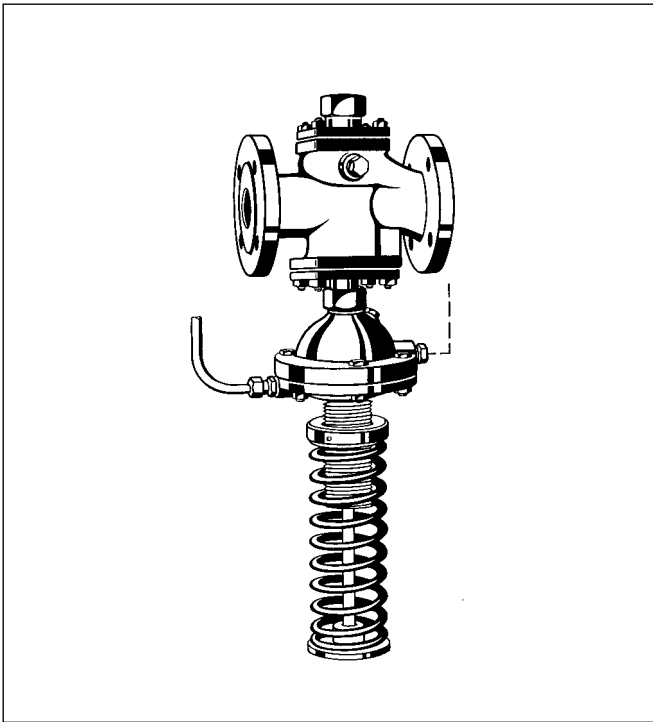


VU 594 P

Overflow valve with balanced piston single seat opening Standard version, powder coated

Product specification sheet



Construction

The overflow valve comprises:

- V9 actuator
- With integral strainer up to DN 32
- R 1 control unit

Materials

Actuator sizes DN 15 to 32:

- Red bronze housing
- EPDM seals
- Stainless steel strainer

Actuator sizes DN 40 to 150:

- GG 25 grey cast iron housing, powder coated inside and outside - generally regarded as physiologically and toxicologically safe
- GG 25 grey cast iron cover lid
- Brass valve seat
- Brass piston guide bush
- Brass pin up to DN 50, grey cast iron from DN 65
- EPDM seals
- Stainless steel screws and nuts

Application

The VU 594 P overflow valve controls the pressure on the inlet side. It is used wherever a specific inlet pressure must not be exceeded. If additional impulse link pipework is connected between the inlet and outlet sides the regulator can be used as an overflow valve to control differential pressure.


Special Features

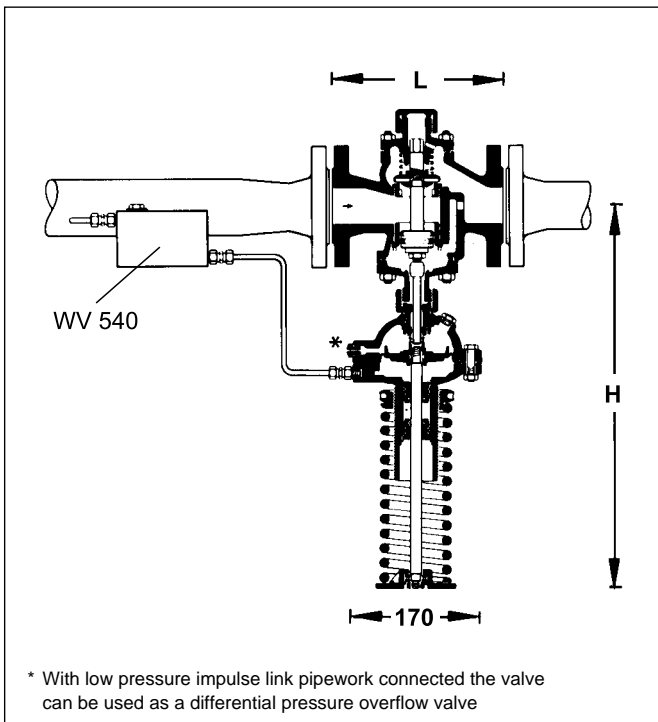
- High setting accuracy
- Can also be used as a differential pressure overflow valve.
- Actuator housing, powder coated inside and outside (from size DN 40) - Powder used is physiologically and toxicologically safe
- Soft seat valve seal
- Integral strainer up to size DN 32
- Setting adjustment using external spring
- Spindle guide with double O ring seal and intermediate grease chamber
- External setting spring can be exchanged for other ratings even whilst the system is in operation.
- Ball bearing setting spring plate support turns with the spring when changing spring tension.

