

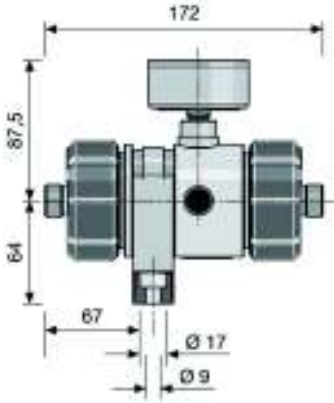
3.21 Accessories - Pulsation Dampeners

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The pulsation dampener is used to produce minimal pulsation metering and to reduce flow resistance in long discharge lines.

The cushion of gas located between the hose and the housing is compressed by a thrust stroke from the metering pump, allowing a quantity of feed chemical to pass along the discharge line. On the next suction stroke, the excess pressure created by the cushion of gas forces the chemicals through the pipe. The gas is now released from pressure, and returns to its original volume.

Important notice: The pulsation dampener must be used in conjunction with a relief valve.



P_AC_0180_SW

PVC In Line Dampener

Operating conditions 5 - 20 °C - max. operating pressure 10 bar
 40 °C - max. operating pressure 6 bar
 60 °C - max. operating pressure 2 bar

	Volume l	Dampener diaphragm	Seal material	Connection	Part no.
PCE	0.05	CSM*	EPDM	M 20 x 1.5	P1026774-6
PCE	0.05	CSM*	EPDM	M 20 x 1.5	P1026774-8
PCE	0.05	CSM*	EPDM	M 20 x 1.5	P1026774-12
PCB	0.05	FPM	FPM	M 20 x 1.6	P1026777-6
PCB	0.05	CSM*	FPM	M 20 x 1.5	P1026777-8
PCB	0.05	CSM*	FPM	M 20 x 1.5	P1026777-12
PCE	0.05	CSM*	EPDM	G 3/4 - DN 10	P1026775
PCB	0.05	FPM	FPM	G 3/4 - DN 10	P1026778

Note: M20x1.5 supplied with connection set G3/4 - DN10 supplied with SW fittings.

Connection in-line dampener	Stroke volume (ml/stroke)	ProMinent® pump type
M20 x 1.5	0.05 ... 3.00	Beta® BT4a / BT5a gamma/ L GALa delta® DLTa 1612 - 0730
G3/4 - DN10	3.00 ... 4.00	delta® DLTa 0450 Vario C VAMc 10008 - 07042 Sigma S1Ba / S1Ca 12017 - 10050

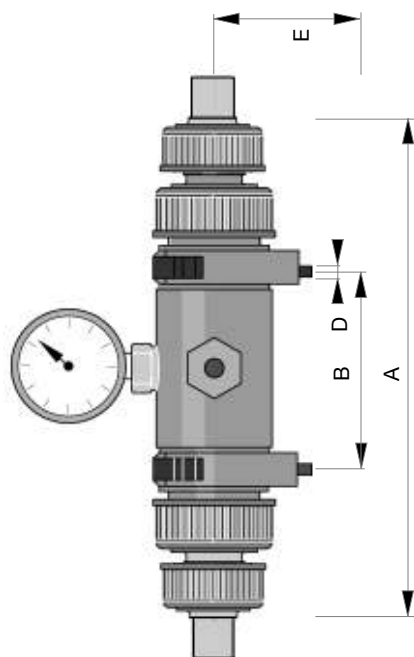
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Note: A for total space required for installation in-line.

Description/version	Part no.
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PVC In Line Dampener

Removable hose, EPDM/Viton seals.

Type	Volume ml	Hose/Seal Material	Connector	Part No.
PDS	2500	Hypalon/E	Solvent Weld 40 Male	P1001342
PDS	2500	Viton/V	Solvent Weld 40 Male	P1001343

PP In Line Dampener

Removable hose, EPDM seals.

Type	Volume ml	Hose material	Order No.
PDS	2500	Hypalon *** non-stock item ***	P1001344
PDS	2500	Viton *** non-stock item ***	P1001345

Note:
Refer to maximum permissible pressure rating in tables

Note:
When using Sodium Hypochlorite select PVC & Viton.

Measurements

Type	Measurements				
	A	B	C	D	E
PDS 2500	541	525	G 2	d 11	99.5

To select the correct inline dampener you need to consider the stroke volume of the dosing pump. The higher the volume of the dampener is, the better is the dampening effect.

Type Operation	Stroke Volume* up to ... ml/stroke	Max Admissible Pressure (bar)
PDS 2500	400	8

The pre-pressure is = 0.6 x operating pressure.
*referring to the rest fluctuations +/- 10% of the nominal pressure for singlehead pumps.

