

## Pressure regulator for manifold assembly LRB, LRBS

**FESTO**



## Characteristics

### At a glance

The pressure regulator is suitable for manifold assemblies with through air supply, for configuring a regulator manifold with separate, independent pressure ranges. The pressure output is at the front or rear.

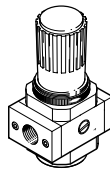
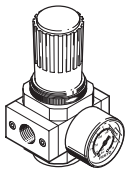
- Good control characteristics with minimal hysteresis and primary pressure compensation
- Manifold assembly with through air supply
- For configuring a regulator manifold with independent pressure regulation ranges
- Settings secured via latch on rotary knob and push-in anti-tamper lock

### Pressure regulation range

Two pressure regulation ranges: 0.5...7 bar and 0.5...12 bar

### Pressure gauge

[ ] With pressure gauge [0] Without pressure gauge



## Type code

001	Series
<b>LRB</b>	Pressure regulator
<b>LRBS</b>	Pressure regulator, lockable

002	Version
<b>D</b>	D series, metal

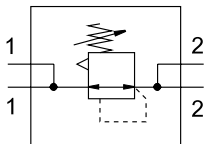
003	Pressure regulation range
	0.5 ... 12 bar (0.05 ... 1.2 MPa)
<b>7</b>	0.5 ... 7 bar (0.05 ... 0.7 MPa)

004	Pressure gauge
<b>0</b>	Without pressure gauge

005	Size
<b>MINI</b>	Grid dimension 40 mm (without connecting plates)
<b>MIDI</b>	Grid dimension 55 mm (without connecting plates)

## Datasheet

### General technical data



Pneumatic connection, port 1	Sub-base
Pneumatic connection, port 2	G1/4, G3/8
Size	Midi, Mini
Design	Directly actuated diaphragm regulator With through compressed air supply
Controller function	Output pressure constant Via primary pressure compensation With secondary venting
Type of mounting	In-line installation With accessories
Mounting position	optional
Actuator lock	Rotary knob with detent Rotary knob with integrated lock
Max. pressure hysteresis	0.2 bar
Pressure gauge (ANALOG) or Pressure display (DIGITAL)	Prepared for G1/4 Prepared for G1/8

### Operating and environmental conditions

Operating pressure	0.1 ... 1.6 MPa
Operating pressure	1 ... 16 bar
Operating pressure	14.5 ... 232 psi
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases
Note on operating and pilot medium	–
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Corrosion resistance class CRC <sup>1)</sup>	–

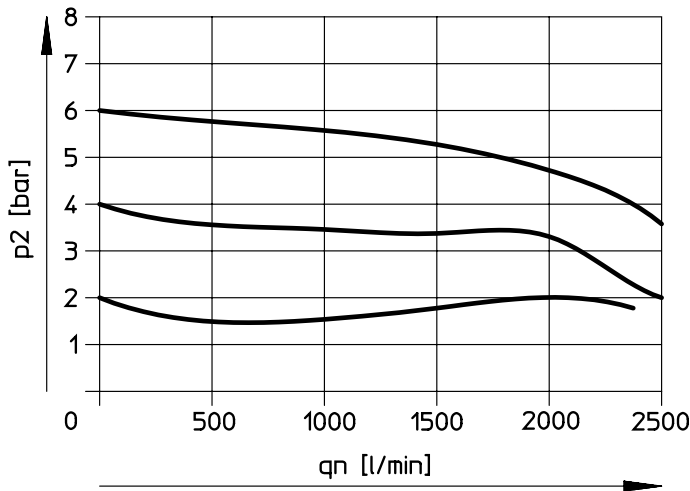
1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

### Materials

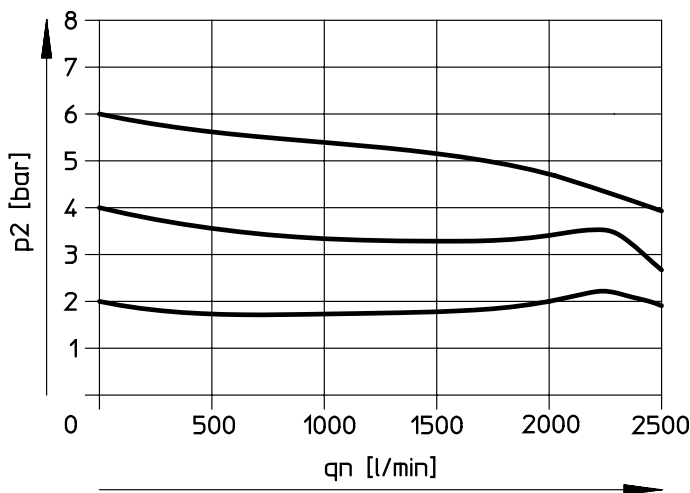
Material housing	Die-cast zinc
Material membrane	–
Material sub-base	Die-cast zinc
Material seals	NBR
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Datasheet

