

DATA SHEET



T 2546-2 EN

Type 36-8 Safety Excess Pressure Valve (SEV)

Self-operated Pressure Regulators



Application

Pressure regulators for set points from **2 to 11 bar** · Valve sizes **DN 15 to 100** · Pressure rating **PN 16 to 40** · Suitable for water and liquids up to **150 °C**

Special features

- Low-maintenance proportional regulators requiring no auxiliary energy
- Spring-loaded, single-seated valve with balanced plug
- Frictionless plug stem seal with stainless steel bellows
- Actuator with two diaphragms working independently from each other. In the event of a ruptured operating diaphragm in the actuator, the regulator continues to operate. An indicator at the actuator shows that the actuator is damaged.
- The regulators comply with requirements of FW 506 published by AGFW (German District Heating Association).

Versions

Type 36-8 · Safety excess pressure valve (SEV) (Fig. 1) · The regulator controls the upstream pressure p_1 to the adjusted set point · The regulator continues to operate in the event of an operating diaphragm rupture · **Typetested according to AGFW document FW 506**



Fig. 1: Type 36-8 Safety Excess Pressure Valve

Ordering text

Type 36-8 Safety Excess Pressure Valve

DN ...

Body material ...

PN ...

Set point range ... bar

Principle of operation

The medium flows through the valve in the direction indicated by the arrow. The position of the plug determines the flow rate across the area released between plug (3) and seat (2).

The pressure to be controlled is transmitted to the diaphragm (9) over a control line (12) and converted into a positioning force. This force moves the plug stem (4) and the valve plug (3) with it, opposing the force of the set point springs (7). The spring force (pressure set point) can be adjusted at the set point adjuster (6).

The regulator is equipped with two independent operating diaphragms (9). In the event of a ruptured operating diaphragm in the actuator, the regulator continues to operate and the control function remains effective.

A diaphragm rupture indicator or optionally a pressure switch is installed in the hole in the intermediate ring (10). A red mark indicates a diaphragm rupture. A pressure switch triggers an optical or acoustic signal, for example in a control room.

Type test

The regulator is type tested for water by the German technical surveillance association TÜV. The test mark is available on request.

Installation

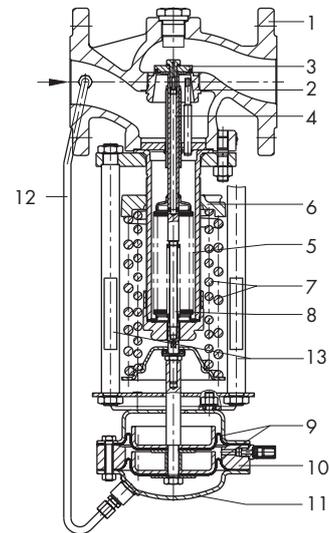
Install the regulator in horizontal pipelines.

The following points must be observed:

- The direction of flow must match the direction indicated by the arrow on the body.
- The actuator must be suspended downwards.



Further details can be found in ► EB 2546-2.



Type 36-8 Safety Excess Pressure Valve

Pillars with the actuator are turned into the plane of projection in the diagram.

1 Valve body	9 Two diaphragms
2 Seat (exchangeable)	Intermediate ring with
3 Plug (balanced)	10 diaphragm rupture
4 Plug stem	indicator
5 Balancing bellows	11 Actuator housing
6 Set point adjuster	12 Control line
7 Set point springs	13 Stud bolt
8 Bellows seal	

