

Pressure regulators LR/LRS/LRB/LRBS, D series

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Pressure regulators LR/LRS/LRB/LRBS, D series, metal design

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Product range overview D series service units, metal design

Type	Size	Bowl guard		Condensate drain		Pressure indication		Actuator lock	Supply voltage		Options			➔ Page/ Internet		
		Metal bowl guard	Plastic bowl	Manual rotary	Semi-automatic	Fully automatic	With pressure gauge		Without pressure gauge	Rotary knob with detent	Rotary knob with integrated lock	24 V DC	110 V AC	230 V AC		
Service units																
FRC/FRCS	Micro	-	■	■	■	■	-	■	■	■	-	-	-	-	-	frc
	Mini	■	-	■	-	■	■	■	■	■	■	-	-	-	-	
	Midi	■	-	■	-	■	■	■	■	■	■	-	-	-	-	
	Maxi	■	-	■	-	■	■	■	■	■	■	-	-	-	■	
Service unit combinations																
FRC-K	Micro	-														frc
	Mini	■	-	■	-	■	■	-	■	-	-	-	-	-	-	
	Midi	■	-	■	-	■	■	-	■	-	-	-	-	-	-	
	Maxi	■	-	■	-	■	■	-	■	-	-	-	-	■	■	
LFR-K LFRS-K	Micro	-														lfr
	Mini	■	-	■	-	■	■	-	■	■	■	■	-	-	-	
	Midi	■	-	■	-	■	■	-	■	■	■	■	-	-	-	
	Maxi	■	-	■	-	■	■	-	■	■	■	■	-	■	■	
Individual devices																
Filter regulators LFR/LFRS	Micro	-	■	■	■	■	-	■	■	■	-	-	-	-	-	lfr
	Mini	■	-	■	-	■	■	■	■	■	■	-	-	-	-	
	Midi	■	-	■	-	■	■	■	■	■	■	-	-	-	-	
	Maxi	■	-	■	-	■	■	■	■	■	■	-	-	■	■	
Filters LF	Micro	-	■	■	■	■	-	-	-	-	-	-	-	-	-	lf
	Mini	■	-	■	-	■	-	-	-	-	-	-	-	-	-	
	Midi	■	-	■	-	■	-	-	-	-	-	-	-	-	-	
	Maxi	■	-	■	-	■	-	-	-	-	-	-	-	-	-	
Fine and micro filters LFMA/LFMB	Micro	-														lfma, lfmb
	Mini	■	-	■	-	■	-	-	-	-	-	-	-	-	■	
	Midi	■	-	■	-	■	-	-	-	-	-	-	-	-	■	
	Maxi	■	-	■	-	■	-	-	-	-	-	-	-	-	■	
Active carbon filters LFX	Micro	-														lfx
	Mini	■	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Midi	■	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Maxi	■	-	-	-	-	-	-	-	-	-	-	-	-	-	
Filter combinations LFMBA	Micro	-														lfmba
	Mini	■	-	■	-	■	-	■	-	■	-	■	-	-	■	
	Midi	■	-	■	-	■	-	■	-	■	-	■	-	-	■	
	Maxi	■	-	■	-	■	-	■	-	■	-	■	-	-	■	
Pressure regulators LR/LRS	Micro	-	-	-	-	-	■	■	■	■	-	-	-	-	-	6
	Mini	-	-	-	-	-	■	■	■	■	■	-	-	-	■	
	Midi	-	-	-	-	-	■	■	■	■	■	-	-	■	■	
	Maxi	-	-	-	-	-	■	■	■	■	■	-	-	■	■	

Pressure regulators LR/LRS/LRB/LRBS, D series, metal design

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Product range overview D series service units, metal design

Type	Size	Pneumatic connection										Pressure regulation range [bar]	
		M5	M7	G ¹ / ₈	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	G ³ / ₄	G1	QS4	QS6	0.5	0.5
												0.5	0.5
Individual devices													
Pressure regulators LRB/LRBS		Micro	—										
		Mini	—	—	—	■	—	—	—	—	—	■	■
		Midi	—	—	—	—	■	—	—	—	—	■	■
		Maxi	—										
Pressure regulator combinations LRB-K		Micro	—										
		Mini	—	—	—	■	■	—	—	—	—	■	■
		Midi	—	—	—	—	■	■	—	—	—	■	■
		Maxi	—										
Lubricators LOE		Micro	■	■	■	—	—	—	—	■	■	—	—
		Mini	—	—	■	■	■	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	—	—	—	—
		Maxi	—	—	—	—	—	■	■	■	—	—	—
On-off valves HE		Micro	—										
		Mini	—	—	■	■	■	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	—	—	—	—
		Maxi	—	—	—	—	—	■	■	■	—	—	—
On-off valves, electrical HEE		Micro	—										
		Mini	—	—	■	■	■	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	—	—	—	—
		Maxi	—	—	—	—	—	■	■	■	—	—	—
On-off valves, pneumatic HEP		Micro	—										
		Mini	—	—	■	■	■	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	—	—	—	—
		Maxi	—	—	—	—	—	■	■	■	■	—	—
Soft-start valves HEL		Micro	—										
		Mini	—	—	■	■	■	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	—	—	—	—
		Maxi	—	—	—	—	—	■	■	■	■	—	—
Membrane air dryers LDM1		Micro	—										
		Mini	—										
		Midi	—										
		Maxi	—	—	—	—	—	■	■	■	■	—	—
Branching modules FRM		Micro	—										
		Mini	—	—	■	■	■	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	—	—	—	—
		Maxi	—	—	—	—	—	■	■	■	■	—	—
Distributor block FRZ		Micro	—	—	—	—	—	—	—	—	—	—	—
		Mini	—	—	—	—	—	—	—	—	—	—	—
		Midi	—	—	—	—	—	—	—	—	—	—	—
		Maxi	—	—	—	—	—	—	—	—	—	—	—

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Type	Size	Bowl guard		Pressure indication		Actuator lock		Supply voltage			Options		➔ Page/ Internet
		Metal bowl guard	Plastic bowl	With pressure gauge	Without pressure gauge	Rotary knob with detent	Rotary knob with integrated lock	24 V DC	110 VAC	230 VAC	Non-return function	Pressure switch	
Individual devices													
Pressure regulators LRB/LRBS	Micro	–											20
	Mini	–	–	–	■	■	■	–	–	–	–	–	
	Midi	–	–	–	■	■	■	–	–	–	–	–	
	Maxi	–	–										
Pressure regulator combinations LRB-K	Micro	–											28
	Mini	–	–	–	■	■	–	–	–	–	–	–	
	Midi	–	–	–	■	■	–	–	–	–	–	–	
	Maxi	–	–										
Lubricators LOE	Micro	–	■	–	■	–	–	–	–	–	–	–	loe
	Mini	■	–	–	■	–	–	–	–	–	–	–	
	Midi	■	–	–	■	–	–	–	–	–	–	–	
	Maxi	■	–	–	■	–	–	–	–	–	–	–	
On-off valves HE	Micro	–											he
	Mini	–	–	–	■	■	–	–	–	–	–	–	
	Midi	–	–	–	■	■	–	–	–	–	–	–	
	Maxi	–	–	–	■	■	–	–	–	–	–	–	
On-off valves, electrical HEE	Micro	–											hee
	Mini	–	–	–	■	–	–	■	■	■	–	–	
	Midi	–	–	–	■	–	–	■	■	■	–	–	
	Maxi	–	–	–	■	–	–	■	■	■	–	–	
On-off valves, pneumatic HEP	Micro	–											hep
	Mini	–	–	–	■	–	–	–	–	–	–	–	
	Midi	–	–	–	■	–	–	–	–	–	–	–	
	Maxi	–	–	–	■	–	–	–	–	–	–	–	
Soft-start valves HEL	Micro	–											hel
	Mini	–	–	–	■	–	–	–	–	–	–	–	
	Midi	–	–	–	■	–	–	–	–	–	–	–	
	Maxi	–	–	–	■	–	–	–	–	–	–	–	
Membrane air dryers LDM1	Micro	–											ldm1
	Mini	–											
	Midi	–											
	Maxi	■	–	–	■	–	–	–	–	–	–	–	
Branching modules FRM	Micro	–											frm
	Mini	–	–	–	■	–	–	–	–	–	–	–	
	Midi	–	–	–	■	–	–	–	–	–	–	–	
	Maxi	–	–	–	■	–	–	–	–	–	–	–	
Distributor block FRZ	Micro	–	–	–	■	–	–	–	–	–	–	–	frz
	Mini	–	–	–	■	–	–	–	–	–	–	–	
	Midi	–	–	–	■	–	–	–	–	–	–	–	
	Maxi	–	–	–	■	–	–	–	–	–	–	–	

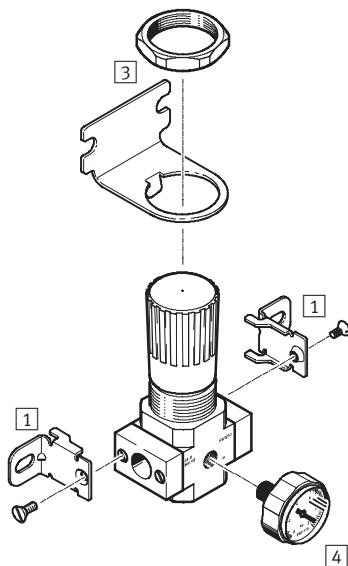
Pressure regulators LR/LRS, D series, metal design

Peripherals overview

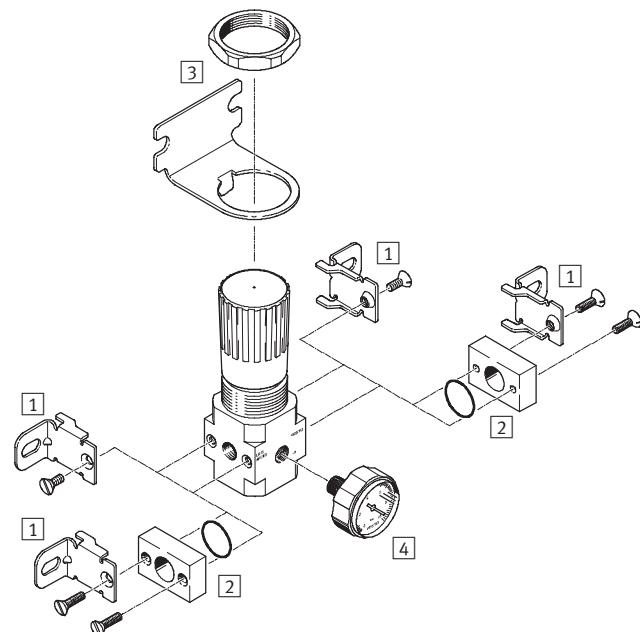
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Micro

Individual unit with connection plates,
connection size G1/8, QS4 or QS6



Individual unit without connection plates, for service unit combination
connection size M5 or M7 in housing



Mounting attachments and accessories

	Individual unit		Combination		➔ Page/ Internet
	with connection plates	without connection plates	with connection plates	without connection plates	
[1] Mounting bracket HFOE	■	■	■	■	hfoe-d
[2] Connecting plate kit PBL	-	■	-	■	pbl
[3] Mounting bracket HRS	■	■	■	■	hrs-d
[4] Pressure gauge MA-27	■	■	■	■	52

Pressure regulators LR/LRS, D series, metal design

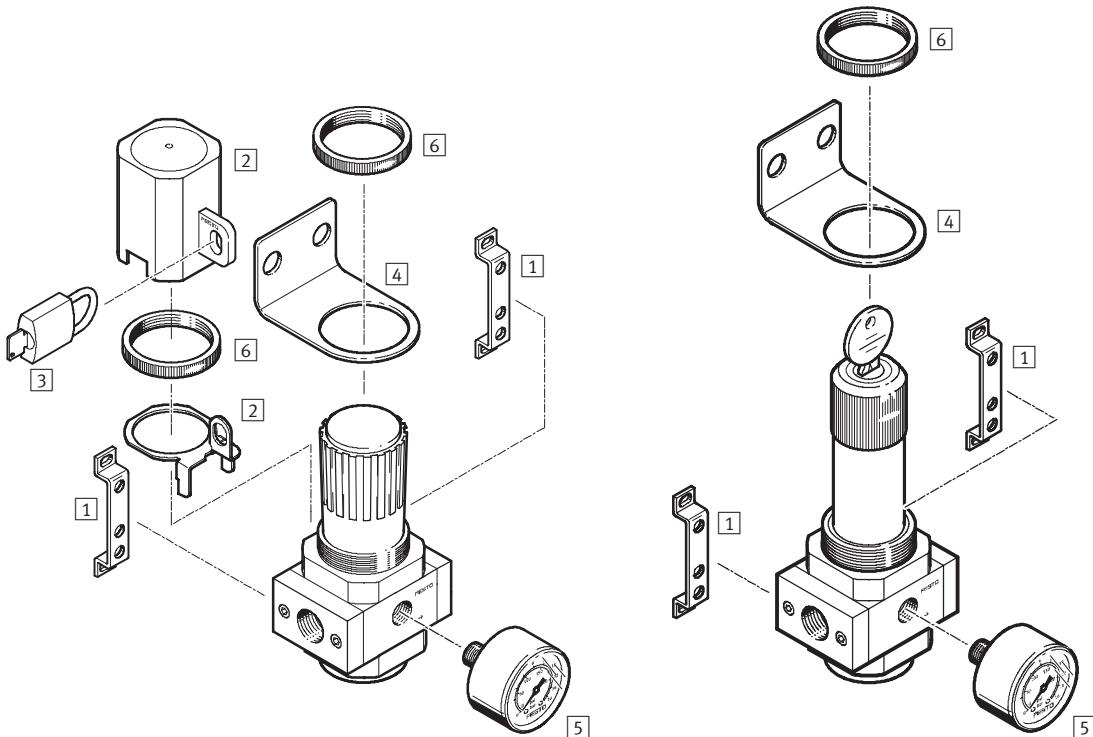
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Peripherals overview

Mini/Midi/Maxi

Pressure regulator LR

Pressure regulator LRS, lockable



Mounting attachments and accessories

	Rotary knob with detent	Rotary knob, lockable	➔ Page/ Internet
[1] Mounting bracket HFOE	■	■	hfoe-d
[2] Regulator lock LRVS	■	-	lrvs-d
[3] Padlock LRVS-D	■	-	lrvs-d
[4] Mounting bracket HR-D	■	■	hr-d
[5] Pressure gauge MA	■	■	52
[6] Knurled nut (included in scope of delivery) HMR	■	■	-

Pressure regulators LR/LRS, D series, metal design

Type codes

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LR	-	1/2	-	D	-	7	-	0	-	DI	-	MAXI
Basic function												
LR	Pressure regulator											
LRS	Pressure regulator, lockable											
Pneumatic connection												
M5	Thread M5											
M7	Thread M7											
QS4	Push-in fitting QS4											
QS6	Push-in fitting QS6											
1/8	Thread G1/8											
1/4	Thread G1/4											
3/8	Thread G3/8											
1/2	Thread G1/2											
3/4	Thread G3/4											
1	Thread G1											
Series												
D	Series											
Pressure regulation range												
	0.5 ... 12 bar											
7	0.5 ... 7 bar											
Pressure gauge												
	With pressure gauge											
0	Without pressure gauge											
Functions												
I	With integrated return flow function											
DI	Directly actuated pressure regulator with integrated return flow function (MAXI units only)											
Size												
MICRO	Grid dimension 25 mm (without connecting plates)											
MINI	Grid dimension 40 mm (without connecting plates)											
MIDI	Grid dimension 55 mm (without connecting plates)											
MAXI	Grid dimension 66 mm (without connecting plates)											

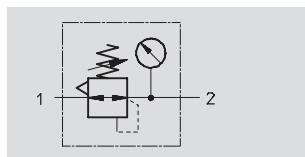
Pressure regulators LR/LRS, D series, metal design

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Technical data

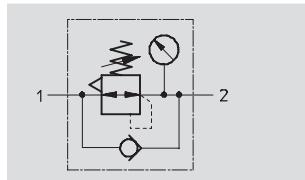
Function

LR/LRS-....-D...



