

Pressure regulators LR/LRS



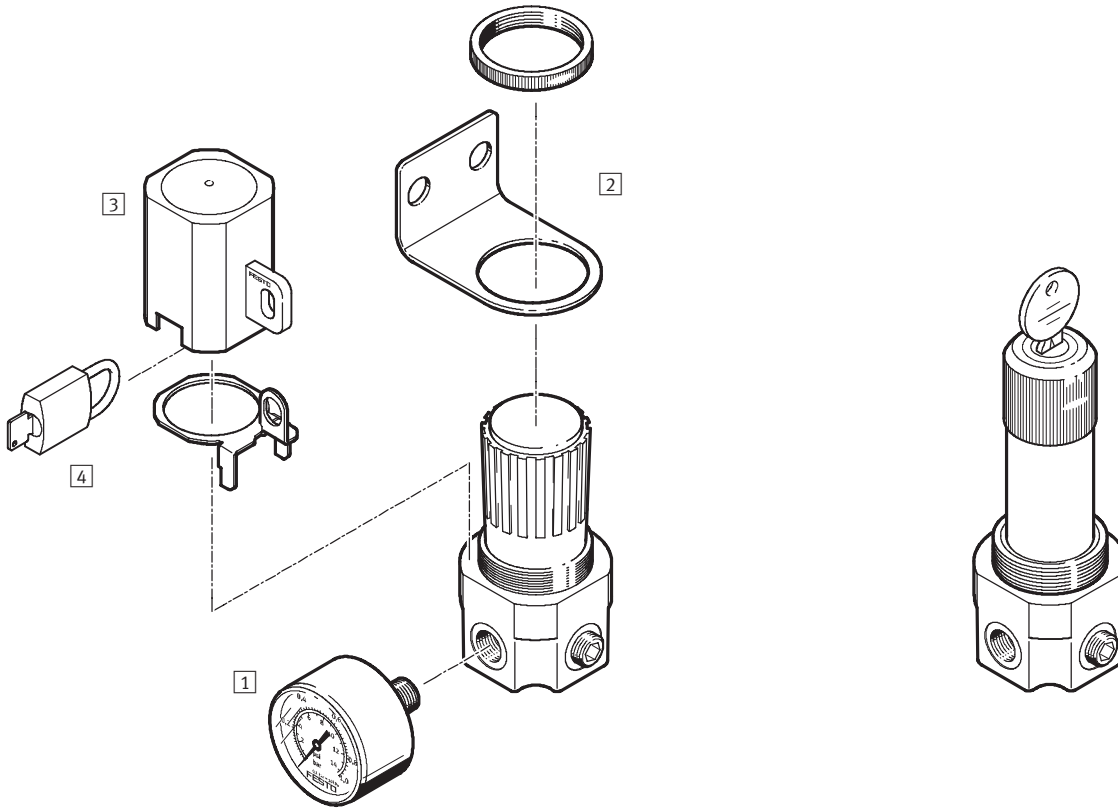
Pressure regulators LR/LRS

Peripherals overview and type codes

Peripherals overview

Pressure regulator LR

Pressure regulator LRS, lockable



Mounting attachments and accessories		→ Page/Internet
1	Pressure gauge MA	ma
2	Mounting bracket HR-D	7
3	Regulator lock LRVS-G-1/8 with lock plate	7
4	Padlock LRVS-D	7

Type codes

LR	-	1/8	-	G	-	7
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Service function

LR	Pressure regulator
LRS	Pressure regulator, lockable

Pneumatic connection

1/8	Thread G1/8
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Version code

G	Version code
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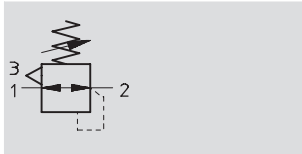
Pressure regulation range

7	0.5 ... 7 bar
	0.5 ... 12 bar

Pressure regulators LR/LRS

Technical data

Function



- Flow rate
600 ... 700 l/min
- Temperature range
-10 ... +80 °C
- Input pressure
1 ... 20 bar

The pressure regulator is free of paint-wetting impairment substances.



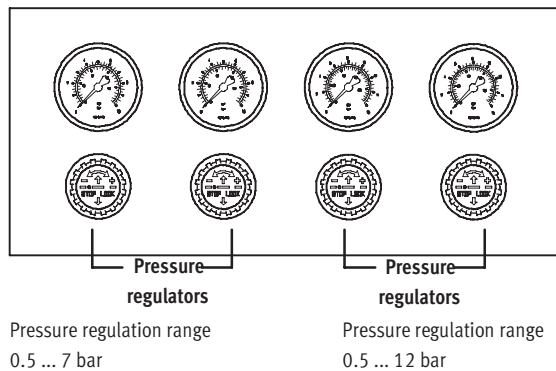
- Larger design (brass housing)
- Good flow rate performance
- Precise diaphragm regulator
- Detenting regulator knob
- Identical mounting bracket to D series
- Suitable for input pressures up to $p_1 = 20$ bar
- 2 pressure regulation ranges:
0.5 ... 7 bar and 0.5 ... 12 bar

The pressure regulator maintains an essentially constant working pressure at the regulator outlet, regardless of pressure fluctuations in the compressed air network. The regulated operating pressure can be reduced by means of the built-in secondary exhaust, even without compressed air consumers.

