

Series AS5

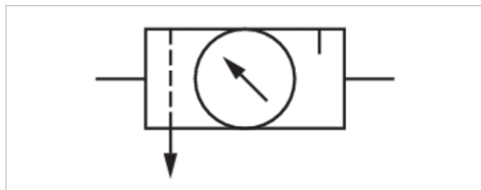


AVENTICS™ Series AS5



Air preparation unit, 2-part, Series AS5-ACD

- G 3/4 G 1
- filter porosity 5 µm
- lockable
- for padlocks
- with pressure gauge



Version	2-part, Can be assembled into blocks
Parts	Filter pressure regulator, Lubricator
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	12300 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 8 bar
Pressure supply	single
Filter reservoir volume	87 cm ³
Filter element	exchangeable
Lubricator reservoir volume	181 cm ³
Type of filling	Semi-automatic oil filling during operation Manual oil filling
Weight	See table below

Technical data

Part No.	Port	filter porosity	Flow	Condensate drain
			Qn	
R412009298	G 3/4	5 µm	12300 l/min	semi-automatic, open without pressure
R412009299	G 3/4	5 µm	12300 l/min	fully automatic, open without pressure
R412009307	G 1	5 µm	12300 l/min	semi-automatic, open without pressure
R412009308	G 1	5 µm	12300 l/min	fully automatic, open without pressure
R412009309	G 1	5 µm	12300 l/min	fully automatic, closed without pressure

Part No.	Pressure gauge	Weight
R412009298	with pressure gauge	1.83 kg
R412009299	with pressure gauge	1.88 kg
R412009307	with pressure gauge	1.83 kg
R412009308	with pressure gauge	1.88 kg
R412009309	with pressure gauge	1.88 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

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".

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.

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

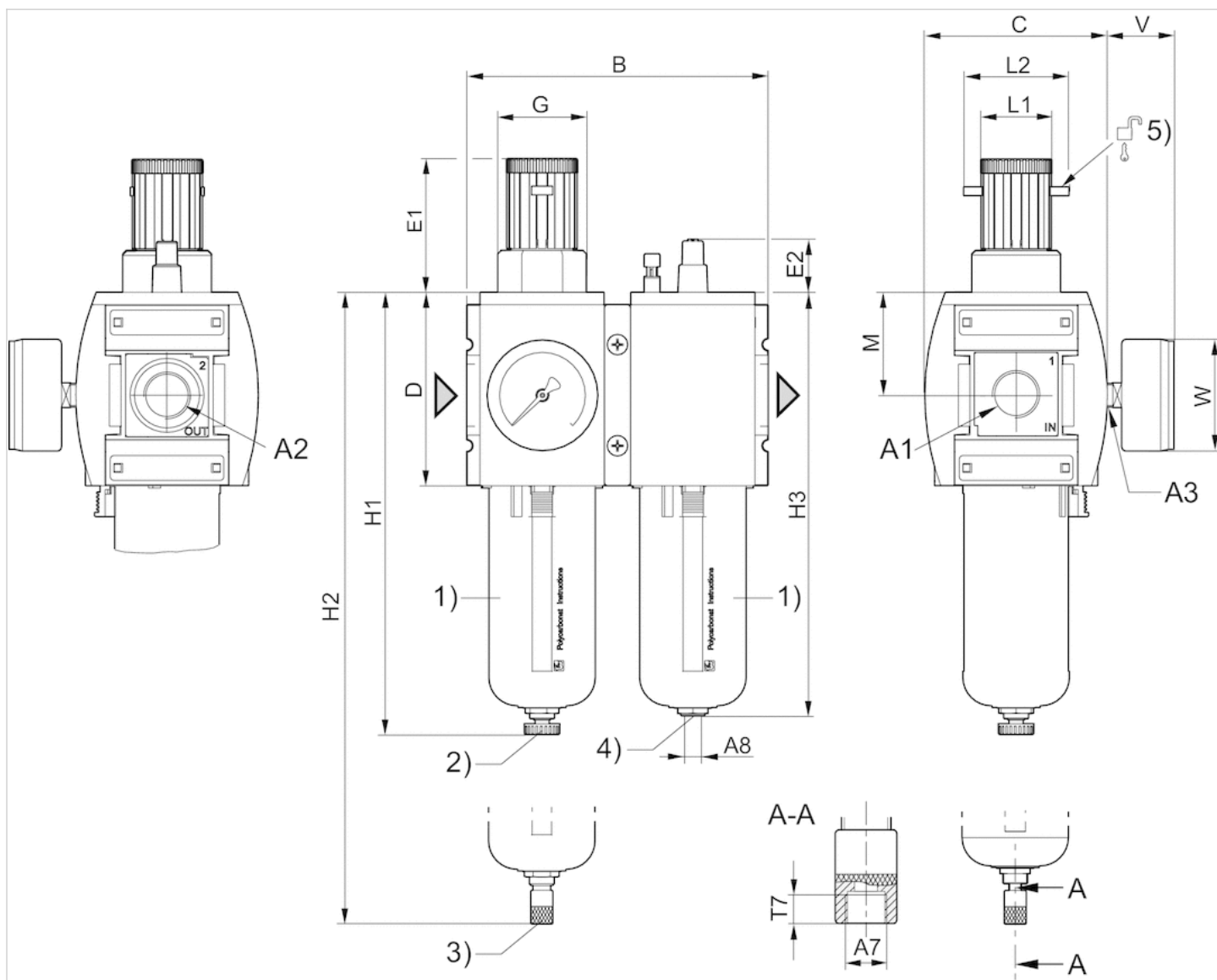
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

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

Dimensions

Dimensions



A1 = input

A2 = output

A3 = pressure gauge connection

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Semi-automatic condensate drain

3) Fully automatic condensate drain

4) Port for semi-automatic oil filling

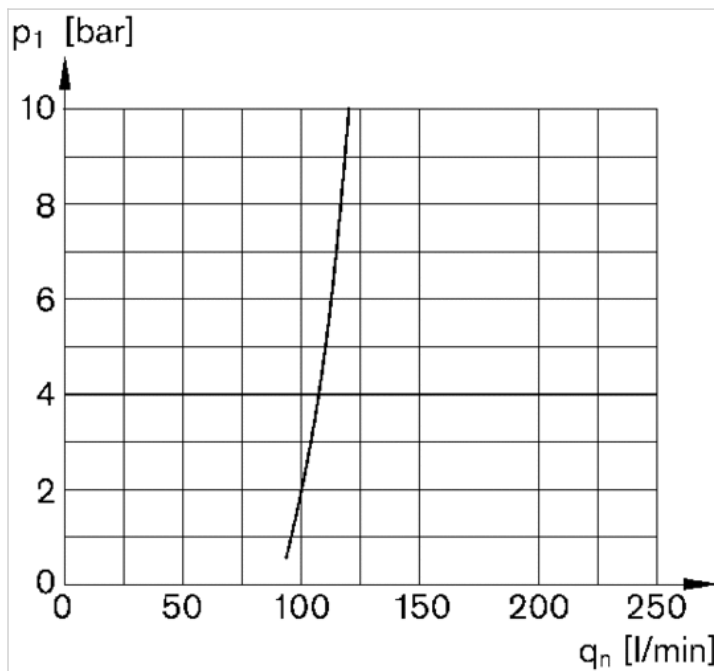
5) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A1	A2	A3	A7	A8	B	C	D	E1	E2	G	H1	H2	H3	L1	L2	M	T7	V	W
G 3/4	G 3/4	G 1/4	G 1/8	G 1/8	170	103	109	75	30.5	M50x1,5	250	266	239	41	60	58	8.5	38	63
G 1	G 1	G 1/4	G 1/8	G 1/8	170	103	109	75	30.5	M50x1,5	250	266	239	41	60	58	8.5	38	63

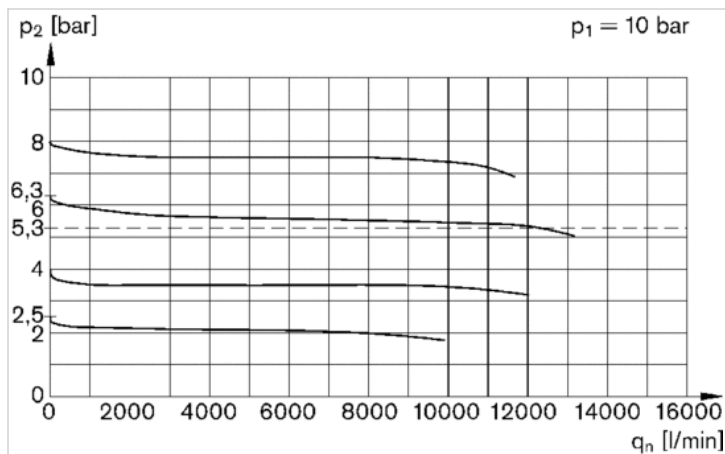
Diagrams

Lubricator activation margin



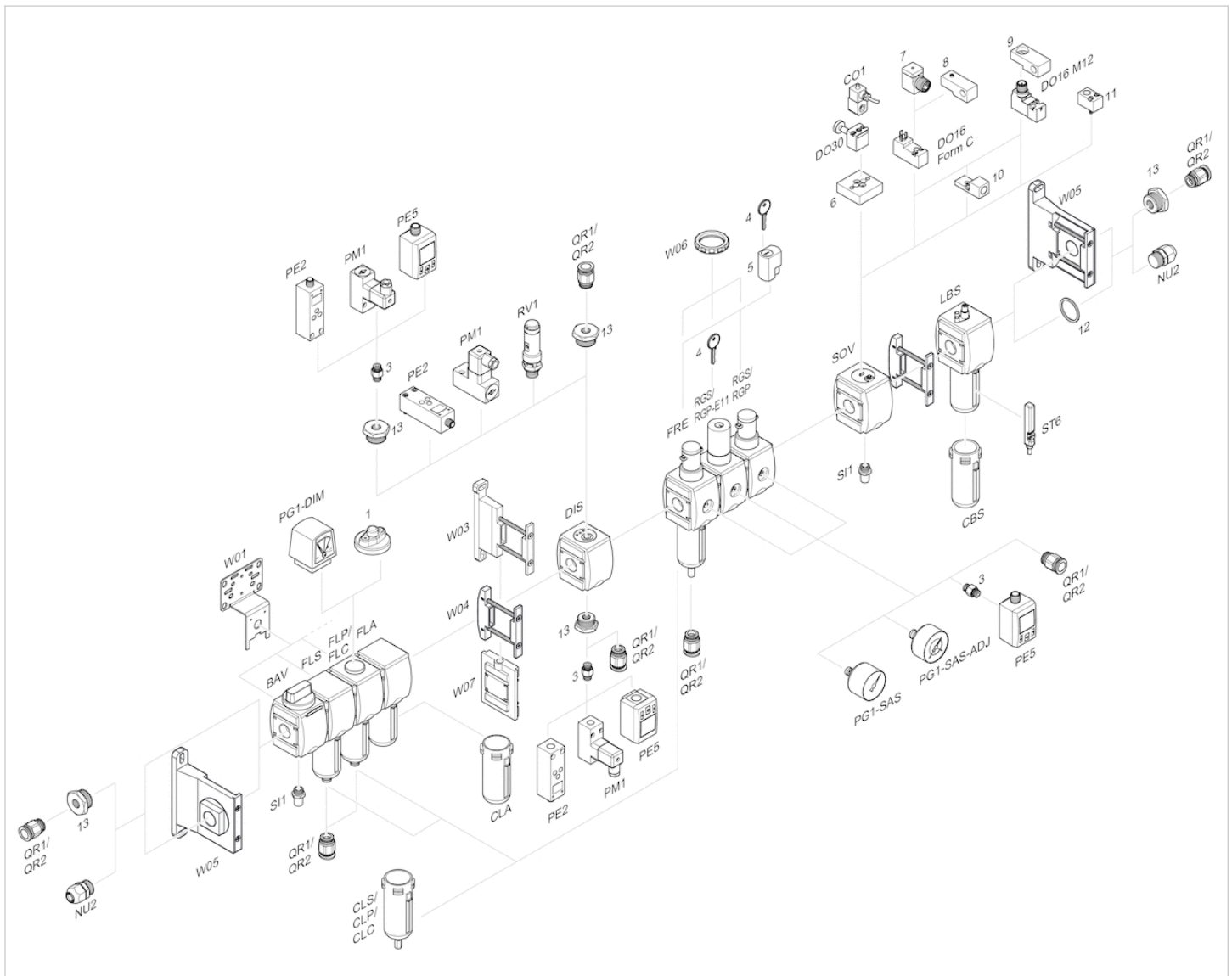
p_1 = working pressure
 q_n = nominal flow

Flow rate characteristic (setting range p_2 : 0.5 - 8 bar)



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

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
- 13 = Reducing nipple

Air preparation unit, 2-part, Series AS5-ACC

- G 1 G 3/4
- filter porosity 5 µm
- lockable
- for padlocks
- with pressure gauge



Version	2-part, Can be assembled into blocks
Parts	Shut-off valve, Filter pressure regulator, Pressure gauge, Silencer, Mountings
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 8 bar
Pressure supply	single
Filter reservoir volume	87 cm³
Filter element	exchangeable
Max. Internal air consumption	1.5 l/min
Weight	See table below

Technical data

Part No.	Port	filter porosity	Condensate drain	Pressure gauge
R412027676	G 1	5 µm	semi-automatic, open without pressure	with pressure gauge
R412027675	G 3/4	5 µm	semi-automatic, open without pressure	with pressure gauge
R412027677	G 1	5 µm	fully automatic, open without pressure	with pressure gauge

Part No.	Weight
R412027676	2.79 kg
R412027675	2.79 kg
R412027677	2.84 kg

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".

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.

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

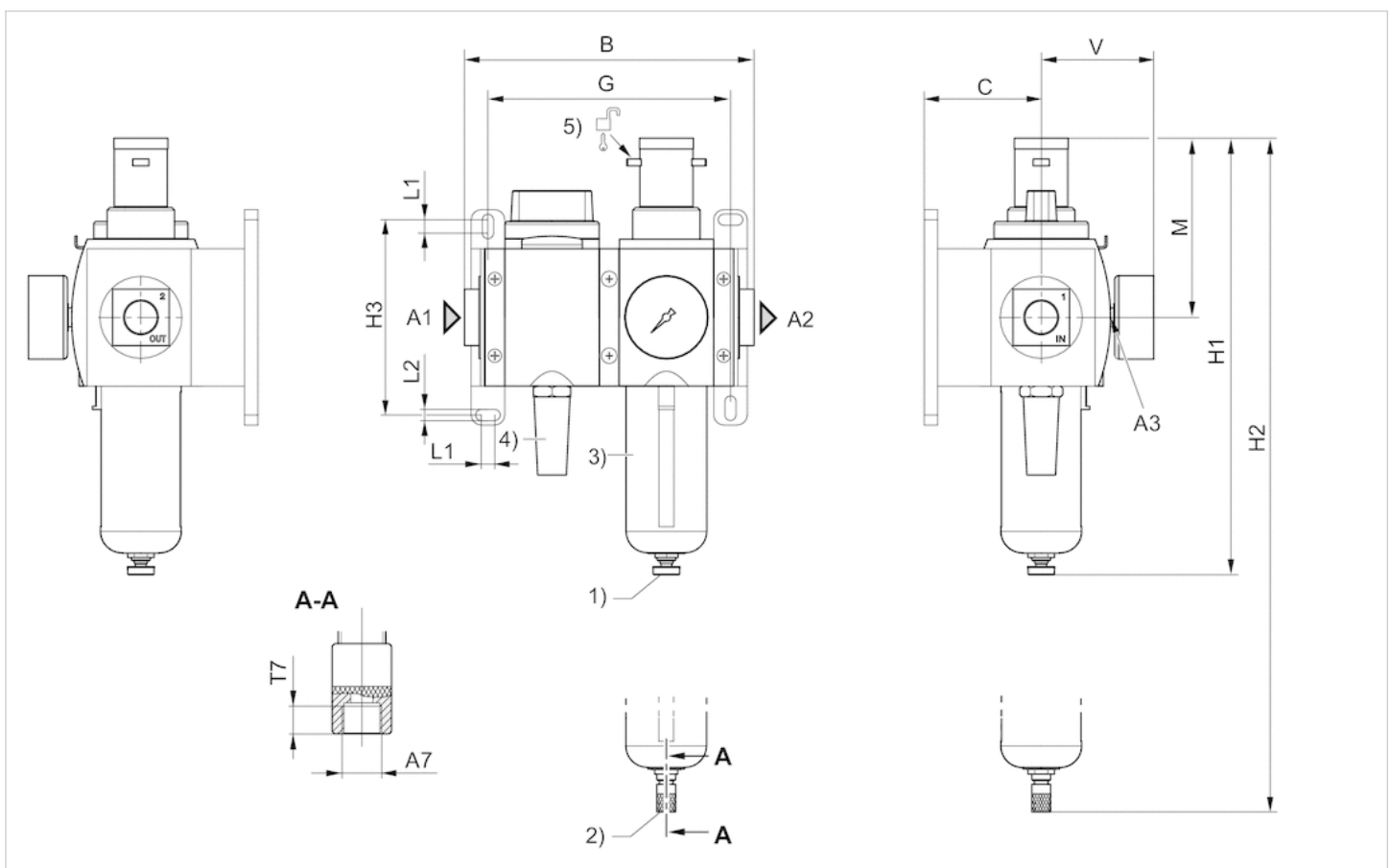
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

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

Dimensions

Dimensions



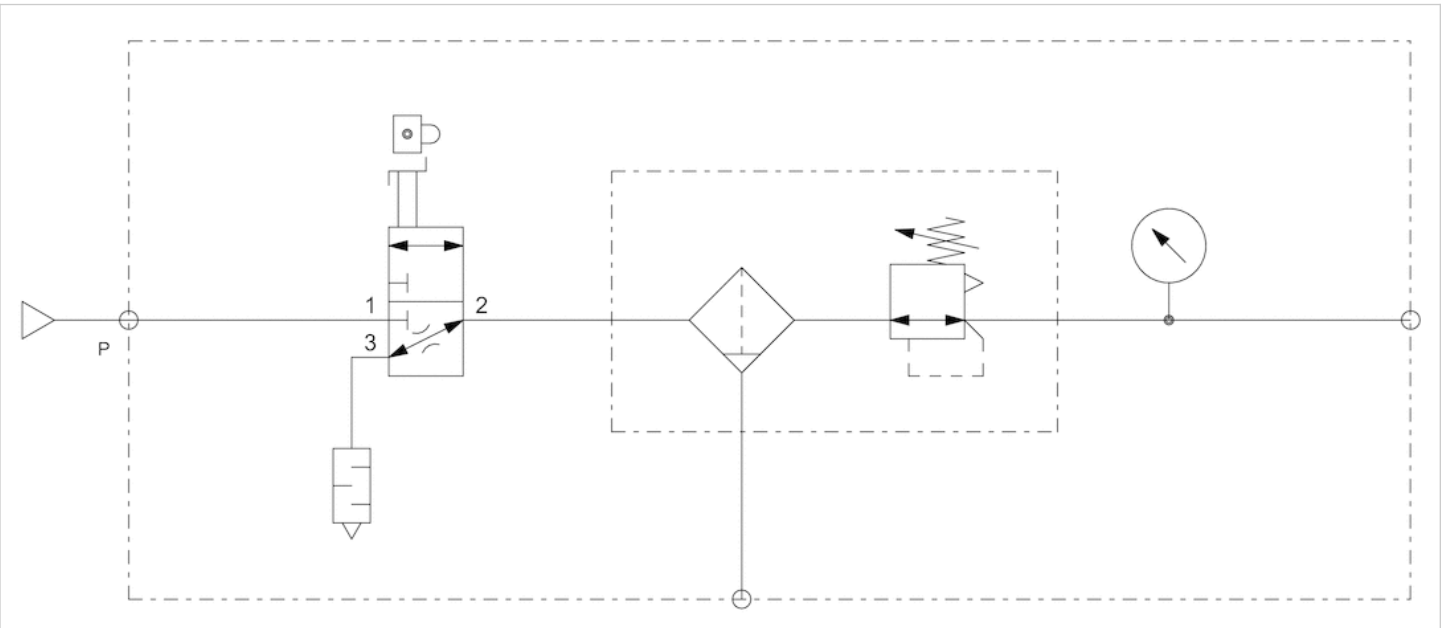
- A1 = input
 A2 = output
 A3 = pressure gauge connection
 A7 = condensate drain
 1) Semi-automatic condensate drain
 2) Fully automatic condensate drain
 3) Plastic reservoir and protective guard with window
 4) Silencer
 5) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

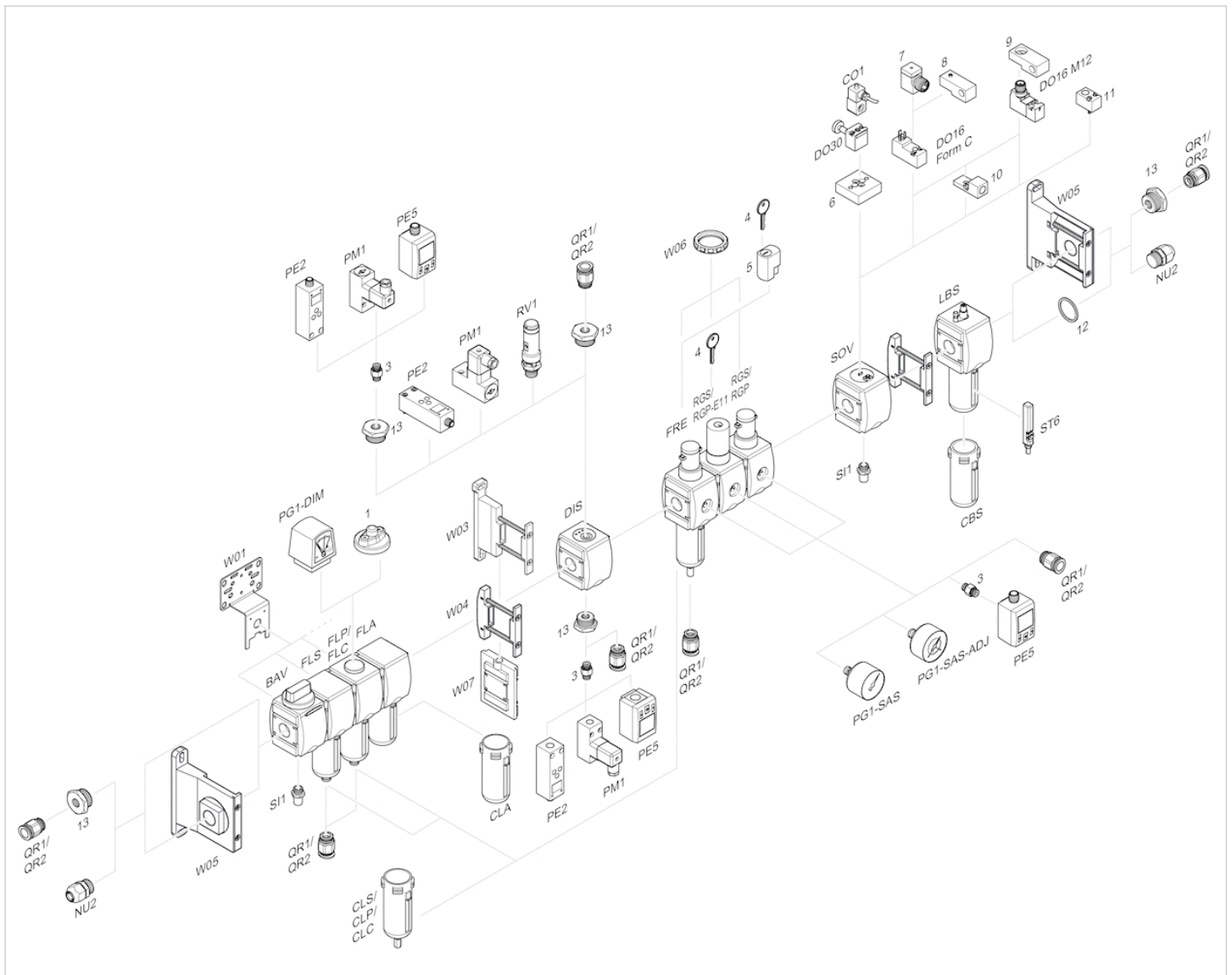
Part No.	A1	A2	A3	A7	B	C	G	H1	H2	H3	L1	L2	M	T7	V
R412027676	G 1	G 1	G 1	-	215,2	87	180,2	324,3	-	145	10	8,4	133,1	-	83,5
R412027675	G 3/4	G 3/4	G 3/4	-	215,2	87	180,2	324,3	-	145	10	8,4	133,1	-	83,5
R412027677	G 1	G 1	G 1	G 1/8	215,2	87	180,2	-	341	145	10	8,4	133,1	8,5	83,5

Circuit diagram

Block diagram



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
- 13 = Reducing nipple

Pressure regulator, Series AS5-RGS

- G 3/4 G 1
- Qn = 14500 l/min
- Standard pressure regulator
- Activation Mechanical
- lockable
- for padlocks



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator
Regulator function	Can be assembled into blocks with relieving air exhaust
Adjustment range min./max.	See table below
Lock type	for padlocks
Pressure supply	single
Activation	Mechanical
Internal air consumption qv max.	1.5 l/min
Weight	See table below

Technical data

Part No.			Port	Flow	Working pressure min./max.	Adjustment range min./max.
				Qn		
R412009101			G 3/4	14500 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412009103			G 3/4	14500 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412009105			G 3/4	14500 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412009107			G 3/4	14500 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412009109			G 3/4	14500 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412009111			G 3/4	14500 l/min	0.5 ... 16 bar	0.5 ... 16 bar
R412009100		—	G 3/4	14500 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412009102		—	G 3/4	14500 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412009104		—	G 3/4	14500 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412009106		—	G 3/4	14500 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412009108		—	G 3/4	14500 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412009110		—	G 3/4	14500 l/min	0.5 ... 16 bar	0.5 ... 16 bar
R412009113			G 1	14500 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412009115			G 1	14500 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412009117			G 1	14500 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412009119			G 1	14500 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412009121			G 1	14500 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412009123			G 1	14500 l/min	0.5 ... 16 bar	0.5 ... 16 bar
R412009112		—	G 1	14500 l/min	0.1 ... 16 bar	0.1 ... 1 bar

Part No.			Port	Flow	Working pressure min./max.	Adjustment range min./max.
				Qn		
R412009114		—	G 1	14500 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412009116		—	G 1	14500 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412009118		—	G 1	14500 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412009120		—	G 1	14500 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412009122		—	G 1	14500 l/min	0.5 ... 16 bar	0.5 ... 16 bar

Part No.	Weight	
R412009101	0.997 kg	1)
R412009103	0.997 kg	1)
R412009105	0.997 kg	1)
R412009107	0.997 kg	1)
R412009109	0.997 kg	1)
R412009111	0.997 kg	1)
R412009100	0.905 kg	2)
R412009102	0.905 kg	2)
R412009104	0.905 kg	2)
R412009106	0.905 kg	2)
R412009108	0.905 kg	2)
R412009110	0.905 kg	2)
R412009113	0.997 kg	1)
R412009115	0.997 kg	1)
R412009117	0.997 kg	1)
R412009119	0.997 kg	1)
R412009121	0.997 kg	1)
R412009123	0.997 kg	1)
R412009112	0.905 kg	2)
R412009114	0.905 kg	2)
R412009116	0.905 kg	2)
R412009118	0.905 kg	2)
R412009120	0.905 kg	2)
R412009122	0.905 kg	2)

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

1) Pressure gauge enclosed separately.

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 .

The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

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.

Relieving exhaust (≤ 0.3 bar over set pressure).

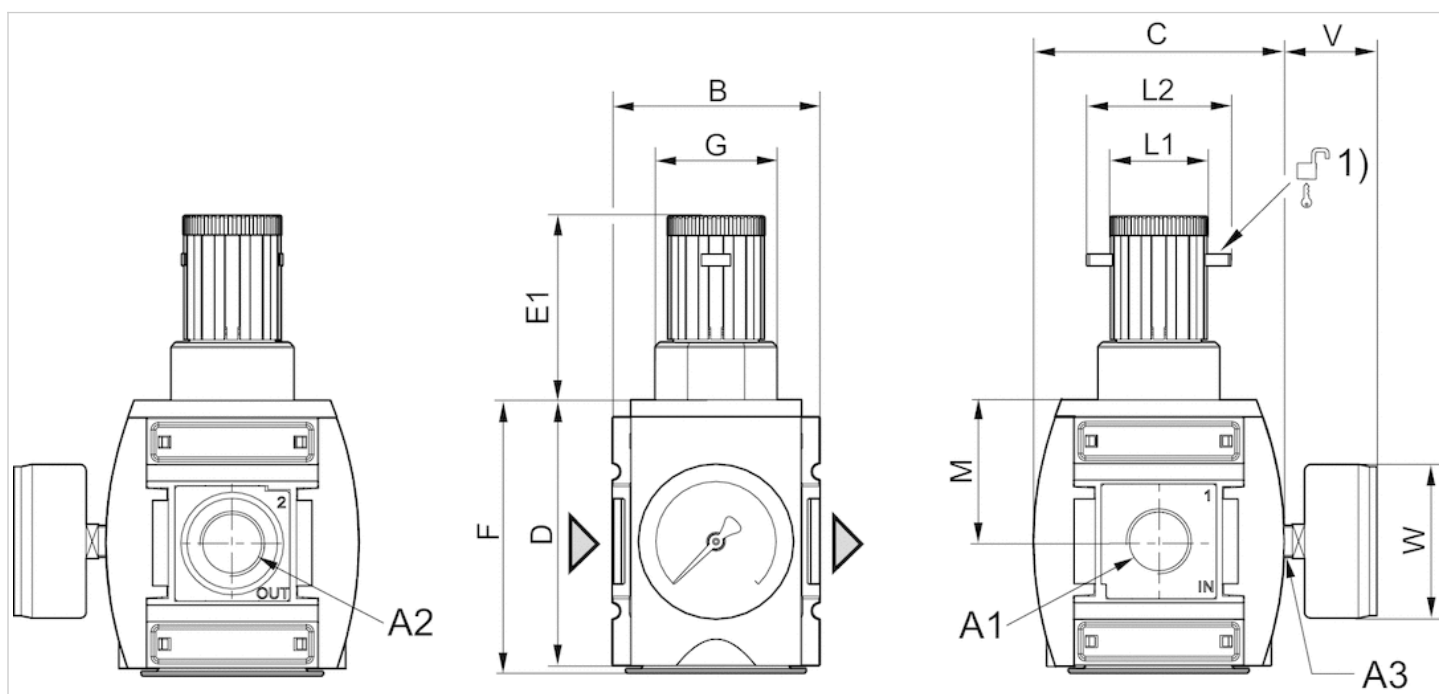
With rear exhaust (> 3 bar).

