

Filter pressure regulator, Series AS1-FRE

- G 1/4
- Air supply left
- filter porosity 5 µm



| | |
|-------------------------------|--------------------------------------|
| Type | 1-part, Can be assembled into blocks |
| Parts | Filter pressure regulator |
| Mounting orientation | vertical |
| Working pressure min./max. | 1,5 ... 12 bar |
| Ambient temperature min./max. | -10 ... 50 °C |
| Medium temperature min./max. | -10 ... 50 °C |
| Medium | Compressed air Neutral gases |
| Nominal flow Qn | 1000 l/min |
| Regulator type | Diaphragm-type pressure regulator |
| Regulator function | with relieving air exhaust |
| Adjustment range min./max. | See table below |
| Pressure supply | single |
| Filter reservoir volume | 16 cm ³ |
| Filter element | exchangeable |
| Weight | See table below |

Technical data

| Part No. | [Symbol] | [Symbol] | Port | filter porosity | Flow | Adjustment range min./max. |
|------------|----------|----------|-------|-----------------|------------|----------------------------|
| | | | | | Qn | |
| R412014645 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014646 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014647 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014648 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014649 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014650 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014651 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014652 | [Symbol] | — | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014653 | [Symbol] | — | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014654 | [Symbol] | — | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 8 bar |
| R412014655 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 10 bar |
| R412014656 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 10 bar |
| R412014657 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 10 bar |
| R412014658 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 10 bar |
| R412014659 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 10 bar |
| R412014660 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 10 bar |
| R412014661 | [Symbol] | [Symbol] | G 1/4 | 5 µm | 1000 l/min | 0,5 ... 10 bar |

| Part No. | Condensate drain | Pressure gauge |
|------------|--|--------------------------------|
| R412014645 | semi-automatic, open without pressure | With integrated pressure gauge |
| R412014646 | fully automatic, open without pressure | With integrated pressure gauge |
| R412014647 | fully automatic, closed without pressure | With integrated pressure gauge |

| Part No. | Condensate drain | Pressure gauge |
|------------|--|--------------------------------|
| R412014648 | semi-automatic, open without pressure | With integrated pressure gauge |
| R412014649 | semi-automatic, open without pressure | With integrated pressure gauge |
| R412014650 | fully automatic, open without pressure | With integrated pressure gauge |
| R412014651 | fully automatic, closed without pressure | With integrated pressure gauge |
| R412014652 | semi-automatic, open without pressure | - |
| R412014653 | fully automatic, open without pressure | - |
| R412014654 | fully automatic, closed without pressure | - |
| R412014655 | semi-automatic, open without pressure | With integrated pressure gauge |
| R412014656 | fully automatic, open without pressure | With integrated pressure gauge |
| R412014657 | fully automatic, closed without pressure | With integrated pressure gauge |
| R412014658 | semi-automatic, open without pressure | With integrated pressure gauge |
| R412014659 | semi-automatic, open without pressure | With integrated pressure gauge |
| R412014660 | fully automatic, open without pressure | With integrated pressure gauge |
| R412014661 | fully automatic, closed without pressure | With integrated pressure gauge |

| Part No. | Max. pressure gauge Ø in blocked state | Reservoir | Protective guard | Weight | Fig. | |
|------------|--|---------------|------------------|----------|--------|----|
| R412014645 | - | Polycarbonate | - | 0,241 kg | Fig. 1 | 1) |
| R412014646 | - | Polycarbonate | - | 0,259 kg | Fig. 1 | 1) |
| R412014647 | - | Polycarbonate | - | 0,259 kg | Fig. 1 | 1) |
| R412014648 | - | Polycarbonate | metal | 0,274 kg | Fig. 1 | 1) |
| R412014649 | - | Die cast zinc | - | 0,318 kg | Fig. 1 | 1) |
| R412014650 | - | Die cast zinc | - | 0,33 kg | Fig. 1 | 1) |
| R412014651 | - | Die cast zinc | - | 0,33 kg | Fig. 1 | 1) |
| R412014652 | 40 mm | Polycarbonate | - | 0,238 kg | Fig. 2 | 2) |
| R412014653 | 40 mm | Polycarbonate | - | 0,256 kg | Fig. 2 | 2) |
| R412014654 | 40 mm | Polycarbonate | - | 0,256 kg | Fig. 2 | 2) |
| R412014655 | - | Polycarbonate | - | 0,241 kg | Fig. 1 | 1) |
| R412014656 | - | Polycarbonate | - | 0,259 kg | Fig. 1 | 1) |
| R412014657 | - | Polycarbonate | - | 0,259 kg | Fig. 1 | 1) |
| R412014658 | - | Polycarbonate | metal | 0,274 kg | Fig. 1 | 1) |
| R412014659 | - | Die cast zinc | - | 0,318 kg | Fig. 1 | 1) |
| R412014660 | - | Die cast zinc | - | 0,33 kg | Fig. 1 | 1) |
| R412014661 | - | Die cast zinc | - | 0,33 kg | Fig. 1 | 1) |

