

Function:

The Oventrop “Hydrocontrol STR” is a double regulating and commissioning valve with integrated measuring orifice and pressure test points with quick-coupling technique. It is installed in the pipework of solar collectors and serves to achieve a hydronic balance between the solar collectors. The valve does not feature an isolation facility; therefore a pressure reduction during the stagnation phase steam formation is possible via the safety valve.

Hydronic balancing is carried out by setting the double regulating and commissioning valve during flow measurement at the measuring orifice.

The balance can also be achieved by the presetting with memory lock.

The required values of presetting can be obtained from the flow charts. All intermediate values are infinitely adjustable.

The selected presetting can be read off two scales (basic scale and fine adjustment scale, see illustration presetting). The Oventrop double regulating and commissioning valves have two pressure test points with quick-coupling technique for the measurement of the pressure difference via the measuring orifice.

The double regulating and commissioning valves may be installed in either the supply or return pipe.

When installing the valve, it must be ensured that the direction of flow conforms to the direction of the arrow on the valve body and that the valve is installed with a minimum length of $L = 5 \times \varnothing$ of straight pipe at the valve inlet and of $L = 2 \times \varnothing$ at the valve outlet.

Models:

DN	k_{vs}		Min. flow rate*	Item no.
	Metering orifice	Total valve		
20 LF	1.2	1.04	2	1369050/62
20 MF	4.1	2.6	6,8	1369055/65

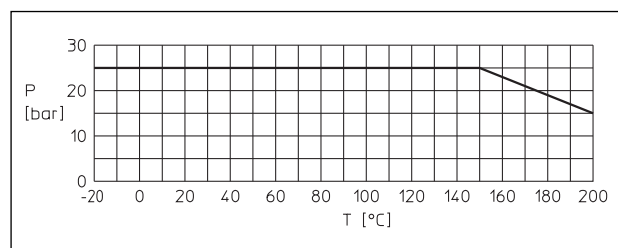
* Minimum flow rate in l/min with a pressure loss of 1 kPa (10 mbar) across the measuring orifice which guarantees a sufficient measuring accuracy.

Technical data:

Max. operating temperature t_s : +200 °C

Min. operating temperature t_s : -20 °C

Max. operating pressure p_s :



Connections:

Item no. 1369050/55 both ports G 1 male thread with compression connection, suitable for compression fittings “Regusol” (accessory).

Item no. 1369062/65 both ports Rp 3/4 female thread

Fluid:

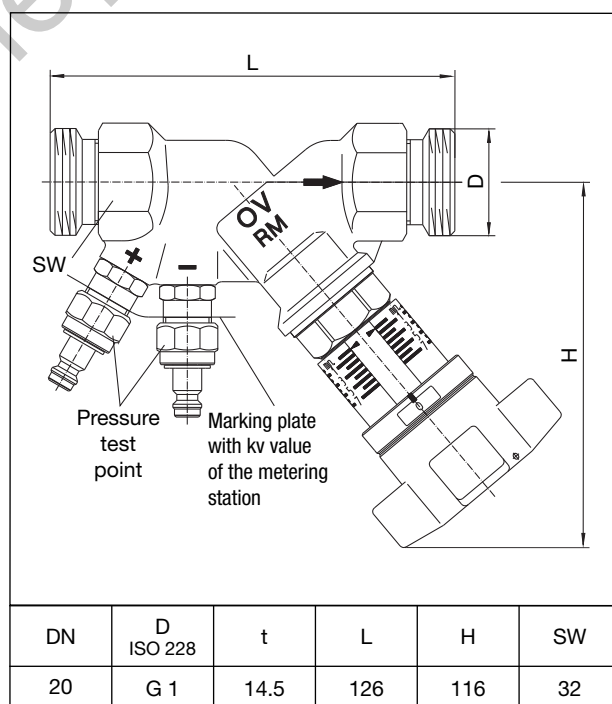
Water and mixtures of water and glycol.
Not suitable for oily and aggressive fluids.

Installation position: any, but easily accessible.

Installation location: protected against variations of weather, inside or outside of closed buildings.



