

Filter Regulators MS6-LFR – Metric Series



A filter regulator combines a filter and a pressure regulator into a single unit. The sintered filter with water separator removes contamination, pipe sinter, rust and condensate from the compressed air. The pressure setting can be adjusted with the regulator.

- Pneumatic connection: G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, G $\frac{3}{4}$
- Filtration grade: 5 μ m, 40 μ m
- Supply pressure
 - for manual drain: 0.8 ... 20 bar
 - for semiautomatic drain: 1.5 ... 12 bar
 - for fully automatic drain: 2 ... 12 bar
 - for fully automatic drain, electrically actuated: 0.8 ... 16 bar
- Controlled pressure range: 0.3 ... 16 bar
- Flow rate: 2,000 ... 7,200 l/min

Product Range Overview																								
Type	Pneumatic connections		Pressure regulation range [bar]				Filtration grade [μ m]		Bowl guard		Bowl drain								Pressure indicator			Pressure adjustment		Reverse flow
	Body thread	Port plate	0.3 ... 4	0.3 ... 7	0.5 ... 12	0.5 ... 16	5	40	Plastic bowl guard	Metal bowl	Manual	Semiautomatic	Fully automatic	Electrical 24 V DC M12	Electrical 110 V AC with terminals	Electrical 230 V AC with terminals	Electrical 24 V DC with terminals	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter for pressure gauge G $\frac{1}{4}$	Pressure sensor with display	Rotary knob, lockable	Rotary knob, long	Flow direction from right to left
MS6	AG...	D5	D6	D7	D8	C	E	R	U	M	H	V	E1	E2	E3	E4	VS	AG	A4	AD...	AS	LD	Z	
LFR	G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, G $\frac{3}{4}$		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

Features

- Good control characteristics with low hysteresis and primary pressure compensation
- High flow rates
- Directly actuated diaphragm regulator
- Four pressure regulation ranges
- Modular, in-line or panel mounting
- Lockable rotary knob
- Available with or without secondary venting
- Reverse flow option for exhausting from output 2 to output 1
- Optional pressure sensor with display and electric output

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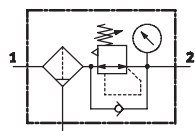
➔ www.festo.com/catalog/ms6-lfr

Filter Regulators MS6-LFR – Metric Series

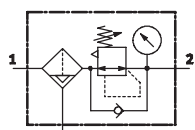
Technical Data

FESTO

ISO Symbol



Manual bowl drain



Semi or fully automatic bowl drain



General Technical Data			G1/4	G3/8	G1/2
Pneumatic connection 1, 2			G1/4	G3/8	G1/2
Filtration grade	[µm]	5 (air purity class at the output 3.7.- to DIN ISO 8573-1) 40 (air purity class at the output 5.7.- to DIN ISO 8573-1)			
Supply pressure	M [bar]	0.8 ... 20 (manual drain)			
	H [bar]	1.5 ... 12 (semiautomatic drain)			
	V [bar]	2 ... 12 (fully automatic drain)			
	E... [bar]	0.8 ... 16 (fully automatic drain, electrically actuated)			
Pressure regulation range	D5 [bar]	0.3 ... 4			
	D6 [bar]	0.3 ... 7			
	D7 [bar]	0.5 ... 12 (0.5 ... 10 with variant pressure sensor AD...)			
	D8 [bar]	0.5 ... 16			
Max. hysteresis	[bar]	0.25			

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Standard Nominal Flow Rate $q_{nN}^{1)}$ [l/min]				
Pneumatic connection 1, 2		G1/4	G3/8	G1/2
D5 – Pressure regulation range 0.3 ... 4 bar				
Filtration grade	5 µm	2,000 ²⁾	5,500 ²⁾	6,900 ²⁾
	40 µm	2,200 ²⁾	6,000 ²⁾	7,200 ²⁾
D6 – Pressure regulation range 0.3 ... 7 bar				
Filtration grade	5 µm	2,700	5,000	5,600
	40 µm	2,800	5,700	6,200
D7 – Pressure regulation range 0.5 ... 12 bar				
Filtration grade	5 µm	2,200	3,500	4,000
	40 µm	2,500	4,000	4,500
D8 – Pressure regulation range 0.5 ... 16 bar				
Filtration grade	5 µm	2,000	3,300	3,800
	40 µm	2,300	3,500	4,000

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

2) Measured at $p_1 = 10$ bar and $p_2 = 3$ bar, $\Delta p = 1$ bar

Filter Regulators MS6-LFR – Metric Series

Technical Data



Operating and Environmental Conditions				
Bowl drain	Manual M	Semiautomatic H	Fully automatic V	Fully automatic, electrically actuated E...
Operating medium without pressure sensor AD...	Compressed air			
Operating medium with pressure sensor AD...	Filtered compressed air, lubricated or unlubricated, filtration grade 40 µm			
Max. condensate volume [cm ³]	38			
Bowl guard	Plastic bowl guard			
	Metal bowl			
Ambient temperature without pressure sensor AD... [°C]	-10 ... +60	+5 ... +60	+5 ... +60	+1 ... +60
Ambient temperature with pressure sensor AD... [°C]	0 ... +50	+5 ... +50	+5 ... +50	+1 ... +50
Medium temperature without pressure sensor AD... [°C]	-10 ... +60	+5 ... +60	+5 ... +60	+1 ... +60
Medium temperature with pressure sensor AD... [°C]	0 ... +50	+5 ... +50	+5 ... +50	+1 ... +50
Storage temperature [°C]	-10 ... +60	-10 ... +60	-10 ... +60	+1 ... +60
Assembly position	Vertical ±5°			
Corrosion resistance CRC ¹⁾	2			

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [g]	
With plastic bowl guard	875
With metal bowl	1,087
With metal bowl and fully automatic, electrically actuated bowl drain	1,800

- Wearing parts kits → 590
- Filter cartridges → 590
- For spare parts go to: www.festo.com/en/spare_parts_service

Filter Regulators MS6-LFR – Metric Series

Technical Data

Standard Flow Rate q_n as a Function of Output Pressure p_2

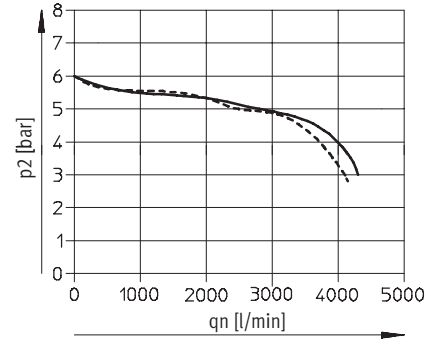
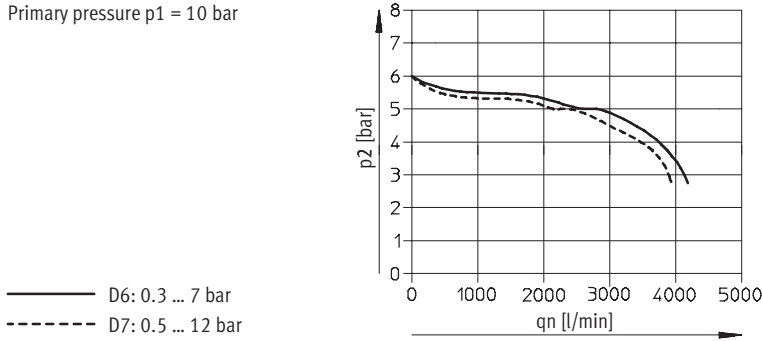
Pressure regulation range D6 or D7

Filtration grade $5\ \mu\text{m}$

Filtration grade $40\ \mu\text{m}$

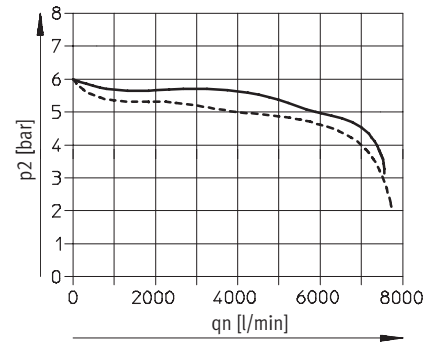
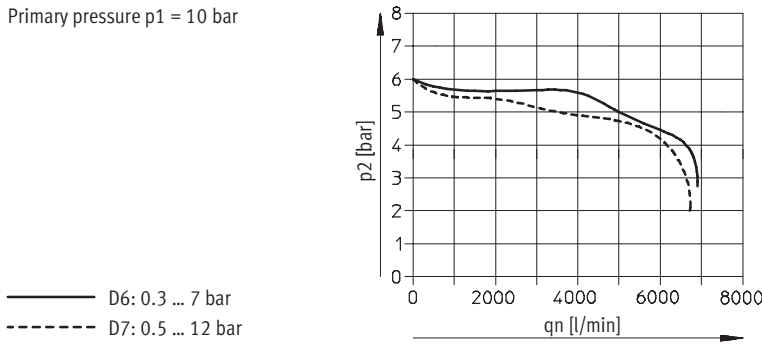
MS6-LFR- $\frac{1}{4}$

Primary pressure $p_1 = 10\ \text{bar}$



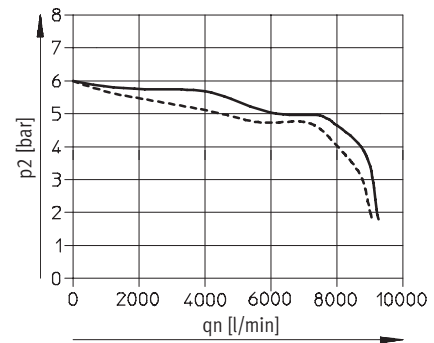
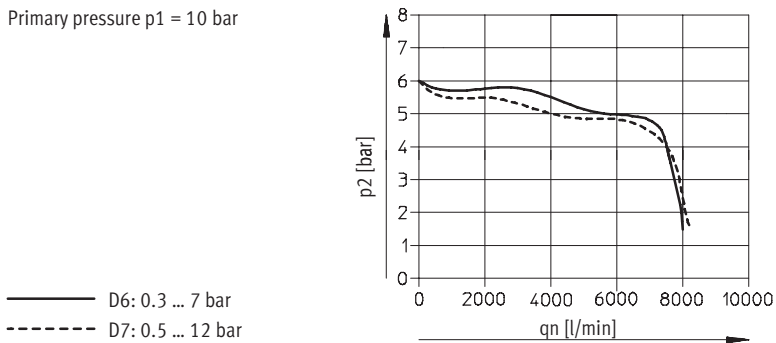
MS6-LFR- $\frac{3}{8}$

Primary pressure $p_1 = 10\ \text{bar}$



MS6-LFR- $\frac{1}{2}$

Primary pressure $p_1 = 10\ \text{bar}$



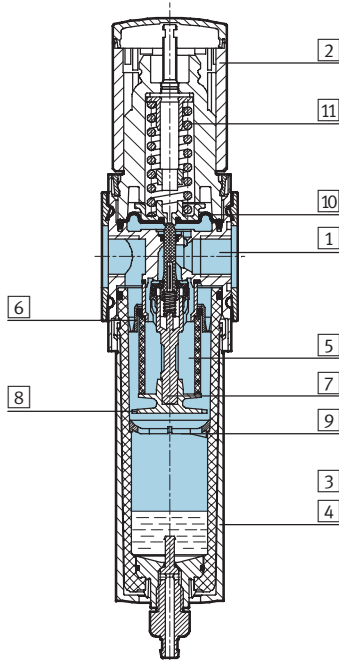
Filter Regulators MS6-LFR – Metric Series

Technical Data



Materials

Sectional view



Filter regulator		
1	Body	Die-cast aluminum
2	Regulating knob	Polyamide/polyacetate
3	Plastic bowl guard	Polycarbonate/polyamide
4	Metal bowl	Aluminum
	Viewing window	Polyamide
5	Filter element	Polyethylene
6	Spin disk	Polyacetate
7	Filter holder	Polyacetate
8	Separating plate	Polyacetate
9	Stabilizing disk	Polyacetate
10	Diaphragm	Nitrile rubber
11	Spring	Steel
-	Seals	Nitrile rubber
	Note on materials	Free of copper and PTFE only with cover plate VS

Filter Regulators MS6-LFR – Metric Series

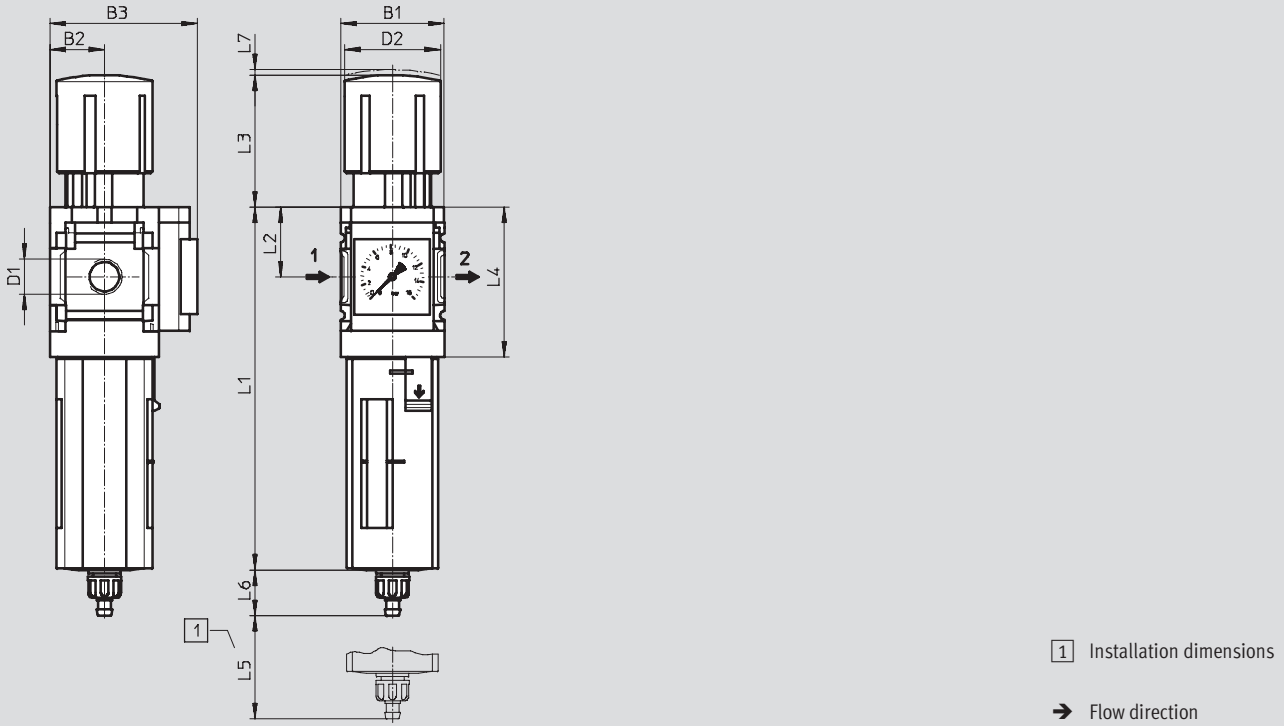
Dimensional Drawings



Dimensions¹⁾ – Standard

Download CAD Data → www.festo.com/us/cad

With pressure gauge, display unit [bar], rotary knob as standard, manual bowl drain



