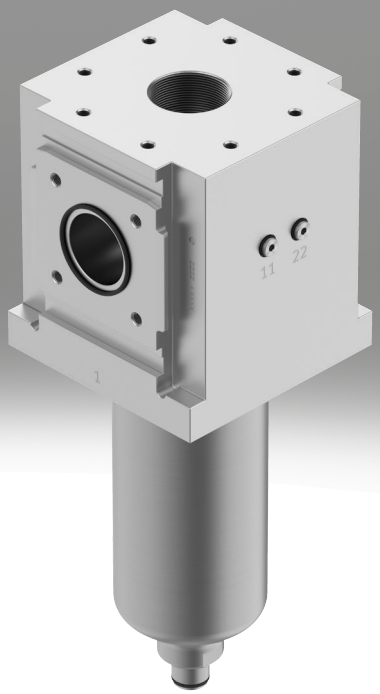
Micro filter PFML

FESTO



Characteristics

At a glance

Micro filter with filter cartridges made from thermally fused microfine borosilicate and stable polyester fibres. Flow direction of the filter cartridges from the inside to the outside.

Condensate drain via connecting thread G1/2 on the underside of the filter bowl, differential pressure sensing via two connecting threads G1/8 each on the front and rear.

On/off valves PVEL can be connected to the alternative connection 1 on the upper side of the micro filter via double nipples or directly using special connecting plates.

- For high-pressure applications
- Sizes: 90 mm, 186 mm
- Grade of filtration: 0.01 µm
- Alternative pneumatic connection 1 on the top of the housing with female thread

Type code

001	Series	
PFML	Micro filter	

002	Size	
90	90 mm	
186	186 mm	

003	Pressure application range	
HP3	Up to 50 bar	

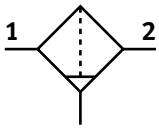
004	Flow rate	
	Standard	
H	High flow rate	

005	Filter design	
A	0.01 µm	

006	Bowl type	
ST	Steel	

Datasheet

General technical data



Size	90	186	
Flow rate	Standard [_]		High flow rate [H]
Type of mounting	Inline installation		
Mounting position	Vertical +/-5°		
Design	Fibre filter		
Grade of filtration	0.01 µm		
Filter efficiency	99.99998%		
Air purity class at output	Compressed air to ISO 8573-1:2010 [1:4:2]		
Condensate drain	Manual		
Max. condensate volume	200 cm³		400 cm³
Volume	3		6.7

Operating and environmental conditions

Size	90	186
Operating pressure	0 ... 5 MPa	
Operating pressure	0 ... 50 bar	
Operating medium	Compressed air to ISO 8573-1:2010 [2:4:4] Inert gas	
Note on operating and pilot medium	Lubricated operation not possible	
Ambient temperature	5 ... 60°C	
Media temperature	5 ... 60°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class CRC [1]	2 - Moderate corrosion stress	
CE mark (see declaration of conformity) [2]	In accordance with EU Pressure Equipment Directive	
UKCA marking (see declaration of conformity) [3]	to UK Pressure Equipment Regulations	
Suitable for use with food [4]	See supplementary material information	

1) More information www.festo.com/x/topic/crc
2) More information www.festo.com/catalogue/pfml → Support/Downloads.
3) More information www.festo.com/catalogue/pfml → Support/Downloads.
4) More information www.festo.com/catalogue/pfml → Support/Downloads.

Standard flow rate

Size	90	186	
Flow rate	Standard [_]		High flow rate [H]
Min. standard flow rate for clean air class [1]	–	3,406 l/min	6,326 l/min
Max. standard flow rate for clean air class [2]	10,220 l/min		18,980 l/min

