

Pressure Regulators MS-LR, Inch Series

Overview



- High flow rate with minimal pressure drop
- Suitable for front panel mounting
- 2 sizes:
MS4 – grid dimension 1.6 in, MS6 – grid dimension 2.4 in

Detailed product information → www.festo.com/catalog/ms*n-lr

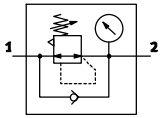
Product Range Overview					
Size	Pneumatic connection	Product options			
		D5	D6	D7	AS
4	1/4	■	■	■	■
6	1/2	■	■	■	■

Options					
1/4	Female thread 1/4NPT	D5	Pressure regulation range 4.4 ... 59 psi, manually operated	D7	Pressure regulation range 7.4 ... 176 psi, manually operated
1/2	Female thread 1/2NPT	D6	Pressure regulation range 4.4 ... 103 psi, manually operated	AS	Rotary knob with detent, can be locked using accessories

Pressure Regulators MS-LR, Inch Series

Technical Data

Manually operated D5/D6/D7



Materials
 Housing: Die-cast aluminum
 Rotary knob: PA, POM
 Seals: NBR



Technical data		Download CAD data → www.festo.com/us/engineering	
Size		MS4	MS6
Pneumatic connection 1, 2		¼NPT	½NPT
Design		Directly actuated diaphragm regulator	
Regulator function		With return flow action, with secondary venting, with primary pressure compensation	
Type of mounting		Via accessories In-line installation Front panel mounting	
Mounting position		Any	
Actuation security		Rotary knob with detent Rotary knob with detent, can be locked using accessories	
Pressure regulation range/operation [psi]		D5 4.4 ... 59, manually operated D6 4.4 ... 103, manually operated D7 7.4 ... 176, manually operated	
Pressure indicator		Via pressure gauge for displaying output pressure	
Length [in]	With cover plate VS	2.1	3
Width [in]	Standard	1.6	2.4
Height [in]	With rotary knob with detent, can be locked using accessories AS ¹⁾	4.9	7.4

1) The pressure regulator without lockable rotary knob is approx. 0.4 in smaller.

Standard nominal flow rate q_{nN}			
Size		MS4	MS6
q_{nN} [scfm]	With pressure regulation range D5 ¹⁾	74	265
	With pressure regulation range D6 ²⁾	64	230
	With pressure regulation range D7 ²⁾	60	194

1) MS4/MS6: Measured at $p_1 = 176$ psi and $p_2 = 44$ psi, $\Delta p = 15$ psi.

2) MS4/MS6: Measured at $p_1 = 176$ psi and $p_2 = 88$ psi, $\Delta p = 15$ psi.

Operating conditions			
Size		MS4	MS6
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4] Inert gases	
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)	
Operating pressure	[psi]	11.8 ... 206	11.8 ... 294
Ambient temperature	[°F]	14 ... 140	