Nominal flow Qn with secondary pressure p2 = 6 bar at $\Delta p = 1$ bar

- 1) regulator with pressure gauge
- 2) Order pressure gauge separately

Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Also suitable for separation of fluid oil or water due to the design.

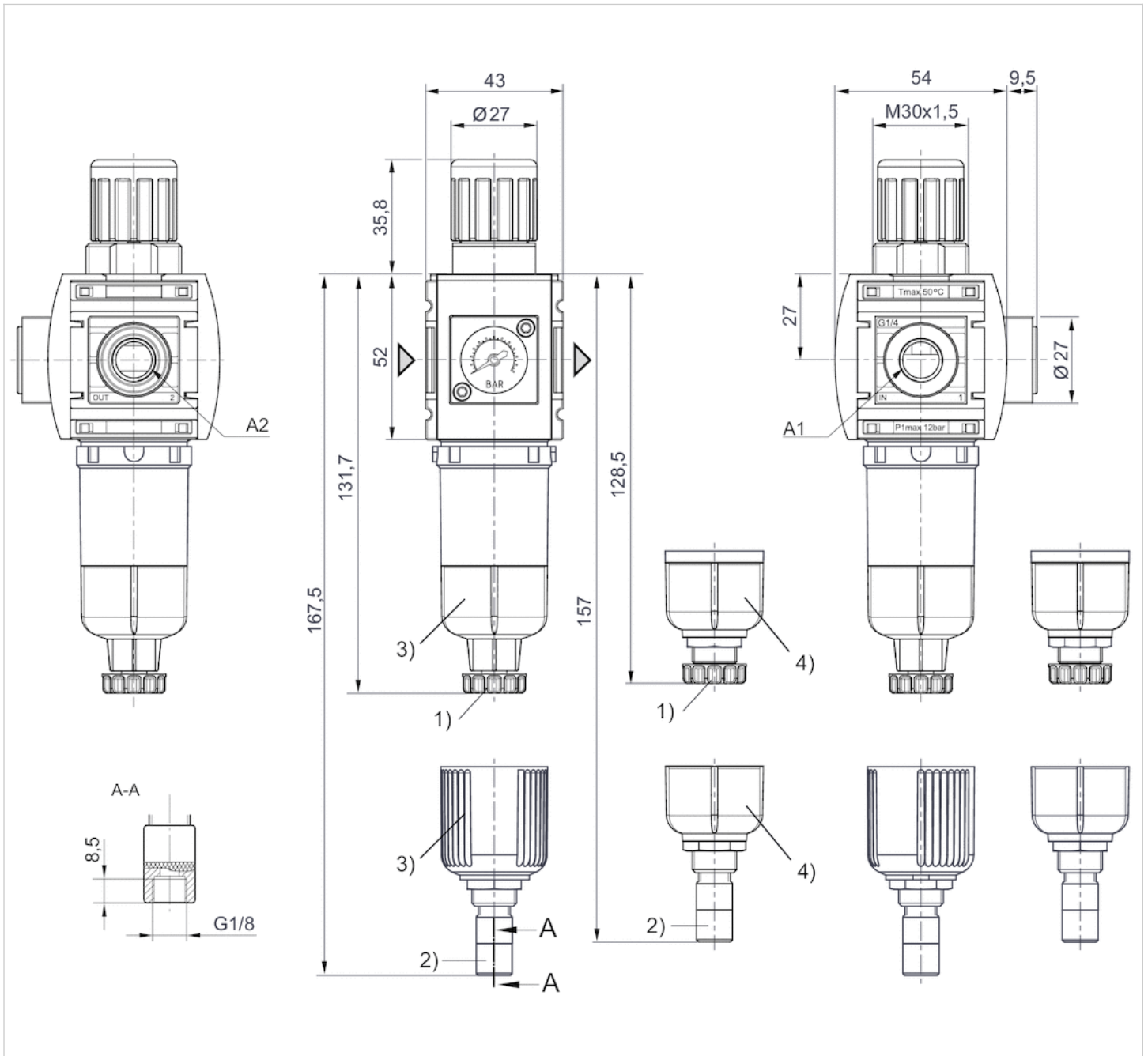
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