- - Flow rate
120 ... 12500 l/min
- - Temperature range
-10 ... +60 °C
- - Input pressure
1 ... 16 bar

LR/LRS-....-D-DI-MAXI



Integrated universal locking for pressure regulators of D series which prevents alteration of the set secondary pressure (p_2) by unauthorized persons. Universal locking means that multiple locks can be closed with the same key. A cylinder lock is integrated in the rotary knob.



- Also suitable for front panel mounting
- Two pressure gauge connections for different fitting options
- Mini and Midi sizes: Directly actuated diaphragm regulator
- Maxi size: Pilot actuated piston regulator, diaphragm regulator LRS-DI
- Good regulating characteristics with minimal pressure hysteresis
- High flow rate
- Two pressure regulation ranges: 0.5 ... 7 bar and 0.5 ... 12 bar
- Setting values are secured by locking the rotary knob
- Return flow option for venting from output 2 to input 1
- Pressure sensor (optional) → 52

General technical data

Size	Micro	Mini	Midi	Maxi
Pneumatic connection	M5 M7 G1/8 QS4 QS6	G1/8 G1/4 G3/8 G1/4 G3/8 G1/2 G3/4 G1/2 G3/4 G1		
Operating medium	Compressed air	Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm		
Design	Directly actuated diaphragm regulator	Directly actuated diaphragm regulator		Pilot actuated piston regulator Directly actuated diaphragm regulator
Type of mounting	Via accessories In-line installation Front panel mounting	Via accessories In-line installation Front panel mounting		
Assembly position	Any	Any		
Max. hysteresis [bar]	0.3	0.2		0.4
Input pressure [bar]	1 ... 10	1 ... 16		
Pressure regulation range [bar]	0.5 ... 7	0.5 ... 7 0.5 ... 12		
Pressure indication	Via pressure gauge M5 prepared	Via pressure gauge G1/8 prepared	G1/4 prepared	G1/4 prepared

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

Pressure regulators LR/LRS, D series, metal design

Technical data

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Standard nominal flow rate ¹⁾ qN [l/min]					
Connection	Female thread		Connecting plate		
	M5	M7	G1/8	QS4	QS6
Micro					
LR	120	300	450	160	450

1) Measured at p₁ = 10 bar, p₂ = 6 bar and Δp = 1 bar.

Standard nominal flow rate ¹⁾ qN [l/min]						
Connection	G1/8	G1/4	G3/8	G1/2	G3/4	G1
Mini						
Pressure regulation range 0.5 ... 7 bar	1000	1600	1800	-	-	-
Pressure regulation range 0.5 ... 12 bar	800	1500	1700	-	-	-
Midi						
Pressure regulation range 0.5 ... 7 bar	-	2200	3300	4000	4500	-
Pressure regulation range 0.5 ... 12 bar	-	2100	3200	3500	3500	-
Maxi						
Pressure regulation range 0.5 ... 7 bar	-	-	-	10700	12000	12500
Pressure regulation range 0.5 ... 12 bar	-	-	-	10500	11000	11500
Maxi – Directly actuated pressure regulator with integrated return flow function						
Pressure regulation range 0.5 ... 7 bar	-	-	-	5400	6800	7000
Pressure regulation range 0.5 ... 12 bar	-	-	-	7300	8350	8400

1) Measured at p₁ = 10 bar, p₂ = 6 bar and Δp = 1 bar.

Screw-in depth of connecting thread [mm]					
Connection	M5	M7	G1/8	QS4	QS6
Micro					
In housing	5	6	-	-	-
In connecting plates	-	-	8	-	-

Ambient conditions					
Size	Micro	Mini	Midi	Midi	Maxi
Ambient temperature [°C]	-10 ... +60				
Temperature of medium [°C]	-10 ... +60				
Corrosion resistance class 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.

Weight [g]					
Size	Micro		Mini	Midi	Maxi
	Female thread	Connecting plate			
With pressure gauge					
LR	60	80	350	720	1200
LRS	-	-	520	1250	1290
Without pressure gauge					
LR	50	70	300	660	1 100
LRS	-	-	470	1 180	1 215

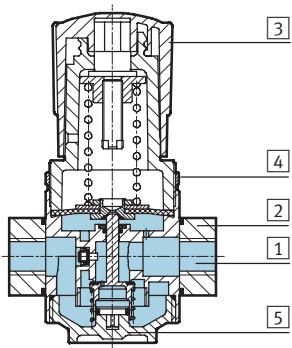
Pressure regulators LR/LRS, D series, metal design

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Technical data

Materials

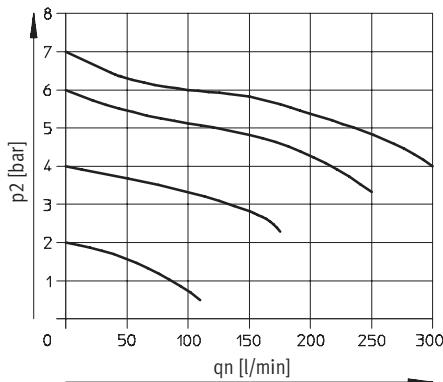
Sectional view



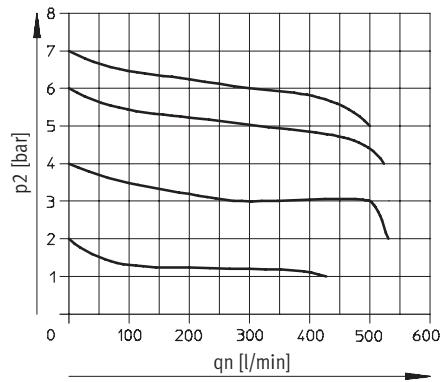
Pressure regulator	Micro	Mini/Midi/Maxi
[1] Housing	Wrought aluminium alloy	Die-cast zinc/aluminium
[2] Connecting plates	Wrought aluminium alloy	Die-cast zinc/aluminium
[3] Regulating knob	Polyacetal	Polyacetal
[4] Knurled nut	–	Aluminium
[5] Plug cap	Polycarbonate	Polycarbonate
– Seals	Nitrile rubber	Nitrile rubber
Note on materials	–	Designs free of copper, PTFE and silicone → Ordering data

Standard flow rate q_n as a function of the output pressure p_2

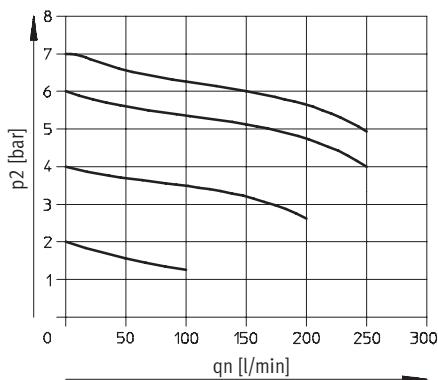
LR-M5-...-MICRO



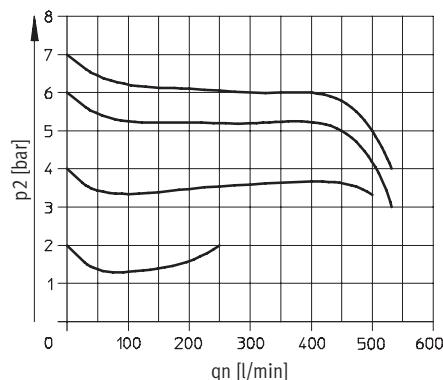
LR-M7-...-MICRO B



LR-QS4-...-MICRO



LR-QS6-...-MICRO and LR-1/8-...-MICRO



Primary pressure $p_1 = 10$ bar

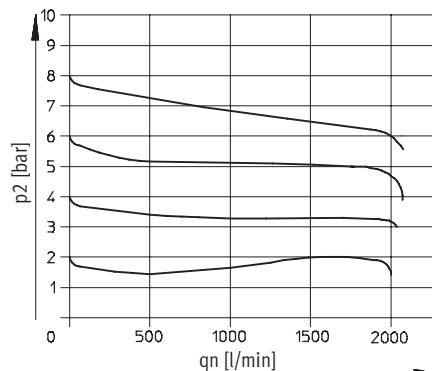
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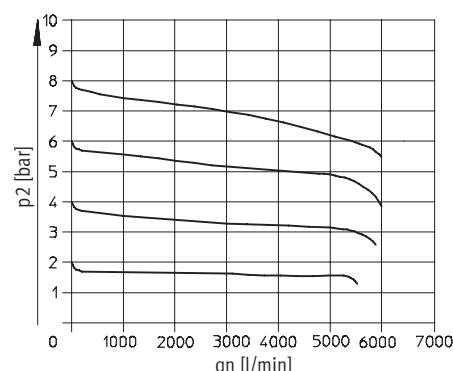
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Standard flow rate q_n as a function of the output pressure p_2

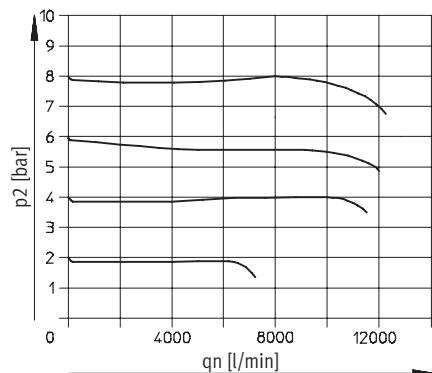
LR/LRS-1/4-D-MINI



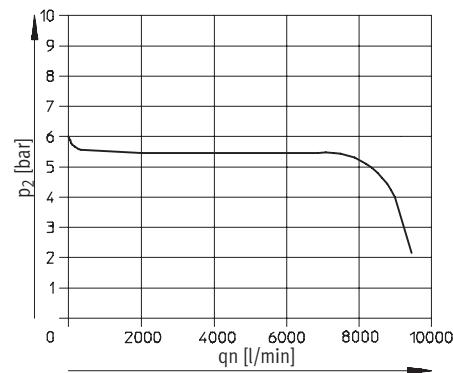
LR/LRS-1/2-D-MIDI



LR/LRS-1-D-MAXI



LR/LRS-1-D-DI-MAXI



Primary pressure $p_1 = 10$ bar



Note

In order to improve control behaviour, primary-pressure dependent internal air consumption is provided on the LR/LRS-...-MAXI.

Pressure regulators LR/LRS, D series, metal design

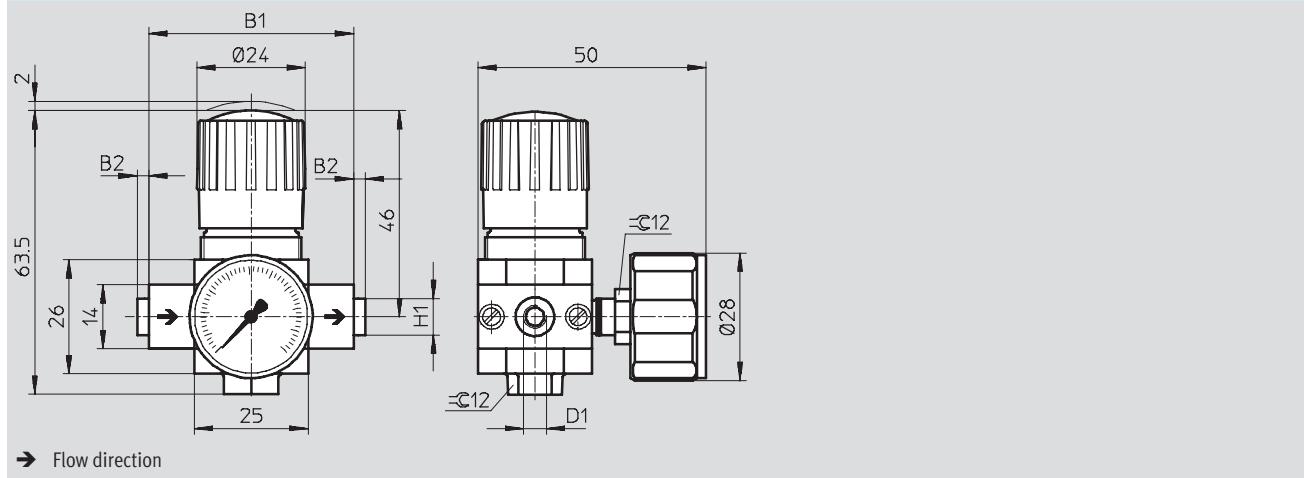
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Technical data

Dimensions

Micro

Download CAD data → www.festo.com



Type	B1	B2	D1	H1
Micro				
LR-M5-D-7-MICRO	25	-	M5	-
LR-M7-D-7-MICRO B			M7	-
LR-1/8-D-7-MICRO	45	~2.5	G1/8	-
LR-QS4-D-7-MICRO			QS4	~8
LR-QS6-D-7-MICRO			QS6	~10

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

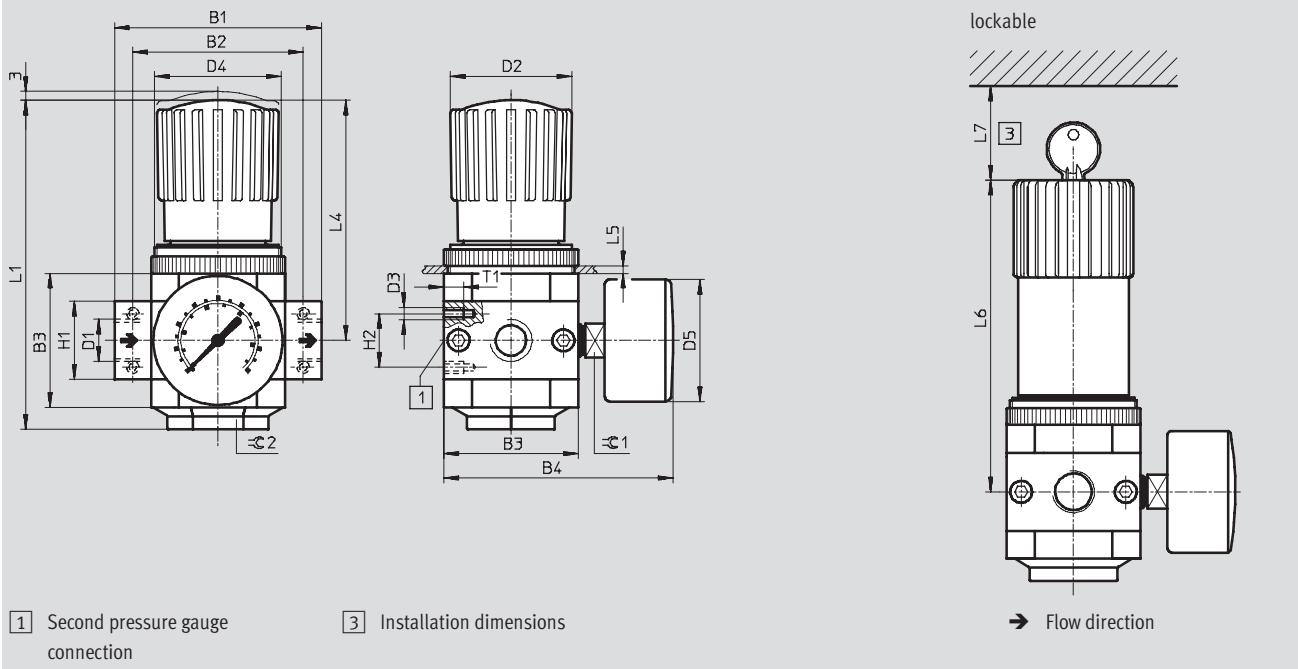
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Dimensions

