

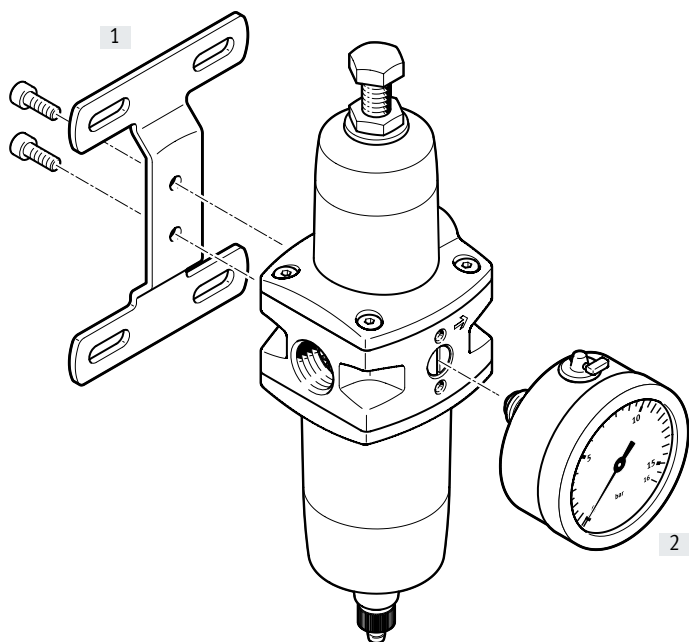
Filter regulators PCRP

FESTO



Peripherals overview and type codes

Peripherals overview



Mounting components and accessories

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[1]	Mounting bracket PAMP	7
[2]	Pressure gauge PAGN	8
–	Filter cartridge PFEP	7

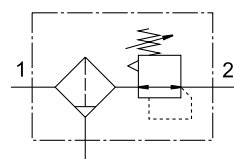
Type codes

001	Series	
PCRP	Filter regulator	
002	Size	
64	64	
003	Pneumatic connection	
G14	G1/4	
G12	G1/2	
N14	1/4 NPT	
N12	1/2 NPT	
004	Pressure regulation range	
7	Up to 7 bar	
12	Up to 12 bar	

005	Filter version	
C	5 µm	
E	40 µm	
006	Bowl type	
R1	Stainless steel	
007	Condensate drain	
M	Manual	
008	Temperature range	
T18	-20 ... +80°C	
T19	-60 ... +80°C	

Data sheet

Function



-  - Flow rate 1920 ... 4115 l/min
-  - Temperature range
-60 ... +80 °C
-  - Operating pressure
1 ... 20 bar

Conforms to standard:
NACE MR0175/ISO 15156 (housing
and bowl)



- Space-saving design with filter and regulator in a single unit
- Good particle separation and high flow rate
- Good regulation characteristics with minimal hysteresis
- Robust housing for the specific requirements of process automation
- Suitable for use outdoors and at temperatures down to -60 °C
- Resistant to UV radiation and corrosive environments
- Two pressure regulation ranges: 0.5°... 7 bar and 0.5 ... 12 bar
- Two pressure gauge connections for flexible installation
- The set values are secured by an adjusting screw with lock
- Safe to use in explosion zones 1/2/21/22
- New filter cartridges → 7

General technical data				
Size	64			
Pneumatic port 1, 2	G1/4	G1/2	1/4 NPT	1/2 NPT
Design	Filter regulator without pressure gauge			
Conforms to standard	NACE MR0175/ISO 15156 (housing and bowl)			
Controller function	With primary pressure compensation, with secondary venting			
Type of mounting	Via mounting kit In-line installation			
Mounting position	Vertical ±5°			
Grade of filtration [µm]	40 5			
Air quality class at the output	Compressed air to ISO 8573-1:2010 [6:4:4] (grade of filtration 5 µm) Compressed air to ISO 8573-1:2010 [7:4:4] (grade of filtration 40 µm) Inert gases			
Condensate drain	Manually rotating			
Actuator lock	Adjusting screw with lock			
Pressure regulation range [bar]	0.5 ... 7 (7.25 ... 101.5 psi/0.05 ... 0.7 MPa) 0.5 ... 12 (7.25 ... 174 psi/0.05 ... 1.2 MPa)			
Max. pressure hysteresis [bar]	0.2			
Pressure indication	Prepared for G1/4			
Max. condensate volume [cm³]	30			

Data sheet

Flow rates					
Pressure regulation range		0.5 ... 7 bar		0.5 ... 12	
Pneumatic port 1, 2		G1/4, 1/4 NPT	G1/2, 1/2 NPT	G1/4, 1/4 NPT	G1/2, 1/2 NPT
Standard nominal flow rate $q_{nN}^{1)}$ [l/min]					
Grade of filtration	40 μm	3240	4455	2860	3045
	5 μm	1830	2050	1800	1930
Max. standard flow rate [l/min]					
Grade of filtration	40 μm	3980	6750	3990	6440
	5 μm	2410	2920	2400	2740

1) Measured at $p_1 = 10$ bar, $p_2 = 6$ bar and $\Delta p = 1$ bar.