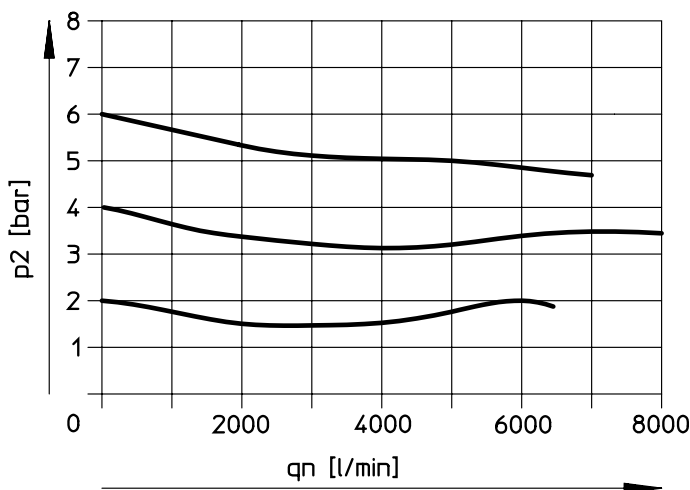
Standard flow rate  $q_n$  as a function of output pressure  $p_2$  ( $p_1 = 10$  bar) – Mini (pressure regulation range 0.5 ... 7 bar)



Standard flow rate  $q_n$  as a function of the output pressure  $p_2$  ( $p_1 = 10$  bar) – Mini (pressure regulation range 0.5 ... 12 bar)

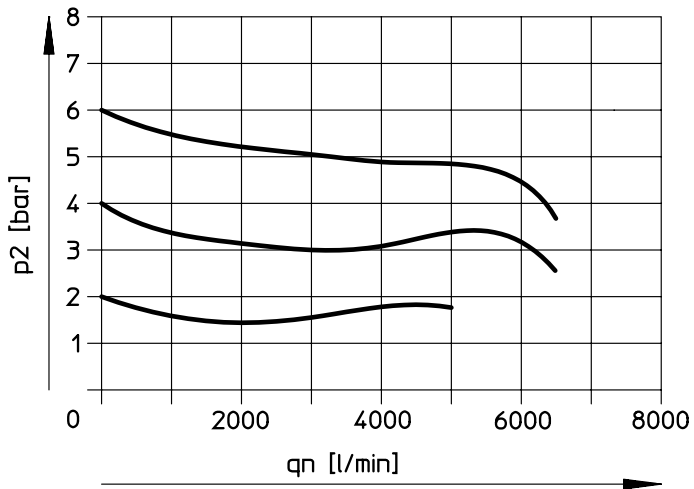


Standard flow  $q_n$  as a function of the outlet pressure  $p_2$  ( $p_1 = 10$  bar) – Midi (pressure regulation range 0.5 ... 7 bar)