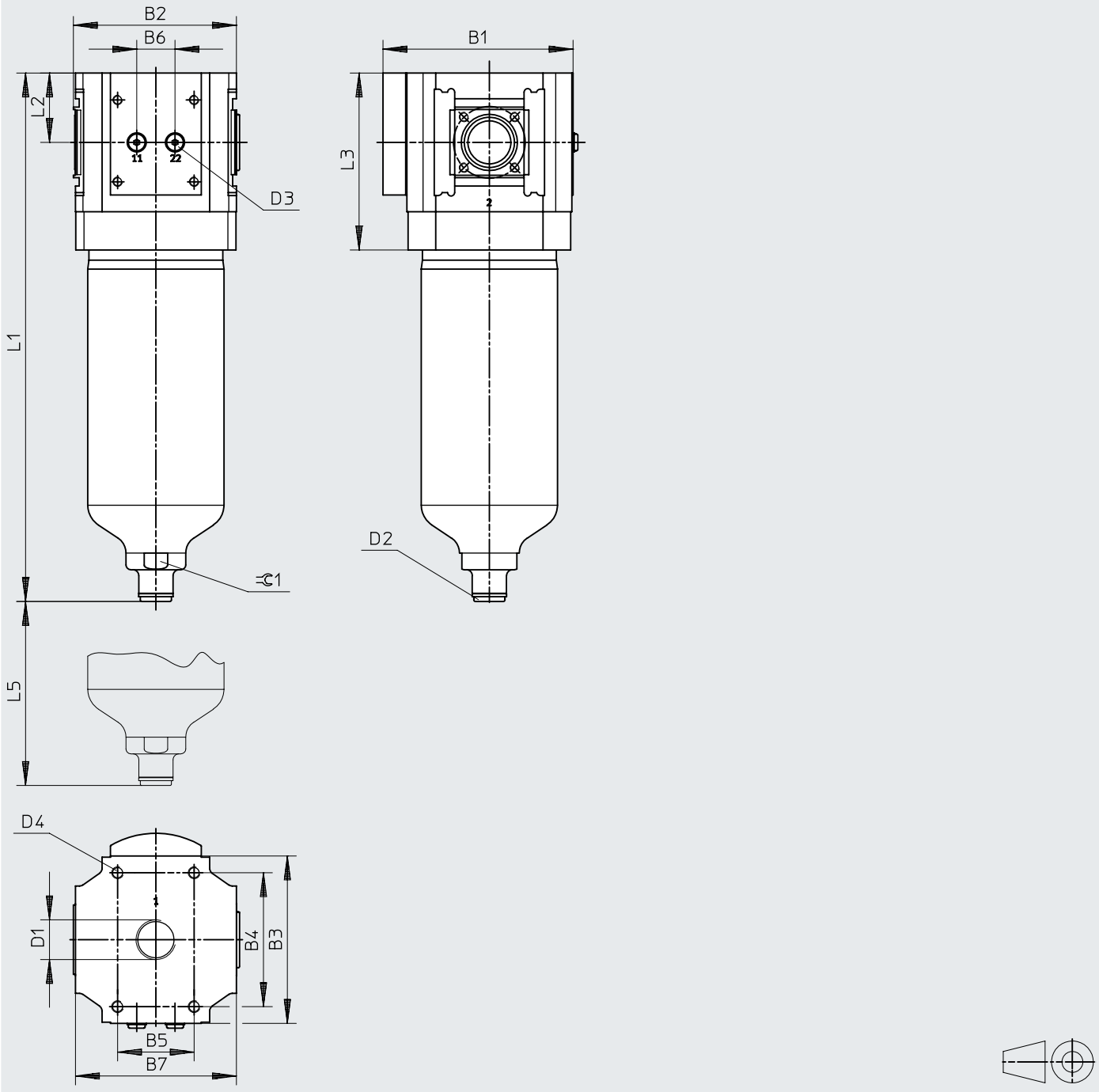
1) at p1 = 6 bar
2) at p1 = 6 bar

Materials

Material housing	Wrought aluminium alloy
Material bowl	High-alloy stainless steel
Material filter	Borosilicate fibre
Material seals	NBR
Note on materials	RoHS compliant
LABS (PWIS) conformity	VDMA24364 zone III

Dimensions

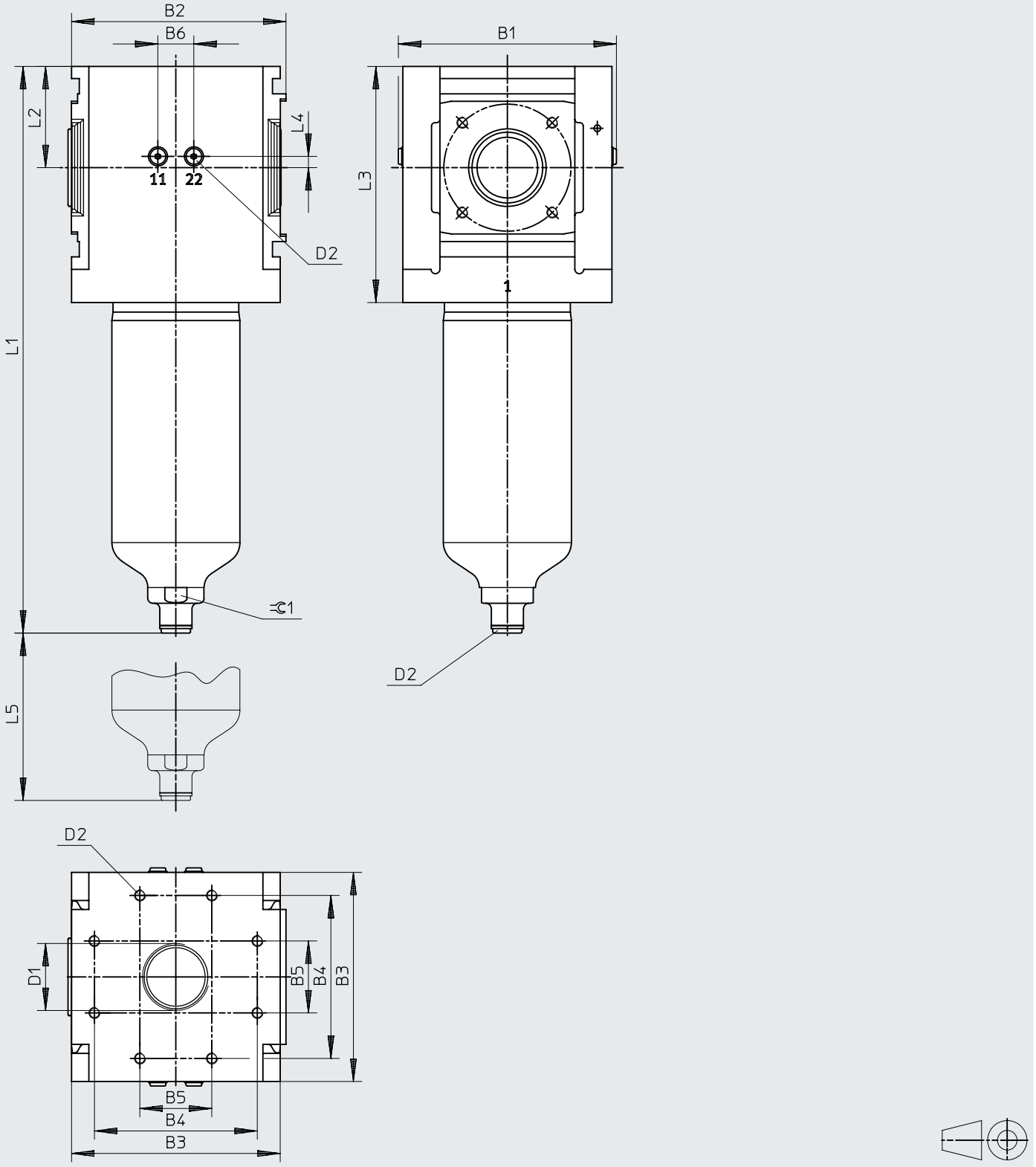
Dimensions – PFML-90-HP3-AST Download CAD data www.festo.com