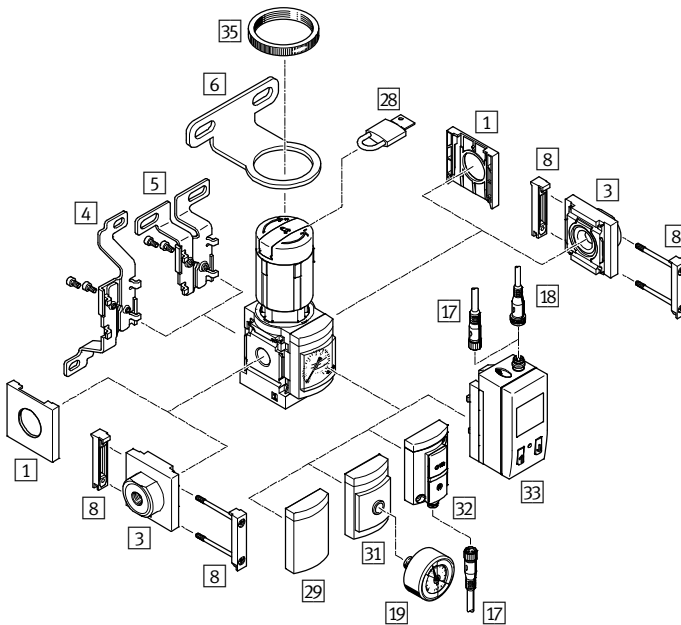
Pressure Regulators MS-LR, Inch Series

Ordering Data, Accessories Overview

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Ordering Data			Ordering Data		
Part No.	Type	LT	Part No.	Type	LT
MS4			MS6		
531418	MS4N-LR-1/4-D5-AS	3D	531443	MS6N-LR-1/2-D5-AS	3D
531422	MS4N-LR-1/4-D6-AS	3D	531449	MS6N-LR-1/2-D6-AS	3D
531426	MS4N-LR-1/4-D7-AS	3D	531455	MS6N-LR-1/2-D7-AS	3D

LT = Lead time 1D typically ships same day/next day 3D typically ships within 3 days



Accessories	→ Page/Internet
1 Cover cap MS4/6-END	231
3 Connecting plate MS4/6-AG...	231
4 Mounting bracket MS4/6-WB ¹⁾	231
5 Mounting bracket MS4-WBM ¹⁾	231
6 Mounting bracket MS4/6-WR ¹⁾	231
8 Module connector MS4/6-MV	231
17 Connecting cable NEBU-M8...-LE3	232
18 Connecting cable NEBU-M12...-LE4	nebu
19 Pressure gauge MA	186
28 Padlock LRVS-D	232

1) Mounting component for individual device.

Accessories	→ Page/Internet
29 Cover plate VS	ms*-lr
31 Adapter plate A8/A4 for EN pressure gauge 1/8/1/4	ms*-lr
32 Pressure sensor with operational status indicator AD7/AD9	ms*-lr
33 Pressure sensor with LCD display AD1/AD3	ms*-lr
35 Knurled nut MS-LR (included in the scope of delivery)	-
- Mounting bracket MS4/6-WP ²⁾	231
- Mounting bracket MS4/6-WPB ²⁾	231
- Mounting bracket MS4/6-WPM ²⁾	231

2) Mounting and connecting component for combination or for individual device with connecting plate MS4/6-AG... [3] with mounting plate MS4/6-AEND.

Pressure Regulators MS-LR, Metric Series

Overview



- High flow rate with minimal pressure drop
- Suitable for front panel mounting
- 2 sizes:
MS4 – grid dimension 40 mm, MS6 – grid dimension 62 mm

Detailed product information → www.festo.com/catalog/ms*-lr

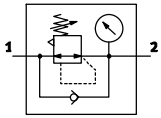
Product Range Overview					
Size	Pneumatic connection	Product options			
		D5	D6	D7	AS
4	1/4	■	■	■	■
6	1/2	■	■	■	■

Options					
1/4	Female thread G1/4	D5	Pressure regulation range 0.3 ... 4 bar, manually operated	D7	Pressure regulation range 0.5 ... 12 bar, manually operated
1/2	Female thread G1/2	D6	Pressure regulation range 0.3 ... 7 bar, manually operated	AS	Rotary knob with detent, can be locked using accessories

Pressure Regulators MS-LR, Metric Series

Technical Data

Manually operated D5/D6/D7



Materials
 Housing: Die-cast aluminum
 Rotary knob: PA, POM
 Seals: NBR



Technical data		Download CAD data → www.festo.com/us/engineering	
Size		MS4	MS6
Pneumatic connection 1, 2		G $\frac{3}{4}$	G $\frac{1}{2}$
Design		Directly actuated diaphragm regulator	
Regulator function		With return flow action, with secondary venting, with primary pressure compensation	
Type of mounting		Via accessories In-line installation Front panel mounting	
Mounting position		Any	
Actuation security		Rotary knob with detent Rotary knob with detent, can be locked using accessories	
Pressure regulation range/operation [bar]	D5	0.5 ... 4, manually operated	
	D6	0.5 ... 7, manually operated	
	D7	0.5 ... 12, manually operated	
Pressure indicator		Via pressure gauge for displaying output pressure	
Length [mm]	With cover plate VS	54	76
Width [mm]	Standard	40	62
Height [mm]	With rotary knob with detent, can be locked using accessories AS ¹⁾	125	189

1) The pressure regulator without lockable rotary knob is approx. 9 mm smaller.