Range of Application

Medium Water and steam

Technical Data

Nominal pressure rating	PN 16
Inlet pressure	max. 16 bar at 120 °C max. 13 bar at 150 °C
Differential pressure	max. 12 bar
Pressure setting ranges	0.5 - 2.5 bar (+/- 0.3 bar) Spring A/yellow 2.0 - 4.5 bar (+/- 0.5 bar) Spring B/green 3.0 - 12.0 bar (+/- 1.0 bar) Spring C/red
Operating temperature	Up to max. 16 bar / 120 °C or up to max. 13 bar / 200 °C  Above 130 °C a W 540 hydraulic seal is required, to protect the membrane against excessive temperatures.
Connection sizes	DN 15 - DN 150



Method of Operation

The VU 594 P overflow valve operates on a balanced force principle. The force of a setting spring operates against the force of a diaphragm. If the inlet pressure rises, then the diaphragm force increases to above the set force of the spring and opens the valve. Water or steam can then flow from the inlet to the outlet side.

The balanced seat design of the valve means that fluctuating pressure on the outlet does not affect the opening pressure of the valve at which overflow begins.

Options

VU 594 P - ... A = Set pressure 0.5 - 2.5 bar, code colour yellow

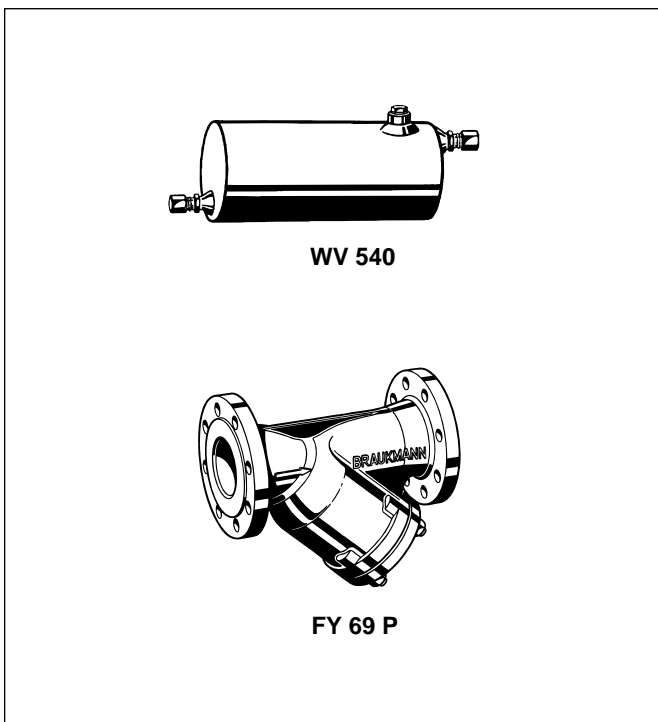
VU 594 P - ... B = Set pressure 2.0 - 4.5 bar, code colour green

VU 594 P - ... C = Set pressure 3.0 - 12.0 bar, code colour red

Connection size

Connection size	DN	15	20	25	32	40	50	65	80	100	125	150
Weight	Approx. kg	15	15.5	16.8	18.9	22.3	27.4	35.2	45.8	63.7	87.9	122.9
Dimensions	mm											
	L	130	150	160	180	200	230	290	310	350	400	480
	Approx. H	525	525	540	540	530	555	565	595	615	630	660
kvs-value		2	3	7	11	18	28	47	70	110	180	250

All pressures given are the excess above atmospheric pressure



Accessories

WV 540 Hydraulic seal

Steel housing. Coated inside and outside with synthetic resin.

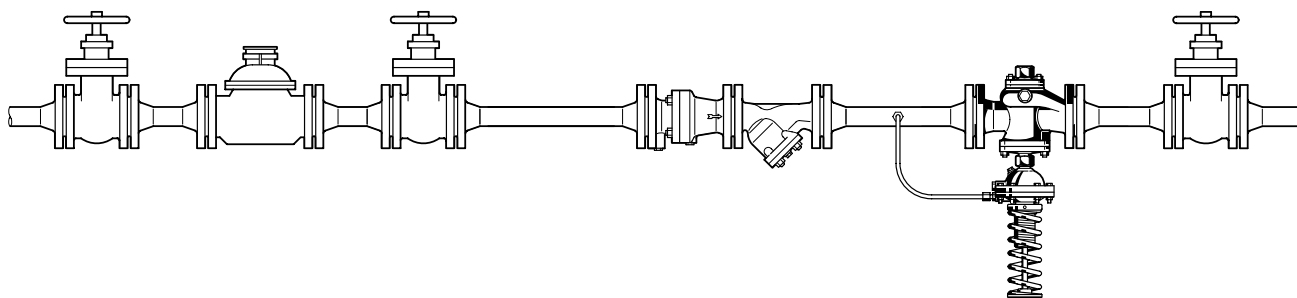
Two Ermeto connections R 1/4" x 10 mm.

