

# Pressure Relief Valve V185/V85



## General

### Function

The V185/V85 Pressure Relief Valve serves to keep the working or system-related pressures constant, to balance out pressure pulsation and to reduce pressure peaks in chemical process systems. The third pipe spigot fitted on the valve body means the valve can be installed directly in the main pipeline. If the inlet pressure rises above the set value, the pressurized valve piston is lifted against the spring force. Consequently, the valve opens and there is a reduction of pressure in the outlet pipe. The valve closes as soon as the inlet pressure sinks below the pre-set spring tension.

### Special features

- Compact construction
- Good control characteristics
- Low maintenance due to uncomplicated design
- Control unit is hermetically separated from flow medium by standard EPDM or EPDM-PTFE-coated diaphragm
- Zero static lower body (V185)
- Note the direction of flow! Indicated by the arrow on the valve
- Valve mounting with threaded insert on lower body (V185)
- Adjustment range: 0.5–9 bar (1–4 bar)

# Technical Data V185/V85

## Available materials

Valve housing: PVC-U, PP, PVDF  
 Diaphragm: EPDM,  
 EPDM-PTFE-coated

Pressure ranges:

DN 10–50 0.5–10 bar Series V185  
 DN 65–80 1–6 bar Series V85  
 DN 100 1–4 bar Series V85

## Connection

Cement or fusion spigots according to ISO/DIN.  
 Available with union or flanges on request.

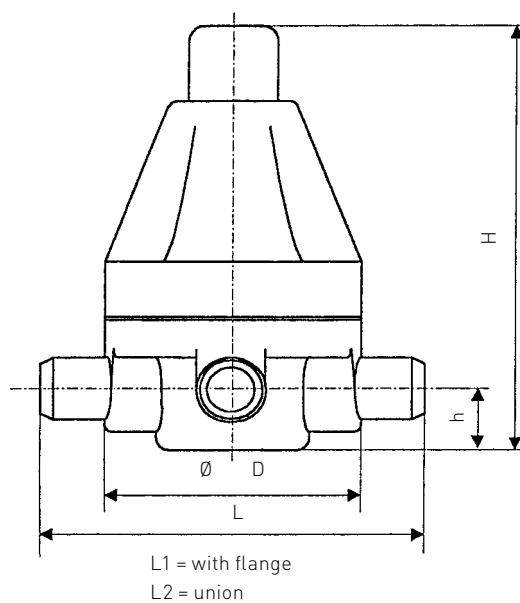
## Allowable working temperature

PVC 0 to + 60 °C  
 PP –10 to + 80 °C  
 PVDF –20 to + 100 °C

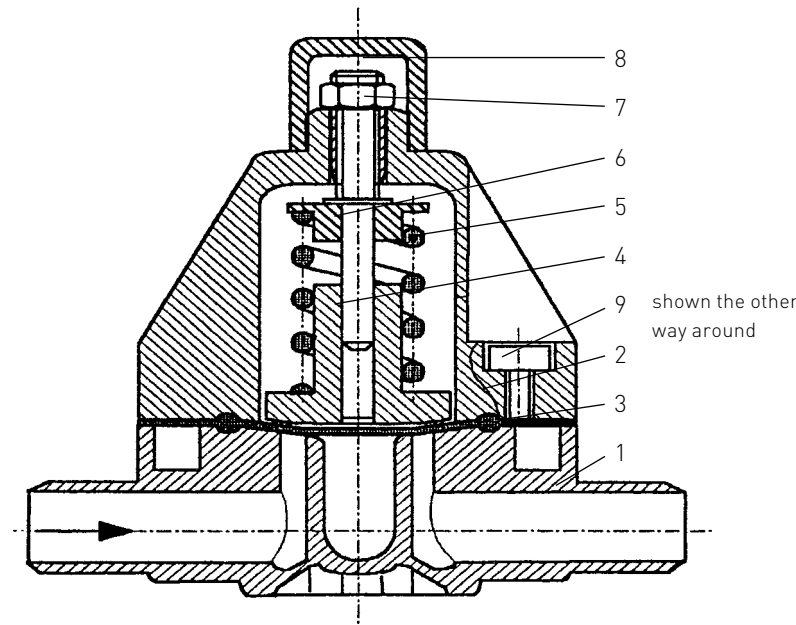
## Dimensions and Weight V185/V85

DN	L: PVC-U cement spigots PP/PVDF fusion spigots	L: PVDF-HP/PP butt fusion spigots BCF/IR	L1	L2	Ø D	h
10	134	–	140	154	83	20
15/20	134	158	140	154	83	20
25	174	198	180	185	112	27
32	174	202	230	248	165	43
40	224	256	230	248	165	43
50	244	256	250	252	165	43
65	284	284	290	280	180	45
80	300	300	310	–	200	60
100	380	380	390	–	250	70