	B1	B2	B3	B4	B5	B6	B7	D1	D2	D3	D4	L1	L2	L3	L5 min.	⊂ 1
PFML-90-HP3-AST	159	137	140	112	64	32	135	G1	G1/2	G1/8	M10	442	58	148	210	46

Dimensions

Dimensions – PFML-186-HP3-AST Download CAD data www.festo.com

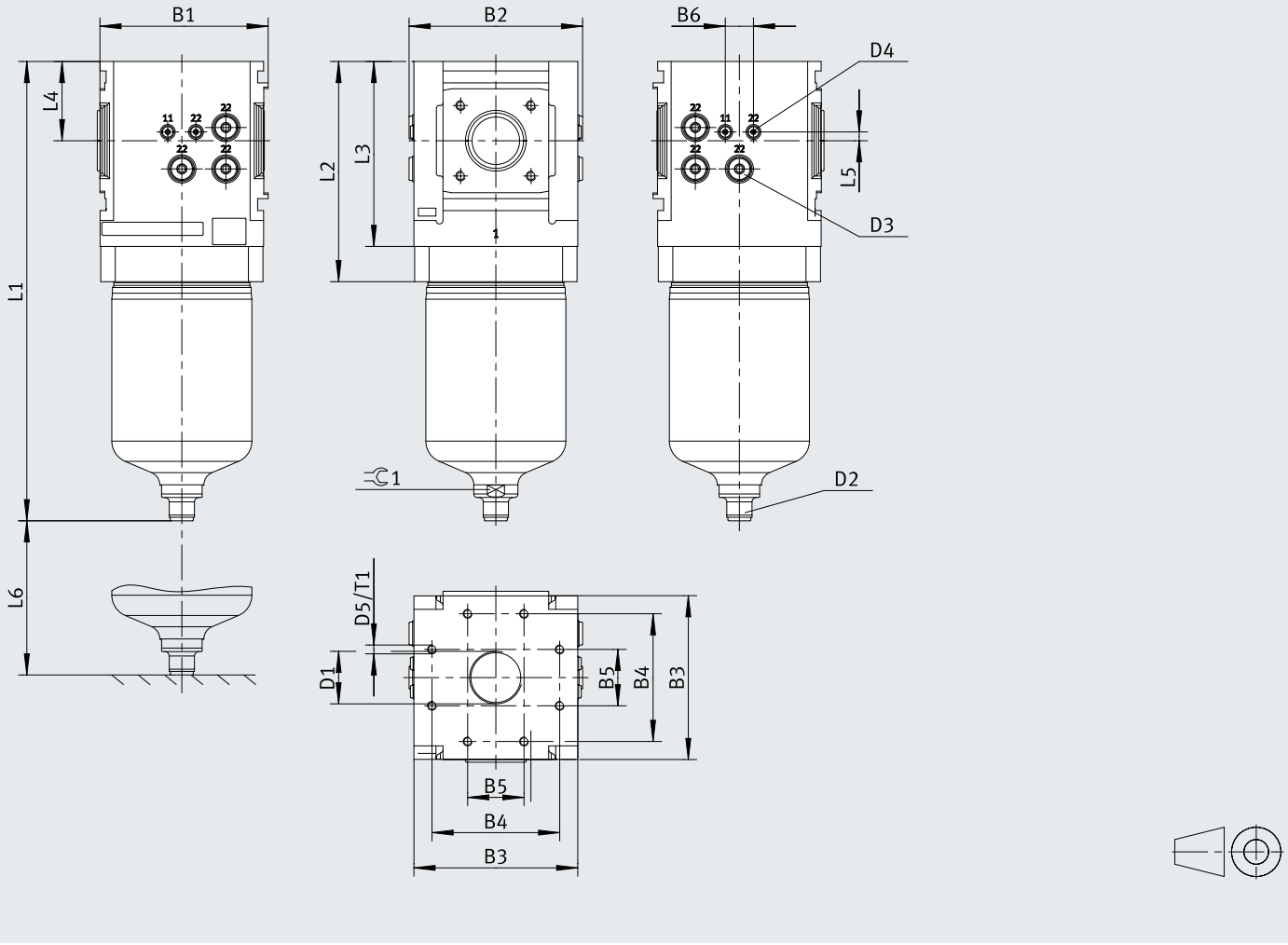


Typ	B1	B2	B3	B4	B5	B6	D1	D2	D3	D4	L1	L2	L3	L4	L5 min.	⊂1
PFML-186-HP3-AST	194	191	186	145	64	32	G2	G1/2	G1/8	M10	504	90	210	10	210	46