## Datasheet

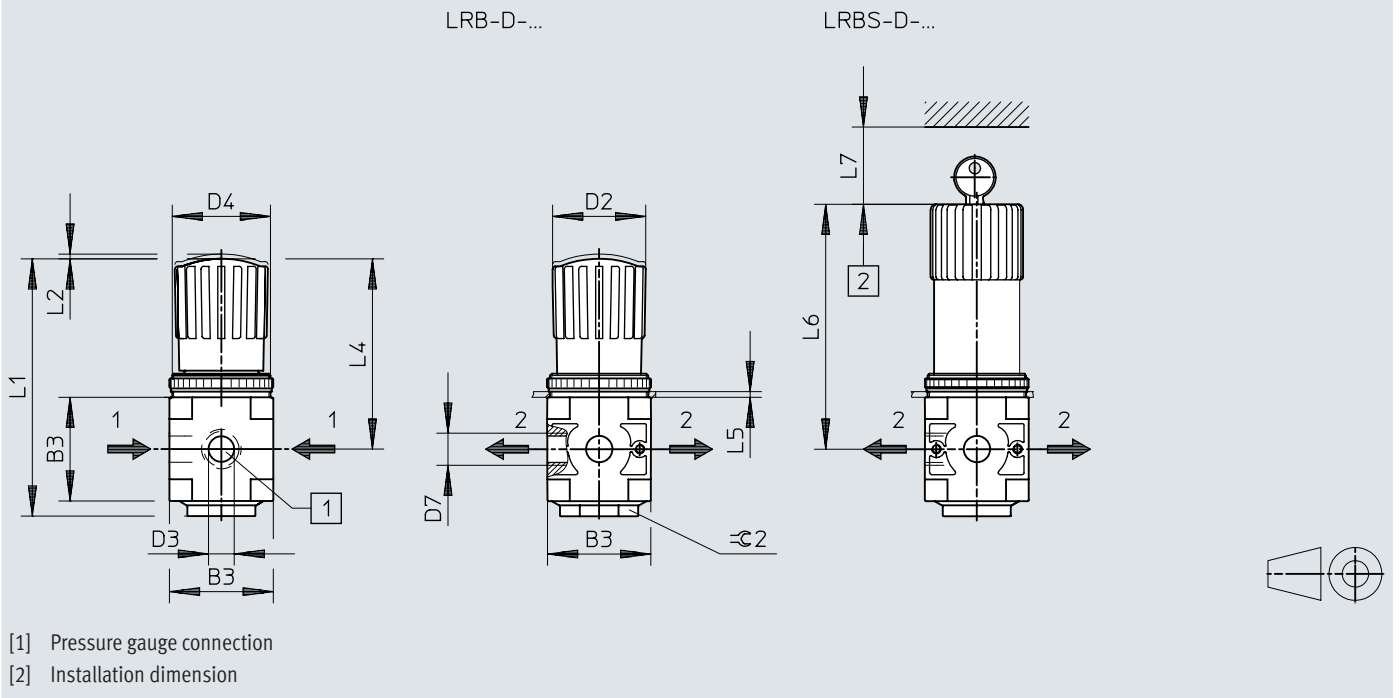
Normal flow  $q_n$  as a function of output pressure  $p_2$  ( $p_1 = 10$  bar) – Midi (pressure regulation range 0.5 ... 12 bar)



## Dimensions

### Dimensions – Mini/Midi

Download CAD data [www.festo.com](http://www.festo.com)



	B3	D2	D3	D4	D7	L1	L2	L4	L5 max.	L6	L7 min.	$\varnothing 2$
LRB-D-...-MINI	40	31	G1/8	M36x1,5	G1/4	~95,4	3	~68,9	3	98	60	17
LRBS-D-...-MINI												
LRB-D-...-MIDI	55	49,3	G1/4	M52x1,5	G3/8	~135,8	3	~100,3	5	129,2	60	36
LRBS-D-...-MIDI												

1) Note: This product complies with ISO 1179-1 and ISO 228-1.

## Ordering data

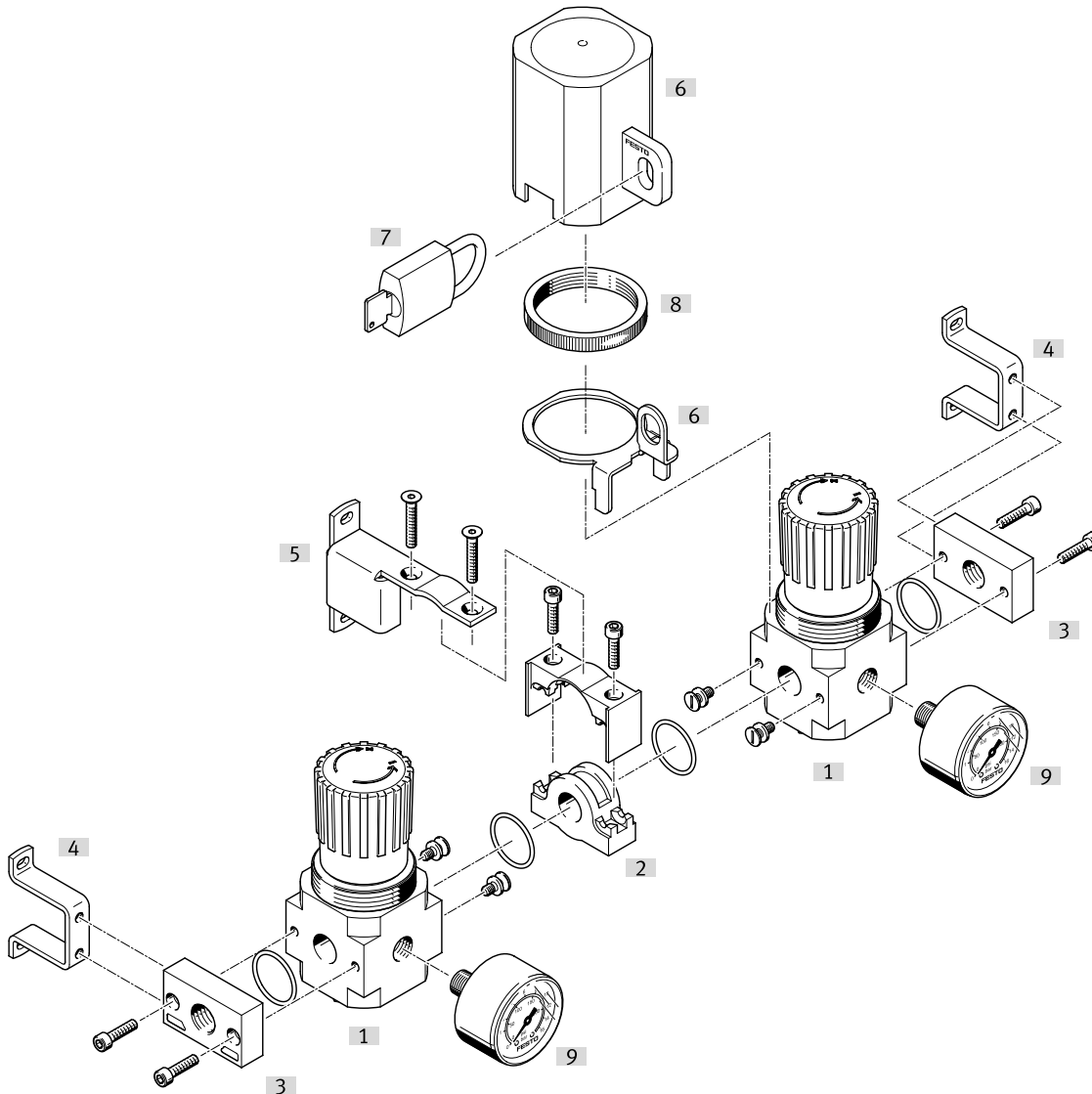
Pressure regulators LRB						
Size	Pneumatic connection, port 1	Pressure regulation range	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Midi	Sub-base	0.5 ... 7 bar	3,800 l/min	700 g	197538	LRB-D-7-O-MIDI
		0.5 ... 12 bar	3,200 l/min		197539	LRB-D-O-MIDI
Mini		0.5 ... 7 bar	1,800 l/min	250 g	197534	LRB-D-7-O-MINI
		0.5 ... 12 bar	1,600 l/min		197535	LRB-D-O-MINI