Standard nominal flow rate q_{nN}			
Size		MS4	MS6
Pneumatic connection 1, 2		G $\frac{3}{4}$	G $\frac{1}{2}$
q_{nN} [l/min]	With pressure regulation range D5 ¹⁾	2,100	7,500
	With pressure regulation range D6 ²⁾	1,800	6,500
	With pressure regulation range D7 ²⁾	1,700	5,500

1) MS4/MS6: Measured at $p_1 = 10$ bar and $p_2 = 3$ bar, $\Delta p = 1$ bar.
 2) MS4/MS6: Measured at $p_1 = 10$ bar and $p_2 = 6$ bar, $\Delta p = 1$ bar.

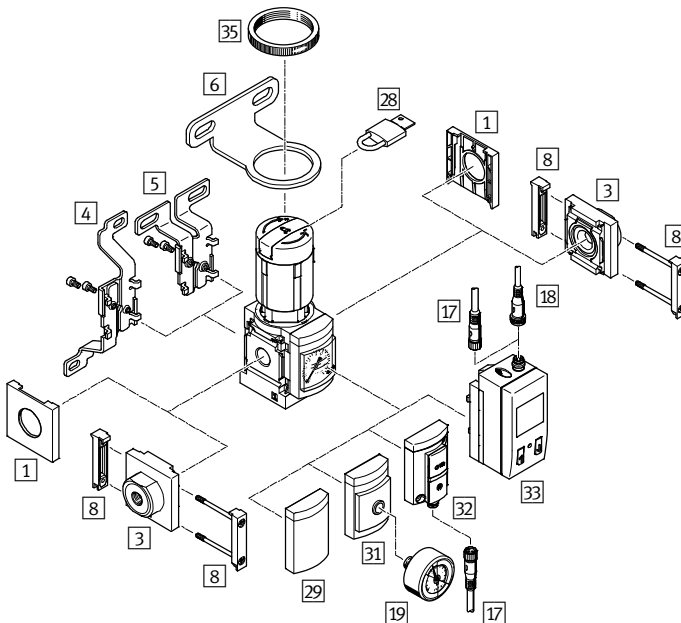
Operating conditions			
Size		MS4	MS6
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4] Inert gases	
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)	
Operating pressure	[bar]	0.8 ... 14	0.8 ... 20
Ambient temperature	[°C]	-10 ... +60	

Pressure Regulators MS-LR, Metric Series

Ordering Data, Accessories Overview

Ordering Data			Ordering Data		
Part No.	Type	LT	Part No.	Type	LT
MS4			MS6		
529415	MS4-LR-1/4-D5-AS	1D	529989	MS6-LR-1/2-D5-AS	1D
529417	MS4-LR-1/4-D6-AS	1D	529991	MS6-LR-1/2-D6-AS	1D
529419	MS4-LR-1/4-D7-AS	1D	529993	MS6-LR-1/2-D7-AS	1D

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Accessories	→ Page/Internet
1 Cover cap MS4/6-END	231
3 Connecting plate MS4/6-AG...	231
4 Mounting bracket MS4/6-WB ¹⁾	231
5 Mounting bracket MS4-WBM ¹⁾	231
6 Mounting bracket MS4/6-WR ¹⁾	231
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28 Padlock LRVS-D	232

1) Mounting component for individual device.

Accessories	→ Page/Internet
29 Cover plate VS	ms*-lr
31 Adapter plate A8/A4 for EN pressure gauge 1/8/1/4	ms*-lr
32 Pressure sensor with operational status indicator AD7/AD9	ms*-lr
33 Pressure sensor with LCD display AD1/AD3	ms*-lr
35 Knurled nut MS-LR (included in the scope of delivery)	-
- Mounting bracket MS4/6-WP ²⁾	231
- Mounting bracket MS4/6-WPB ²⁾	231
- Mounting bracket MS4/6-WPM ²⁾	231

2) Mounting and connecting component for combination or for individual device with connecting plate MS4/6-AG... [3]/with mounting plate MS4/6-AEND.