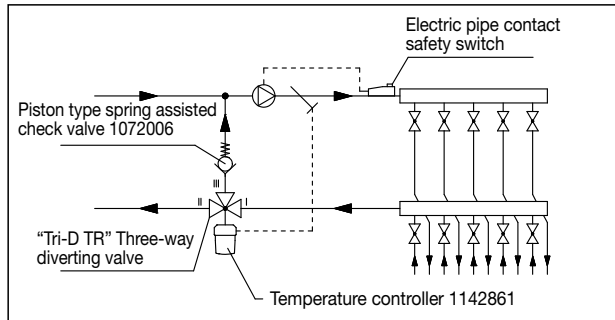


Threaded tailpipes

DN	D ₃ EN 10226	L ₃	Item no.
20	R ½	32	1130292
20	R ¾	34	1130293
25	R 1	40	1130294
40	R 1 ¼	40	1130295
40	R 1 ½	40	1130296



System illustration
Use in a heating system with air heater
The air outlet temperature of the air heater is controlled.



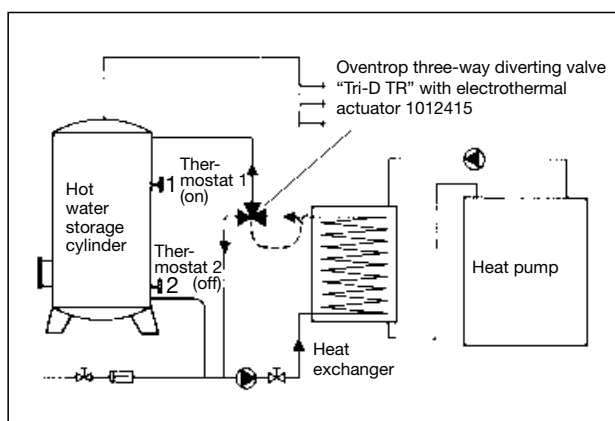
System illustration
Control of underfloor heating systems
The flow temperature of the underfloor circuit is limited to the set value.

Use for hot water storage:

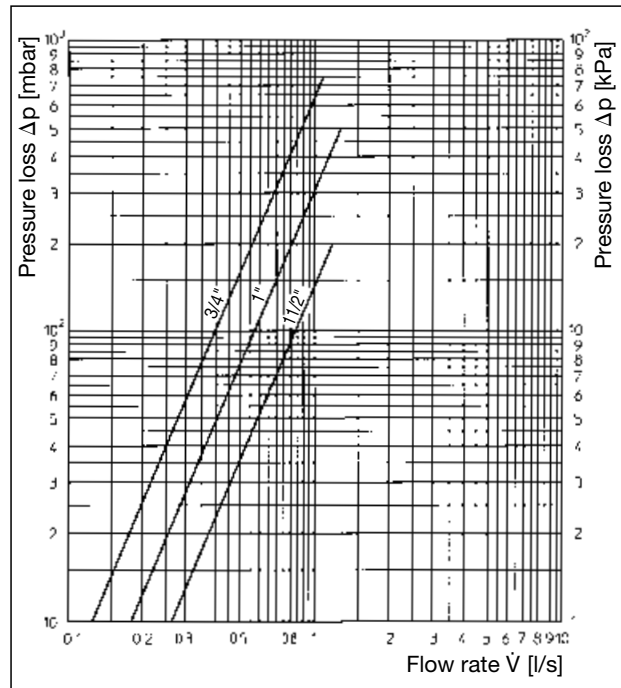
Direct heating of domestic water by use of a heat pump often proves to be difficult as a result of varying heat supply.

A storage cylinder loading function may solve the problem:
The domestic water circulates through the three-way diverting valve and the heat exchanger until the required temperature has been reached. Only then, the three-way diverting valve opens and the storage cylinder is filled from the top. At the same time, cold water is withdrawn from the lower level to be heated.

Storage cylinder loading is activated by the thermostat 1 and is inactivated by the thermostat 2.



System illustration



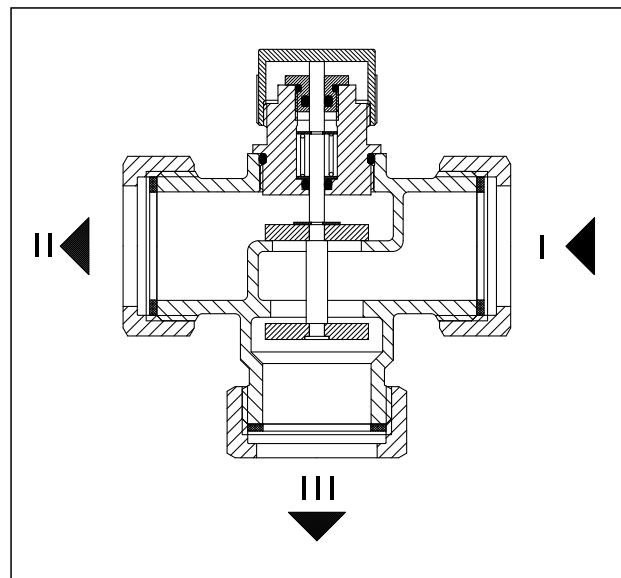
Performance data

k_{VS} and Zeta values:

DN	k_{VS}	Zeta
20	4.5	17
25	6.5	21
40	9.5	52

Zeta values related to the inner pipe diameter according to DIN EN 10255.

k_{VS} values in m^3/h with Δp 1 bar.



Illustrated section

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