Dimensions

Dimensions – PFML-186-HP3-H-AST

Download CAD data www.festo.com

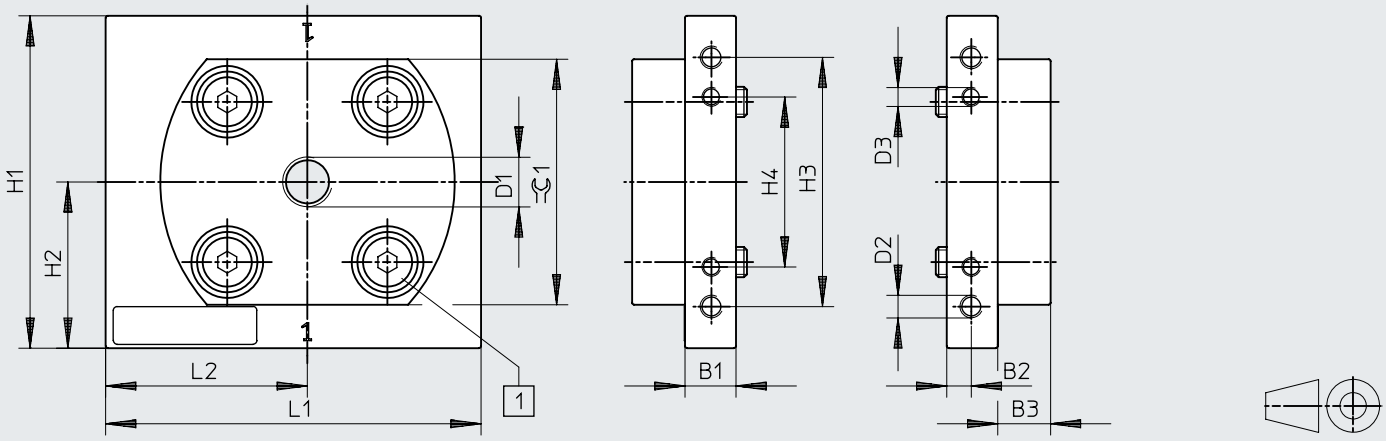


Typ	B1	B2	B3	B4	B5	B6	D1	D2	D3
PFML-186-HP3-H-AST	191	197	186	145	64	32	G2	G1/2	G1/2

Typ	D4	D5	L1	L2	L3	L4	L5	L6 min.	T1	⌀ 1
PFML-186-HP3-H-AST	G1/8	M10	~522	250	210	90	10	200	20	46

Dimensions

Dimensions – Connecting plate PAML-CP-90-HP3-G14/G12/G34/G1 Download CAD data www.festo.com



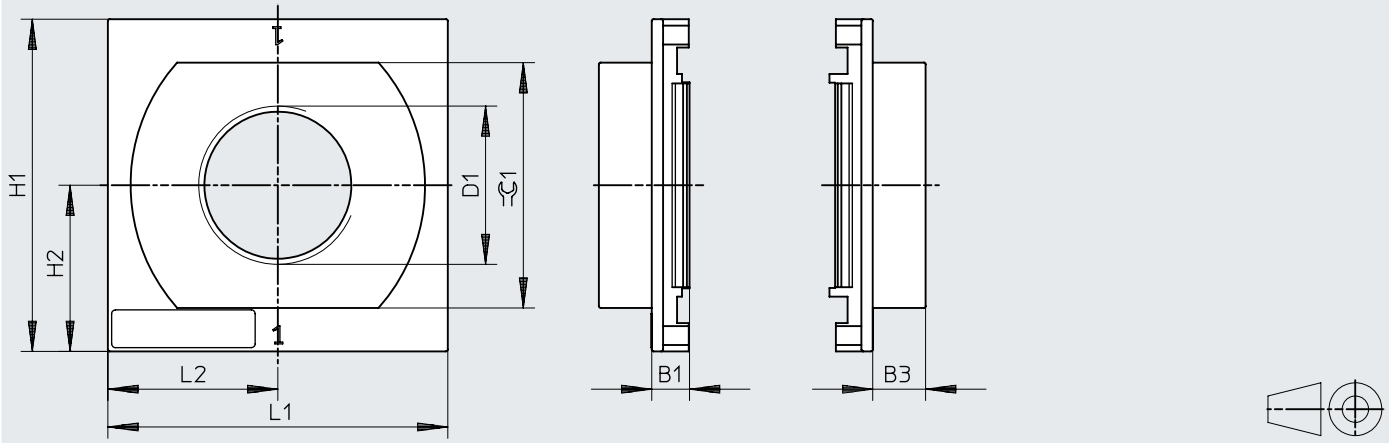
[1] Cylinder screw M8x25

	B1	B2	B3	D1	D2[1)]	D3	H1	H2	H3	H4	L1	L2	⊂1
PAML-CP-90-HP3-G14	13,5	6,5	14	G1/4	M6x10	M5x9	88	44	66	45	~99	~53	65
PAML-CP-90-HP3-G14				G1/2									
PAML-CP-90-HP3-G14				G3/4									
PAML-CP-90-HP3-G14				G1									

1) Thread for mounting the service unit component on a wall without mounting bracket