Type	B1	B2	B3	D1	D2	L1		L2	L3	L4	L5	L6		L7
						Bowl guard						Plastic	Metal	
						Plastic	Metal							
MS6-LFR-1/4	62	31	77	G1/4	51	189	194.4	39	86	84	68	15.8	19	5
MS6-LFR-3/8				G3/8										
MS6-LFR-1/2				G1/2										

1) Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Filter Regulators MS6-LFR – Metric Series

Dimensional Drawings



Dimensions¹⁾ – Pressure Gauge Alternatives Download CAD Data → www.festo.com/us/cad

<p>Cover plate VS</p> <p>→ Flow direction</p>	<p>Adapter plate A4 for EN pressure gauge 1/4, without pressure gauge</p> <p>→ Flow direction</p>
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Pressure sensor with display AD1 ... AD4 Technical data SDE1 → www.festo.com/catalog/sde1

<p>→ Flow direction</p>	<p>AD1 variants: SDE1-D10-G2-MS-L-P1-M8 with 3-pin plug M8x1, 1 switching output PNP</p> <p>AD2 variants: SDE1-D10-G2-MS-L-N1-M8 with 3-pin plug M8x1, 1 switching output NPN</p> <p>AD3 variants: SDE1-D10-G2-MS-L-PI-M12 with 4-pin plug M12x1, 1 switching output PNP and 4 ... 20 mA analog</p> <p>AD4 variants: SDE1-D10-G2-MS-L-NI-M12 with 4-pin plug M12x1, 1 switching output NPN and 4 ... 20 mA analog</p>
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Type	B2	B3	D1	D4	D6	L5	L6
MS6-LFR-1/4-...-VS	31	76	G1/4	-	-	-	-
MS6-LFR-3/8-...-VS			G3/8				
MS6-LFR-1/4-...-VS			G1/2				
MS6-LFR-1/4-...-A4	31	78.5	G1/4	G1/4	-	-	-
MS6-LFR-3/8-...-A4			G3/8				
MS6-LFR-1/2-...-A4			G1/2				
MS6-LFR-1/4-...-AD1/AD2	31	103	G1/4	-	M8x1	35.1	46.7
MS6-LFR-3/8-...-AD1/AD2			G3/8				
MS6-LFR-1/2-...-AD1/AD2			G1/2				
MS6-LFR-1/4-...-AD3/AD4	31	103	G1/4	-	M12x1	35.1	55.8
MS6-LFR-3/8-...-AD3/AD4			G3/8				
MS6-LFR-1/2-...-AD3/AD4			G1/2				

1) Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Filter Regulators MS6-LFR – Metric Series

Dimensional Drawings

Dimensions¹⁾ – Rotary Knob Download CAD Data → www.festo.com/us/cad

For installation into control panel

Standard

Standard, lockable AS

Long LD

Long, lockable LD-AS

1 Max. control panel thickness

Type	B4	B5	D2	D3 +1	L3	L8	L9
MS6-LFR-...	-	-	51	44	86	22	14
MS6-LFR-...-AS	67.7	42			95.5		
MS6-LFR-...-LD	-	-	51	-	86	-	-
MS6-LFR-...-LD-AS	67.7	42			95.5		

1) Dimensions are in millimeters, unless otherwise noted.

Dimensions¹⁾ – Bowl Drain Download CAD Data → www.festo.com/us/cad

Manual M

Barbed fitting for plastic tubing
PCN-4

Semiautomatic H

QS fitting for plastic tubing
PUN-6/PAN-6

Fully automatic V

Barbed fitting for plastic tubing
PCN-4

Type	L6
Plastic bowl guard	
MS6-LFR-...-M	15.8
Metal bowl	
MS6-LFR-...-M	19

Type	L6
Plastic bowl guard	
MS6-LFR-...-H	20.2
Metal bowl	
MS6-LFR-...-H	22.8

Type	L6
Plastic bowl guard	
MS6-LFR-...-V	18.5
Metal bowl	
MS6-LFR-...-V	22

Fully automatic, electrically actuated E1 ... E4 Technical data PWEA → www.festo.com/catalog/pwea

1 Variant E1
PWEA-AP-... with M12x1 plug,
5-pin for SIM-M12-5GD-...

2 Variant E2/E3/E4
PWEA-AC-... with cable conduit
fitting Pg9

3 Connection 360° rotatable for
plastic tubing PUN-H-12x2-...

Filter Regulators MS6-LFR – Metric Series

Ordering Data – Pre-configured Products



Ordering Data								
Pressure regulation range 0.3 ... 7 bar								
Bowl drain	Connection	Filtration grade 5 µm				Filtration grade 40 µm		
		Part No.	Type	LT	Part No.	Type	LT	
Plastic bowl guard								
Manual	G $\frac{1}{4}$	529196	MS6-LFR- $\frac{1}{4}$ -D6-CRM-AS	1D	529200	MS6-LFR- $\frac{1}{4}$ -D6-ERM-AS	1D	
	G $\frac{3}{8}$	529216	MS6-LFR- $\frac{3}{8}$ -D6-CRM-AS	1D	529220	MS6-LFR- $\frac{3}{8}$ -D6-ERM-AS	1D	
	G $\frac{1}{2}$	529176	MS6-LFR- $\frac{1}{2}$ -D6-CRM-AS	1D	529180	MS6-LFR- $\frac{1}{2}$ -D6-ERM-AS	1D	
Fully automatic	G $\frac{1}{4}$	529198	MS6-LFR- $\frac{1}{4}$ -D6-CRV-AS	1D	529202	MS6-LFR- $\frac{1}{4}$ -D6-ERV-AS	1D	
	G $\frac{3}{8}$	529218	MS6-LFR- $\frac{3}{8}$ -D6-CRV-AS	1D	529222	MS6-LFR- $\frac{3}{8}$ -D6-ERV-AS	1D	
	G $\frac{1}{2}$	529178	MS6-LFR- $\frac{1}{2}$ -D6-CRV-AS	1D	529182	MS6-LFR- $\frac{1}{2}$ -D6-ERV-AS	1D	

Ordering Data								
Pressure regulation range 0.5 ... 12 bar								
Bowl drain	Connection	Filtration grade 5 µm				Filtration grade 40 µm		
		Part No.	Type	LT	Part No.	Type	LT	
Plastic bowl guard								
Manual	G $\frac{1}{4}$	529204	MS6-LFR- $\frac{1}{4}$ -D7-CRM-AS	1D	529208	MS6-LFR- $\frac{1}{4}$ -D7-ERM-AS	1D	
	G $\frac{3}{8}$	529224	MS6-LFR- $\frac{3}{8}$ -D7-CRM-AS	1D	529228	MS6-LFR- $\frac{3}{8}$ -D7-ERM-AS	1D	
	G $\frac{1}{2}$	529184	MS6-LFR- $\frac{1}{2}$ -D7-CRM-AS	1D	529188	MS6-LFR- $\frac{1}{2}$ -D7-ERM-AS	1D	
Fully automatic	G $\frac{1}{4}$	529206	MS6-LFR- $\frac{1}{4}$ -D7-CRV-AS	1D	529210	MS6-LFR- $\frac{1}{4}$ -D7-ERV-AS	1D	
	G $\frac{3}{8}$	529226	MS6-LFR- $\frac{3}{8}$ -D7-CRV-AS	1D	529230	MS6-LFR- $\frac{3}{8}$ -D7-ERV-AS	1D	
	G $\frac{1}{2}$	529186	MS6-LFR- $\frac{1}{2}$ -D7-CRV-AS	1D	529190	MS6-LFR- $\frac{1}{2}$ -D7-ERV-AS	1D	
Metal bowl								
Manual	G $\frac{1}{4}$	530342	MS6-LFR- $\frac{1}{4}$ -D7-CUM-AS	Q	529212	MS6-LFR- $\frac{1}{4}$ -D7-EUM-AS	Q	
	G $\frac{3}{8}$	530346	MS6-LFR- $\frac{3}{8}$ -D7-CUM-AS	Q	529232	MS6-LFR- $\frac{3}{8}$ -D7-EUM-AS	Q	
	G $\frac{1}{2}$	530338	MS6-LFR- $\frac{1}{2}$ -D7-CUM-AS	Q	529192	MS6-LFR- $\frac{1}{2}$ -D7-EUM-AS	Q	
Fully automatic	G $\frac{1}{4}$	530344	MS6-LFR- $\frac{1}{4}$ -D7-CUV-AS	Q	529214	MS6-LFR- $\frac{1}{4}$ -D7-EUV-AS	Q	
	G $\frac{3}{8}$	530348	MS6-LFR- $\frac{3}{8}$ -D7-CUV-AS	Q	529234	MS6-LFR- $\frac{3}{8}$ -D7-EUV-AS	Q	
	G $\frac{1}{2}$	530340	MS6-LFR- $\frac{1}{2}$ -D7-CUV-AS	Q	529194	MS6-LFR- $\frac{1}{2}$ -D7-EUV-AS	Q	

LT = Lead time 1D typically ships same day/next day 1W typically ships within 1 week Q request a quote for lead time

Filter Regulators MS6-LFR – Metric Series



Ordering Data – Configurable Products

M Mandatory Data →

Part No.	Series	Size	Function	Connection size	Pressure regulation range	Filtration grade	Bowl
526490	MS	6	LFR	1/4, 3/8, 1/2, AGB, AGC, AGD, AGE	D5 D6 D7 D8	E C	R U
Order example							
526490	MS	6	- LFR	- AGB	- D6	- C	- R

Ordering Table

Grid dimension	[mm]	62	Conditions	Code	Enter code
M Part No.	526490				
Series	Standard			MS	MS
Size	6			6	6
Function	Filter regulator			-LFR	-LFR
Connection size	Body thread G1/4			-1/4	
	Body thread G3/8			-3/8	
	Body thread G1/2			-1/2	
	Port plate G1/4 (dimensions → 585)			-AGB	
	Port plate G3/8 (dimensions → 585)			-AGC	
	Port plate G1/2 (dimensions → 585)			-AGD	
	Port plate G3/4 (dimensions → 585)			-AGE	
Pressure regulation range	0.3 ... 4 bar			-D5	
	0.3 ... 7 bar			-D6	
	0.5 ... 12 bar			-D7	
	0.5 ... 16 bar			-D8	
Filtration grade	40 µm			-E	
	5 µm			-C	
Bowl	Plastic bowl with plastic bowl guard			-R	
	Metal bowl			-U	

Transfer order code

526490	MS	6	- LFR				
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Filter Regulators MS6-LFR – Metric Series



Ordering Data – Configurable Products

Options							
Bowl drain	Pressure gauge alternatives	Alternative pressure gauge scale	Secondary venting	Rotary knob	Security	Type of mounting	Reverse flow direction
M H V E1 E2 E3 E4	VS A4 AD1 AD2 AD3 AD4	PSI MPA	OS	LD	AS	WR WP WPM WB	Z
- M	- A4	-	-	- LD	- AS	- WPM	- Z

Ordering Table		Grid dimension [mm]	62	Conditions	Code	Enter code	
M	Bowl drain	Manual			-M		
		Semiautomatic (P1 max. 12 bar)		1	-H		
		Fully automatic (P1 max. 12 bar)		1	-V		
		External, fully-automatic, electrical	24 V DC, M12		2	-E1	
			110 V AC, terminals		2	-E2	
			230 V AC, terminals		2	-E3	
			24 V DC, terminals		2	-E4	
O	Pressure gauge alternatives	Cover plate			-VS		
		Adapter plate for EN pressure gauge 1/4, without pressure gauge			-A4		
		Pressure sensor with display, M8 plug, 1 switching output PNP, 3-pin		3	-AD1		
		Pressure sensor with display, M8 plug, 1 switching output NPN, 3-pin		3	-AD2		
		Pressure sensor with display, M12 plug, 1 switching output PNP, 4-pin, analog output 4 ... 20 mA		3	-AD3		
		Pressure sensor with display, M12 plug, 1 switching output NPN, 4-pin, analog output 4 ... 20 mA		3	-AD4		
	Alternative pressure gauge scale	psi		4	-PSI		
		MPa		4	-MPA		
	Secondary venting	Without secondary venting			-OS		
	Rotary knob	Long rotary knob			-LD		
Security	Lockable rotary knob			-AS			
Type of mounting	Mounting bracket with knurled nut for regulator head (dimensions → 583)		5	-WR			
	Mounting bracket (dimensions → 586)		6	-WP			
	Mounting bracket (dimensions → 586)		6	-WPM			
	Mounting bracket (dimensions → 582)			-WB			
Reverse flow direction	Flow direction from right to left			-Z			

- 1 H, V Not with pressure regulation range D8
- 2 E1 ... E4 Only with metal bowl U
- 3 AD1 ... AD4 Measuring range max. 10 bar.
Not with pressure regulation range D8

- 4 PSI, MPA Not with pressure gauge alternatives VS, A4, AD1, AD2, AD3, AD4
- 5 WR Not with long rotary knob LD
- 6 WP, WPM Only with port plate AGB, AGC, AGD or AGE

