Product Information Pulsation Damper PDM/PDP

Avoiding the Transfer of Pressure Peaks

Pressure fluctuations in hydraulic pipe networks and fittings cause irregular operation in downstream consumers and, in the case of high amplitude fluctuations, can even irreparably damage the pipe networks or tear them out of their anchoring. The situation becomes particularly critical when a pulsation frequency is in the resonance range of the network. Left undamped, an increase in the pressure peaks can result in unforeseeable damage.

Piston and diaphragm dosing pumps naturally produce pulsations where the intensity increases with the line length. The smaller the line diameter, the larger the pressure peaks. For this reason, pulsation dampers should be included in the planning of dosing systems, especially in connection with rigid piping (no flexible hose). Pulsation dampers are as simple as they are effective in balancing increasing pressures to a safe level.

Buffer Effect

The function works on the principle of the medium compressing a nitrogen cushion, thus storing energy. As the pressure increases (delivery stroke), a part of the delivered medium is stored and then released into the piping system as the pressure decreases (during the suction stroke).

In Short

- Also suitable for chemically aggressive media (PTFE diaphragm)
- Nitrogen filling
- Preset preload pressure
- Pressure gauge (optional)

Please note that the max. working pressure/preload pressure is ≤ K

The preload pressure must be specified when ordering.

Technical Data

Type	Part No.	Vol [l]	PN [bar]	Material		Connection R	D [mm]	L [mm]	H [mm]	Weight [kg]	K	Temperature [°C]	Gas
				Housing	Diaphragm								
PDM 150	12760066	0.15	180	1.4404 (AISi 316)	EPDM	G 1/2" i	70	118	14	1.8	2.5	-30 … +130	N_2
	12760068				FPM							-10 … +170	
PDP 150	12760088		20		PTFE		64	180	-		2	-20 … +160	
PDP 300	12760089	0.30					78	240	-				
PDM 350	12760076	0.35	130		EPDM		80	162	16	2.6	3	-30 … +130	
	12760077				FPM							-10 … +170	
PDM 650	12760080	0.65	50		EPDM	G 3/4" i	90	205	20	2.5	3.5	-30 … +130	
	12760081				FPM							-10 … +170	
PDP 700	12760090	0.70	20		PTFE		98	225	-	4.9	2	-20 … +160	
PDM 950	12760082	0.95	40		EPDM		110	200	25	4.3	3	-30 … +130	
	12760083				FPM							-10 … +170	
PDM 1400	12760084	1.4			EPDM			245		4.6	3.5	-30 … +130	
	12760085				FPM							-10 … +170	
PDP 1400	12760091		20		PTFE		112	295	-	6.6	2	-20 … +160	
PDM 2600	12760086	2.6	30		EPDM	G 1" i	140		27	5.3	3.5	-30 … +130	
	12760087				FPM							-10 … +170	
PDP 2600	12760092		20		PTFE		158	385	-	12.5	2	-20 … +160	
PDM 5600	12760093	5.6	40		EPDM	G 1 1/2" i	170	414	35	10	5	-30 … +130	
	12760094				FPM							-10 … +170	

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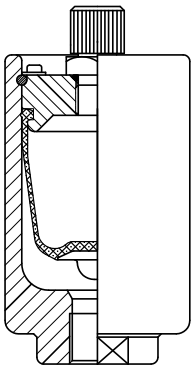
Temperature-Nominal Pressure (PN) Characteristic

Diaphragm	Medium temperature [°C]	Nominal pressure (PN) adaptation factor
EPDM or FPM	50	0.95
	80	0.90
	130	0.82
	170	0.74
PTFE	-	

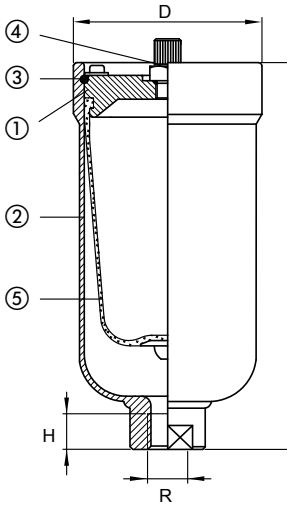
Accessories

Description		Order No.
Filler valve for air		12750032
Filler and test fitting	0 … 25 bar	12750030
	0 … 100 bar	12750031
	0 … 250 bar	12750033
Pressure display (pressure gauge)	0 … 16 bar	12750034
	0 … 25 bar	12750035
	0 … 40 bar	12750036
	0 … 100 bar	12750037
	0 … 250 bar	12750038

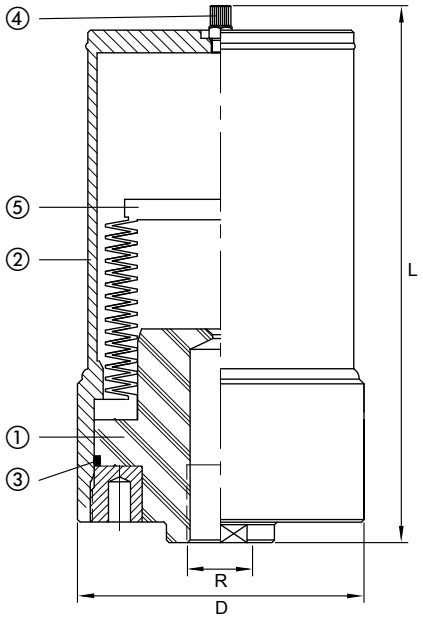
Dimensioned Drawings



PDM 150 … 350



PDM 650 … 5600



PDP 150 … 2600

① Cover
② Housing
③ O-ring
④ Filler valve
⑤ Diaphragm/gaiter

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