Dimensions

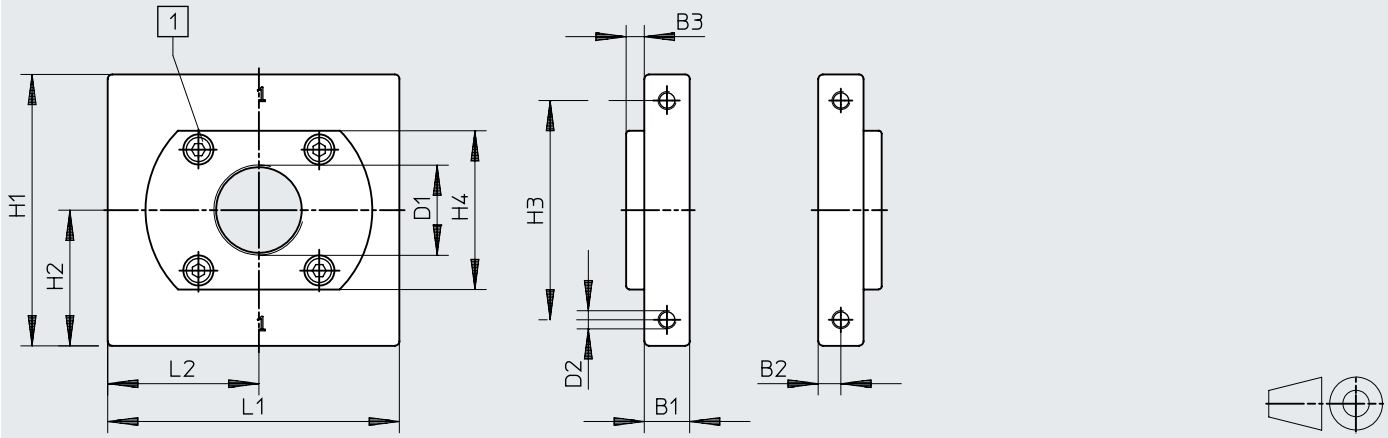
Dimensions – Connecting plate PAML-CP-90-HP3-G114 Download CAD data www.festo.com



	B1	B3	D1	D3	H1	H2	L1	L2	⌀1
PAML-CP-90-HP3-G114	10	14	G1 1/4	M5x9	88	44	90	45	65

Dimensions

Dimensions – Connecting plate PAML-CP-186 Download CAD data www.festo.com

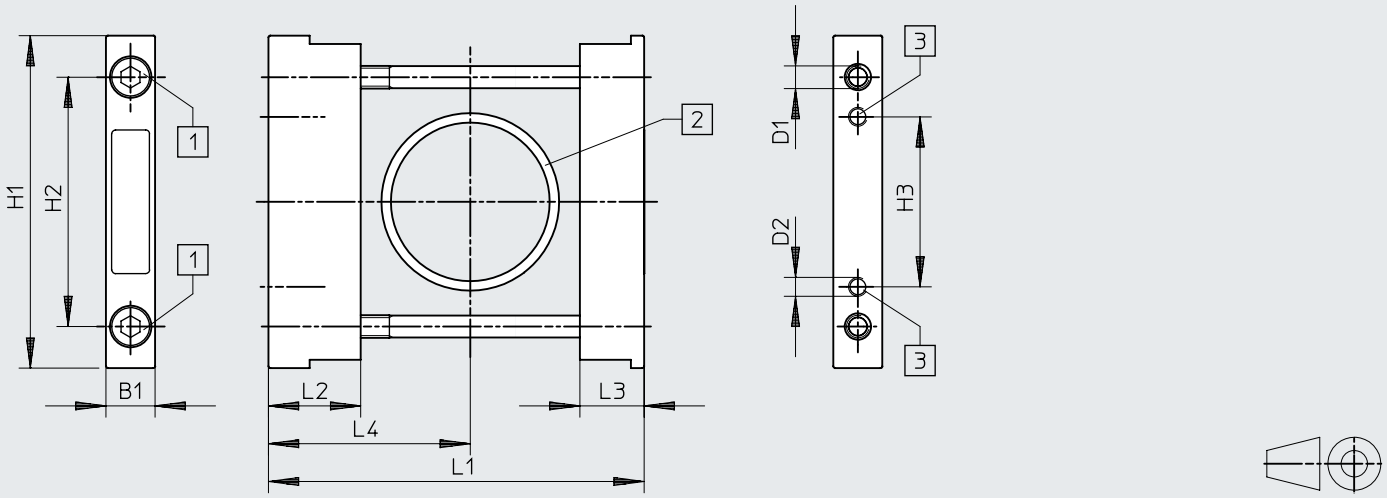


[1] Cylinder screw M10x30

	B1	B2	B3	D1	D2	H1	H2	H3	H4	L1	L2
PAML-CP-186-HP3-G14	30	15	12	G1/4	M12	180	90	145	105	193	100
PAML-CP-186-HP3-G114				G1 1/4							
PAML-CP-186-HP3-G112				G1 1/2							
PAML-CP-186-HP3-G2				G2							
PAML-CP-186-HP3-G212			25	G2 1/2							