DN	H	Weight PVC-U (kg)	Weight PP (kg)	Weight PVDF (kg)
10	137	0.4	0.3	0.6
15/20	137	0.4	0.3	0.6
25	199	1.2	0.9	1.6
32	199	1.2	0.9	1.6
40	290	6.4	4.4	8.0
50	290	6.5	4.5	8.2
65	275	8.2	6.3	14.8
80	400	12.8	9.5	16.2
100	475	22.7	19.9	33.8



Sectional drawing V185 DN 15–DN 50

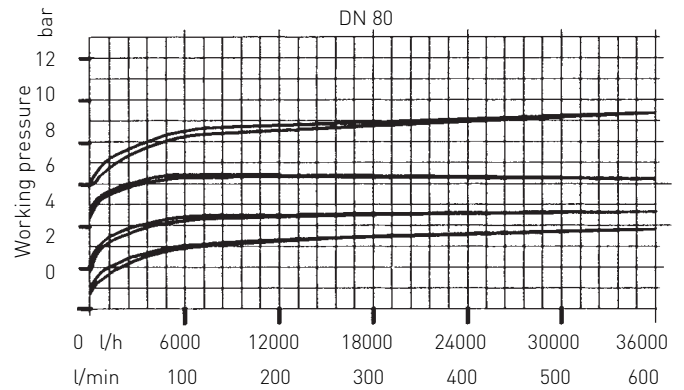
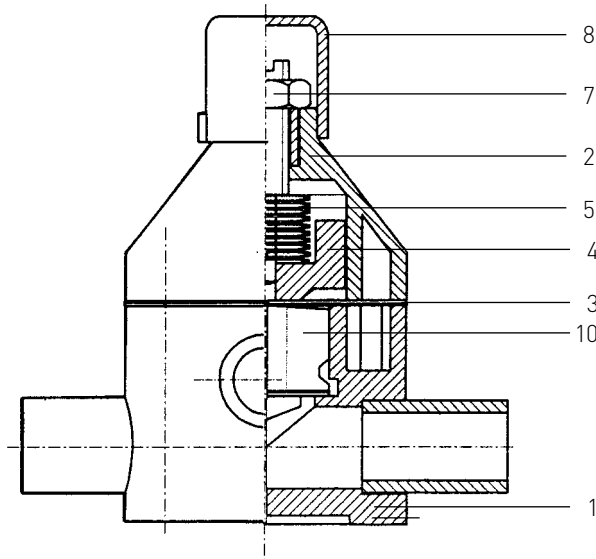


Parts V85/V185

No.	Description	Units
1.	Lower valve body	1
2.	Upper valve body	1
3.*	Diaphragm	1
4.	Pressure plate	1
5.*	Compression spring	1
6.	Spring plate	1
7.*	Adjusting screw with locknut	1
8.	Cap	1
9.	Connecting screws	4
10.*	Piston	1

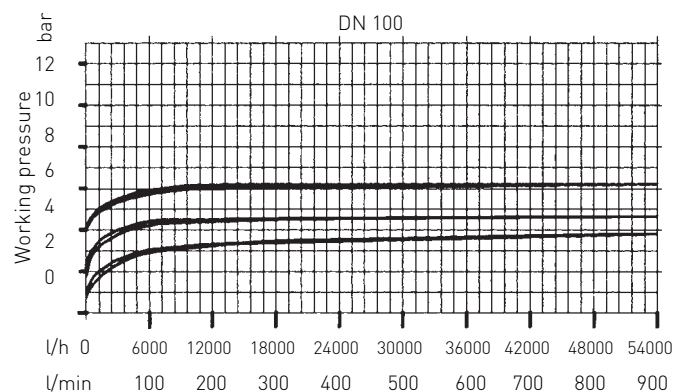
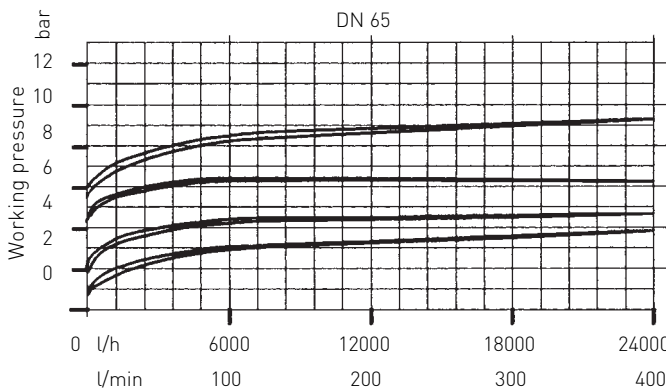
\* Parts subject to wear or recommended spare parts