Pressure regulator, lockable LRBS						
Size	Pneumatic connection, port 1	Pressure regulation range	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
Midi	Sub-base	0.5 ... 7 bar	3,200 l/min	940 g	194687	LRBS-D-7-O-MIDI
		0.5 ... 12 bar	3,800 l/min		194686	LRBS-D-O-MIDI
Mini		0.5 ... 7 bar	1,600 l/min	350 g	194683	LRBS-D-7-O-MINI
		0.5 ... 12 bar	1,800 l/min		194682	LRBS-D-O-MINI



## Peripherals

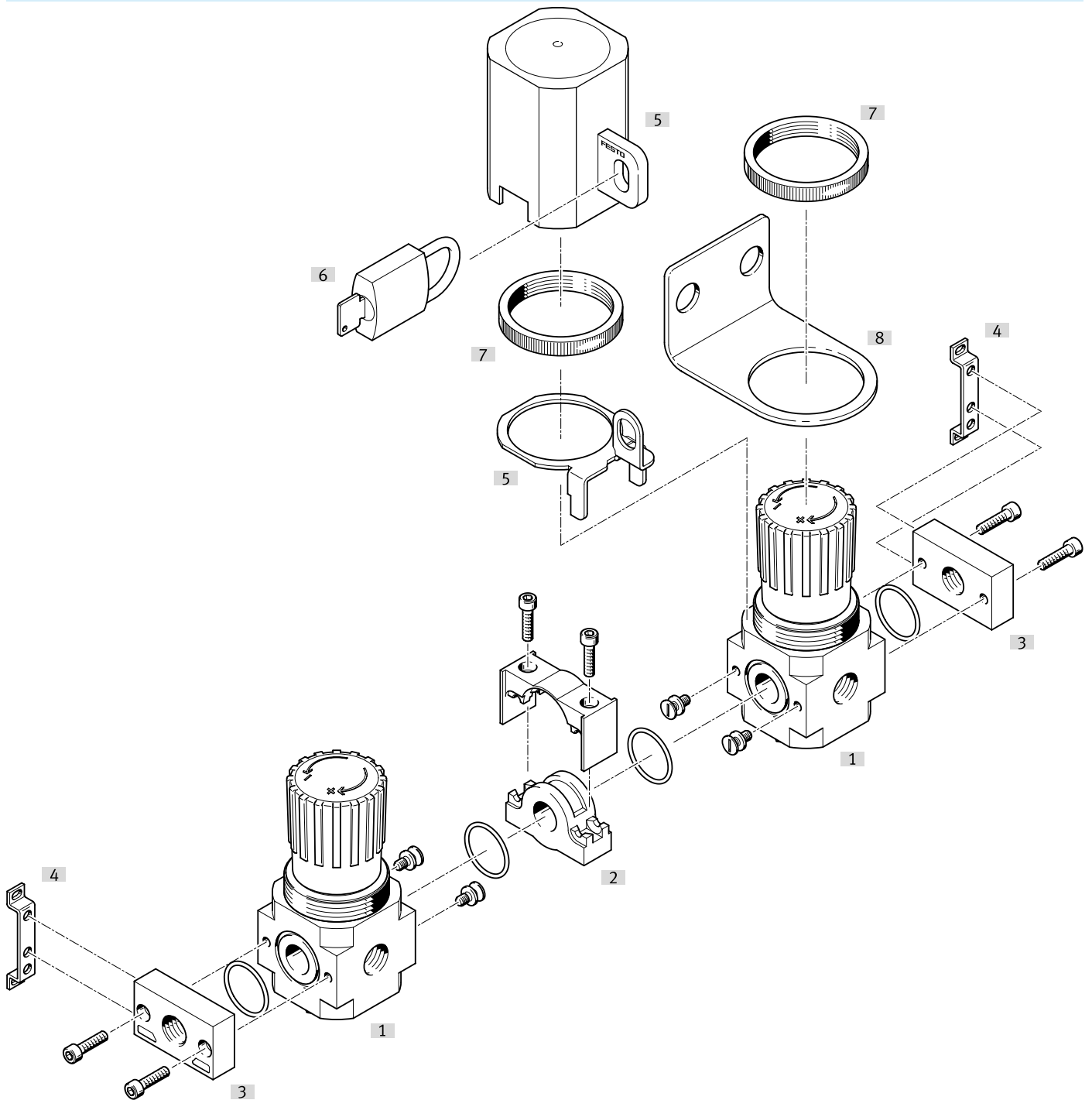
### Pressure regulators LRB – pressure output at the rear



