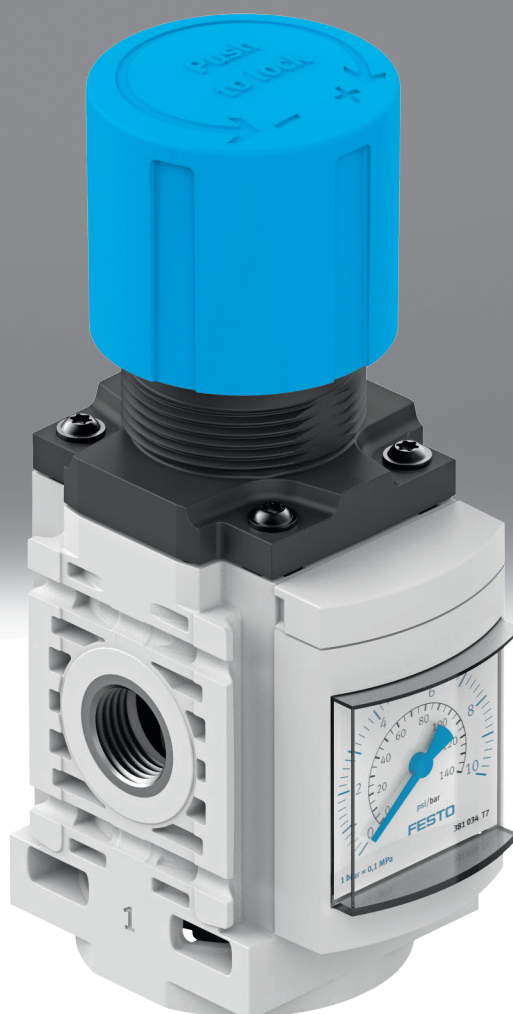


## Pressure regulator MS-LR-B

**FESTO**



## Characteristics

### At a glance

- Very compact and extremely lightweight series for use close to the process directly in the machine.
- Stable control response
- The rotary knob locks into place to prevent unintentional rotation
- Integrated secondary exhaust and primary exhaust with return flow function

### Product segmentation



#### Festo Core Range

Solves the majority of your automation tasks

With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery. the Core Range offers you the best value with the expected high Festo quality.

- Quickest delivery, worldwide – wherever, whenever
- Expected high Festo quality
- Easy and fast to select

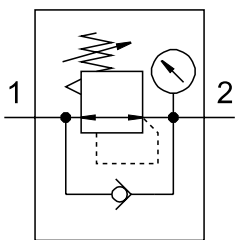
### Diagrams

Further information → [ms-lr-b](#)



The diagrams shown in this document are also available online. These can be used to display precise values.

### Function



For stepless, precise adjustment of the required operating pressure

The pressure regulator keeps the working pressure largely constant, irrespective of compressed air fluctuations in the network and due to air consumption

### Pneumatic connection

Depending on the size, different connection types can be selected:

- Individual fittings that are fastened via a female thread
- Built-in connections into which the tubing can be directly inserted

### Pressure regulation range

The following ranges can be set:

- With MS2-...: 0.5 ... 7 bar
- With MS4-... and MS6-...: 0.3 ... 7 bar

### Pressure gauge alternatives

The pressure regulator can be ordered with or without a pressure gauge. The interface has a thread of G1/8.

### Alternative pressure gauge scale

The scaling of the built-in pressure gauge can be selected. The unit options available are [MPa], [bar] / [psi].

## Type code

001	Series	
MS	MS series	
002	Size	
2	Grid dimension 25 mm	
4	Grid dimension 40 mm	
6	Grid dimension 62 mm	
003	Function	
LR	Pressure regulator	
004	Pneumatic connection	
M5	Female thread M5	
QS6	Push-in connector 6 mm	
1/4	Female thread G1/4	
1/2	Female thread G1/2	
005	Pressure regulation range	
D6	0.3 ... 7 bar	

006	Pressure gauge alternatives	
A8	Adapter for EN pressure gauge 1/8, without pressure gauge	
AG	MS pressure gauge	
AR	With pressure gauge	
007	Alternative pressure gauge scale	
	MS pressure gauge	
BAR	bar	
MPA	MPa	
008	Special material properties	
	None	
F1A	Recommended for production plants for manufacturing lithium-ion batteries, F1A	
009	Version	
B	Second generation	

## Datasheet

General technical data			
Size	2	4	6
Pneumatic connection, port 1	M5, QS-6	G1/4	G1/2
Pneumatic connection, port 2	M5, QS-6	G1/4	G1/2
Standard nominal flow rate	170 ... 350 l/min	1,800 l/min	6,000 l/min
Pressure regulation range	0.05 ... 0.7 MPa	0.03 ... 0.7 MPa	
Pressure regulation range	0.5 ... 7 bar	0.3 ... 7 bar	
Pressure regulation range	7.25 ... 101.5 psi	4.35 ... 101.5 psi	
Max. pressure hysteresis	0.025 MPa	0.05 MPa	0.035 MPa
Max. pressure hysteresis	0.25 bar	0.5 bar	0.35 bar
Max. pressure hysteresis	3.625 psi	7.25 psi	5.075 psi
Design	Directly actuated diaphragm regulator	Pressure regulator with pressure gauge, Pressure regulator without pressure gauge, Directly actuated piston regulator	
Controller function	Output pressure constant, With secondary venting, With return flow function		
Type of mounting	Either:, Front panel mounting, In-line installation, With accessories		
Mounting position	optional		
Actuator lock	Rotary knob with detent		
Pressure gauge (ANALOG) or Pressure display (DIGITAL)	Prepared for G1/8, With pressure gauge		

Operating and environmental conditions			
Size	2	4	6
Pneumatic connection, port 1	M5, QS-6	G1/4	G1/2
Operating pressure	0.1 ... 1 MPa		
Operating pressure	1 ... 10 bar		
Operating pressure	14.5 ... 145 psi		15 ... 145 psi
Ambient temperature	-5 ... 50°C		
Media temperature	-5 ... 50°C		
Storage temperature	-5 ... 50°C		
Corrosion resistance class CRC <sup>1)</sup>	1 - Low corrosion stress		

1) Corrosion resistance class CRC 1 to Festo standard FN 940070.

Low corrosion stress. Dry indoor use or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, or parts that are covered in the application (e.g. drive pins).

Materials			
Size	2	4	6
Material housing	PA-reinforced		
Material rotary knob	POM		
Material valve stem	Wrought aluminium alloy, NBR	POM	
Material membrane	NBR	–	
Material spring	High-alloy steel	High-alloy steel, Galvanised steel	
Note on materials	RoHS-compliant		
LABS (PWIS) conformity	VDMA24364-B1/B2-L		
Cleanroom class	Class 4 according to ISO 14644-1	Class 7 according to ISO 14644-1	

### Additional material specifications – products for battery production (F1A)

Suitability for the production of Li-ion batteries <sup>1)</sup>	Metals with more than 1% copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils, Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils		
Cleanroom class <sup>2)</sup>	Class 4 according to ISO 14644-1, Class 7 according to ISO 14644-1		

1) Only valid for MS2-...-F1A-B

2) Only valid for MS2-...-F1A-B