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



A1 = input

A2 = output

A3 = pressure gauge connection

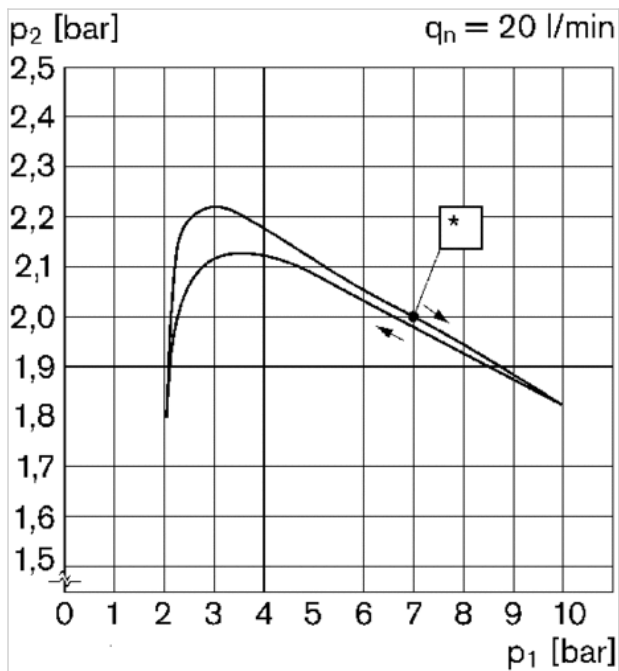
1) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A1	A2	A3	B	C	D	E1	F	G	L1	L2	M	V	W
G 3/4	G 3/4	G 1/4	85	103	109	75	112	M50x1,5	41	60	58	38	63
G 1	G 1	G 1/4	85	103	109	75	112	M50x1,5	41	60	58	38	63

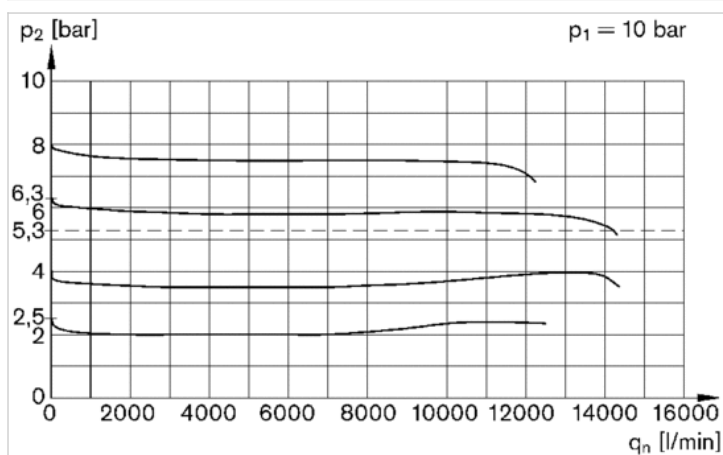
Diagrams

Pressure characteristics curve



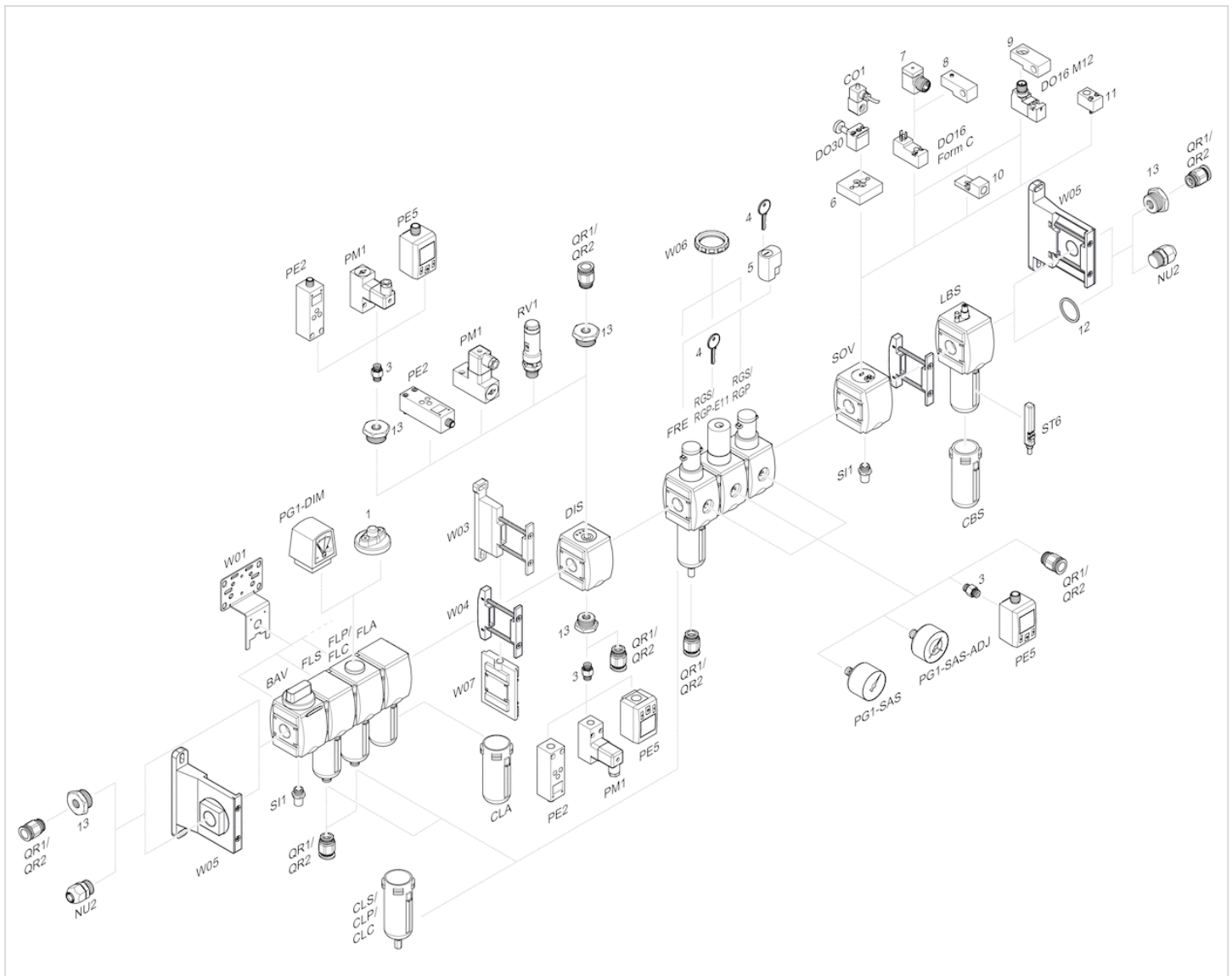
p_1 = working pressure
 p_2 = secondary pressure
 q_n = nominal flow
 * starting point

Flow rate characteristic (setting range p_2 : 0.5 - 8 bar)



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

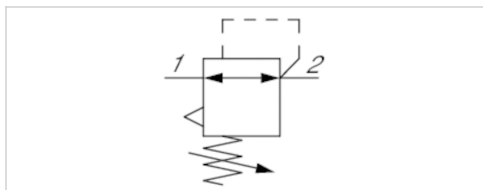
Accessories overview



- 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
- 13 = Reducing nipple

Pressure regulator, Series AS5-RGS-...-E11

- G 1
- Qn = 14500 l/min
- Standard pressure regulator
- Activation Mechanical
- lockable
- with E11 locking



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Lock type	with E11 locking
Pressure supply	single
Activation	Mechanical
Internal air consumption qv max.	1.5 l/min
Weight	0.905 kg

Technical data

Part No.	Port	Flow
		Qn
R412009099	G 1	14500 l/min

Order pressure gauge separately, Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Technical information

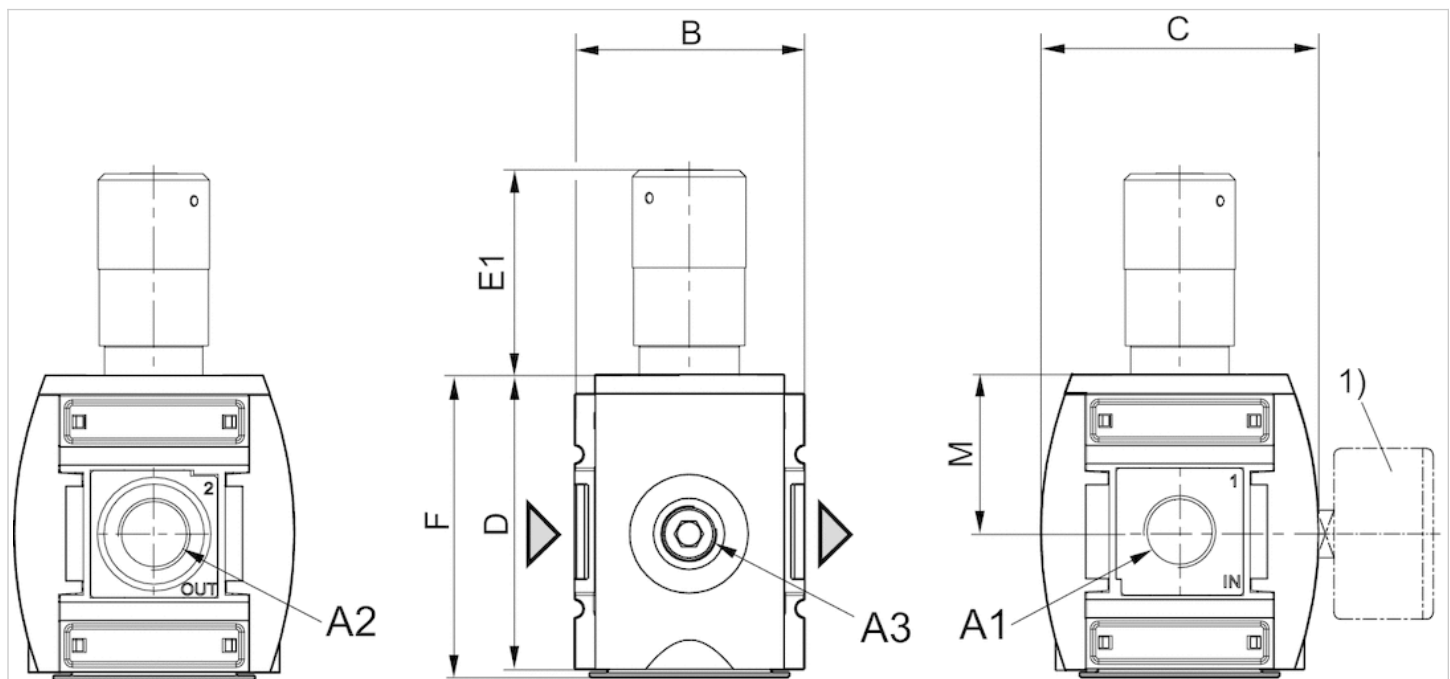
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).
 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.
 Relieving exhaust (≤ 0.3 bar over set pressure).
 With rear exhaust (> 3 bar).
 The E11 locking is delivered without a key (see accessories for keys).

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



A1 = input

A2 = output

A3 = pressure gauge connection

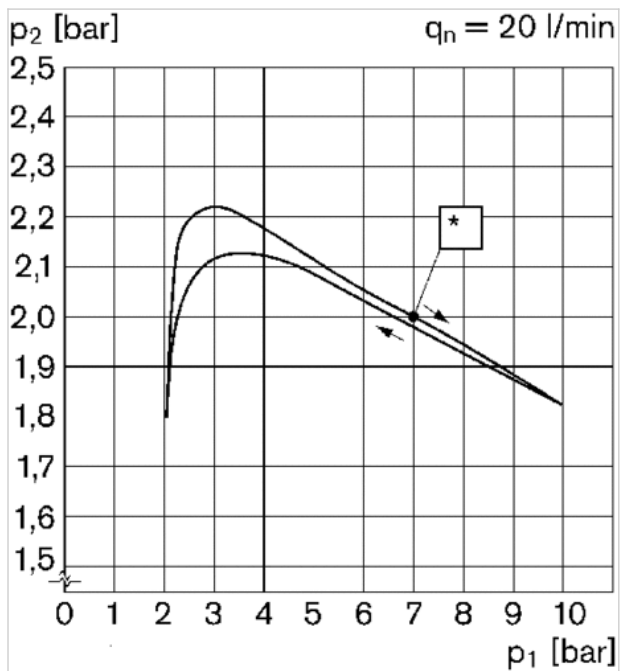
1) Order pressure gauge separately

Dimensions in mm

A1	A2	A3	B	C	D	E1	F	M
G 1	G 1	G 1/4	85	103	109	90	112	58

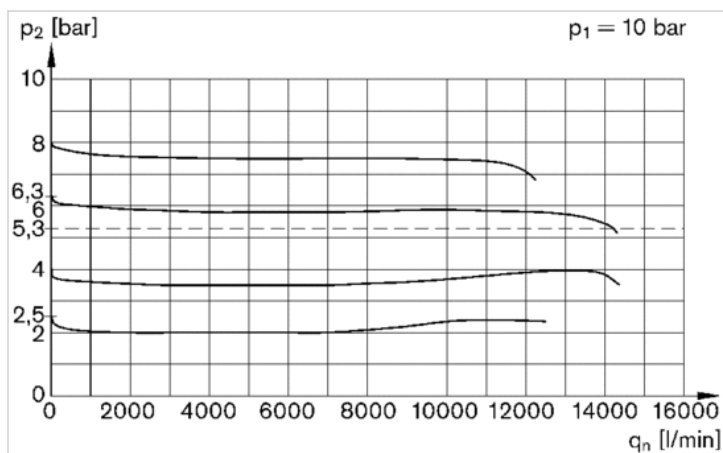
Diagrams

Pressure characteristics curve



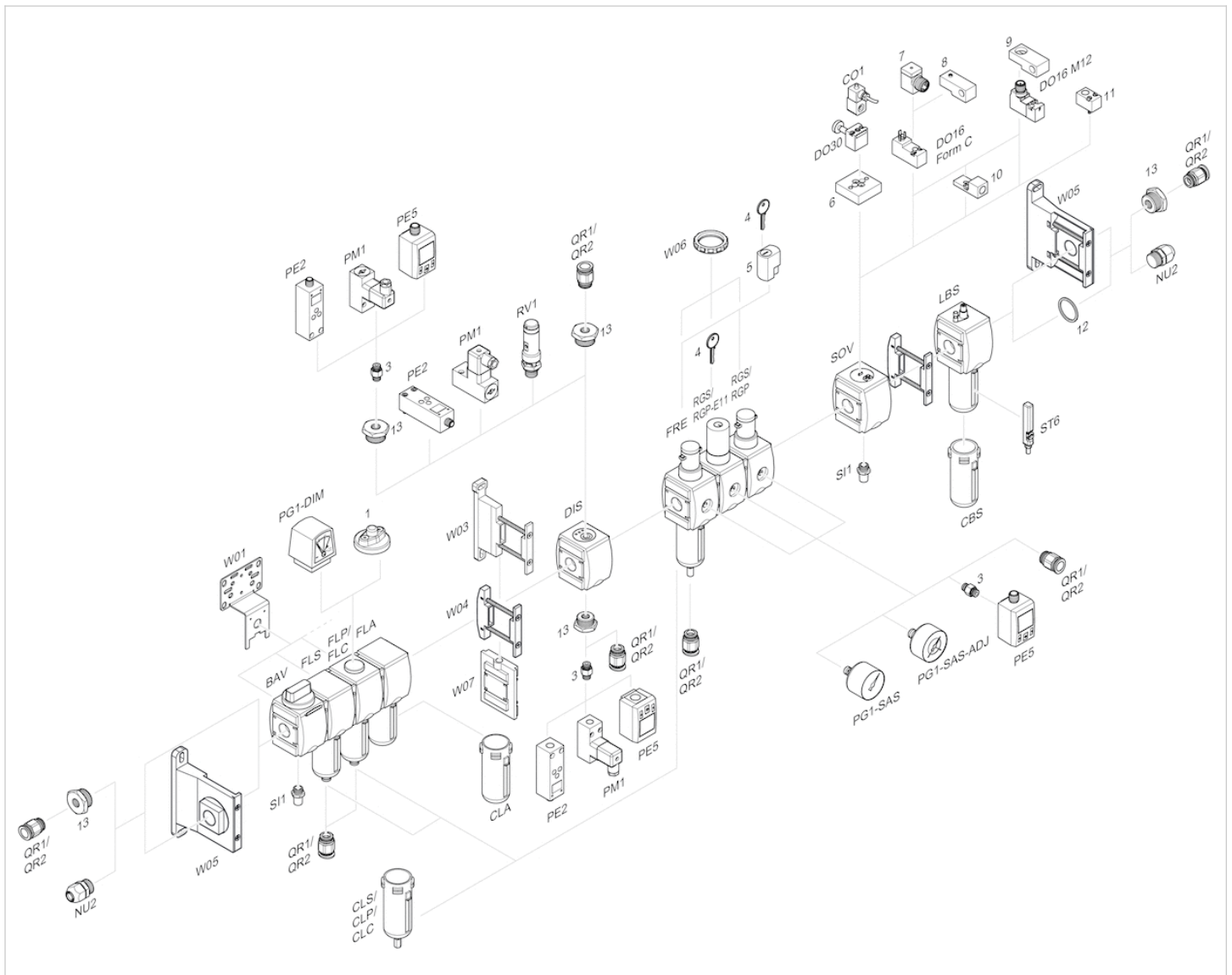
p_1 = working pressure
 p_2 = secondary pressure
 q_n = nominal flow
 * starting point

Flow rate characteristic (setting range p_2 : 0.5 - 8 bar)



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

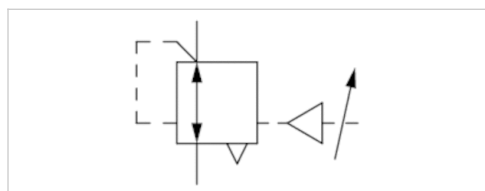
Accessories overview



- 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
- 13 = Reducing nipple

Pressure regulator, Series AS5-RGS

- G 3/4 G 1
- $Q_n = 16500 \text{ l/min}$
- Standard pressure regulator
- Activation pneumatically



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 16 bar
Pressure supply	single
Activation	pneumatically
Weight	1.07 kg

Technical data

Part No.	Port	Flow
		Q_n
R412009094	G 3/4	16500 l/min
R412009095	G 1	16500 l/min

Control pressure: see diagram, Nominal flow Q_n with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 1 \text{ bar}$

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 .

The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

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.

Relieving exhaust ($\leq 0.3 \text{ bar}$ over set pressure).

With rear exhaust ($> 3 \text{ bar}$).

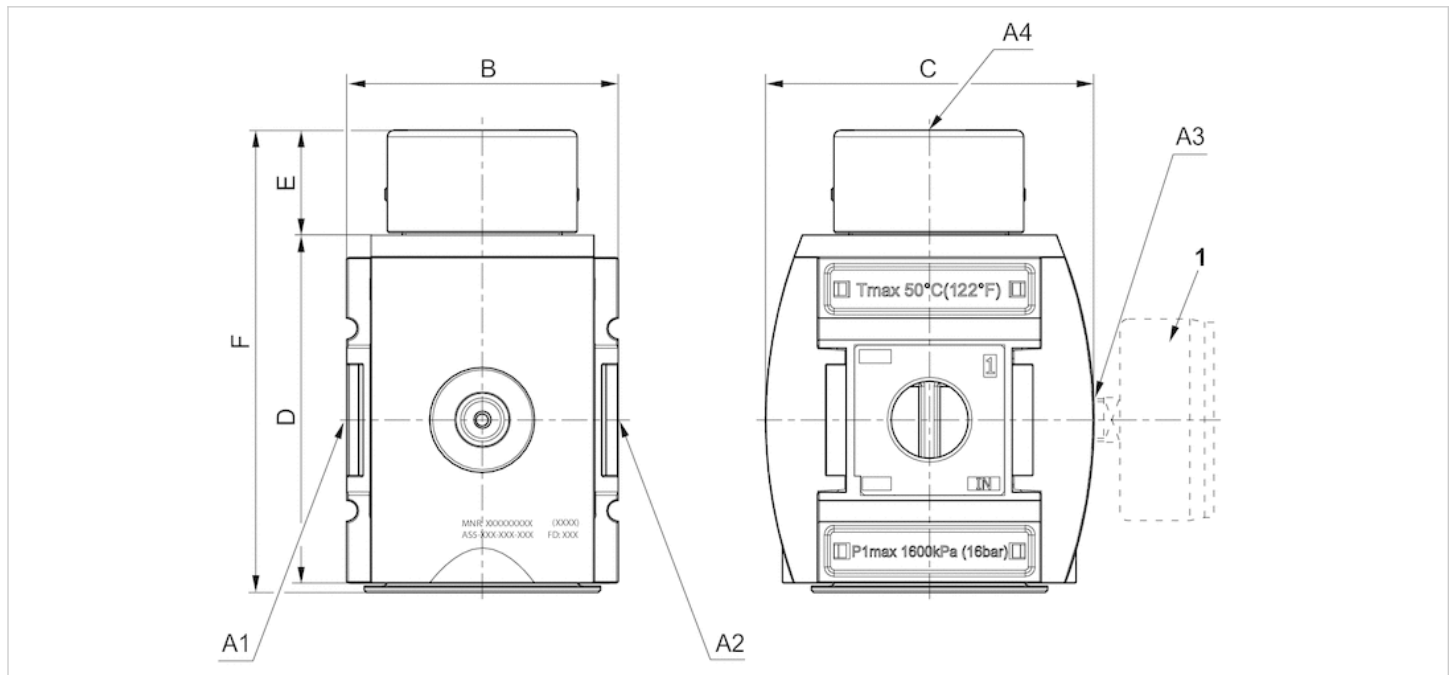
Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



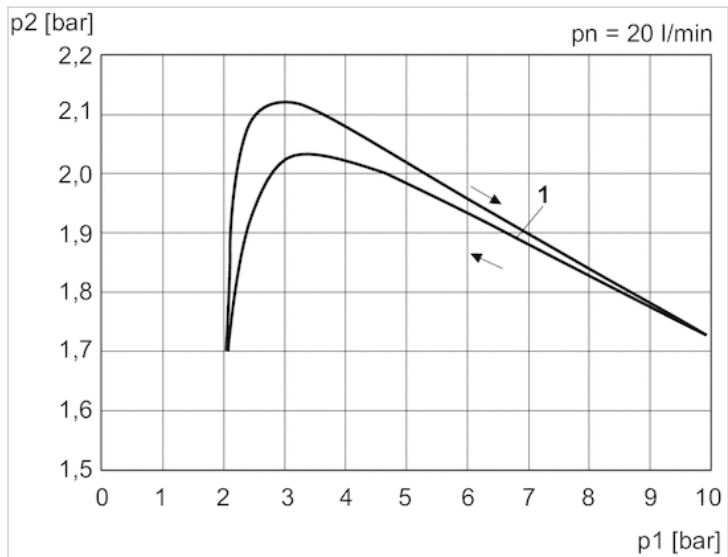
- A1 = input
 A2 = output
 A3 = pressure gauge connection
 A4 = control pressure connection
 1) Order pressure gauge separately

Dimensions in mm

A1	A2	A3	A4	B	C	D	E	F
G 3/4	G 3/4	G 1/4	G 1/4	85	103	109	32.6	145
G 1	G 1	G 1/4	G 1/4	85	103	109	32.6	145

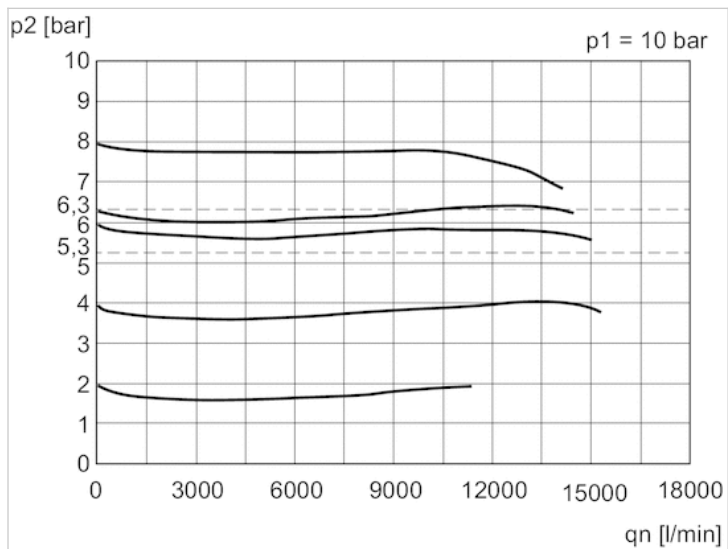
Diagrams

Pressure characteristics curve



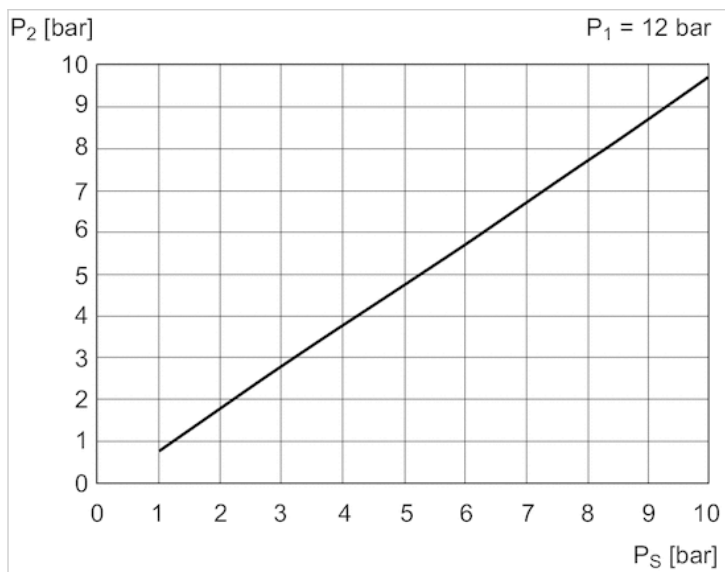
p1 = working pressure
 p2 = secondary pressure
 qn = nominal flow
 1) = Starting point

Flow rate characteristic (setting range p2: 0.5 - 8 bar)



p1 = working pressure
 p2 = secondary pressure
 qn = nominal flow

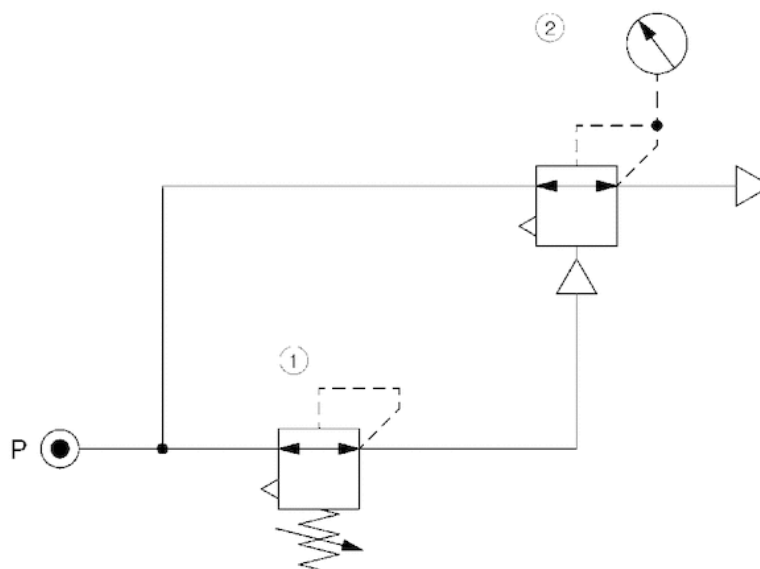
control pressure characteristic



p_1 = working pressure
 p_2 = secondary pressure
 PS = control pressure

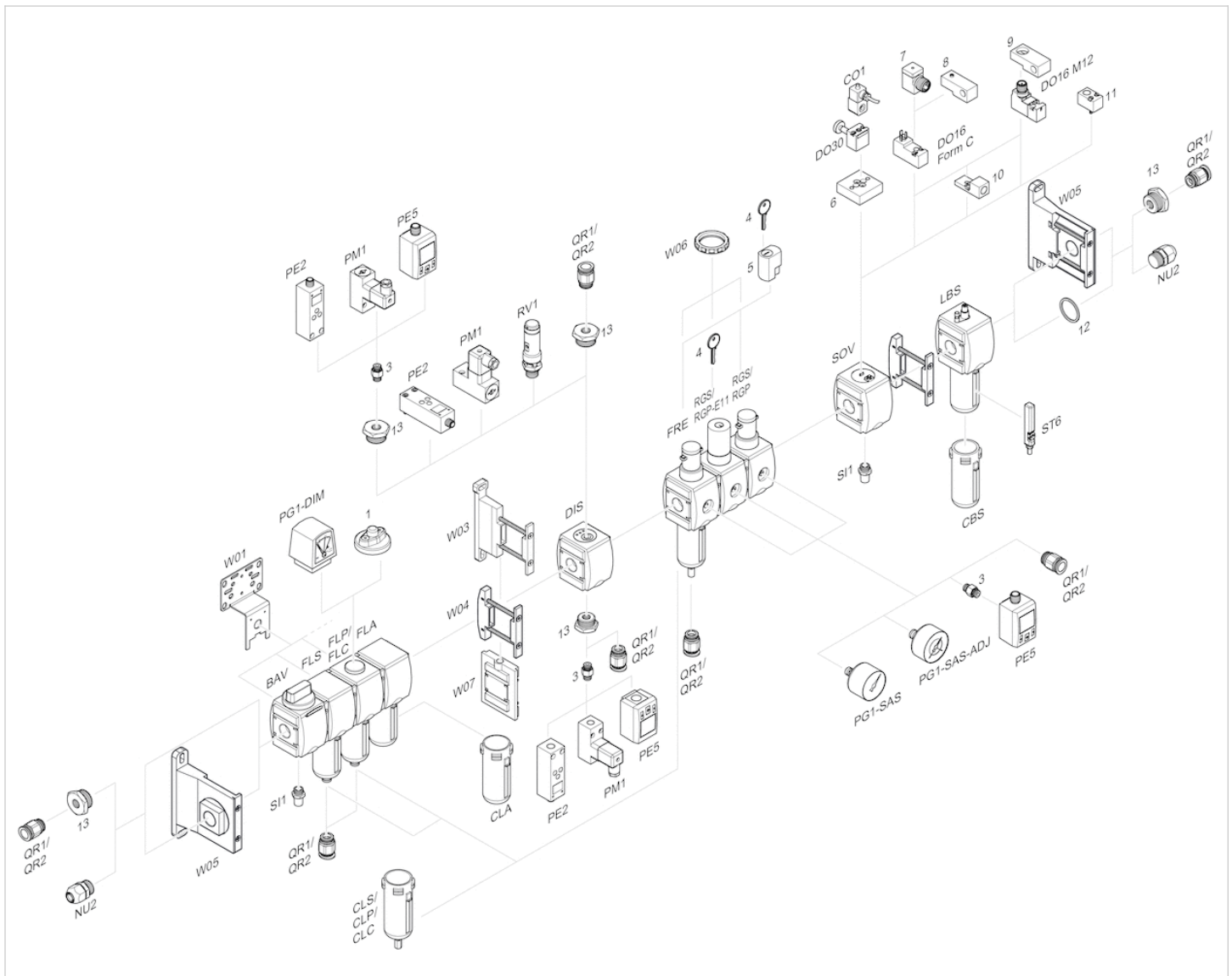
Circuit diagram

Application example



- 1) precision pressure regulator
- 2) pressure regulator valve, pneumatically operated

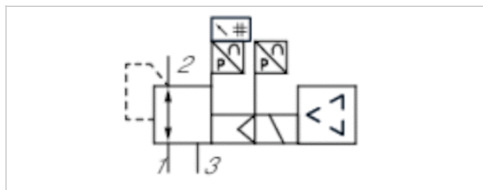
Accessories overview



- 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
- 13 = Reducing nipple

E/P pressure regulator, Series EV18

- Pressure supply, right, Display: display
- $Q_n = 16500 \text{ l/min}$
- Compressed air connection output G 1 G 3/4
- Electr. connection M12, 5-pin, A-coded
- serial control IO-Link
- Pilot valves



Version	Poppet valve
Working pressure max	11 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m ³
Nominal flow Q_n	16500 l/min
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Hysteresis	0.12 bar
Permissible ripple	5%
Max. power consumption	220 mA
Weight	2.15 kg

Technical data

Part No.	Pressure setting range min./max.	Compressed air connection
		Input
R414011411	0 ... 10 bar	G 1
R414011412	0 ... 10 bar	G 1
R414011414	0 ... 10 bar	G 1
R414011417	0 ... 10 bar	G 3/4
R414011418	0 ... 10 bar	G 3/4
R414011420	0 ... 10 bar	G 3/4

Part No.	Compressed air connection	Nominal input value	Actual output value	serial control
	Output	Min./max.	Min./max.	
R414011411	G 1	0 ... 10 V	0 ... 10 V	-
R414011412	G 1	4 ... 20 mA	4 ... 20 mA	-
R414011414	G 1	-	-	IO-Link
R414011417	G 3/4	0 ... 10 V	0 ... 10 V	-
R414011418	G 3/4	4 ... 20 mA	4 ... 20 mA	-
R414011420	G 3/4	-	-	IO-Link