Dimensions

Dimensions – Module connector PAML-MK Download CAD data www.festo.com



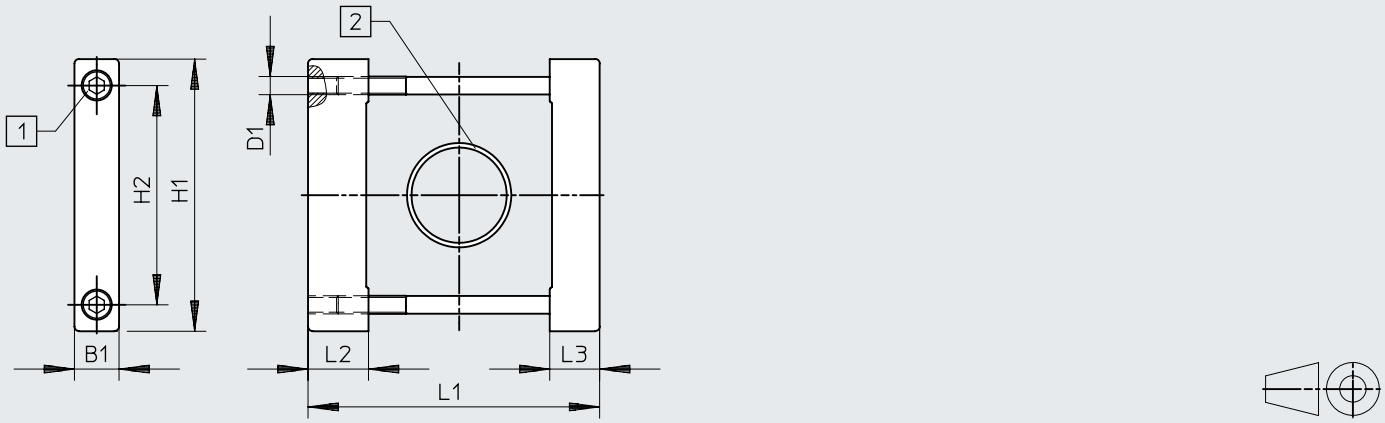
[1] Cylinder screw M6x85
[2] O-ring 42x2.5
[3] Thread for mounting the service unit component on a wall

	B1	D1	D2	H1	H2	H3	L1[1)]	L2	L3	L4[1)]
PAML-MK-90-HP3	13	M6	M5x9	88	66	45	99	24,4	17	~53

1) Dimension when mounted

Dimensions

Dimensions – Module connector PAML-MK-186 Download CAD data www.festo.com



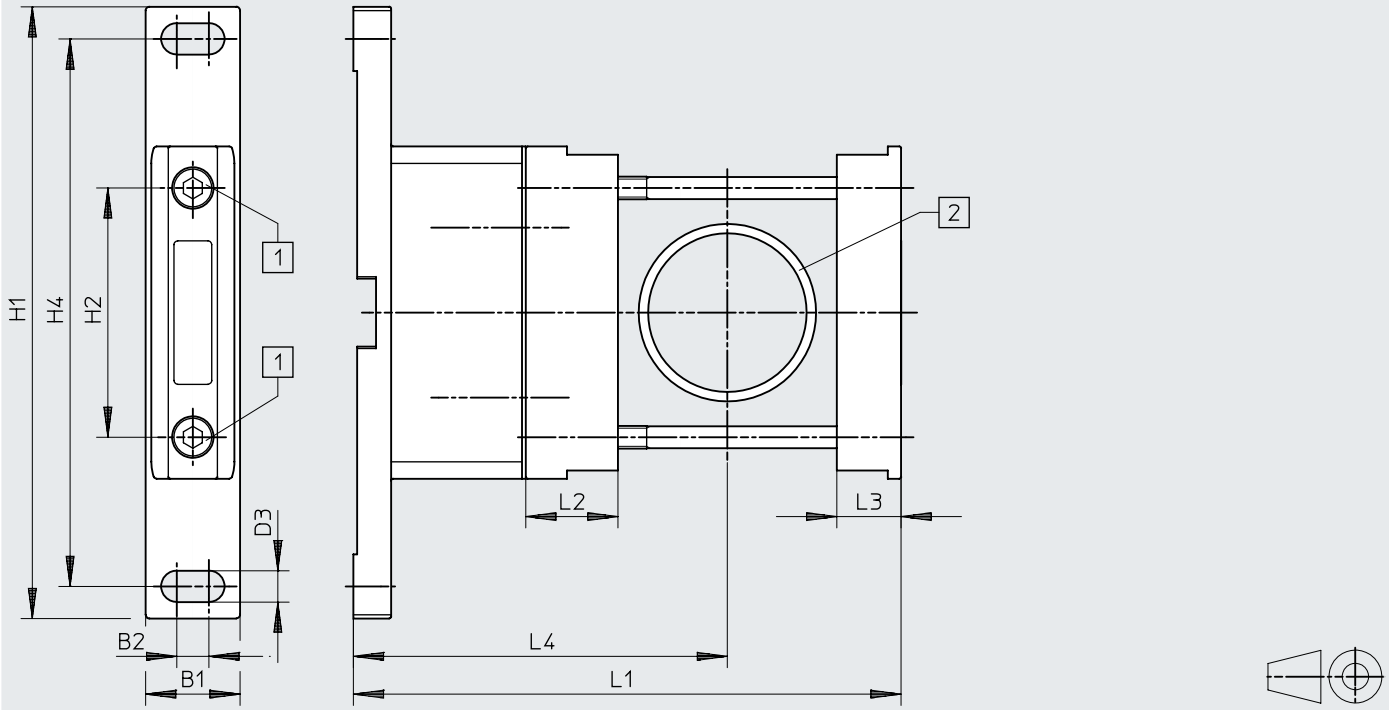
[1] Cylinder screw M12x160
[2] O-ring 63x3

