

Description:

new "Hycococon DTZ"
old "Hycococon DP"

Differential pressure regulator "Hycococon DTZ" Measuring technique "eco"

Tender specification:

Oventrop differential pressure regulator "Hycococon DP" for a steady control of the set nominal value as proportional regulator without auxiliary energy.

Infinitely adjustable nominal value between 50 and 300 mbar or between 250 and 600 mbar. The nominal value can be locked and be read-off from the outside at any time. With direct isolation and a facility for draining and filling, installation in the return pipe, straight pattern model. Valve disc with soft seal.

Connection thread M 30 x 1.5

Valve body, bonnet, regulator housing and inner parts made of de-zincification resistant (DZR) brass, O-rings, washer and diaphragm made of EPDM.

Supplied with insulation shells (as packaging) suitable for temperatures up to 80 °C.

Max. operating temperature t_s : 120 °C
 Min. operating temperature t_s : -10 °C
 Max. operating pressure p_s : 16 bar (PN 16)
 Max. differential pressure Δp_v : 1.5 bar
 Length of capillary: 1 m

Differential pressure regulator both ports with female thread according to EN 10226

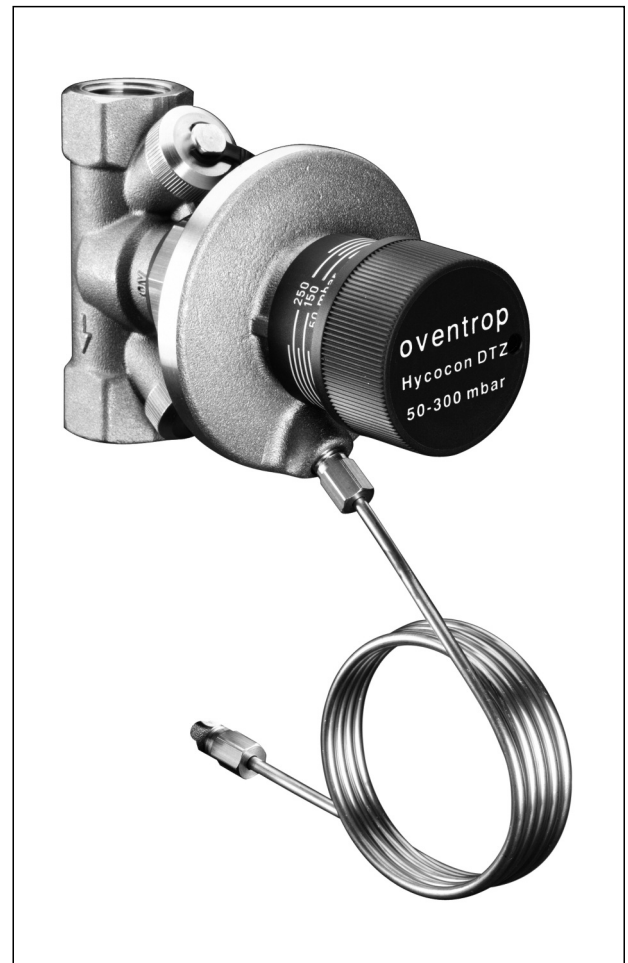
Size	k_{VS}	Item no. 50-300 mbar	Item no. 250-600 mbar
DN 15	1.7	106 20 04	106 22 04
DN 20	2.7	106 20 06	106 22 06
DN 25	3.6	106 20 08	106 22 08
DN 32	6.8	106 20 10	106 22 10
DN 40	10.0	106 20 12	106 22 12
DN 50		106 20 16	106 22 16

Differential pressure regulator both ports with male thread and collar nut

Size	k_{VS}	Item no. 50-300 mbar	Item no. 250-600 mbar
DN 15	1.7	106 21 04	106 23 04
DN 20	2.7	106 21 06	106 23 06
DN 25	3.6	106 21 08	106 23 08
DN 32	6.8	106 21 10	106 23 10
DN 40	10.0	106 21 12	106 23 12
DN 50		106 21 16	106 23 16

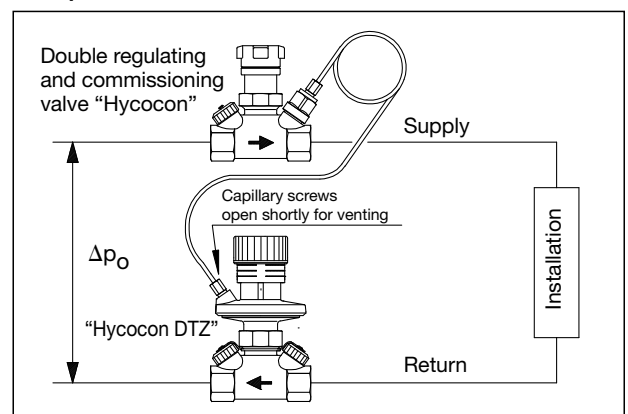
Advantages:

- all functioning components on one level
- infinitely adjustable nominal value between 50 and 300 mbar/ 250 and 600 mbar
- very good optical display of the set nominal value
- nominal value can be locked
- simple isolation of the riser
- with fill and drain tool (accessory) for filling and draining the riser
- pressure balanced valve disc
- existing valves of the series "Hycococon VTZ/HTZ/ETZ" sized DN 15 up to DN 40 can be converted without draining the system



Differential pressure regulator "Hycococon DTZ"

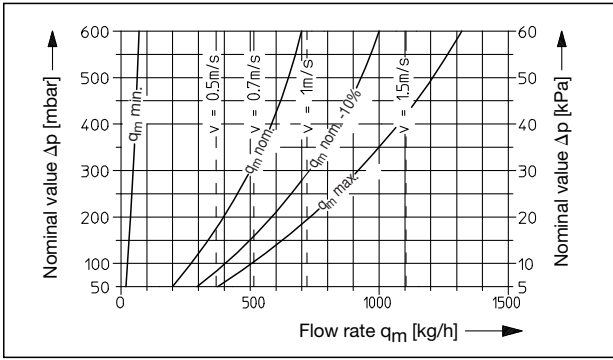
Example of installation:



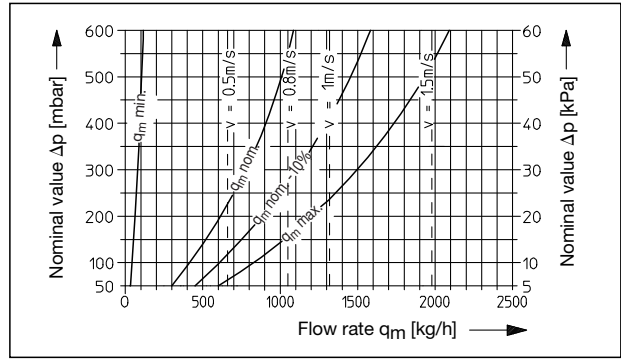
Installation in the return pipe

Performance data:

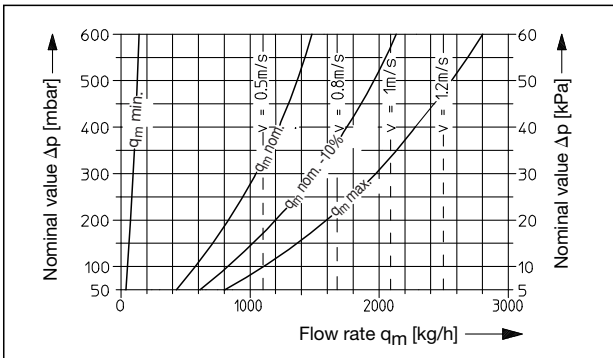
DN 15: kvs = 1.7



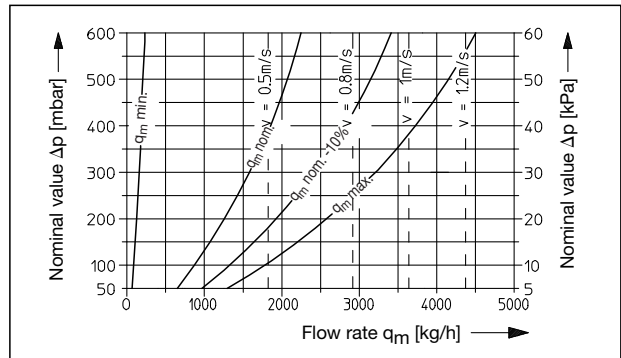
DN 20: kvs = 2.7



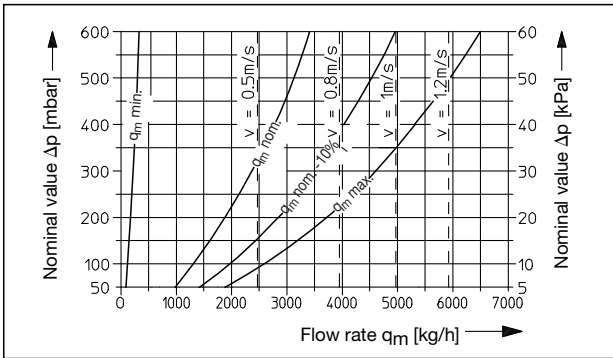
DN 25: kvs = 3.6



DN 32: kvs = 6.8



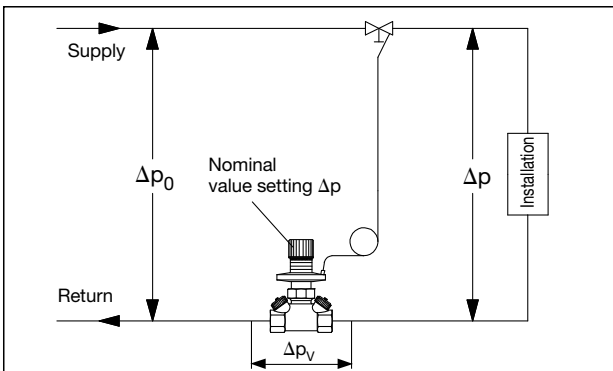
DN 40: kvs = 10.0



DN 50

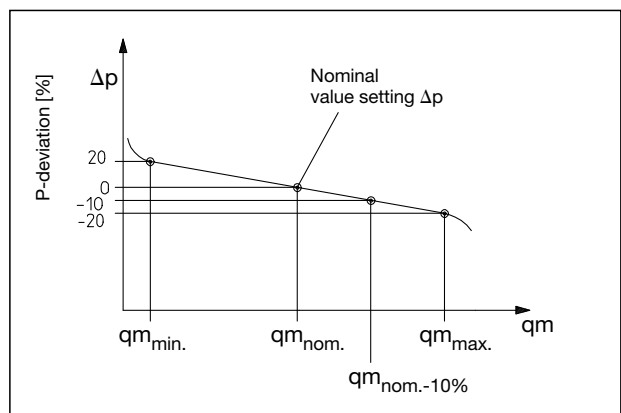
Chart in preparation

Example of installation:



The recommended application range is determined by the minimum flow rate ($q_{m\min}$) and the maximum flow rate ($q_{m\max}$). Design of the regulator can be carried out with the help of the charts illustrated above. Depending on the flow rate and the differential pressure, the suitable regulator can be determined. The maximum flow rate of the installation to be expected may not exceed the flow rate of the regulator ($q_{m\max}$). As for the curve $q_{m\text{nom}}$, the differential pressure of the installation corresponds to the set nominal value.

Smallest p-deviation with average nominal setting ($q_{m\text{nom}}$).



The curve $q_{m\text{nom}} - 10\%$ shows the values with a p-deviation of 10%.

The charts are valid for the condition $\Delta p_0 \geq 2 \times \Delta p$. To guarantee a sufficient valve authority of the differential pressure regulator, Δp_0 should be $\geq 1.5 \times \Delta p$.

Note: Operation of the differential pressure regulator is guaranteed even below this value.

Function:

Oventrop differential pressure regulators are proportional regulators working without auxiliary energy. They are designed for use in heating or cooling systems to maintain a constant differential pressure within a necessary proportional band. The spring for nominal pressure can be set with the help of the nominal value setting device, so that values between 50 and 300 mbar/250 and 600 mbar can be set. The outer chamber of the diaphragm regulator must be connected to the capillary, and the capillary to the supply pipe. With the differential pressure in the installation increasing, the valve disc closes down and opens as the differential pressure falls. The excess differential pressure is reduced by the differential pressure regulator, until the set differential pressure in the pipe is reached.

Installation of the regulator:

Oventrop differential pressure regulators "Hycocn DTZ" are installed in the return pipe. Installation is possible in any position provided the direction of flow conforms with the direction of the arrow on the valve body. Before installing the regulator into the pipework, it is advisable to flush the latter thoroughly. The installation of an Oventrop "Y" type strainer is recommended. The capillary should be fitted above or horizontal to the supply pipe, to avoid blockage of the capillary by small particles, it should not be connected to the supply pipe from underneath.

Setting the nominal value:

The nominal value of the Oventrop differential pressure regulator is infinitely adjustable between 50 and 300 mbar and 250 and 600 mbar. The required value can be set by turning the handwheel and can be secured with the help of a locking pin (accessory).

Function of the manual isolation:

The Oventrop differential pressure regulator "Hycocn DTZ" may be closed manually e.g. when servicing the system, and additionally acts as an isolating valve. To carry out manual isolation, turn the handwheel clockwise until stop beyond the nominal value 50/250 mbar. The connection pipe of the upper diaphragm chamber must be connected to the supply pipe.

