

Filling unit, electrically operated, Series AS3-SSU

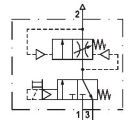
R412007394

Series AS3

2024-03-28

Series AS3

The AVENTICS Series AS3 is a modular, versatile maintenance unit for universal application. This Series offers compact dimensions, is highly efficient, lightweight and easy-to-use. The AVENTICS Series AS guarantees reliability, safety, and efficiency with a simplified assembly and maintenance efforts.



Technical data

| | |
|------------------------------|--|
| Industry | Industrial |
| Type | adjustable filling time |
| Activation | Electrically |
| Nominal flow Qn | 3500 l/min |
| Compressed air connection | G 1/2 |
| Min. working pressure | 2.5 bar |
| Max. working pressure | 10 bar |
| Operational voltage DC | 24 V |
| Sealing principle | Soft seal |
| Pilot | Internal |
| Connection type | Pipe connection |
| Parts | 3/2-directional valve Filling valve |
| Can be assembled into blocks | Can be assembled into blocks |
| Basic valve equipment | Basic valve with pilot valve |
| Type | Poppet valve |
| Min. ambient temperature | -10 °C |
| Max. ambient temperature | 50 °C |
| Medium | Compressed air Neutral gases |

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| | |
|--------------------------------------|-------------------------------------|
| Max. particle size | 25 µm |
| Compressed air connection, exhaust | G 1/2 |
| Nominal flow Qn 1 to 2 | 3500 l/min |
| Nominal flow Qn 2 to 3 | 3200 l/min |
| Operating voltage | 24 V DC |
| Power consumption DC | 2 W |
| Duty cycle | 100 % |
| Protection class with connection | IP65 |
| Reverse polarity protection | Protected against polarity reversal |
| Electrical connection 1, type | Plug |
| Electrical connection 1, thread size | M12x1 |
| Weight | 0.9 kg |

Material

| | |
|---------------------------|---------------------------------|
| Housing material | Polyamide |
| Seal material | Acrylonitrile butadiene rubber |
| Material threaded bushing | Die cast zinc |
| Material front plate | Acrylonitrile butadiene styrene |
| Part No. | R412007394 |

Technical information

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

Nominal flow Qn with secondary pressure $p_2 = 6$ bar at $\Delta p = 0,1$ bar

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.