“Hydrocontrol STR”



Dimensions

* SW = spanner size

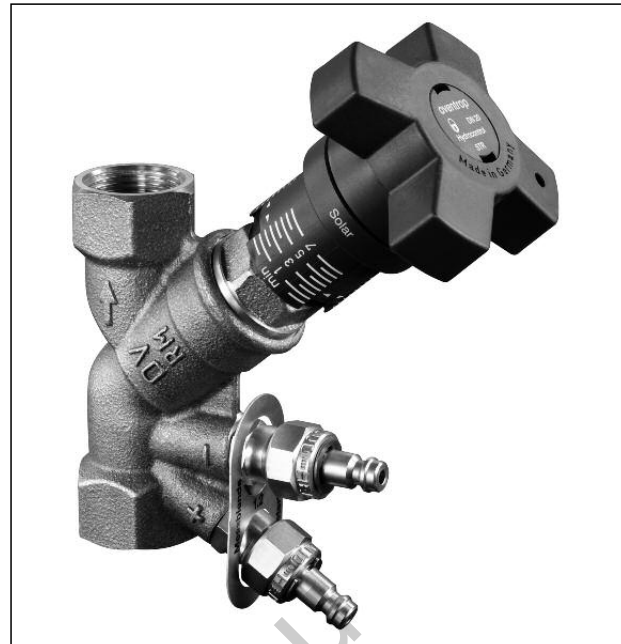
**“Hydrocontrol STR” Double regulating and commissioning valves PN 25
for the hydronic balancing of solar collectors**

Advantages:

- the location of the functional components in one plane allows a simple assembly and easy operation
- low pressure loss (oblique pattern)
- infinitely adjustable presetting, exact measurement of the flow via the measuring orifice
- item no. 1369050/55: connections suitable for Oventrop compression fittings “Regusol”
- the integrated measuring orifice allows an exact measurement of the pressure loss and is proportional to the flow rate
- the k_v value of the integrated measuring orifice is indicated on the marking plate

Tender specification:

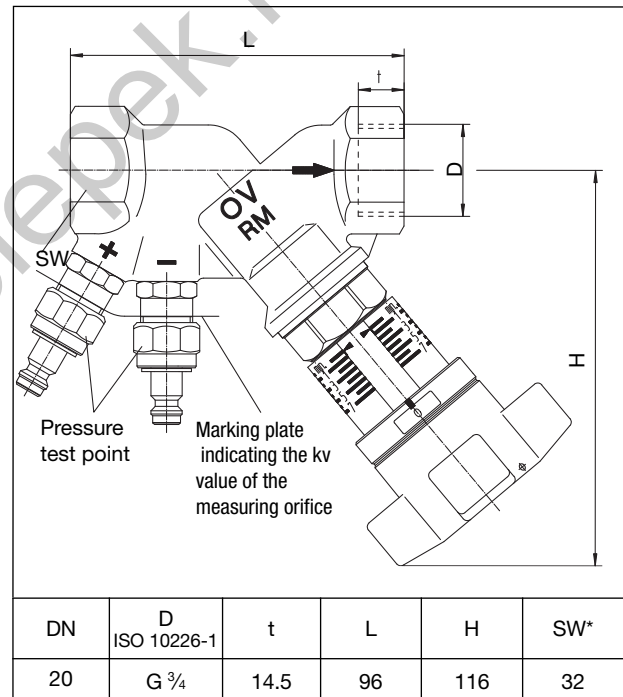
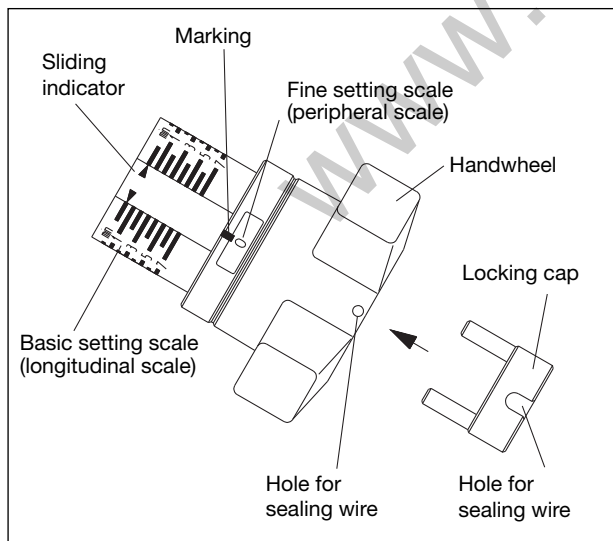
Double regulating and commissioning valve PN 25 (water pH value 6.5-10), both ports compression connection for compression fittings “Regusol” or female thread $R_p \frac{3}{4}$ and integrated measuring orifice. Oblique pattern with secured, infinitely adjustable fine presetting controllable at any time; valve body and bonnet made of bronze, disc, stem and measuring orifice made of brass resistant to dezincification (DZR), maintenance-free stem seal due to double O-ring, all functional components in one plane, with pressure test points with quick-coupling technique, installation in the solar supply or return.