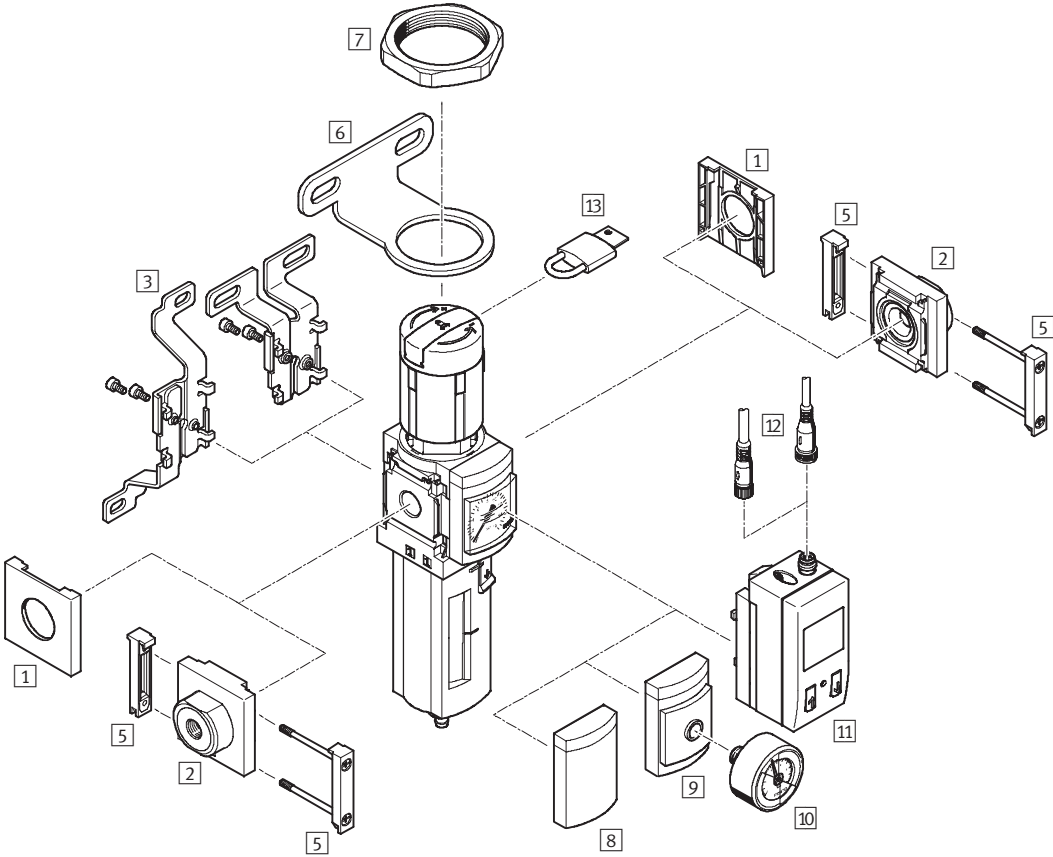
Transfer order code

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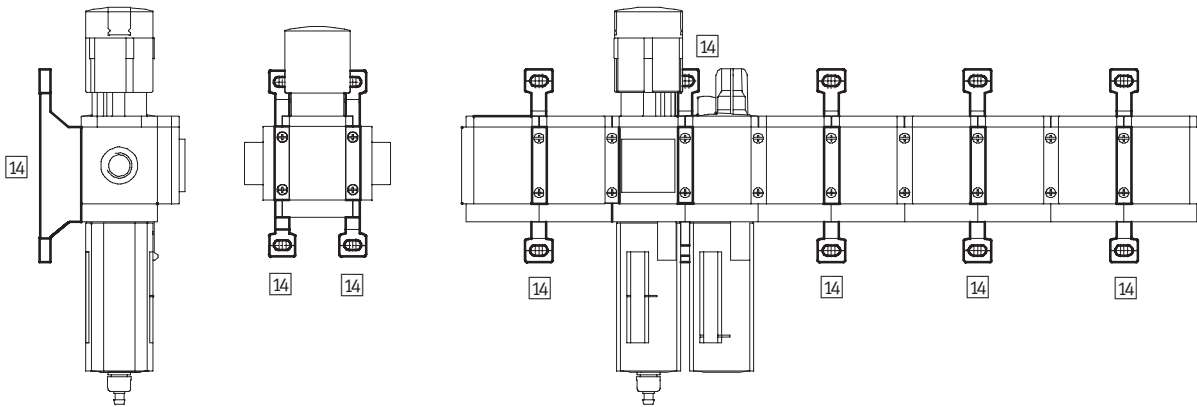
Filter Regulators MS6-LFR – Metric Series

Accessories Overview

Mounting Attachments and Accessories



Single unit and combination unit mounting brackets.



Filter Regulators MS6-LFR – Metric Series

Accessories Overview

FESTO

Mounting Attachments and Accessories						
		Single unit		Combination unit		→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap MS6-END	■	-	■	-	584
2	Port plate MS6-AG...	-	■	-	■	585
3	Mounting bracket MS6-WB	■	■	-	-	582
5	Body connector MS6-MV	-	■	■	■	585
6	Regulator wall bracket MS6-WR	■	■	-	-	583
7	Hex nut MS6-WRS	■	■	■	■	583
8	Cover plate VS	■	■	■	■	578
9	Adapter for EN pressure gauge 1/4 A4	■	■	■	■	578
10	Pressure gauge MA	■	■	■	■	589
11	Pressure sensor SDE1-...-MS AD1 ... AD4	■	■	■	■	578
12	Plug socket with cable SIM-M8-3.../SIM-M12-4...	■	■	■	■	589
13	Padlock LRVS-D	■	■	■	■	589
14	Mounting bracket MS6-WP/WPB/WPM	-	■	■	■	586

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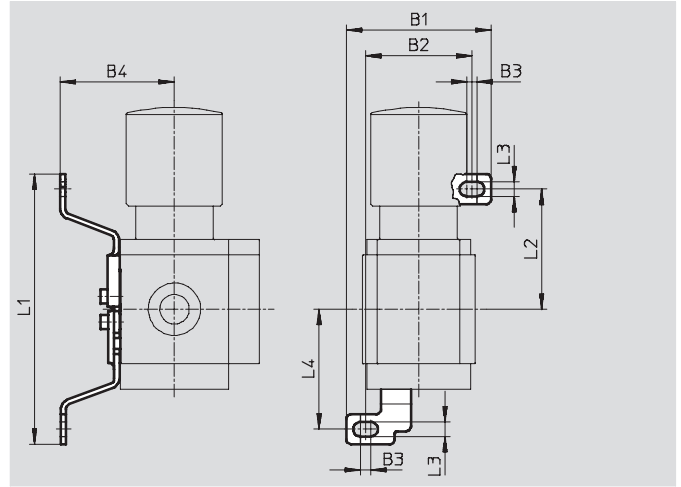


Accessories

3 Mounting bracket MS6-WB

- For wall mounting

Material:
Steel



Dimensions and Ordering Data										
B1	B2	B3	B4	L1	L2	L3	L4	Weight [g]	Part No.	Type
79.4	61.9	4.5	55	157.6	71	6.6	71	121	532196	MS6-WB

Filter Regulators MS6-LFR – Metric Series

Accessories

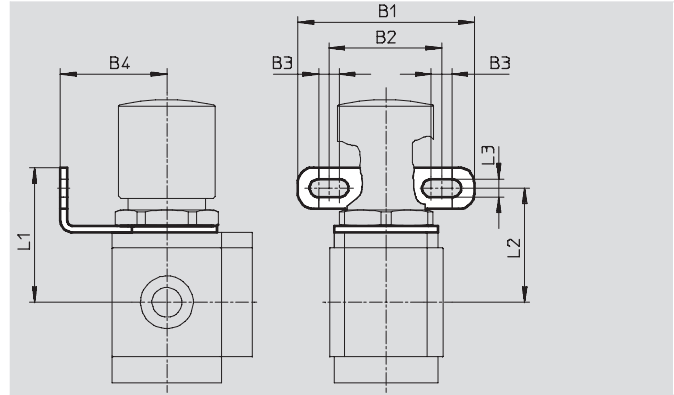
6 Mounting bracket MS6-WR

- For wall mounting a filter regulator and pressure regulator

Material:
Steel

Note

The hex nut for attaching components to this bracket must be ordered separately.

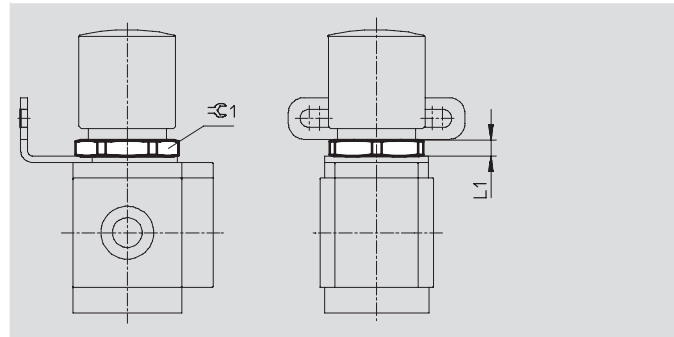


Dimensions and Ordering Data								Weight	Part No.	Type
B1	B2	B3	B4	L1	L2	L3	[g]			
70	42	8.2	40	67	57	7.1	90	526075	MS6-WR	

7 Hex nut MS6-WRS

- For front panel mounting
- For attaching components to the mounting bracket MS...-WR

Material:
Aluminum



Dimensions and Ordering Data				Weight	Part No.	Type
L1	±0.1	[g]				
7	55	20.9	532188	MS6-WRS		

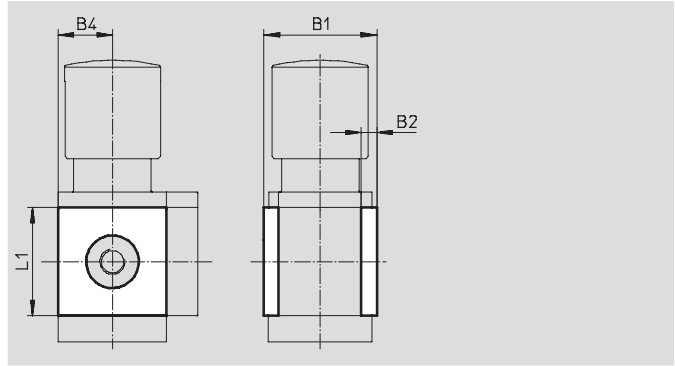
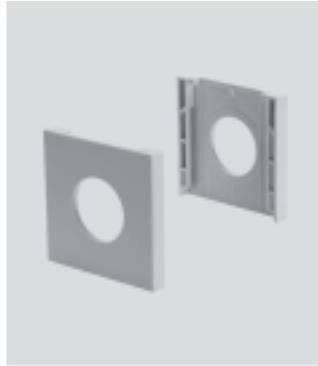
Filter Regulators MS6-LFR – Metric Series

Accessories

1 Cover cap MS6-END

- Can be used to cover the body sides of the first and last module if port plates are not used.

Material:
Reinforced polyamide
Free of copper and PTFE

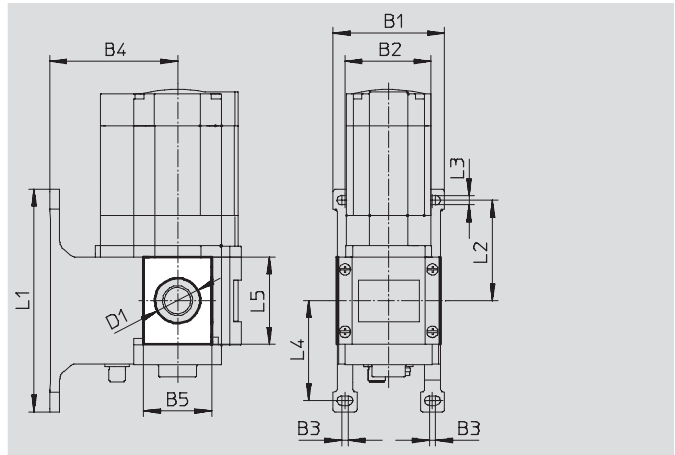


Dimensions and Ordering Data						
B1	B2	B4	L1	Part No.	Type	
67	8	31	62	538780	MS6-END	

Mounting plate MS6-AEND

- In combination with mounting bracket MS-WP or MS-WPB for mounting an individual unit with body thread on a wall

Material:
Reinforced polyamide
Conforms to RoHS
Free of copper and PTFE



Dimensions and Ordering Data															
B1	B2	B3	B4		B5	D1 ∅	L1	L2	L3	L4	L5	CRC ¹⁾	Weight [g]	Part No.	Type
			WP	WPB											
79	62	4.5	54	90.5	48.4	32	158	71	6.6	71	62	2	17	535408	MS6-AEND

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

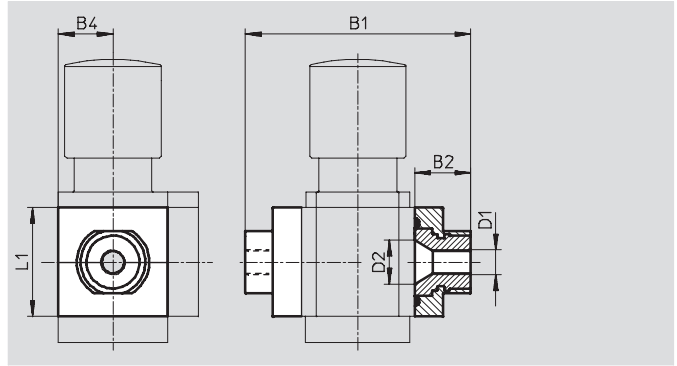
Filter Regulators MS6-LFR – Metric Series

Accessories

2 Port plate MS6-AG...

- Adapter for pneumatic connection
- MS6-AGE for implementing threaded connection G $\frac{3}{4}$

Material:
Aluminum



Dimensions and Ordering Data								
B1	B2	B4	D1	D2	L1	Weight [g]	Part No.	Type
115	26.5	31	G $\frac{1}{4}$	24	62	300	526080	MS6-AGB
			G $\frac{3}{8}$				526081	MS6-AGC
			G $\frac{1}{2}$				526082	MS6-AGD
			G $\frac{3}{4}$				526083	MS6-AGE

