Function:

The Oventrop double regulating and commissioning valves Oventrop "Hydrocontrol STR" with integrated measuring orifice and pressure test points with quick-coupling technique are installed in the pipework of solar collectors and serve to achieve a hydronic balance between the solar collectors. As the valve does not feature an isolating facility, a pressure reduction via the safety valve is possible during the stagnation phase.

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 reproducible presetting at the valve**.**

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

The selected presetting can be read off two scales (basic setting = longitudinal scale and fine setting = peripheral scale, see section "Presetting" on page 2). The double regulating and commissioning valves are supplied with 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 the solar supply and the solar return.

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 of L = 5 x Ø of straight pipe at the valve inlet and of L = 2 x Ø of straight pipe at the valve outlet.

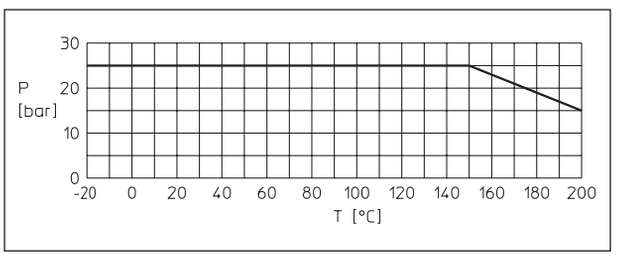
Models:

DN	k_{VS}		Min. flow rate*	Item no.
	Measuring 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: 25 bar (PN 25)



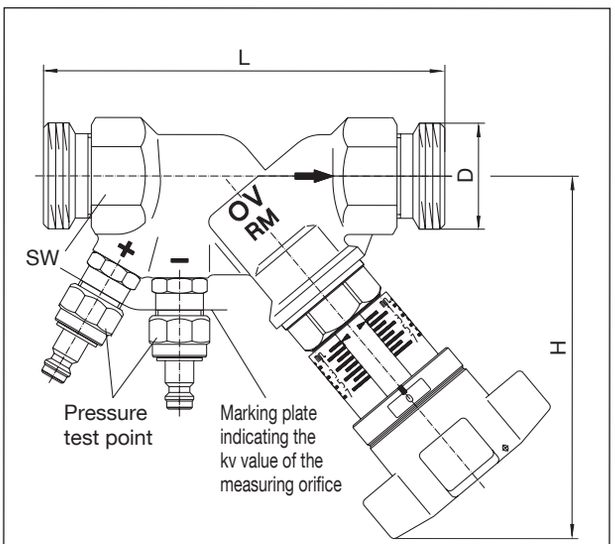
Connections: Item no. 1369050/55 both ports G 1 male thread with compression connection for compression fittings "Regusol" (accessory). Item no. 1369062/65 both ports Rp ¾ female thread according to EN 10226.

Fluids: 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 and outside of closed buildings.

"Hydrocontrol STR" both ports with compression connection



DN	D ISO 228	t	L	H	SW*
20	G 1	14,5	126	116	32

Dimensions

*SW = spanner size

Advantages:

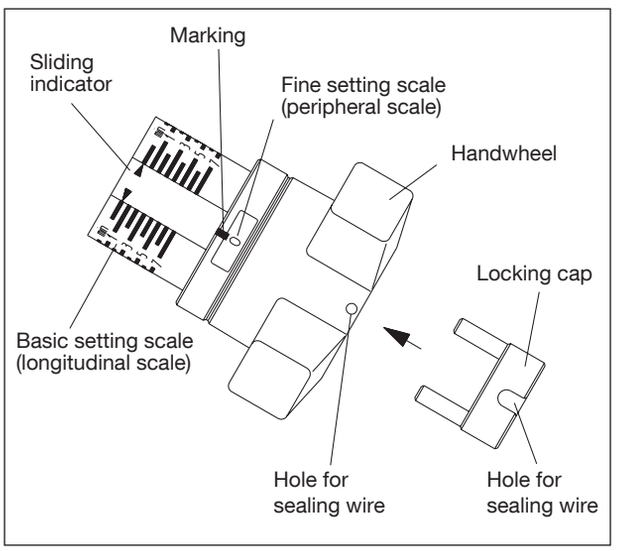
- the location of the functional components in one plane allows for a simple installation and easy operation
- low pressure loss (oblique pattern)
- infinitely adjustable presetting, exact measurement of the flow rate via the measuring orifice
- item no. 1369050/55: both ports compression connection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

Tender specification:

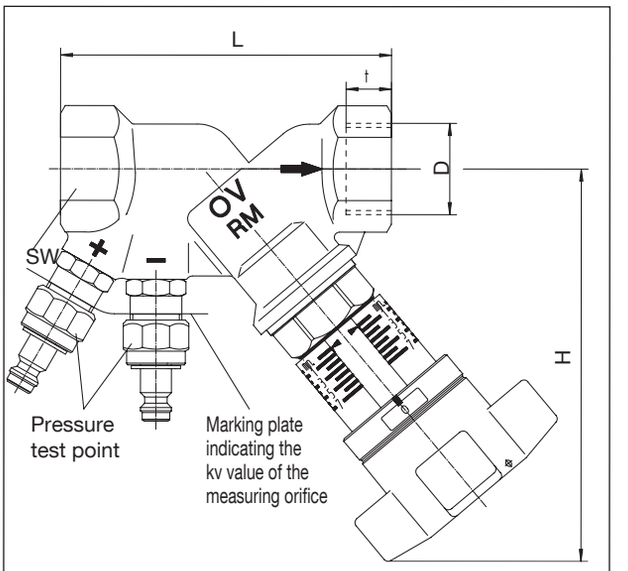
Double regulating and commissioning valve PN 25 (water pH value 6.5-10) both ports G 1 male thread with compression connection for compression fittings “Regusol” or both ports Rp ¾ female thread according to EN 10226 and integrated measuring orifice. Oblique pattern with secured, infinitely adjustable fine presetting controllable at any time. Valve body and bonnet made of bronze, stem and measuring orifice made of dezincification resistant brass. 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 and the solar return.

Presetting:

1. The calculated presetting values can be set at the double regulating and commissioning valves “Hydrocontrol STR” with fluid temperatures 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 basic setting is displayed 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 fine setting is displayed by the peripheral scale together with the marking. The subdivisions of the peripheral scale correspond to 1/10th of a turn of the handwheel.
2. The presetting can be locked by fitting the enclosed locking cap.



“Hydrocontrol STR” both ports female thread according to EN 1022



DN	D ISO 10226-1	t	L	H	SW*
20	G ¾	14,5	96	116	32

Dimensions

*SW = spanner size

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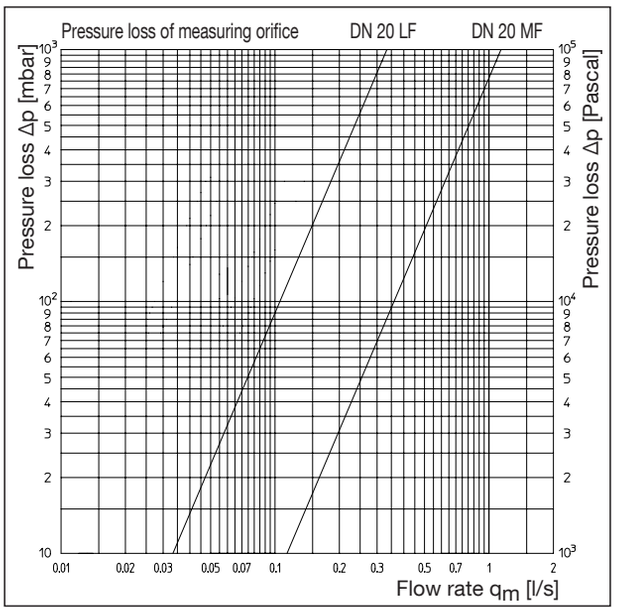
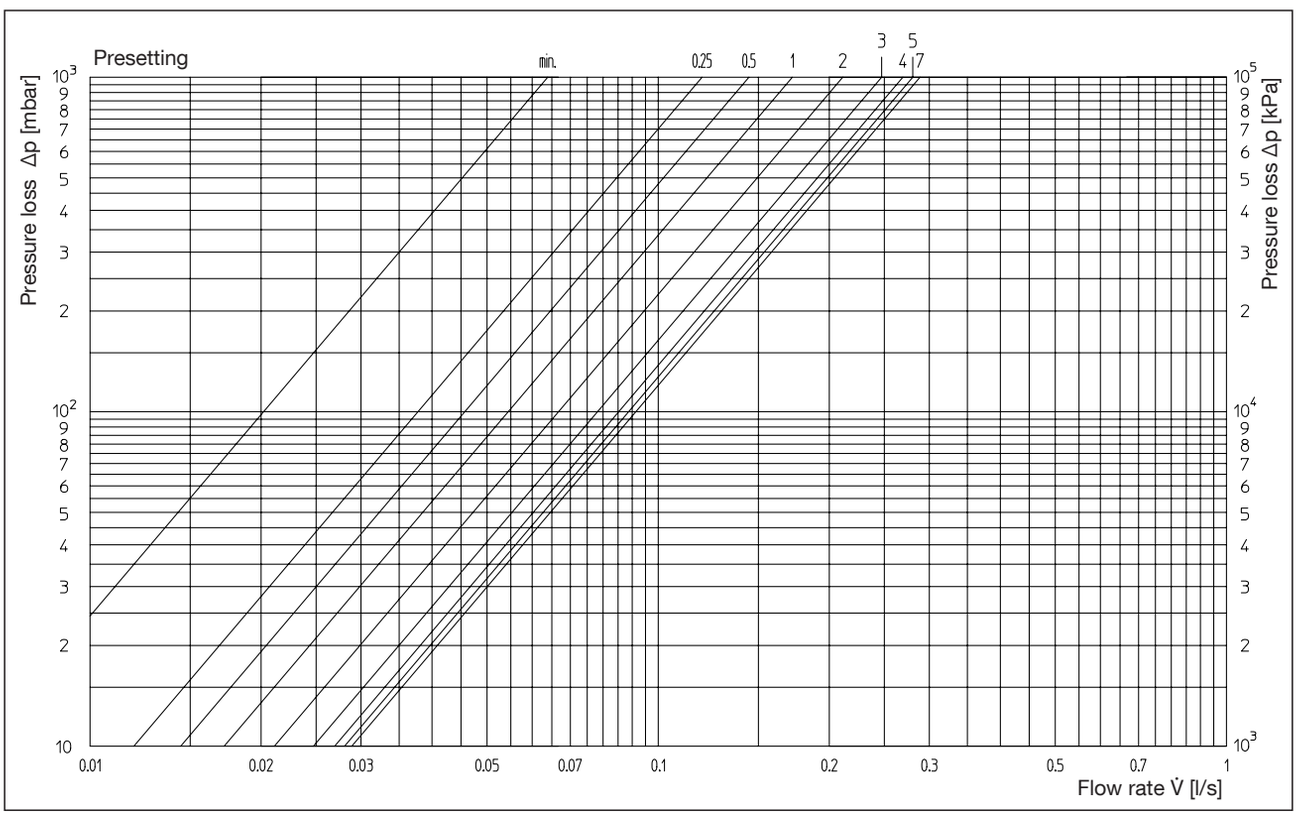
Flow charts:

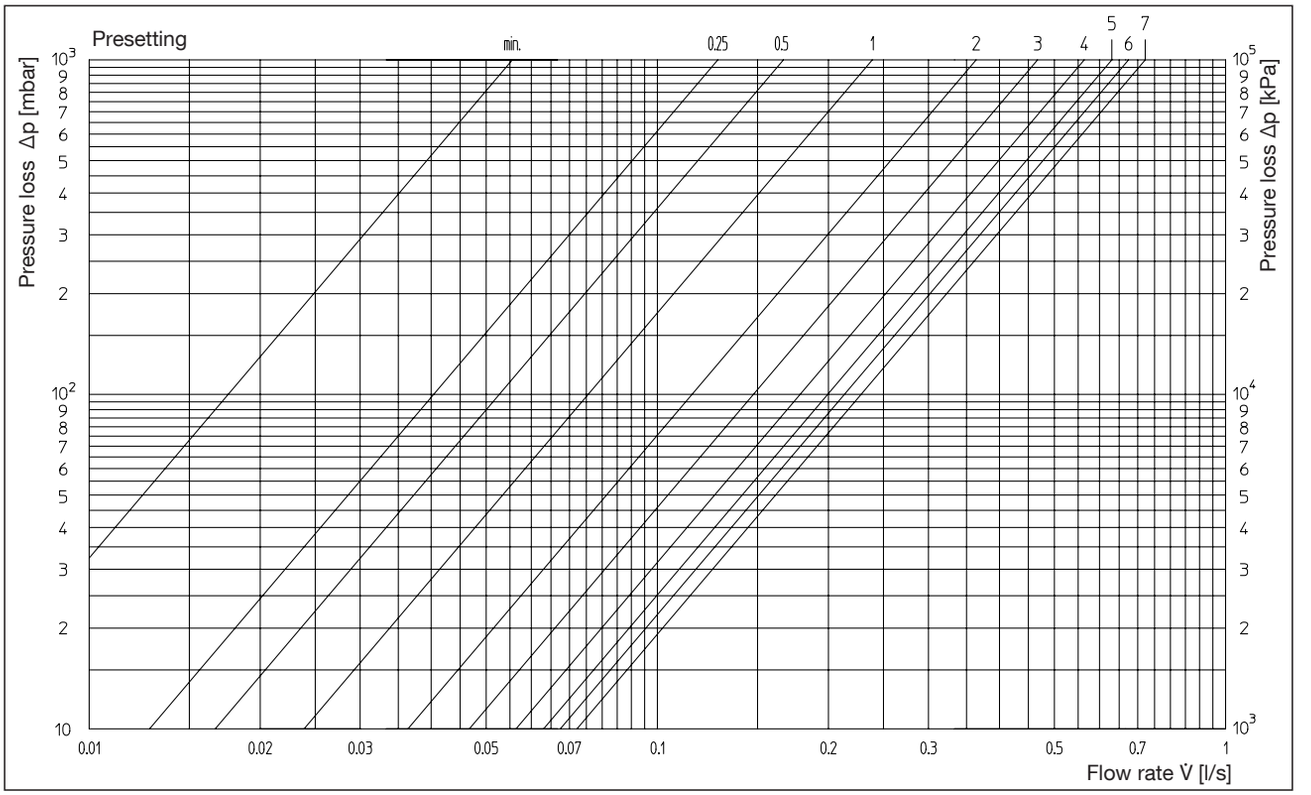
The flow charts are valid for use of the double regulating and commissioning valves “Hydrocontrol STR” in the solar supply and the solar return provided the direction of flow conforms to the arrow on the valve body and the fluid is in a liquid state.