Accessories		→ Link
Type/order code	Description	
[1] Pressure regulator LRB		<a href="#">lrb</a>
[2] Connecting kit HRBC		<a href="#">13</a>
[3] Connecting plates LRBAS		<a href="#">13</a>
[4] Mounting bracket HRB		<a href="#">13</a>
[5] Mounting bracket HRBK	A mounting bracket must be fitted after every second pressure regulator.	<a href="#">14</a>
[6] Regulator lock LRVS		
[7] Padlock LRVS-D		<a href="#">13</a>
[8] Knurled nut HMR	Included in the scope of delivery	<a href="#">-</a>
[9] Pressure gauge MA		<a href="#">14</a>

## Peripherals

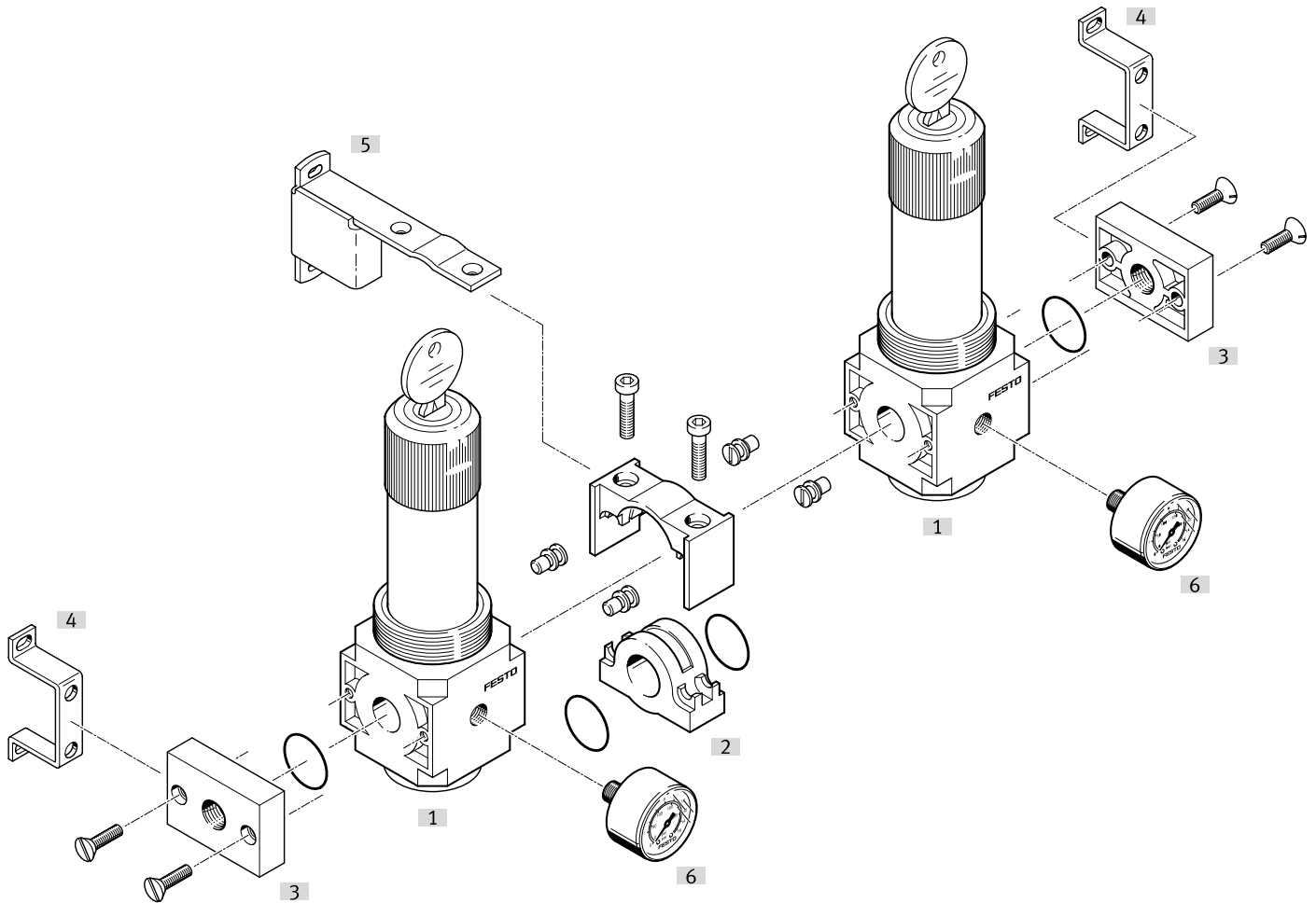
### Pressure regulator LRB – pressure output at the front