5 Body connector MS...-MV

- For connecting modules

Material:
Stainless steel/polyacetate



Ordering Data		
Weight [g]	Part No.	Type
54	532799	MS6-MV

Filter Regulators MS6-LFR – Metric Series

Accessories

14 Mounting Bracket MS6-WP...

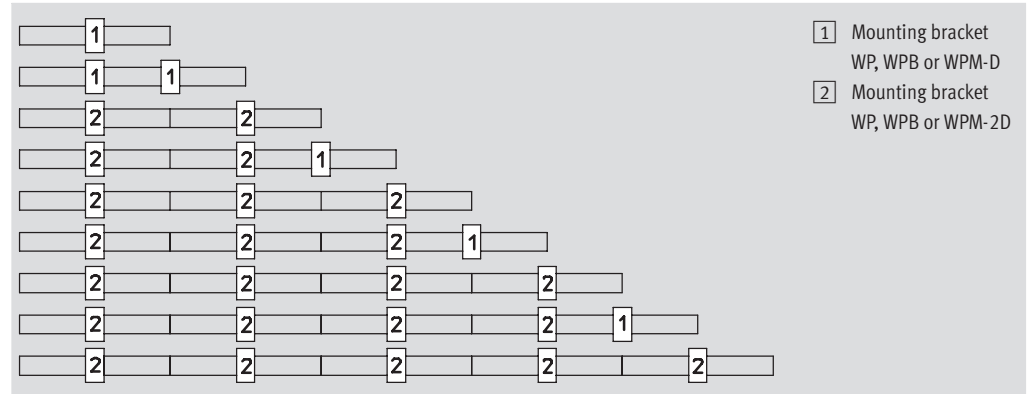
Suggested placement of wall mounting brackets when mounting air preparation combinations

1 unit: 62 mm with WP, WPB
69 mm with WPM-D

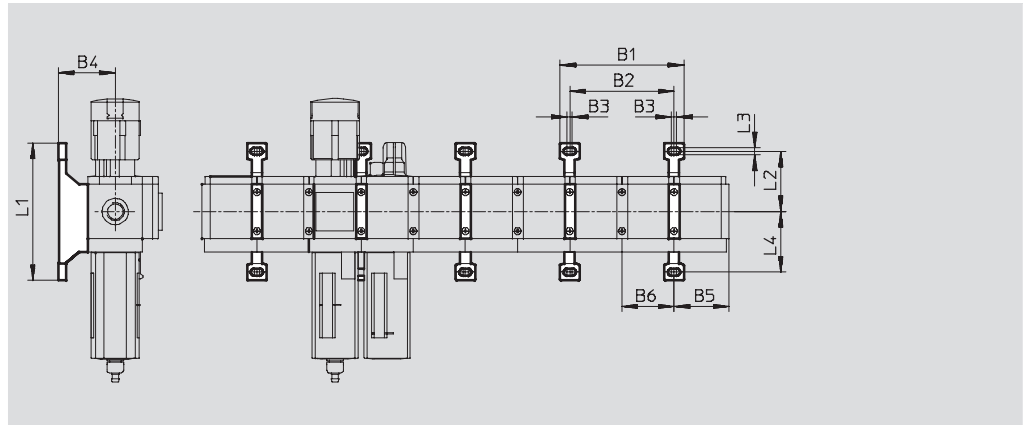
2 units: 124 mm with WP, WPB
138 mm with WPM-2D

Number of units

1 2 3 4 5 6 7 8 9 10



Mounting dimensions



Type	B1	B2	B3	B4	B5	B6	L1	L2	L3	L4
MS6-WP	141	124	4.5	54	64.5	62	158	71	6.6	71
MS6-WPB				90.5						41.3
MS6-WPM-...D	168	138	17.5	54	65.5	69	98.6	41.3		41.3

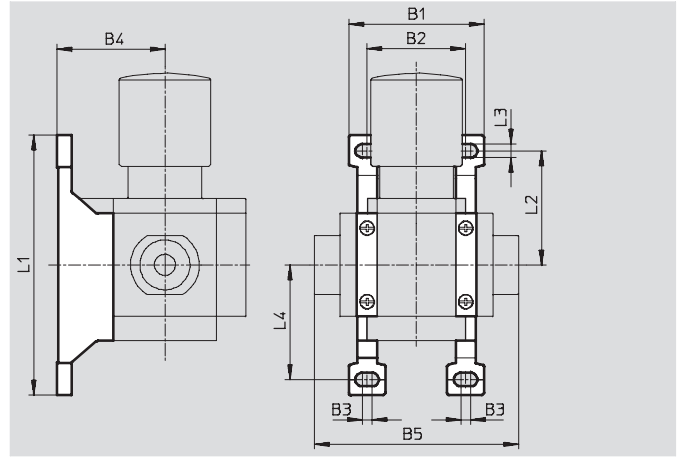
Filter Regulators MS6-LFR – Metric Series

Accessories

Mounting bracket MS6-WP

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with body thread on a wall
- For pressure regulator LRB with angled outlet block B... at rear

Material:
Die-cast aluminum

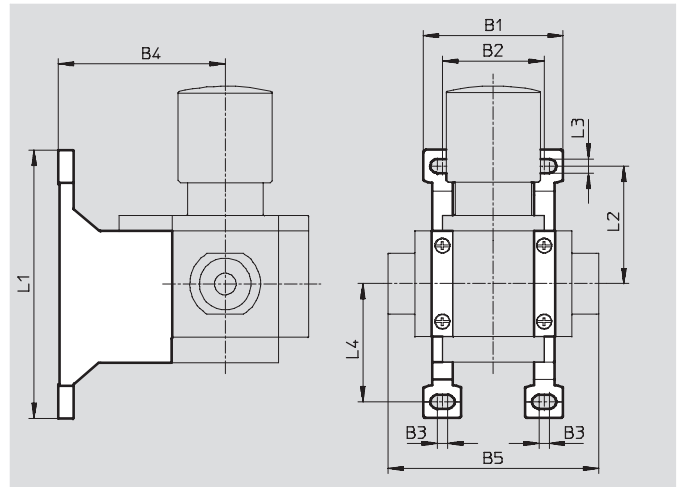


Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [g]	Part No.	Type
79	62	4.5	54	115	158	71	6.6	71	76	532195	MS6-WP

Mounting bracket MS6-WPB

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with direct thread on a wall
- Provides large wall gap for pressure regulator

Material:
Die-cast aluminum



Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [g]	Part No.	Type
79	62	4.5	90.5	115	158	71	6.6	71	115	526074	MS6-WPB

Filter Regulators MS6-LFR – Metric Series

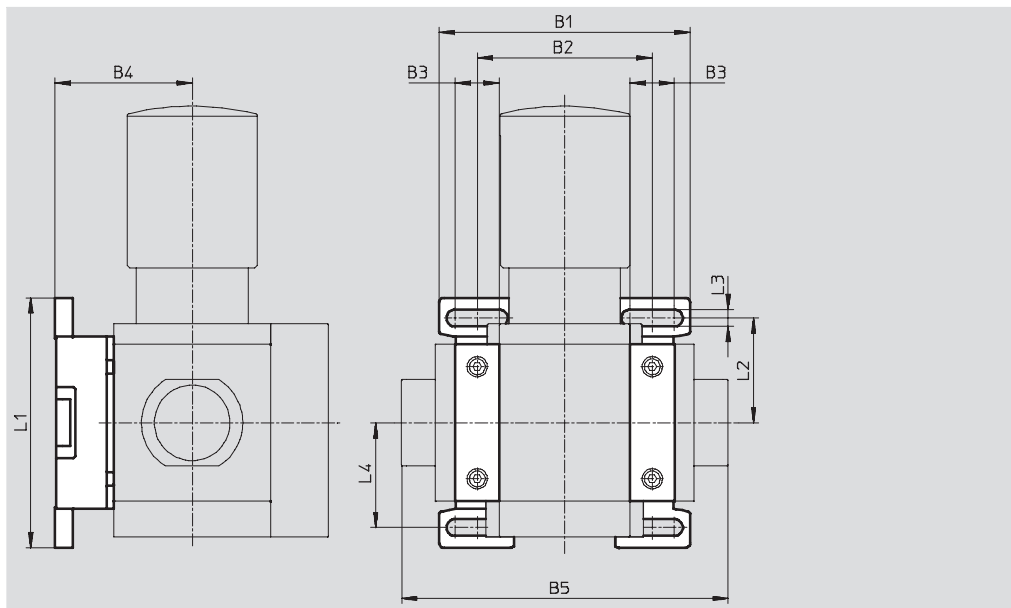
Accessories

Mounting bracket MS6-WPM

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- Speedy attachment and detachment
- For installation of modules with regulating knob pointing downwards

The distance piece D or 2D (designated in the type code) is included in the scope of delivery and ensures the correct clearance

Material:
Die-cast aluminum



Dimensions and Ordering Data												
B1	B2	B3	B4	B5	L1	L2	L3	L4	Clearance	Weight [g]	Part No.	Type
99	69	17.5	54	129	98.6	41.3	6.6	41.3	62	144	526073	MS6-WPM-D
168	138			198					124	154	532186	MS6-WPM-2D

Body connector MS6-MVM

- For installation of modules with regulating knob pointing downwards

Material:
Die-cast aluminum







Ordering Data			
Size	Part No.	Type	
MS6	532801	MS6-MVM	


Filter Regulators MS6-LFR – Metric Series


Accessories



11 Ordering Data – Plug Socket with Cable SIM-M8			Technical data → www.festo.com/catalog/sim-m8	
	Electrical connection	Cable length [m]	Part No.	Type
				M8x1, 3-pin
	5	159421	SIM-M8-3GD-5-PU	
	10	192964	SIM-M8-3GD-10-PU	
	M8x1, 3-pin	2.5	159422	SIM-M8-3WD-2,5-PU
		5	159423	SIM-M8-3WD-5-PU
		10	192965	SIM-M8-3WD-10-PU

11 Ordering Data – Plug Socket with Cable SIM-M12			Technical data → www.festo.com/catalog/sim-m12	
	Electrical connection	Cable length [m]	Part No.	Type
				M12x1, 4-pin
	M12x1, 4-pin	5	164258	SIM-M12-4WD-5-PU

10 Ordering Data – Pressure Gauge MA				Technical data → www.festo.com/catalog/ma		
	Nominal size	Pneumatic connection	Indicating range		Part No.	Type
			[bar]	[psi]		
	Pressure gauge MA, DIN EN 837-1					
	40	G $\frac{1}{4}$	0 ... 16	0 ... 232	183901	MA-40-16-G $\frac{1}{4}$ -EN
	Pressure gauge MA, DIN EN 837-1, with red-green range					
	50	R $\frac{1}{4}$	0 ... 16	–	525729	MA-50-16-R $\frac{1}{4}$ -E-RG

13 Ordering Data – Padlock LRVS-D			
	Description	Weight [g]	Part No. Type
	for regulators, filter/regulators and manual on-off valves	120	193786 LRVS-D

Filter Regulators MS6-LFR – Metric Series

FESTO

Replacement Parts

Ordering Data – Wearing Parts Kits			
Size	Description	Part No.	Type
MS6	Snap-ring, membrane, bellows, O-rings, screws, stem	673648	MS6-LFR



Ordering Data – Filter Cartridges			
Size	Filtration grade [µm]	Part No.	Type
MS6	5	534499	MS6-LFP-C
	40	534500	MS6-LFP-E

- For spare parts go to: www.festo.com/en/spare_parts_service

Filter Regulators MS6N-LFR – Inch Series



A filter regulator combines a filter and a pressure regulator into a single unit. The sintered filter with water separator removes contamination, pipe sinter, rust and condensate from the compressed air. The pressure setting can be adjusted with the regulator.

- Pneumatic connection: 1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT
- Filtration grade: 5 µm, 40 µm
- Supply pressure
 - for manual drain: 12 ... 294 psi
 - for semiautomatic drain: 22 ... 176 psi
 - for fully automatic drain: 29 ... 176 psi
 - for fully automatic drain, electrically actuated: 12 ... 235 psi
- Controlled pressure range: 4.4 ... 235 psi
- Flow rate: 70.6 ... 254.2 scfm

Product Range Overview																								
Type	Pneumatic connections		Pressure regulation range [psi]				Filtration grade [µm]		Bowl guard	Bowl drain								Pressure indicator				Pressure adjustment		Reverse flow
MS6N		AG...	D5	D6	D7	D8	C	E	R	U	M	H	V	E1	E2	E3	E4	VS	AG	A4	AD...	AS	LD	Z
LFR	1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT	1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Features

- Good control characteristics with low hysteresis and primary pressure compensation
- High flow rates
- Directly actuated diaphragm regulator
- Four pressure regulation ranges
- Modular, in-line or panel mounting
- Lockable rotary knob
- Available with or without secondary venting
- Reverse flow option for exhausting from output 2 to output 1
- Optional pressure sensor with display and electric output

Contents

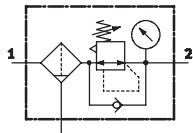
Technical Data	➔ 592
Dimensional Drawings	➔ 596
Ordering Data	➔ 599
Accessories	➔ 602
Replacement Parts	➔ 612

➔ www.festo.com/catalog/ms6n-lfr

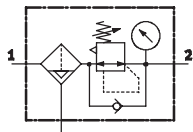
Filter Regulators MS6N-LFR – Inch Series

Technical Data

ISO Symbol



Manual bowl drain



Semi or fully automatic bowl drain



General Technical Data		1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection 1, 2		1/4 NPT	3/8 NPT	1/2 NPT
Filtration grade	5 μm	5 (air purity class at the output 3.7.– to DIN ISO 8573-1)		
	40 μm	40 (air purity class at the output 5.7.– to DIN ISO 8573-1)		
Supply pressure	M [psi]	12 ... 294 (manual drain)		
	H [psi]	22 ... 176 (semiautomatic drain)		
	V [psi]	29 ... 176 (fully automatic drain)		
	E... [psi]	12 ... 235 (fully automatic drain, electrically actuated)		
Pressure regulation range	D5 [psi]	4.4 ... 59		
	D6 [psi]	4.4 ... 103		
	D7 [psi]	7.4 ... 176 (7.4 ... 147 with variant pressure sensor AD...)		
	D8 [psi]	7.4 ... 235		
Max. hysteresis	[psi]	3.7		

Standard Nominal Flow Rate q _N ¹⁾ [scfm]				
Pneumatic connection 1, 2		1/4 NPT	3/8 NPT	1/2 NPT
D5 – Pressure regulation range 4.4 ... 59 psi				
Filtration grade	5 μm	70.6 ²⁾	194.2 ²⁾	243.6 ²⁾
	40 μm	77.7 ²⁾	211.8 ²⁾	254.2 ²⁾
D6 – Pressure regulation range 4.4 ... 103 psi				
Filtration grade	5 μm	95.3	176.5	197.7
	40 μm	98.8	201.2	218.9
D7 – Pressure regulation range 7.4 ... 176 psi				
Filtration grade	5 μm	77.7	123.6	141.2
	40 μm	88.3	141.2	158.9
D8 – Pressure regulation range 7.4 ... 235 psi				
Filtration grade	5 μm	70.6	116.5	134.1
	40 μm	81.2	123.6	141.2

