# Low-pressure metering technology

# 1.6 Accessories for low-pressure metering pumps



# Back Pressure Valves / Relief Valves for Motor-Driven Metering Pumps

Back pressure valves are used to generate a constant back pressure and achieve precise metering in systems with a free outlet. They are also used in conjunction with pulsation dampers to provide low-pulsation metering.

Universal back pressure valves of the DHV-U product range are back pressure-free plunger diaphragm valves with an internal flow. They are used to generate a constant back pressure and also as relief valves. They can be installed at any location in the pipework system.

Back pressure valves are used to generate a constant back pressure for precise pumping and to protect against over-metering where there is a free outlet or fluctuating back pressure or priming pressure on the suction side. They are also used in conjunction with pulsation dampers to generate low-pulsation metering.

Relief valves are used to protect pumps, pipes and fittings from overpressure, in the event of incorrect operation or blockages in the bypass. In the event of a malfunction, the pump pumps around the circuit or back into the storage tank.

**Important:** Back pressure valves cannot be used as absolutely leak-tight shut-off devices. Take appropriate safety precautions when handling hazardous media. Relief valves are not safety valves by their definition as per DIN EN ISO 4126-1.

**Important:** Take appropriate safety measures (e.g. flushing after possible response) when using as relief valves in conjunction with viscous media (e.g. lime milk).

Adjustable pressure

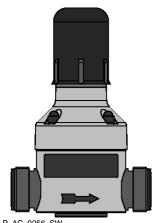
0.5 - 10 bar

### Application of PPE/PPB/PCE/PCB:

20 °C - max. operating pressure 10 bar

### Application of PVT/SST:

30 °C - max. operating pressure 10 bar



P\_AC\_0256\_SW

Туре	Nominal diameter	G	Order no.
PPE	DN 10	3/4	1037285
PPB	DN 10	3/4	1038133
PCE	DN 10	3/4	1038144
PCB	DN 10	3/4	1037765
PVT	DN 10	3/4	1037767
SST	DN 10	3/4	1043194
PPE	DN 15	1	1036816
PPB	DN 15	1	1038145
PCE	DN 15	1	1038146
PCB	DN 15	1	1037764
PVT	DN 15	1	1037766
SST	DN 15	1	1043193
PPE	DN 20	1 1/4	1037284
PPB	DN 20	1 1/4	1038147
PCE	DN 20	1 1/4	1038148
PCB	DN 20	1 1/4	1037775
PVT	DN 20	1 1/4	1037777
SST	DN 20	1 1/4	1043192
PPE	DN 25	1 1/2	1036633
PPB	DN 25	1 1/2	1038149
PCE	DN 25	1 1/2	1038150
PCB	DN 25	1 1/2	1037774
PVT	DN 25	1 1/2	1037776
SST	DN 25	1 1/2	1043191
PPE	DN 32	2	1051517
PPB	DN 32	2	1051522
PCE	DN 32	2	1051514

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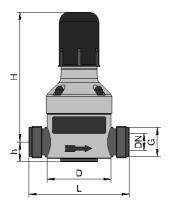
Туре	Nominal diameter	G	Order no.
PCB	DN 32	2	1051520
PVT	DN 32	2	1051503
SST	DN 32	2	1051516
PPE	DN 40	2 1/4	1051518
PPB	DN 40	2 1/4	1051521
PCE	DN 40	2 1/4	1051501
PCB	DN 40	2 1/4	1051519
PVT	DN 40	2 1/4	1051502
SST	DN 40	2 1/4	1051515

### **Materials**

Type	<b>Housing/Connectors</b>	Plungers	Plunger Seal	Seal/Connectors
PPE	PP	PVDF	EPDM	EPDM
PPB	PP	PVDF	FKM	FKM
PCE	PVC	PVDF	EPDM	EPDM
PCB	PVC	PVDF	FKM	FKM
PVT	PVDF	PVDF	PTFE*	FKM
SST	1.4404	PTFE	PTFE*	PTFE

<sup>\*</sup> Cover ring made of PTFE/FKM

### Dimensions of DHV-U (PP, PVC, PVDF design)

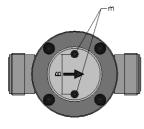


DN	G	н	L	h	D	m	В
		mm	mm	mm	mm		mm
10	3/4	144*	118	24	79	M6	40
15	1	144*	118	24	79	M8	40
20	1 1/4	196*	150	37	99	M8	46
25	1 1/2	196*	150	37	99	M6	46
32	2	252	200	54	139.5	M8	65
40	2 1/4	252	200	54	139.5	M8	65

Approximate values

P\_AC\_0256\_m

## Dimensions of DHV-U (SS version)



P\_MOZ\_0005\_SW

DN	G	Н	L	h	D	m	В
		mm	mm	mm	mm		mm
10	3/4	144*	118	20	79	M6	40
15	1	144*	118	20	79	M6	40
20	1 1/4	196*	150	30	99	M6	46
25	1 1/2	196*	150	30	99	M6	46
32	2	252	200	37	139.5	M8	65
40	2 1/4	252	200	37	139.5	M8	65

Approximate values