The pressure regulator is available in two design variants:

- LR(S)-1/8-G for standard applications.
- LR(S)-1/8-G-7 for special individual cases, e.g. regulators in the pressure range up to 7 bar. This variant demonstrates optimal flow and control characteristics.

Panel mounting



General technical data		
Type	LR(S)-1/8-G	LR(S)-1/8-G-7
Pneumatic connection	G1/8	
Operating medium	Filtered compressed air, lubricated or unlubricated (grade of filtration $\leq 40 \mu\text{m}$)	
Design	Input pressure compensated diaphragm pressure regulator with secondary exhaust	
Type of mounting	Via accessories	
	Front panel mounting, installation hole $\varnothing 36.5$ mm	
Mounting position	Any	
Max. hysteresis [bar]	0.2	
Input pressure [bar]	1 ... 20	
Pressure regulation range [bar]	0.5 ... 12	0.5 ... 7

Standard nominal flow rate ¹⁾ qnN [l/min]	
Pressure regulation range 0.5 ... 7 bar	700
Pressure regulation range 0.5 ... 12 bar	600

1) With 10 bar input pressure, 6 bar working pressure and $\Delta p = 1$ bar.

Pressure regulators LR/LRS

Technical data

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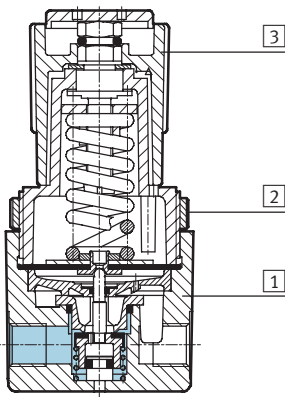
Ambient conditions		
Ambient temperature	[°C]	-10 ... +80
Corrosion resistance	CRC ¹⁾	2

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

Weights [g]		
	LR	LRS
Pressure regulator	320	420

Materials

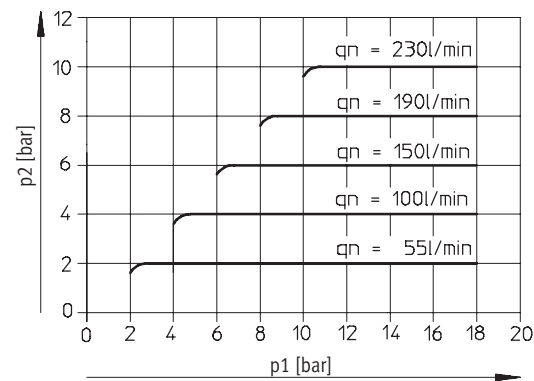
Sectional view



Pressure regulator		
1	Housing	Brass
2	Knurled nut	Aluminium
3	Rotary knob	LR: Polyacetate LRS: Aluminium
-	Seals	Nitrile rubber

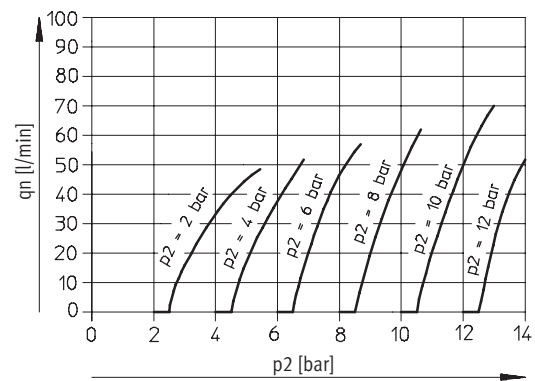
Primary pressure compensation – Primary pressure p_1 as a function of output pressure p_2

LR(S)- $\frac{1}{8}$ -G(-7)



Secondary venting – Output pressure p_2 as a function of standard flow rate q_n

LR(S)- $\frac{1}{8}$ -G(-7)