Mini/Midi/Maxi



Type	B1	B2	B3	B4	D1	D2	D3	D4	D5
Mini									
LR/LRS-1/8-D-(I)-MINI	64				G1/8				
LR/LRS-1/4-D-(I)-MINI		52		40	G1/4				
LR/LRS-3/8-D-(I)-MINI	70				G3/8				
Midi									
LR/LRS-1/4-D-(I)-MIDI	85	70	55	95	G1/4				
LR/LRS-3/8-D-(I)-MIDI					G3/8				
LR/LRS-1/2-D-(I)-MIDI					G1/2				
LR/LRS-3/4-D-(I)-MIDI					G3/4				
Maxi									
LR/LRS-1/2-D-MAXI	96	80	66	107	G1/2	31		M36x1.5	
LR/LRS-1/2-D-DI-MAXI						49		M52x1.5	
LR/LRS-3/4-D-MAXI						31		M36x1.5	
LR/LRS-3/4-D-DI-MAXI						49		M52x1.5	
LR/LRS-1-D-MAXI	116	91			G1	31		M36x1.5	
LR/LRS-1-D-DI-MAXI						49		M52x1.5	

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

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Technical data

Type	H1	H2	L1	L4	L5 max.	L6	L7	T1	=C 1	=C 2
Mini										
LR/LRS-1/8-D-MINI										
LR/LRS-1/4-D-MINI	20	11	96	68	3	98	60	7	14	17
LR/LRS-3/8-D-MINI										
Midi										
LR/LRS-1/4-D-MIDI										
LR/LRS-3/8-D-MIDI	32	22	135	99	5	130	60	8	14	36
LR/LRS-1/2-D-MIDI										
LR/LRS-3/4-D-MIDI										
Maxi										
LR/LRS-1/2-D-MAXI										
LR/LRS-1/2-D-DI-MAXI	32	22	125	82		111				
LR/LRS-3/4-D-MAXI			148	105		135				
LR/LRS-3/4-D-DI-MAXI			125	82		111				
LR/LRS-1-D-MAXI	40	22	148	105	4	135	60	8	14	22
LR/LRS-1-D-DI-MAXI			125	82		111				
			148	105		135				

Pressure regulators LR/LRS, D series, metal design

Technical data

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Ordering data			
Size	Connection	Pressure regulation range 0.5 ... 7 bar	
		Part No.	Type
With pressure gauge			
Micro	Without threaded connecting plates, connecting thread in housing		
M5	526 261	LR-M5-D-7-MICRO	
M7	534 180	LR-M7-D-7-MICRO B	
With threaded connecting plates			
G1/8	526 263	LR-1/8-D-7-MICRO	
With connecting plate and push-in fitting			
QS4	526 269	LR-QS4-D-7-MICRO	
QS6	526 271	LR-QS6-D-7-MICRO	
Without pressure gauge			
Micro	Without threaded connecting plates, connecting thread in housing		
M5	526 262	LR-M5-D-0-7-MICRO	
M7	534 181	LR-M7-D-0-7-MICRO B	
With threaded connecting plates			
G1/8	526 264	LR-1/8-D-0-7-MICRO	
With connecting plate and push-in fitting			
QS4	526 270	LR-QS4-D-0-7-MICRO	
QS6	526 272	LR-QS6-D-0-7-MICRO	

Ordering data			
Size	Connection	Pressure regulation range 0.5 ... 7 bar	Pressure regulation range 0.5 ... 12 bar
		Part No.	Type
With pressure gauge			
Mini	G1/8	162 582	LR-1/8-D-7-MINI
	G1/4	162 583	LR-1/4-D-7-MINI
	G3/8	162 584	LR-3/8-D-7-MINI
Midi	G1/4	186 453	LR-1/4-D-7-MIDI
	G3/8	162 585	LR-3/8-D-7-MIDI
	G1/2	162 586	LR-1/2-D-7-MIDI
	G3/4	162 587	LR-3/4-D-7-MIDI
Maxi	G1/2	186 457	LR-1/2-D-7-MAXI
	G3/4	162 588	LR-3/4-D-7-MAXI
	G1	162 589	LR-1-D-7-MAXI
159 624	LR-1/8-D-MINI		
159 625	LR-1/4-D-MINI		
162 580	LR-3/8-D-MINI		
186 451	LR-1/4-D-MIDI		
159 580	LR-3/8-D-MIDI		
159 581	LR-1/2-D-MIDI		
162 581	LR-3/4-D-MIDI		
186 455	LR-1/2-D-MAXI		
159 626	LR-3/4-D-MAXI		
159 627	LR-1-D-MAXI		
Without pressure gauge			
Mini	G1/8	162 598	LR-1/8-D-7-O-MINI ¹⁾
	G1/4	162 599	LR-1/4-D-7-O-MINI ¹⁾
	G3/8	162 600	LR-3/8-D-7-O-MINI ¹⁾
Midi	G1/4	186 454	LR-1/4-D-7-O-MIDI ¹⁾
	G3/8	162 601	LR-3/8-D-7-O-MIDI ¹⁾
	G1/2	162 602	LR-1/2-D-7-O-MIDI ¹⁾
	G3/4	162 603	LR-3/4-D-7-O-MIDI ¹⁾
Maxi	G1/2	186 458	LR-1/2-D-7-O-MAXI ¹⁾
	G3/4	162 604	LR-3/4-D-7-O-MAXI ¹⁾
	G1	162 605	LR-1-D-7-O-MAXI ¹⁾
162 590	LR-1/8-D-O-MINI ¹⁾		
162 591	LR-1/4-D-O-MINI ¹⁾		
162 592	LR-3/8-D-O-MINI ¹⁾		
186 452	LR-1/4-D-O-MIDI ¹⁾		
162 593	LR-3/8-D-O-MIDI ¹⁾		
162 594	LR-1/2-D-O-MIDI ¹⁾		
162 595	LR-3/4-D-O-MIDI ¹⁾		
186 456	LR-1/2-D-O-MAXI ¹⁾		
162 596	LR-3/4-D-O-MAXI ¹⁾		
162 597	LR-1-D-O-MAXI ¹⁾		

1) Free of copper, PTFE and silicone

Pressure regulators LR/LRS, D series, metal design

FESTO

Technical data

Ordering data

Pressure regulator with integrated return flow function

Size	Connection	Pressure regulation range 0.5 ... 7 bar		Pressure regulation range 0.5 ... 12 bar	
		Part No.	Type	Part No.	Type
With pressure gauge					
Mini	G ¹ / ₈	192 299	LR-1/8-D-7-I-MINI	192 298	LR-1/8-D-I-MINI
	G ¹ / ₄	192 301	LR-1/4-D-7-I-MINI	192 300	LR-1/4-D-I-MINI
	G ³ / ₈	192 303	LR-3/8-D-7-I-MINI	192 302	LR-3/8-D-I-MINI
Midi	G ¹ / ₄	192 311	LR-1/4-D-7-I-MIDI	192 310	LR-1/4-D-I-MIDI
	G ³ / ₈	192 313	LR-3/8-D-7-I-MIDI	192 312	LR-3/8-D-I-MIDI
	G ¹ / ₂	192 315	LR-1/2-D-7-I-MIDI	192 314	LR-1/2-D-I-MIDI
	G ³ / ₄	192 317	LR-3/4-D-7-I-MIDI	192 316	LR-3/4-D-I-MIDI
Without pressure gauge					
Mini	G ¹ / ₈	192 305	LR-1/8-D-7-O-I-MINI ⁽¹⁾	192 304	LR-1/8-D-O-I-MINI ⁽¹⁾
	G ¹ / ₄	192 307	LR-1/4-D-7-O-I-MINI ⁽¹⁾	192 306	LR-1/4-D-O-I-MINI ⁽¹⁾
	G ³ / ₈	192 309	LR-3/8-D-7-O-I-MINI ⁽¹⁾	192 308	LR-3/8-D-O-I-MINI ⁽¹⁾
Midi	G ¹ / ₄	192 319	LR-1/4-D-7-O-I-MIDI ⁽¹⁾	192 318	LR-1/4-D-O-I-MIDI ⁽¹⁾
	G ³ / ₈	192 321	LR-3/8-D-7-O-I-MIDI ⁽¹⁾	192 320	LR-3/8-D-O-I-MIDI ⁽¹⁾
	G ¹ / ₂	192 323	LR-1/2-D-7-O-I-MIDI ⁽¹⁾	192 322	LR-1/2-D-O-I-MIDI ⁽¹⁾
	G ³ / ₄	192 325	LR-3/4-D-7-O-I-MIDI ⁽¹⁾	192 324	LR-3/4-D-O-I-MIDI ⁽¹⁾

1) Free of copper, PTFE and silicone

Ordering data

Directly actuated pressure regulator with integrated return flow function

Size	Connection	Pressure regulation range 0.5 ... 7 bar		Pressure regulation range 0.5 ... 12 bar	
		Part No.	Type	Part No.	Type
With pressure gauge					
Maxi	G ¹ / ₂	192 358	LR-1/2-D-7-DI-MAXI	192 356	LR-1/2-D-DI-MAXI
	G ³ / ₄	192 362	LR-3/4-D-7-DI-MAXI	192 360	LR-3/4-D-DI-MAXI
	G1	192 366	LR-1-D-7-DI-MAXI	192 364	LR-1-D-DI-MAXI
Without pressure gauge					
Maxi	G ¹ / ₂	192 359	LR-1/2-D-7-O-DI-MAXI ⁽¹⁾	192 357	LR-1/2-D-O-DI-MAXI ⁽¹⁾
	G ³ / ₄	192 363	LR-3/4-D-7-O-DI-MAXI ⁽¹⁾	192 361	LR-3/4-D-O-DI-MAXI ⁽¹⁾
	G1	192 367	LR-1-D-7-O-DI-MAXI ⁽¹⁾	192 365	LR-1-D-O-DI-MAXI ⁽¹⁾

1) Free of copper, PTFE and silicone

Pressure regulators LR/LRS, D series, metal design

Technical data

FESTO

Ordering data						
Pressure regulator, lockable						
Size	Connection	Pressure regulation range 0.5 ... 7 bar		Pressure regulation range 0.5 ... 12 bar	Part No.	Type
		Part No.	Type			
With pressure gauge						
Mini	G1/8	194 606	LRS-1/8-D-7-MINI	Pressure regulation range 0.5 ... 12 bar	194 602	LRS-1/8-D-MINI
	G1/4	194 614	LRS-1/4-D-7-MINI		194 610	LRS-1/4-D-MINI
	G3/8	194 622	LRS-3/8-D-7-MINI		194 618	LRS-3/8-D-MINI
Midi	G1/4	194 630	LRS-1/4-D-7-MIDI		194 626	LRS-1/4-D-MIDI
	G3/8	194 638	LRS-3/8-D-7-MIDI		194 634	LRS-3/8-D-MIDI
	G1/2	194 646	LRS-1/2-D-7-MIDI		194 642	LRS-1/2-D-MIDI
	G3/4	194 656	LRS-3/4-D-7-MIDI		194 650	LRS-3/4-D-MIDI
Maxi	G1/2	194 660	LRS-1/2-D-7-MAXI		194 658	LRS-1/2-D-MAXI
	G3/4	194 662	LRS-3/4-D-7-MAXI		194 664	LRS-3/4-D-MAXI
	G1	194 668	LRS-1-D-7-MAXI		194 666	LRS-1-D-MAXI
Without pressure gauge						
Mini	G1/8	194 608	LRS-1/8-D-7-O-MINI	Pressure regulation range 0.5 ... 12 bar	194 604	LRS-1/8-D-O-MINI
	G1/4	194 616	LRS-1/4-D-7-O-MINI		194 612	LRS-1/4-D-O-MINI
	G3/8	194 624	LRS-3/8-D-7-O-MINI		194 620	LRS-3/8-D-O-MINI
Midi	G1/4	194 632	LRS-1/4-D-7-O-MIDI		194 628	LRS-1/4-D-O-MIDI
	G3/8	194 640	LRS-3/8-D-7-O-MIDI		194 636	LRS-3/8-D-O-MIDI
	G1/2	194 648	LRS-1/2-D-7-O-MIDI		194 644	LRS-1/2-D-O-MIDI
	G3/4	194 654	LRS-3/4-D-7-O-MIDI		194 652	LRS-3/4-D-O-MIDI
Maxi	G1/2	194 661	LRS-1/2-D-7-O-MAXI		194 659	LRS-1/2-D-O-MAXI
	G3/4	194 663	LRS-3/4-D-7-O-MAXI		194 665	LRS-3/4-D-O-MAXI
	G1	194 669	LRS-1-D-7-O-MAXI		194 667	LRS-1-D-O-MAXI
Ordering data						
Pressure regulator with integrated return flow function, lockable						
Size	Connection	Pressure regulation range 0.5 ... 7 bar		Pressure regulation range 0.5 ... 12 bar	Part No.	Type
		Part No.	Type			
With pressure gauge						
Mini	G1/8	194 607	LRS-1/8-D-7-I-MINI	Pressure regulation range 0.5 ... 12 bar	194 603	LRS-1/8-D-I-MINI
	G1/4	194 615	LRS-1/4-D-7-I-MINI		194 611	LRS-1/4-D-I-MINI
	G3/8	194 623	LRS-3/8-D-7-I-MINI		194 619	LRS-3/8-D-I-MINI
Midi	G1/4	194 631	LRS-1/4-D-7-I-MIDI		194 627	LRS-1/4-D-I-MIDI
	G3/8	194 639	LRS-3/8-D-7-I-MIDI		194 635	LRS-3/8-D-I-MIDI
	G1/2	194 647	LRS-1/2-D-7-I-MIDI		194 643	LRS-1/2-D-I-MIDI
	G3/4	194 657	LRS-3/4-D-7-I-MIDI		194 651	LRS-3/4-D-I-MIDI
Without pressure gauge						
Mini	G1/8	194 609	LRS-1/8-D-7-O-I-MINI	Pressure regulation range 0.5 ... 12 bar	194 605	LRS-1/8-D-O-I-MINI
	G1/4	194 617	LRS-1/4-D-7-O-I-MINI		194 613	LRS-1/4-D-O-I-MINI
	G3/8	194 625	LRS-3/8-D-7-O-I-MINI		194 621	LRS-3/8-D-O-I-MINI
Midi	G1/4	194 633	LRS-1/4-D-7-O-I-MIDI		194 629	LRS-1/4-D-O-I-MIDI
	G3/8	194 641	LRS-3/8-D-7-O-I-MIDI		194 637	LRS-3/8-D-O-I-MIDI
	G1/2	194 649	LRS-1/2-D-7-O-I-MIDI		194 645	LRS-1/2-D-O-I-MIDI
	G3/4	194 655	LRS-3/4-D-7-O-I-MIDI		194 653	LRS-3/4-D-O-I-MIDI