Note: as a rule of thumb you can use the following formula:
volume of the pulsation dampener (in litres) = [26 x max. stroke volume (in ml)] / 1000

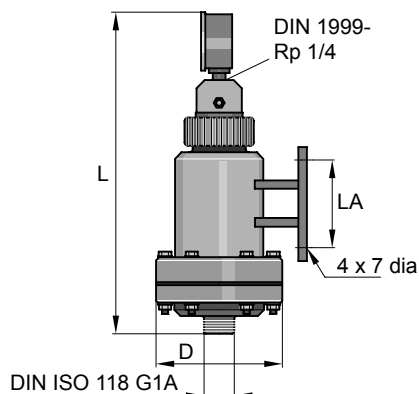
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Accumulators

Pulsation dampers with separating bubble for providing separation between the gas cushion and metered chemical are used for low-pulsation metering as well as for reducing the flow resistance in long metering lines and in connection with viscous media. The response pressure of the gas cushion should be approx. 60-80% of the operating pressure.

Important: When using a pulsation damper, the pressure relief valve should be fitted with an adjustable back pressure valve.



PVC accumulators

Accumulator removable, FKM seals.

Volume Litres	Diaphragm material	Connection	L mm	RD mm	LA mm	Part no.
0.5	Butyl	G 1 DN 15	361	145	100	791691
0.5	FKM	G 1 DN 15	361	145	100	791695
1.0	Butyl	G 1 1/4 DN 20	411	170	100	791692
1.0	FKM	G 1 1/4 DN 204	11	170	100	791696
2.5*	Butyl	G 1 1/2 DN 25	571	170	190	791693
2.5*	FKM	G 1 1/2 DN 25	571	170	190	791697
5.0*	Butyl	G 2 1/4 DN 40	936	170	230	791694
5.0*	FKM	G 2 1/4 DN 40	936	170	230	791698

* **Caution:** The product contains adhesive joints with Tangit. Please note the resistance of Tangit adhesive.

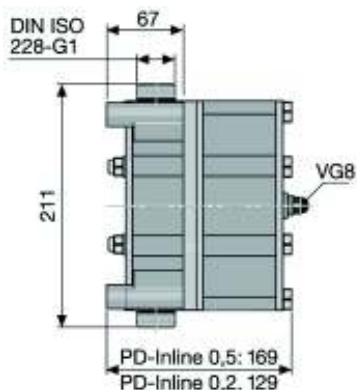
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In-line damper PVDF

Function:Hydropneumatic accumulator with deflection facility

The PVDF pulsation damper with PTFE diaphragm offers outstanding resistance to chemicals and is therefore used in connection with a large number of different liquids. The pulsation damper has two liquid connections and can therefore be installed directly in the piping system (in-line). The deflection facility in the liquid valve directs the volumetric flow straight at the diaphragm thus ensuring direct contact of the volumetric flow with the diaphragm. Fluctuations in volumetric flow are optimally balanced out by the enclosed gas volume.

Important:The pulsation dampers must be protected by an overflow valve.



Type	Rated volume in l	Max. pressure in bar	Connection	Part No
PD In-line	0.2	10	G1 - DN15	P1026252
PD In-line	0.5	10	G1 - DN15	P1026736

The preload is approx. 0.6x operating pressure. Medium temperature max. 65°C
The accumulator is filled with nitrogen or with compressed air using a commercially available filler fitting (e.g. car tyre inflation fitting) via the VG8 gas filler connection.

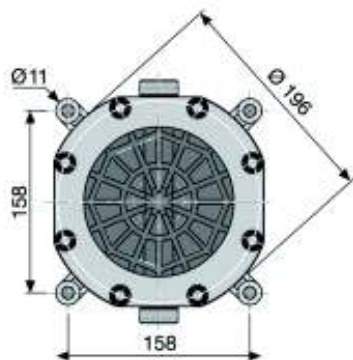
Caution: Nitrogen should be used as the filler gas in connection with combustible liquids. On no account fill with oxygen!

Design: DGRL97/23/EC, other acceptance procedures/countries available on request

Fluid group: 1 and 2

Certificates: Manufacturer's test certificate M DIN55350-18

Manufacturer: HYDAC Technology



Connection/adaptor kits

Consisting of PTFE-formed composite seal, insert/adaptor and union nut.

Connection	Connection	Materials	Part No.
PD In-line	Piping		
G1 - DN15	DN10	PVDF	P1029426
G1 - DN15	DN15	PVDF	P1029445
G1 - DN15	DN20	PVDF	P1029429
G1 - DN15	DN25	PVDF	P1029432