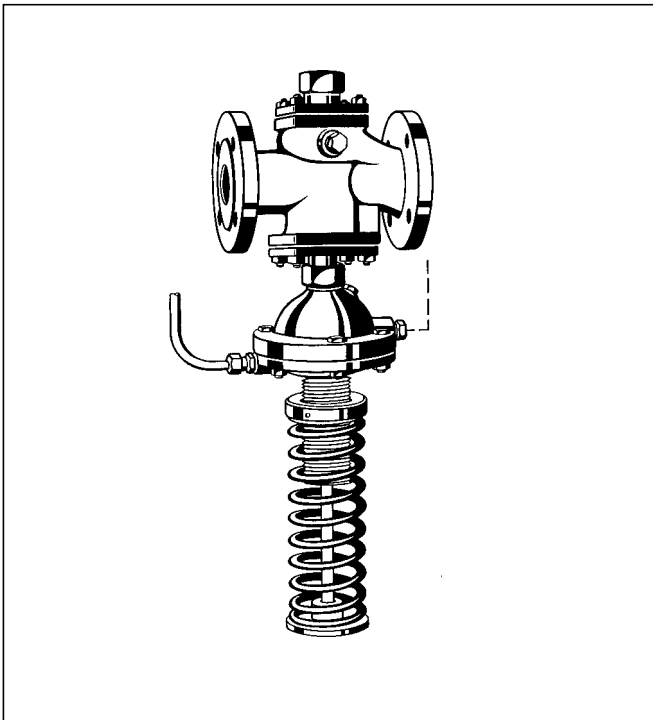


## VU 594 NP

### Overflow valve with balanced piston single seat opening Low pressure version, powder coated

#### Product Data Sheet



#### Construction

The overflow valve comprises:

- V9 actuator
- With integral strainer up to DN 32
- R 2 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 NP 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

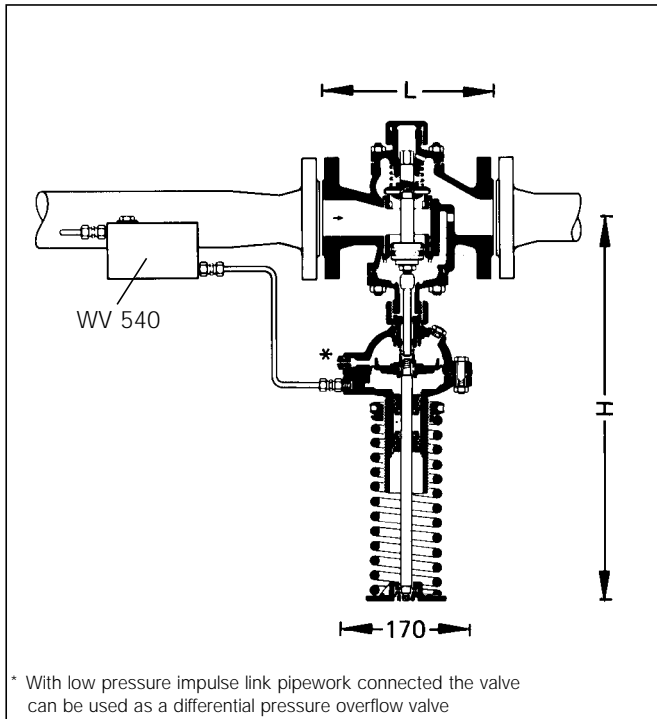
Pressure setting ranges 0.16-0.5 bar (+/-0.04 bar) Spring A/yellow  
0.2-0.8 bar (+/- 0.08 bar) Spring B/green  
0.6-2.4 bar (+/-0.18 bar) Spring C/red

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 bis DN 150



**Method of Operation**

The VU 594 NP 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.

**Versions**

VU 594 NP- ... A = Set pressure 0.16 - 0.5 bar, code colour yellow

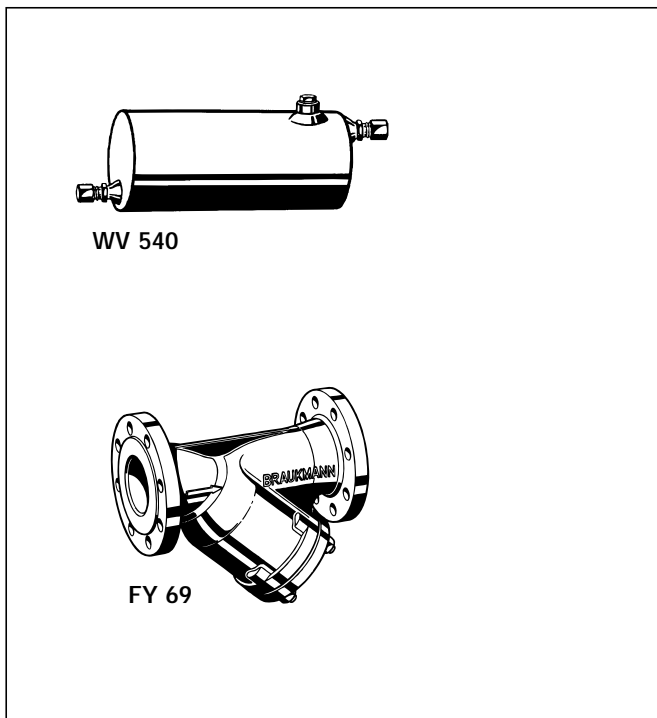
VU 594 NP- ... B = Set pressure 0.2 - 0.8 bar, code colour green

