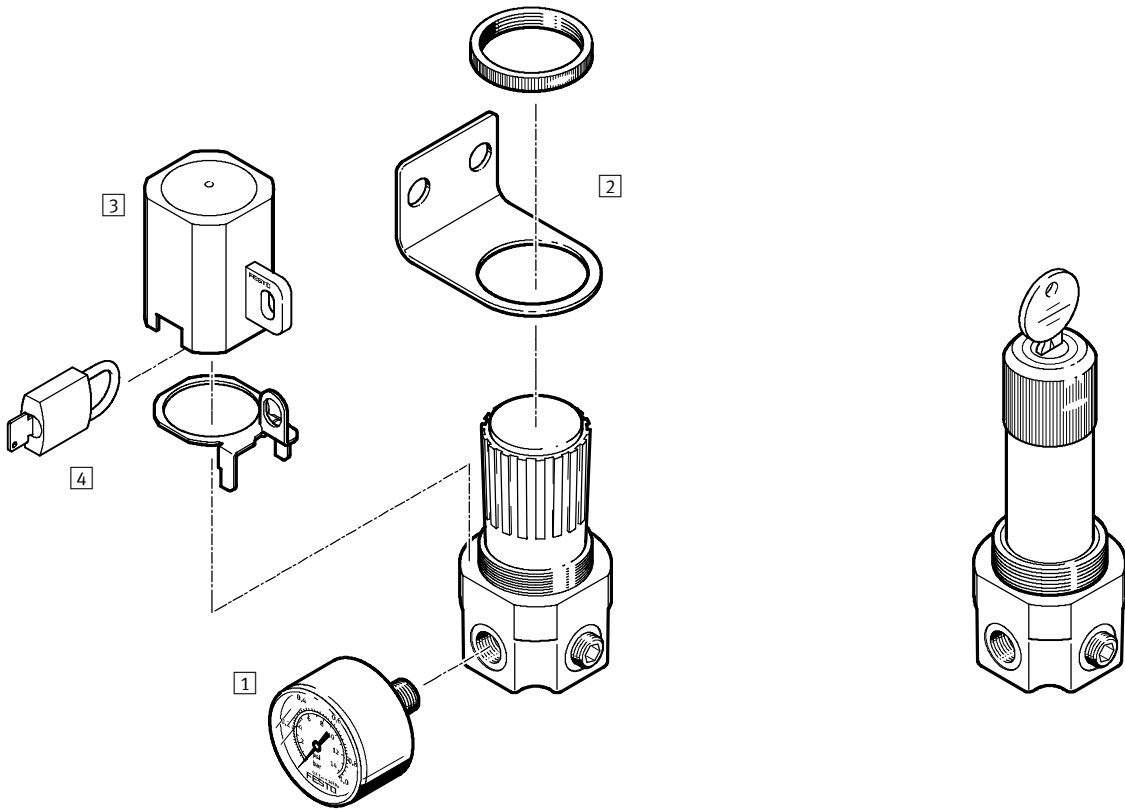


Pressure regulators LR/LRS

Peripherals overview and type codes

Individual units
Pressure regulators
4.1

Peripherals overview Pressure regulator LR Pressure regulator LRS, lockable



| Mounting attachments and accessories | Brief description | → Page |
|--|---|-----------|
| 1 Pressure gauge MA | The pressure gauges measure pressure in bar and the psi display range or in MPa | 3 / 4.8-1 |
| 2 Mounting bracket HR-D | For wall mounting | 3 / 4.1-5 |
| 3 Regulator lock LRVS-G-1/8 with lock plate | Prevents unintentional, and in conjunction with an LRVS padlock, unauthorised adjustment of the rotary knob | 3 / 4.1-5 |
| 4 Padlock LRVS-D | Accessory for LRVS | 3 / 4.1-5 |

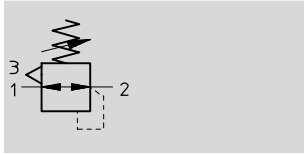
Type codes

| | | | |
|----------------------------------|------------------------------|---|---|
| LR | 1/8 | G | 7 |
| Service function | | | |
| LR | Pressure regulator | | |
| LRS | Pressure regulator, lockable | | |
| Pneumatic connection | | | |
| 1/8 | Thread G1/8 | | |
| Version code | | | |
| G | Version code | | |
| 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.