Accessories		→ Link
Type/order code	Description	
[1]	Pressure regulator LRB	<a href="#">lrb</a>
[2]	Connecting kit HRBC	<a href="#">13</a>
[3]	Connecting plates LRBAS	<a href="#">13</a>
[4]	Mounting bracket HFOE	<a href="#">13</a>
[5]	Regulator lock LRVS	
[6]	Padlock LRVS-D	<a href="#">13</a>
[7]	Knurled nut HMR	Included in the scope of delivery <a href="#">-</a>
[8]	Mounting bracket HR-D	<a href="#">14</a>

## Peripherals

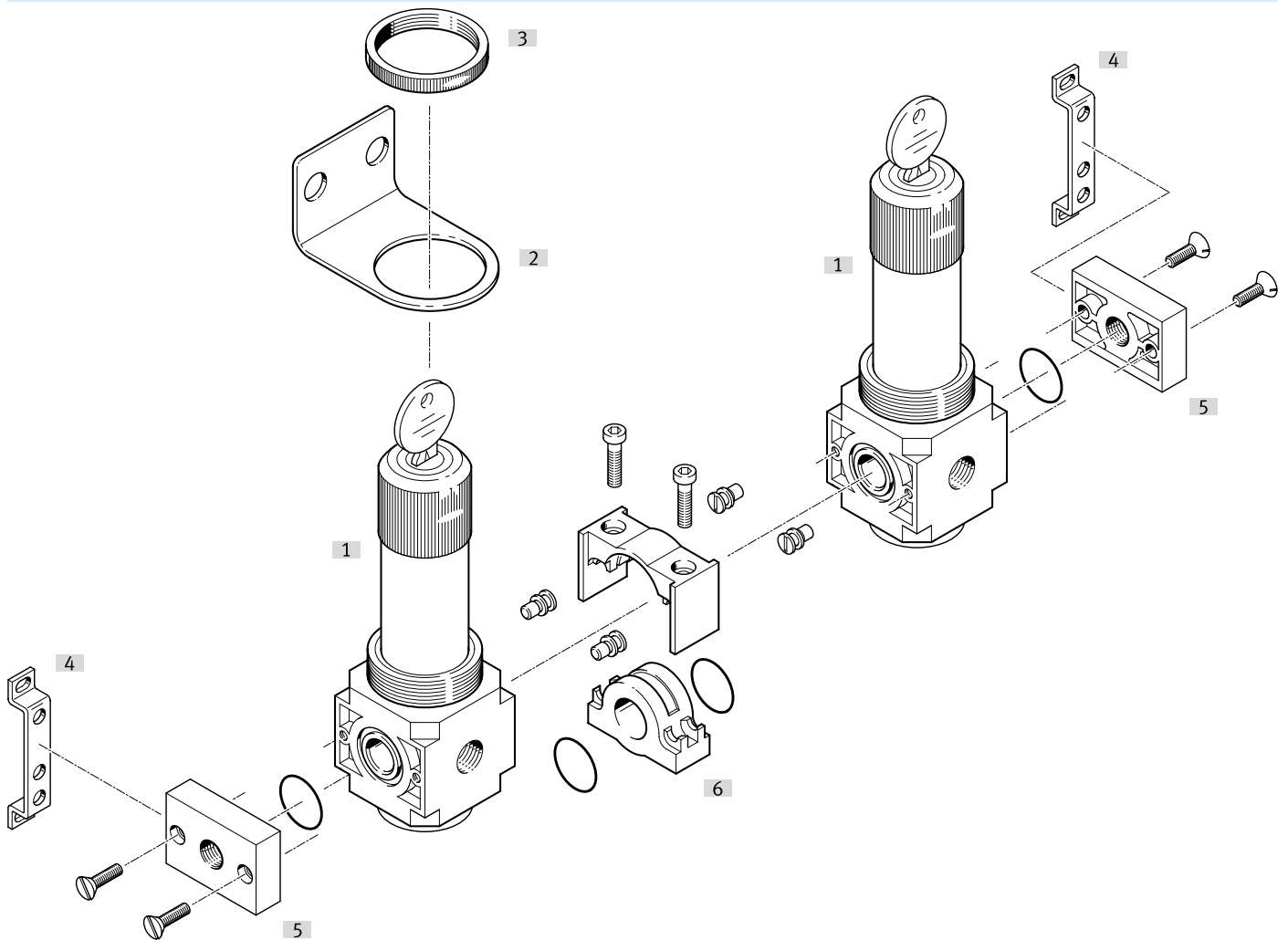
### Pressure regulator LRBS, lockable – pressure output at the rear