VU 594 NP- ... C = Set pressure 0.6 - 2.4 bar, code colour red

┌  
└ Connection size

Connection size	DN	15	20	25	32	40	50	65	80	100	125	150
Weight	Approx. kg	25.5	26.0	27.3	29.4	32.8	37.9	45.7	56.3	74.2	98.4	133.4
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**

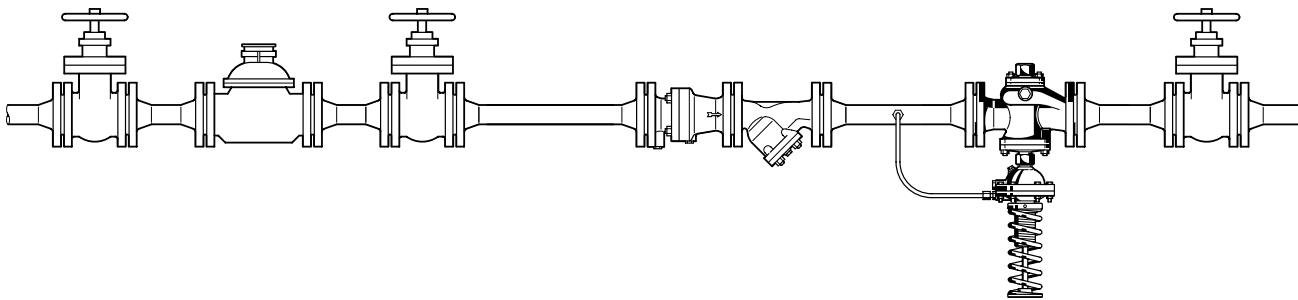
Steel housing. Coated inside and outside with synthetic resin.

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

**FY 69 Strainer**

For installation before pressure regulator. Available in sizes DN 50 - 200.

**Installation Example**



Connction 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**

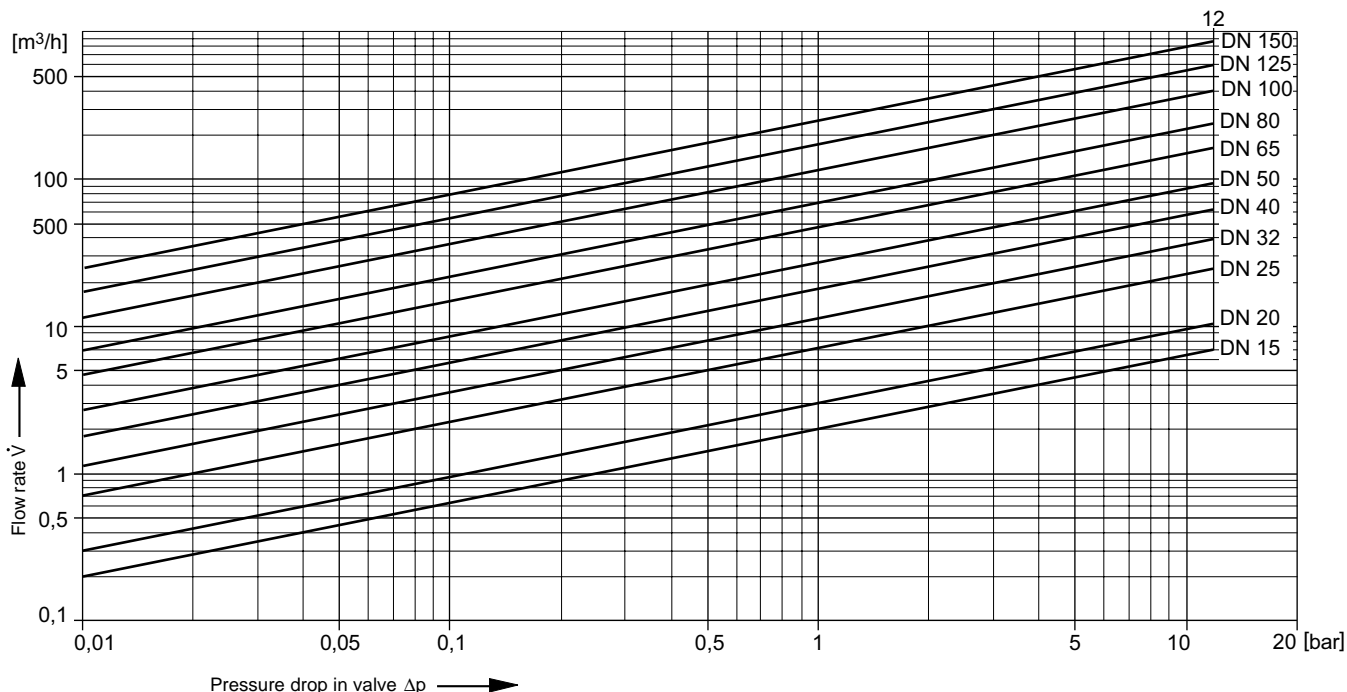
- Install overflow valve in horizontal section of system pipework
- Install with flow in direction of arrow on housing
- Fit strainer upstream of overflow valve
  - This protects against damage from coarse dirt
- Ensure good access
  - This simplifies inspection and maintenance