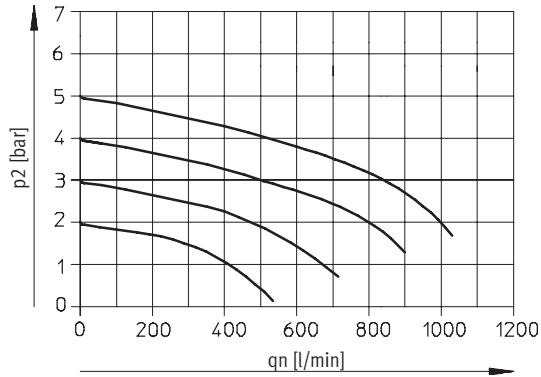
Pressure regulators LR/LRS

Technical data

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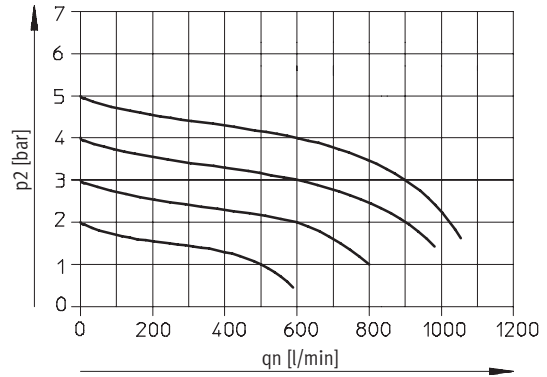
Standard flow rate q_n as a function of the output pressure p_2