	B1	D1	H1	H2	L1[1)]	L2	L3
PAML-MK-186-HP3	29,5	M12	180	145	193	40	33

1) Dimension when mounted

Dimensions

Dimensions – Mounting bracket PAML-MB Download CAD data www.festo.com



[1] Cylinder screw M5x18
[2] O-ring 42x2.5

	B1	B2	D3	H1	H2	H4	L1[1)]	L2	L3	L4[1)]
PAML-MB-90-HP3	25	8,5	8,3	162	66	145	~145	24,4	17	~99

1) Dimension when mounted

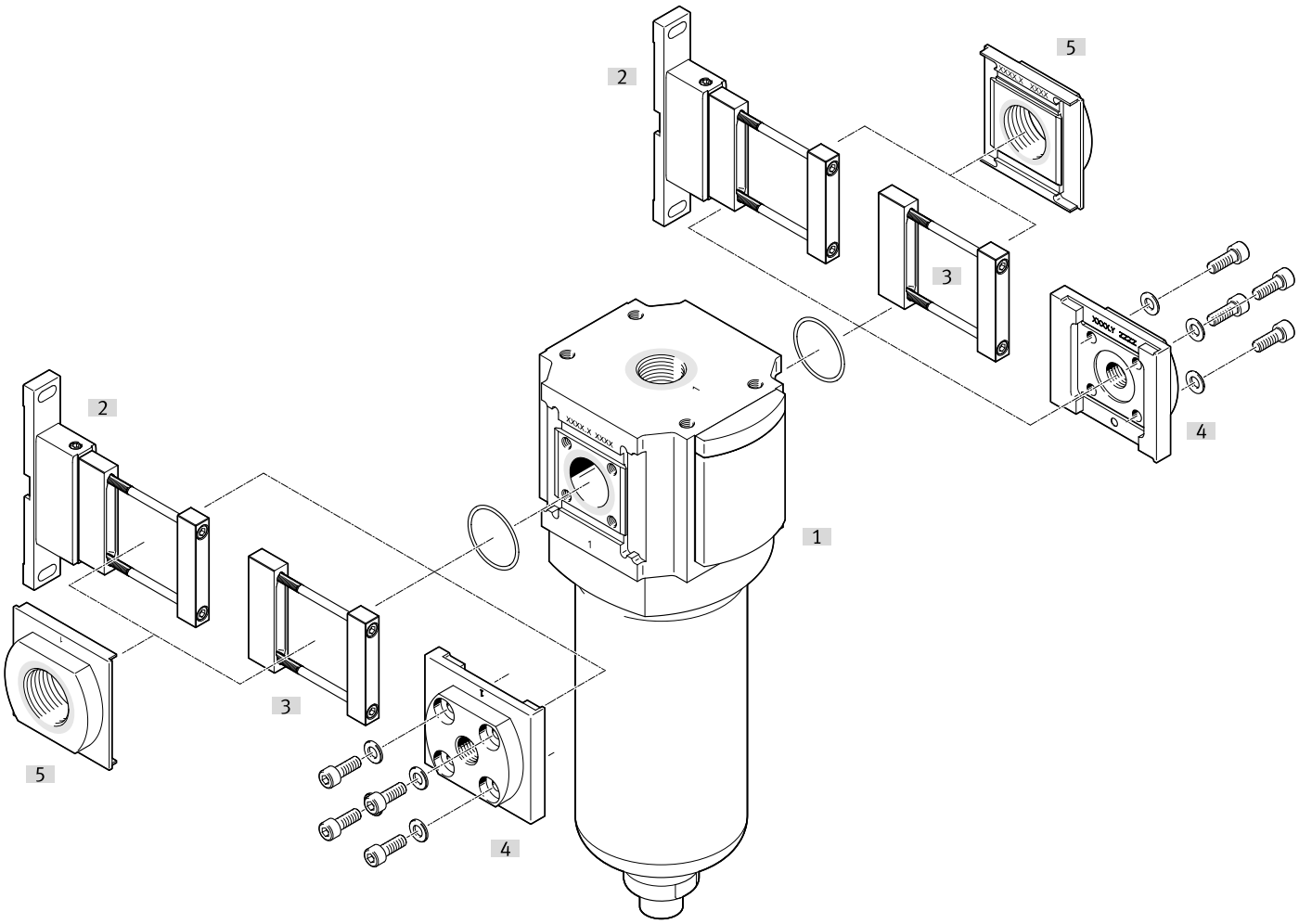
Ordering data

Ordering data

	Size	Max. standard flow rate for clean air class	Product weight	Part no.	Type
	90	10,220 l/min	7,700 g	**1612487**	**PFML-90-HP3-AST**
	186		17,900 g	**1364705**	**PFML-186-HP3-AST**
		18,980 l/min	21,000 g	**1624062**	**PFML-186-HP3-H-AST**