Pressure regulators LR/LRS, D series, metal design

FESTO

Technical data

Ordering data

Directly actuated pressure regulator with integrated return flow function, lockable

Size	Connection	Pressure regulation range 0.5 ... 7 bar		Pressure regulation range 0.5 ... 12 bar	
		Part No.	Type	Part No.	Type
With pressure gauge					
Maxi	G ¹ / ₂	194 672	LRS-1 ¹ / ₂ -D-7-DI-MAXI	194 670	LRS-1 ¹ / ₂ -D-DI-MAXI
	G ³ / ₄	194 676	LRS-3 ¹ / ₄ -D-7-DI-MAXI	194 674	LRS-3 ¹ / ₄ -D-DI-MAXI
	G1	194 680	LRS-1-D-7-DI-MAXI	194 678	LRS-1-D-DI-MAXI
Without pressure gauge					
Maxi	G ¹ / ₂	194 673	LRS-1 ¹ / ₂ -D-7-O-DI-MAXI	194 671	LRS-1 ¹ / ₂ -D-O-DI-MAXI
	G ³ / ₄	194 677	LRS-3 ¹ / ₄ -D-7-O-DI-MAXI	194 675	LRS-3 ¹ / ₄ -D-O-DI-MAXI
	G1	194 681	LRS-1-D-7-O-DI-MAXI	194 679	LRS-1-D-O-DI-MAXI

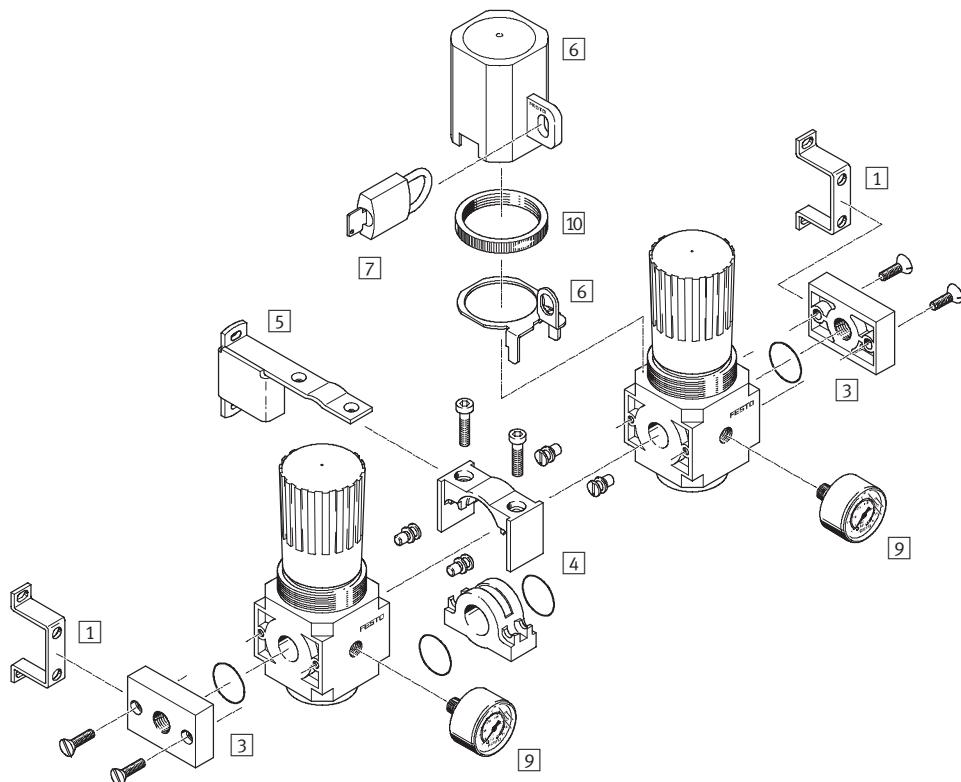
Pressure regulators LRB/LRBS, D series, metal design

Peripherals overview

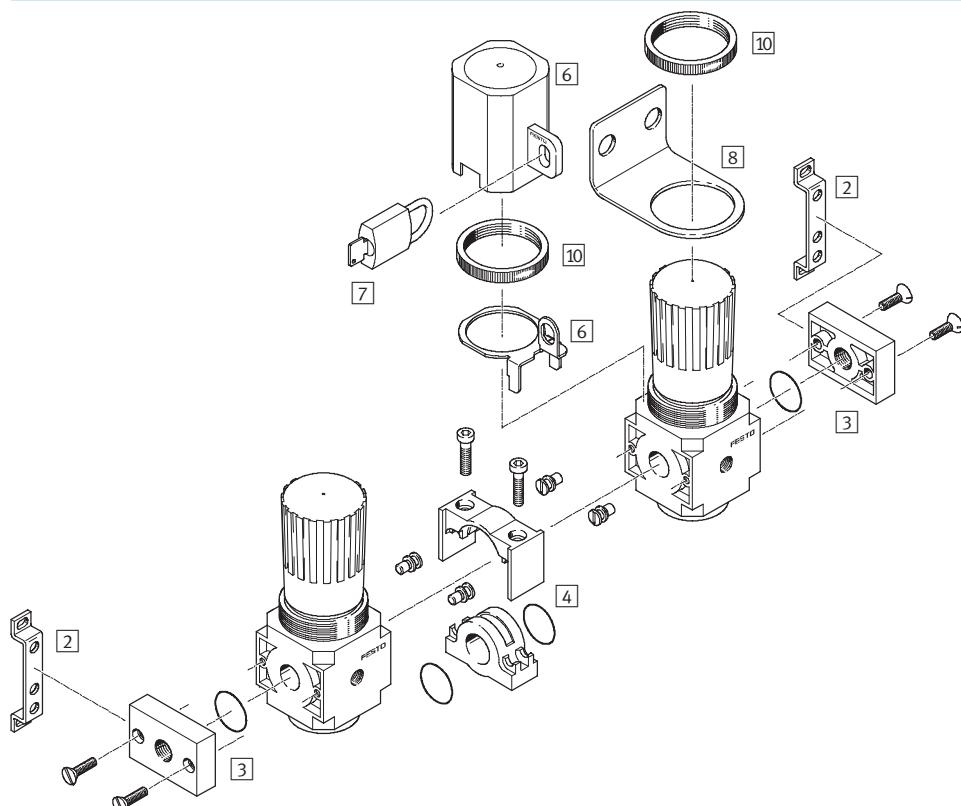
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Mini/Midi

Pressure regulator LRB – pressure output at rear



Pressure regulator LRB – pressure output at front



Pressure regulators LRB/LRBS, D series, metal design

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Peripherals overview

Mounting attachments and accessories			
Pressure regulator LRB	Pressure output at rear	Pressure output at front	➔ Page/ Internet
[1] Mounting bracket HRB	■	-	hrb-d
[2] Mounting bracket HFOE	-	■	hfoe-d
[3] Connection plates LRBAS	■	■	lrbas
[4] Adapter kit HRBC	■	■	hrbc-d
[5] Mounting bracket HRBK	■ ¹⁾	-	hrbk-d
[6] Regulator lock LRVS	■	■	lrvs-d
[7] Padlock LRVS-D	■	■	lrvs-d
[8] Mounting bracket HR-D	-	■	hr-d
[9] Pressure gauge MA	■	-	52
[10] Knurled nut (included in scope of delivery) HMR	■	■	-

1) The mounting bracket must be mounted after every second pressure regulator.

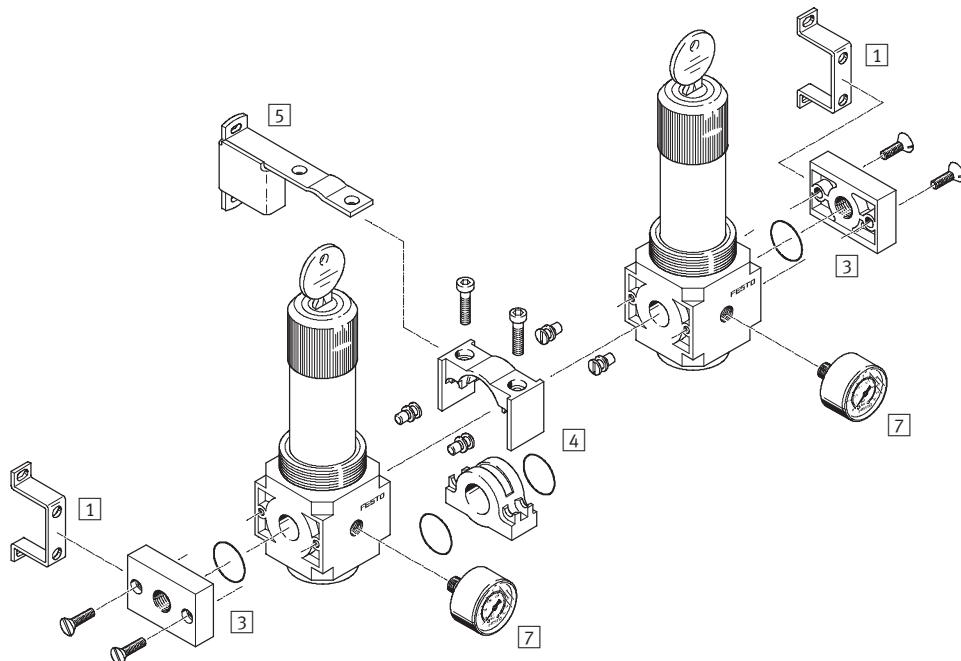
Pressure regulators LRB/LRBS, D series, metal design

Peripherals overview

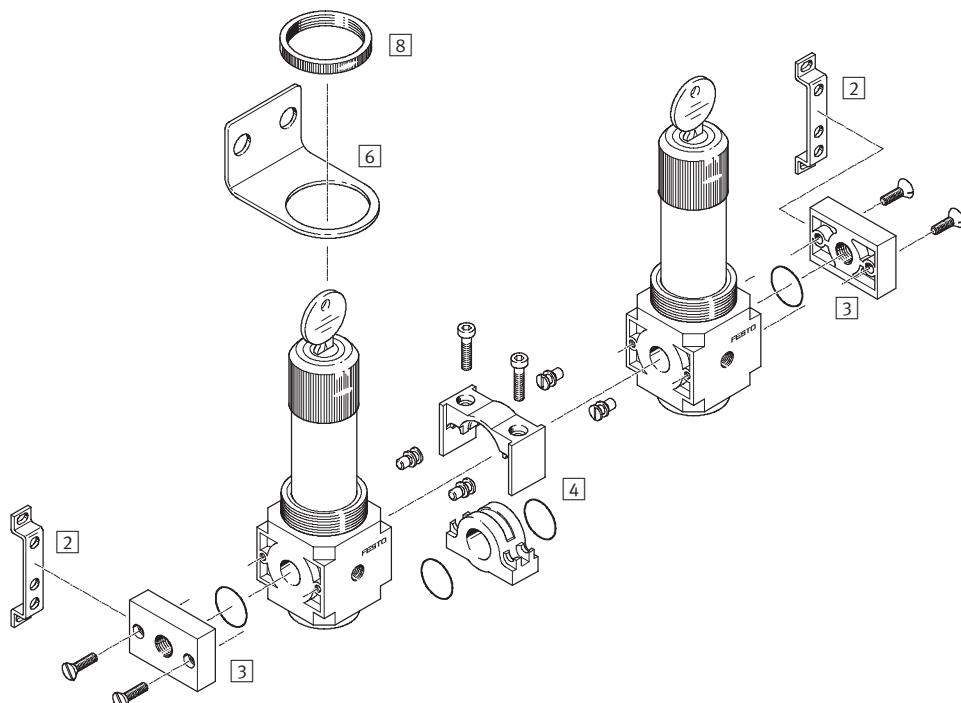
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Mini/Midi

Pressure regulator LRBS lockable – pressure output at rear



Pressure regulator LRBS lockable – pressure output at front



Pressure regulators LRB/LRBS, D series, metal design

FESTO

Peripherals overview

Mounting attachments and accessories			
Pressure regulator LRBS, lockable	Pressure output at rear	Pressure output at front	➔ Page/ Internet
[1] Mounting bracket HRB	■	-	hrb-d
[2] Mounting bracket HFOE	-	■	hfoe-d
[3] Connection plates LRBAS	■	■	lrbas
[4] Adapter kit HRBC	■	■	hrbc-d
[5] Mounting bracket HRBK	■ ¹⁾	-	hrbk-d
[6] Mounting bracket HR-D	-	■	hr-d
[7] Pressure gauge MA	■	-	52
[8] Knurled nut (included in scope of delivery) HMR	■	■	-

1) The mounting bracket must be mounted after every second pressure regulator.

Pressure regulators LRB/LRBS, D series, metal design

FESTO

Type codes

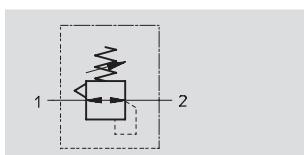
LRB	D	7	0	MINI
Basic function				
LRB	Pressure regulator for manifold assembly			
LRBS	Pressure regulator for manifold assembly, lockable			
Series				
D	Series			
Pressure regulation range				
	0.5 ... 12 bar			
7	0.5 ... 7 bar			
Pressure gauge				
0	Without pressure gauge			
Size				
MINI	Grid dimension 40 mm (without connecting plates)			
MIDI	Grid dimension 55 mm (without connecting plates)			

Pressure regulators LRB/LRBS, D series, metal design

FESTO

Technical data

Function



- - Flow rate
1600 ... 3800 l/min
- - Temperature range
-10 ... +60 °C
- - Input pressure
1 ... 16 bar



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

- Good control characteristics with low hysteresis and primary pressure compensation
- Manifold assembly with through air supply
- For configuring a regulator manifold with independent pressure ranges
- Two pressure regulation ranges: 0.5 ... 7 bar and 0.5 ... 12 bar
- Settings secured via detent on knob and push-in adjustment lock
- Directly actuated diaphragm regulator

General technical data

Size	Mini		Midi	
Pneumatic connection 1 ¹⁾	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Pneumatic connection 2	G $\frac{1}{4}$		G $\frac{3}{8}$	
Operating medium	Compressed air, filtered, grade of filtration 40 µm			
Design	Directly actuated diaphragm regulator with through pressure supply			
Type of mounting	Via accessories In-line installation			
Assembly position	Any			
Max. hysteresis [bar]	0.2			
Input pressure p ₁ [bar]	1 ... 16			
Pressure regulation range [bar]	0.5 ... 7	0.5 ... 12		
Pressure indication	G $\frac{1}{8}$ prepared		G $\frac{1}{4}$ prepared	

1) Dependent on connecting plate selected, must be ordered separately as an accessory → Internet: Irbas

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

Standard nominal flow rate¹⁾ q_N [l/min]

Size	Mini	Midi
Pressure regulation range 0.5 ... 7 bar	1800	3800
Pressure regulation range 0.5 ... 12 bar	1600	3200

1) Measured at p₁ = 10 bar, p₂ = 6 bar and Δp = 1 bar.

Ambient conditions

Size	Mini	Midi
Ambient temperature [°C]	-10 ... +60 °C	
Temperature of medium [°C]	-10 ... +60 °C	
Corrosion resistance class 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.