1) Measured at p₁ = 147 psi and p₂ = 88 psi, Δp = 15 psi
 2) Measured at p₁ = 147 psi and p₂ = 44 psi, Δp = 15 psi

Filter Regulators MS6N-LFR – Inch Series

Technical Data



Operating and Environmental Conditions				
Bowl drain	Manual M	Semiautomatic H	Fully automatic V	Fully automatic, electrically actuated E...
Operating medium without pressure sensor AD...	Compressed air			
Operating medium with pressure sensor AD...	Filtered compressed air, lubricated or unlubricated, filtration grade 40 µm			
Max. condensate volume [in ³]	2.32			
Bowl guard	Plastic bowl guard			
	Metal bowl			
Ambient temperature without pressure sensor AD... [°F]	14 ... 140	41 ... 140	41 ... 140	34 ... 140
Ambient temperature with pressure sensor AD... [°F]	32 ... 122	41 ... 122	41 ... 122	34 ... 122
Medium temperature without pressure sensor AD... [°F]	14 ... 140	41 ... 140	41 ... 140	34 ... 140
Medium temperature with pressure sensor AD... [°F]	32 ... 122	41 ... 122	41 ... 122	34 ... 122
Storage temperature [°F]	14 ... 140	14 ... 140	14 ... 140	34 ... 140
Assembly position	Vertical ±5°			
Corrosion resistance CRC ¹⁾	2			

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [lb]	
With plastic bowl guard	1.75
With metal bowl	2.17
With metal bowl and fully automatic, electrically actuated bowl drain	3.60

- Wearing parts kits → 612
- Filter cartridges → 612
- For spare parts go to: www.festo.com/en/spare_parts_service

Filter Regulators MS6N-LFR – Inch Series

Technical Data

Standard Flow Rate q_n as a Function of Output Pressure p_2

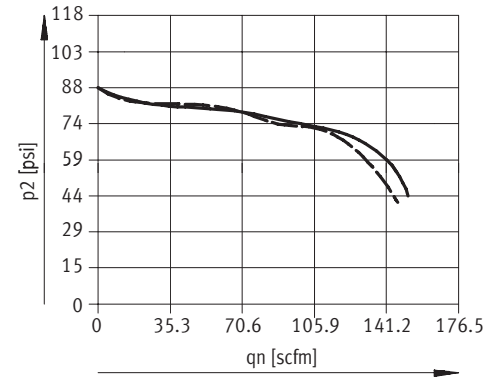
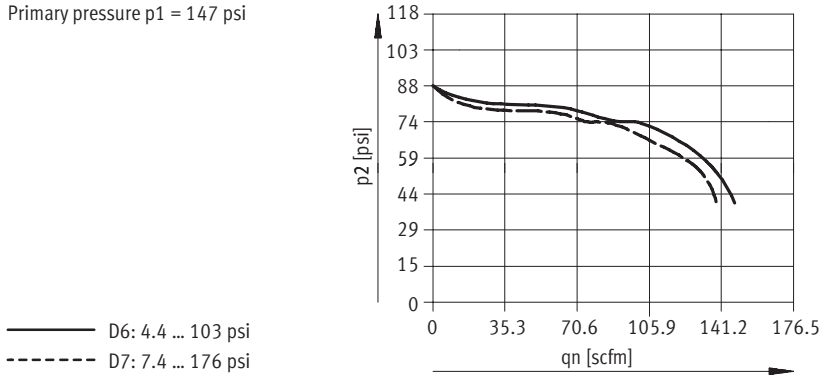
Pressure regulation range D6 or D7

Filtration grade 5 μm

Filtration grade 40 μm

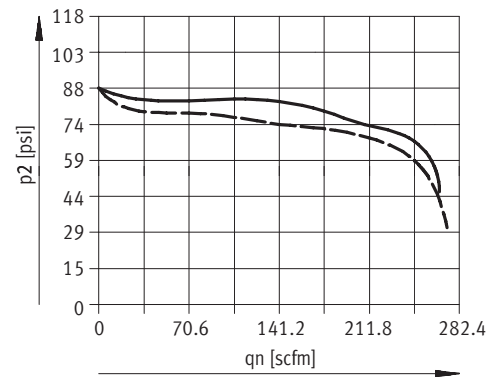
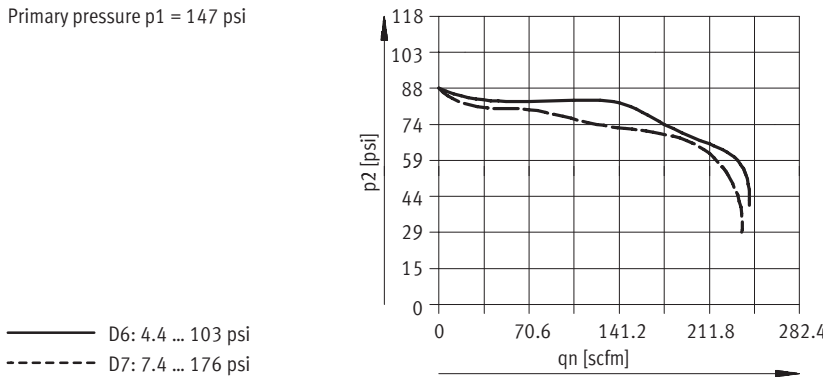
MS6N-LFR-1/4

Primary pressure $p_1 = 147$ psi



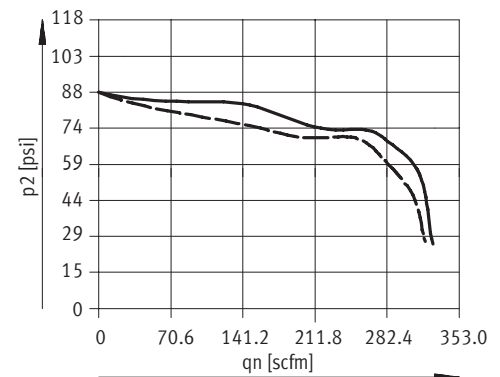
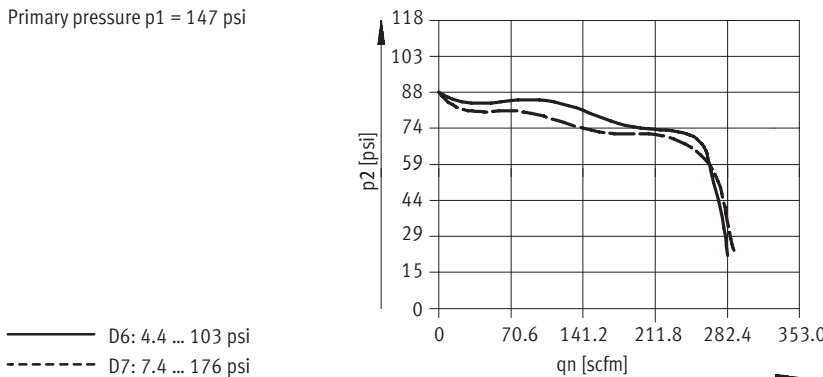
MS6N-LFR-3/8

Primary pressure $p_1 = 147$ psi



MS6N-LFR-1/2

Primary pressure $p_1 = 147$ psi



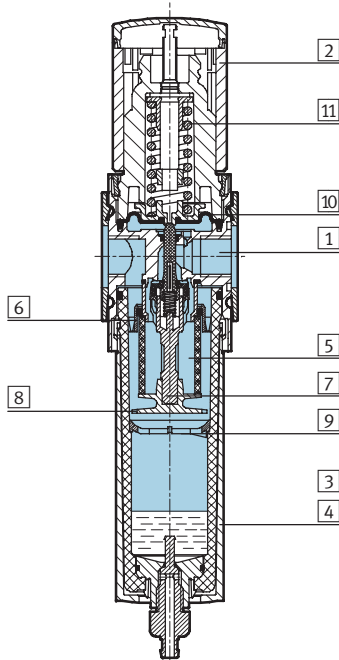
Filter Regulators MS6N-LFR – Inch Series

Technical Data



Materials

Sectional view



Filter regulator		
1	Body	Die-cast aluminum
2	Regulating knob	Polyamide/polyacetate
3	Plastic bowl guard	Polycarbonate/polyamide
4	Metal bowl	Aluminum
	Viewing window	Polyamide
5	Filter element	Polyethylene
6	Spin disk	Polyacetate
7	Filter holder	Polyacetate
8	Separating plate	Polyacetate
9	Stabilizing disk	Polyacetate
10	Diaphragm	Nitrile rubber
11	Spring	Steel
-	Seals	Nitrile rubber
	Note on materials	Free of copper and PTFE only with cover plate VS

Filter Regulators MS6N-LFR – Inch Series

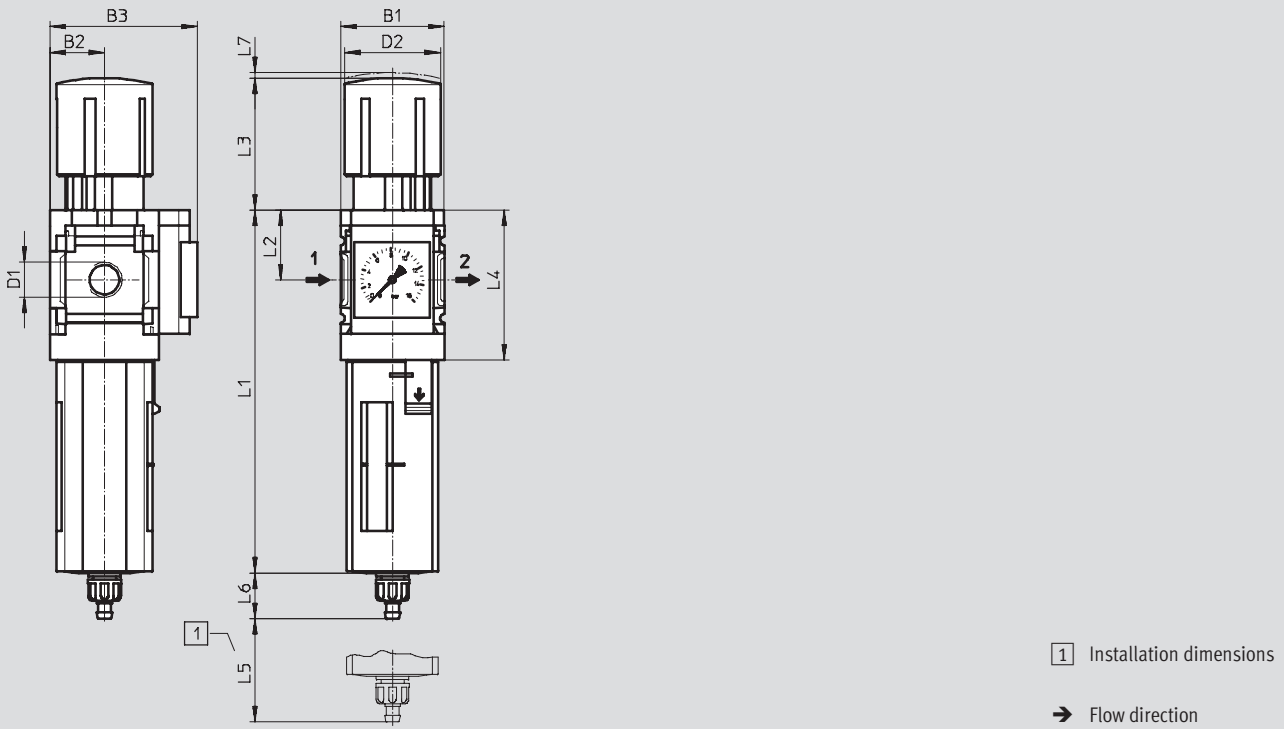
Dimensional Drawings



Dimensions¹⁾ – Standard

Download CAD Data → www.festo.com/us/cad

With pressure gauge, display unit [psi], rotary knob as standard, manual bowl drain



Type	B1	B2	B3	D1	D2	L1		L2	L3	L4	L5	L6		L7
						Bowl guard						Plastic	Metal	
						Plastic	Metal							
MS6N-LFR-1/4	2.44	1.22	3.03	1/4 NPT	2.01	7.44	7.65	1.54	3.39	3.31	2.68	0.62	0.75	0.20
MS6N-LFR-3/8				3/8 NPT										
MS6N-LFR-1/2				1/2 NPT										

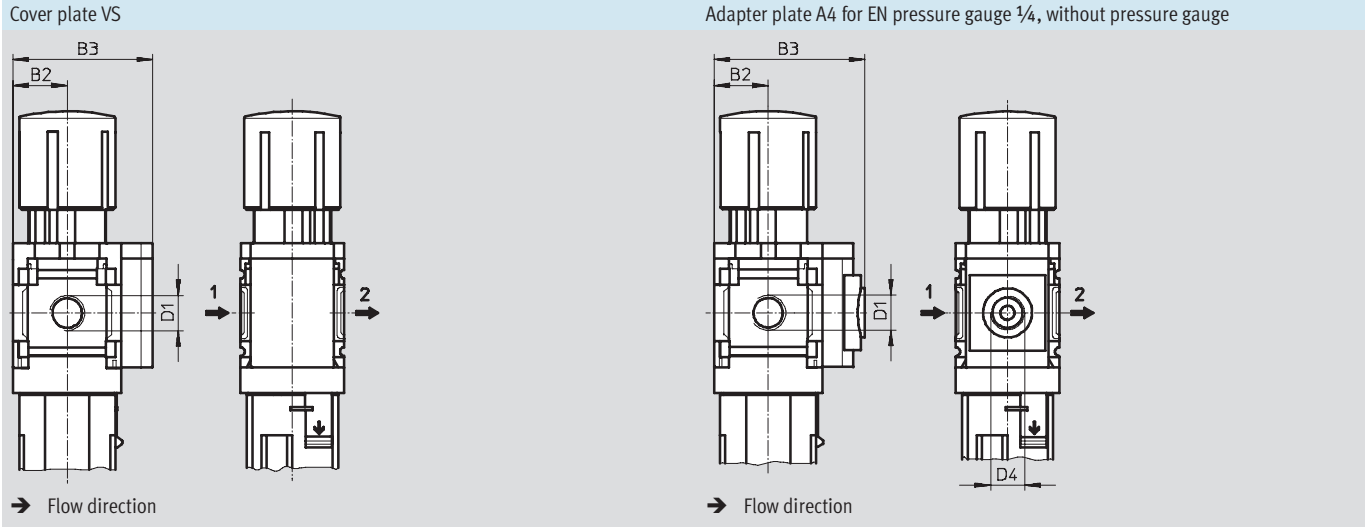
1) Dimensions are in inches, unless otherwise noted.