Peripherals

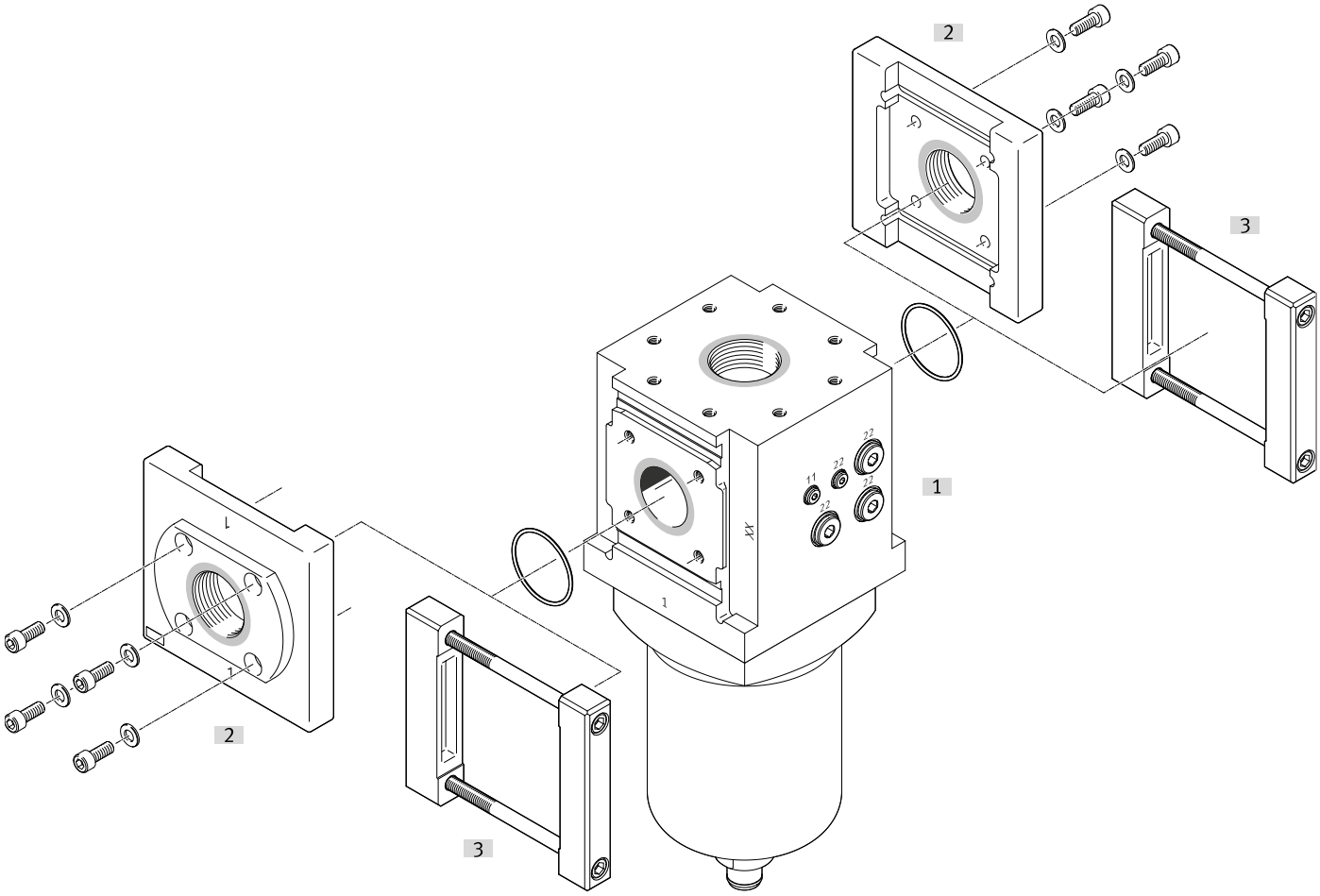
Size 90



Accessories			→ Link
	Type/order code	Description	
[1]	Micro filter PFML		pfml
[2]	Mounting bracket PAML-MB		17
[3]	Module connector PAML-MK		17
[4]	Connecting plates PAML-CP-...-G14/G12/G34/G1		17
[5]	Connecting plate PAML-CP-...-G114		17

Peripherals

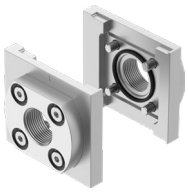
Size 186



Accessories			→ Link
	Type/order code	Description	
[1]	Micro filter PFML		pfml
[2]	Connecting plates PAML-CP		17
[3]	Module connector PAML-MK		17

Accessories

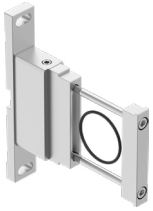
Connecting plates PAML-CP

	Size	Pneumatic connection, port 1	Pneumatic connection, port 2	Product weight	Part no.	Type
	90	G1/4	G1/4	800 g	**1651540**	**PAML-CP-90-HP3-G14**
		G1/2	G1/2	770 g	**1651541**	**PAML-CP-90-HP3-G12**
		G3/4	G3/4	750 g	**1651542**	**PAML-CP-90-HP3-G34**
		G1	G1	730 g	**1651543**	**PAML-CP-90-HP3-G1**
		G1 1/4	G1 1/4	500 g	**1448978**	**PAML-CP-90-HP3-G114**
	186	G1/4	G1/4	4,700 g	**1629300**	**PAML-CP-186-HP3-G14**
		G1 1/4	G1 1/4	4,600 g	**1629296**	**PAML-CP-186-HP3-G114**
		G1 1/2	G1 1/2	4,500 g	**1629297**	**PAML-CP-186-HP3-G112**
		G2	G2	4,400 g	**1629298**	**PAML-CP-186-HP3-G2**
		G2 1/2	G2 1/2	4,900 g	**1629299**	**PAML-CP-186-HP3-G212**

Module connector PAML-MK

	Size	Product weight	Part no.	Type
	90	150 g	**1367005**	**PAML-MK-90-HP3**
	186	1,300 g	**1629377**	**PAML-MK-186-HP3**

Mounting bracket PAML-MB

	Size	Product weight	Part no.	Type
	90	300 g	**1367323**	**PAML-MB-90-HP3**

Filter cartridges PFEL

	Flow rate	Grade of filtration	Material seals	Material filter	Part no.	Type
	Standard	0.01 µm	NBR	Borosilicate fibre	**1334716**	**PFEL-G2-A**
	High flow rate				**1471578**	**PFEL-G212-H-A**