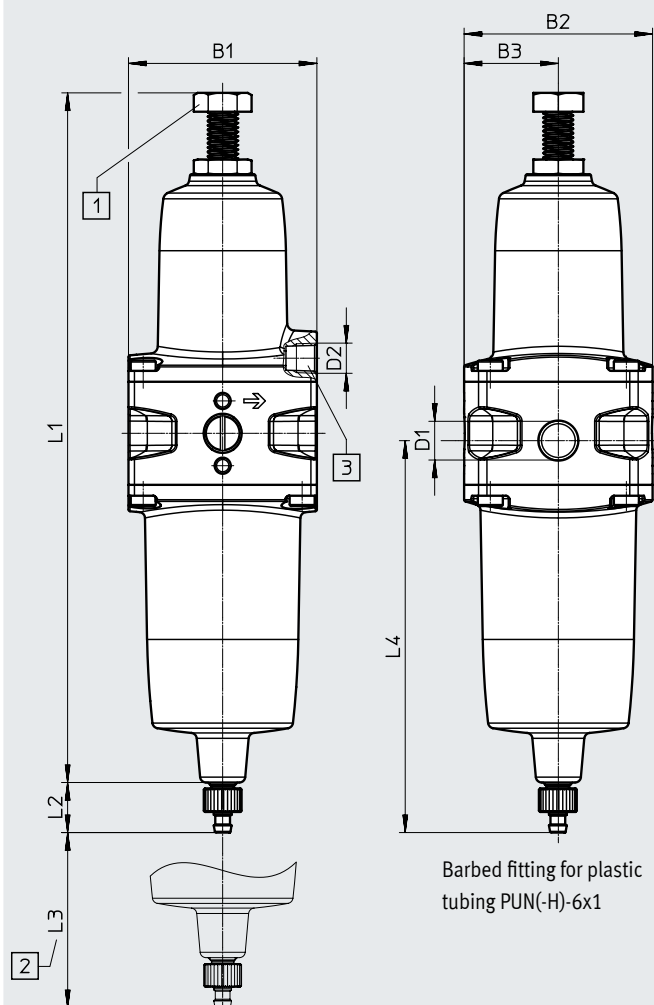
Operating and environmental conditions			
Type		PCRP-...T18	PCRP-...T19
Operating pressure	[bar]	1 ... 20 (14.5 ... 290 psi/0.1 ... 2 MPa)	
Operating medium		Compressed air to ISO 8573-1:2010 [-:4:-]	
		Inert gases	
Ambient temperature	[°C]	-20 ... +80	-60 ... +80
Temperature of medium	[°C]	-20 ... +80	-60 ... +80
Storage temperature	[°C]	-20 ... +80	-60 ... +80

Weights [g]		
Pneumatic port 1, 2	G1/4, 1/4 NPT	G1/2, 1/2 NPT
Filter regulator PCRP	1965	1910

Materials		
Type	PCRP-...-T18	PCRP-...-T19
Housing	Stainless steel casting, material number: 1.4409/CF3M(316L)	
Filter holder	Stainless steel casting, material number: 1.4409/CF3M(316L)	
Bowl	Stainless steel casting, material number: 1.4409/CF3M(316L)	
Filter	High-alloy stainless steel, material number: 1.4404/316L	
Drain screw	High-alloy stainless steel, material number: 1.4404/316L	
Adjusting screw	High-alloy stainless steel	
Spring	High-alloy stainless steel	
Seals	CR	
	NBR	
	–	VMQ
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

Data sheet

Dimensions

Download CAD data → www.festo.com

[1] M10 screw

[3] Exhaust port

→ Flow direction

[2] Installation dimensions

Type	B1	B2	B3	D1	D2	L1	L2	L3 Min.	L4
PCRP-64-G14	64	64	32	G1/4	G1/8	234.2	17	60	135.6
PCRP-64-G12				G1/2					
PCRP-64-N14				1/4 NPT	1/8 NPT				
PCRP-64-N12				1/2 NPT					