If the regulator is to be reopened after servicing, turn the handwheel anticlockwise to the nominal value. A perfect regulation is only possible in this position.

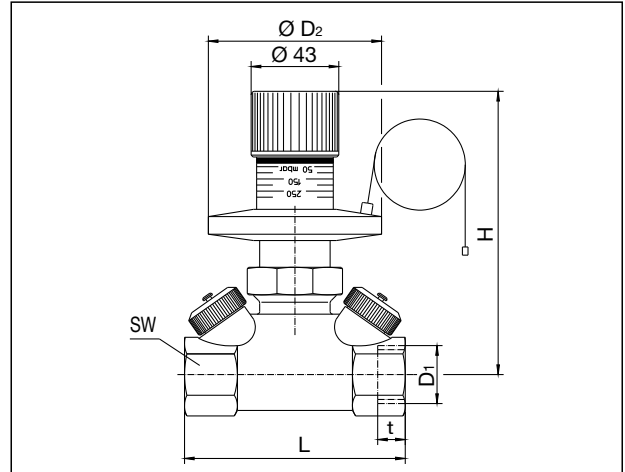
Draining and filling of the installation:

The installation may be drained or filled with the help of an additional fill and drain tool. To do so, a 1/2" hose may be connected to the fill and drain tool (G 3/4 collar nut).

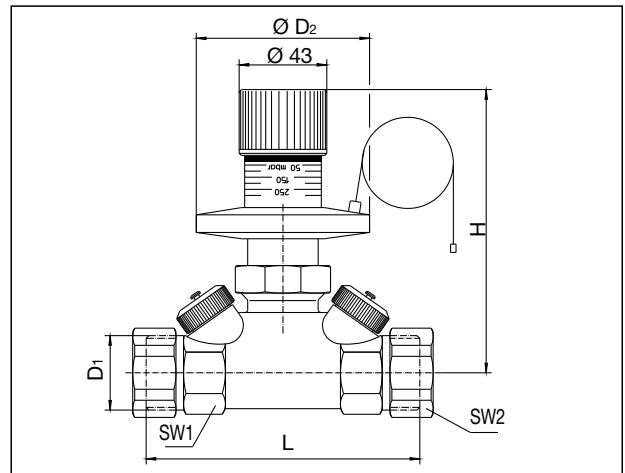
Accessories:

	Item no.
Adapter (for the connection of the capillary to a G 3/4 flat sealing male thread)	106 20 90
Locking pin with sealing wire	106 20 92
Fill and drain tool	106 17 91
Adapter (for the connection of the capillary to the measuring technique "classic" G 1/4 connection)	160 93 02
Capillary 2 m long	106 20 95

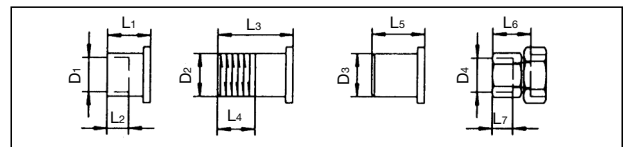
Dimensions:



DN	D1 EN 10226	Ø D2	t	SW*	L	H
15	Rp 1/2	71.5	13.2	27	80	113
20	Rp 3/4	71.5	14.5	32	82	116
25	Rp 1	71.5	16.8	41	92	120
32	Rp 1 1/4	104	19.1	50	115	140
40	Rp 1 1/2	104	19.1	55	130	145
50	Rp 2	104	25.7	70	140	163



DN	D1 ISO 228	Ø D2	L	H	SW1*	SW2*
15	G 3/4	71.5	95	113	27	30
20	G 1	71.5	98	116	32	37
25	G 1 1/4	71.5	105	120	41	46
32	G 1 1/2	104	129	140	50	52
40	G 1 3/4	104	145	145	55	58
50	G 2 3/8	104	148	163	70	75



DN	D1	L1	L2	D2 EN 10226	L3	L4	D3	L5	D4 EN 10226	L6	L7
15	15	18	12	R 1/2	31	13.2	20.5	50	Rp 1/2	37	13.2
20	18	23	15	R 3/4	34	14.5	26	50	Rp 3/4	39	14.5
20	22	24	17								
25	28	27	20	R 1	40	16.8	33	60	Rp 1	53	16.8
32	35	32	25	R 1 1/4	46	19.1	41	60	Rp 1 1/4	55	19.1
40	42	37	29	R 1 1/2	49	19.1	47.5	65			
50	54	50	40	R 2	55	23.4	60	65			

Subject to technical modification without notice.

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