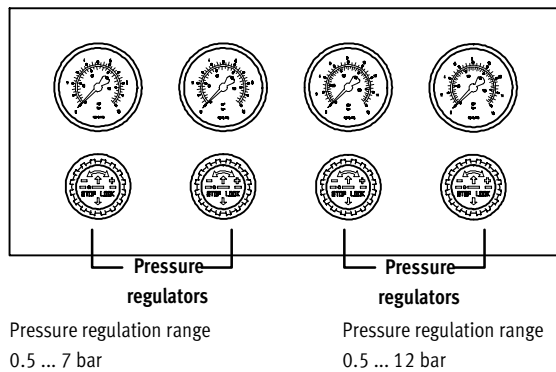
- Larger design (brass housing)
- Good flow rate performance
- Precise diaphragm regulator
- Detenting regulator knob
- Identical mounting bracket to D series
- Suitable for input pressures up to $p_1 = 20$ bar
- 2 pressure regulation ranges:
0.5 ... 7 bar and 0.5 ... 12 bar

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 | | LR(S)-1/8-G | LR(S)-1/8-G-7 |
|---------------------------|-------|--|---------------|
| 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 $\varnothing 36.5 \text{ mm}$ | |
| 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



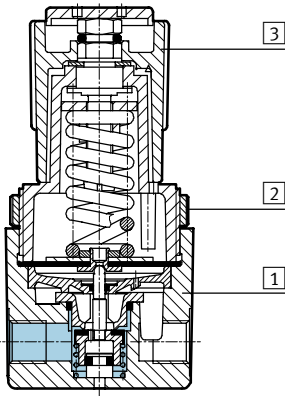
| Ambient conditions | | |
|----------------------|-------------------|-------------|
| Ambient temperature | [°C] | -10 ... +80 |
| Corrosion resistance | CRC ¹⁾ | 2 |

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



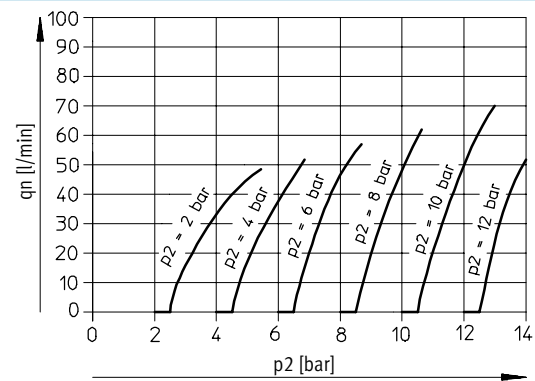
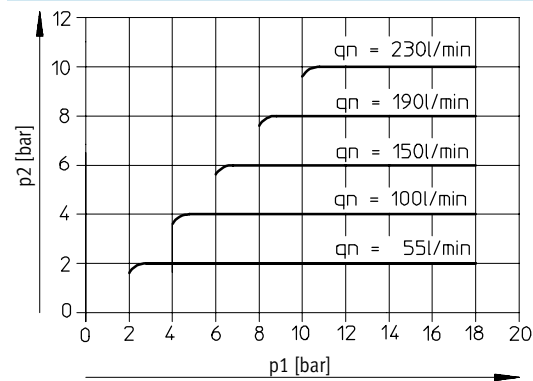
| Pressure regulator | |
|--------------------|--|
| 1 | Housing Brass |
| 2 | Knurled nut Aluminium |
| 3 | Rotary knob LR: Polyacetate LRS: Aluminium |
| - | Seals Nitrile rubber |

Primary pressure compensation – Primary pressure p₁ as a function of output pressure p₂