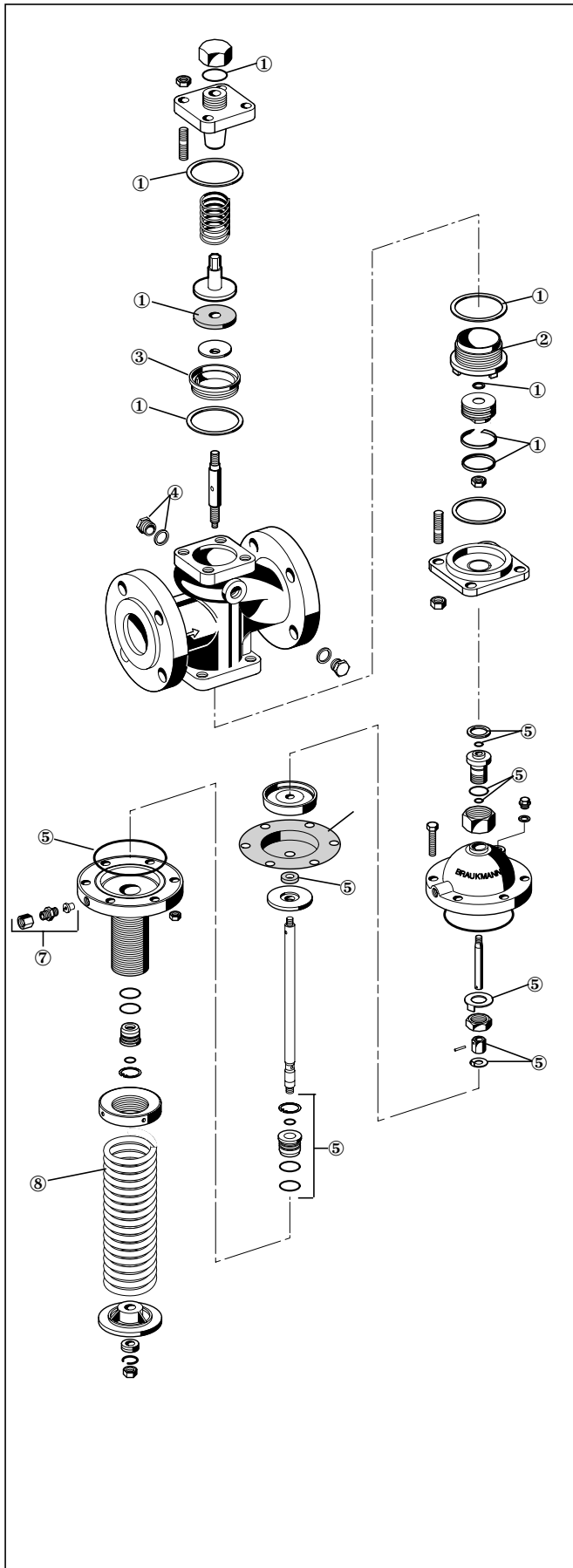
**Typical Applications**

Type VU 594 NP 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





**Service parts for VU 594 NP (V9/R2) 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
② Guide bush	DN 125	0901717
	DN 150	0901718
	DN 15 - 32	-
	DN 40	5477300
	DN 50	5477600
	DN 65	5477900
	DN 80	5478400
③ Seat bush	DN 100	5478900
	DN 125	5479400
	DN 150	5430100
	DN 15 - 32	-
	DN 40	2335400
	DN 50	2335500
	DN 65	2195600
④ Brass blanking plug set	DN 80	2195700
	DN 100	2195800
	DN 125	2849000
	DN 150	2849100
	DN 15 - 50	S 06 M-1/4
⑤ Replacement set complete R1/R2	DN 65 - 150	S 15 M-1/2
	Diaphragm R 2	2329800
⑦ Nozzle complete		0900636
⑧ Spring - yellow Spring - green spring - red		2605200
		2605300
		2605400