

### Application:

Four-port mixing valve “Tri-M plus TR” for heating and cooling systems (e.g. fan coil units, chilled ceiling modules and fan convectors).

### Technical data:

Max. operating temperature  $t_s$ : 120 °C  
 Min. operating temperature  $t_s$ : -10 °C  
 Max. operating pressure  $p_s$ : 10 bar (PN 10)  
 Max. differential pressure  $\Delta p_v$ : 1 bar  
 Fluid: Water, ethylene glycol water mixtures or propylene glycol water mixtures (max. 50 %), ph value 6.5 to 10

G ½ male thread, flat sealing:

### Models:

$k_{vs}$ value	Gland mark	Item no.:
0.45	P1	1142751
1.00	P2	1142752
1.80	P3	1142753

### Function:

The Oventrop four-port mixing valve “Tri-M plus TR” control the room temperature by changing the volume flow to the terminal unit by use of actuators whilst maintaining an almost constant volume flow within the distribution circuit.

Bronze body, seals made of EPDM or PTFE, bonnet made of brass resistant to dezincification (DZR), valve stem made of stainless steel with double seal.

### Installation:

- The direction of flow has to conform to the direction of the arrow on the valve body.
- The valve may be installed in any position (electrical actuators must not be installed in a vertical downward position)
- Do not use any greasing agents or oils for the installation, as these can destroy the valve seals.
- Any dirt particles or grease or oil residues must be flushed out before the valve is installed.
- After installation, check all installation points for leaks.

### Pipe connection:

- In case of tensile or flexional strains, the pipes have to be fixed additionally.
- Provide for expansion loops in case of thermal conditional changes in length.

### Actuators:

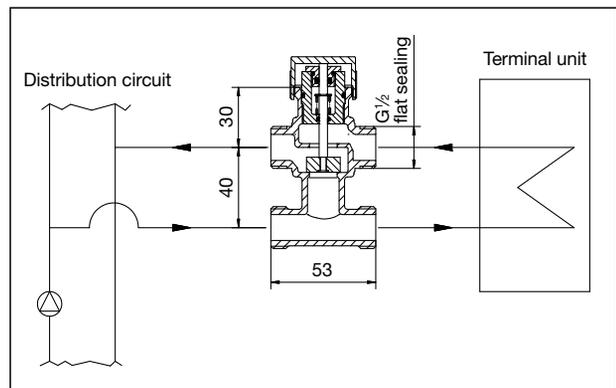
The four-port mixing valve “Tri-M plus TR” can be combined with the following Oventrop actuators (M 30 x 1.5):

Actuator	Voltage	Regulation behaviour		
		2 point	3 point	Proportional
Electro-thermal	24V	1012816/26 1012916/26		1012951 (0-10V)
	230V	1012815/25/17 1012915/25		
Electro-motive	24V		1012708	1012700/05 (0-10V)
	230V		1012710	1012703
	EIB			1156065/66
	LON			1157065

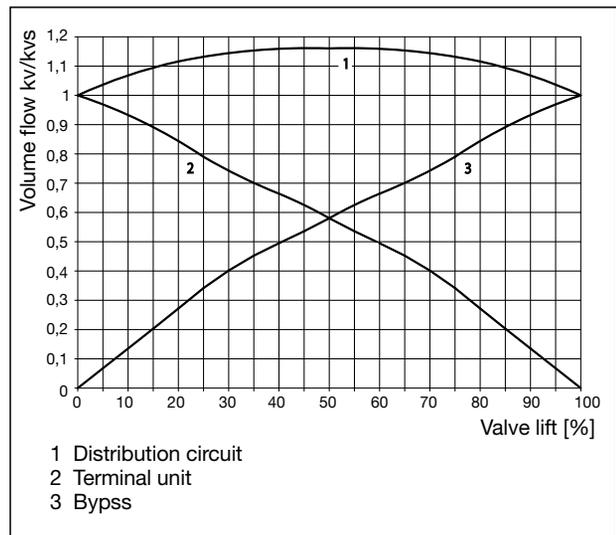
The four-port mixing valves “Tri-M plus TR” can also be combined with the Oventrop temperature controllers.