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

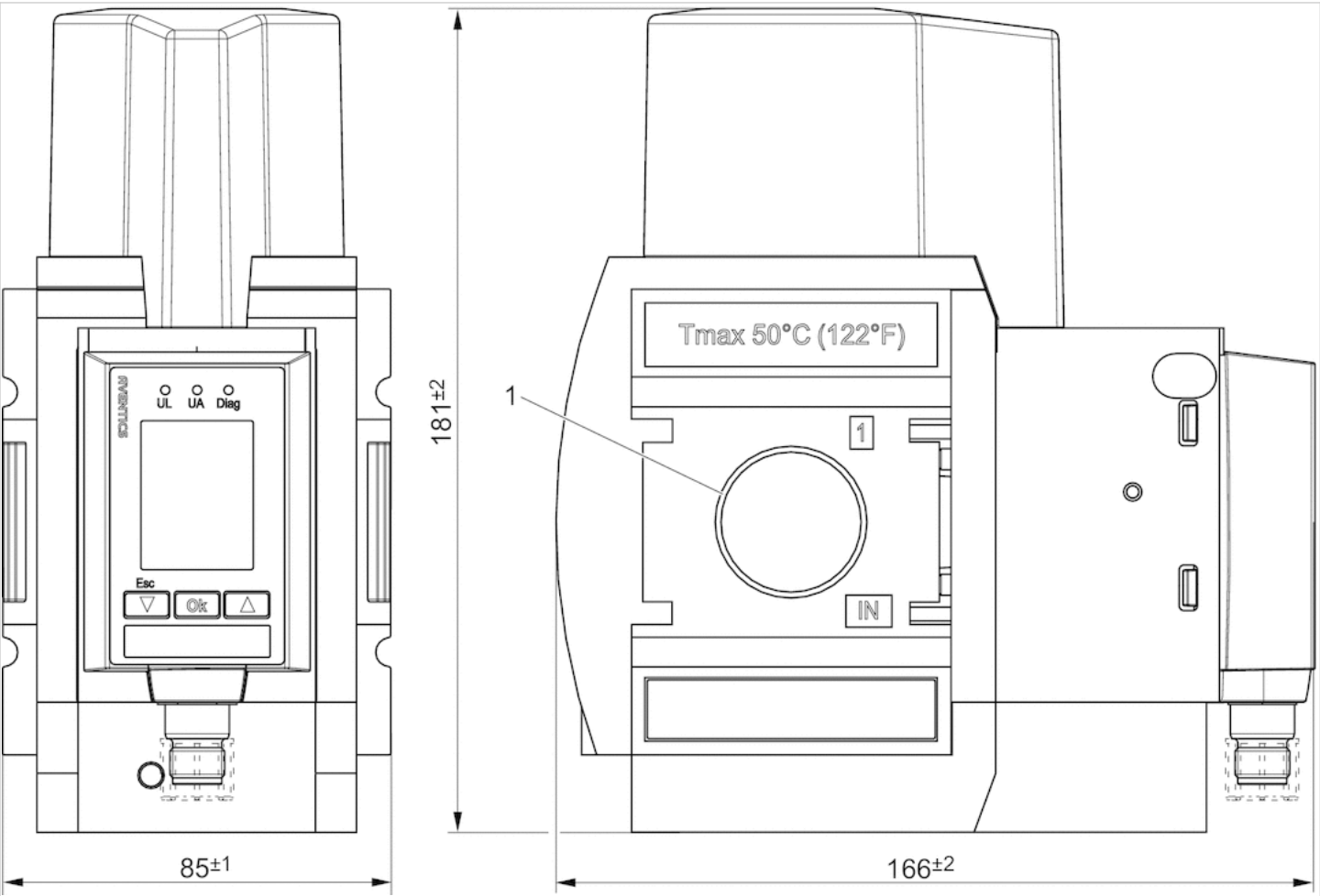
Power outage: maintain pressure

Technical information

Material	
Housing	Polyamide
Base plate	Aluminum
Seals	Nitrile butadiene rubber

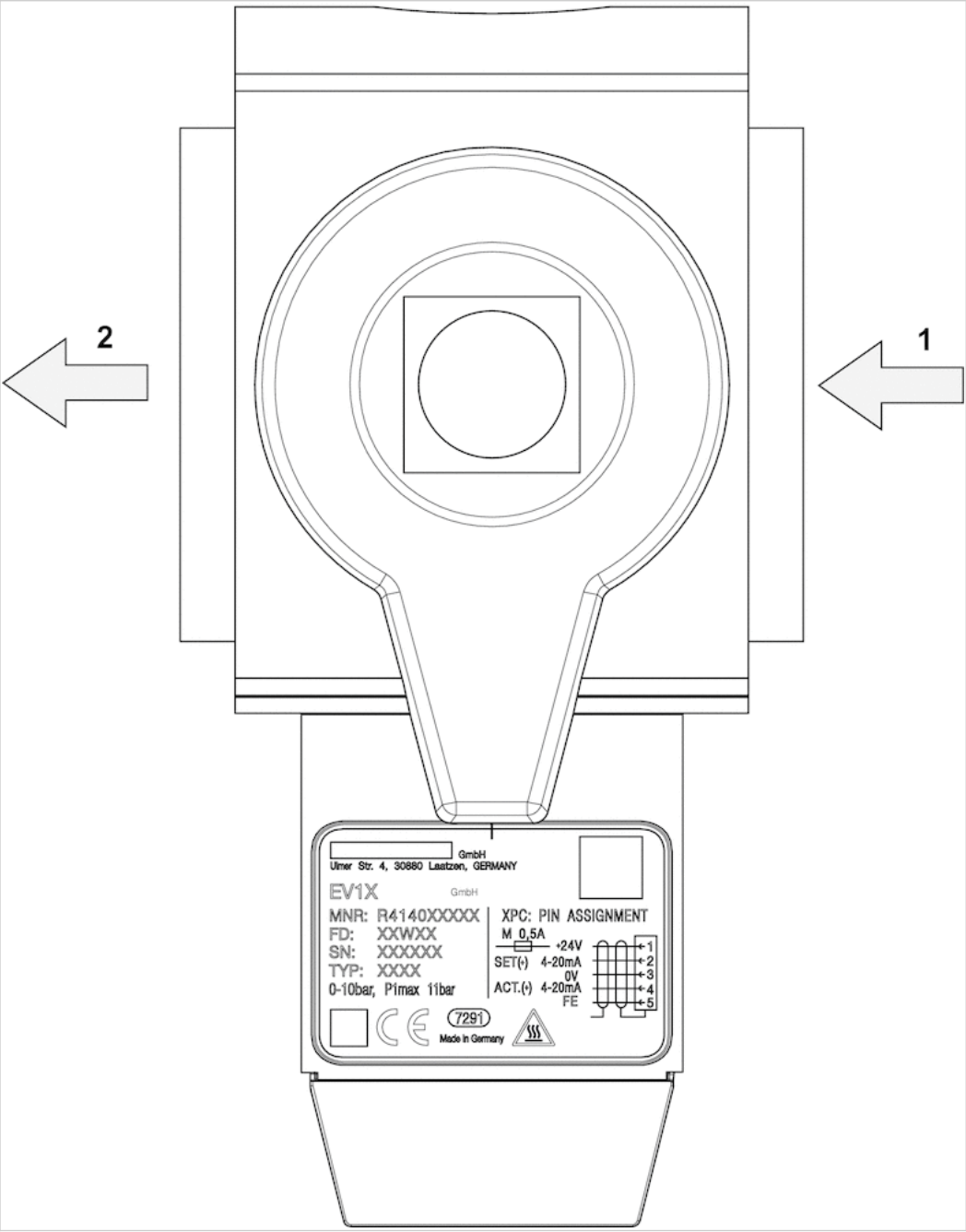
Dimensions

Dimensions



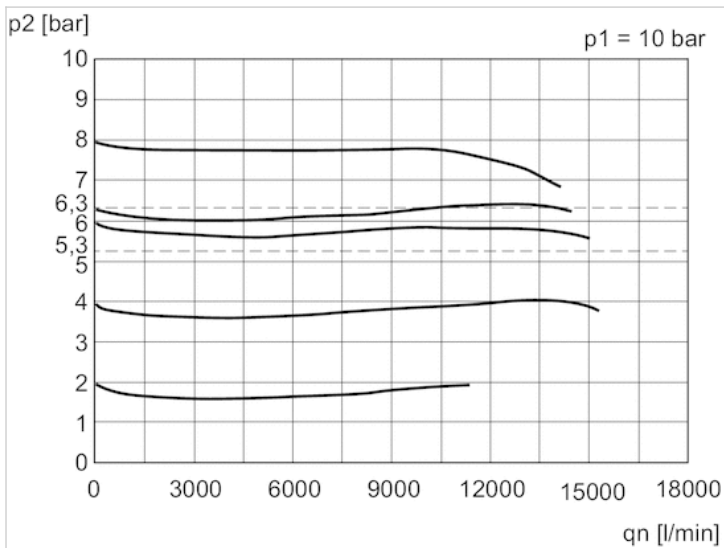
1) Connection thread

Pressure supply, right



Diagrams

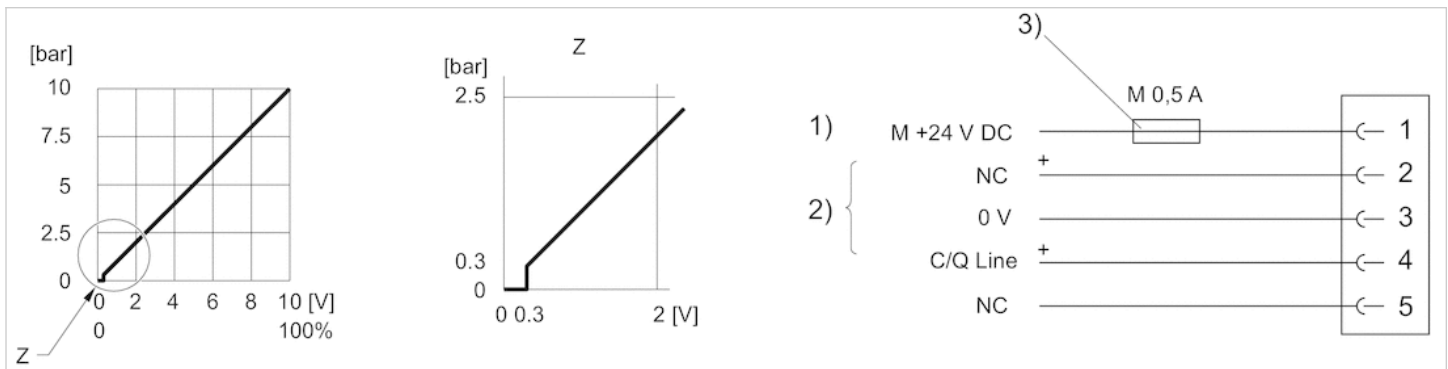
Flow characteristic curve



p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow

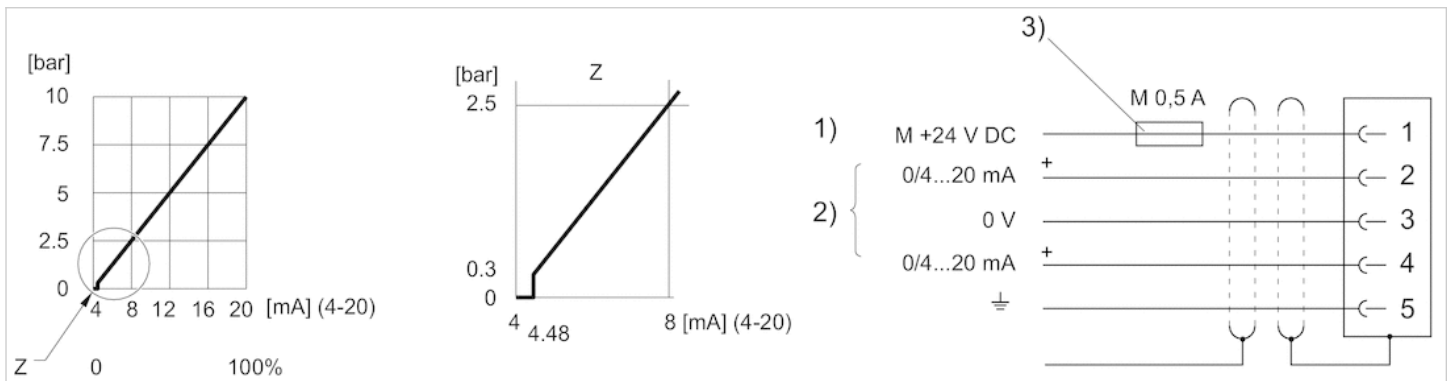
Circuit diagram

Characteristic curve and plug assignment for IO-Link version



- 1) power supply
- 2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
- 3) The power supply must be protected by an external M 0.5 A fuse.
Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



1) power supply

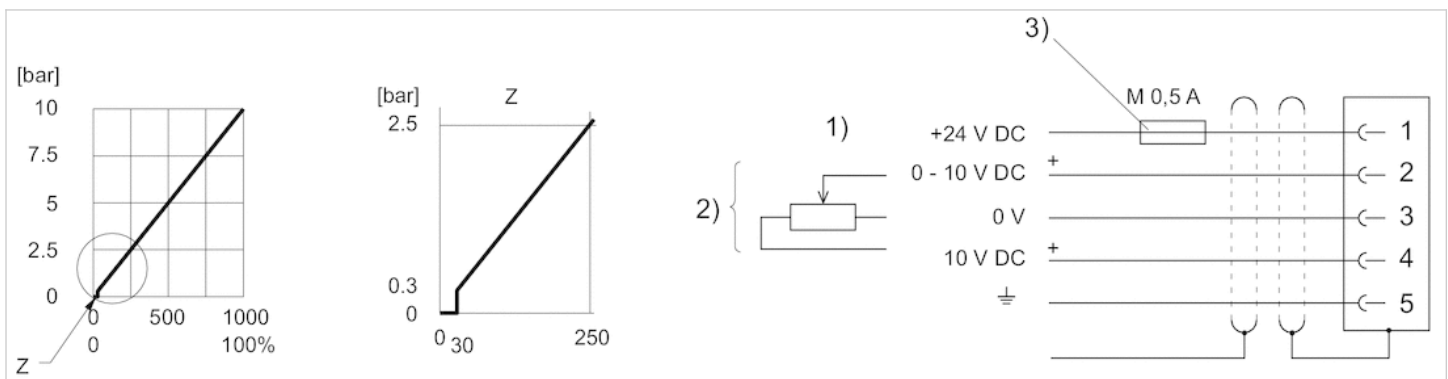
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3).

Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load 300 Ω . If the power supply is switched off, the nominal input value is high-ohmic.

3) The power supply must be protected by an external M 0.5 A fuse.

Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



1) power supply

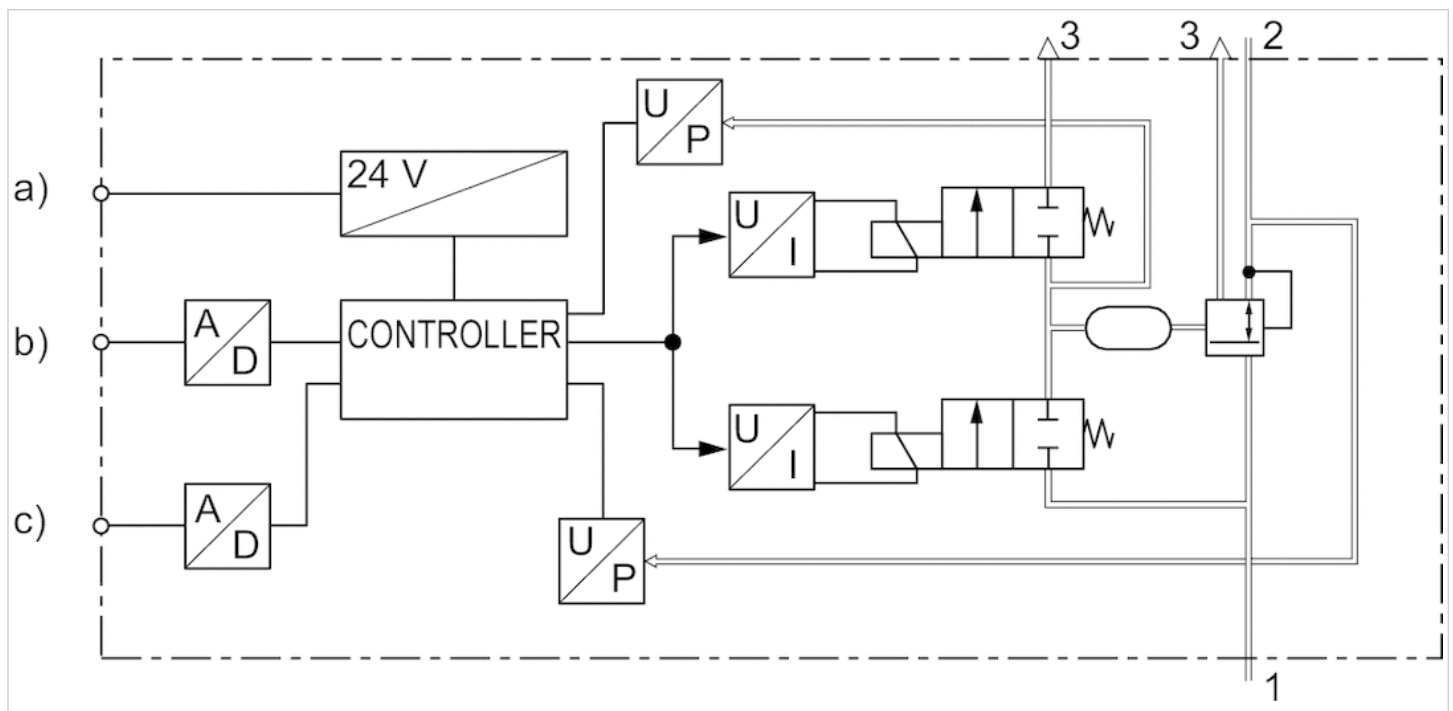
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3).

Nominal input value ($R = 1 \text{ M}\Omega$), actual output value: min. load resistance $> 10 \text{ K}\Omega$. If the power supply is switched off, the nominal input value is high-ohmic.

3) The power supply must be protected by an external M 0.5 A fuse.

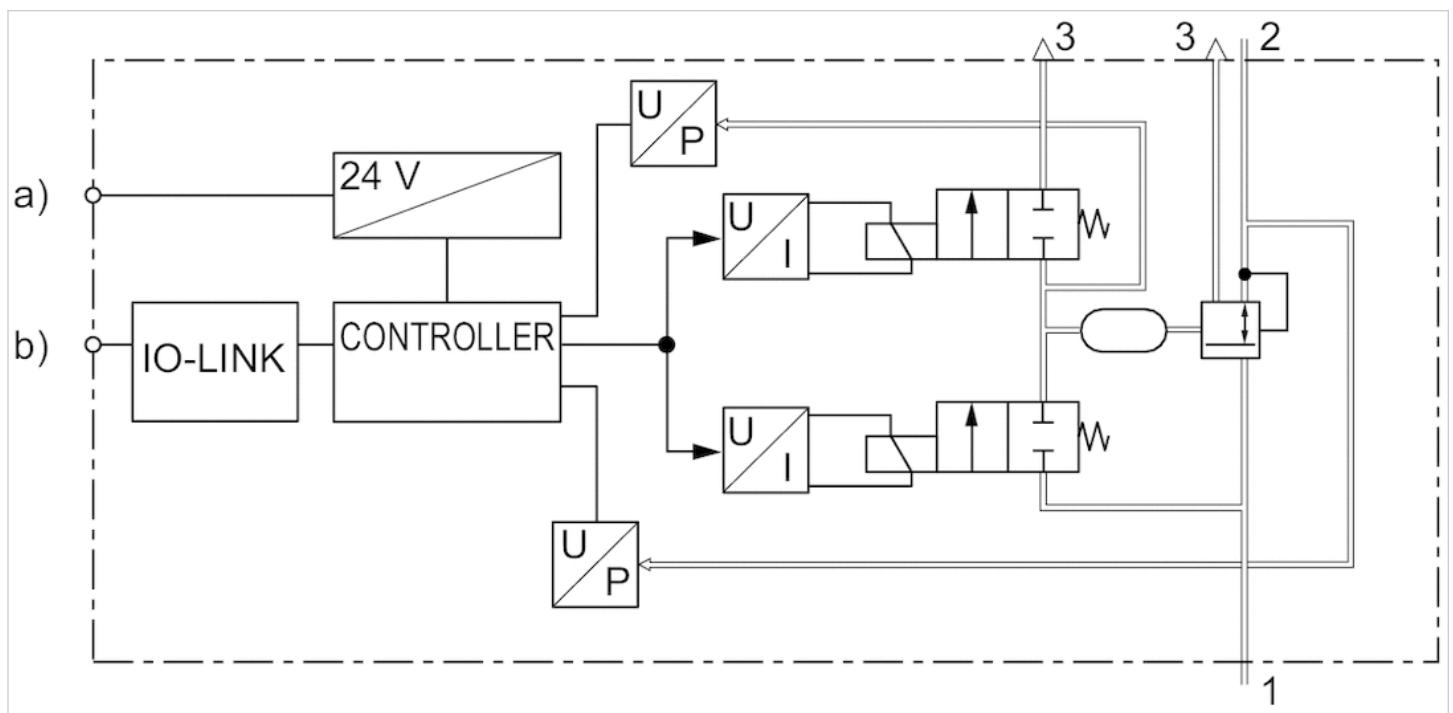
Connect the plug via a shielded cable to ensure EMC.

Functional diagram



- a) Voltage supply
- b) Nominal value
- c) Actual output value

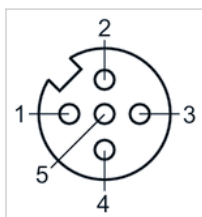
Functional diagram, IO-Link



- a) Supply Voltage
- b) C/Q Line

Pin assignments

Plug assignment



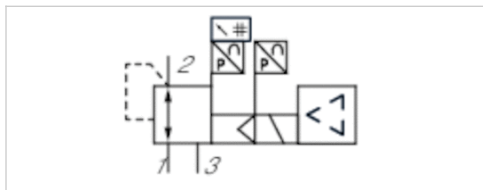
- 1) 24 V DC
- 2) Nominal input value
- 3) GND
- 4) Actual output value
- 5) Ground

E/P pressure regulator, Series EV18

- Pressure supply, left, Display: display
- $Q_n = 16500 \text{ l/min}$
- Compressed air connection output G 1 G 3/4
- Electr. connection M12, 5-pin, A-coded
- serial control IO-Link
- Pilot valves



Version	Poppet valve
Working pressure max	11 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Q_n	16500 l/min
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Hysteresis	0.12 bar
Permissible ripple	5%
Max. power consumption	220 mA
Weight	2.15 kg



Technical data

Part No.	Pressure setting range min./max.	Compressed air connection
		Input
R414011409	0 ... 10 bar	G 1
R414011410	0 ... 10 bar	G 1
R414011413	0 ... 10 bar	G 1
R414011415	0 ... 10 bar	G 3/4
R414011416	0 ... 10 bar	G 3/4
R414011419	0 ... 10 bar	G 3/4

Part No.	Compressed air connection	Nominal input value	Actual output value	serial control
	Output	Min./max.	Min./max.	
R414011409	G 1	0 ... 10 V	0 ... 10 V	-
R414011410	G 1	4 ... 20 mA	4 ... 20 mA	-
R414011413	G 1	-	-	IO-Link
R414011415	G 3/4	0 ... 20 mA	0 ... 10 V	-
R414011416	G 3/4	4 ... 20 mA	4 ... 20 mA	-
R414011419	G 3/4	-	-	IO-Link

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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

The oil content of compressed air must remain constant during the life cycle.

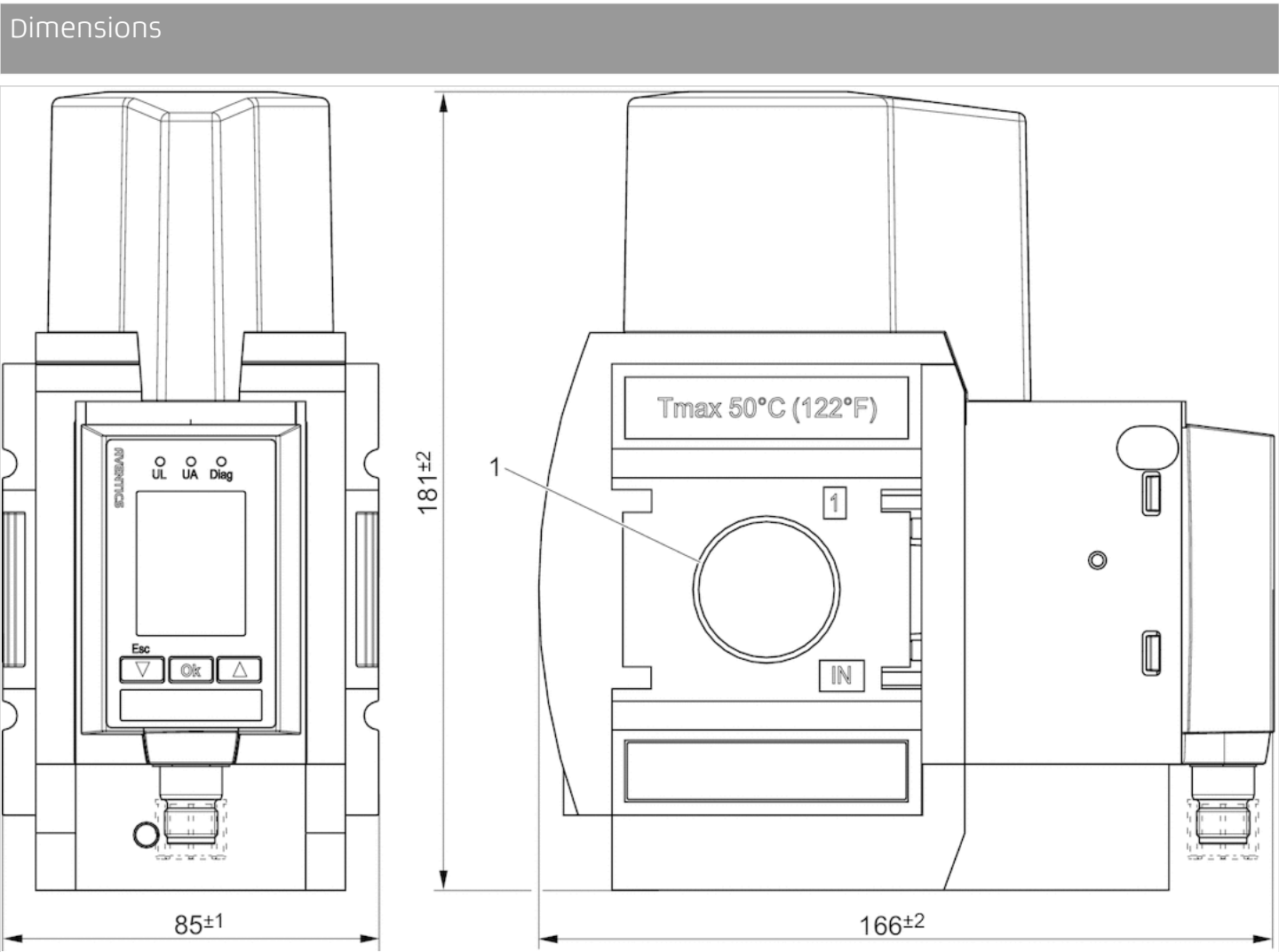
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Power outage: maintain pressure

Technical information

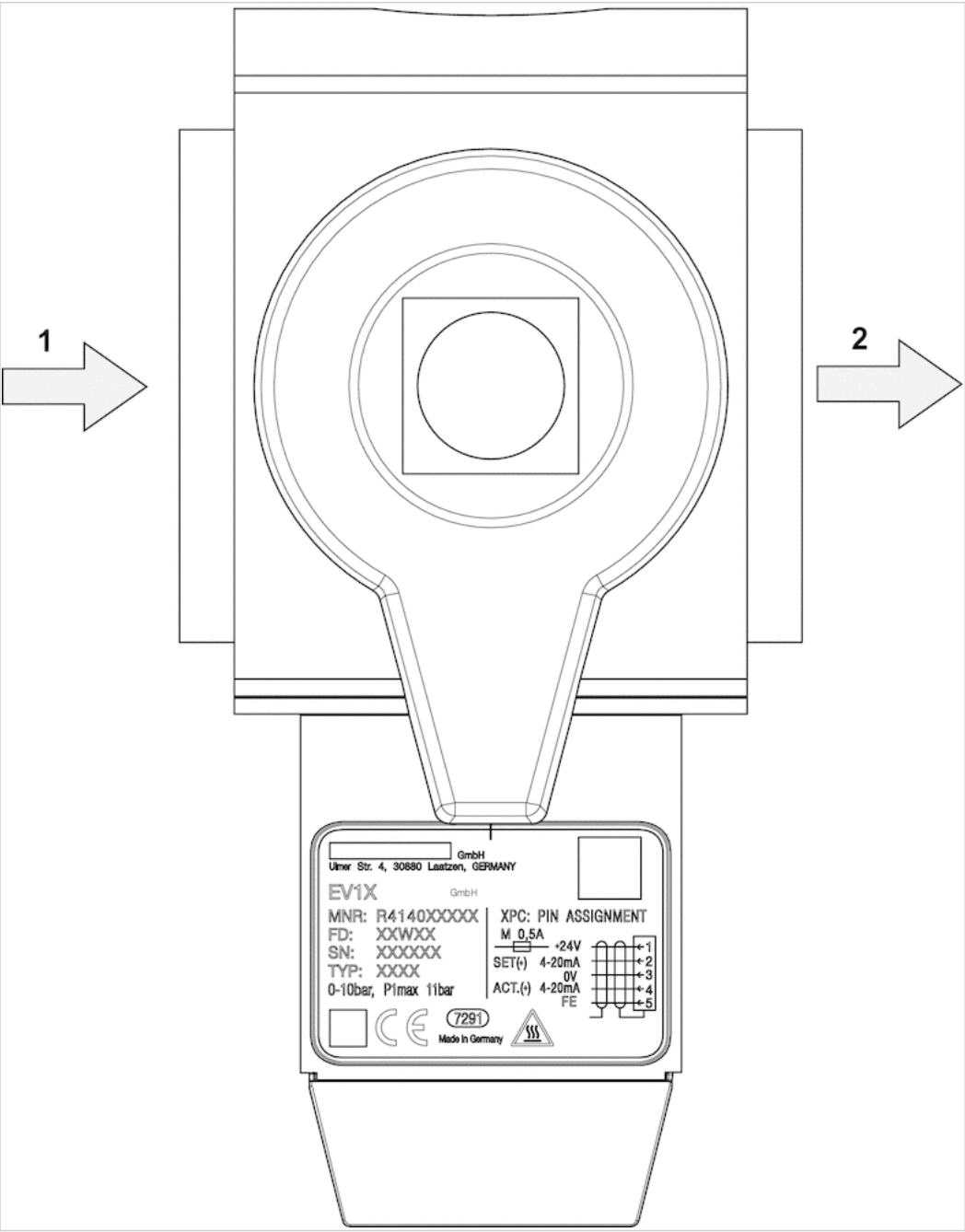
Material	
Housing	Polyamide
Base plate	Aluminum
Seals	Nitrile butadiene rubber

Dimensions



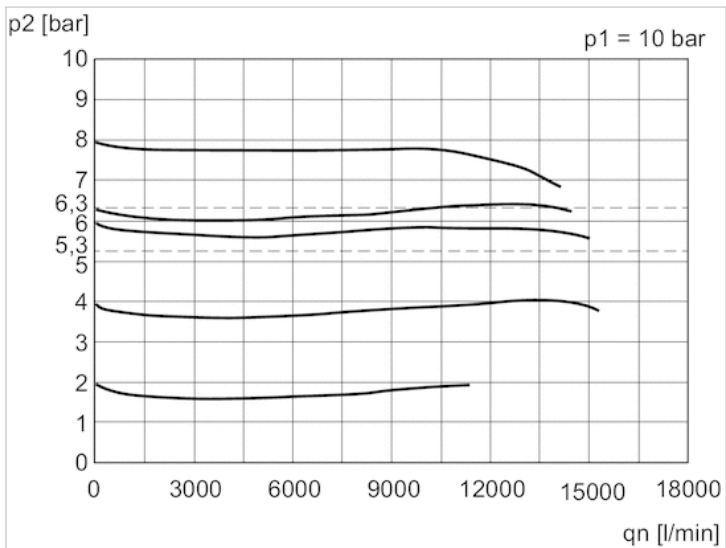
1) Connection thread

Pressure supply, left



Diagrams

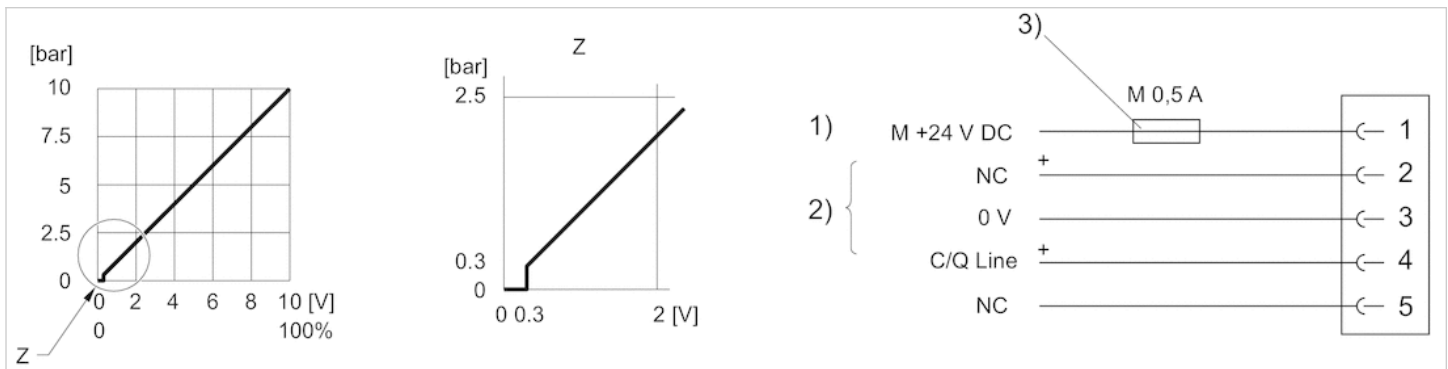
Flow characteristic curve



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

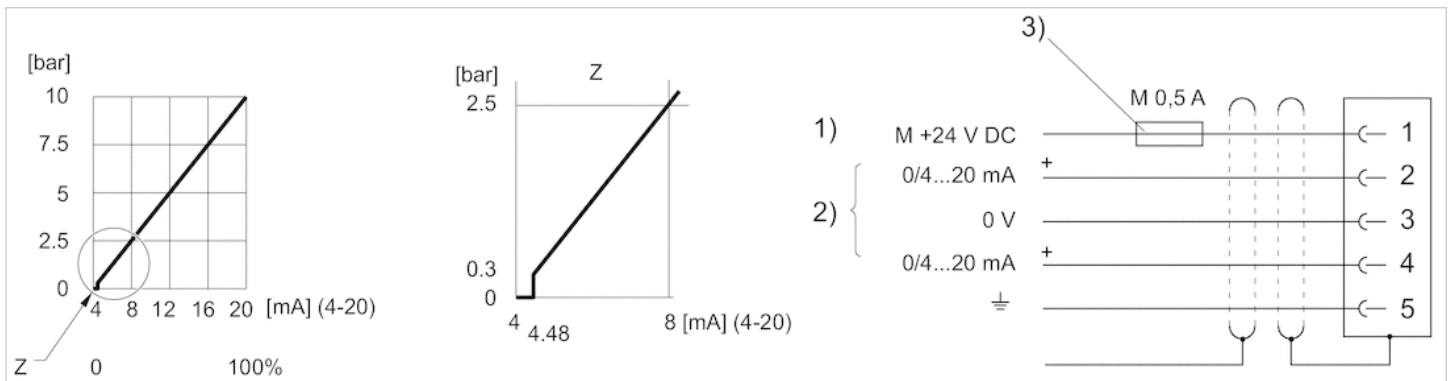
Circuit diagram

Characteristic curve and plug assignment for IO-Link version



- 1) power supply
- 2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
- 3) The power supply must be protected by an external M 0.5 A fuse.
 Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



1) power supply

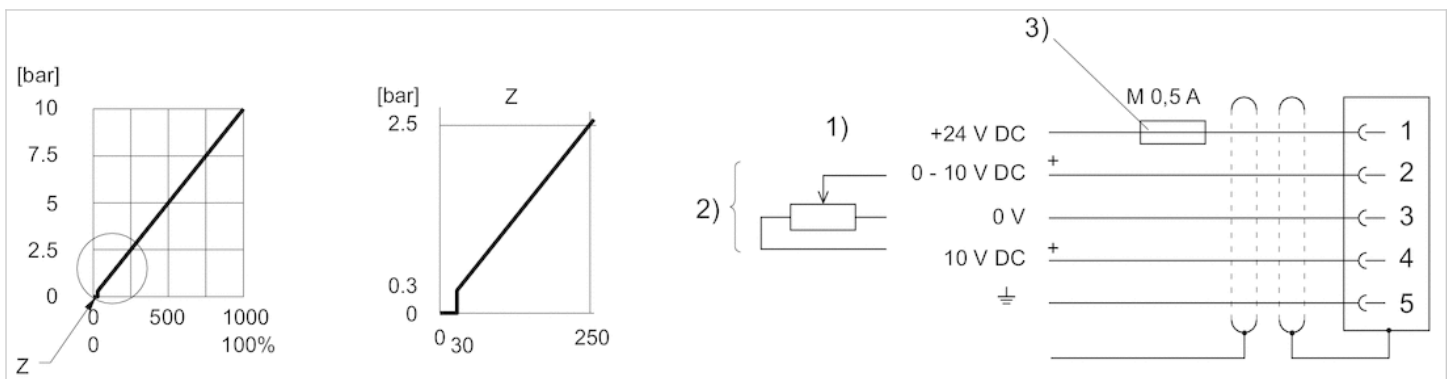
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3).

Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load 300 Ω . If the power supply is switched off, the nominal input value is high-ohmic.

3) The power supply must be protected by an external M 0.5 A fuse.

Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



1) power supply

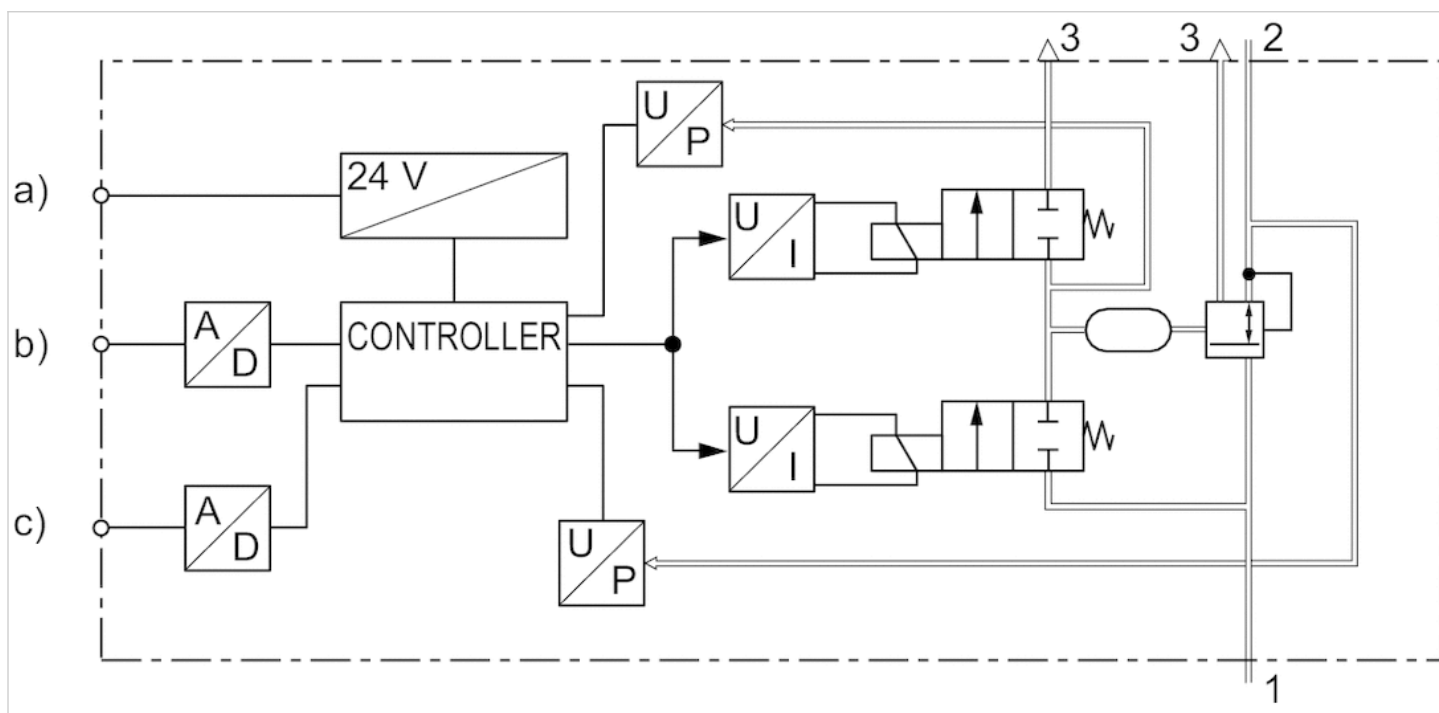
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3).

Nominal input value ($R = 1 \text{ M}\Omega$), actual output value: min. load resistance $> 10 \text{ K}\Omega$. If the power supply is switched off, the nominal input value is high-ohmic.

3) The power supply must be protected by an external M 0.5 A fuse.

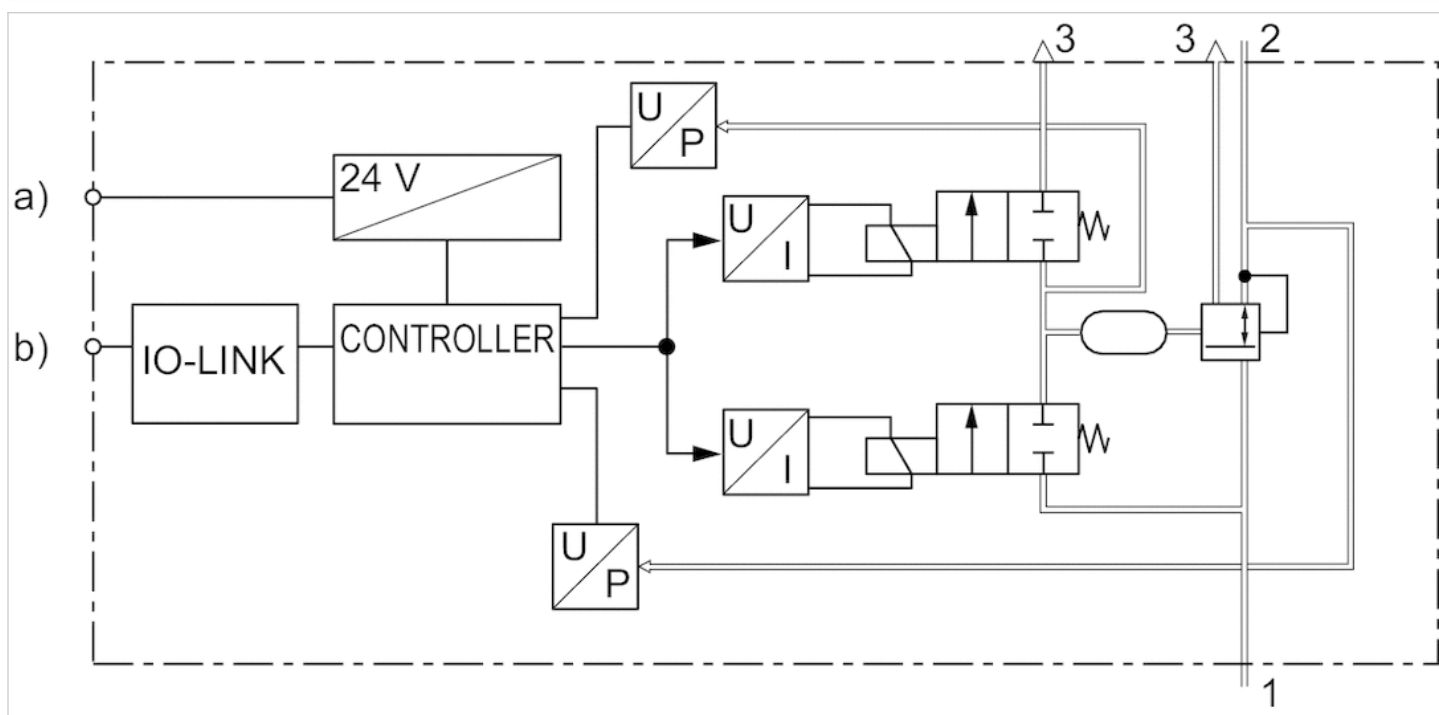
Connect the plug via a shielded cable to ensure EMC.

Functional diagram



- a) Voltage supply
- b) Nominal value
- c) Actual output value

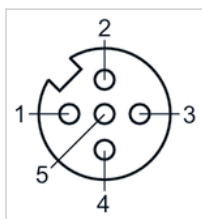
Functional diagram, IO-Link



- a) Supply Voltage
- b) C/Q Line

Pin assignments

Plug assignment



- 1) 24 V DC
- 2) Nominal input value
- 3) GND
- 4) Actual output value
- 5) Ground

Filter pressure regulator, Series AS5-FRE

- G 3/4 G 1
- filter porosity 5 µm
- lockable
- for padlocks



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	14000 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function Adjustment	with relieving air exhaust
range min./max. Pressure supply	See table below
Filter reservoir volume	87 cm³
Filter element	exchangeable
Max. Internal air consumption	1.5 l/min
Weight	See table below

Technical data

Part No.			Port	filter porosity	Flow	Adjustment range min./max.
					Qn	
R412009200			G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009201			G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009202			G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009206			G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009207			G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009208			G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009175		—	G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009176		—	G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009177		—	G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009193		—	G 3/4	5 µm	14000 l/min	0.5 ... 10 bar
R412009194		—	G 3/4	5 µm	14000 l/min	0.5 ... 10 bar
R412009195		—	G 3/4	5 µm	14000 l/min	0.5 ... 10 bar
R412009181		—	G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009182		—	G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009183		—	G 3/4	5 µm	14000 l/min	0.5 ... 8 bar
R412009209			G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009210			G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009211			G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009215			G 1	5 µm	14000 l/min	0.5 ... 8 bar

Part No.			Port	filter porosity	Flow	Adjustment range min./max.
					Qn	
R412009216			G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009217			G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009184		—	G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009185		—	G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009186		—	G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009190		—	G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009191		—	G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009192		—	G 1	5 µm	14000 l/min	0.5 ... 8 bar
R412009196		—	G 1	5 µm	14000 l/min	0.5 ... 10 bar
R412009197		—	G 1	5 µm	14000 l/min	0.5 ... 10 bar
R412009198		—	G 1	5 µm	14000 l/min	0.5 ... 10 bar

Part No.	Condensate drain	Pressure gauge	Reservoir
R412009200	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
R412009201	fully automatic, open without pressure	with pressure gauge	Polycarbonate
R412009202	fully automatic, closed without pressure	with pressure gauge	Polycarbonate
R412009206	semi-automatic, open without pressure	with pressure gauge	Die cast zinc
R412009207	fully automatic, open without pressure	with pressure gauge	Die cast zinc
R412009208	fully automatic, closed without pressure	with pressure gauge	Die cast zinc
R412009175	semi-automatic, open without pressure	-	Polycarbonate
R412009176	fully automatic, open without pressure	-	Polycarbonate
R412009177	fully automatic, closed without pressure	-	Polycarbonate
R412009193	semi-automatic, open without pressure	-	Polycarbonate
R412009194	fully automatic, open without pressure	-	Polycarbonate
R412009195	fully automatic, closed without pressure	-	Polycarbonate
R412009181	semi-automatic, open without pressure	-	Die cast zinc
R412009182	fully automatic, open without pressure	-	Die cast zinc
R412009183	fully automatic, closed without pressure	-	Die cast zinc
R412009209	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
R412009210	fully automatic, open without pressure	with pressure gauge	Polycarbonate
R412009211	fully automatic, closed without pressure	with pressure gauge	Polycarbonate
R412009215	semi-automatic, open without pressure	with pressure gauge	Die cast zinc
R412009216	fully automatic, open without pressure	with pressure gauge	Die cast zinc
R412009217	fully automatic, closed without pressure	with pressure gauge	Die cast zinc
R412009184	semi-automatic, open without pressure	-	Polycarbonate
R412009185	fully automatic, open without pressure	-	Polycarbonate
R412009186	fully automatic, closed without pressure	-	Polycarbonate
R412009190	semi-automatic, open without pressure	-	Die cast zinc
R412009191	fully automatic, open without pressure	-	Die cast zinc
R412009192	fully automatic, closed without pressure	-	Die cast zinc
R412009196	semi-automatic, open without pressure	-	Polycarbonate
R412009197	fully automatic, open without pressure	-	Polycarbonate
R412009198	fully automatic, closed without pressure	-	Polycarbonate

Part No.	Protective guard	Weight	
R412009200	Polyamide	1.08 kg	1)
R412009201	Polyamide	1.13 kg	1)

Part No.	Protective guard	Weight	
R412009202	Polyamide	1.13 kg	1)
R412009206	-	1.57 kg	1)
R412009207	-	1.62 kg	1)
R412009208	-	1.62 kg	1)
R412009175	Polyamide	0.99 kg	2)
R412009176	Polyamide	1.04 kg	2)
R412009177	Polyamide	1.04 kg	2)
R412009193	Polyamide	0.99 kg	2)
R412009194	Polyamide	1.04 kg	2)
R412009195	Polyamide	1.04 kg	2)
R412009181	-	1.48 kg	2)
R412009182	-	1.53 kg	2)
R412009183	-	1.53 kg	2)
R412009209	Polyamide	1.08 kg	1)
R412009210	Polyamide	1.13 kg	1)
R412009211	Polyamide	1.13 kg	1)
R412009215	-	1.57 kg	1)
R412009216	-	1.62 kg	1)
R412009217	-	1.62 kg	1)
R412009184	Polyamide	0.99 kg	2)
R412009185	Polyamide	1.04 kg	2)
R412009186	Polyamide	1.04 kg	2)
R412009190	-	1.48 kg	2)
R412009191	-	1.53 kg	2)
R412009192	-	1.53 kg	2)
R412009196	Polyamide	0.99 kg	2)
R412009197	Polyamide	1.04 kg	2)
R412009198	Polyamide	1.04 kg	2)

Nominal flow Q_n with secondary pressure $p_2 = 6$ bar at $\Delta p = 1$ bar

1) Pressure gauge enclosed separately.

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".

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.

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 : -

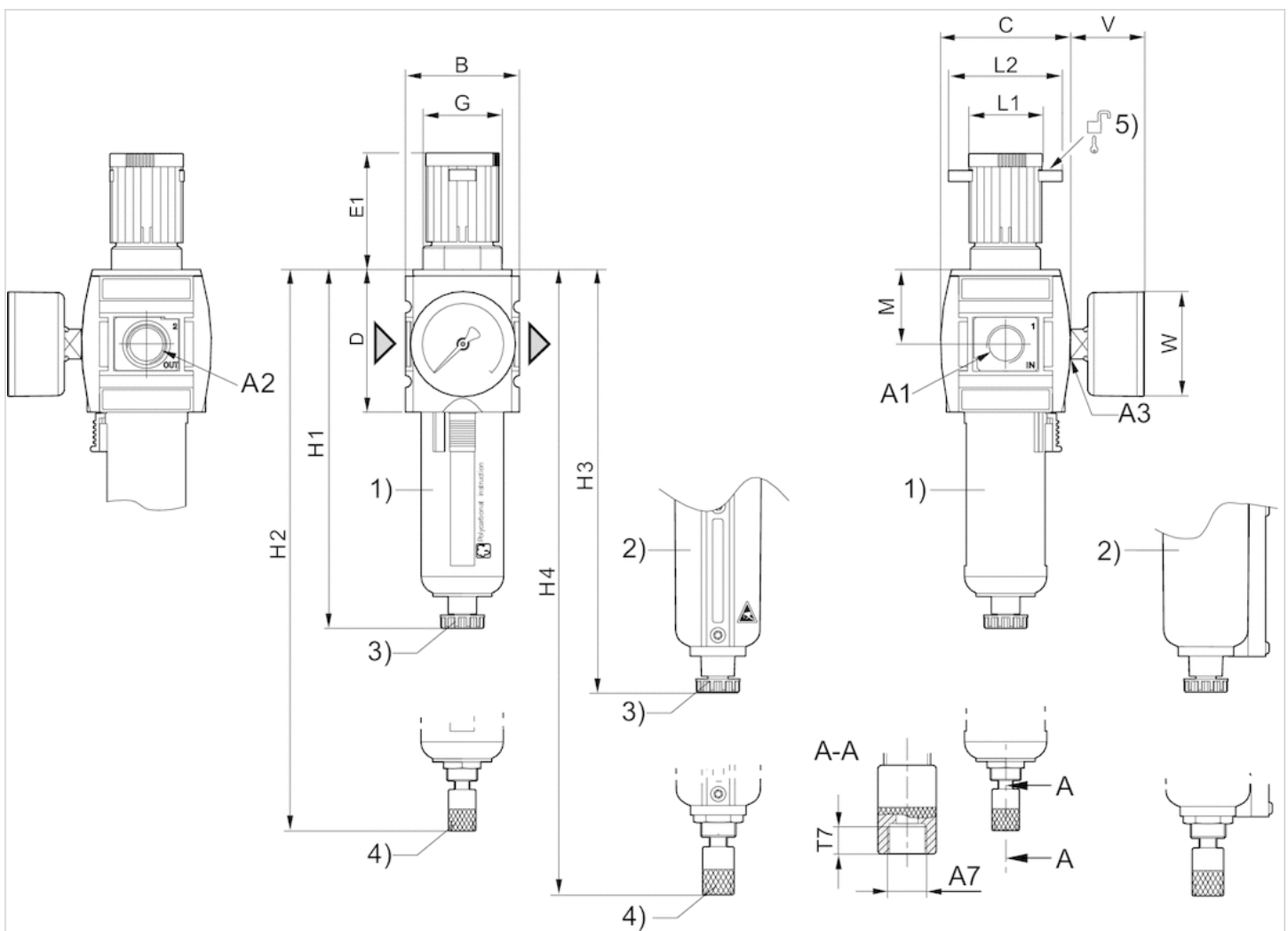
Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Filter insert	Polyethylene

Dimensions

Dimensions



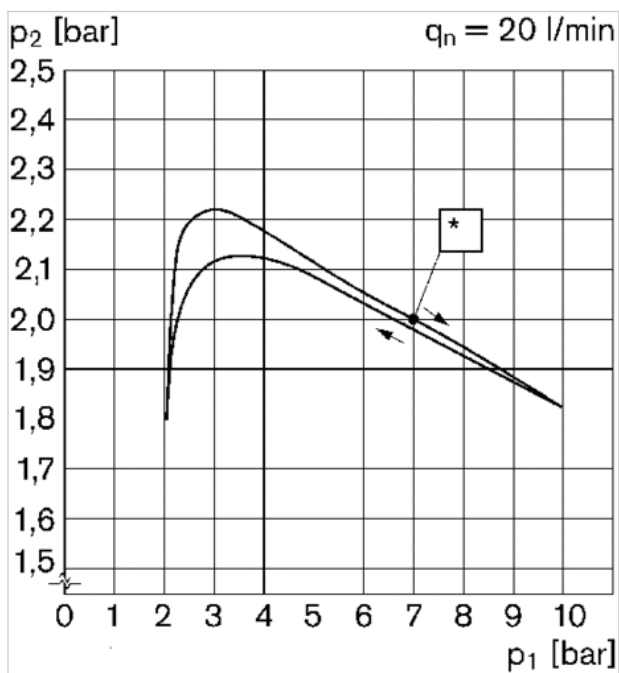
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with level indicator
- 3) Semi-automatic condensate drain
- 4) Fully automatic condensate drain
- 5) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A1	A2	A3	A7	B	C	D	E1	G	H1	H2	H3	H4	L1	L2	M	T7	V	W
G 3/4	G 3/4	G 1/4	G 1/8	85	103	109	75	M50x1,5	250	206	193.5	210.5	41	60	58	8.5	38	63
G 1	G 1	G 1/4	G 1/8	85	103	109	75	M50x1,5	250	206	193.5	210.5	41	60	58	8.5	38	63

Diagrams

Pressure characteristics curve

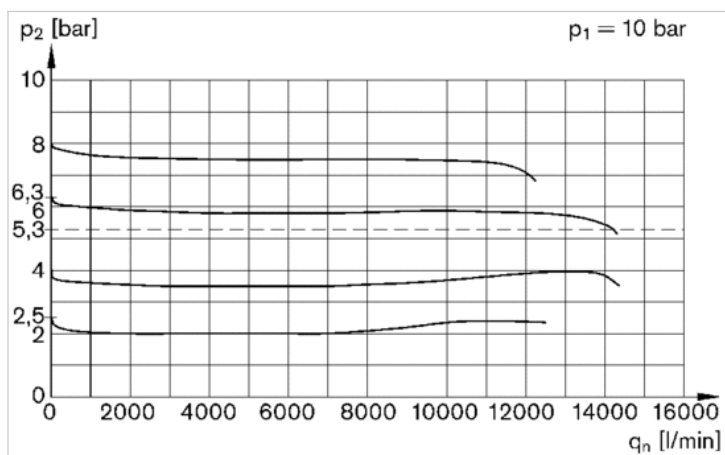


p_1 = working pressure

p_2 = secondary pressure

q_n = nominal flow

* starting point

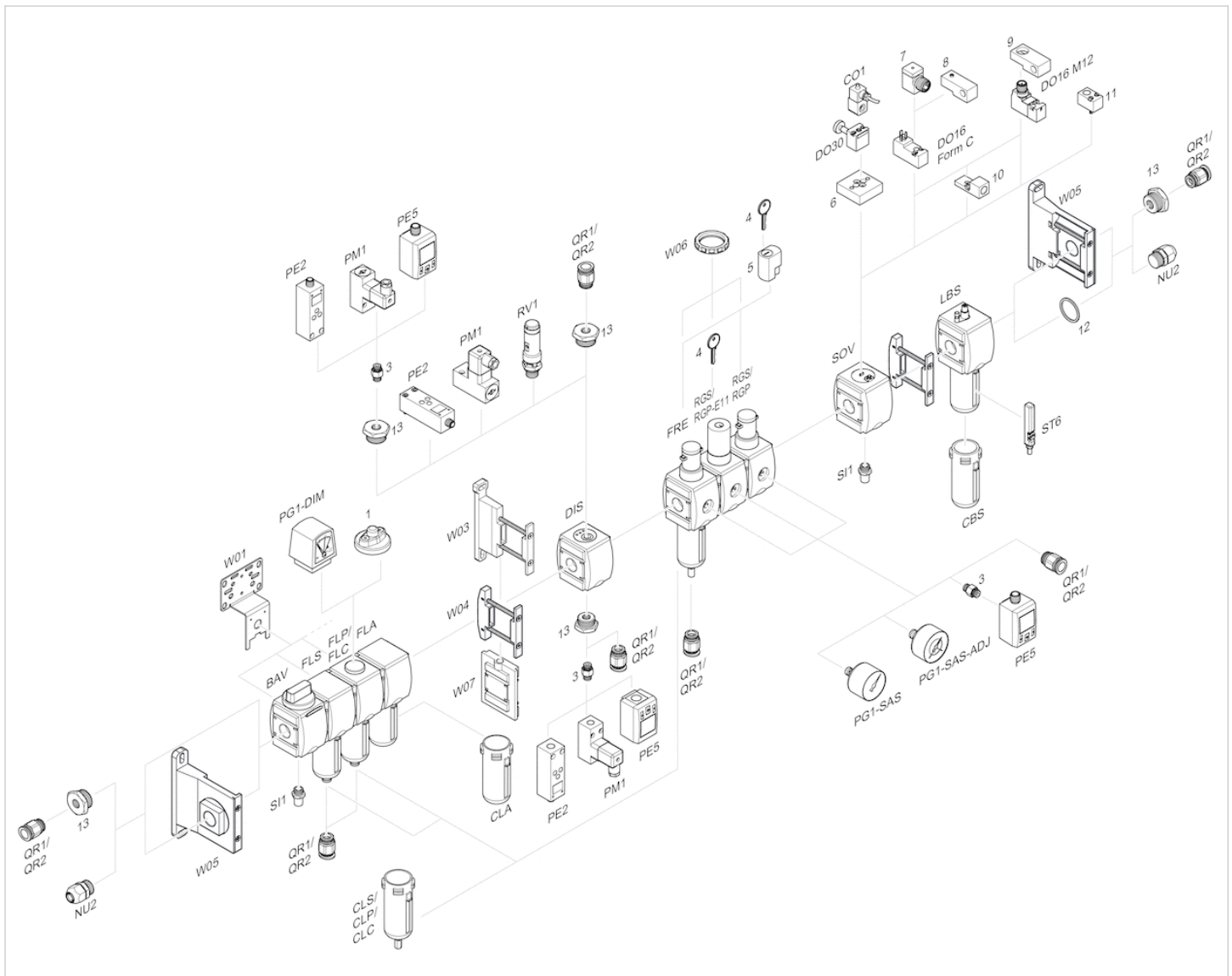
Flow rate characteristic (setting range p_2 : 0.5 - 8 bar)

p_1 = working pressure

p_2 = secondary pressure

q_n = nominal flow

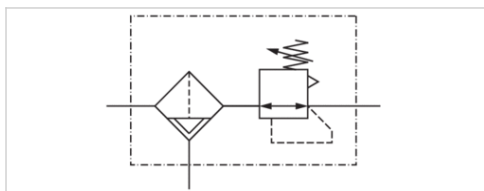
Accessories overview



- 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
- 13 = Reducing nipple

Filter pressure regulator, Series AS5-FRE

- G 3/4 G 1
- filter porosity 25 µm
- lockable
- for padlocks



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	13000 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function Adjustment	with relieving air exhaust
range min./max. Pressure supply	0.5 ... 8 bar
Filter reservoir volume	single
Filter element	87 cm³
Condensate drain	exchangeable
Max. Internal air consumption	semi-automatic, open without pressure
Weight	1.5 l/min
	1.57 kg

Technical data

Part No.	Port	filter porosity	Flow	Condensate drain
			Qn	
R412009188	G 3/4	25 µm	13000 l/min	semi-automatic, open without pressure
R412009189	G 1	25 µm	13000 l/min	semi-automatic, open without pressure

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

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".

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.