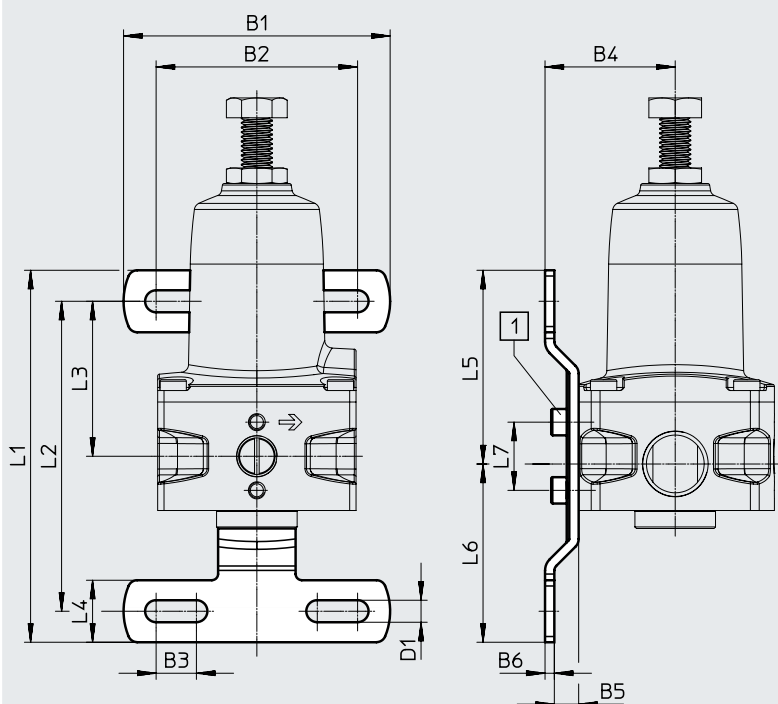
• Note: This product conforms to ISO 1179-1 and ISO 228-1.

Data sheet

Dimensions – Accessories

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Using mounting bracket PAMP



[1] Socket head screw
ISO 4762-M5X8-A2-70

Mounting bracket PAMP
→ page 7

B1	B2	B3	B4	B5	B6	D1	L1	L2	L3	L4	L5	L6	L7
86	65	13	42	7.8	3	7.1	120	100	50	20	62.5	57.5	22

Ordering data

Temperature range -20 ... +80 °C

Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
	Part no.	Type	Part no.	Type

Pressure regulation range 0.5 ... 7 bar

G1/4	4787803	PCRP-64-G14-7-C-R1-M-T18	4787805	PCRP-64-G14-7-E-R1-M-T18
G1/2	4787811	PCRP-64-G12-7-C-R1-M-T18	4787813	PCRP-64-G12-7-E-R1-M-T18
1/4 NPT	4787799	PCRP-64-N14-7-C-R1-M-T18	4787801	PCRP-64-N14-7-E-R1-M-T18
1/2 NPT	4787807	PCRP-64-N12-7-C-R1-M-T18	4787809	PCRP-64-N12-7-E-R1-M-T18

Pressure regulation range 0.5 ... 12 bar

G1/4	4787804	PCRP-64-G14-12-C-R1-M-T18	4787806	PCRP-64-G14-12-E-R1-M-T18
G1/2	4787812	PCRP-64-G12-12-C-R1-M-T18	4787814	PCRP-64-G12-12-E-R1-M-T18
1/4 NPT	4787800	PCRP-64-N14-12-C-R1-M-T18	4787802	PCRP-64-N14-12-E-R1-M-T18
1/2 NPT	4787808	PCRP-64-N12-12-C-R1-M-T18	4787810	PCRP-64-N12-12-E-R1-M-T18

Ordering data

Temperature range -60 ... +80 °C

Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
	Part no.	Type	Part no.	Type

Pressure regulation range 0.5 ... 7 bar

G1/4	5394669	PCRP-64-G14-7-C-R1-M-T19	5394671	PCRP-64-G14-7-E-R1-M-T19
G1/2	5394677	PCRP-64-G12-7-C-R1-M-T19	5394679	PCRP-64-G12-7-E-R1-M-T19
1/4 NPT	5394665	PCRP-64-N14-7-C-R1-M-T19	5394667	PCRP-64-N14-7-E-R1-M-T19
1/2 NPT	5394673	PCRP-64-N12-7-C-R1-M-T19	5394675	PCRP-64-N12-7-E-R1-M-T19