Accessories			→ Link
Type/order code	Description		
[1] Pressure regulator LRBS			<a href="#">lrs</a>
[2] Connecting kit HRBC			<a href="#">13</a>
[3] Connecting plates LRBAS			<a href="#">13</a>
[4] Mounting bracket HRB			<a href="#">13</a>
[5] Mounting bracket HRBK	A mounting bracket must be fitted after every second pressure regulator.		<a href="#">14</a>
[6] Pressure gauge MA			<a href="#">14</a>
[7] Knurled nut HMR	Not shown (included in the scope of delivery)		<a href="#">-</a>

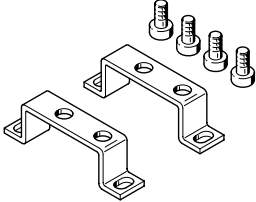
## Peripherals

### Pressure regulator LRBS, lockable – pressure output at the front

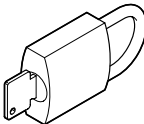


Accessories		→ Link
Type/order code	Description	
[1] Pressure regulator LRBS		<a href="#">lrs</a>
[2] Mounting bracket HR-D		<a href="#">14</a>
[3] Knurled nut HMR	Included in the scope of delivery	<a href="#">-</a>
[4] Mounting bracket HFOE		<a href="#">13</a>
[5] Connecting plates LRBAS		<a href="#">13</a>
[6] Connecting kit HRBC		<a href="#">13</a>

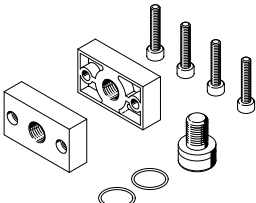
## Accessories

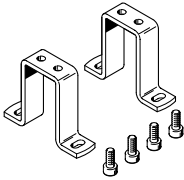
Mounting bracket HFOE				
	Corrosion resistance class CRC <sup>1)</sup>	LABS (PWIS) conformity	Part no.	Type
		VDMA24364-B1/B2-L	197534	LRB-D-7-O-MINI
			197535	LRB-D-O-MINI
			197538	LRB-D-7-O-MIDI
			197539	LRB-D-O-MIDI

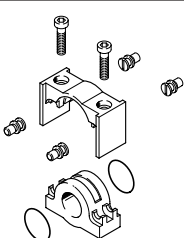
1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

Padlock LRVS-D						
	Corrosion resistance class CRC <sup>1)</sup>	LABS (PWIS) conformity	Note on materials	Product weight	Part no.	Type
	2 - Moderate corrosion stress	VDMA24364-B1/B2-L	RoHS-compliant	120 g	193786	LRVS-D