Overflow valve V85 DN 65–DN 100



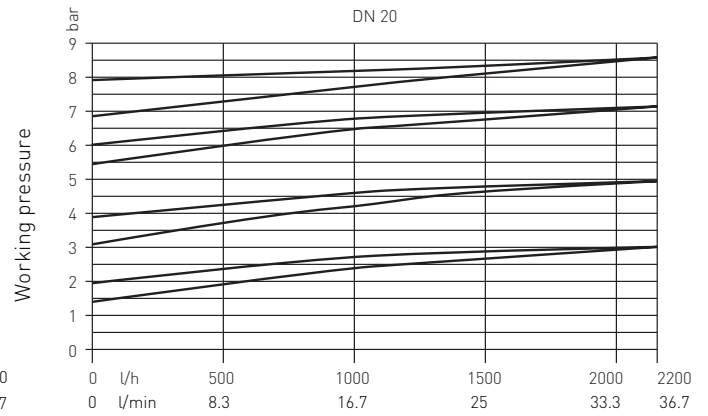
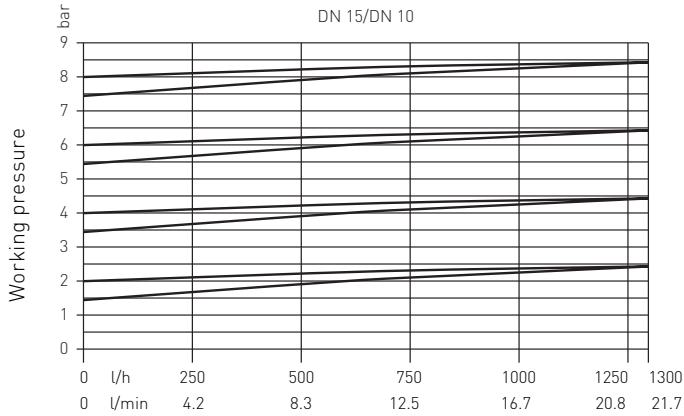
l/hr, l/min = flow volume H<sub>2</sub>O