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

Secondary venting – Output pressure p₂ as a function of standard flow rate q_n

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

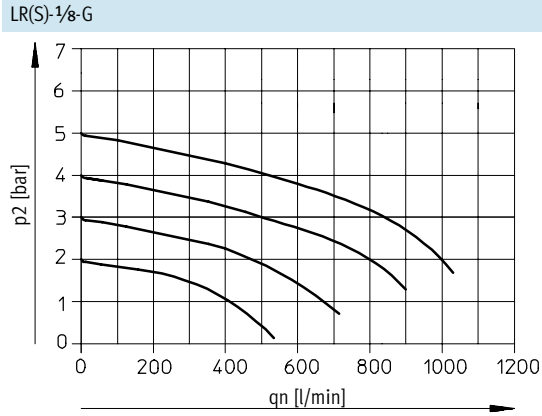


Pressure regulators LR/LRS

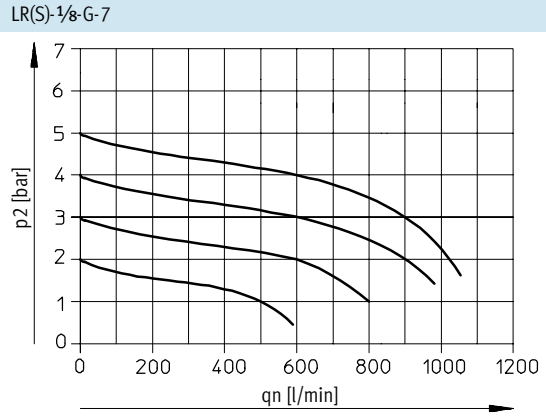
Technical data



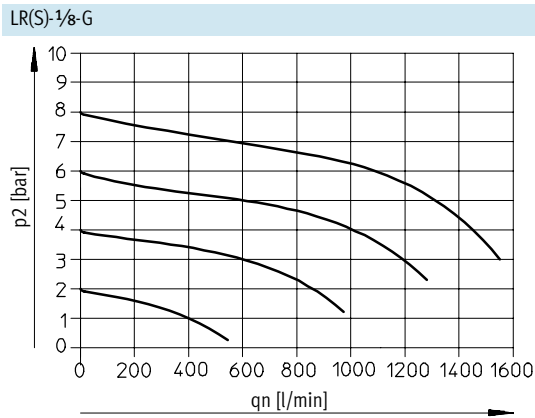
Standard flow rate q_n as a function of the output pressure p_2