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

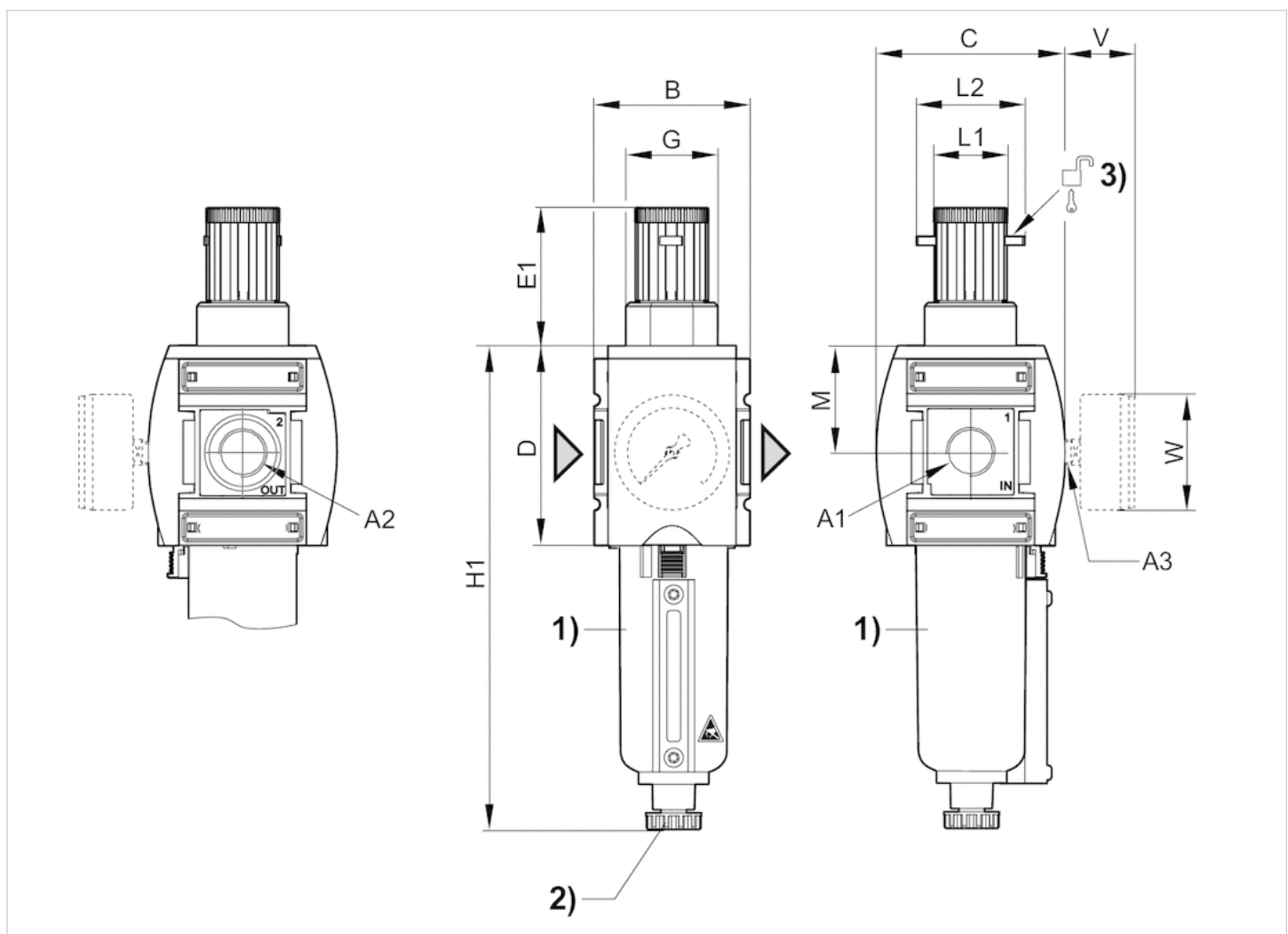
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Die cast zinc
Protective guard	Polyamide
Filter insert	Polyethylene

Dimensions

Dimensions



A1 = input

A2 = output

A3 = pressure gauge connection

1) Metal reservoir with level indicator

2) Semi-automatic condensate drain

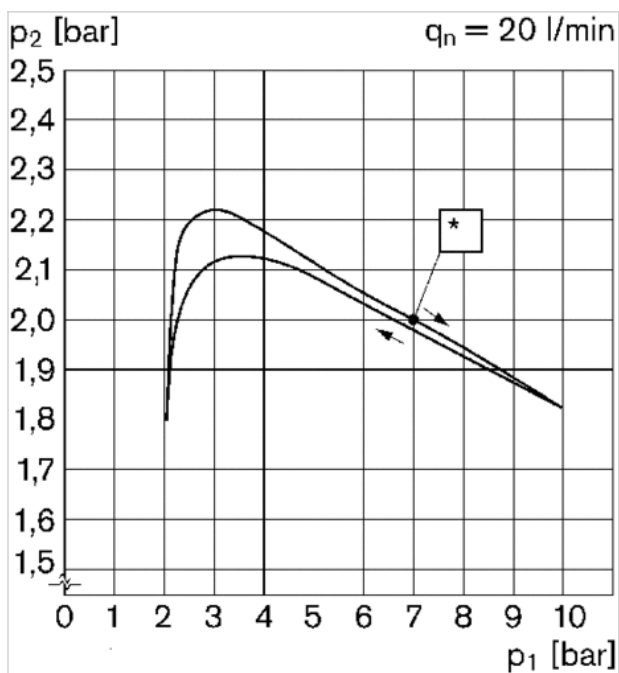
3) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A1	A2	A3	B	C	D	E1	G	H1	L1	L2	M	V	W
G 3/4	G 3/4	G 1/4	85	103	109	75	M50x1,5	250	41	60	58	38	63
G 1	G 1	G 1/4	85	103	109	75	M50x1,5	250	41	60	58	38	63

Diagrams

Pressure characteristics curve

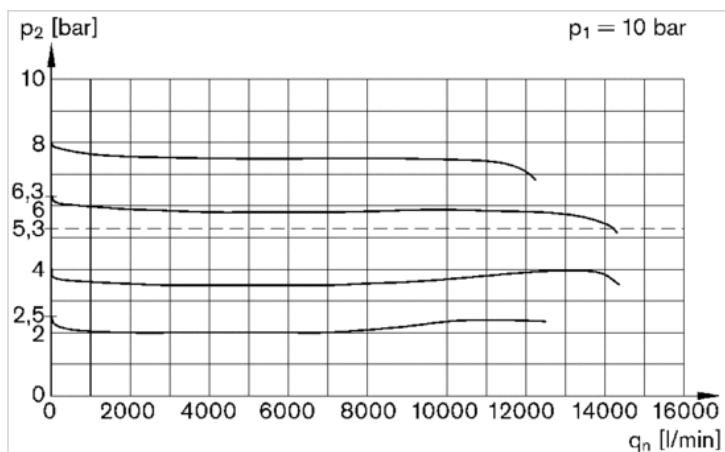


p_1 = working pressure

p_2 = secondary pressure

q_n = nominal flow

* starting point

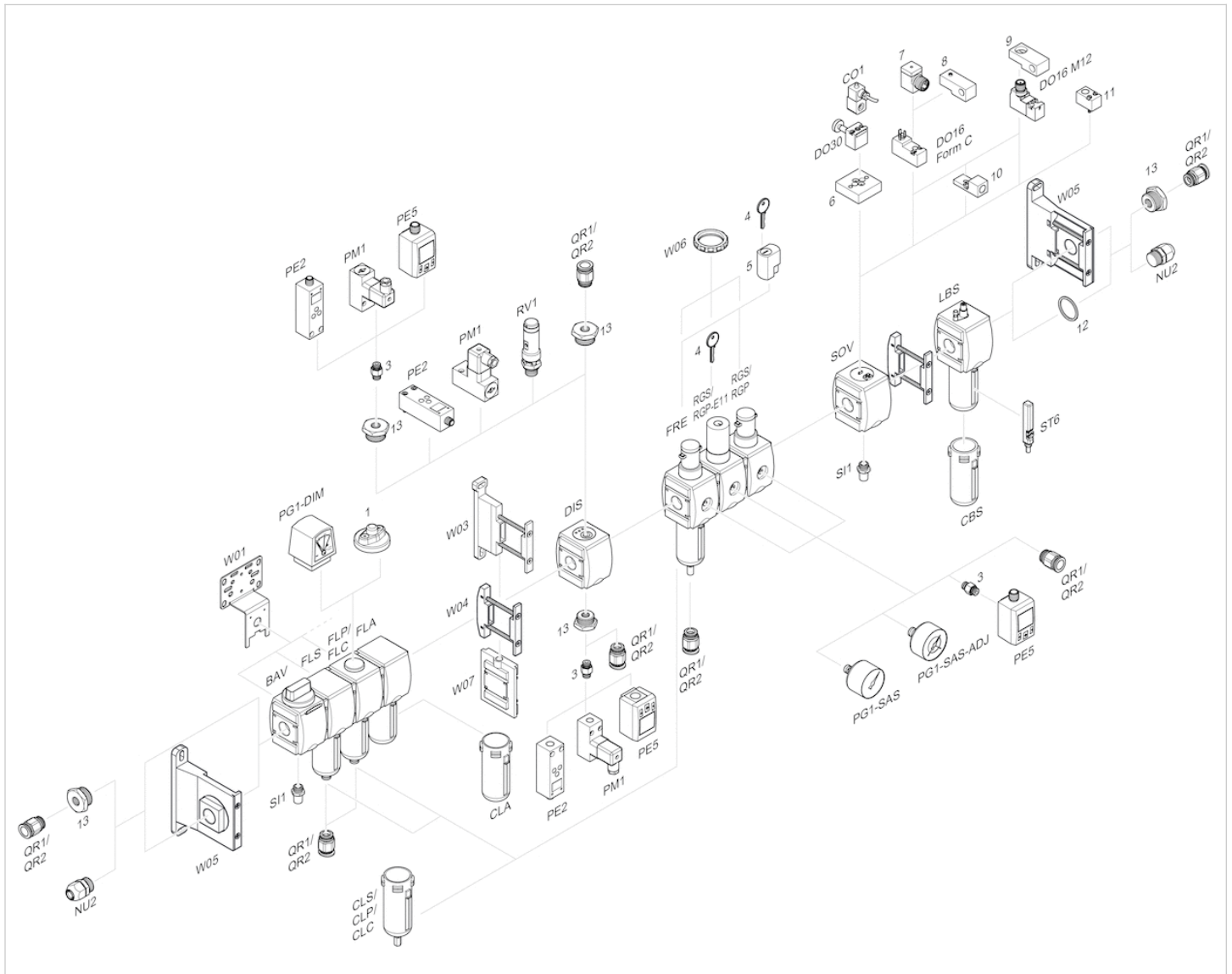
Flow rate characteristic (setting range p_2 : 0.5 - 8 bar)

p_1 = working pressure

p_2 = secondary pressure

q_n = nominal flow

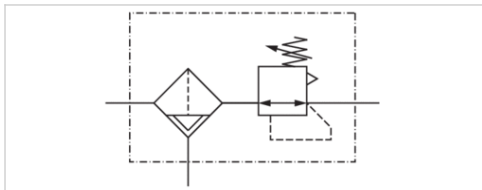
Accessories overview



- 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
- 13 = Reducing nipple

Filter pressure regulator, Series AS5-FRE

- G 3/4 G 1
- filter porosity 40 µm
- lockable
- for padlocks



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	14000 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function Adjustment	with relieving air exhaust
range min./max. Pressure supply	0.5 ... 10 bar
Filter reservoir volume	single
Filter element	87 cm³
Max. Internal air consumption	exchangeable
Weight	1.5 l/min
	See table below

Technical data

Part No.	Port	filter porosity	Flow	Condensate drain	Weight
			Qn		
R412009218	G 3/4	40 µm	14000 l/min	semi-automatic, open without pressure	0.99 kg
R412009219	G 3/4	40 µm	14000 l/min	fully automatic, open without pressure	1.04 kg
R412009220	G 3/4	40 µm	14000 l/min	fully automatic, closed without pressure	1.04 kg
R412009221	G 1	40 µm	14000 l/min	semi-automatic, open without pressure	0.99 kg
R412009222	G 1	40 µm	14000 l/min	fully automatic, open without pressure	1.04 kg
R412009223	G 1	40 µm	14000 l/min	fully automatic, closed without pressure	1.04 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

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".

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.

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

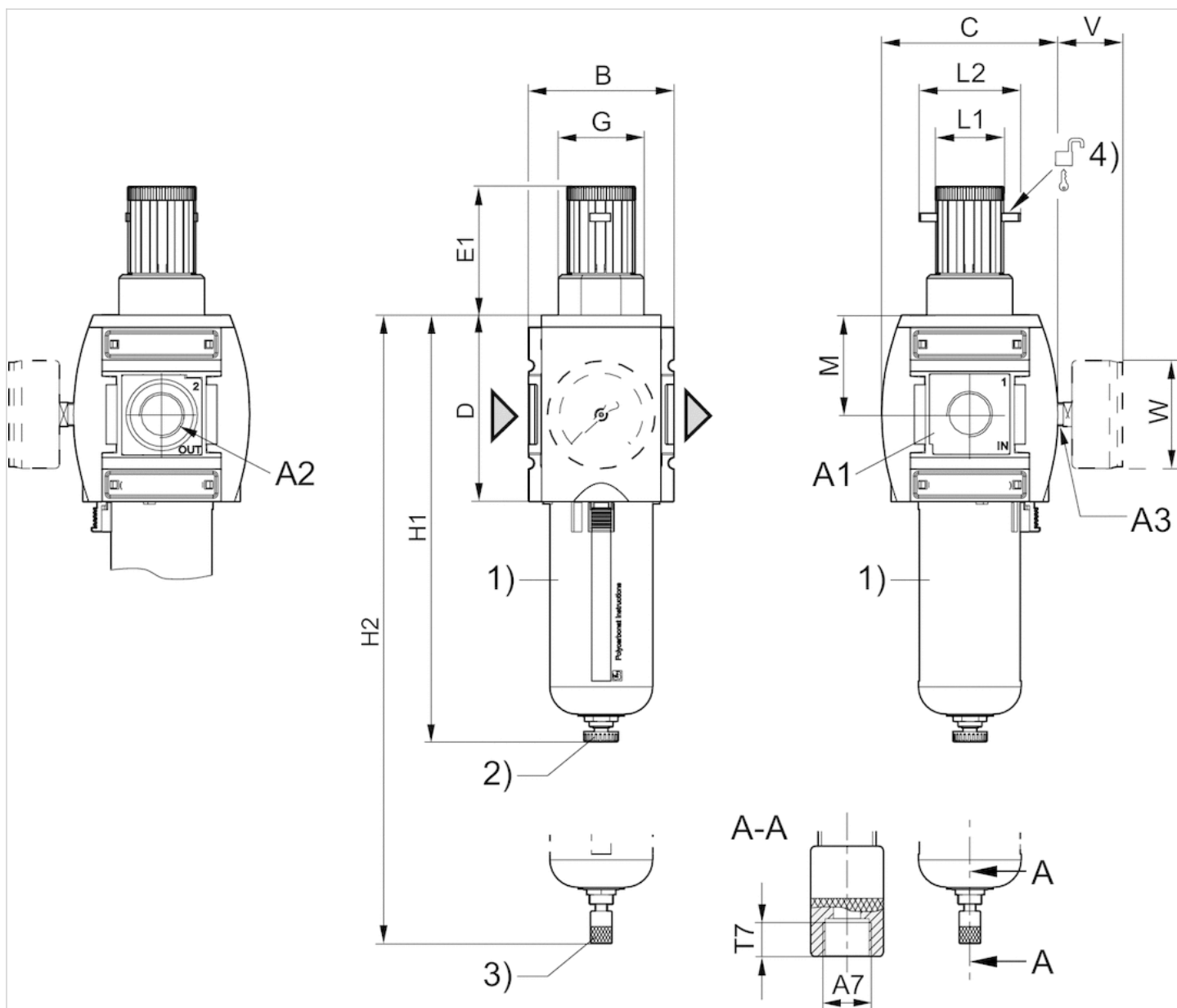
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

Technical information

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

Dimensions

Dimensions



A1 = input

A2 = output

A3 = pressure gauge connection

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Semi-automatic condensate drain

3) Fully automatic condensate drain

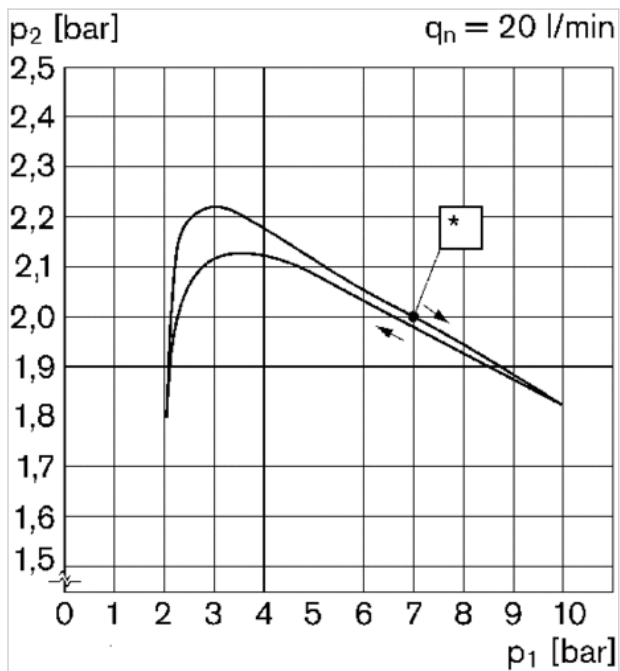
4) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A1	A2	A3	A7	B	C	D	E1	G	H1	H2	L1	L2	M	T7	V	W
G 3/4	G 3/4	G 1/4	G 1/8	85	103	109	75	M50x1,5	250	266	41	60	58	8.5	38	63
G 1	G 1	G 1/4	G 1/8	85	103	109	75	M50x1,5	250	266	41	60	58	8.5	38	63

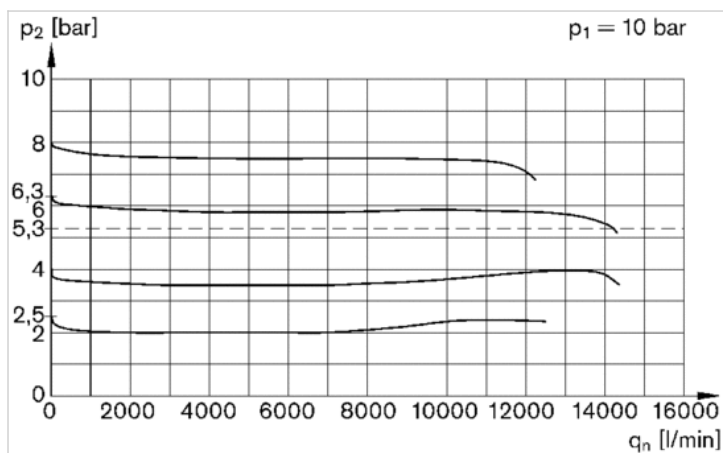
Diagrams

Pressure characteristics curve



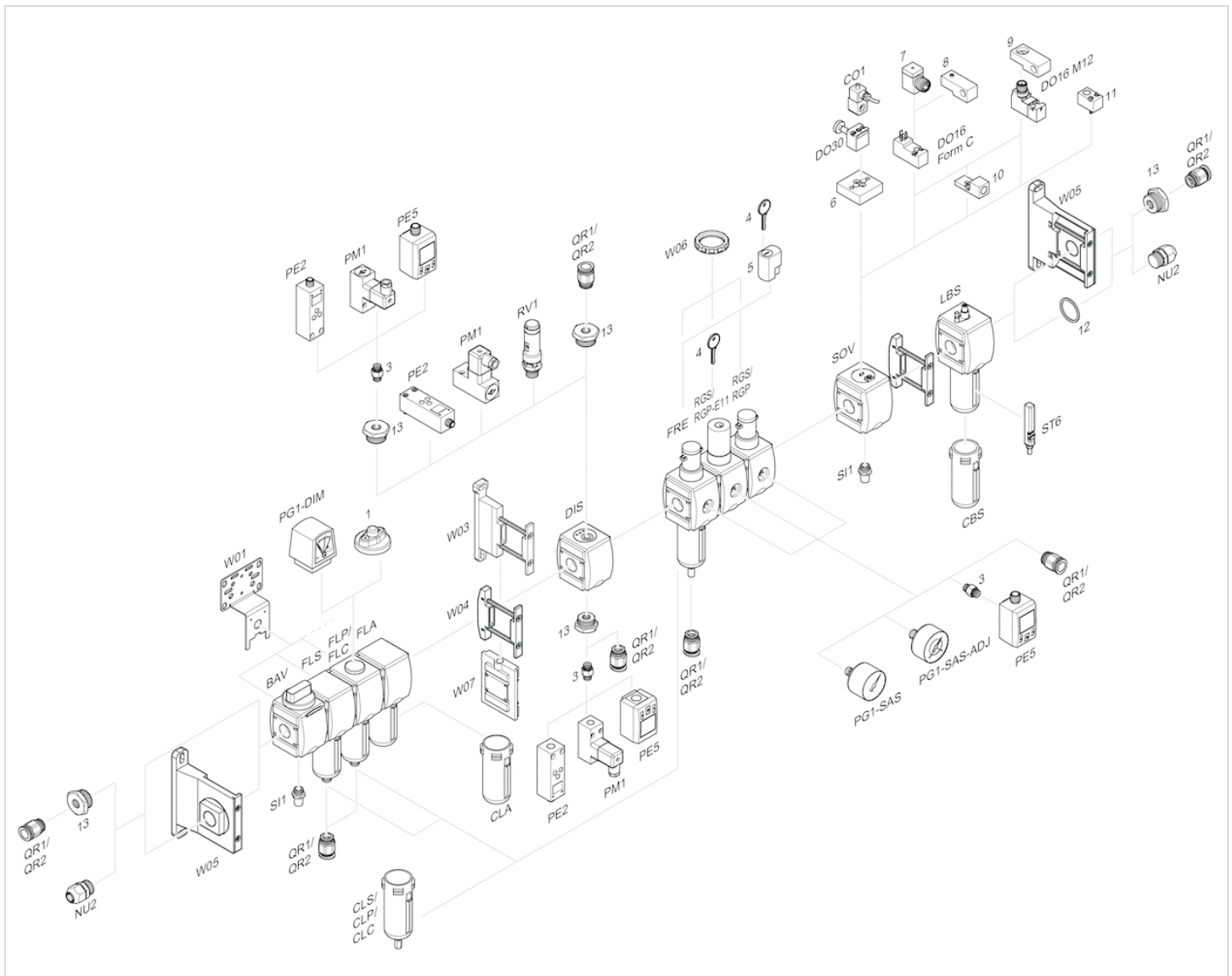
p_1 = working pressure
 p_2 = secondary pressure
 q_n = nominal flow
 * starting point

Flow rate characteristic (setting range p_2 : 0.5 - 8 bar)



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

Accessories overview

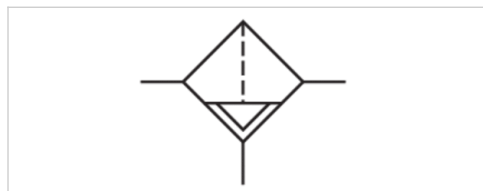


- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring
- 13 = Reducing nipple

Filter, Series AS5-FLS

- G 3/4 G 1

- filter porosity 5 µm



Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	87 cm ³
Filter element	exchangeable
filter porosity	5 µm
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain
R412009000	G 3/4	7800 l/min	semi-automatic, open without pressure
R412009001	G 3/4	7800 l/min	fully automatic, open without pressure
R412009002	G 3/4	7800 l/min	fully automatic, closed without pressure
R412009006	G 3/4	7800 l/min	semi-automatic, open without pressure
R412009007	G 3/4	7800 l/min	fully automatic, open without pressure
R412009008	G 3/4	7800 l/min	fully automatic, closed without pressure
R412009009	G 1	7800 l/min	semi-automatic, open without pressure
R412009010	G 1	7800 l/min	fully automatic, open without pressure
R412009011	G 1	7800 l/min	fully automatic, closed without pressure
R412009015	G 1	7800 l/min	semi-automatic, open without pressure
R412009016	G 1	7800 l/min	fully automatic, open without pressure
R412009017	G 1	7800 l/min	fully automatic, closed without pressure

Part No.	Version	Weight
R412009000	reservoir, polycarbonate, with PA protective guard	0.718 kg
R412009001	reservoir, polycarbonate, with PA protective guard	0.769 kg
R412009002	reservoir, polycarbonate, with PA protective guard	0.769 kg
R412009006	-	1.21 kg
R412009007	-	1.26 kg
R412009008	-	1.26 kg
R412009009	reservoir, polycarbonate, with PA protective guard	0.718 kg

Part No.	Version	Weight
R412009010	reservoir, polycarbonate, with PA protective guard	0.769 kg
R412009011	reservoir, polycarbonate, with PA protective guard	0.769 kg
R412009015	-	1.21 kg
R412009016	-	1.26 kg
R412009017	-	1.26 kg

Nominal flow Q_n with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 1 \text{ bar}$

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".

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.

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

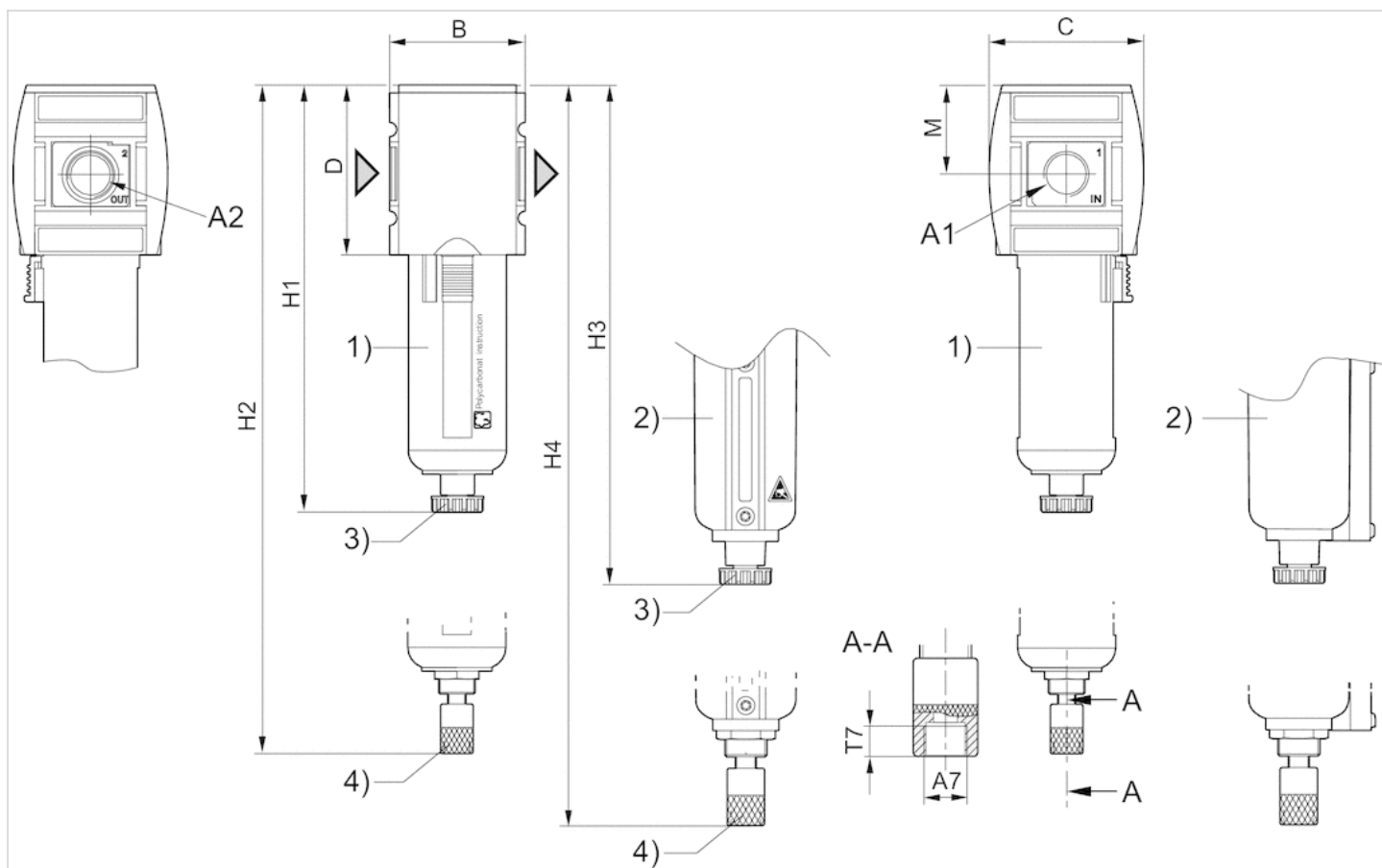
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

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	Polyamide
Filter insert	Polyethylene

Dimensions

Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Metal reservoir with level indicator

3) Semi-automatic condensate drain

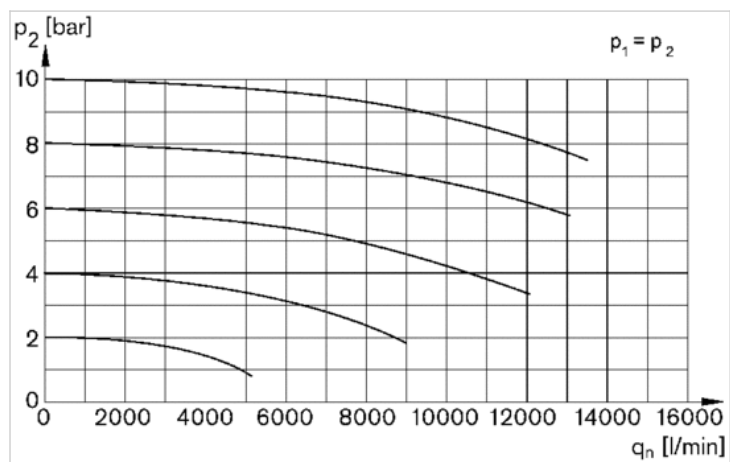
4) Fully automatic condensate drain

Dimensions in mm

A1	A2	A7	B	C	D	H1	H2	H3	H4	M	T7
G 3/4	G 3/4	G 1/8	85	103	109	250	266	254	270.5	58	8.5
G 1	G 1	G 1/8	85	103	109	250	266	254	270.5	58	8.5

Diagrams

Flow rate characteristic

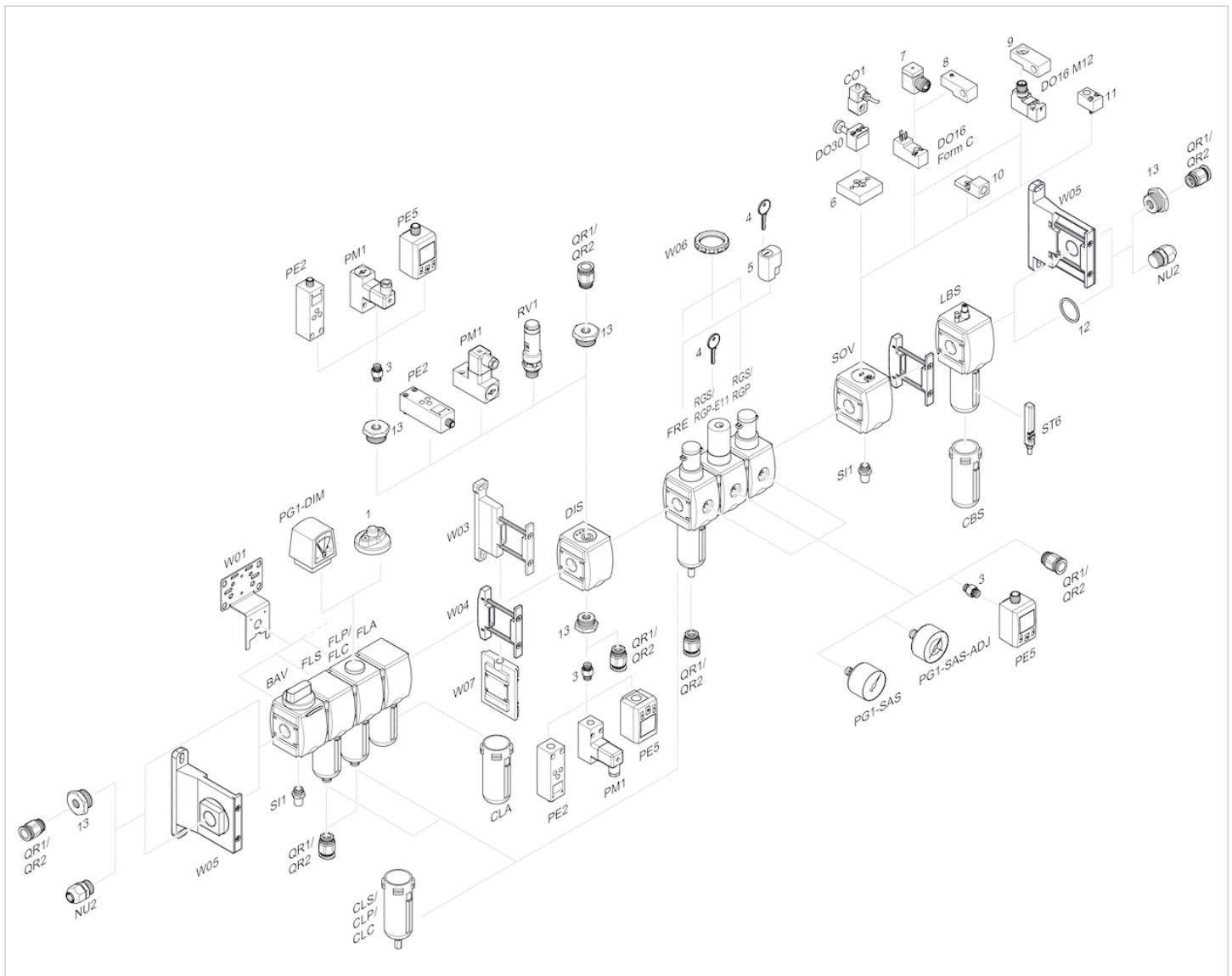


p1 = Working pressure

p2 = Secondary pressure

qn = Nominal flow

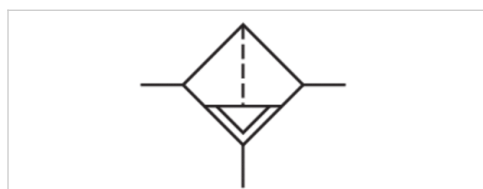
Accessories overview



- 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
- 13 = Reducing nipple

Filter, Series AS5-FLS

- G 3/4 G 1
- filter porosity 25 µm



Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	87 cm ³
Filter element	exchangeable
filter porosity	25 µm
Condensate drain	semi-automatic, open without pressure
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Weight
R412009089	G 3/4	7800 l/min	1.21 kg
R412009090	G 1	7800 l/min	1.26 kg