| Material | |
|------------------|---------------------------------|
| Housing | Polyamide |
| Front plate | Acrylonitrile butadiene styrene |
| Seals | Acrylonitrile butadiene rubber |
| Threaded bushing | Die cast zinc |
| Reservoir | Polycarbonate Die cast zinc |
| Protective guard | metal |
| Filter insert | Cellpor |

Dimensions

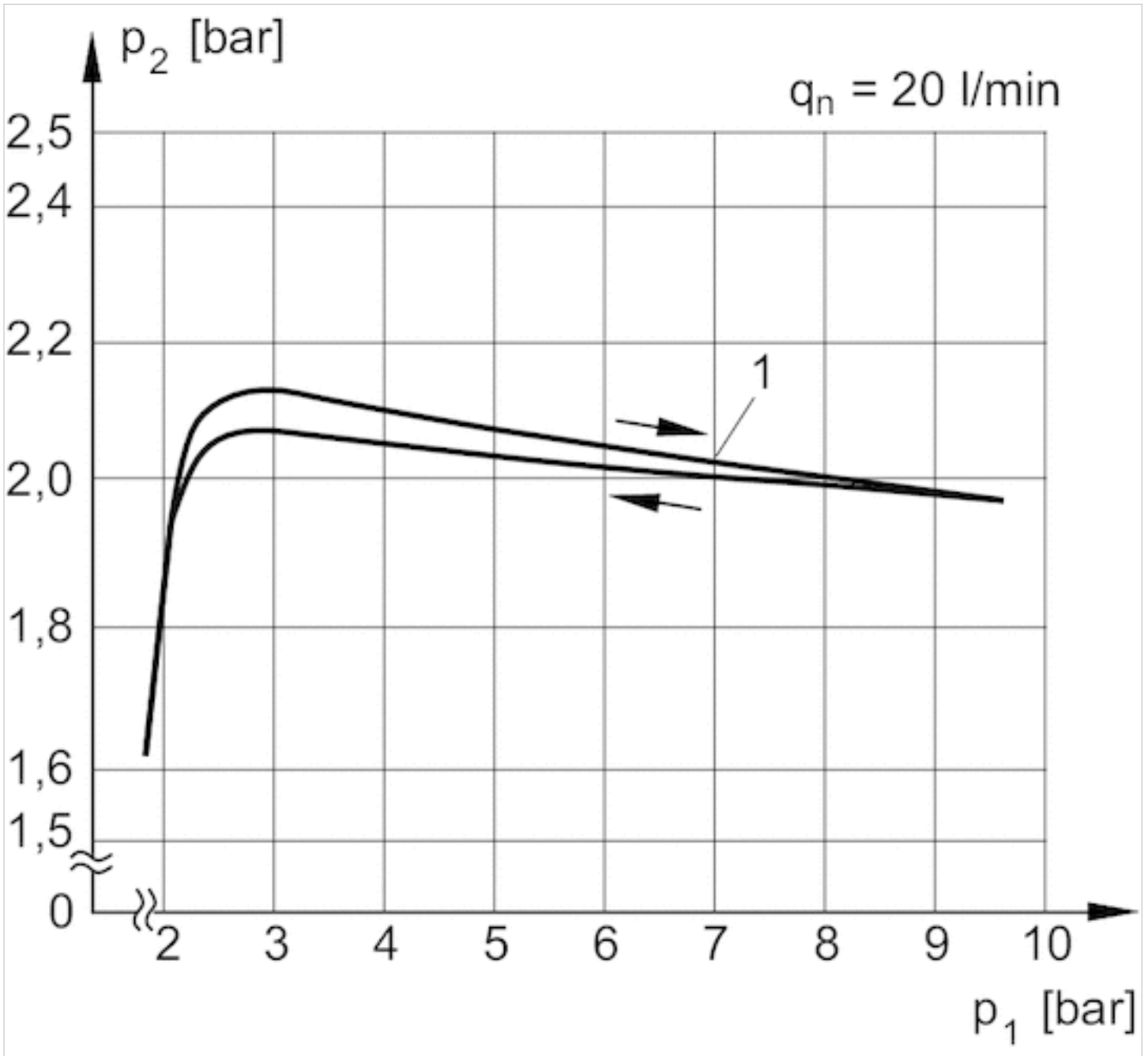
Dimensions, Fig. 1



- A1 = input
- A2 = output
- 1) Semi-automatic condensate drain
- 2) Fully automatic condensate drain
- 3) Reservoir: polycarbonate
- 4) Reservoir: metal