Filter Regulators MS6N-LFR – Inch Series

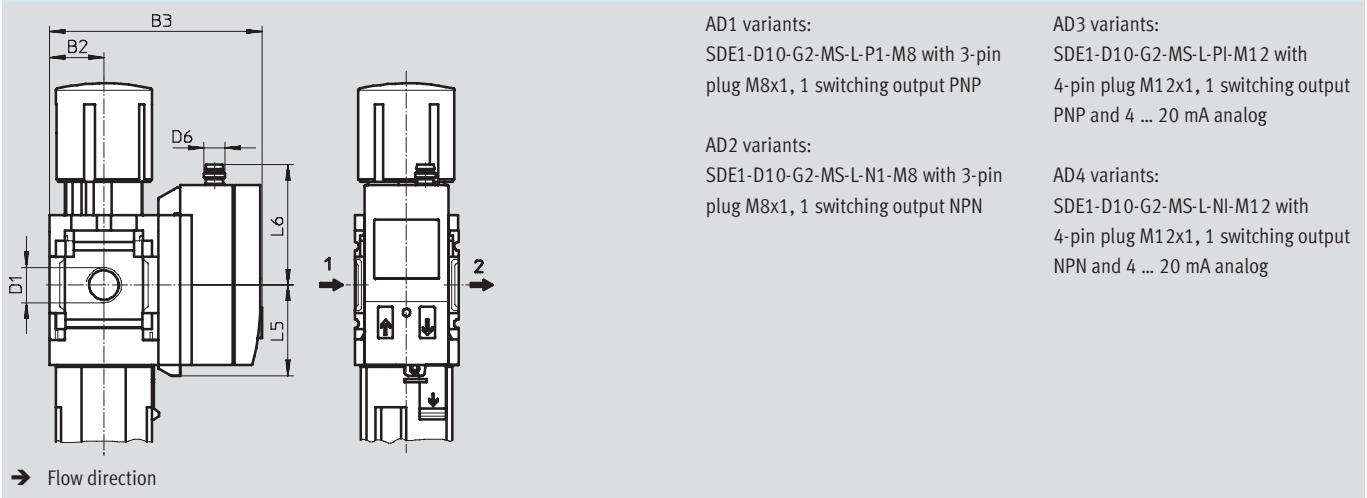
Dimensional Drawings



Dimensions¹⁾ – Pressure Gauge Alternatives Download CAD Data → www.festo.com/us/cad



Pressure sensor with display AD1 ... AD4 Technical data SDE1 → www.festo.com/catalog/sde1



Type	B2	B3	D1	D4	D6	L5	L6
MS6N-LFR-1/4-...-VS	1.22	2.99	1/4 NPT	-	-	-	-
MS6N-LFR-3/8-...-VS			3/8 NPT				
MS6N-LFR-1/4-...-VS			1/2 NPT				
MS6N-LFR-1/4-...-A4	1.22	3.09	1/4 NPT	1/4 NPT	-	-	-
MS6N-LFR-3/8-...-A4			3/8 NPT				
MS6N-LFR-1/2-...-A4			1/2 NPT				
MS6N-LFR-1/4-...-AD1/AD2	1.22	4.06	1/4 NPT	-	M8x1	1.38	1.84
MS6N-LFR-3/8-...-AD1/AD2			3/8 NPT				
MS6N-LFR-1/2-...-AD1/AD2			1/2 NPT				
MS6N-LFR-1/4-...-AD3/AD4	1.22	4.06	1/4 NPT	-	M12x1	1.38	2.20
MS6N-LFR-3/8-...-AD3/AD4			3/8 NPT				
MS6N-LFR-1/2-...-AD3/AD4			1/2 NPT				

1) Dimensions are in inches, unless otherwise noted.

Filter Regulators MS6N-LFR – Inch Series

Dimensional Drawings

Dimensions¹⁾ – Rotary Knob

Download CAD Data → www.festo.com/us/cad

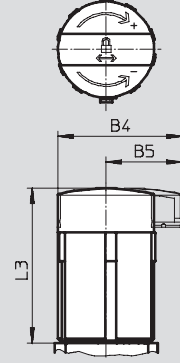
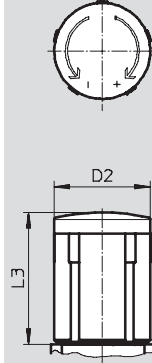
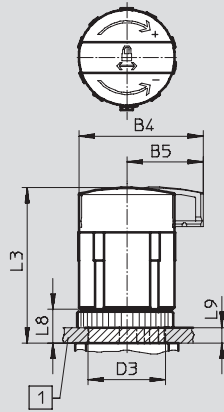
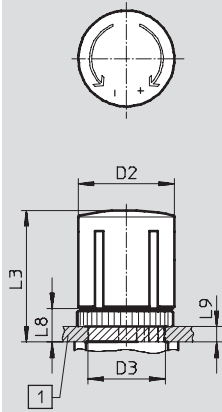
For installation into control panel

Standard

Standard, lockable AS

Long LD

Long, lockable LD-AS



1 Max. control panel thickness

Type	B4	B5	D2	D3 +0.04	L3	L8	L9
MS6N-LFR-...	-	-	2.01	1.73	3.39	0.87	0.55
MS6N-LFR-...-AS	2.67	1.65			3.76		
MS6N-LFR-...-LD	-	-	2.01	-	3.39	-	-
MS6N-LFR-...-LD-AS	2.67	1.65			3.76		

1) Dimensions are in inches, unless otherwise noted.

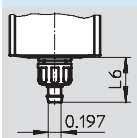
Dimensions¹⁾ – Bowl Drain

Download CAD Data → www.festo.com/us/cad

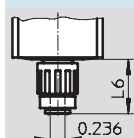
Manual M

Semiautomatic H

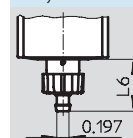
Fully automatic V



Barbed fitting for plastic tubing
PCN-4



QS fitting for plastic tubing
PUN-6/PAN-6



Barbed fitting for plastic tubing
PCN-4

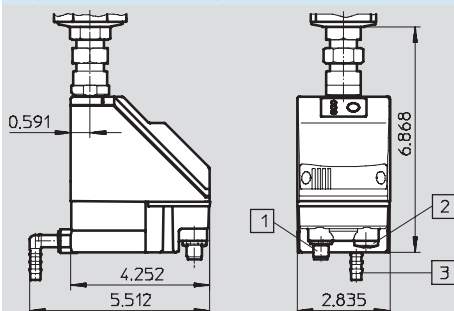
Type	L6
Plastic bowl guard	
MS6N-LFR-...-M	0.62
Metal bowl	
MS6N-LFR-...-M	0.75

Type	L6
Plastic bowl guard	
MS6N-LFR-...-H	0.80
Metal bowl	
MS6N-LFR-...-H	0.90

Type	L6
Plastic bowl guard	
MS6N-LFR-...-V	0.73
Metal bowl	
MS6N-LFR-...-V	0.87

Fully automatic, electrically actuated E1 ... E4

Technical data PWEA → www.festo.com/catalog/pwea



- 1 Variant E1
PWEA-AP-... with M12x1 plug,
5-pin for SIM-M12-5GD-...
- 2 Variant E2/E3/E4
PWEA-AC-... with cable conduit
fitting Pg9
- 3 Connection 360° rotatable for
plastic tubing PUN-H-12x2-...

Filter Regulators MS6N-LFR – Inch Series



Ordering Data – Pre-configured Products

Ordering Data							
Pressure regulation range 4.4 ... 103 psi							
Bowl drain	Connection	Filtration grade 5 µm			Filtration grade 40 µm		
		Part No.	Type	LT	Part No.	Type	LT
Plastic bowl guard							
Manual	1/4 NPT	531305	MS6N-LFR-1/4-D6-CRM-AS	1D	531293	MS6N-LFR-1/4-D6-ERM-AS	1D
	3/8 NPT	531307	MS6N-LFR-3/8-D6-CRM-AS	1D	531295	MS6N-LFR-3/8-D6-ERM-AS	1D
	1/2 NPT	531306	MS6N-LFR-1/2-D6-CRM-AS	1D	531294	MS6N-LFR-1/2-D6-ERM-AS	1D
Fully automatic	1/4 NPT	531311	MS6N-LFR-1/4-D6-CRV-AS	1D	531299	MS6N-LFR-1/4-D6-ERV-AS	1D
	3/8 NPT	531313	MS6N-LFR-3/8-D6-CRV-AS	1D	531301	MS6N-LFR-3/8-D6-ERV-AS	1D
	1/2 NPT	531312	MS6N-LFR-1/2-D6-CRV-AS	1D	531300	MS6N-LFR-1/2-D6-ERV-AS	1D

Ordering Data							
Pressure regulation range 7.4 ... 176 psi							
Bowl drain	Connection	Filtration grade 5 µm			Filtration grade 40 µm		
		Part No.	Type	LT	Part No.	Type	LT
Plastic bowl guard							
Manual	1/4 NPT	531281	MS6N-LFR-1/4-D7-CRM-AS	1D	531269	MS6N-LFR-1/4-D7-ERM-AS	1D
	3/8 NPT	531283	MS6N-LFR-3/8-D7-CRM-AS	1D	531271	MS6N-LFR-3/8-D7-ERM-AS	1D
	1/2 NPT	531282	MS6N-LFR-1/2-D7-CRM-AS	1D	531270	MS6N-LFR-1/2-D7-ERM-AS	1D
Fully automatic	1/4 NPT	531287	MS6N-LFR-1/4-D7-CRV-AS	1D	531275	MS6N-LFR-1/4-D7-ERV-AS	1D
	3/8 NPT	531289	MS6N-LFR-3/8-D7-CRV-AS	1D	531277	MS6N-LFR-3/8-D7-ERV-AS	1D
	1/2 NPT	531288	MS6N-LFR-1/2-D7-CRV-AS	1D	531276	MS6N-LFR-1/2-D7-ERV-AS	1D
Metal bowl							
Manual	1/4 NPT	531317	MS6N-LFR-1/4-D7-CUM-AS	Q	531329	MS6N-LFR-1/4-D7-EUM-AS	Q
	3/8 NPT	531319	MS6N-LFR-3/8-D7-CUM-AS	Q	531331	MS6N-LFR-3/8-D7-EUM-AS	Q
	1/2 NPT	531318	MS6N-LFR-1/2-D7-CUM-AS	Q	531330	MS6N-LFR-1/2-D7-EUM-AS	Q
Fully automatic	1/4 NPT	531323	MS6N-LFR-1/4-D7-CUV-AS	Q	531335	MS6N-LFR-1/4-D7-EUV-AS	Q
	3/8 NPT	531325	MS6N-LFR-3/8-D7-CUV-AS	Q	531337	MS6N-LFR-3/8-D7-EUV-AS	Q
	1/2 NPT	531324	MS6N-LFR-1/2-D7-CUV-AS	Q	531336	MS6N-LFR-1/2-D7-EUV-AS	Q

LT = Lead time 1D typically ships same day/next day 1W typically ships within 1 week Q request a quote for lead time

Filter Regulators MS6N-LFR – Inch Series

Ordering Data – Configurable Products



M Mandatory Data →

Part No.	Series	Size	Thread	Function	Connection size	Pressure regulation range	Filtration grade	Bowl
527667	MS	6	N	LFR	¼, ⅜, ½, AQN, AQP, AQR, AQS	D5 D6 D7 D8	E C	R U
Order example								
527667	MS	6	N	- LFR	- AQN	- D6	- C	- R

Ordering Table		Grid dimension [mm]	62	Conditions	Code	Enter code
M	Part No.	527667				
	Series	Standard			MS	MS
	Size	6			6	6
	Thread	NPT thread			N	N
	Function	Filter regulator			-LFR	-LFR
	Connection size	Body thread ¼ NPT			-¼	
		Body thread ⅜ NPT			-⅜	
		Body thread ½ NPT			-½	
		Port plate ¼ NPT (dimensions → 607)			-AQN	
		Port plate ⅜ NPT (dimensions → 607)			-AQP	
		Port plate ½ NPT (dimensions → 607)			-AQR	
		Port plate ¾ NPT (dimensions → 607)			-AQS	
	Pressure regulation range	4.4 ... 59 psi			-D5	
		4.4 ... 103 psi			-D6	
		7.4 ... 176 psi			-D7	
		7.4 ... 235 psi			-D8	
	Filtration grade	40 µm			-E	
		5 µm			-C	
	Bowl	Plastic bowl with plastic bowl guard			-R	
		Metal bowl			-U	

Transfer order code

527667	MS	6	N	- LFR	-		-		-		-	
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Filter Regulators MS6N-LFR – Inch Series



Ordering Data – Configurable Products

Options							
Bowl drain	Pressure gauge alternatives	Alternative pressure gauge scale	Secondary venting	Rotary knob	Security	Type of mounting	Reverse flow direction
M H V E1 E2 E3 E4	VS A4 AD1 AD2 AD3 AD4	BAR MPA	OS	LD	AS	WR WP WPM WB	Z
- M	- A4	-	-	- LD	- AS	- WPM	- Z

Ordering Table		Grid dimension [mm]	62	Conditions	Code	Enter code	
M	Bowl drain	Manual			-M		
		Semiautomatic (P1 max. 176 psi)		1	-H		
		Fully automatic (P1 max. 176 psi)		1	-V		
		External, fully-automatic, electrical	24 V DC, M12		2	-E1	
			110 V AC, terminals		2	-E2	
			230 V AC, terminals		2	-E3	
			24 V DC, terminals		2	-E4	
O	Pressure gauge alternatives	Cover plate			-VS		
		Adapter plate for EN pressure gauge ¼, without pressure gauge			-A4		
		Pressure sensor with display, M8 plug, 1 switching output PNP, 3-pin		3	-AD1		
		Pressure sensor with display, M8 plug, 1 switching output NPN, 3-pin		3	-AD2		
		Pressure sensor with display, M12 plug, 1 switching output PNP, 4-pin, analog output 4 ... 20 mA		3	-AD3		
		Pressure sensor with display, M12 plug, 1 switching output NPN, 4-pin, analog output 4 ... 20 mA		3	-AD4		
	Alternative pressure gauge scale	bar		4	-BAR		
		MPa		4	-MPA		
	Secondary venting	Without secondary venting			-OS		
	Rotary knob	Long rotary knob			-LD		
Security	Lockable rotary knob			-AS			
Type of mounting	Mounting bracket with knurled nut for regulator head (dimensions → 605)		5	-WR			
	Mounting bracket (dimensions → 608)		6	-WP			
	Mounting bracket (dimensions → 608)		6	-WPM			
	Mounting bracket (dimensions → 604)			-WB			
Reverse flow direction	Flow direction from right to left			-Z			