Characteristics V85

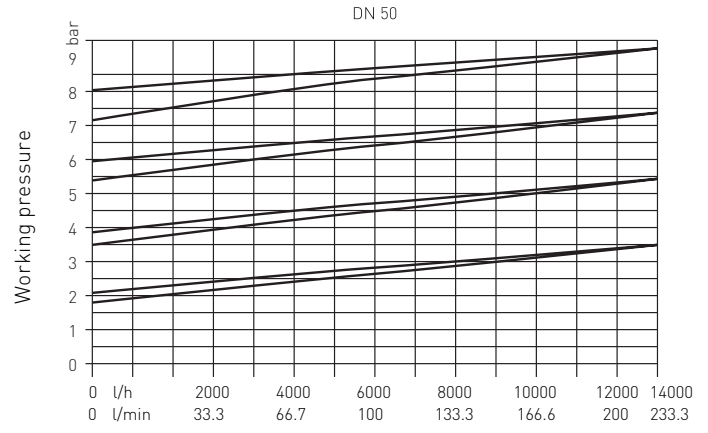
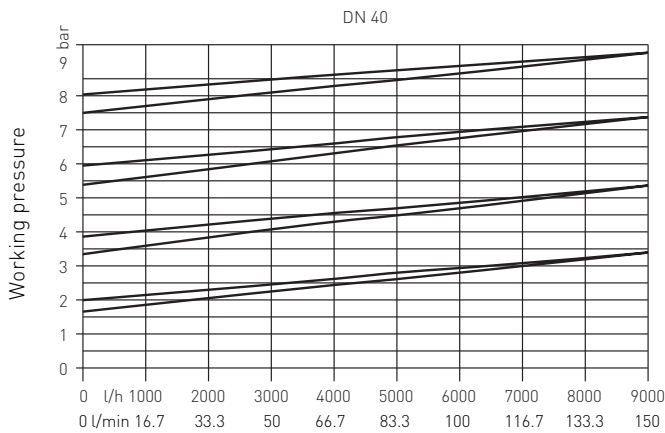
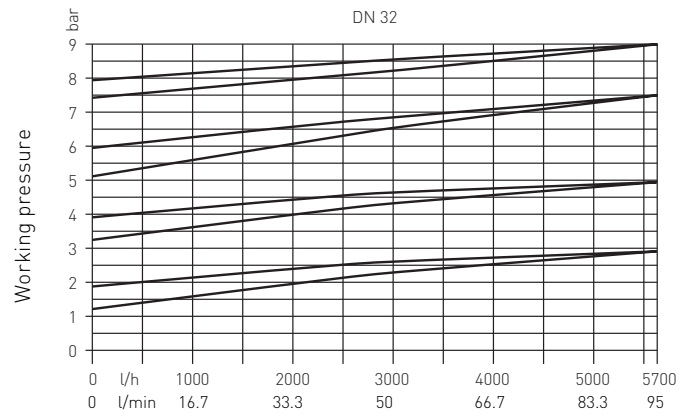
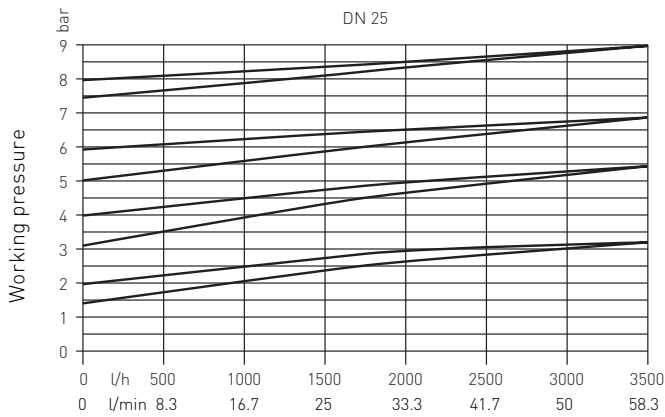


Characteristics are valid for a flow rate of 2 m/s

## Characteristics V185



Characteristics are valid for a flow rate of 2 m/s



l/hr = Flow volume H<sub>2</sub>O

## Order number

DN	d	Adj. range in bar	PVC-U		PP		PP/IR spigots		PVDF-PTFE Standard	PVDF-HP Version* BCF/IR spigots
			EPDM	PTFE	EPDM	PTFE	EPDM	PTFE		
10	16	0.5 - 9	199 041 360	199 041 330	199 041 367	199 041 337	-	-	199 041 344	-
15	20	0.5 - 9	199 041 361	199 041 331	199 041 368	199 041 338	199 041 505	199 041 512	199 041 345	199 041 520
20	25	0.5 - 9	199 041 362	199 041 332	199 041 369	199 041 339	199 041 506	199 041 513	199 041 346	199 041 521
25	32	0.5 - 9	199 041 363	199 041 333	199 041 370	199 041 340	199 041 507	199 041 514	199 041 347	199 041 522
32	40	0.5 - 9	199 041 364	199 041 334	199 041 371	199 041 341	199 041 508	199 041 515	199 041 348	199 041 523
40	50	0.5 - 9	199 041 365	199 041 335	199 041 372	199 041 342	199 041 509	199 041 516	199 041 349	199 041 524
50	63	0.5 - 9	199 041 366	199 041 336	199 041 373	199 041 343	199 041 510	199 041 517	199 041 350	199 041 525
65	75	1 - 6	199 041 919	199 041 984	199 041 926	199 041 895	199 041 530	199 041 533	199 041 898	199 041 536
80	90	1 - 6	199 041 940	199 041 985	199 041 893	199 041 896	199 041 531	199 041 534	-	-
100	110	1 - 4	199 041 914	199 041 986	199 041 894	199 041 897	199 041 532	199 041 535	-	-

\* BCF fusion only possible up to DN 50

PVDF - PTFE Standard with IR spigots on request

Authorized Distributor:

**Aetna Plastics Corp. 1702 St. Clair Ave. Cleveland, Ohio 44114 • Tel: 800-634-3074  
216-781-4421 • Fax: 216-781-4474 • sales@aetnoplastics.com • www.aetnoplastics.com**