Nominal flow with secondary pressure 6.3 bar at $\Delta p = 1$ bar

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

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

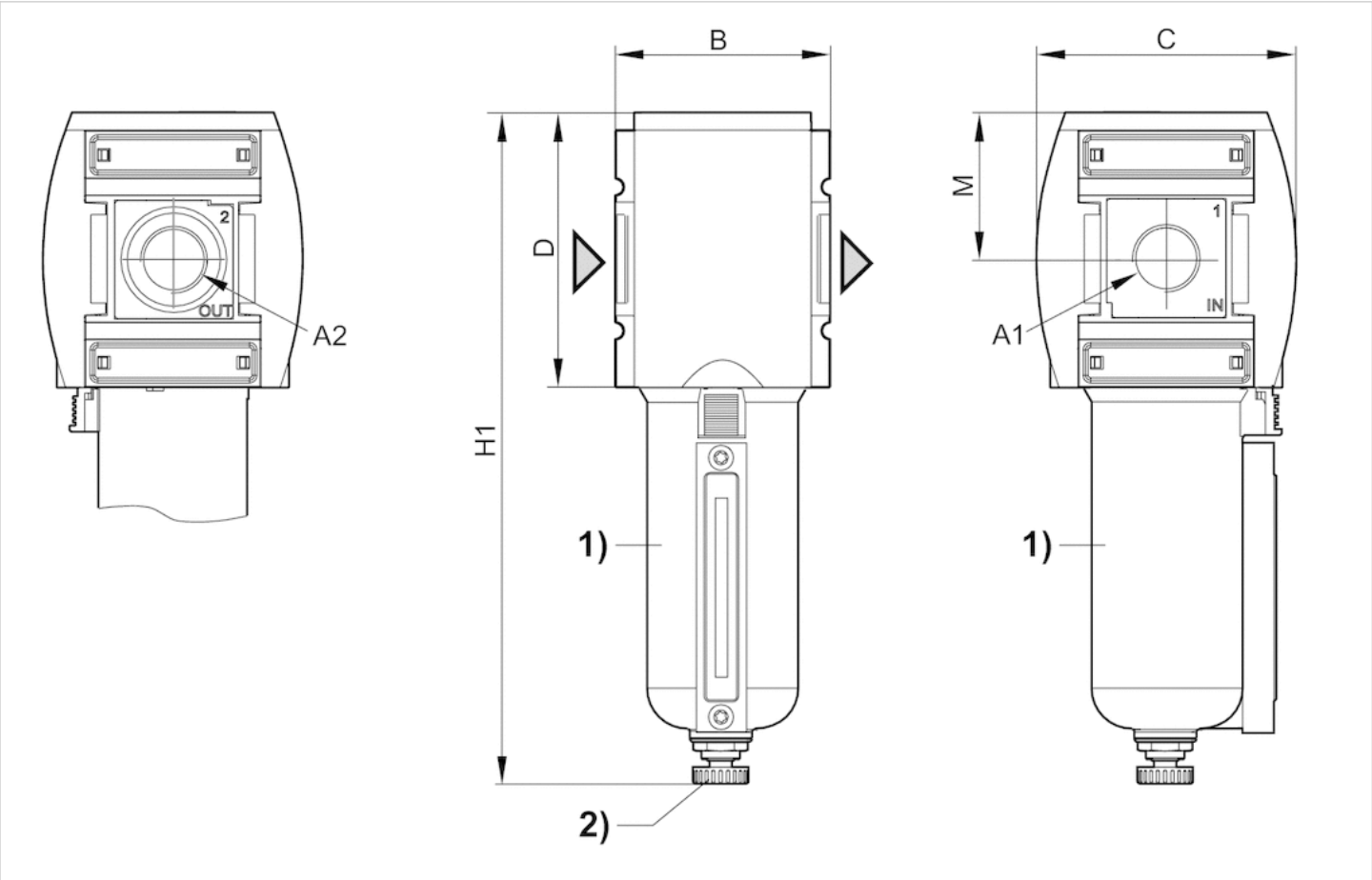
Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Die cast zinc
Filter insert	Polyethylene

Dimensions

Dimensions



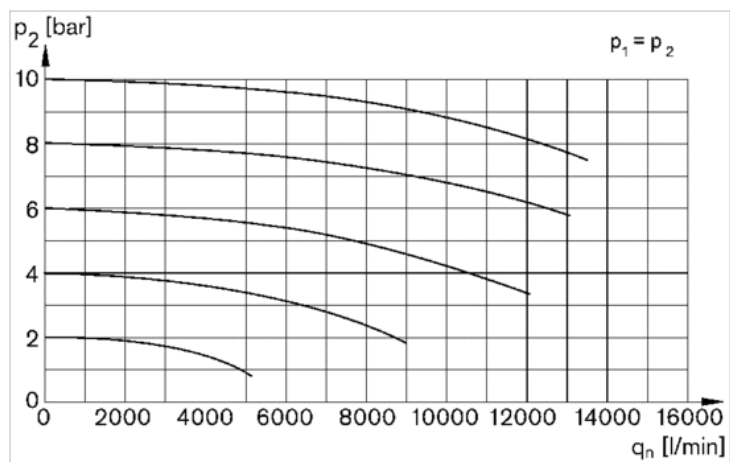
- A1 = input
A2 = output
1) Metal reservoir with level indicator
2) Semi-automatic condensate drain

Dimensions in mm

A1	A2	B	C	D	H1	M
G 3/4	G 3/4	85	103	109	250	58
G 1	G 1	85	103	109	250	58

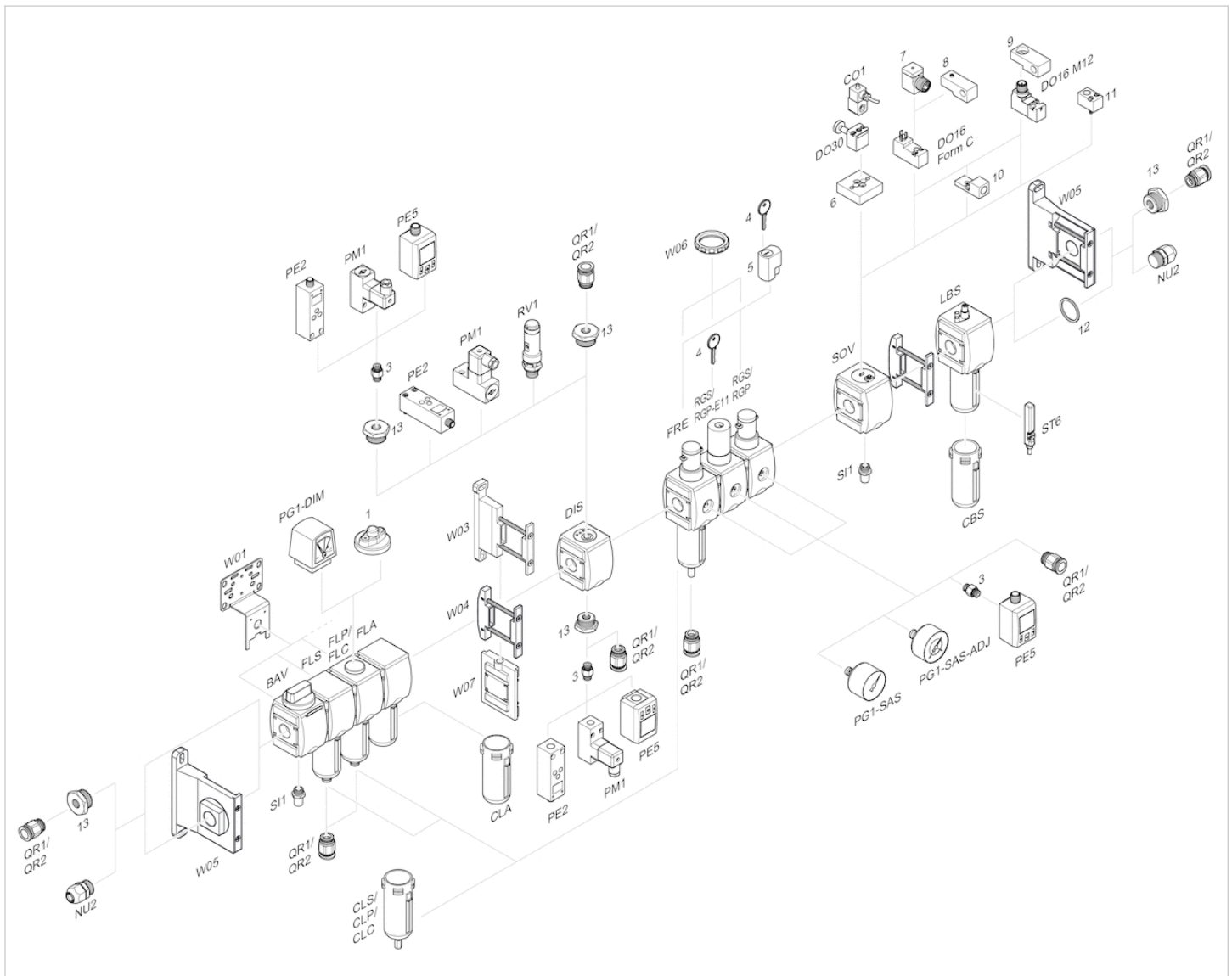
Diagrams

Flow rate characteristic



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview

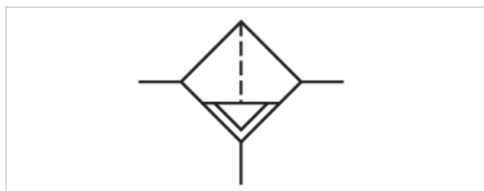


- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring
- 13 = Reducing nipple

Filter, Series AS5-FLS

- G 3/4 G 1

- filter porosity 40 µm



Version

Parts

Mounting orientation

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Filter reservoir volume

Filter element

filter porosity

Condensate drain

Weight

Standard filter, Can be assembled into blocks

Filter

vertical

1.5 ... 16 bar

-10 ... 50 °C

-10 ... 50 °C

Compressed air Neutral gases

87 cm³

exchangeable

40 µm

See table below

See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain	Weight
R412009003	G 3/4	7800 l/min	semi-automatic, open without pressure	0.718 kg
R412009004	G 3/4	7800 l/min	fully automatic, open without pressure	0.769 kg
R412009005	G 3/4	7800 l/min	fully automatic, closed without pressure	0.769 kg
R412009012	G 1	7800 l/min	semi-automatic, open without pressure	0.718 kg
R412009013	G 1	7800 l/min	fully automatic, open without pressure	0.769 kg
R412009014	G 1	7800 l/min	fully automatic, closed without pressure	0.769 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

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".

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.

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

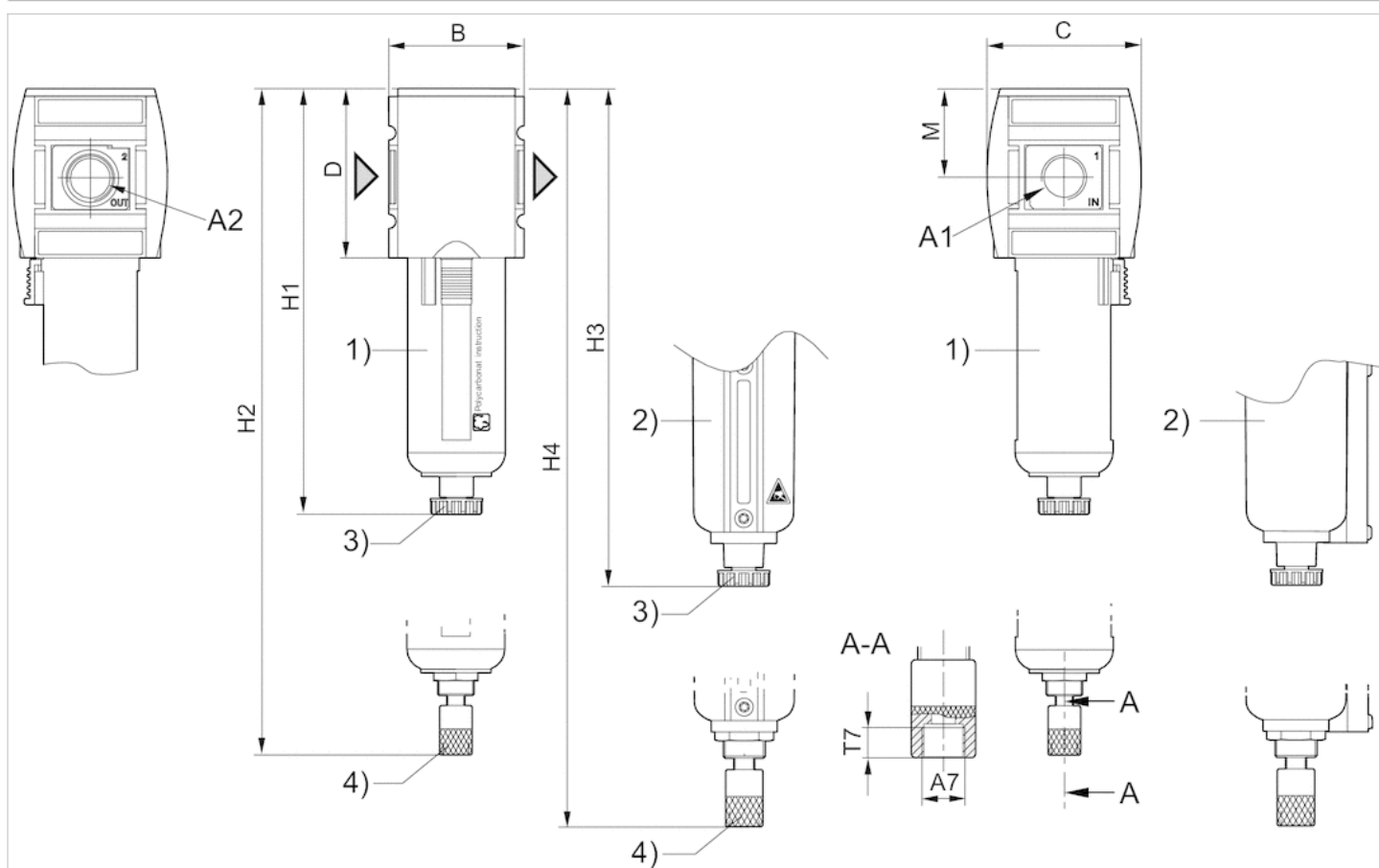
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate
Protective guard	Polyamide
Filter insert	Sintered bronze

Dimensions

Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Metal reservoir with level indicator

3) Semi-automatic condensate drain

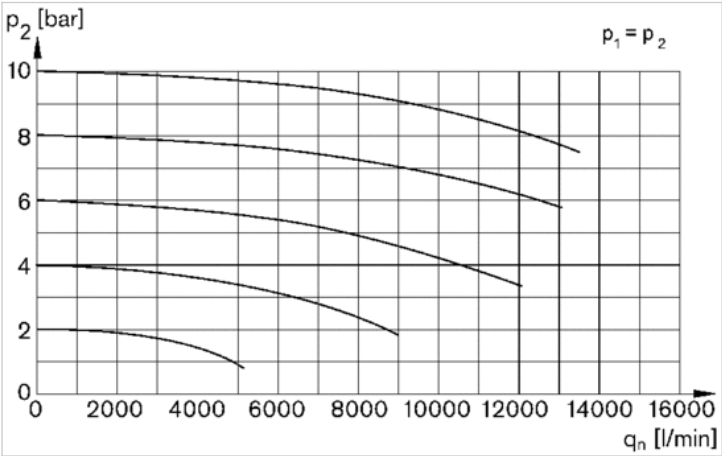
4) Fully automatic condensate drain

Dimensions in mm

A1	A2	A7	B	C	D	H1	H2	H3	H4	M	T7
G 3/4	G 3/4	G 1/8	85	103	109	250	266	254	270.5	58	8.5
G 1	G 1	G 1/8	85	103	109	250	266	254	270.5	58	8.5

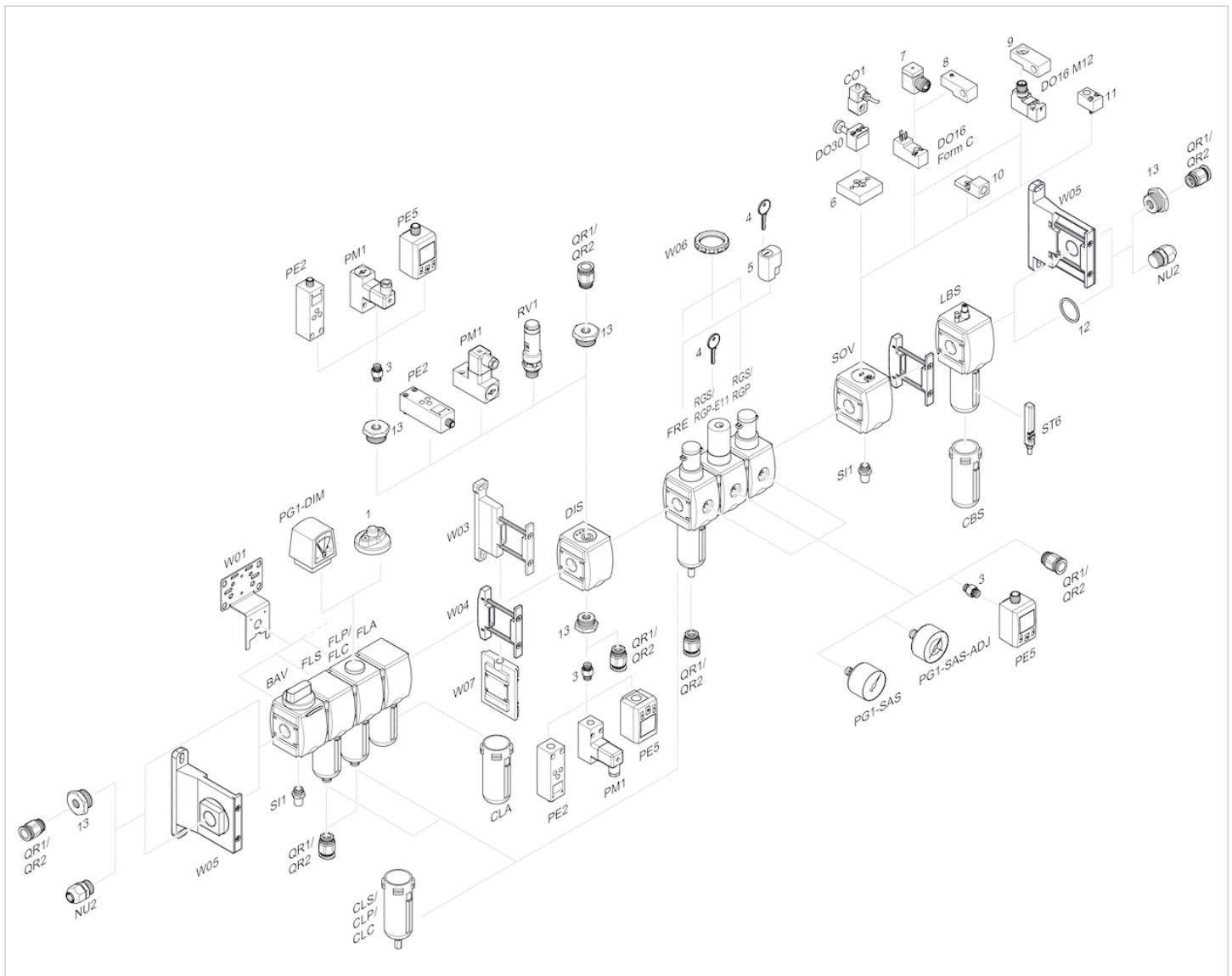
Diagrams

Flow rate characteristic



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

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
- 13 = Reducing nipple

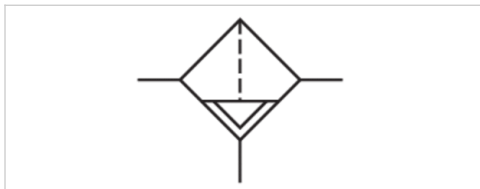
Pre-filter, Series AS5-FLP

- G 3/4 G 1

- filter porosity 0.3 µm



Version	Pre-filter, Can be assembled into blocks
Parts	Pre-filter
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	87 cm ³
Filter element	exchangeable
filter porosity	0.3 µm
Condensate drain	See table below
Weight	See table below



Technical data

Part No.	Port	Flow Qn	Condensate drain	Weight
R412009018	G 3/4	2200 l/min	semi-automatic, open without pressure	0.71 kg
R412009019	G 3/4	2200 l/min	fully automatic, open without pressure	0.76 kg
R412009020	G 3/4	2200 l/min	fully automatic, closed without pressure	0.76 kg
R412009024	G 3/4	2200 l/min	semi-automatic, open without pressure	1.21 kg
R412009025	G 3/4	2200 l/min	fully automatic, open without pressure	1.26 kg
R412009026	G 3/4	2200 l/min	fully automatic, closed without pressure	1.26 kg
R412009027	G 1	2200 l/min	semi-automatic, open without pressure	0.71 kg
R412009028	G 1	2200 l/min	fully automatic, open without pressure	0.76 kg
R412009029	G 1	2200 l/min	fully automatic, closed without pressure	0.76 kg
R412009033	G 1	2200 l/min	semi-automatic, open without pressure	1.21 kg
R412009034	G 1	2200 l/min	fully automatic, open without pressure	1.26 kg
R412009035	G 1	2200 l/min	fully automatic, closed without pressure	1.26 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 0.1 bar

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".

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.

Recommended pre-filtering 5 µm

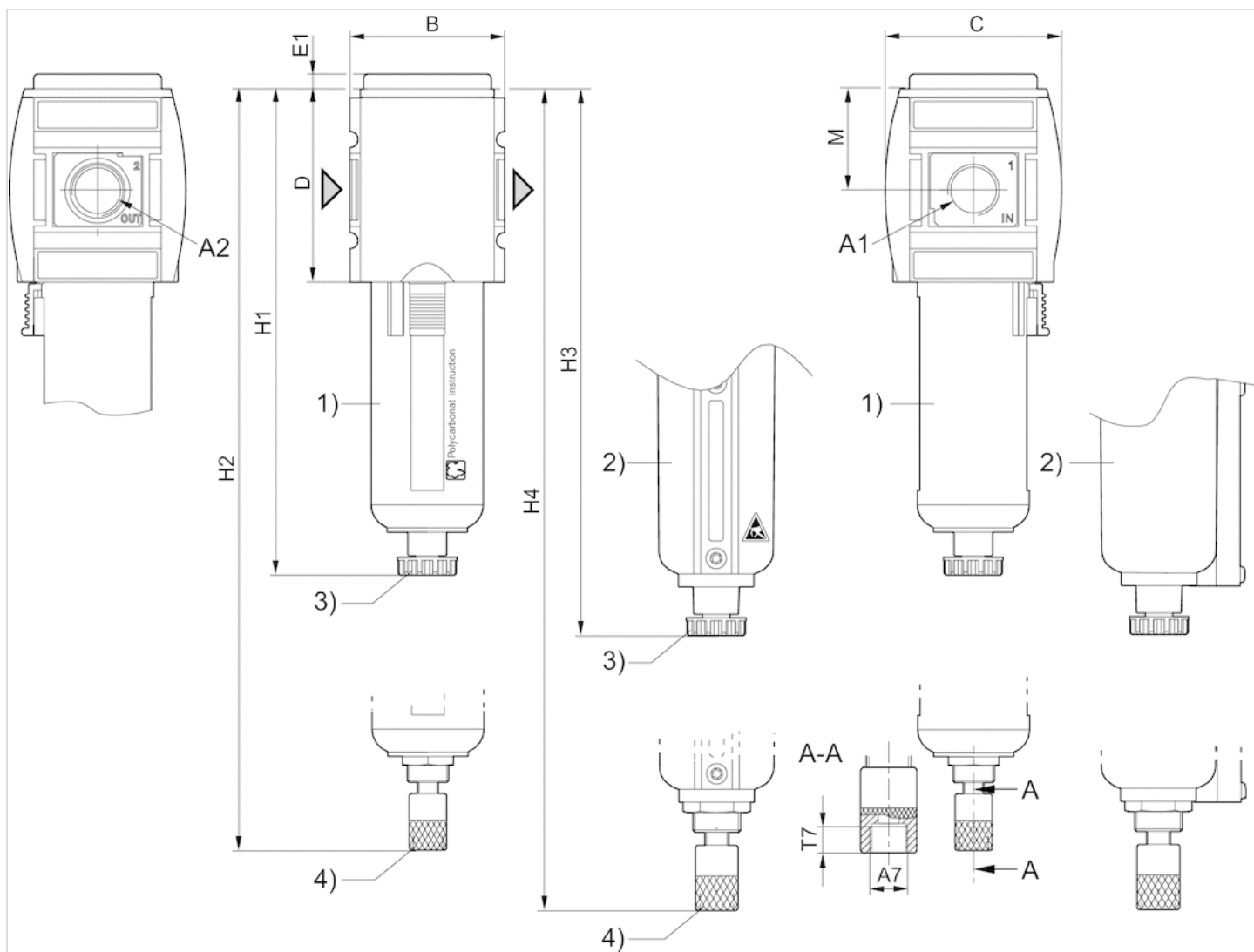
Max. achievable compressed air class acc. to ISO 8573-1:2010 2 : - : 3

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	Polyamide
Filter insert	Impregnated paper

Dimensions

Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Metal reservoir with inspection glass

3) Semi-automatic condensate drain

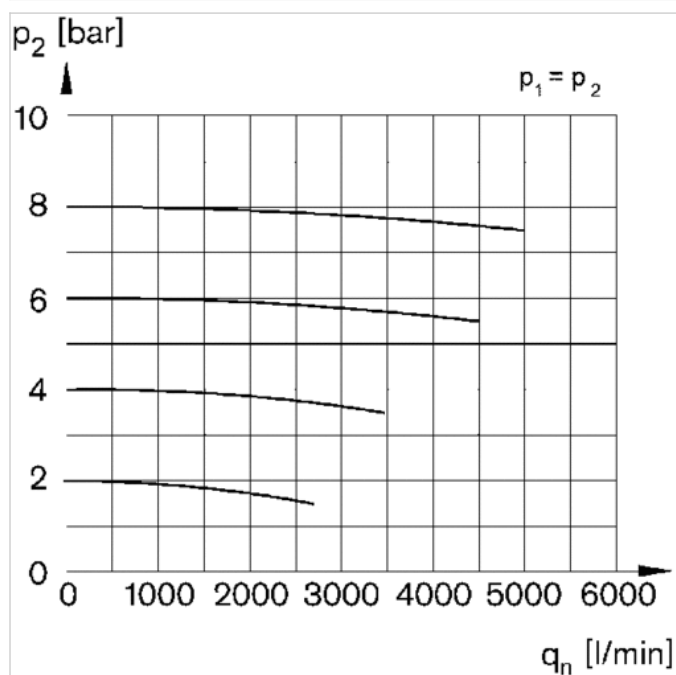
4) Fully automatic condensate drain

Dimensions in mm

A1	A2	A7	B	C	D	E1	H1	H2	H3	H4	M	T7
G 3/4	G 3/4	G 1/8	85	103	109	5	250	266	254	270.5	58	8.5
G 1	G 1	G 1/8	85	103	109	5	250	266	254	270.5	58	8.5

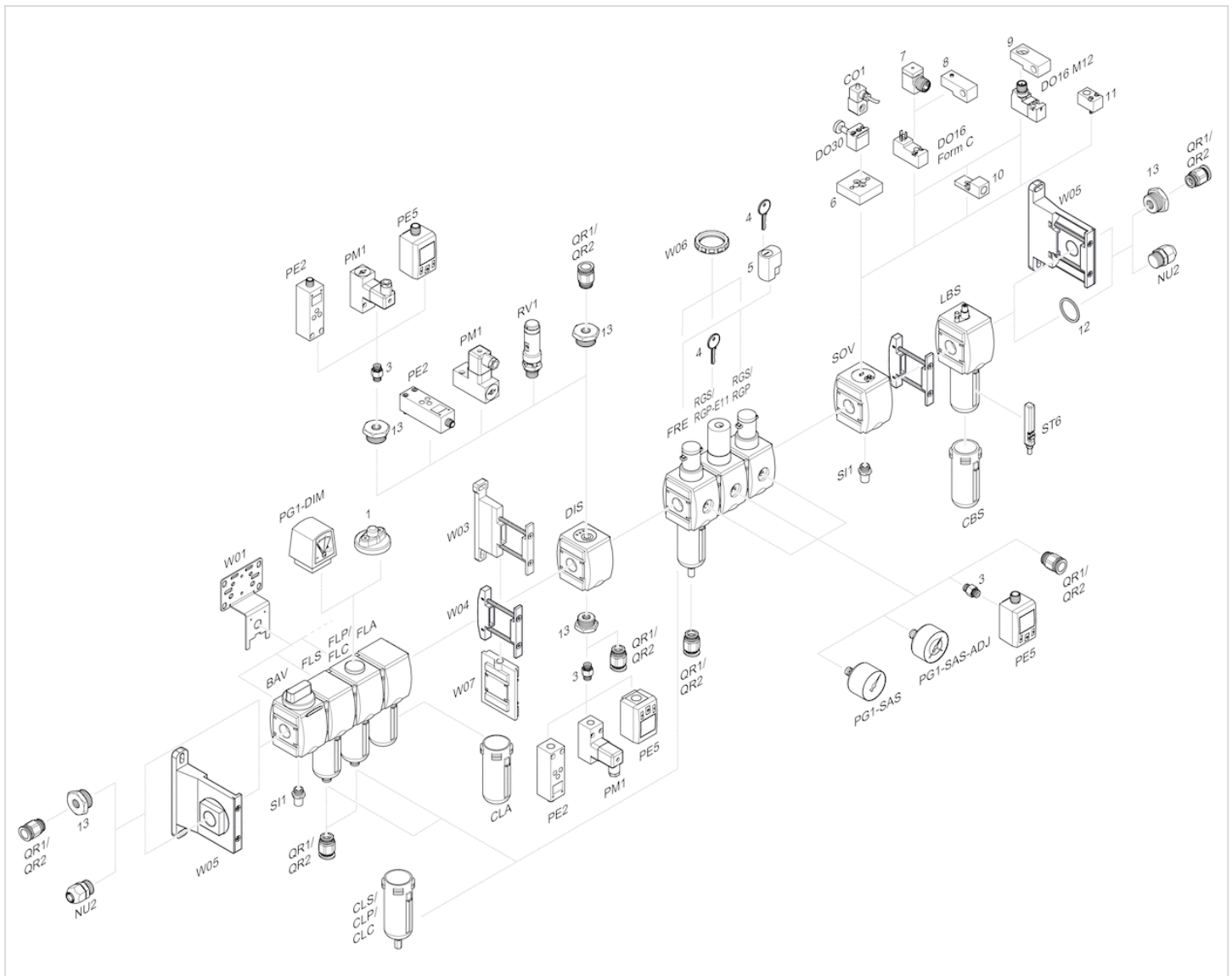
Diagrams

Flow rate characteristic



p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow

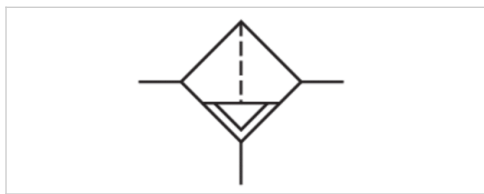
Accessories overview



- 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
- 13 = Reducing nipple

Pre-filter, Series AS5-FLP

- G 3/4 G 1
- filter porosity 0.3 μm
- contamination display integrated



Version	Pre-filter, Can be assembled into blocks
Parts	Pre-filter
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	87 cm ³
Filter element	exchangeable
filter porosity	0.3 μm
Condensate drain	See table below
contamination display	integrated
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain	Weight
R412009021	G 3/4	2200 l/min	semi-automatic, open without pressure	0.361 kg
R412009022	G 3/4	2200 l/min	fully automatic, open without pressure	0.41 kg
R412009023	G 3/4	2200 l/min	fully automatic, closed without pressure	0.41 kg
R412009030	G 1	2200 l/min	semi-automatic, open without pressure	0.361 kg
R412009031	G 1	2200 l/min	fully automatic, open without pressure	0.41 kg
R412009032	G 1	2200 l/min	fully automatic, closed without pressure	0.762 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at $\Delta p = 0.1$ bar

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".

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.