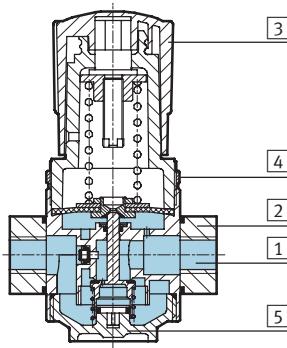
Pressure regulators LRB/LRBS, D series, metal design

Technical data

FESTO

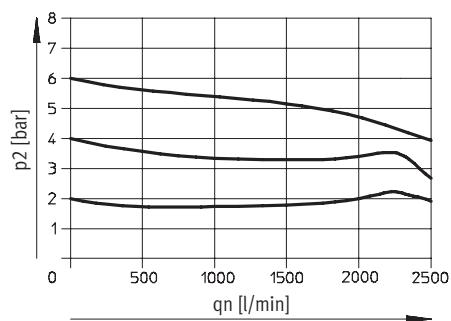
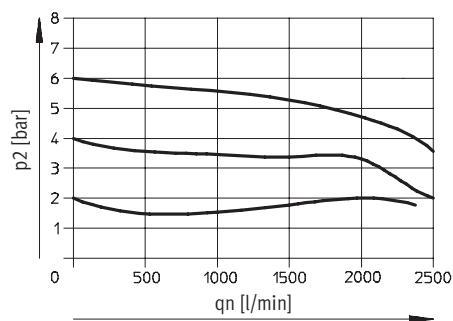
Weight [g]		
Size	Mini	Midi
Pressure regulator	250	700
Pressure regulator, lockable	350	940

Materials
Sectional view

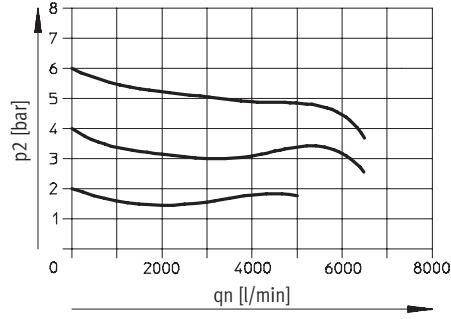
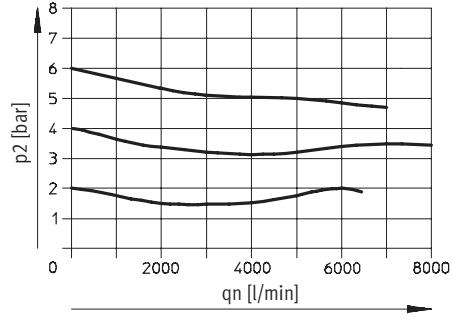


Pressure regulator	
[1] Housing	Die-cast zinc
[2] Connecting plates	Die-cast zinc
[3] Regulating knob	Polyacetal
[4] Knurled nut	Aluminium
[5] Plug cap	Polycarbonate
- Seals	Nitrile rubber
Note on materials	Free of copper, PTFE and silicone

Standard flow rate q_n as a function of the output pressure p_2		
Mini	Pressure regulation range 0.5 ... 7 bar	Pressure regulation range 0.5 ... 12 bar



Midi	Pressure regulation range 0.5 ... 7 bar	Pressure regulation range 0.5 ... 12 bar
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Primary pressure $p_1 = 10$ bar

Pressure regulators LRB/LRBS, D series, metal design

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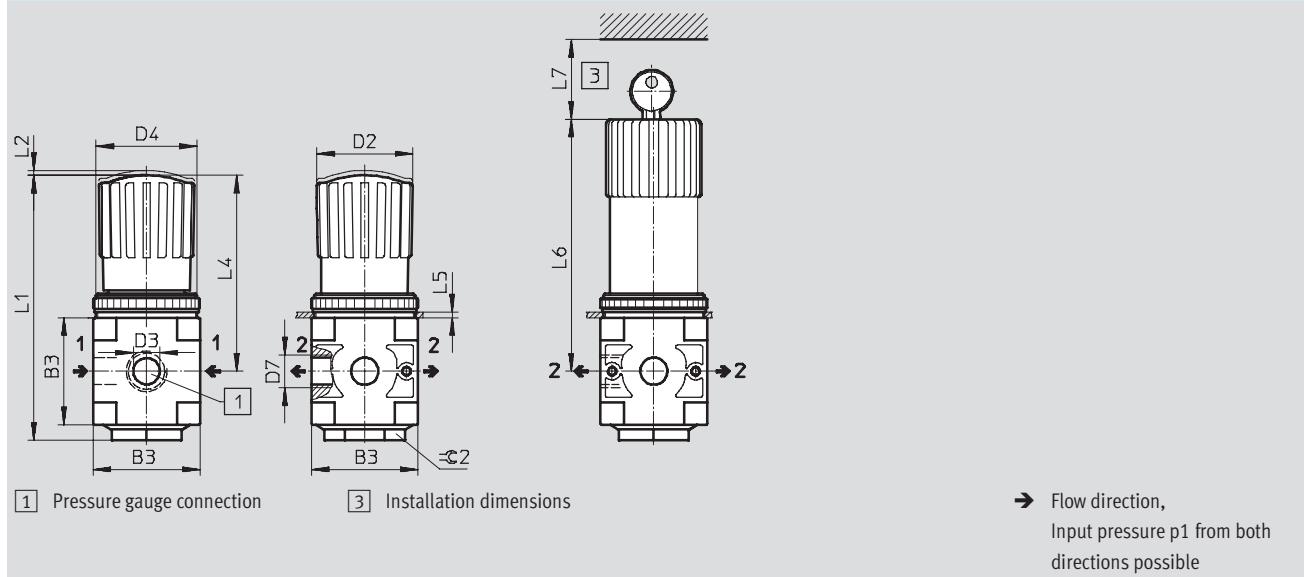
Technical data

Dimensions

Pressure regulator LRB

Pressure regulator, lockable LRBS

Download CAD data → www.festo.com



Type	B3	D2	D3	D4	D7	L1	L2	L4	L5 max.	L6	L7 min.	=C 2
Mini												
LRB-D-...-MINI	40	31	G1/8	M36x1.5	G1/4	~95.4	3	~68.9	3	98	60	17
LRBS-D-...-MINI												
Midi												
LRB-D-...-MIDI	55	50	G1/4	M52x1.5	G3/8	~135.8	3	~100.3	5	129.2	60	36
LRBS-D-...-MIDI												

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

Ordering data

Pressure regulator for manifold assembly

Size	Pressure regulation range 0.5 ... 7 bar		Pressure regulation range 0.5 ... 12 bar	
	Part No.	Type	Part No.	Type
Without pressure gauge				
Mini	197 534	LRB-D-7-O-MINI	197 535	LRB-D-O-MINI
Midi	197 538	LRB-D-7-O-MIDI	197 539	LRB-D-O-MIDI
Lockable				
Mini	194 683	LRBS-D-7-O-MINI	194 682	LRBS-D-O-MINI
Midi	194 687	LRBS-D-7-O-MIDI	194 686	LRBS-D-O-MIDI

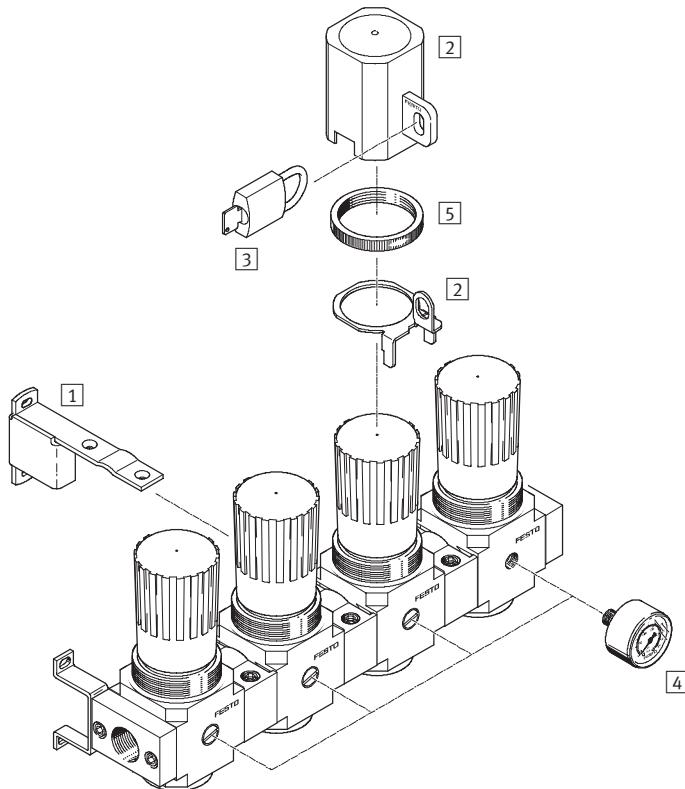
Pressure regulator combinations LRB-K, D series, metal design

Peripherals overview

FESTO

Mini/Midi

Pressure regulator combination LRB-K



Mounting attachments and accessories

➔ Page/
Internet

[1]	Mounting bracket HRBK ¹⁾
[2]	Regulator lock LRVS
[3]	Padlock LRVS-D
[4]	Pressure gauge MA
[5]	Knurled nut (included in scope of delivery) HMR

1) The mounting bracket must be mounted after every second pressure regulator.

Pressure regulator combinations LRB-K, D series, metal design

FESTO

Type codes

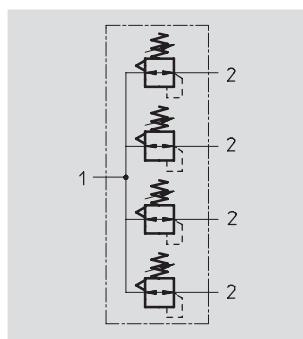
LRB	-	1/4	-	D	-	7	-	0	-	K2	-	MINI												
Basic function																								
LRB	Pressure regulator combination																							
Pneumatic connection																								
1/4 Thread G1/4																								
3/8 Thread G3/8																								
1/2 Thread G1/2																								
Series																								
D	Series																							
Pressure regulation range																								
0.5 ... 12 bar																								
7 0.5 ... 7 bar																								
Pressure gauge																								
0	Without pressure gauge																							
Functions																								
K2	Manifold with 2 pressure regulators																							
K3	Manifold with 3 pressure regulators																							
K4	Manifold with 4 pressure regulators																							
K5	Manifold with 5 pressure regulators																							
Size																								
MINI	Grid dimension 40 mm (without connecting plates)																							
MIDI	Grid dimension 55 mm (without connecting plates)																							

Pressure regulator combinations LRB-K, D series, metal design

Technical data

FESTO

Function



- - Flow rate
1600 ... 3800 l/min
- - Temperature range
-10 ... +60 °C
- - Input pressure
1 ... 16 bar



Pressure regulator combinations

LRB-...-D-...-O-K2
LRB-...-D-...-O-K3
LRB-...-D-...-O-K4
LRB-...-D-...-O-K5
with through pressure supply for
manifold assembly

- Good control characteristics with low hysteresis and primary pressure compensation
- Manifold assembly with through air supply
- For configuring a regulator manifold with independent pressure ranges
- Two pressure regulation ranges: 0.5 ... 7 bar and 0.5 ... 12 bar
- Settings secured via detent on knob and push-in adjustment lock
- Directly actuated diaphragm regulator

General technical data			
Size	Mini	Midi	
Pneumatic connection 1	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{3}{8}$
Pneumatic connection 2	G $\frac{1}{4}$		G $\frac{1}{2}$
Operating medium	Compressed air, filtered, grade of filtration 40 µm		
Design	Directly actuated diaphragm regulator with through pressure supply		
Type of mounting	Via accessory (mounting bracket HRB or HRBK included in scope of delivery)		
Assembly position	Any		
Max. hysteresis [bar]	0.2		
Input pressure p1 [bar]	1 ... 16		
Pressure regulation range [bar]	0.5 ... 7		
	0.5 ... 12		
Pressure indication	G $\frac{1}{8}$ prepared	G $\frac{1}{4}$ prepared	

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

Standard nominal flow rate ¹⁾ q _N [l/min]		
Size	Mini	Midi
Pressure regulation range 0.5 ... 7 bar	1800	3800
Pressure regulation range 0.5 ... 12 bar	1600	3200

1) Measured at p₁ = 10 bar, p₂ = 6 bar and Δp = 1 bar.

Pressure regulator combinations LRB-K, D series, metal design

FESTO

Technical data

Ambient conditions

Size	Mini	Midi
Ambient temperature [°C]	-10 ... +60 °C	
Temperature of medium [°C]	-10 ... +60 °C	
Corrosion resistance class CRC ¹⁾	2	

1) Corrosion resistance class 2 according to Festo standard 940 070

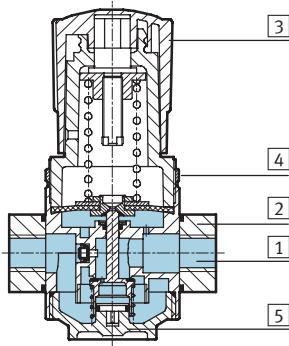
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]

Size	Mini	Midi
Manifold with 2 pressure regulators		
LRB-...-K2	760	1950
Manifold with 3 pressure regulators		
LRB-...-K3	1090	3144
Manifold with 4 pressure regulators		
LRB-...-K4	1480	3834
Manifold with 5 pressure regulators		
LRB-...-K5	1860	4820

Materials

Sectional view



Pressure regulator	Mini/Midi
[1] Housing	Die-cast zinc
[2] Connecting plates	Die-cast zinc
[3] Regulating knob	Polyacetal
[4] Knurled nut	Aluminium
[5] Plug cap	Polycarbonate
- Seals	Nitrile rubber

Pressure regulator combinations LRB-K, D series, metal design

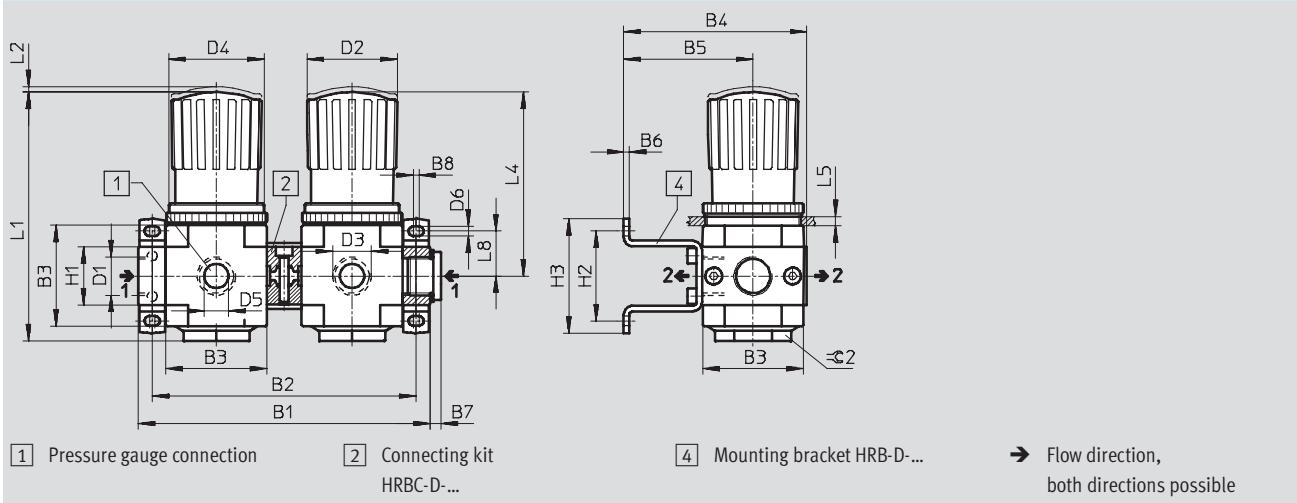
Technical data

FESTO

Dimensions

LRB-...-D-...-K2-...