The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

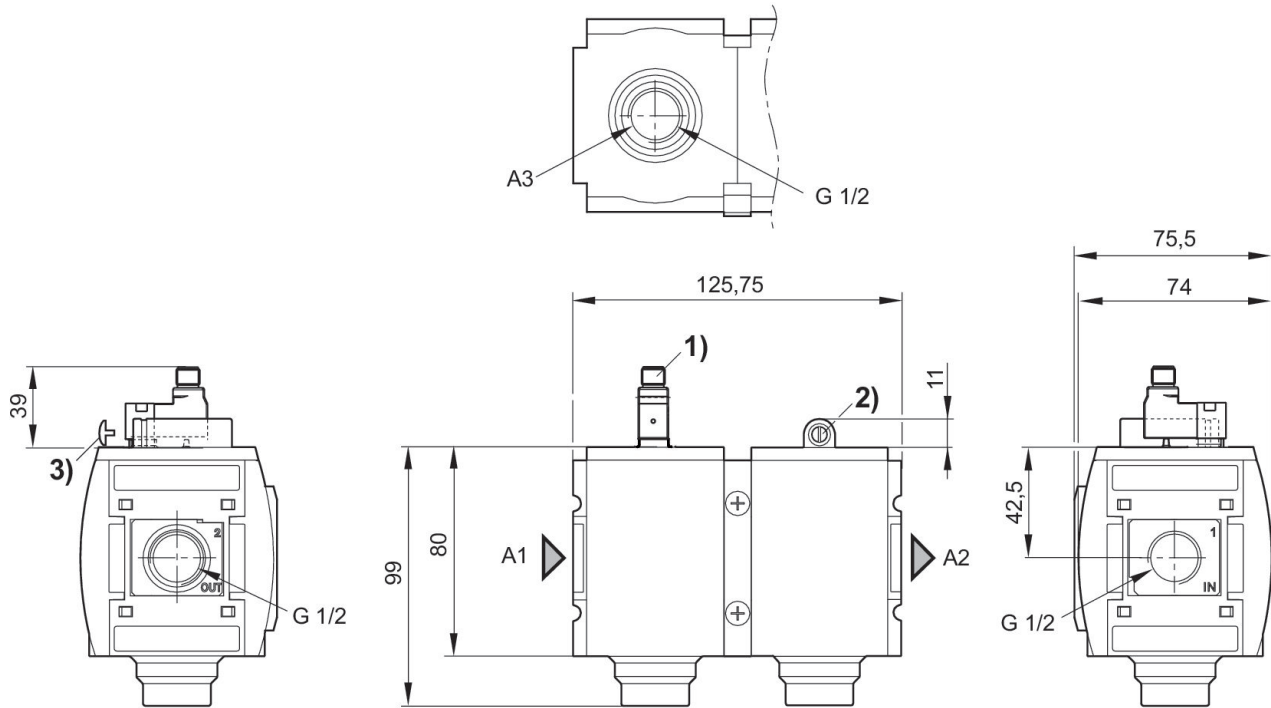
With adjustment screw lock

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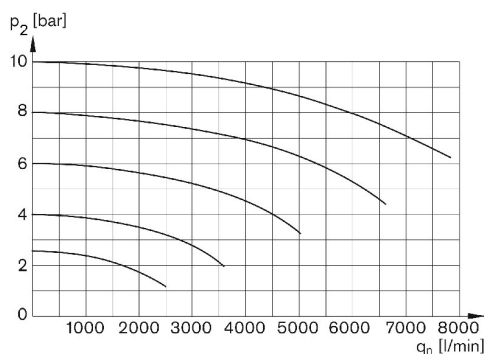
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Dimensions in mm



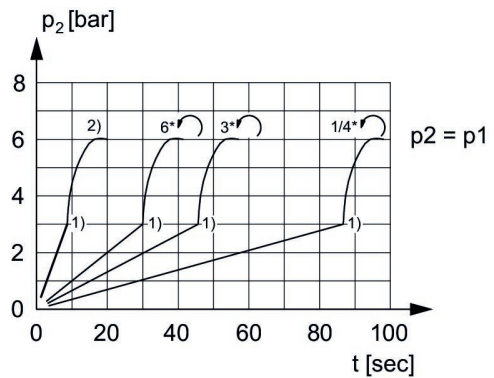
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) Port for plug M12x1
- 2) Adjustment screw for filling time
- 3) Adjustment screw lock

Flow rate characteristic, $p_2 = 0,05 - 7$ bar



p_2 = Secondary pressure
 q_n = Nominal flow

Secondary pressure while filling



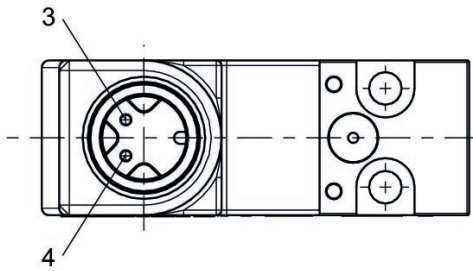
- p_1 = Working pressure
- p_2 = Secondary pressure
- t = filling time, adjustable via adjustment screw (throttle)
- 1) Switching point: adjustable filling time, fixed change-over pressure $\approx 0.5 \times p_1$ (50%)
- 2) Throttle fully opened
- * Adjustment screw rotations