Recommended pre-filtering 5 μm

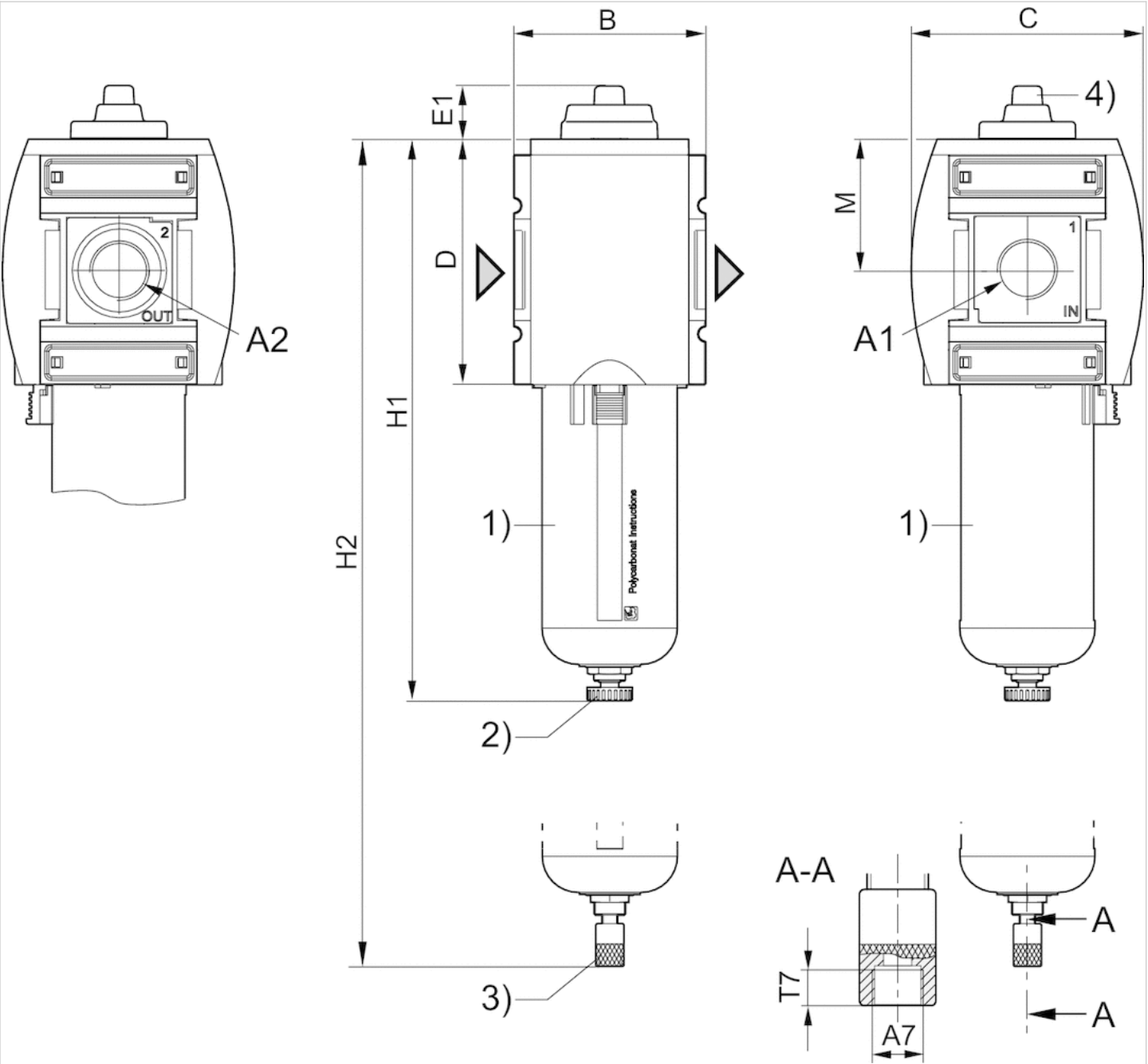
Max. achievable compressed air class acc. to ISO 8573-1:2010 2 : - : 3

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate
Protective guard	Polyamide
Filter insert	Impregnated paper

Dimensions

Dimensions



- A1 = input
A2 = output
A7 = condensate drain
1) Plastic reservoir and protective guard with window
2) Semi-automatic condensate drain
3) Fully automatic condensate drain
4) contamination display

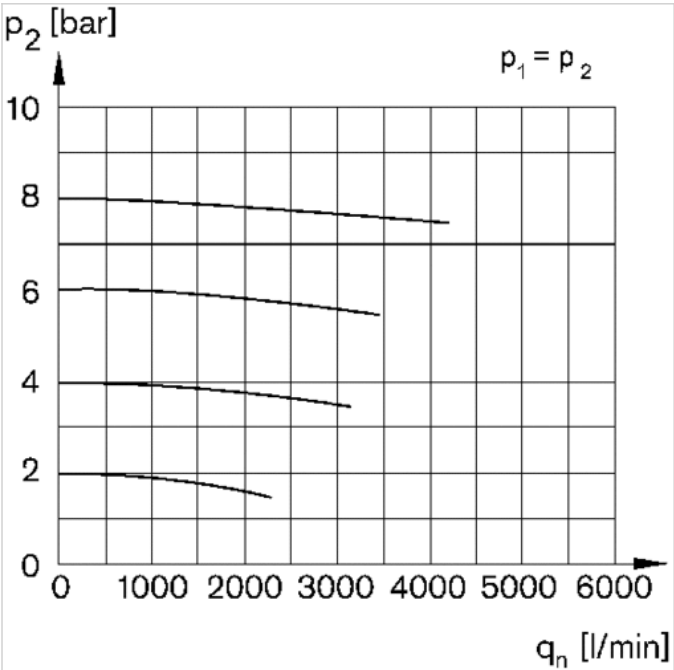
Dimensions in mm

A1	A2	A7	B	C	D	E1	H1	H2	M	T7
G 3/4	G 3/4	G 1/8	85	103	109	23.7	250	266	58	8.5

A1	A2	A7	B	C	D	E1	H1	H2	M	T7
G 1	G 1	G 1/8	85	103	109	23.7	250	266	58	8.5

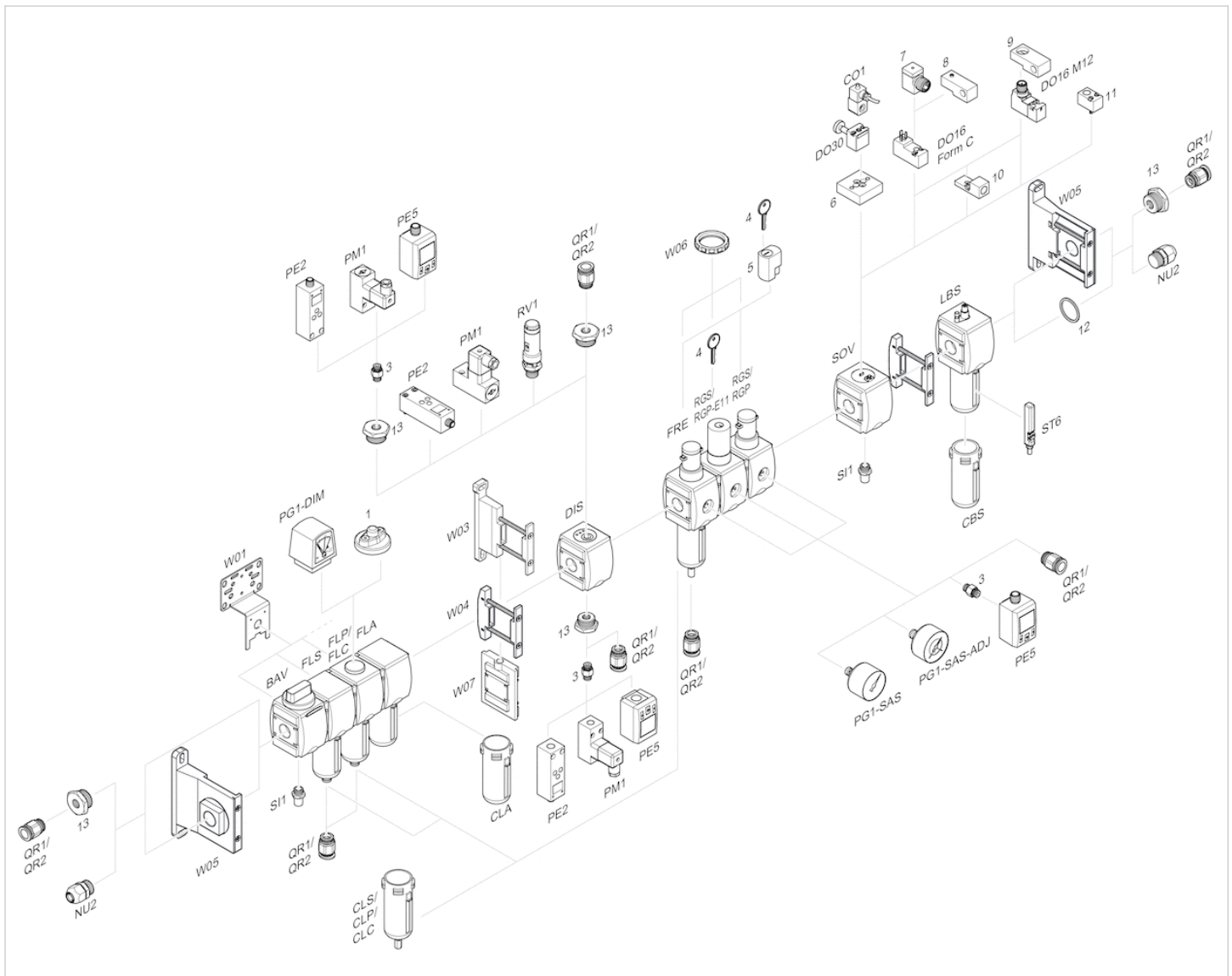
Diagrams

Flow rate characteristic



p1 = Working pressure
 p2 = Secondary pressure
 qn = Nominal flow

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
- 13 = Reducing nipple

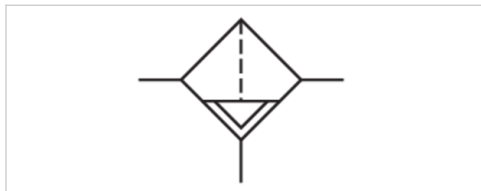
Microfilter, Series AS5-FLC

- G 3/4 G 1

- filter porosity 0.01 µm



Version	Microfilter, Can be assembled into blocks
Parts	Microfilter
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	87 cm ³
Filter element	exchangeable
filter porosity	0.01 µm
Condensate drain	See table below
Weight	See table below



Technical data

Part No.	Port	Flow Qn	Condensate drain
R412009036	G 3/4	1600 l/min	semi-automatic, open without pressure
R412009037	G 3/4	1600 l/min	fully automatic, open without pressure
R412009038	G 3/4	1600 l/min	fully automatic, closed without pressure
R412009042	G 3/4	1600 l/min	semi-automatic, open without pressure
R412009043	G 3/4	1600 l/min	fully automatic, open without pressure
R412009044	G 3/4	1600 l/min	fully automatic, closed without pressure
R412009045	G 1	1600 l/min	semi-automatic, open without pressure
R412009046	G 1	1600 l/min	fully automatic, open without pressure
R412009047	G 1	1600 l/min	fully automatic, closed without pressure
R412009051	G 1	1600 l/min	semi-automatic, open without pressure
R412009052	G 1	1600 l/min	fully automatic, closed without pressure
R412009053	G 1	1600 l/min	fully automatic, closed without pressure

Part No.	Version	Weight	
R412009036	reservoir, polycarbonate, with PA protective guard	0.71 kg	1)
R412009037	reservoir, polycarbonate, with PA protective guard	0.76 kg	1)
R412009038	reservoir, polycarbonate, with PA protective guard	0.76 kg	1)
R412009042	-	1.21 kg	2)
R412009043	-	1.26 kg	2)
R412009044	-	1.26 kg	2)
R412009045	reservoir, polycarbonate, with PA protective guard	0.71 kg	1)

Part No.	Version	Weight	
R412009046	reservoir, polycarbonate, with PA protective guard	0.76 kg	
R412009047	reservoir, polycarbonate, with PA protective guard	0.76 kg	
R412009051	-	1.21 kg	1)
R412009052	-	1.26 kg	1)
R412009053	-	1.26 kg	1)

Nominal flow Q_n with secondary pressure p₂ = 6 bar at Δp = 0.1 bar

1) Reservoir with level indicator.

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".

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.

Recommended pre-filtering 0.3 μm

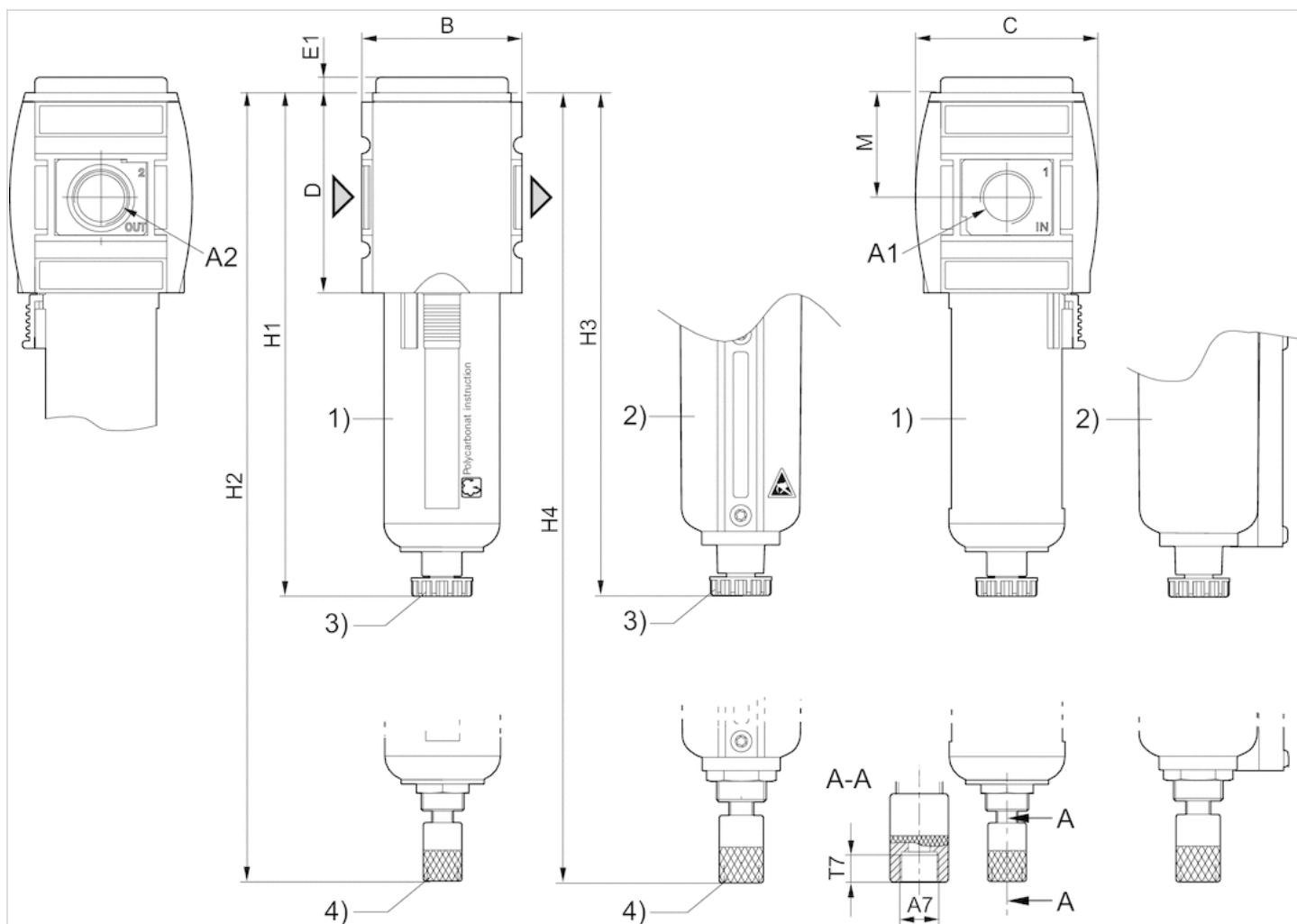
Max. achievable compressed air class acc. to ISO 8573-1:2010 1 : - : 2

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	Polyamide
Filter insert	Borosilicate glass fiber

Dimensions

Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Metal reservoir with inspection glass

3) Semi-automatic condensate drain

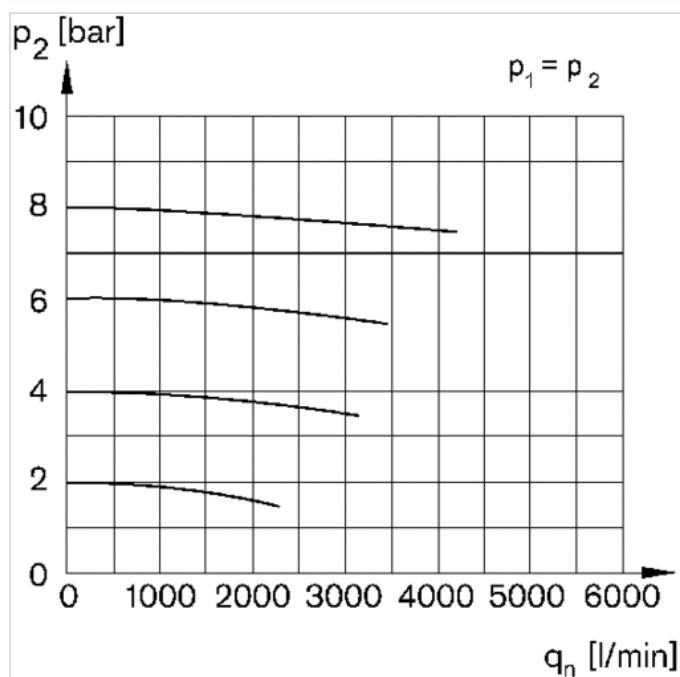
4) Fully automatic condensate drain

Dimensions in mm

A1	A2	A7	B	C	D	E1	H1	H2	H3	H4	M	T7
G 3/4	G 3/4	G 1/8	85	103	109	5	250	266	254	270	58	8.5
G 1	G 1	G 1/8	85	103	109	5	250	266	254	270	58	8.5

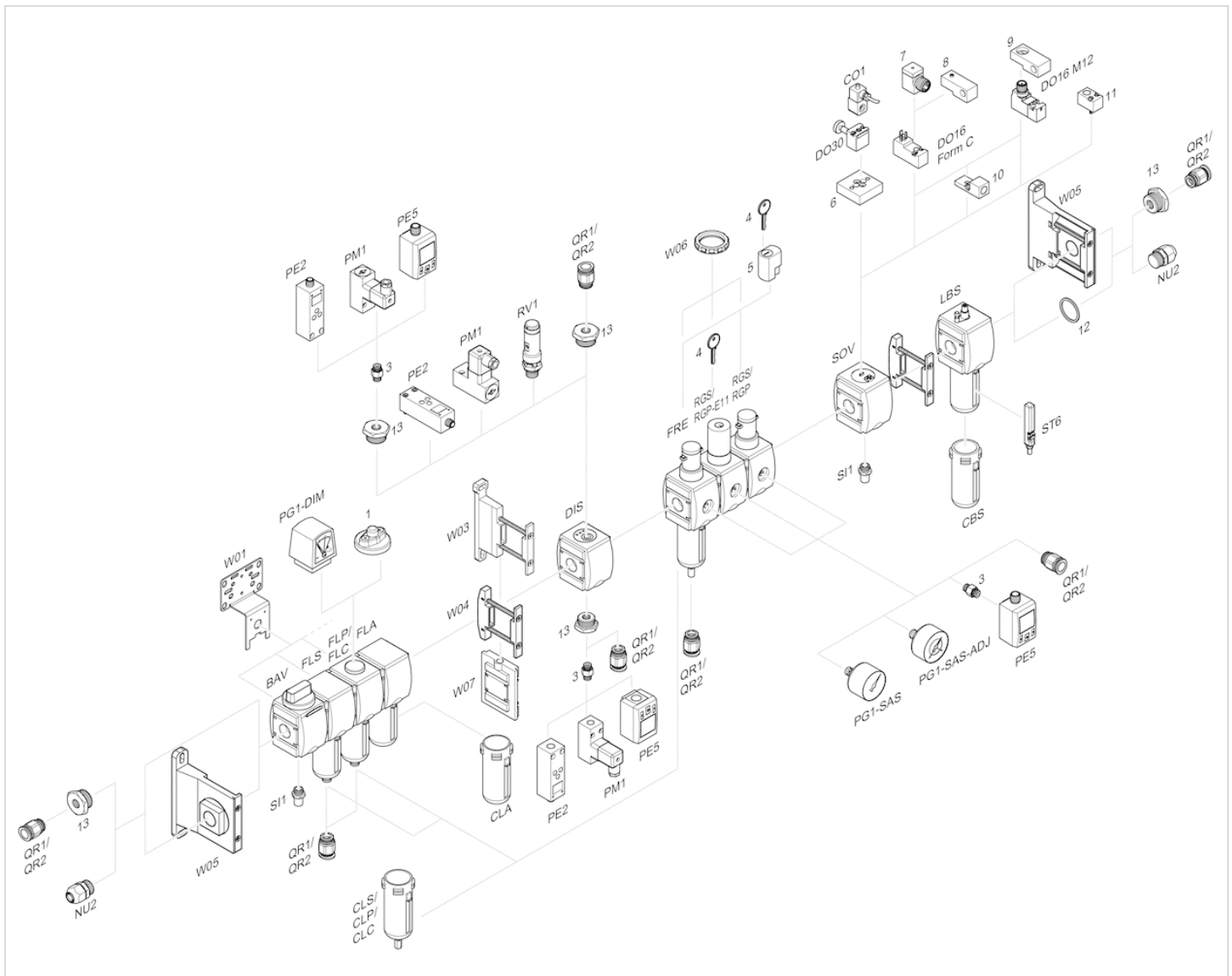
Diagrams

Flow rate characteristic



p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow

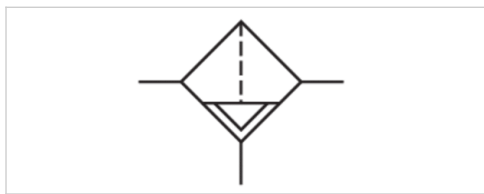
Accessories overview



- 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
- 13 = Reducing nipple

Microfilter, Series AS5-FLC

- G 3/4 G 1
- filter porosity 0.01 µm
- contamination display integrated



Version	Microfilter, Can be assembled into blocks
Parts	Microfilter
Mounting orientation	vertical
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	87 cm ³
Filter element	exchangeable
filter porosity	0.01 µm
Condensate drain	See table below
contamination display	integrated
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Working pressure min./max.
R412009054	G 3/4	1600 l/min	1.5 ... 16 bar
R412009060	G 3/4	1600 l/min	1.5 ... 16 bar
R412009055	G 3/4	1600 l/min	1.5 ... 16 bar
R412009056	G 3/4	1600 l/min	1.5 ... 16 bar
R412009061	G 3/4	1600 l/min	1.5 ... 16 bar
R412009062	G 3/4	1600 l/min	1.5 ... 16 bar
R412009063	G 1	1600 l/min	1.5 ... 16 bar
R412009069	G 1	1600 l/min	0 ... 16 bar
R412009064	G 1	1600 l/min	1.5 ... 16 bar
R412009065	G 1	1600 l/min	1.5 ... 16 bar
R412009070	G 1	1600 l/min	1.5 ... 16 bar
R412009071	G 1	1600 l/min	1.5 ... 16 bar

Part No.	Condensate drain
R412009054	semi-automatic, open without pressure
R412009060	semi-automatic, open without pressure
R412009055	fully automatic, open without pressure
R412009056	fully automatic, closed without pressure
R412009061	fully automatic, open without pressure
R412009062	fully automatic, closed without pressure

Part No.	Condensate drain
R412009063	semi-automatic, open without pressure
R412009069	semi-automatic, open without pressure
R412009064	fully automatic, open without pressure
R412009065	fully automatic, closed without pressure
R412009070	fully automatic, open without pressure
R412009071	fully automatic, closed without pressure

Part No.	Version	Weight
R412009054	reservoir, polycarbonate, with PA protective guard	0.361 kg
R412009060	-	1.55 kg
R412009055	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412009056	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412009061	-	1.58 kg
R412009062	-	1.57 kg
R412009063	reservoir, polycarbonate, with PA protective guard	0.361 kg
R412009069	-	1.48 kg
R412009064	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412009065	reservoir, polycarbonate, with PA protective guard	0.762 kg
R412009070	-	1.5 kg
R412009071	-	1.5 kg

Nominal flow Q_n with secondary pressure p₂ = 6 bar at Δp = 0.1 bar

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".

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.

Recommended pre-filtering 0.3 μm

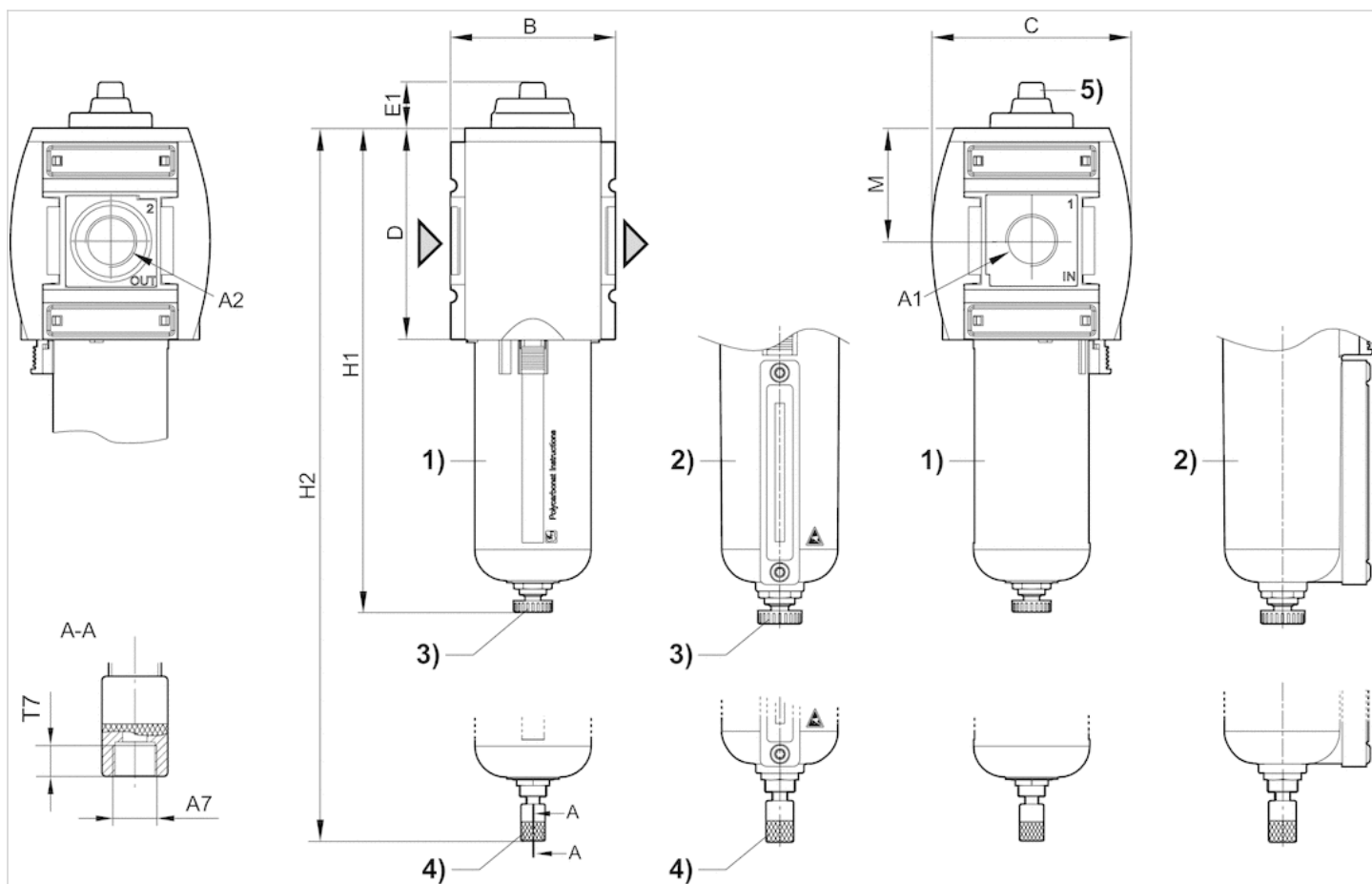
Max. achievable compressed air class acc. to ISO 8573-1:2010 1 : - : 2

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	Polyamide
Filter insert	Borosilicate glass fiber

Dimensions

Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Metal reservoir with level indicator

3) Semi-automatic condensate drain

4) Fully automatic condensate drain

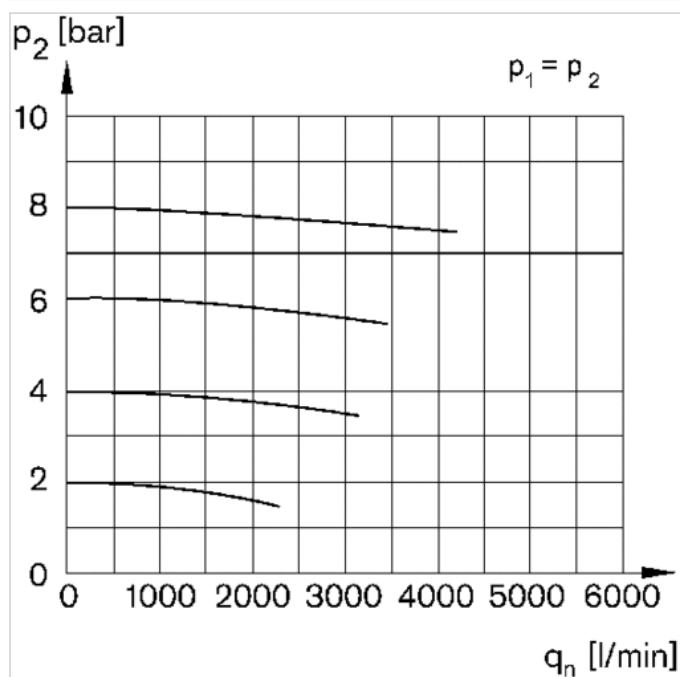
5) contamination display

Dimensions in mm

A1	A2	A7	B	C	D	E1	H1	H2	M	T7
G 3/4	G 3/4	G 1/8	85	103	109	23.7	250	--	58	8.5
G 3/4	G 3/4	--	85	103	109	23.7	--	266	58	--
G 1	G 1	G 1/8	85	103	109	23.7	250	--	58	8.5
G 1	G 1	--	85	103	109	23.7	--	266	58	--

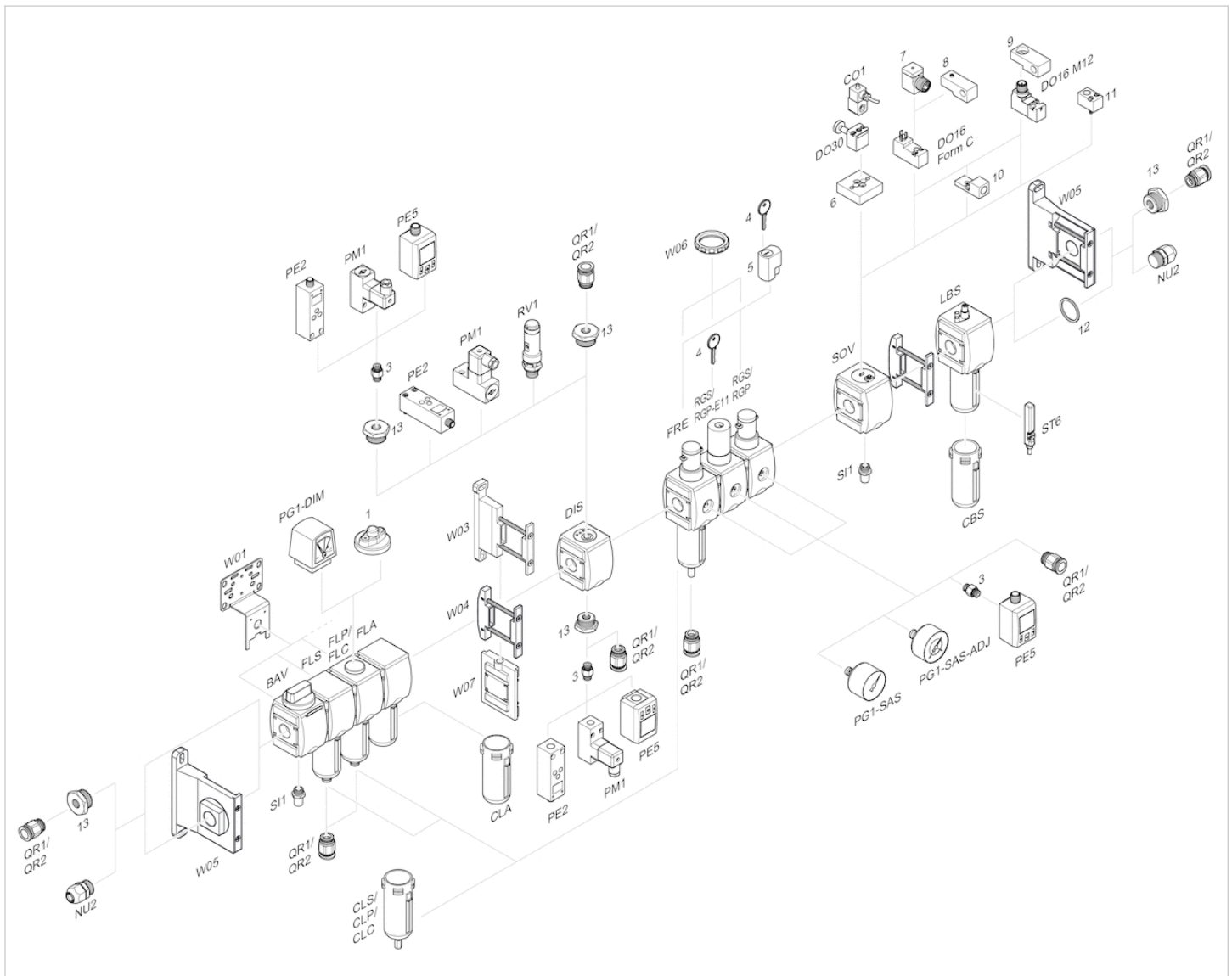
Diagrams

Flow rate characteristic



p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow

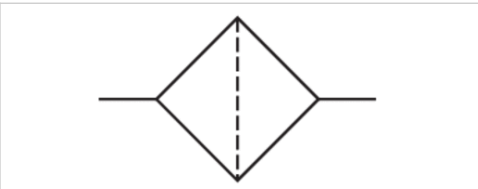
Accessories overview



- 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
- 13 = Reducing nipple

Active carbon filter, Series AS5-FLA

- G 3/4 G 1



Version	Active carbon filter, Can be assembled into blocks
Parts	Active carbon filter
Mounting orientation	vertical
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	87 cm³
Filter element	exchangeable
Condensate drain	without
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Version	Weight
R412009072	G 3/4	1700 l/min	reservoir, polycarbonate, with PA protective guard	0.71 kg
R412009074	G 3/4	1700 l/min	-	0.375 kg
R412009075	G 1	1700 l/min	reservoir, polycarbonate, with PA protective guard	0.71 kg
R412009077	G 1	1700 l/min	-	0.375 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 0.1 bar.