Fig. 2: Functional diagram

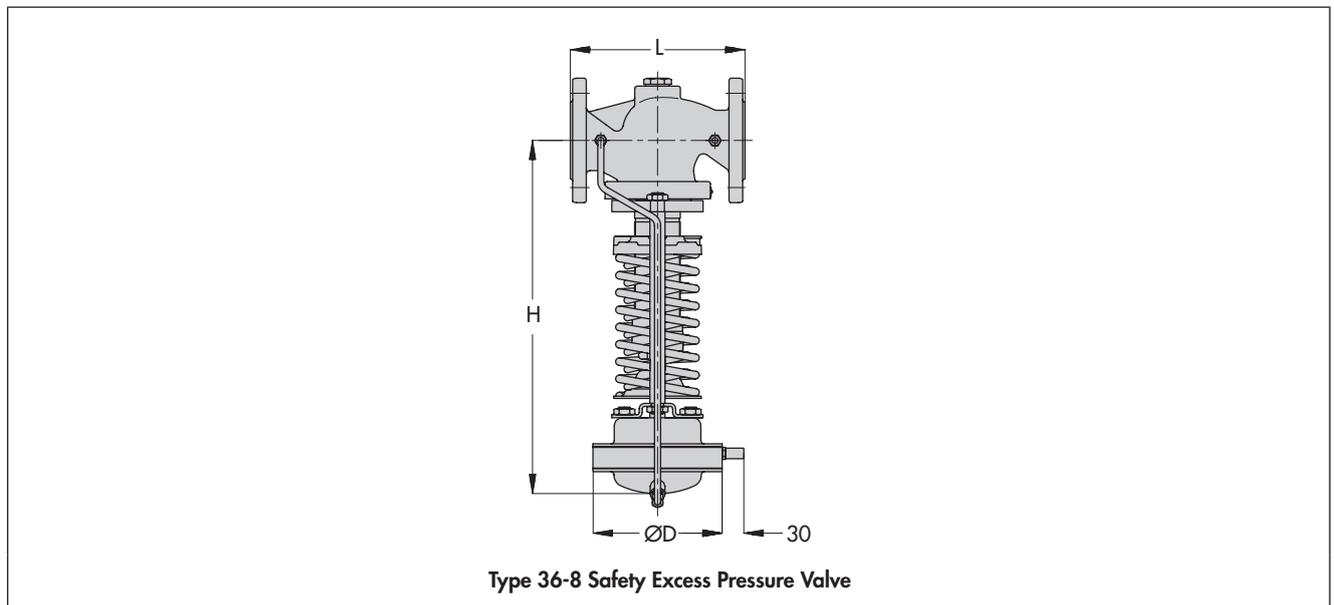
Table 1: Technical data · All pressures in bar (gauge)

Valve size	DN	15	20	25	32	40	50	65	80	100	
K _{VS} coefficient		4	6.3	8.0	16	20	32	50	80	125	
x _{FZ} value		0.60	0.60	0.55	0.55	0.50	0.45	0.40	0.35	0.35	
Pressure rating	PN	16, 25 or 40									
Max. permissible differential pressure Δp across the valve		25 bar						20 bar		16 bar	
Overloading		12 bar (on one side)									
Max. permissible temperature		150 °C									
Leakage class according to IEC 60534-4		≤0.05 % of KVS coefficient									
Set point ranges		2.0 to 4.4 · 2.4 to 6.6 · 6 to 11									
Conformity		CE · EAC									

Table 2: Materials · Material numbers according to DIN EN

Valve			
Pressure rating	PN 16	PN 25	PN 40
Body	Cast iron EN-GJL-250	Spheroidal graphite iron EN-GJS-400-18-LT	Cast steel 1.0619
Seat	Stainless steel		
Plug with PTFE soft seal	Stainless steel		
Balancing bellows and bellows seal	Stainless steel		
Actuator			
Diaphragm cases	Sheet steel S235JR (St 37-2)		
Diaphragm	EPDM with fabric reinforcement		

Dimensions in mm



Type 36-8 Safety Excess Pressure Valve

Table 3: Dimensions in mm and weights

Valve size	DN	15	20	25	32	40	50	65	80	100
Length L		130	150	160	180	200	230	290	310	350
Height H		415			470			600		615
Diaphragm housing ØD		170								
Weight for PN 16 ¹⁾ in kg (approx.)		13	14	14.5	20	22	25.5	41.5	48.5	57.5

¹⁾ +10 % for spheroidal graphite iron EN-GJS-400-18-LT (PN 25) and cast steel 1.0619 (PN 40)