DATA SHEET

T 2723 EN

Type 44-7 Excess Pressure Valve

Series 44 Self-operated Pressure Regulators

CE

Application

Set points from **1** to **11 bar** · Valves in **DN 15 to 50** · **PN 25** · Suitable for liquids **up to 150 °C**, air and nitrogen **up to 80 °C**

The valve **opens** when the **upstream** pressure rises.

The **Type 44-7 Excess Pressure Valve** consists of a valve and an actuator with operating diaphragm.

Fig. 1: *Type 44-7 Excess Pressure Valve*

Special features

- Suitable for water and other liquids, provided these do not cause the materials used to corrode.
- Single-seated valve with balanced plug

Versions

Valve sizes DN 15 to 50 with welding ends · With flanged valve body (DN 32, 32 and 50 only)

Type 44-7 Excess Pressure Valve with one operating diaphragm · Set point range from 1 to 11 bar

Special version

- Restricted flow cross-section with K_{VS} 1.0 and K_{VS} 4.0 for DN 15
- With internal parts made of FKM, e.g. for use with mineral oils

Principle of operation

The medium flows through the valve (1) as indicated by the arrow. The position of the plug determines the flow rate across the area released between plug (3) and seat (2).

The valve opens when the upstream pressure rises and closes again when this pressure drops.

The valve has a balanced plug (3). As a result, the forces generated by the upstream pressure which act on the valve plug are eliminated.

The pressure to be controlled is transmitted to the diaphragm (6) over a control line (11) and converted into a positioning force. This force moves the valve plug depending on the spring rate of the spring assembly (8) which can be adjusted at the set point adjuster (10).

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 2723.

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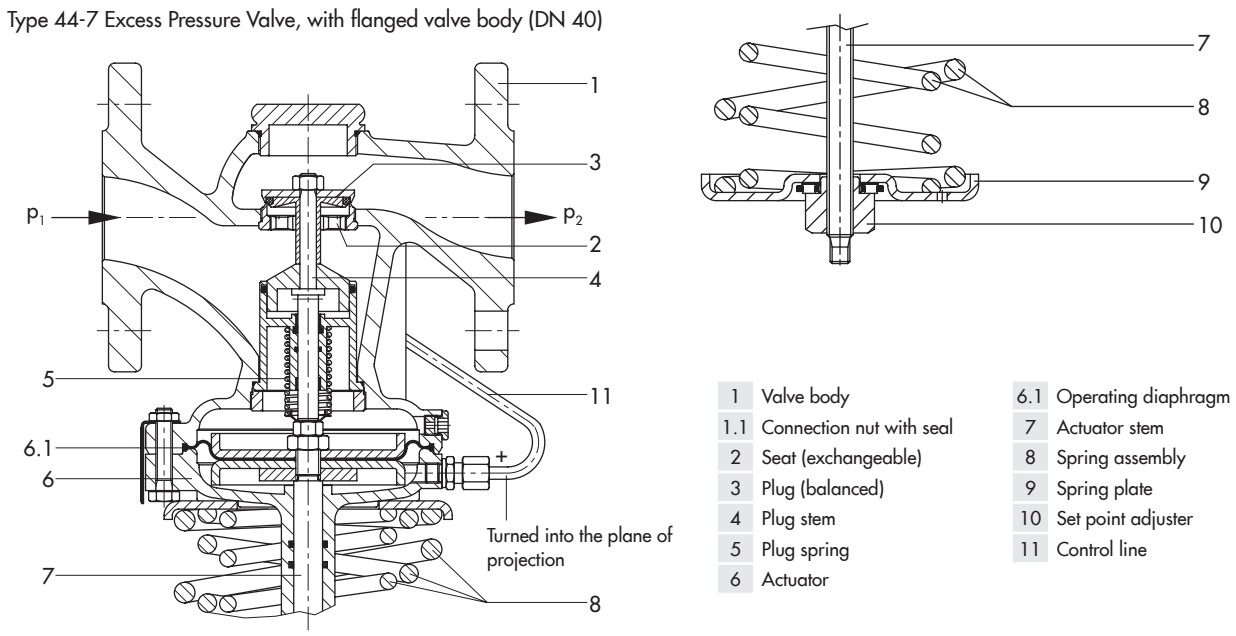


Fig. 2: *Functional diagram of Type 44-7*

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

Valve size	**DN**	**15**	**20**	**25**	**32**	**40**	**50**
K_{VS} coefficient	Standard version	2.5	6.3	8.0	12.5	16.0	20.0
	Special version	1.0 · 4.0	–	–	–	–	–
	Flanged body	–	–	–	12.5	20.0	25.0
x_{FZ} value		0.6		0.55		0.5	0.45
Pressure rating		PN 25					
Max. perm. differential pressure Δp		11 bar					
Max. permissible temperature		150 °C · 80 °C [1]					
Leakage class according to IEC 60534-4		≤0.05 % of K_{VS} coefficient					
Set point ranges, continuously adjustable		1 to 4 bar · 2 to 4.4 bar · 2.4 to 6.6 bar · 6 to 11 bar					
Conformity		CE · EAC					