“Hydrocontrol STR” both ports with female thread

Presetting:

1. The calculated presetting values can be set at the double regulating and commissioning valves “Hydrocontrol STR” with fluid temperatures of up to 150°C.
To do so, remove the locking cap with the help of a screwdriver and set the presetting value by turning the handwheel.
 - a. The display of the basic setting scale is shown by the longitudinal scale together with the sliding indicator. Each turn of the handwheel is represented by a line on the longitudinal scale.
 - b. The display of the fine setting is shown by the peripheral scale on the handwheel and indicates 1/10th of a turn of the handwheel.
2. The presetting can be locked by fitting the enclosed locking cap.

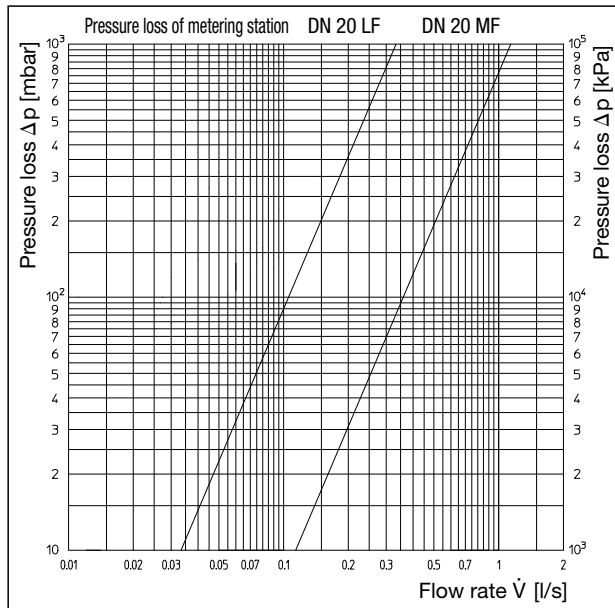


Dimensions

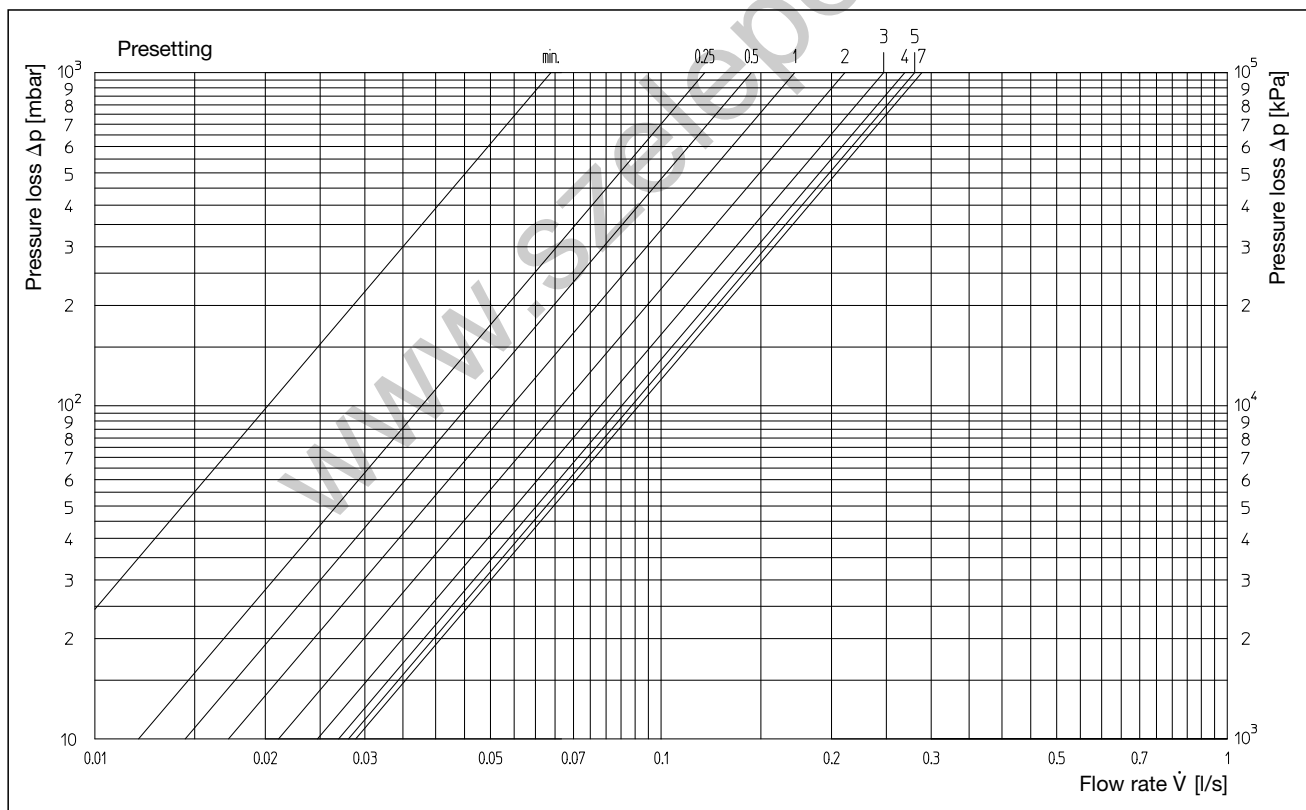
*SW = spanner size

Flow charts:

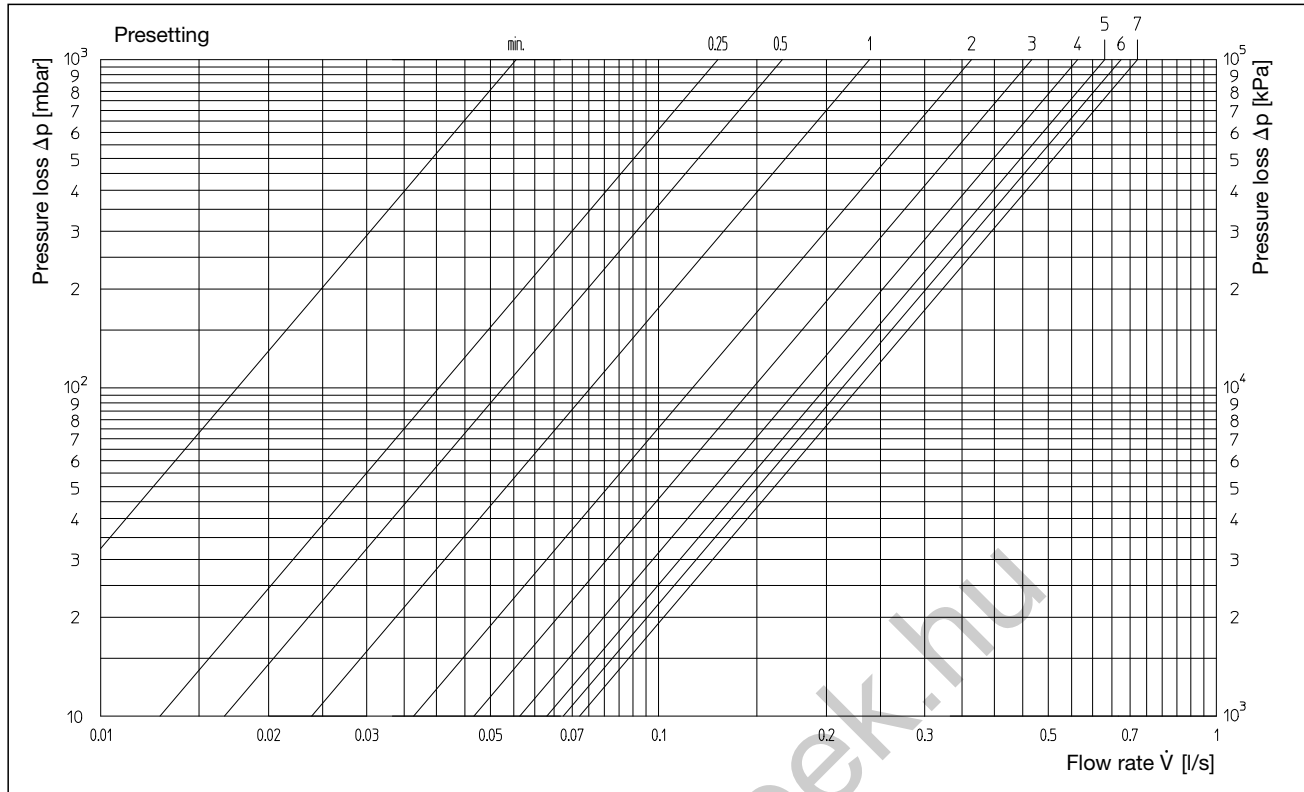
The flow charts are valid for use of the “Hydrocontrol STR” in the supply and the return, provided the direction of flow conforms to the arrow on the valve body and the fluid is in a liquid state.