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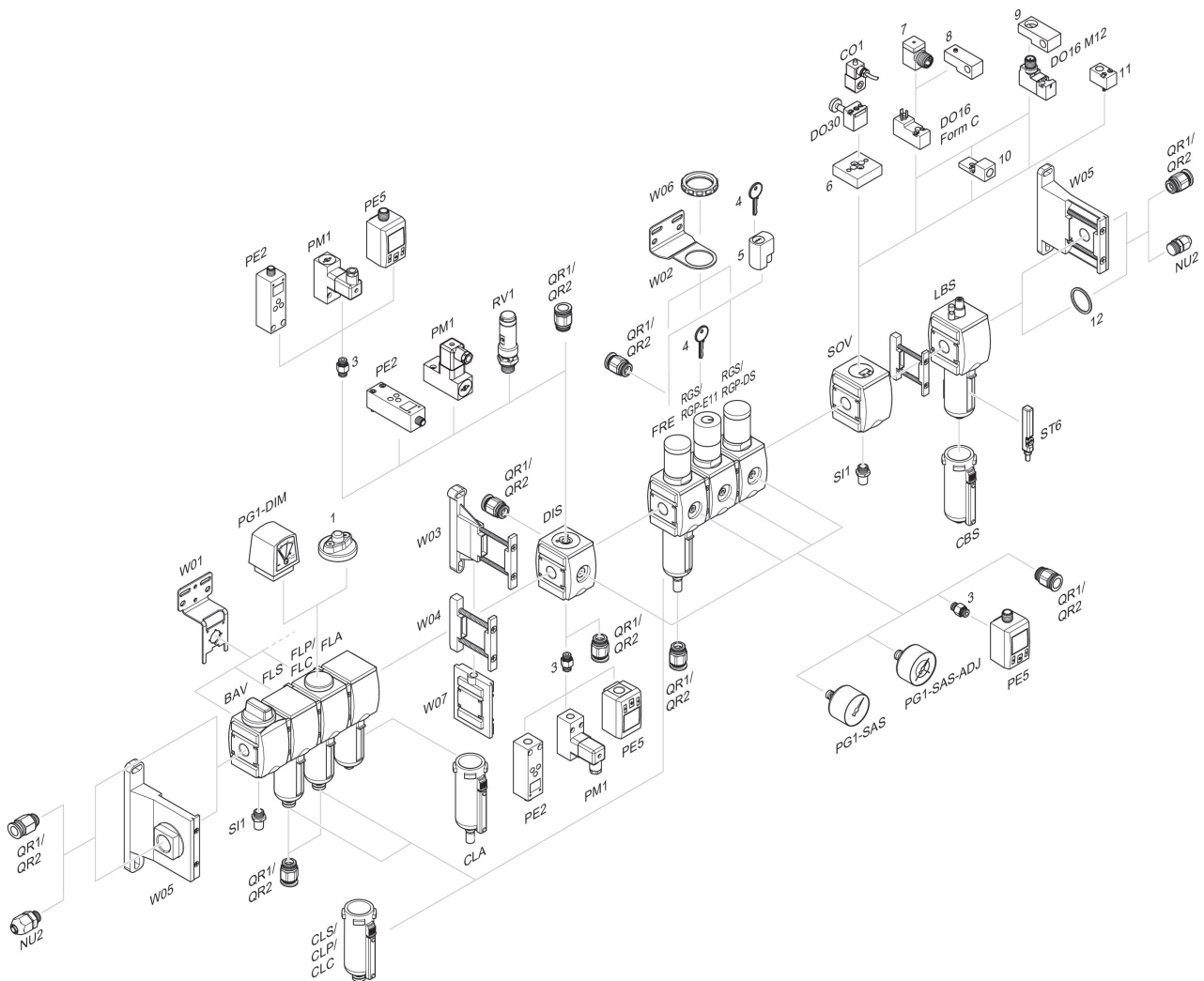
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Pin assignment M12x1



3: +/-
4: +/-

Accessories overview



1 = contamination display 3 = Double nipple 4 = Key for E11 locking 5 = mortise lock 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 12 = Sealing ring