DN 20 LF

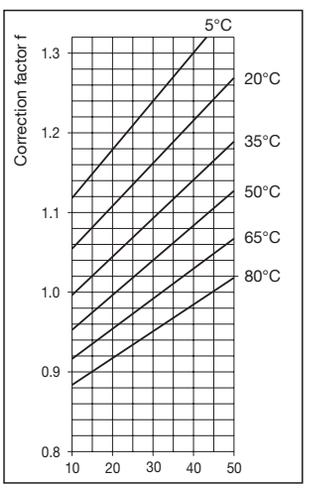


DN 20 MF

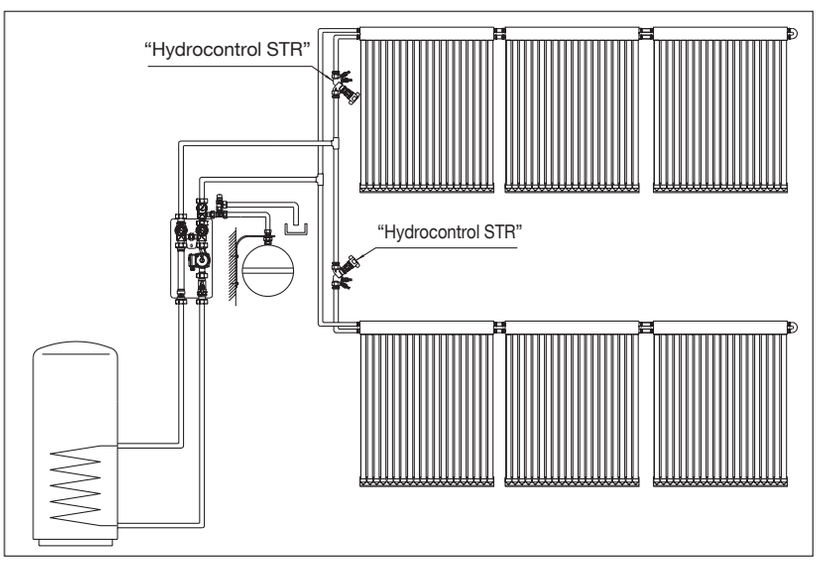


Correction factors for mixtures of water and glycol:

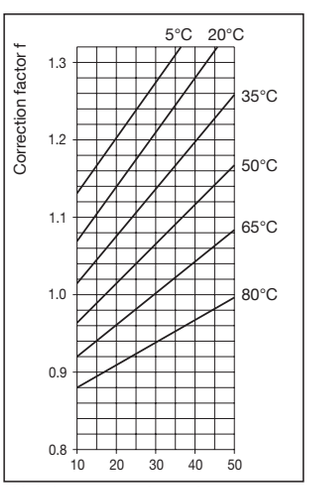
When antifreeze liquids are added to the solar liquid, the pressure loss obtained from the chart must be multiplied by the correction factor f.



Weight proportion of ethylene glycol [%]



System illustration



Weight proportion of propylene glycol [%]

Subject to technical modifications without notice.

Product range 2.17
ti 237-EN/10/MW
Edition 2020