LR(S)-1/8-G



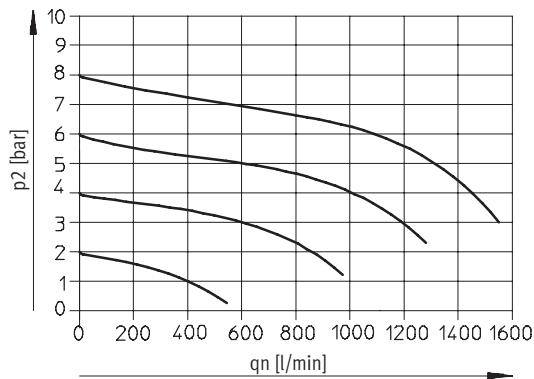
Primary pressure $p_1 = 7$ bar

LR(S)-1/8-G-7



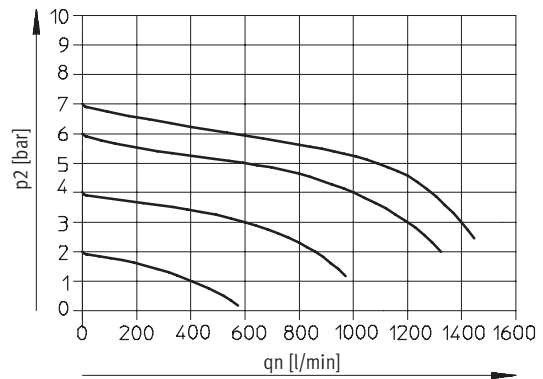
Primary pressure $p_1 = 7$ bar

LR(S)-1/8-G



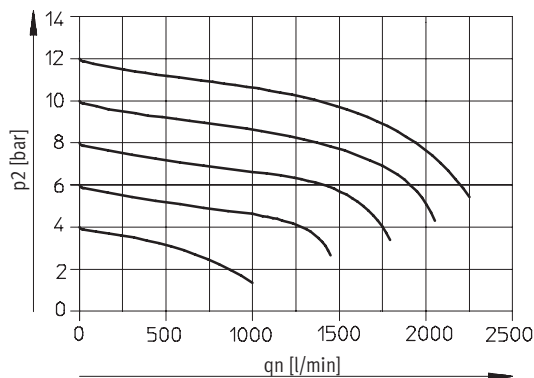
Primary pressure $p_1 = 10$ bar

LR(S)-1/8-G-7



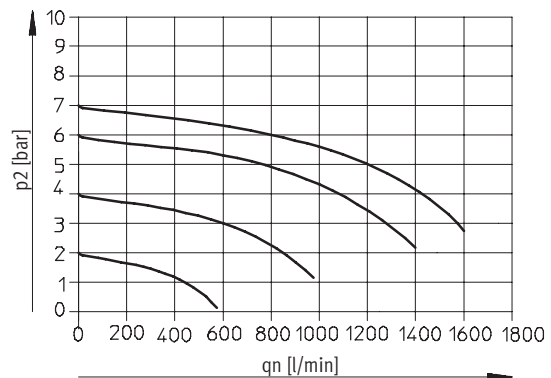
Primary pressure $p_1 = 10$ bar

LR(S)-1/8-G



Primary pressure $p_1 = 14$ bar

LR(S)-1/8-G-7



Primary pressure $p_1 = 14$ bar

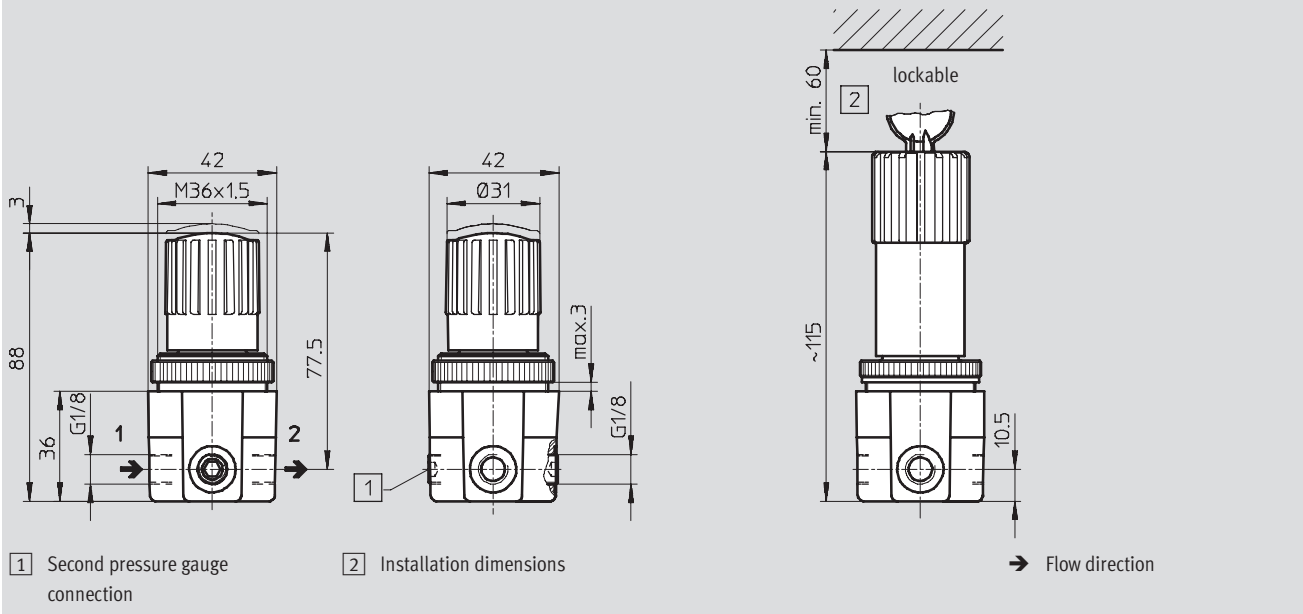
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Technical data

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Dimensions

Download CAD data → www.festo.com



Ordering data

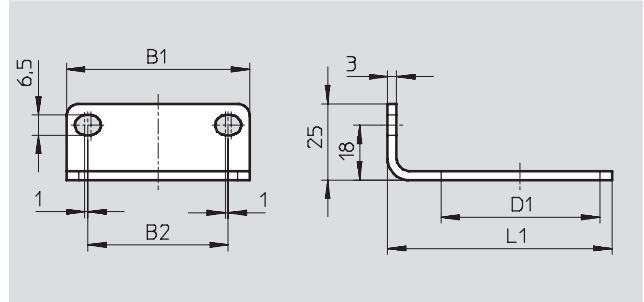
Connection	Pressure regulation range 0.5 ... 7 bar		Pressure regulation range 0.5 ... 12 bar	
	Part No.	Type	Part No.	Type
G1/8	159506	LR-1/8-G-7	159505	LR-1/8-G
lockable				
G1/8	194695	LRS-1/8-G-7	194694	LRS-1/8-G

Pressure regulators LR/LRS

Accessories

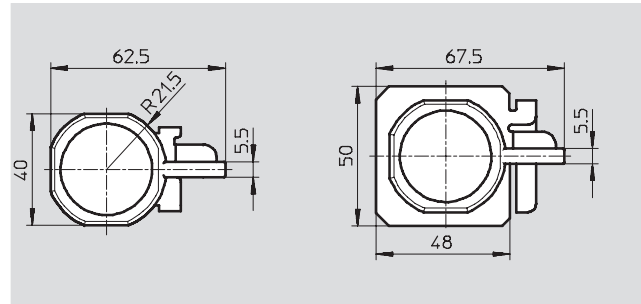
Mounting bracket HR-D for wall mounting

Material:
Galvanised steel



Ordering data					
B1	B2	D1	L1	Part No.	Type
42	28	36	57.5	164936	HR-D-MINI

Regulator lock LRVS



Ordering data			
Connection	Weight [g]	Part No.	Type
G $\frac{1}{8}$	36	196080	LRVS-G- $\frac{1}{8}$

Padlock LRVS-D

Material:
Housing: Brass

Ambient temperature:
-20 ... +60 °C



Ordering data		
Weight [g]	Part No.	Type
120	193786	LRVS-D