Download CAD data → www.festo.com



Type	B1	B2	B3	B4	B5	B6	B7	B8	D1	D2	D3	D4
Mini												
LRB-1/4-D-...-K2-MINI	119	~107	40	80.7	59.2	2.5	5	7.3	G1/4 G3/8	31	G1/4	M36x1.5
LRB-3/8-D-...-K2-MINI	125											
Midi												
LRB-3/8-D-...-K2-MIDI	159	~144	55	99.9	70.6	3	5 6	8.3	G3/8 G1/2	50	G3/8	M52x1.5
LRB-1/2-D-...-K2-MIDI												

Type	D5	D6	H1	H2 ±0.2	H3	L1	L2	L4	L5 max.	L8	=C 2
Mini											
LRB-1/4-D-...-K2-MINI	G1/8	4.3	20	35	47.3	~95.4	3	~68.9	3	17.5	17
LRB-3/8-D-...-K2-MINI											
Midi											
LRB-3/8-D-...-K2-MIDI	G1/4	5.3	32	49	62.3	~135.8	3	~100.3	5	31.2	36
LRB-1/2-D-...-K2-MIDI											

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

Pressure regulator combinations LRB-K, D series, metal design

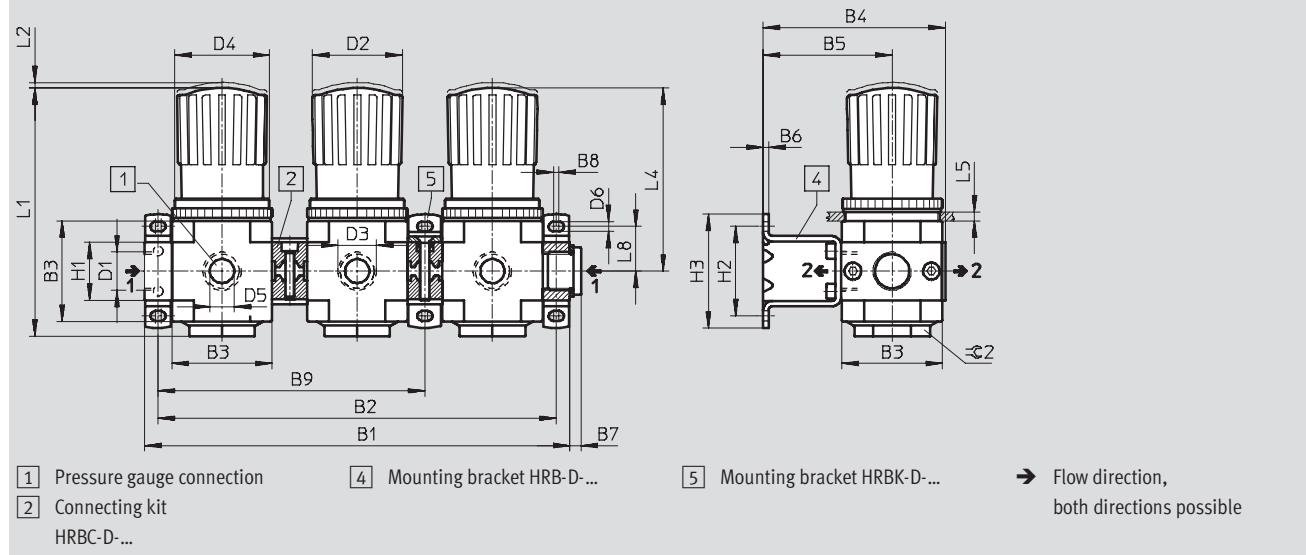
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Technical data

Dimensions

LRB-...-D-...-K3-...

Download CAD data → www.festo.com



Type	B1	B2	B3	B4	B5	B6	B7	B8	B9	D1	D2	D3	D4
Mini													
LRB-1/4-D-...-K3-MINI	174	~162	40	80.7	59.2	2.5	5	7.3	108.5	G1/4	31	G1/4	M36x1.5
LRB-3/8-D-...-K3-MINI	180									G3/8			
Midi													
LRB-3/8-D-...-K3-MIDI	233	~218	55	99.9	70.6	3	5	8.3	146	G3/8	50	G3/8	M52x1.5
LRB-1/2-D-...-K3-MIDI							6			G1/2			

Type	D5	D6	H1	H2 ±0.2	H3	L1	L2	L4	L5 max.	L8	=C 2
Mini											
LRB-1/4-D-...-K3-MINI	G1/8	4.3	20	35	47.3	~95.4	3	~68.9	3	17.5	17
LRB-3/8-D-...-K3-MINI											
Midi											
LRB-3/8-D-...-K3-MIDI	G1/4	5.3	32	49	62.3	~135.8	3	~100.3	5	31.2	36
LRB-1/2-D-...-K3-MIDI											

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

Pressure regulator combinations LRB-K, D series, metal design

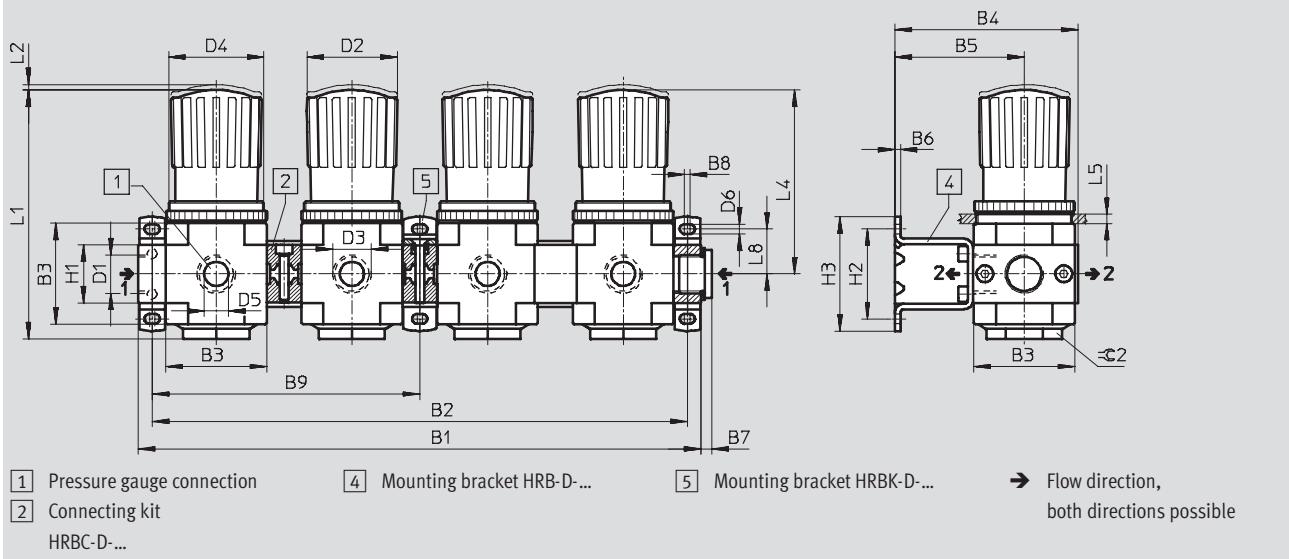
Technical data

FESTO

Dimensions

LRB-...-D-...-K4...

Download CAD data → www.festo.com



Type	B1	B2	B3	B4	B5	B6	B7	B8	B9	D1	D2	D3	D4
Mini													
LRB-1/4-D-...-K4-MINI	229	~217	40	80.7	59.2	2.5	5	7.3	108.5	G1/4 G3/8	31	G1/4	M36x1.5
LRB-3/8-D-...-K4-MINI	235												
Midi													
LRB-3/8-D-...-K4-MIDI	307	~292	55	99.9	70.6	3	5 6	8.3	146	G3/8 G1/2	50	G3/8	M52x1.5
LRB-1/2-D-...-K4-MIDI													

Type	D5	D6	H1	H2 ±0.2	H3	L1	L2	L4	L5 max.	L8	=G 2
Mini											
LRB-1/4-D-...-K4-MINI	G1/8	4.3	20	35	47.3	~95.4	3	~68.9	3	17.5	17
LRB-3/8-D-...-K4-MINI											
Midi											
LRB-3/8-D-...-K4-MIDI	G1/4	5.3	32	49	62.3	~135.8	3	~100.3	5	31.2	36
LRB-1/2-D-...-K4-MIDI											

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

Pressure regulator combinations LRB-K, D series, metal design

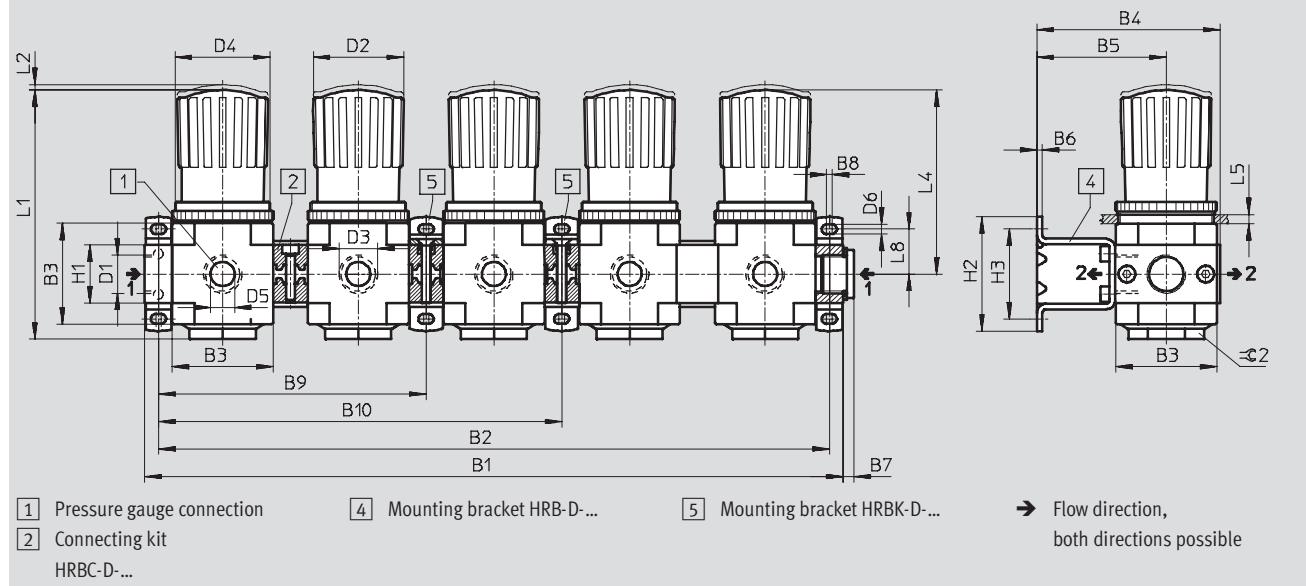
FESTO

Technical data

Dimensions

LRB-...-D-...-K5-...

Download CAD data → www.festo.com



Type	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1	D2	D3	D4
Mini														
LRB-1/4-D-...-K5-MINI	284	~272	40	80.7	59.2	2.5	5	7.3	108.5	146	G1/4 G3/8	31	G1/4	M36x1.5
LRB-3/8-D-...-K5-MINI	290													
Midi														
LRB-3/8-D-...-K5-MIDI	381	~366	55	99.9	70.6	3	5 6	8.3	146	186	G3/8 G1/2	50	G3/8	M52x1.5
LRB-1/2-D-...-K5-MIDI														

Type	D5	D6	H1	H2 ±0.2	H3	L1	L2	L4	L5 max.	L8	=C 2
Mini											
LRB-1/4-D-...-K5-MINI	G1/8	4.3	20	35	47.3	~95.4	3	~68.9	3	17.5	17
LRB-3/8-D-...-K5-MINI											
Midi											
LRB-3/8-D-...-K5-MIDI	G1/4	5.3	32	49	62.3	~135.8	3	~100.3	5	31.2	36
LRB-1/2-D-...-K5-MIDI											

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

Pressure regulator combinations LRB-K, D series, metal design

FESTO

Technical data

Ordering data					
Connecting kit, connecting plate and mounting bracket					
Size	Connection	Pressure regulation range 0.5 ... 7 bar		Pressure regulation range 0.5 ... 12 bar	
		Part No.	Type	Part No.	Type
Manifold with 2 pressure regulators					
Mini	G1/4	528 952	LRB-1/4-D-7-O-K2-MINI	528 954	LRB-1/4-D-O-K2-MINI
	G3/8	528 953	LRB-3/8-D-7-O-K2-MINI		528 955 LRB-3/8-D-O-K2-MINI
Midi	G3/8	528 956	LRB-3/8-D-7-O-K2-MIDI	528 958	LRB-3/8-D-O-K2-MIDI
	G1/2	528 957	LRB-1/2-D-7-O-K2-MIDI		528 959 LRB-1/2-D-O-K2-MIDI
Manifold with 3 pressure regulators					
Mini	G1/4	528 968	LRB-1/4-D-7-O-K3-MINI	528 970	LRB-1/4-D-O-K3-MINI
	G3/8	528 969	LRB-3/8-D-7-O-K3-MINI		528 971 LRB-3/8-D-O-K3-MINI
Midi	G3/8	528 972	LRB-3/8-D-7-O-K3-MIDI	528 974	LRB-3/8-D-O-K3-MIDI
	G1/2	528 973	LRB-1/2-D-7-O-K3-MIDI		528 975 LRB-1/2-D-O-K3-MIDI
Manifold with 4 pressure regulators					
Mini	G1/4	528 984	LRB-1/4-D-7-O-K4-MINI	528 986	LRB-1/4-D-O-K4-MINI
	G3/8	528 985	LRB-3/8-D-7-O-K4-MINI		528 987 LRB-3/8-D-O-K4-MINI
Midi	G3/8	528 988	LRB-3/8-D-7-O-K4-MIDI	528 990	LRB-3/8-D-O-K4-MIDI
	G1/2	528 989	LRB-1/2-D-7-O-K4-MIDI		528 991 LRB-1/2-D-O-K4-MIDI
Manifold with 5 pressure regulators					
Mini	G1/4	529 000	LRB-1/4-D-7-O-K5-MINI	529 002	LRB-1/4-D-O-K5-MINI
	G3/8	529 001	LRB-3/8-D-7-O-K5-MINI		529 003 LRB-3/8-D-O-K5-MINI
Midi	G3/8	529 004	LRB-3/8-D-7-O-K5-MIDI	529 006	LRB-3/8-D-O-K5-MIDI
	G1/2	529 005	LRB-1/2-D-7-O-K5-MIDI		529 007 LRB-1/2-D-O-K5-MIDI

Pressure regulator combinations LRB-K, D series, metal design

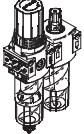
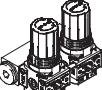
Technical data