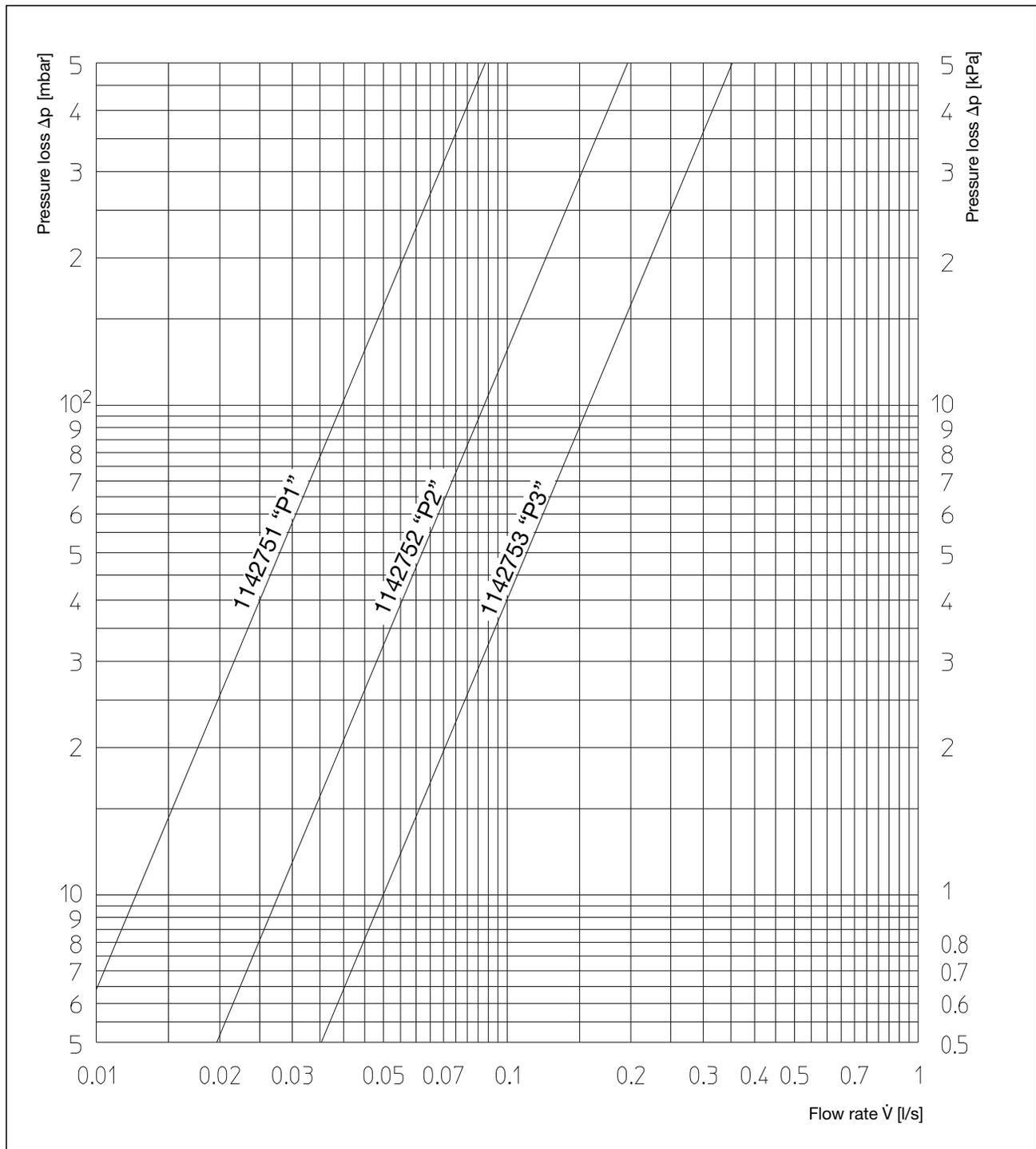
“Tri-M plus TR”



System illustration, dimensions



Chart, flow rate depending on the valve lift



Chart

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