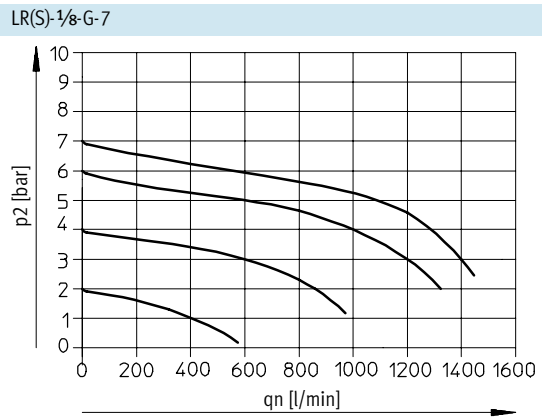
Primary pressure $p_1 = 7$ bar



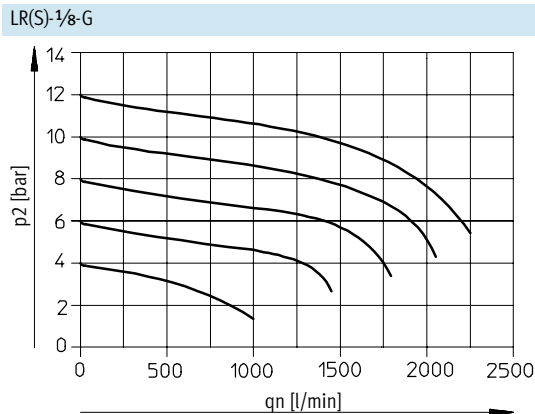
Primary pressure $p_1 = 7$ bar



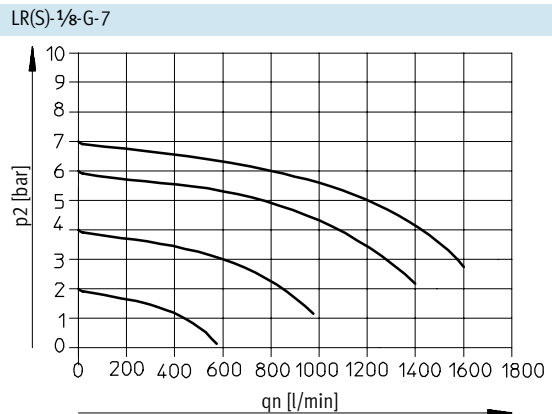
Primary pressure $p_1 = 10$ bar



Primary pressure $p_1 = 10$ bar



Primary pressure $p_1 = 14$ bar



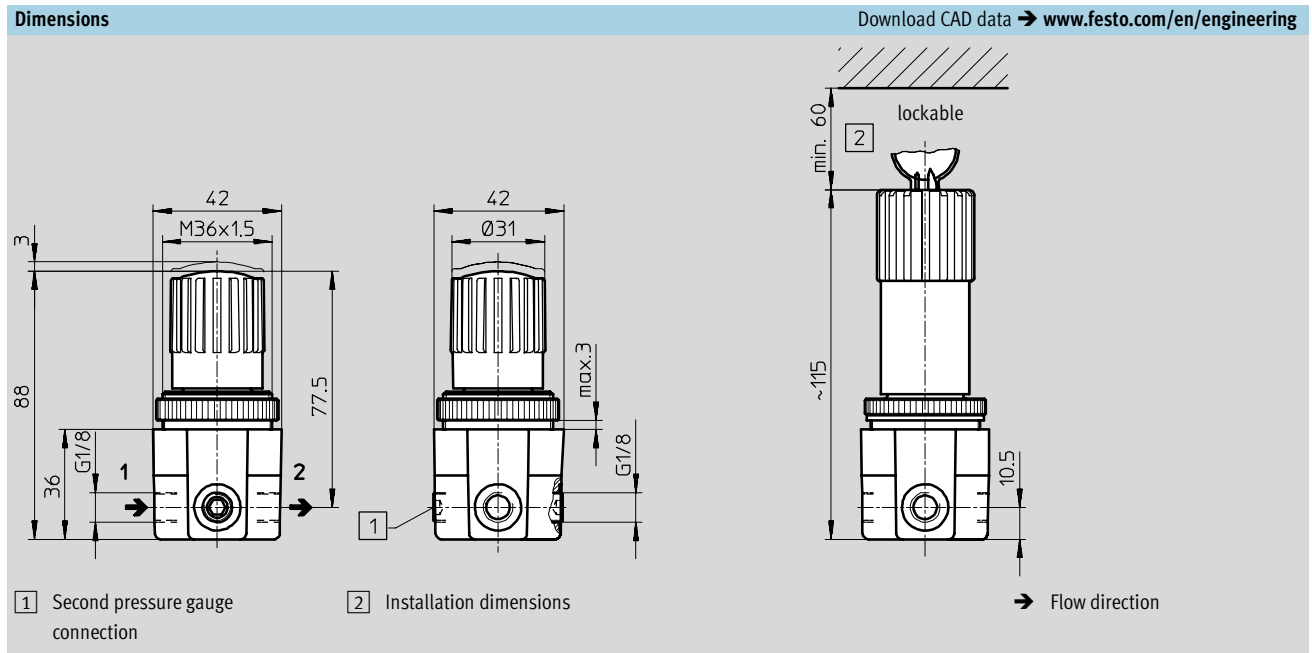
Primary pressure $p_1 = 14$ bar

Pressure regulators LR/LRS

Technical data



Individual units
Pressure regulators
4.1



| Ordering data | | | | |
|-----------------|---|-------------------------|--|-----------------------|
| Connection | Pressure regulation range 0.5 ... 7 bar | | Pressure regulation range 0.5 ... 12 bar | |
| | Part No. | Type | Part No. | Type |
| G $\frac{1}{8}$ | 159 506 | LR- $\frac{1}{8}$ -G-7 | 159 505 | LR- $\frac{1}{8}$ -G |
| lockable | | | | |
| G $\frac{1}{8}$ | 194 695 | LRS- $\frac{1}{8}$ -G-7 | 194 694 | LRS- $\frac{1}{8}$ -G |

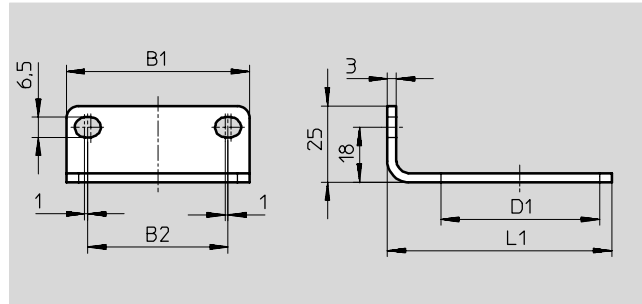
Pressure regulators LR/LRS

Accessories



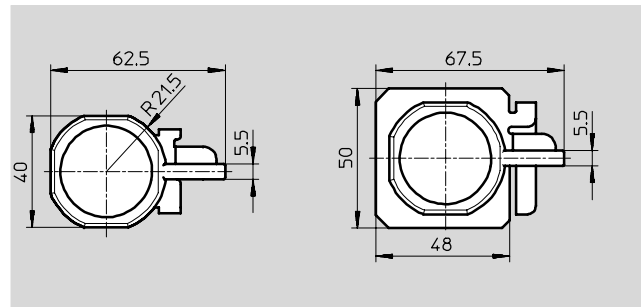
Mounting bracket HR-D for wall mounting

Material:
Galvanised steel



| Ordering data | | | | | | |
|------------------|----|----|----|------|----------|-----------|
| Type | B1 | B2 | D1 | L1 | Part No. | Type |
| Mounting bracket | 42 | 28 | 36 | 57.5 | 164 936 | HR-D-MINI |

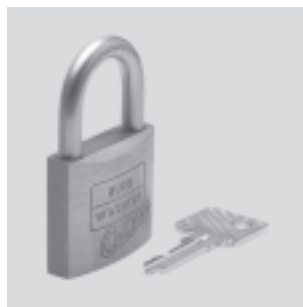
Regulator lock LRVS



| Ordering data | | | | |
|----------------|------------|------------|----------|------------|
| | Connection | Weight [g] | Part No. | Type |
| Regulator lock | G1/8 | 36 | 196 080 | LRVS-G-1/8 |

Padlock LRVS-D

Material:
Housing: Brass



| Ordering data | | | |
|---------------|------------|----------|--------|
| | Weight [g] | Part No. | Type |
| Padlock | 120 | 193 786 | LRVS-D |

Core Range