FESTO

Pressure regulators LR/LRB, D series, polymer

Product range overview D series service units, polymer

FESTO

Type	Size	Pneumatic connection			Pressure regulation range [bar]	Grade of filtration [μm]	
		G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{2}$		5	40
Service units							
FRC		Mini	■	■	-	■	■
Individual devices							
Filter regulators LFR		Mini	■	■	-	■	■
Pressure regulators LR		Mini	■	■	-	■	-
Pressure regulator combinations LRB-K		Mini	-	-	■	■	-

Pressure regulators LR/LRB, D series, polymer

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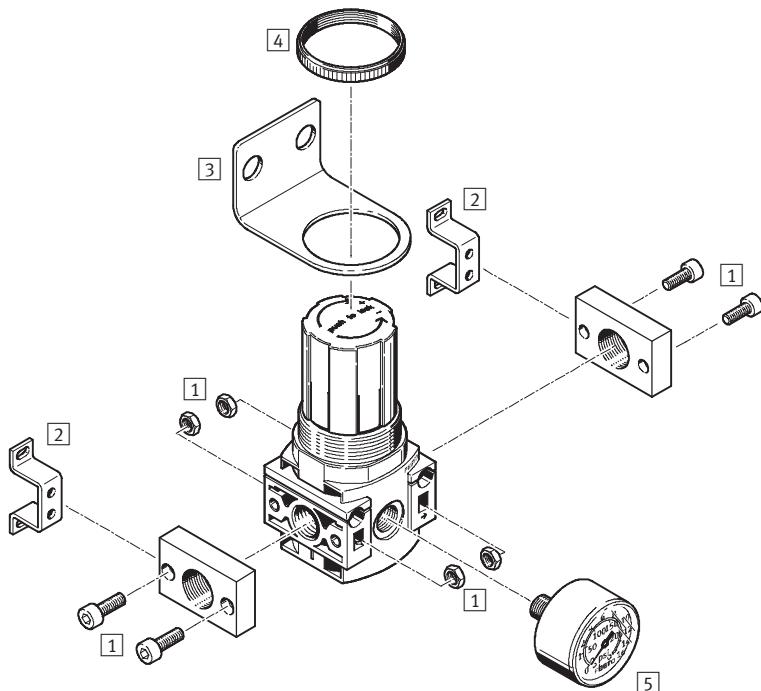
Product range overview D series service units, polymer

Type	Size	Condensate drain		Pressure display		Actuator lock	Regulating functions		➔ Page/ Internet
		Manual rotary	Semi-automatic	With pressure gauge	Without pressure gauge		With secondary venting	With return flow function	
Service units									
FRC	Mini	■	■	■	-	■	■	■	frc
Individual devices									
Filter regulators LFR	Mini	■	■	■	■	■	■	■	lfr
Pressure regulators LR	Mini	-	-	■	■	■	■	■	40
Pressure regulator combinations LRB-K	Mini	-	-	-	■	■	■	■	45

Pressure regulators LR, D series, polymer

Peripherals overview

FESTO

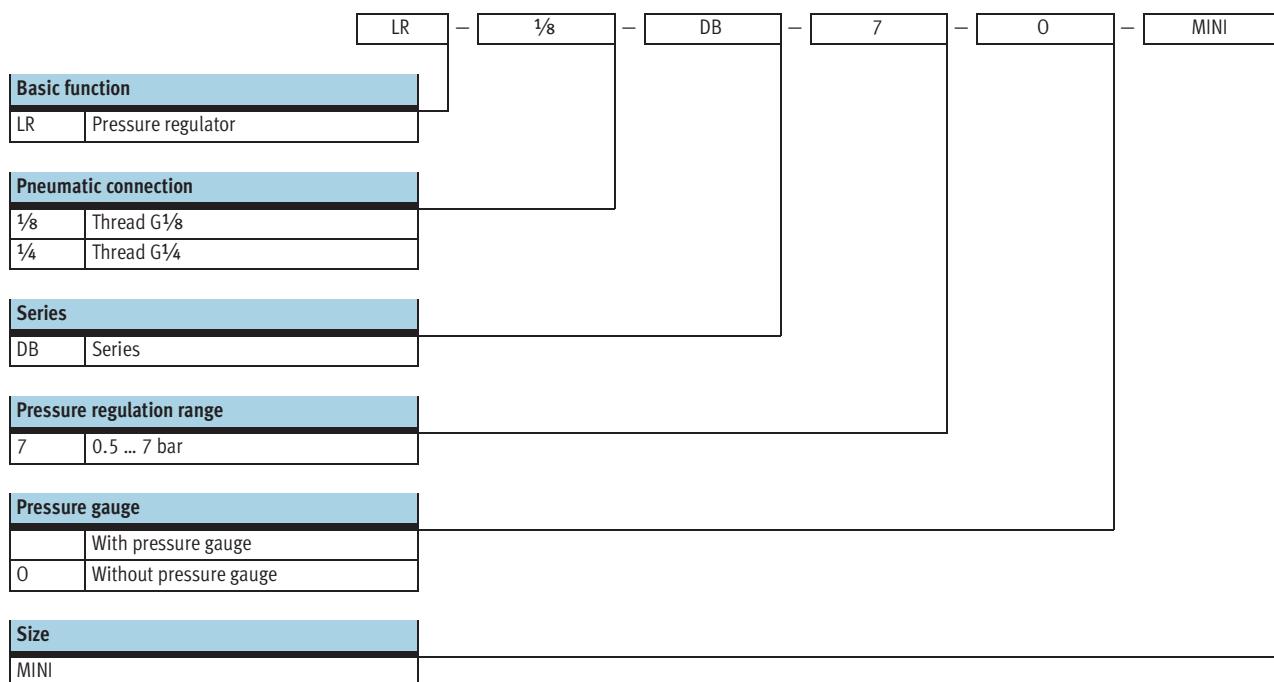


Mounting attachments and accessories		➔ Page/ Internet
[1]	Connecting plate kit PBL	pbl
[2]	Mounting bracket HFOE	hfoe-d
[3]	Mounting bracket HR-D	hr-d
[4]	Knurled nut (included in scope of delivery) LRVS	-
[5]	Pressure gauge MA	52

Pressure regulators LR, D series, polymer

FESTO

Type codes



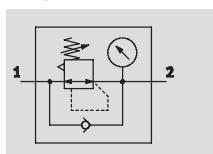
Pressure regulators LR, D series, polymer

Technical data

FESTO

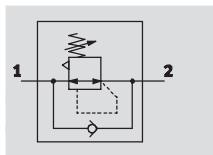
Function

with pressure gauge



- - Flow rate
800 ... 1300 l/min
- - Temperature range
-5 ... +50 °C
- - Input pressure
1.5 ... 10 bar

without pressure gauge



- Setting values are secured by locking the rotary knob
- High flow rate
- Good regulating characteristics with minimal pressure hysteresis

General technical data

Size	Mini	
	With pressure gauge	Without pressure gauge
Pneumatic connection	G1/8	G1/4
Operating medium	Compressed air	
Design	Pressure regulator with pressure gauge	Pressure regulator without pressure gauge
Regulating function	With return flow function	
	With secondary venting	
Type of mounting	Inline installation	
	Via through-holes	
	Via mounting bracket	
	Front panel mounting	
Assembly position	Any	
Max. hysteresis [bar]	0.5	
Input pressure [bar]	1.5 ... 10	
Pressure regulation range [bar]	0.5 ... 7	
Pressure indication	Via pressure gauge	G1/8 prepared
Pressure gauge connection	G1/8	

Standard nominal flow rate¹⁾ qN [l/min]

Pneumatic connection	G1/8	G1/4
Mini		
Pressure regulation range 0.5 ... 7 bar	≥ 800	≥ 1300

1) Measured at p₁ = 10 bar, p₂ = 6 bar and Δp = 1 bar.

Pressure regulators LR, D series, polymer

FESTO

Technical data

Ambient conditions

Size	Mini
Ambient temperature [°C]	-5 ... +50
Temperature of medium [°C]	-5 ... +50
Corrosion resistance class CRC ¹⁾	1

1) Corrosion resistance class 1 according to Festo standard 940 070

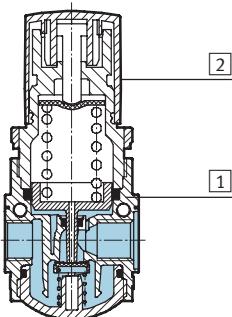
Components requiring low corrosion resistance. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

Weight [g]

Size	Mini
Pressure regulator	150

Materials

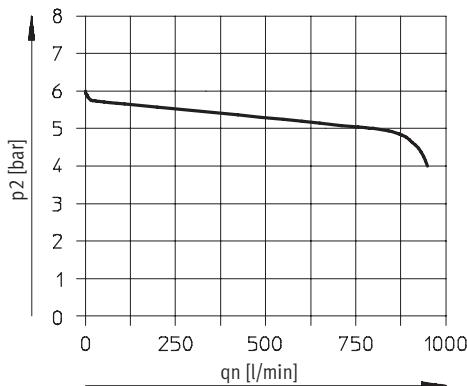
Sectional view



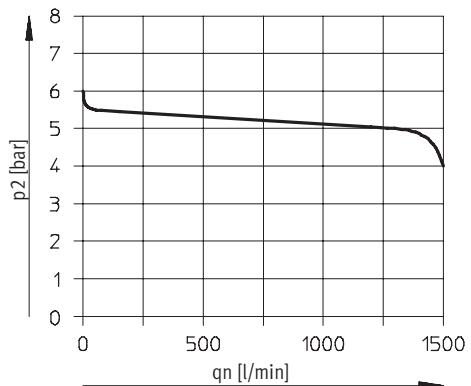
Pressure regulator	Mini
[1] Housing	Polyamide, reinforced
[2] Rotary knob	Polyacetate
- Seals	Nitrile rubber

Standard flow rate q_n as a function of output pressure p_2

Pneumatic connection G1/8



Pneumatic connection G1/4



Primary pressure $p_1 = 10$ bar

- Note

In order to improve control behaviour, primary-pressure dependent internal air consumption is provided.

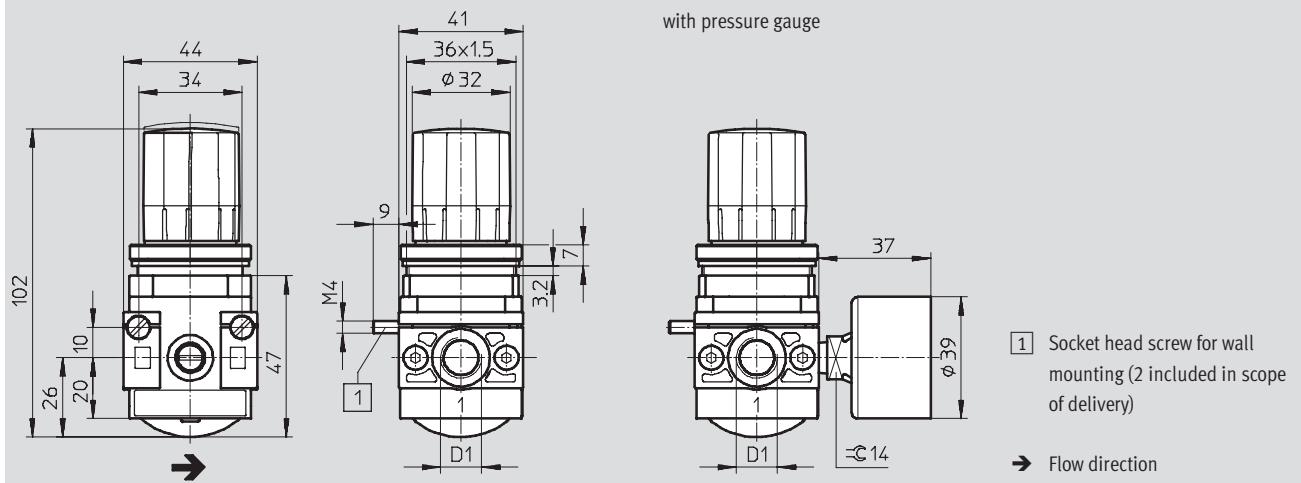
Pressure regulators LR, D series, polymer

Technical data

FESTO

Dimensions

Mini



Download CAD data → www.festo.com

Type	D1
Mini	
LR-1/8-DB	G1/8
LR-1/4-DB	G1/4

Ordering data

Size	Connection	Pressure regulation range 0.5 ... 7 bar	
		Part No.	Type
With pressure gauge			
Mini	G1/8	539 681	LR-1/8-DB-7-MINI
	G1/4	539 682	LR-1/4-DB-7-MINI
Without pressure gauge			
Mini	G1/8	537 642	LR-1/8-DB-7-O-MINI
	G1/4	537 643	LR-1/4-DB-7-O-MINI

Pressure regulator combinations LRB-K, D series, polymer

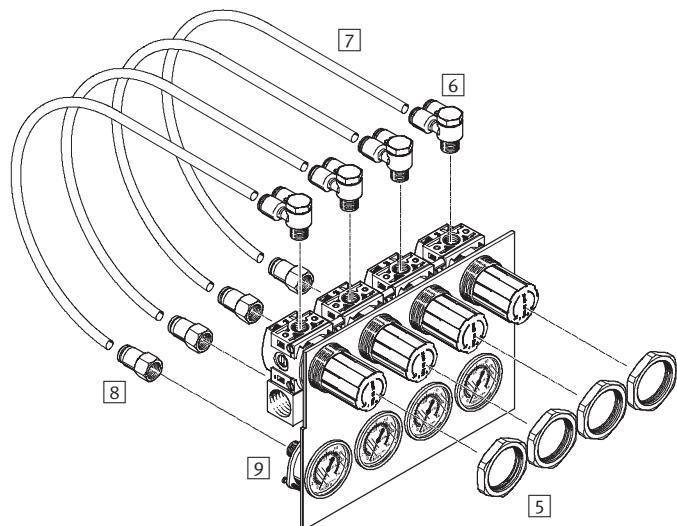
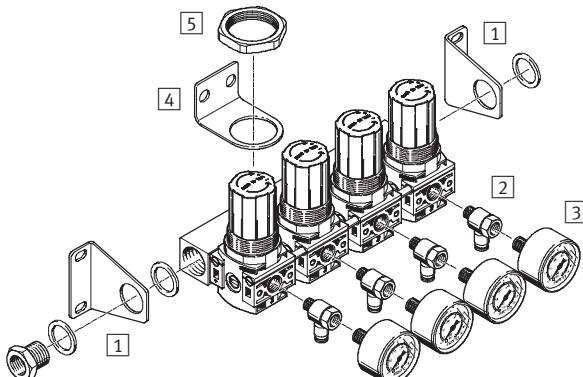
FESTO