Pressure regulation range 0.5 ... 12 bar

G1/4	5394670	PCRP-64-G14-12-C-R1-M-T19	5394672	PCRP-64-G14-12-E-R1-M-T19
G1/2	5394678	PCRP-64-G12-12-C-R1-M-T19	5394680	PCRP-64-G12-12-E-R1-M-T19
1/4 NPT	5394666	PCRP-64-N14-12-C-R1-M-T19	5394668	PCRP-64-N14-12-E-R1-M-T19
1/2 NPT	5394674	PCRP-64-N12-12-C-R1-M-T19	5394676	PCRP-64-N12-12-E-R1-M-T19

Accessories

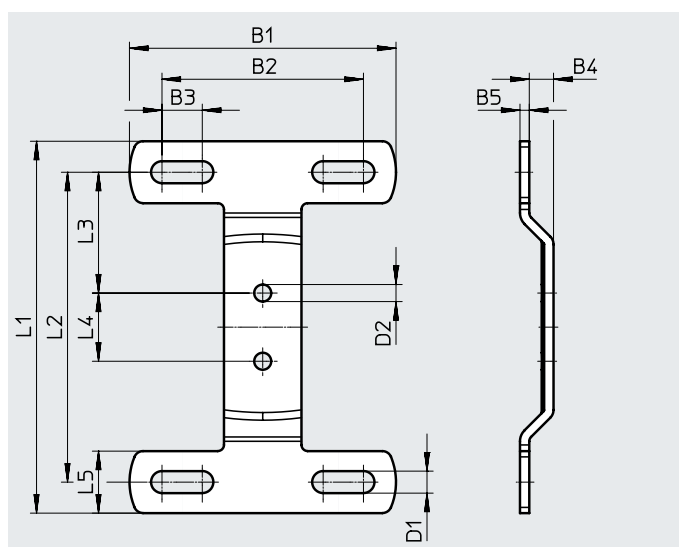
Mounting bracket PAMP

- For wall mounting an individual unit

Temperature of medium/ambient
temperature: -60°... +80 °C

Material of bracket/screws:
High-alloy stainless steel

Note on materials:
RoHS-compliant
Free of copper and PTFE



Dimensions											
B1	B2	B3	B4	B5	D1	D2	L1	L2	L3	L4	L5
86	65	13	7.8	3	7.1	5.5	120	100	39	22	20

Ordering data				
Size	Tightening torque for valve mounting [Nm]	Weight [g]	Part no.	Type
64	5 ±10%	119	8081356	PAMP-MB-64

Filter cartridges PFEP

Filter material:
High-alloy stainless steel

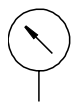
Note on materials:
RoHS-compliant
Free of copper and PTFE



Ordering data				
Size	Grade of filtration [μm]	Weight [g]	Part no.	Type
64	5	77	8081360	PFEP-64-C
	40	64	8081365	PFEP-64-E

Accessories

Pressure gauge PAGN



—  — Temperature range
−40 ... +200 °C



Technical data

Nominal size	63
Pneumatic connection	G1/4
Operating medium	Inert gases Neutral fluids
Note on operating/ pilot medium	No oxygen No acetylene
Design	Bourdon tube pressure gauge
Conforms to standard	EN 837-1
Type of mounting	In-line installation
Connection position	Centred, rear
Ambient temperature [°C]	−40 ... +60
Temperature of medium [°C]	−40 ... +200 ¹⁾
Storage temperature [°C]	−40 ... +70
Measurement accuracy class	1.6
Intermittent load factor	0.66
Degree of protection	IP65
Weight [g]	160

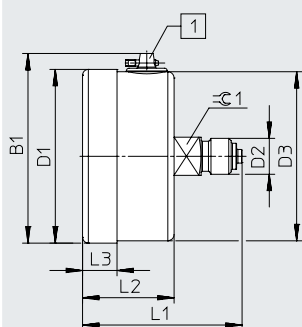
1) If the temperature of the medium used is below 0 °C, ensure the operating medium is dry.

Materials

Housing	High-alloy stainless steel (colour: silver)
Inspection window	PC
Screwed trunnion/ materials in contact with the media	High-alloy stainless steel
Note on materials	RoHS-compliant

Dimensions

Download CAD data → www.festo.com



[1] ≤ 16 bar with compensating valve

B1	D1 ø	D2	D3 ø	L1	L2	L3	Ø 1
69.5	63	G1/4	62	57	33	11.5	14

Ordering data

Nominal size	Pneumatic connection	Operating pressure	Display range	Part no.	Type
63	G1/4	0 ... 16 bar	0 ... 16 bar	8081401	PAGN-63-16-G14-R1-1.6-0.5-V2