[1] With air and nitrogen

Table 2: *Materials · Material numbers according to DIN EN*

Type 44-7 Pressure Regulator	
Valve body	Red brass CC499K · Spheroidal graphite iron EN-GJS-400-18-LT [1]
Actuator housing	Red brass CC499K
Seat	Stainless steel 1.4305
Plug	Brass CW602N and stainless steel 1.4305 with EPDM soft seal [2]
Valve spring	Stainless steel 1.4310
Operating diaphragm	EPDM with fabric reinforcement [2]
Seals	EPDM [2]

[1] Additional version for DN 32, 40 and 50: valve with flanged body made of spheroidal graphite iron
[2] Special version, e.g. for mineral oils: FKM

Ordering text

Type 44-7 Excess Pressure Valve

DN … with welding ends, threaded ends or with flanged body (DN 32, 40 and 50 only)

Set point range … bar

Special version ...

Flow rate diagram for water

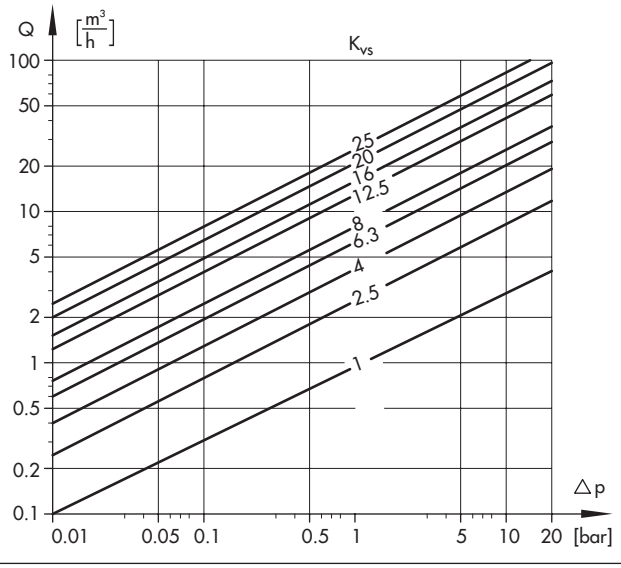
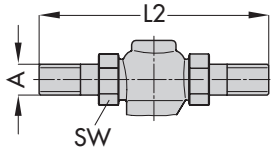
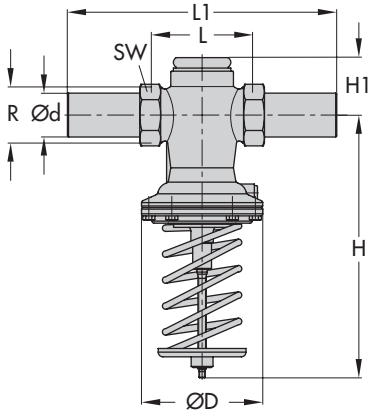


Fig. 3: *Flow rate diagram for water*

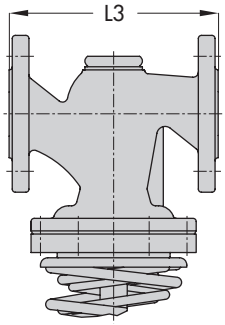
Dimensional drawings



Version with threaded ends



Version with welding ends



Version with flanged valve body
(DN 32, 40 and 50)

Fig. 4: *Dimensions*

Table 3: *Dimensions in mm and weights*

Valve size **DN**	**15**	**20**	**25**	**32**	**40**	**50**
Pipe Ød	21.3	26.8	33.7	42.0	48.0	60.0
Connection R	G ¾	G 1	G 1¼	G 1¾	G 2	G 2½
Width across flats SW	30	37	46	60	65	82
L	65	70	75	100	110	130
L1 with welding ends	210	234	244	268	294	330
H	228 [1]			252 [1]	380	
H1	41			55	56	
ØD	116				160	
Weight, approx. kg	3.4	3.5	4.5	5.5	11.2	12.7
Special versions						
With **threaded ends** (male thread)						
L2	129	144	159	192	206	228
Male thread A	G ½	G ¾	G 1	G 1¼	G 1½	G 2
Weight, approx. kg	3.3	3.4	4.4	5.3	10.9	12.3
With **flanged valve body** (DN 32 to 50)						
L3	–	–	–	180	200	230
Weight, approx. kg	–	–	–	8.7	15.3	17.1

[3] Set point range 6 to 11 bar: H + +19 mm