Peripherals overview

Mini

With mounting bracket

Front panel mounting



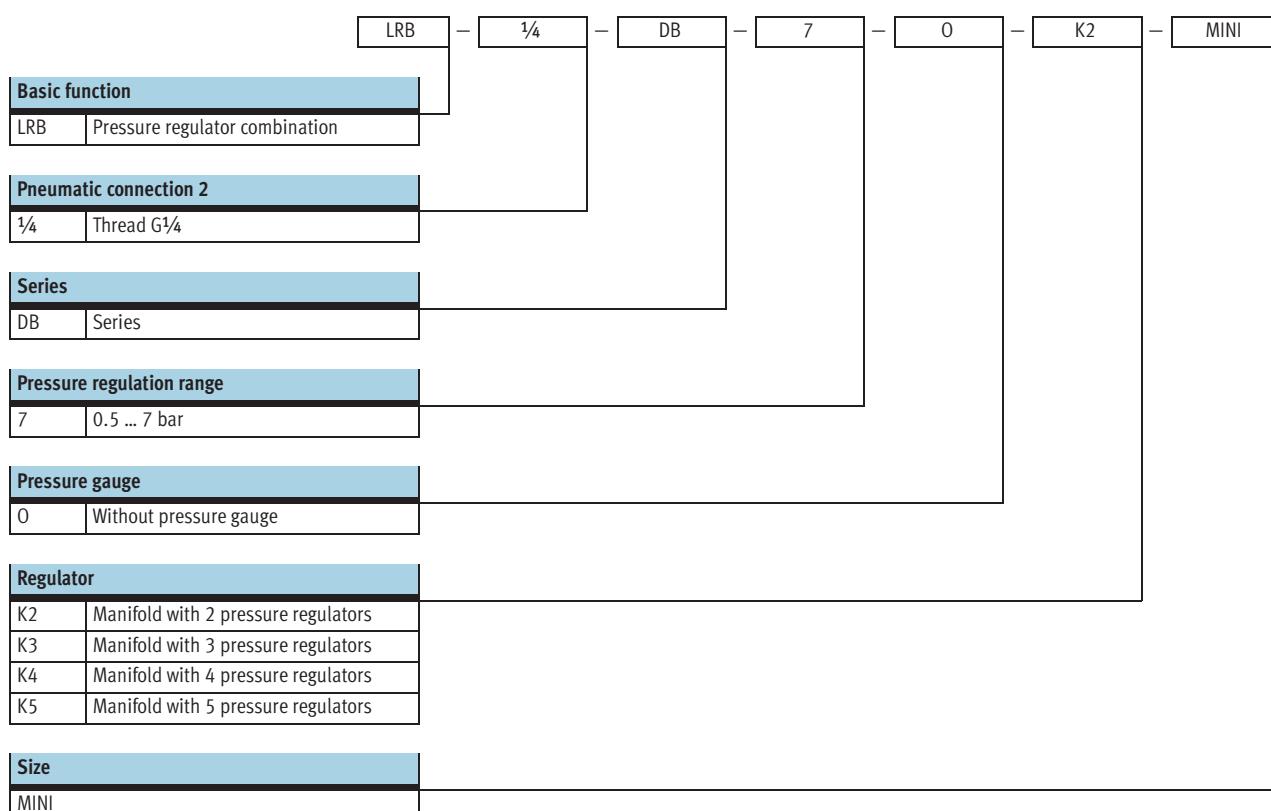
Mounting attachments and accessories

	With mounting bracket	Front panel mounting	➔ Page/ Internet
[1] Mounting bracket kit HRBS-DB-MINI	■	-	hrbs-db
[2] Push-in T-fitting QSTF	■	-	52
[3] Pressure gauge MA	■	-	52
[4] Mounting bracket HR-D	■	-	hr-d
[5] Hex nut HMR	■	■	hmr-d
[6] Push-in Y-fitting QSYLV	-	■	52
[7] Plastic tubing PUN-E	-	■	pun-e
[8] Push-in fitting QSF	-	■	52
[9] Flanged pressure gauge FMA	-	■	52

Pressure regulator combinations LRB-K, D series, polymer

Type codes

FESTO



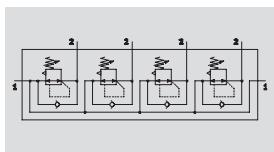
Pressure regulator combinations LRB-K, D series, polymer

FESTO

Technical data

Function

without pressure gauge



- - Flow rate
1000 l/min
- - Temperature range
-5 ... +50 °C
- - Input pressure
1.5 ... 10 bar



- Good control characteristics with low hysteresis and primary pressure compensation
- Manifold assembly with through air supply
- For the configuration of a regulator manifold with independent pressure ranges
- Setting values are secured by locking the rotary knob

General technical data

Size	Mini
Pneumatic connection 1	G½
Pneumatic connection 2	G¼
Operating medium	Compressed air
Regulating functions	Output pressure constant With return flow function With secondary venting
Design	Directly actuated piston regulator On P-manifold
Type of mounting	Front panel mounting Via accessories
Assembly position	Any
Max. hysteresis [bar]	0.5
Input pressure [bar]	1.5 ... 10
Pressure regulation range [bar]	0.5 ... 7

Standard nominal flow rate¹⁾ q_N [l/min]

Size	Mini
Pressure regulation range 0.5 ... 7 bar	≥ 1000

1) Measured at p₁ = 10 bar, p₂ = 6 bar and Δp = 1 bar.

Ambient conditions

Ambient temperature [°C]	-5 ... +50
Temperature of medium [°C]	-5 ... +50
Corrosion resistance class CRC ¹⁾	1

1) Corrosion resistance class 1 according to Festo standard 940 070

Components requiring low corrosion resistance. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

Pressure regulator combinations LRB-K, D series, polymer

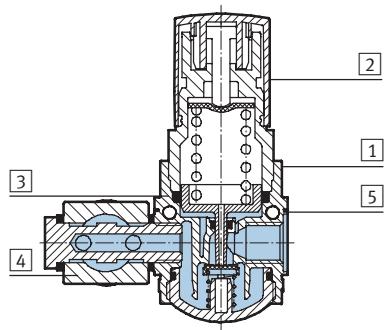
FESTO

Technical data

Weight [g]	
Size	Mini
Manifold with 2 pressure regulators	
LRB-...-K2	500
Manifold with 3 pressure regulators	
LRB-...-K3	750
Manifold with 4 pressure regulators	
LRB-...-K4	1000
Manifold with 5 pressure regulators	
LRB-...-K5	1250

Materials

Sectional view



Pressure regulator	Mini
1 Housing	Polyamide, reinforced
2 Rotary knob	Polyacetate
3 Sealing ring	Polyvinyl chloride
4 Manifold strip	Wrought aluminium alloy
5 Spacing bolt	Wrought aluminium alloy
- Seals	Nitrile rubber

Pressure regulator combinations LRB-K, D series, polymer

FESTO

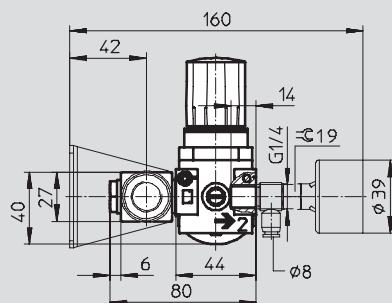
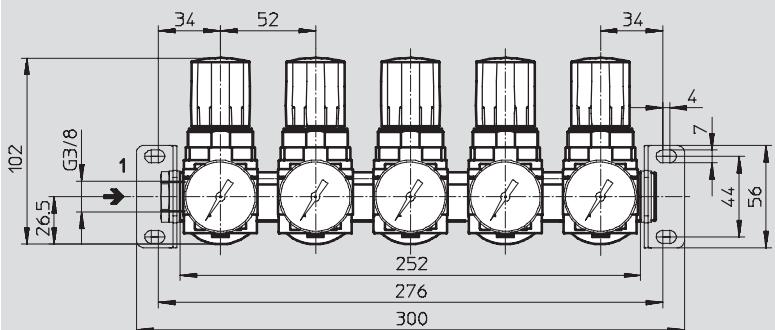
Technical data

Dimensions

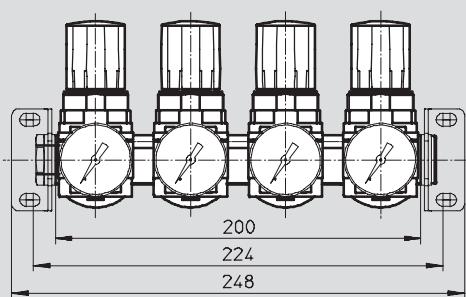
With mounting bracket

Download CAD data → www.festo.com

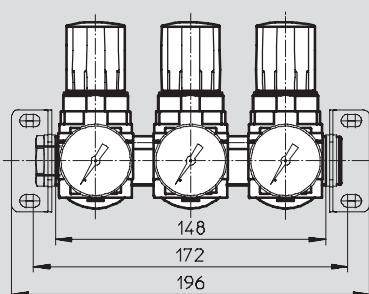
LRB-...-K5



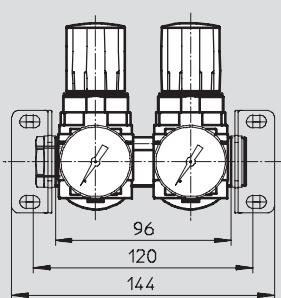
LRB-...-K4



LRB-...-K3



LRB-...-K2



→ Flow direction

Pressure regulator combinations LRB-K, D series, polymer

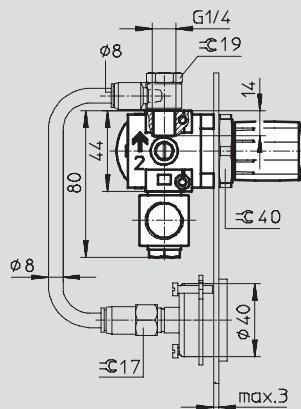
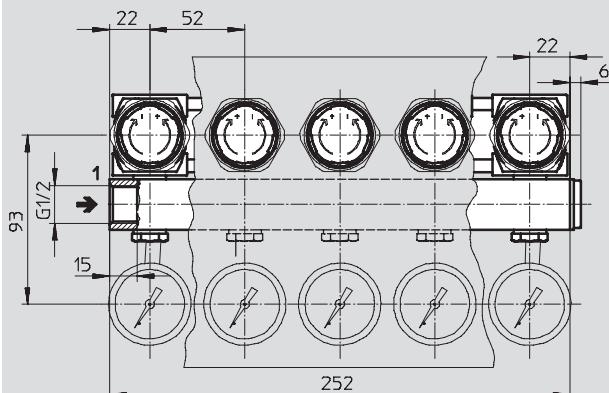
Technical data

FESTO

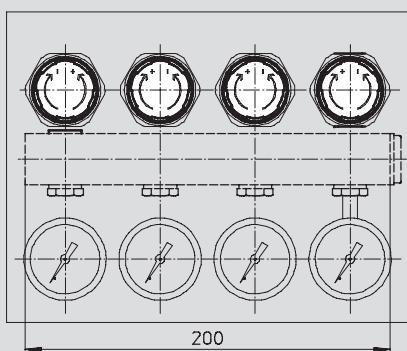
Dimensions

Front panel mounting

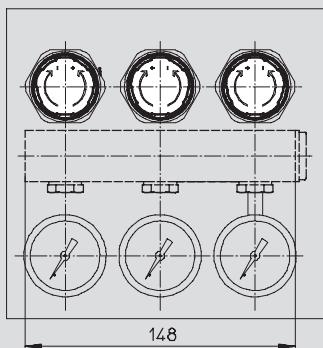
LRB-...-K5



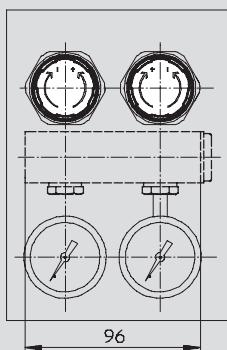
LRB-...-K4



LRB-...-K3



LRB-...-K2



→ Flow direction

Pressure regulator combinations LRB-K, D series, polymer

FESTO

Technical data

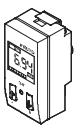
Ordering data		
Size	Connection	Pressure regulation range 0.5 ... 7 bar Part No. Type
Manifold with 2 pressure regulators		
Mini	G ¹ / ₄	540 040 LRB-1/4-DB-7-O-K2-MINI
Manifold with 3 pressure regulators		
Mini	G ¹ / ₄	540 041 LRB-1/4-DB-7-O-K3-MINI
Manifold with 4 pressure regulators		
Mini	G ¹ / ₄	540 042 LRB-1/4-DB-7-O-K4-MINI
Manifold with 5 pressure regulators		
Mini	G ¹ / ₄	540 043 LRB-1/4-DB-7-O-K5-MINI

Pressure regulators LR/LRS/LRB/LRBS, D series

Accessories

FESTO

Ordering data – Pressure gauge MA					Part No.	Type
	Nominal size	Pneumatic connection	Indicating range [bar]	[psi]		
 Pressure gauge MA					Technical data → Internet: ma	
27	M5	0 ... 10	–	526 323	MA-27-10-M5	
40	G $\frac{1}{8}$	0 ... 10	0 ... 145	359 874	MA-40-10- $\frac{1}{4}$	
		0 ... 16	0 ... 232	345 395	MA-40-16- $\frac{1}{4}$	
50	G $\frac{1}{4}$	0 ... 10	0 ... 145	359 873	MA-50-10- $\frac{1}{4}$	
		0 ... 16	0 ... 232	356 759	MA-50-16- $\frac{1}{4}$	
 Pressure gauge MA, DIN EN 837-1					Technical data → Internet: ma	
40	R $\frac{1}{8}$	0 ... 10	0 ... 145	162 835	MA-40-10- $\frac{1}{8}$ -EN	
	G $\frac{1}{4}$	0 ... 10	0 ... 145	183 900	MA-40-10-G $\frac{1}{4}$ -EN	
 Flanged pressure gauge FMA, DIN EN 837-1					Technical data → Internet: fma	
40	G $\frac{1}{4}$	0 ... 10	0 ... 145	159 596	FMA-40-10- $\frac{1}{4}$ -EN	
		0 ... 16	0 ... 232	159 597	FMA-40-16- $\frac{1}{4}$ -EN	
50	G $\frac{1}{4}$	0 ... 10	0 ... 145	159 599	FMA-50-10- $\frac{1}{4}$ -EN	
		0 ... 16	0 ... 232	159 600	FMA-50-16- $\frac{1}{4}$ -EN	

Ordering data – Pressure sensor SDE1					Technical data → Internet: sde1	
	Pneumatic connection	Electrical output	Electrical connection	Display	Part No.	Type
Pressure sensor SDE1 for direct mounting on the service unit with pressure gauge connection (adapter for pneumatic connection included in scope of delivery), pressure measuring range 0 ... 10 bar, relative pressure measurement						
	Male thread R $\frac{1}{8}$	1 switch output PNP	M8x1, 3-pin	LCD	192 026	SDE1-D10-G2-R18-C-P1-M8
		2 switch outputs PNP	M8x1, 4-pin	LCD	192 027	SDE1-D10-G2-R18-C-P2-M8
	Male thread R $\frac{1}{4}$	1 switch output PNP	M8x1, 3-pin	LCD	192 028	SDE1-D10-G2-R14-C-P1-M8
		2 switch outputs PNP	M8x1, 4-pin	LCD	192 029	SDE1-D10-G2-R14-C-P2-M8

Ordering data – Push-in fitting					PU ¹⁾
	Pneumatic connection	Tubing O.D.	Part No.	Type	PU ¹⁾
Push-in fitting QSF, female thread with external hex					
	G $\frac{1}{4}$	8	153 026	QSF- $\frac{1}{4}$ -8-B	10
Push-in T-fitting QSTF, 360° rotatable, with male and female thread					
	G $\frac{1}{4}$	8	186 203	QSTF-G $\frac{1}{4}$ -8	1
Push-in Y-fitting QSYLV, 360° rotatable, male thread with external hex					
	G $\frac{1}{4}$	8	186 210	QSYLV-G $\frac{1}{4}$ -8	1

1) Packaging unit quantity