DN 20 LF

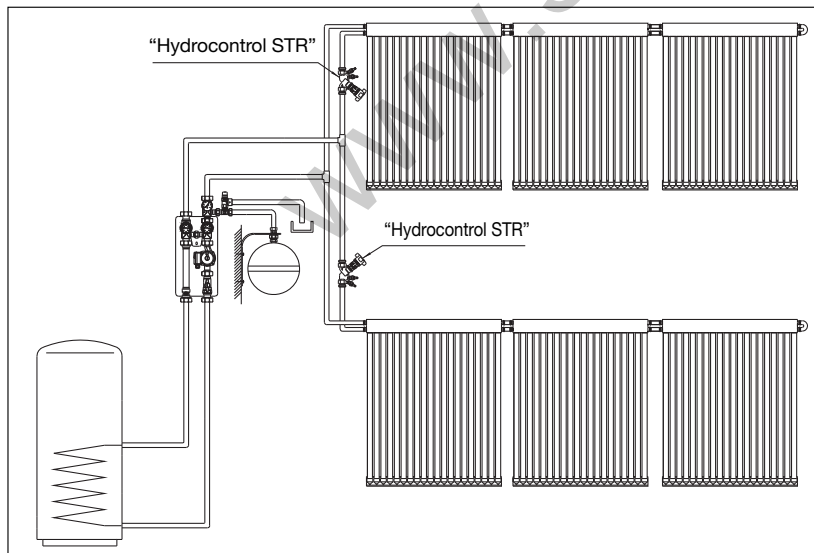


DN 20 MF

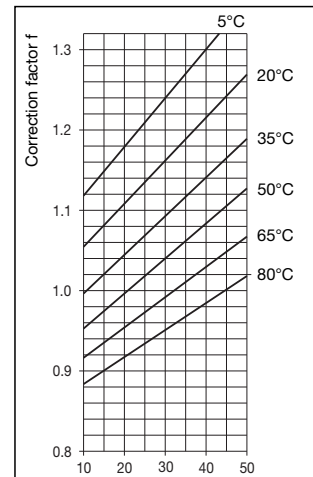


Correction factor for mixtures of water and glycol:

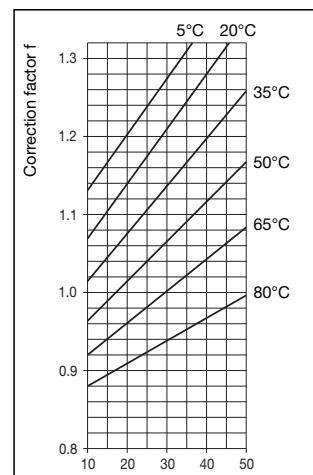
When antifreeze liquids are added to the solar liquid, the values given in the chart must be multiplied by the correction factor f .



System illustration



Weight proportion of
ethylene glycol [%]



Weight proportion of
propylene glycol [%]

Subject to technical modification
without notice.

Product range 3
ti 237-EN/10/MW
Edition 2015

OVENTROP GmbH & Co. KG
Paul-Oventrop-Straße 1
D-59939 Olsberg, Germany
Phone +49 (0) 29 62 82-0
Fax +49 (0) 29 62 82-450
E-Mail mail@oventrop.de
Internet www.oventrop.de

For an overview of our global presence
visit www.oventrop.de.