- 1 **H, V** Not with pressure regulation range D8
- 2 **E1 ... E4** Only with metal bowl U
- 3 **AD1 ... AD4** Measuring range max. 147 psi.
Not with pressure regulation range D8

- 4 **BAR, MPA** Not with pressure gauge alternatives VS, A4, AD1, AD2, AD3, AD4
- 5 **WR** Not with long rotary knob LD
- 6 **WP, WPM** Only with port plate AQN, AQP, AQR or AQS

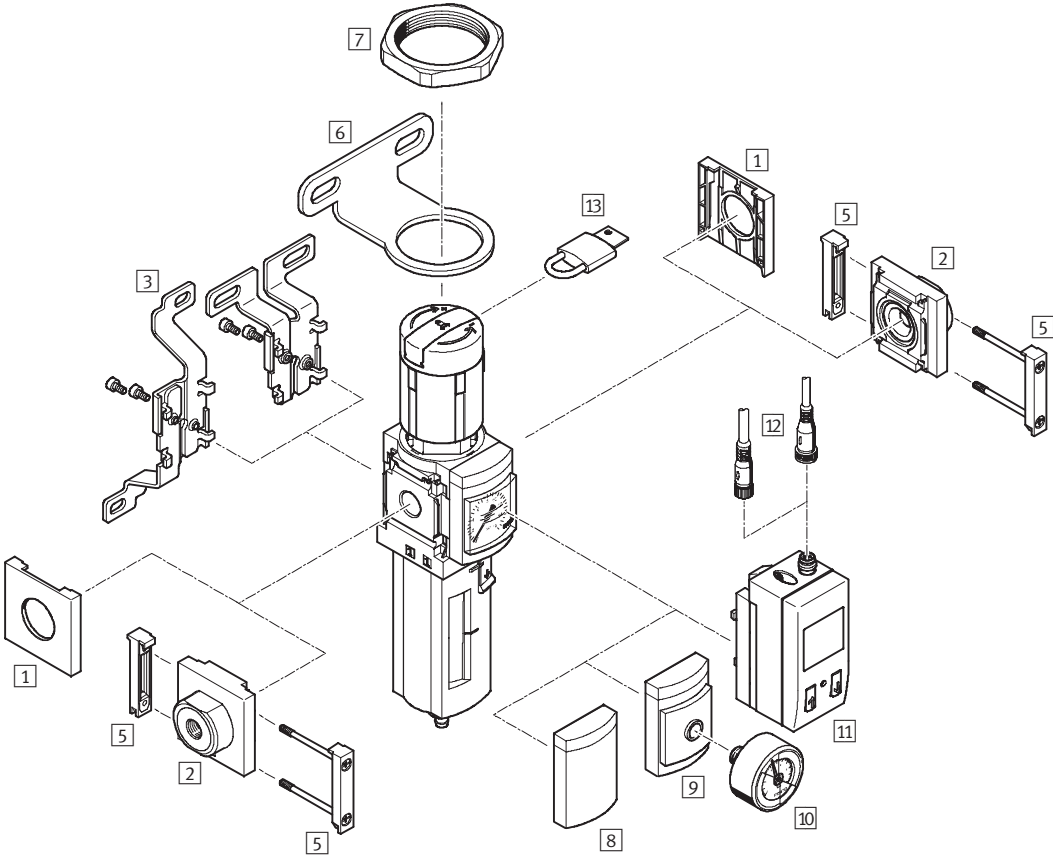
Transfer order code

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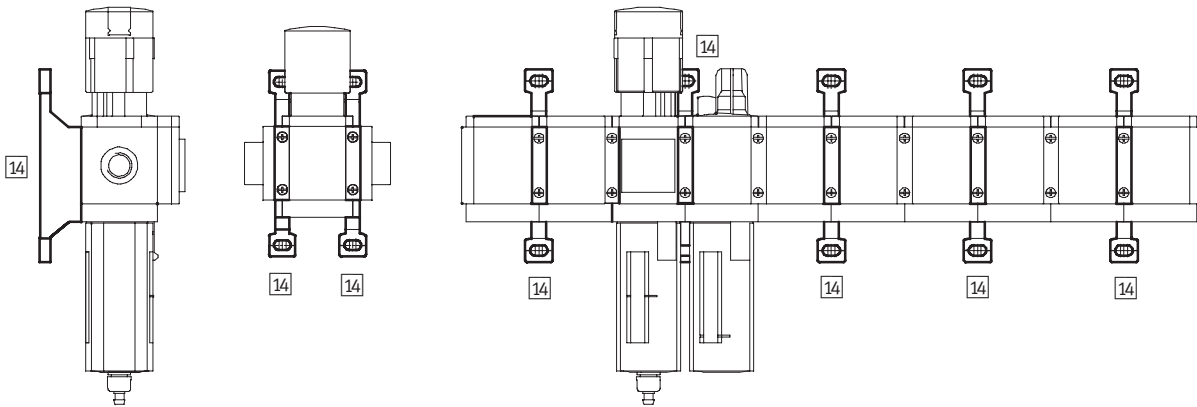
Filter Regulators MS6N-LFR – Inch Series

Accessories Overview

Mounting Attachments and Accessories



Single unit and combination unit mounting brackets.



Filter Regulators MS6N-LFR – Inch Series

Accessories Overview



Mounting Attachments and Accessories						
		Single unit		Combination unit		→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap MS6-END	■	-	■	-	606
2	Port plate MS6N-AQ...	-	■	-	■	607
3	Mounting bracket MS6-WB	■	■	-	-	604
5	Body connector MS6-MV	-	■	■	■	607
6	Regulator wall bracket MS6-WR	■	■	-	-	605
7	Hex nut MS6-WRS	■	■	■	■	605
8	Cover plate VS	■	■	■	■	600
9	Adapter for EN pressure gauge 1/4 A4	■	■	■	■	600
10	Pressure gauge MA	■	■	■	■	611
11	Pressure sensor SDE1-...-MS AD1 ... AD4	■	■	■	■	600
12	Plug socket with cable SIM-M8-3.../SIM-M12-4...	■	■	■	■	611
13	Padlock LRVS-D	■	■	■	■	611
14	Mounting bracket MS6-WP/WPB/WPM	-	■	■	■	608

Filter Regulators MS6N-LFR – Inch Series



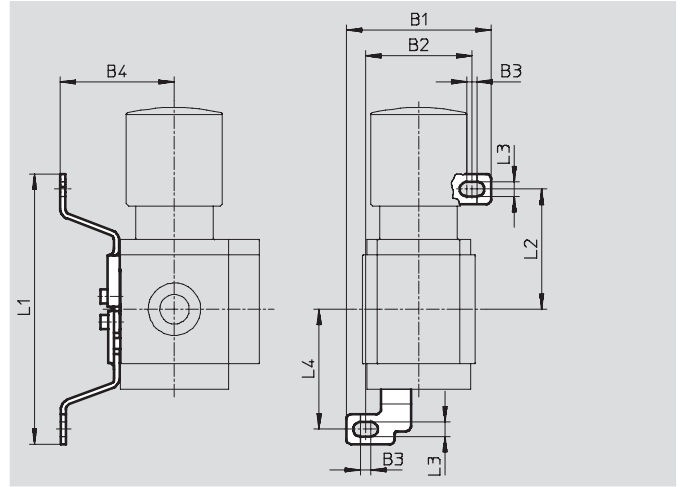
Accessories

3 Mounting bracket MS6-WB

- For wall mounting

Material:

Steel



Dimensions and Ordering Data										
B1	B2	B3	B4	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.13	2.44	0.18	2.17	6.20	2.80	0.26	2.80	0.24	532196	MS6-WB

Filter Regulators MS6N-LFR – Inch Series

Accessories

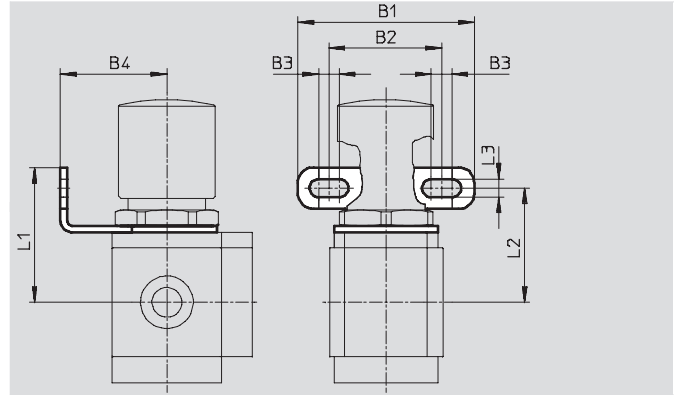
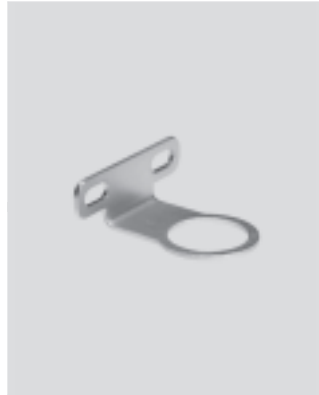
6 Mounting bracket MS6-WR

- For wall mounting a filter regulator and pressure regulator

Material:
Steel

Note

The hex nut for attaching components to this bracket must be ordered separately.

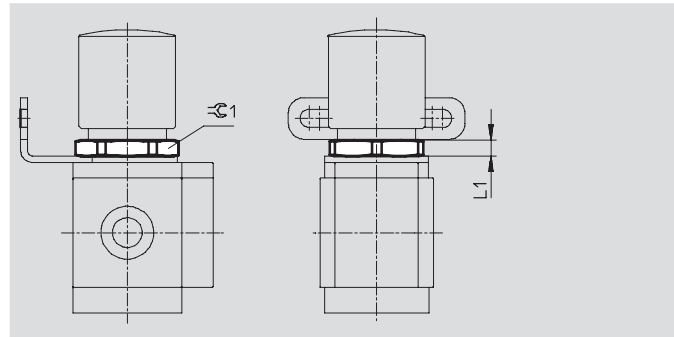


Dimensions and Ordering Data							Weight [lb]	Part No.	Type
B1	B2	B3	B4	L1	L2	L3			
2.76	1.65	0.32	1.57	2.64	2.24	0.28	0.18	526075	MS6-WR

7 Hex nut MS6-WRS

- For front panel mounting
- For attaching components to the mounting bracket MS...-WR

Material:
Aluminum



Dimensions and Ordering Data		Weight [lb]	Part No.	Type
L1	±0.1			
0.28	2.17	0.04	532188	MS6-WRS

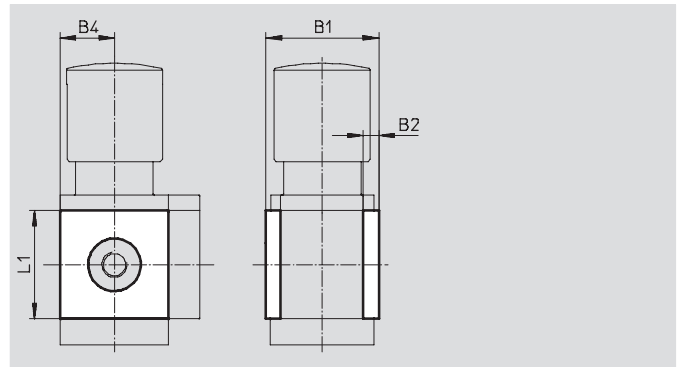
Filter Regulators MS6N-LFR – Inch Series

Accessories

1 Cover cap MS6-END

- Can be used to cover the body sides of the first and last module if port plates are not used.