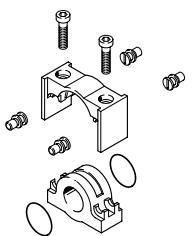
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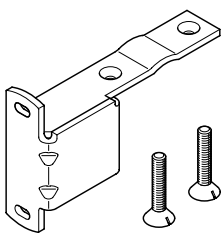
Connecting plates LRBAS			
	LABS (PWIS) conformity	Part no.	Type
	VDMA24364-B1/B2-L	525033	LRBAS-1/4-D-MINI
		525035	LRBAS-3/8-D-MIDI
		525034	LRBAS-3/8-D-MINI
		525036	LRBAS-1/2-D-MIDI

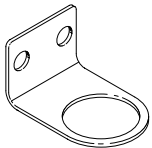
Mounting bracket HRB			
	LABS (PWIS) conformity	Part no.	Type
	VDMA24364-B1/B2-L	525029	HRB-D-MINI
		525030	HRB-D-MIDI

Connecting kit HRBC				
	LABS (PWIS) conformity	Product weight	Part no.	Type
	VDMA24364-B1/B2-L	65 g	529022	HRBC-D-MINI

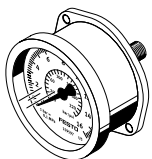
## Accessories

Connecting kit HRBC				
	LABS (PWIS) conformity	Product weight	Part no.	Type
	VDMA24364-B1/B2-L	188 g	529023	HRBC-D-MIDI

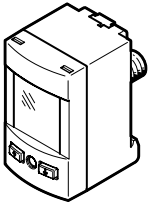
Mounting bracket HRBK			
	LABS (PWIS) conformity	Part no.	Type
	VDMA24364-B1/B2-L	525031	HRBK-D-MINI
		525032	HRBK-D-MIDI

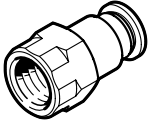
Mounting bracket HR-D				
	Corrosion resistance class CRC <sup>1)</sup>	LABS (PWIS) conformity	Part no.	Type
	1 - Low corrosion stress 2 - Moderate corrosion stress	VDMA24364-B1/B2-L	164936	HR-D-MINI
			162804	HR-D-MIDI
			162805	HR-D-MAXI
			193802	HR-D-DI-MAXI

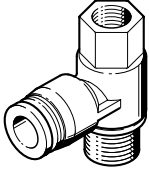
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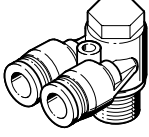
Pressure gauge MA							
	Nominal size of pressure gauge	Pneumatic connection	Scale	Product weight	Part no.	Type	
	40	G1/8	Double scale, Bar (outside scale), psi (inner scale)	60 g	345395	MA-40-16-1/8	
					359874	MA-40-10-1/8	
			Single scale, MPa (outer scale)		192733	MA-40-1,6-G1/8-MPA	
		G1/4	Double scale, psi (inner scale), Bar (outside scale)	80 g	159596	FMA-40-10-1/4-EN	
				70 g	183900	MA-40-10-G1/4-EN	
			Double scale, Bar (outside scale), psi (inner scale)	80 g	159597	FMA-40-16-1/4-EN	
	50	G1/4	R1/8	psi (inner scale)	60 g	162835	MA-40-10-1/8-EN
					70 g	356759	MA-50-16-1/4
			70 g	359873	MA-50-10-1/4		
	Single scale, MPa (outer scale)	70 g			159600	FMA-50-16-1/4-EN	
					159599	FMA-50-10-1/4-EN	
					192734	MA-50-1-G1/4-MPA	
				192735	MA-50-1,6-G1/4-MPA		

## Accessories

Pressure sensor SPAU for direct mounting on the service unit component with pressure gauge connection (adapter for pneumatic connection included in the scope of delivery)						
	Pneumatic connection	Switching output	Display type	Electrical connection 1, connector system	Part no.	Type
	R1/8	2 x PNP or 2 x NPN, switchable	Illuminated LCD	M12x1, A-coded to EN 61076-2-101	8001206	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M12D
				M8x1, A-coded, to EN 61076-2-104	8001203	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M8D
	R1/4			M12x1, A-coded to EN 61076-2-101	8001208	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M12D
				M8x1, A-coded, to EN 61076-2-104	8001209	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M8D

Push-in fitting QSF, female thread with external hex					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Product weight	Part no.	Type
	Female thread G1/4	For tubing outside diameter of 8 mm	24 g	★ 153026	QSF-1/4-8-B

Push-in T-fitting QSTF, rotatable 360°, with female and male thread					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Product weight	Part no.	Type
	Male thread G1/4	Female thread G1/4, For tubing outside diameter of 8 mm	44 g	186203	QSTF-G1/4-8

Push-in Y-fitting QSYLV, rotatable 360°, male thread with external hex					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Product weight	Part no.	Type
	Male thread G1/4	For tubing outside diameter of 8 mm	48 g	186210	QSYLV-G1/4-8