FY 69 P Strainer

With double fine mesh, grey cast iron housing, powder coated inside and outside

A = Mesh size approx. 0.5 mm

Installation Example



Connection size	DN	15	20	25	32	40	50	65	80	100	125	150
W*	mm	55	60	65	80	90	100	110	120	135	155	170

* Minimum distance from wall to centre line of pipework

Installation Guidelines

- Install overflow valve in horizontal section of system pipework
- Install with flow in direction of arrow on housing
- Fit strainer upstream of overflow valve
 - This protects against damage from coarse dirt
- Ensure good access
 - This simplifies inspection and maintenance

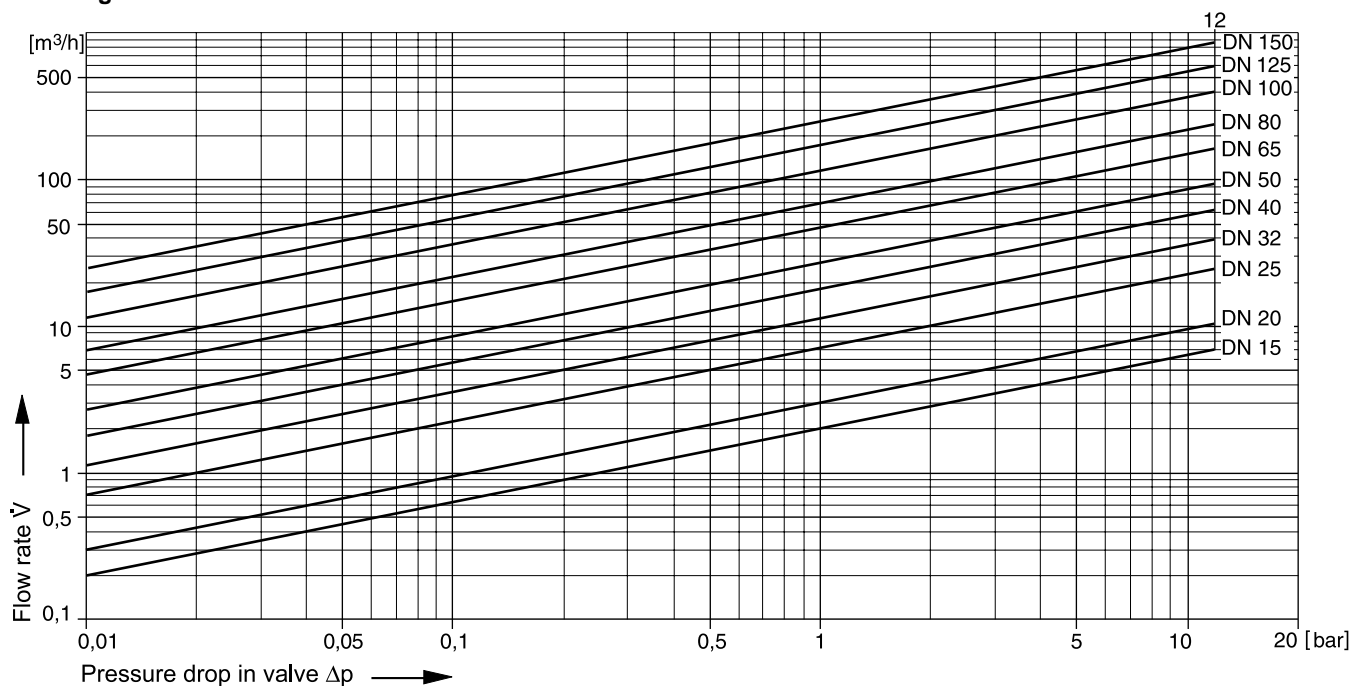
Typical Applications

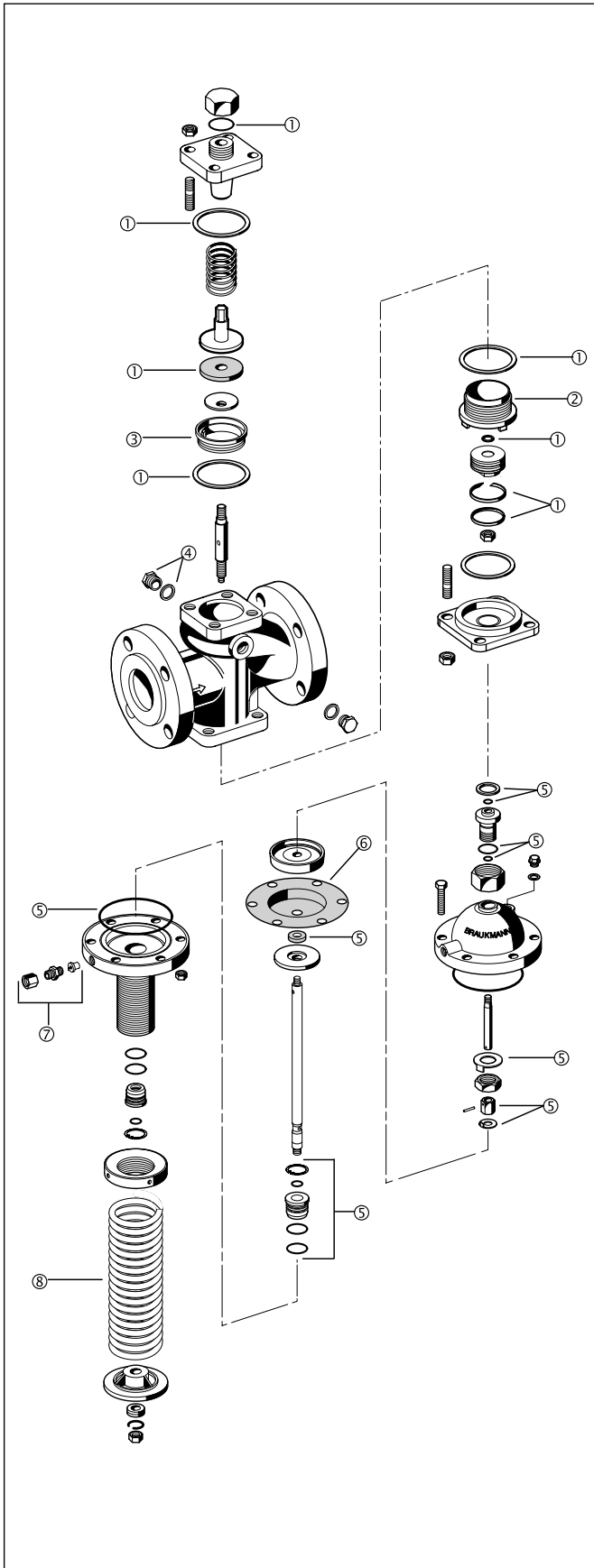
Type VU 594 P overflow valves are installed within the scope of their specification in commercial and industrial systems as well as in central water distribution networks or heating systems.

They can be installed in:

- Irrigation systems
- Mining applications
- Gravel pits, concrete mixing plant
- Heating systems in larger building projects
- District heating schemes

Flow Diagram





**Service parts for VU 594 P (V9/R1) Overflow Valves
(From 2001 onwards)**

Description	Nominal size	Part number
① Replacement set complete	DN 15 + 20	0901710
	DN 25 + 32	0901711
	DN 40	0901712
	DN 50	0901713
	DN 65	0901714
	DN 80	0901715
	DN 100	0901716
	DN 125	0901717
② Guide bush	DN 15 - 32	-
	DN 40	5981600
	DN 50	5981700
	DN 65	5981800
	DN 80	5981900
	DN 100	5982000
	DN 125	5982100
③ Seat bush	DN 15 - 32	-
	DN 40	2335400
	DN 50	2335500
	DN 65	2195600
	DN 80	2195700
	DN 100	2195800
	DN 125	2849000
④ Brass blanking plug set	DN 15 - 50	S 06 M - 1/4
	DN 65 - 150	S 15 M - 1/2
⑤ Replacement set complete R1/R2		0901701
⑥ Diaphragm R 1		2635900
⑦ Nozzle complete		0900636
⑧ Spring - yellow Spring - green Spring - red		2605200
		2605300
		2605400

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