Material:
Reinforced polyamide
Free of copper and PTFE

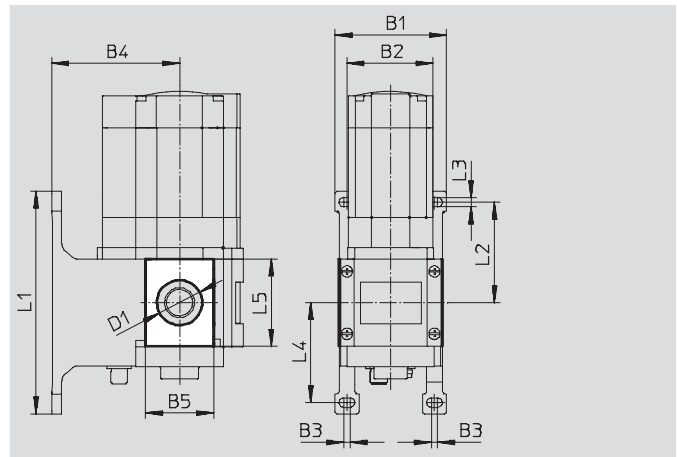


Dimensions and Ordering Data						
B1	B2	B4	L1	Part No.	Type	
2.64	0.31	1.22	2.44	538780	MS6-END	

Mounting plate MS6-AEND

- In combination with mounting bracket MS-WP or MS-WPB for mounting an individual unit with body thread on a wall

Material:
Reinforced polyamide
Conforms to RoHS
Free of copper and PTFE



Dimensions and Ordering Data															
B1	B2	B3	B4		B5	D1 ∅	L1	L2	L3	L4	L5	CRC ¹⁾	Weight [lb]	Part No.	Type
			WP	WPB											
3.11	2.44	0.18	2.13	3.56	1.91	1.26	6.22	2.80	0.26	2.80	2.44	2	0.03	535408	MS6-AEND

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

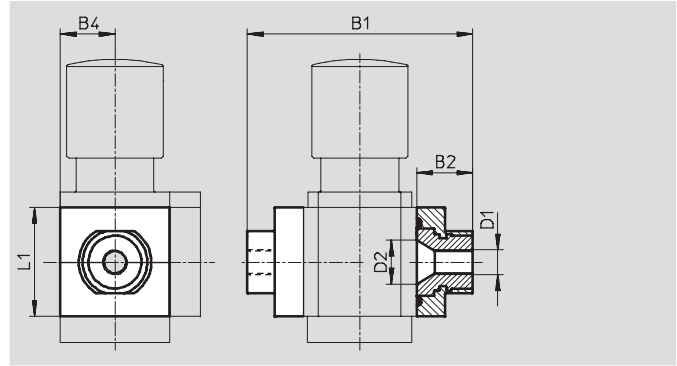
Filter Regulators MS6N-LFR – Inch Series

Accessories

2 Port plate MS6N-AQ...

- Adapter for pneumatic connection
- MS6-AGE for implementing threaded connection 3/4 NPT

Material:
Aluminum



Dimensions and Ordering Data								
B1	B2	B4	D1	D2	L1	Weight [lb]	Part No.	Type
4.53	1.04	1.22	1/4 NPT	0.94	2.44	0.60	526076	MS6N-AQN
			3/8 NPT				526077	MS6N-AQP
			1/2 NPT				526078	MS6N-AQR
			3/4 NPT				526079	MS6N-AQS

5 Body connector MS...-MV

- For connecting modules

Material:
Stainless steel/polyacetate



Ordering Data		
Weight [lb]	Part No.	Type
0.11	532799	MS6-MV

Filter Regulators MS6N-LFR – Inch Series

Accessories



14 Mounting Bracket MS6-WP...

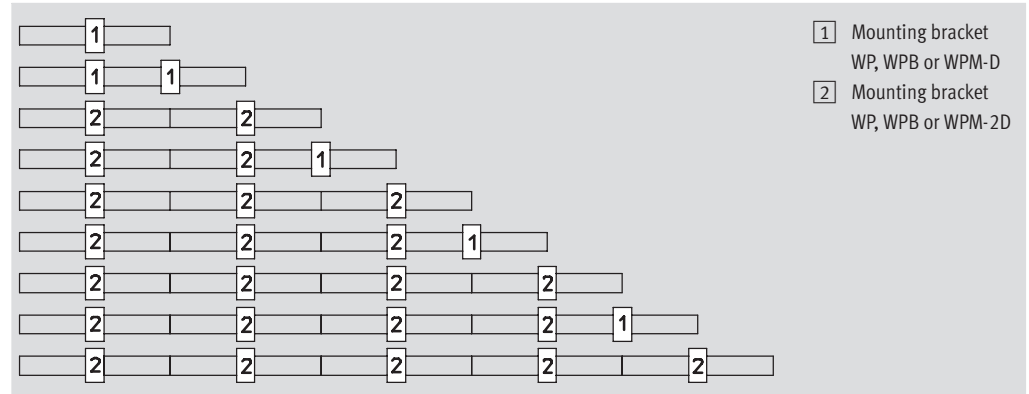
Suggested placement of wall mounting brackets when mounting air preparation combinations

1 unit: 2.44 in with WP, WPB
2.715 in with WPM-D

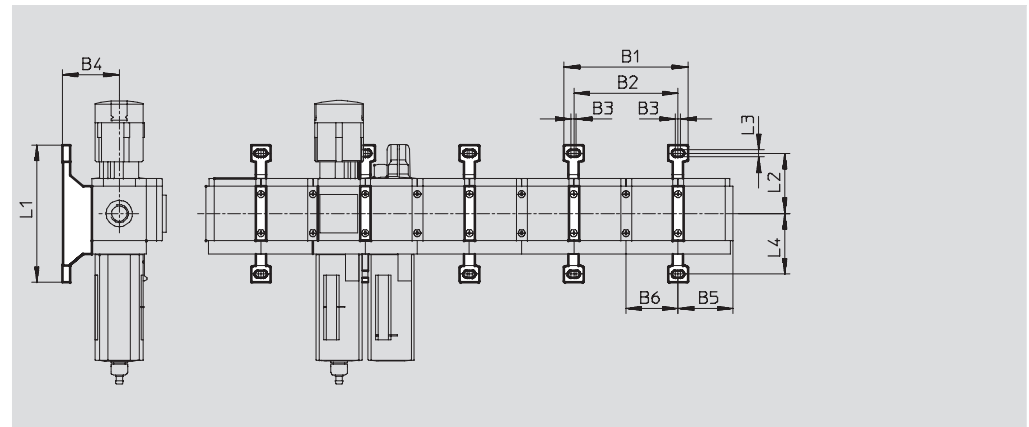
2 units: 4.88 in with WP, WPB
5.43 in with WPM-2D

Number of units

1 2 3 4 5 6 7 8 9 10



Mounting dimensions



Type	B1	B2	B3	B4	B5	B6	L1	L2	L3	L4
MS6-WP	5.55	4.88	0.18	2.13	2.54	2.44	6.22	2.80	0.26	2.80
MS6-WPB				3.56						1.63
MS6-WPM-...D	6.61	5.43	0.69	2.13	2.58	2.72	3.88	1.63		1.63

Filter Regulators MS6N-LFR – Inch Series

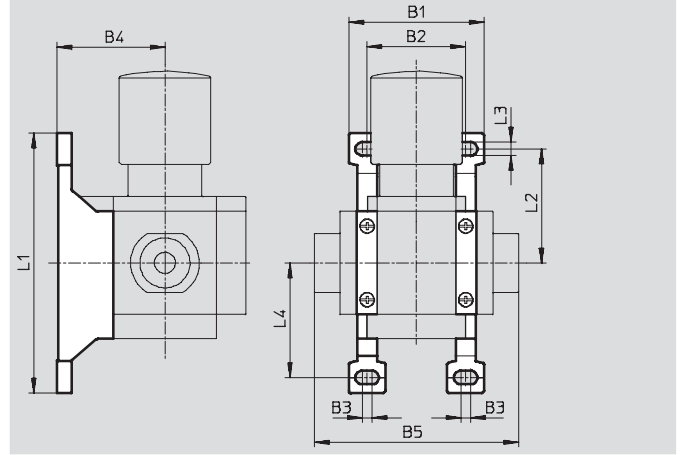


Accessories

Mounting bracket MS6-WP

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with body thread on a wall
- For pressure regulator LRB with angled outlet block B... at rear

Material:
Die-cast aluminum

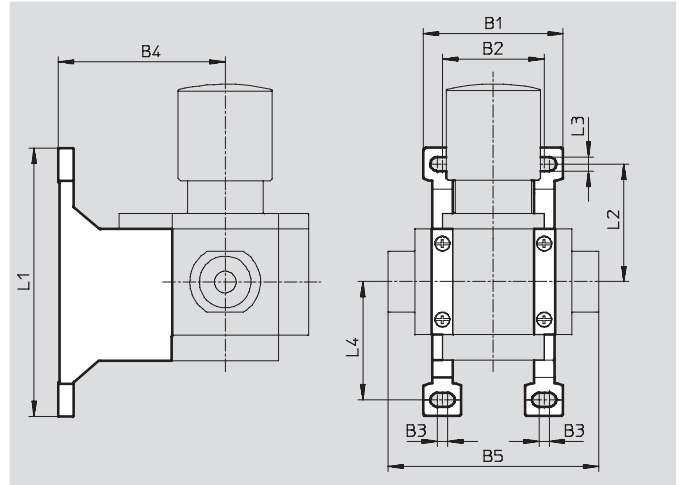


Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.11	2.44	0.18	2.13	4.53	6.22	2.80	0.26	2.80	0.15	532195	MS6-WP

Mounting bracket MS6-WPB

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with direct thread on a wall
- Provides large wall gap for pressure regulator

Material:
Die-cast aluminum



Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.11	2.44	0.18	3.56	4.53	6.22	2.80	0.26	2.80	0.23	526074	MS6-WPB

Filter Regulators MS6N-LFR – Inch Series

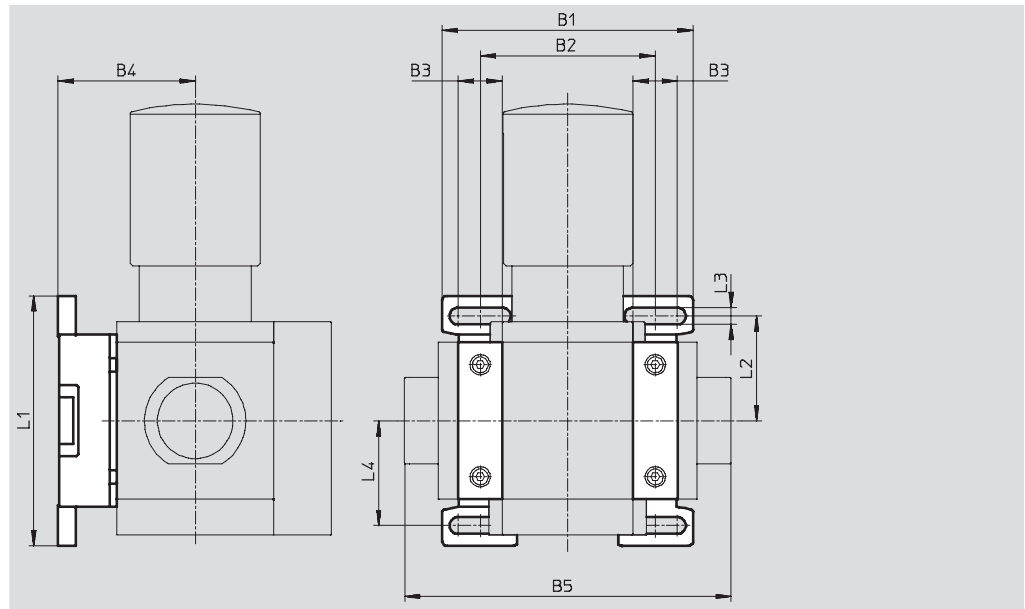
Accessories

Mounting bracket MS6-WPM

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- Speedy attachment and detachment
- For installation of modules with regulating knob pointing downwards

The distance piece D or 2D (designated in the type code) is included in the scope of delivery and ensures the correct clearance

Material:
Die-cast aluminum



Dimensions and Ordering Data												
B1	B2	B3	B4	B5	L1	L2	L3	L4	Clearance	Weight [lb]	Part No.	Type
3.90	2.72	0.69	2.13	5.08	3.88	1.63	0.26	1.63	2.44	0.29	526073	MS6-WPM-D
6.61	5.43			7.80					4.88			

Body connector MS6-MVM

- For installation of modules with regulating knob pointing downwards

Material:
Die-cast aluminum







Ordering Data		
Size	Part No.	Type
MS6	532801	MS6-MVM


Filter Regulators MS6N-LFR – Inch Series


Accessories



11 Ordering Data – Plug Socket with Cable SIM-M8			Technical data → www.festo.com/catalog/sim-m8	
	Electrical connection	Cable length [ft]	Part No.	Type
				M8x1, 3-pin
		16.4	159421	SIM-M8-3GD-5-PU
		32.8	192964	SIM-M8-3GD-10-PU
	M8x1, 3-pin	8.2	159422	SIM-M8-3WD-2,5-PU
		16.4	159423	SIM-M8-3WD-5-PU
		32.8	192965	SIM-M8-3WD-10-PU

11 Ordering Data – Plug Socket with Cable SIM-M12			Technical data → www.festo.com/catalog/sim-m12	
	Electrical connection	Cable length [ft]	Part No.	Type
				M12x1, 4-pin
	M12x1, 4-pin	16.8	164258	SIM-M12-4WD-5-PU

10 Ordering Data – Pressure Gauge MA				Technical data → www.festo.com/catalog/ma		
	Nominal size	Pneumatic connection	Indicating range		Part No.	Type
			[bar]	[psi]		
	Pressure gauge MA, DIN EN 837-1					
	1.57	¼ NPT	0 ... 16	0 ... 232	183908	MA-40-16-N¼-EN
	Pressure gauge MA, DIN EN 837-1, with red-green range					
	1.97	¼ NPT	-	0 ... 232	530391	MA-50-232-N¼-PSI-E-RG

13 Ordering Data – Padlock LRVS-D			
	Description	Weight [lb]	Part No. Type
	for regulators, filter/regulators and manual on-off valves	0.24	193786 LRVS-D

Filter Regulators MS6N-LFR – Inch Series

FESTO

Replacement Parts

Ordering Data – Wearing Parts Kits			
Size	Description	Part No.	Type
MS6	Snap-ring, membrane, bellows, O-rings, screws, stem	673648	MS6-LFR



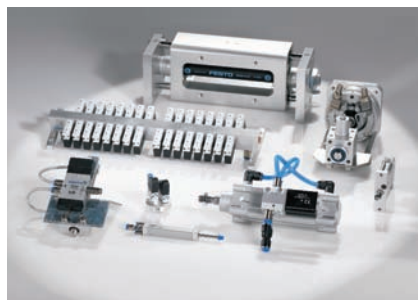
Ordering Data – Filter Cartridges			
Size	Filtration grade [µm]	Part No.	Type
MS6	5	534499	MS6-LFP-C
	40	534500	MS6-LFP-E

- For spare parts go to: www.festo.com/en/spare_parts_service

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



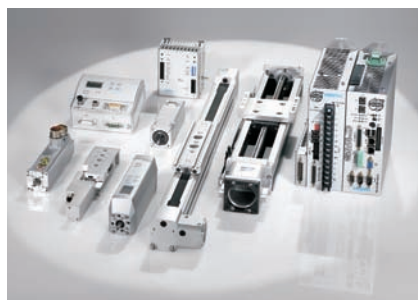
Custom Control Cabinets
Comprehensive engineering support
and on-site services



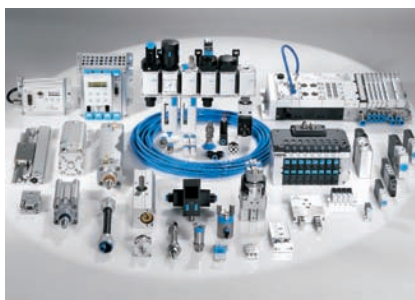
Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors,
controllers & drives



Pneumatics
Pneumatic linear and rotary actuators,
valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors
and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 11,500 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 Certification

Festo Corporation is committed to provide Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

All Festo locations within the United States are registered to ISO 9001.



Festo North America

United States

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Earth City, MO 63045

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Email: customer.service@us.festo.com

For technical support,

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Fax: 1.800.96.FESTO

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