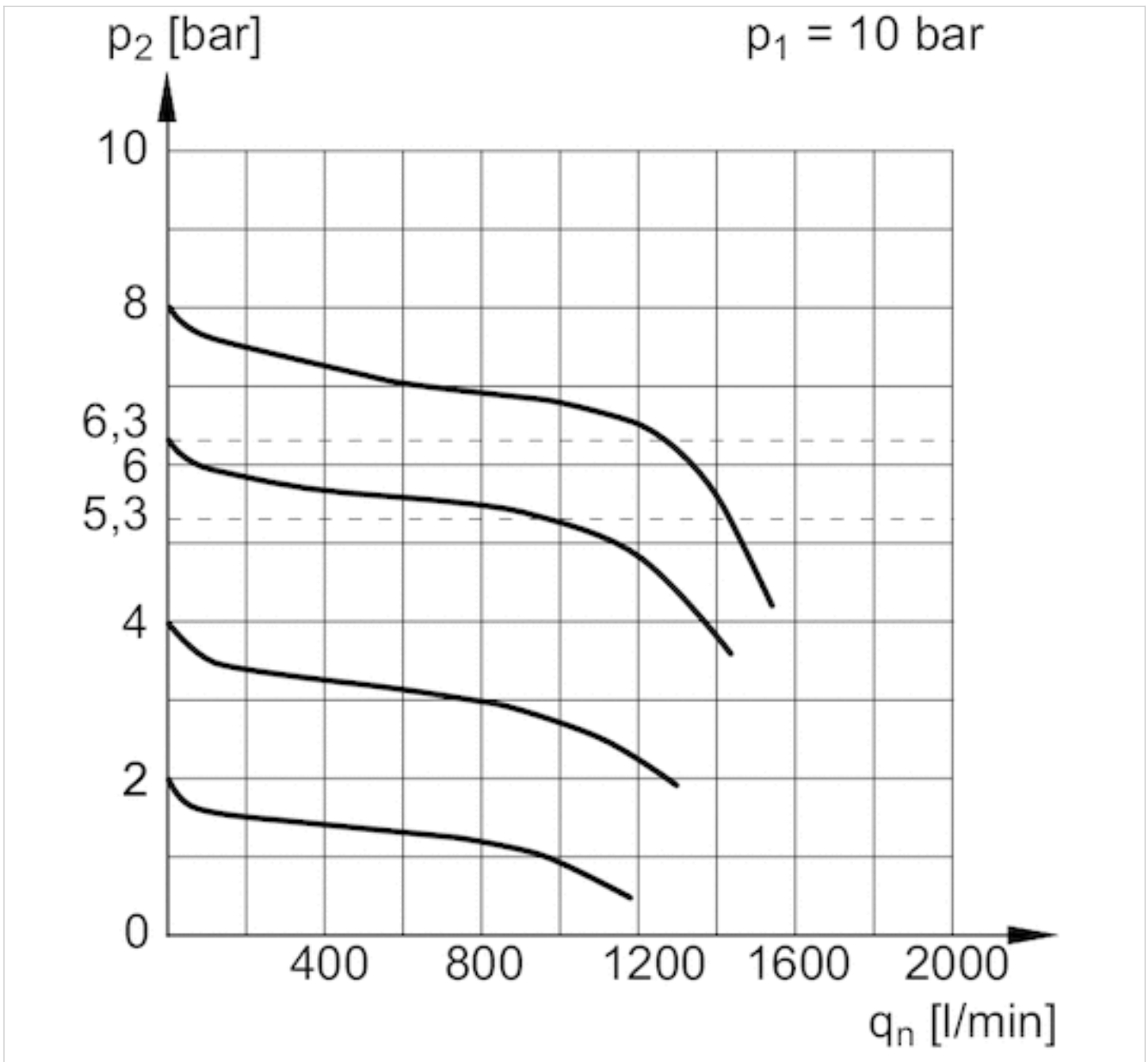
Diagrams

Pressure characteristics curve



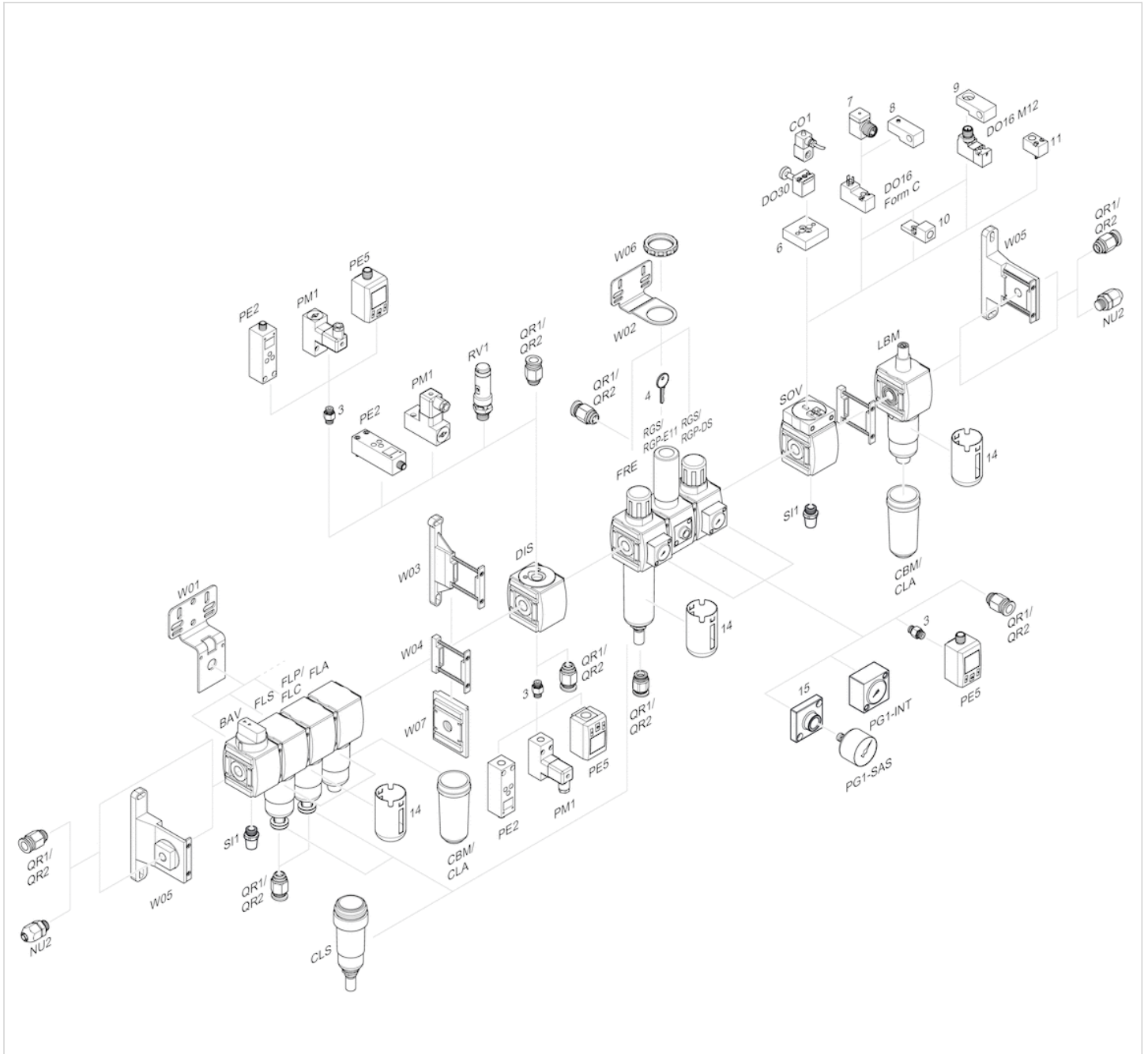
p_1 = working pressure
 p_2 = secondary pressure
 q_n = nominal flow
 1) = Starting point

Flow rate characteristic



p_1 = working pressure
 p_2 = secondary pressure
 q_n = nominal flow

Accessories overview



- 3 = Double nipple
- 4 = Key for E11 locking
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 14 = Protective guard
- 15 = Transition plate for assembling a pressure gauge with connection thread G 1/8

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2020-12



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