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".

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.

Recommended pre-filtering 0.01 μm

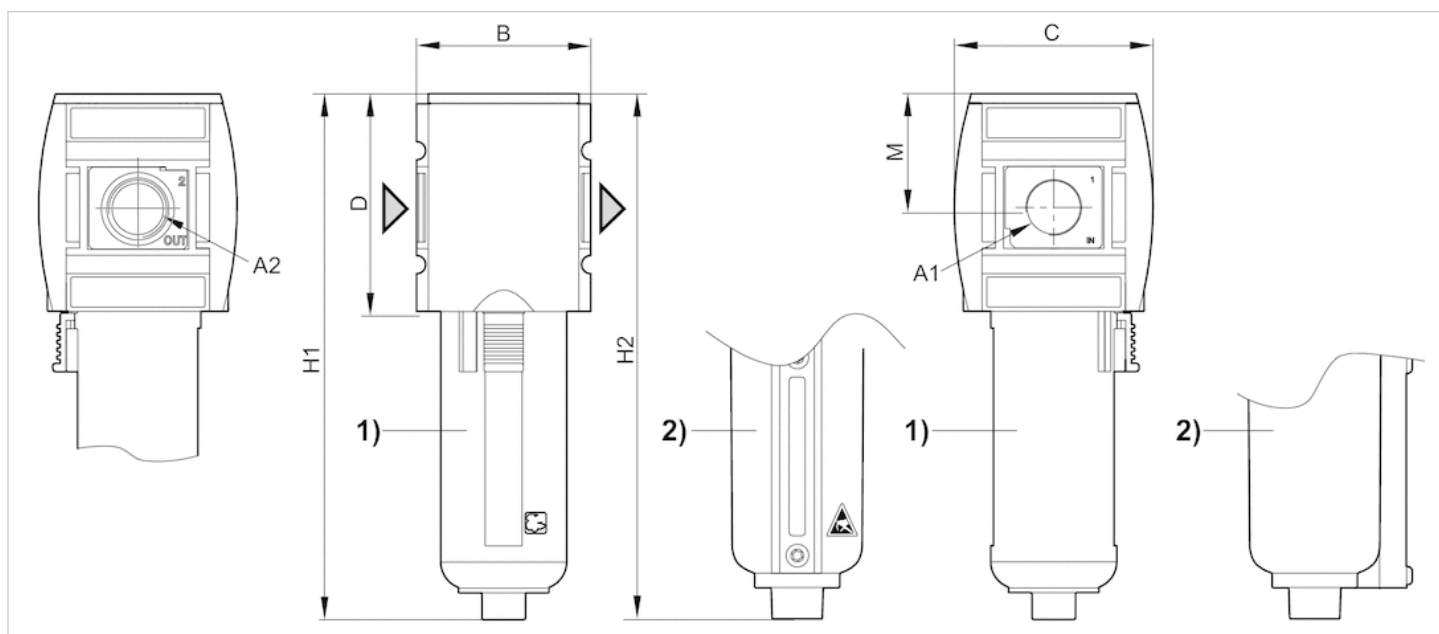
Max. achievable compressed air class acc. to ISO 8573-1:2010 - : - : 1

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	Polyamide
Filter insert	Active carbon

Dimensions

Dimensions



A1 = input

A2 = output

1) Plastic reservoir and protective guard with window

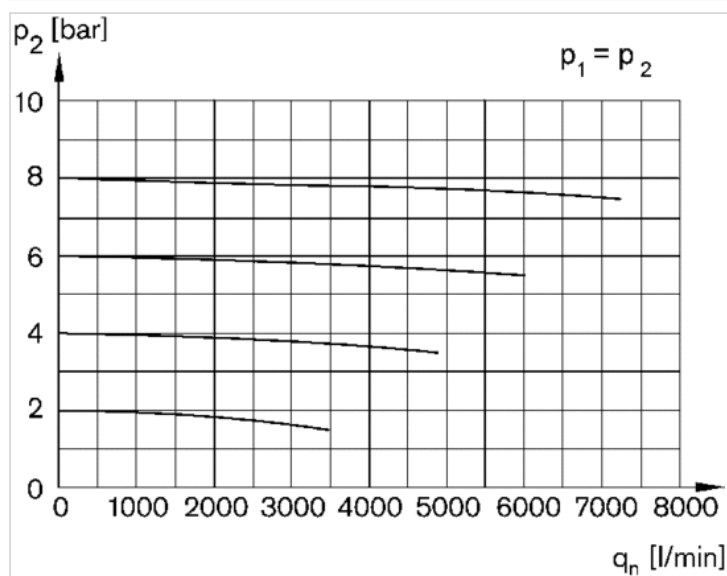
2) Metal reservoir with inspection glass

Dimensions in mm

A1	A2	B	C	D	H1	H2	M
G 3/4	G 3/4	85	103	109	242	246	58
G 1	G 1	85	103	109	242	246	58

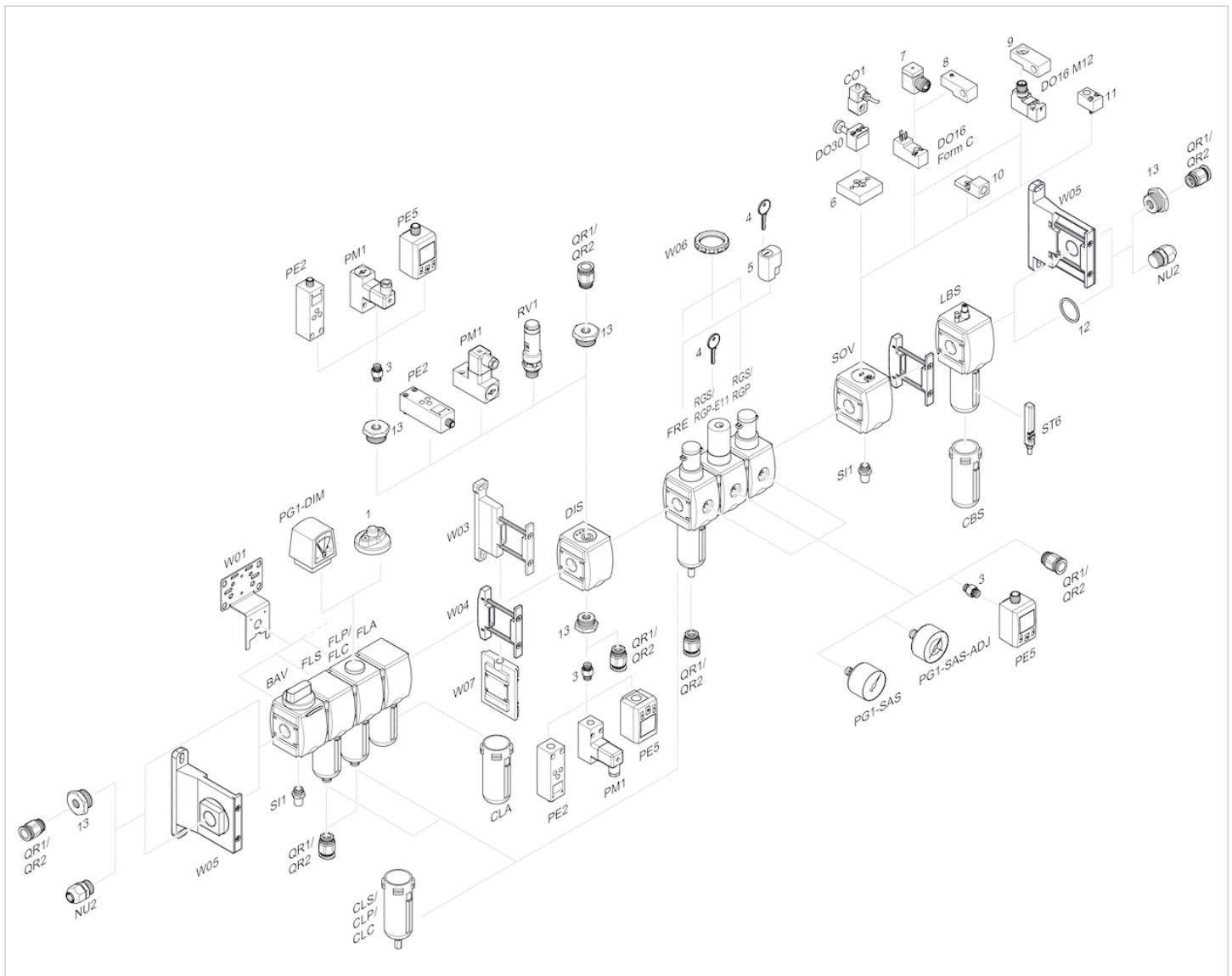
Diagrams

Flow rate characteristic



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

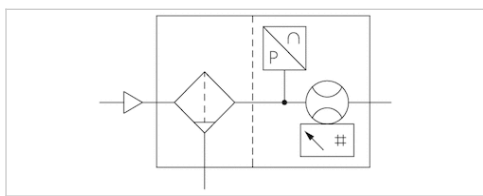
Accessories overview



- 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
- 13 = Reducing nipple

Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, With mounting
- Qn min. 22 l/min
- Qn max. 6490 l/min
- Electrical connection Plug, M12x1, 5-pin



Certificates

Working pressure min./max.
Ambient temperature min./max.
Medium temperature min./max.
Medium

filter porosity
Display
Flow display unit
Pressure display unit
Temperature display unit
DC operating voltage min.
DC operating voltage max.
Max. power consumption *)
Response time
Protection class
Short circuit resistance
Shock resistance max.
Vibration resistance
Reproducibility
Weight
*)

CE declaration of conformity RoHS UL
(Underwriters Laboratories)

0 ... 16 bar
-20 ... 60 °C
-20 ... 60 °C
Compressed air Argon Nitrogen Helium
Carbon dioxide
5 µm
OLED
l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
bar, psi
°C, °F
17 V DC
30 V DC
175 mA
10 ms
IP65, IP67 according to IEC 60529
short circuit resistant
30 g, 11 ms
1 g (10 - 2000 Hz) IEC 60068 - 2-6
± 1.5% of the measured value
2.82 kg
Current consumption without load

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412026836	AS5	G 1	22 l/min	4326 l/min	4326 l/min

Part No.	Nominal flow Qn
	Max., extended
R412026836	6490 l/min

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 12980 l/min

Technical information

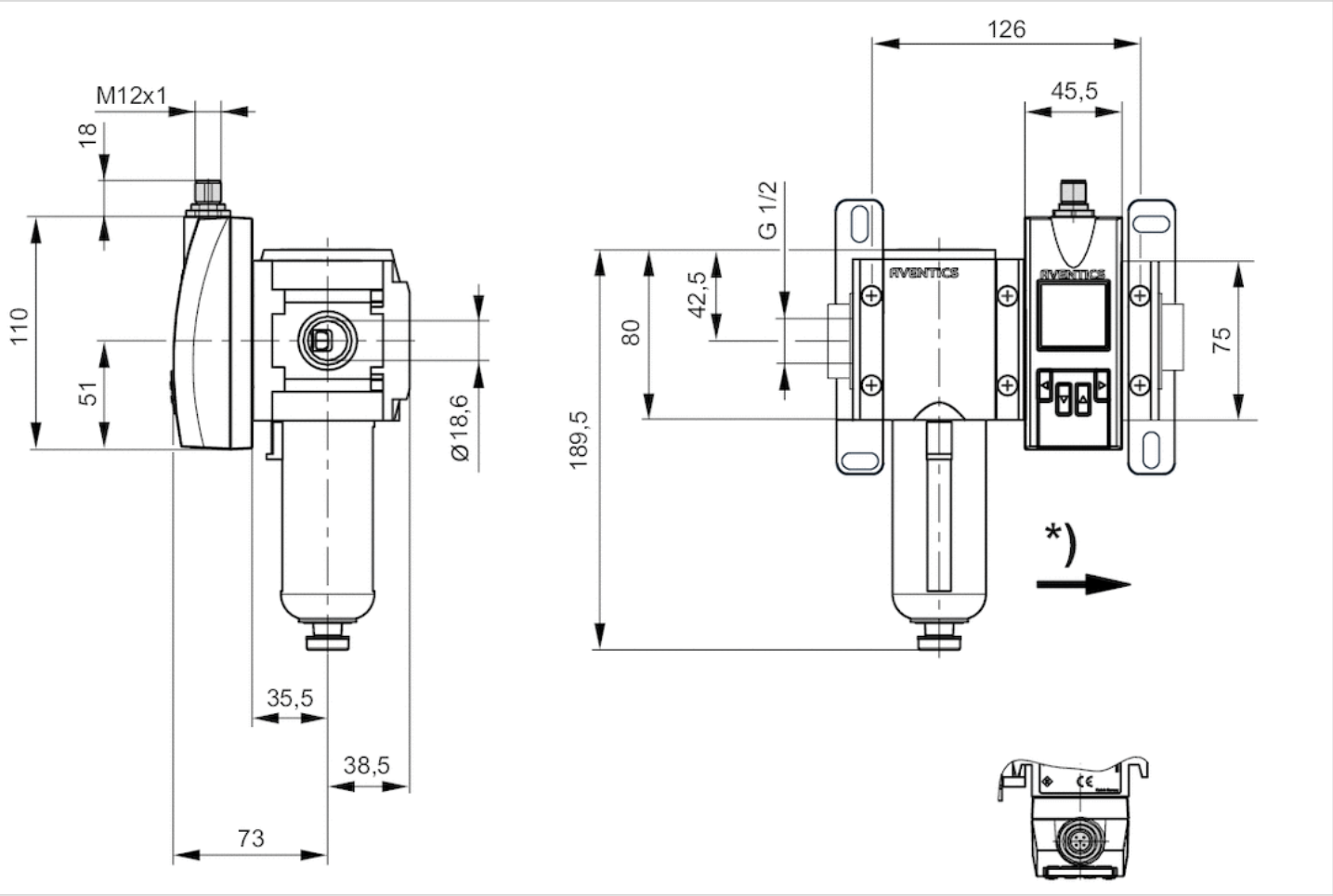
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

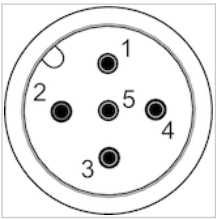
Dimensions in mm



* Flow direction

Pin assignments

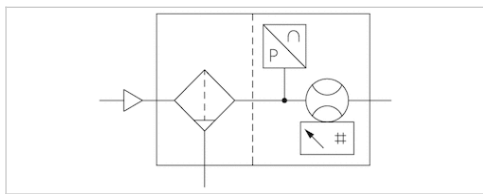
Pin assignments, M12x1, 5-pin



Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass
	4	5	
	C/Q1 (IO-Link/switch output)	Analog output 4 ... 20 mA	

Flow sensor, Ethernet, Series AF2

- Ethernet, With mounting
- Qn min. 22 l/min
- Qn max. 6490 l/min
- Electrical connection Plug, M12x1, 8-pin



Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

filter porosity

Display

Flow display unit

Pressure display unit

Temperature display unit

DC operating voltage max.

Power consumption max.

Response time

Protection class

Shock resistance max.

Vibration resistance

Reproducibility

Weight

CE declaration of conformity RoHS UL
(Underwriters Laboratories)

0 ... 16 bar

-20 ... 60 °C

-20 ... 60 °C

Compressed air Argon Nitrogen Helium
Carbon dioxide

5 µm

OLED

l/sec, l/min, m³/min, m³/h, ft³/s, m³/min

bar, psi

°C, °F

45 V DC

12 W

10 ms

IP65, IP67 according to IEC 60529

30 g, 11 ms

1 g (10 - 2000 Hz) IEC 60068 - 2-6

± 1.5% of the measured value

2.82 kg

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412026839	AS5	G 1	22 l/min	4326 l/min	4326 l/min

Part No.	Nominal flow Qn
	Max., extended
R412026839	6490 l/min

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 12980 l/min

Technical information

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

The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.

The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.

Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.

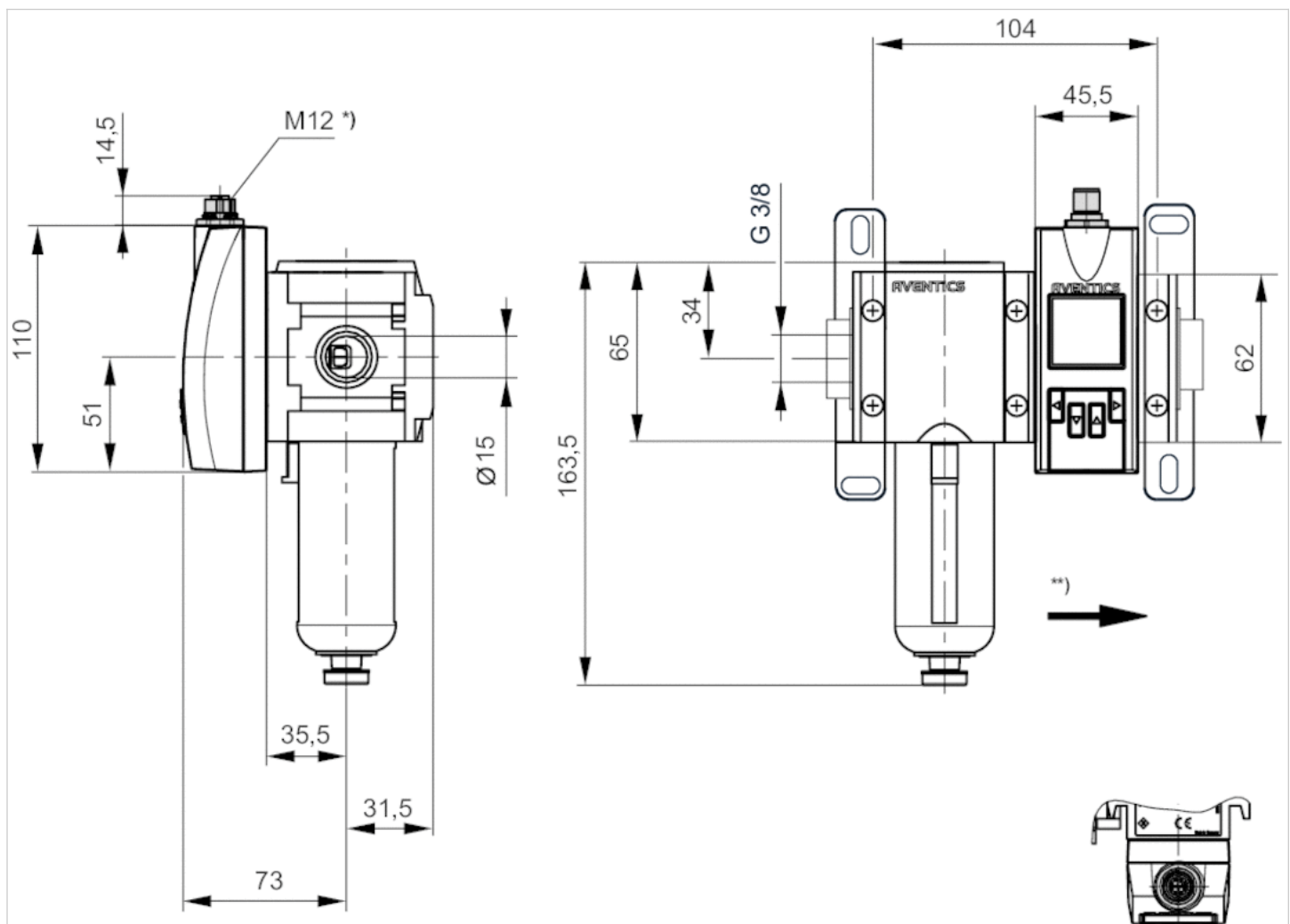
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

Dimensions in mm

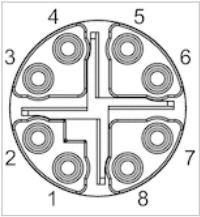


* Internal thread

** Flow direction

Pin assignments

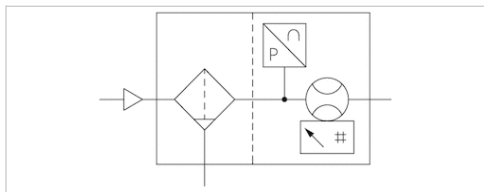
Pin assignments, M12, X-coded



Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-
6							
BN							
POE-							

Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, Without mounting
- Qn min. 22 l/min
- Qn max. 6490 l/min
- Electrical connection Plug, M12x1, 5-pin



Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

filter porosity

Display

Flow display unit

Pressure display unit

Temperature display unit

DC operating voltage min.

DC operating voltage max.

Max. power consumption *)

Response time

Protection class

Short circuit resistance

Shock resistance max.

Vibration resistance

Reproducibility

Weight

*)

CE declaration of conformity RoHS UL
(Underwriters Laboratories)

0 ... 16 bar

-20 ... 60 °C

-20 ... 60 °C

Compressed air Argon Nitrogen Helium
Carbon dioxide

5 µm

OLED

l/sec, l/min, m³/min, m³/h, ft³/s, m³/min

bar, psi

°C, °F

17 V DC

30 V DC

175 mA

10 ms

IP65, IP67 according to IEC 60529

short circuit resistant

30 g, 11 ms

1 g (10 - 2000 Hz) IEC 60068 - 2-6

± 1.5% of the measured value

2.3 kg

Current consumption without load

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412027178	AS5	G 1	22 l/min	4326 l/min	4326 l/min

Part No.	Nominal flow Qn
	Max., extended
R412027178	6490 l/min

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 12980 l/min

Technical information

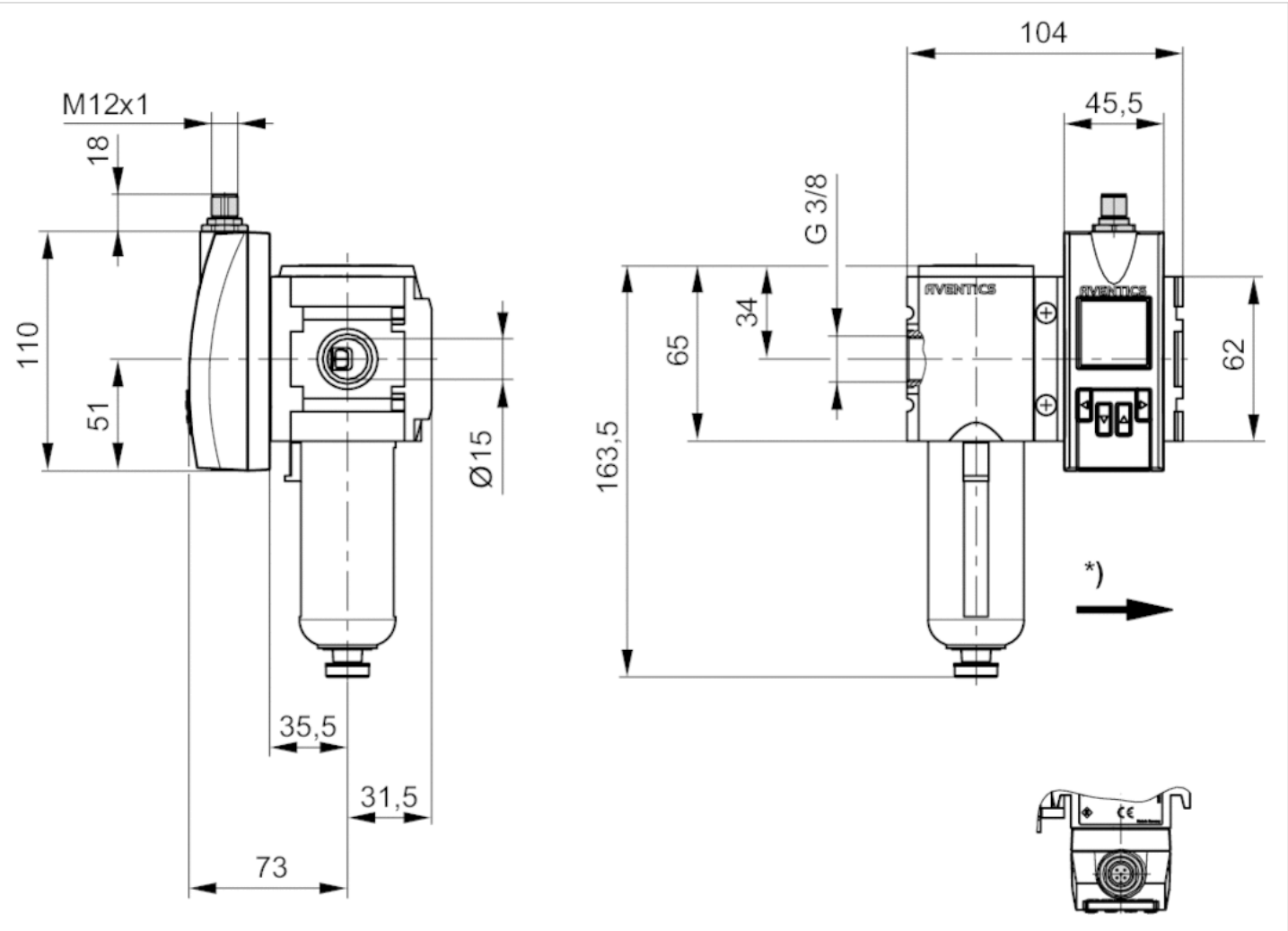
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

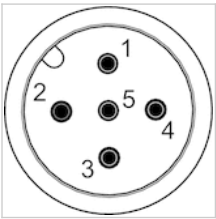
Dimensions in mm



* Flow direction

Pin assignments

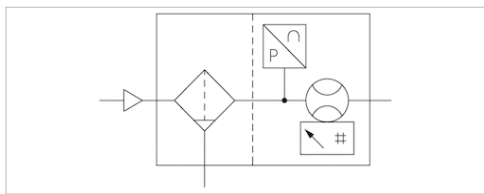
Pin assignments, M12x1, 5-pin



Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass
4		5	
C/Q1 (IO-Link/switch output)		Analog output 4 ... 20 mA	

Flow sensor, Ethernet, Series AF2

- Ethernet, Without mounting
- Qn min. 22 l/min
- Qn max. 6490 l/min
- Electrical connection Plug, M12x1, 8-pin



Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

filter porosity

Display

Flow display unit

Pressure display unit

Temperature display unit

DC operating voltage max.

Power consumption max.

Response time

Protection class

Shock resistance max.

Vibration resistance

Reproducibility

Weight

CE declaration of conformity RoHS UL
(Underwriters Laboratories)

0 ... 16 bar

-20 ... 60 °C

-20 ... 60 °C

Compressed air Argon Nitrogen Helium
Carbon dioxide

5 µm

OLED

l/sec, l/min, m³/min, m³/h, ft³/s, m³/min

bar, psi

°C, °F

45 V DC

12 W

10 ms

IP65, IP67 according to IEC 60529

30 g, 11 ms

1 g (10 - 2000 Hz) IEC 60068 - 2-6

± 1.5% of the measured value

2.3 kg

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412027181	AS5	G 1	22 l/min	4326 l/min	4326 l/min

Part No.	Nominal flow Qn
	Max., extended
R412027181	6490 l/min

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 12980 l/min

Technical information

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

The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.

The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.

Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.

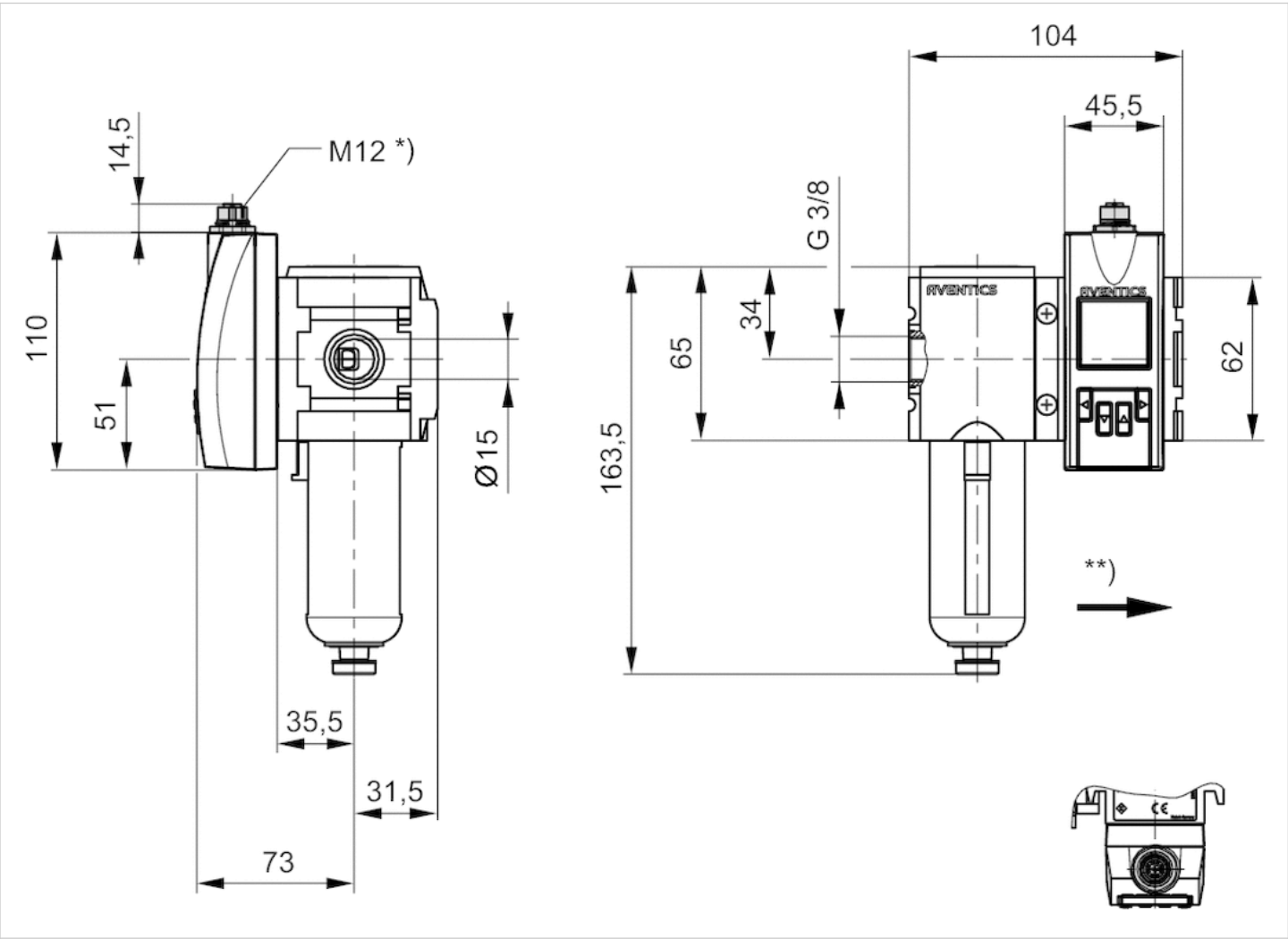
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

Dimensions in mm

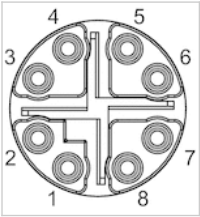


* Internal thread

** Flow direction

Pin assignments

Pin assignments, M12, X-coded



Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-
6							
BN							
POE-							

Standard oil-mist lubricator, Series AS5-LBS

- G 3/4 G 1



Version

Parts

Mounting orientation

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Lubricator reservoir volume

Type of filling

Weight

Oil-mist lubricator, Can be assembled into blocks

Standard oil-mist lubricator

vertical

0.5 ... 16 bar

-10 ... 50 °C

-10 ... 50 °C

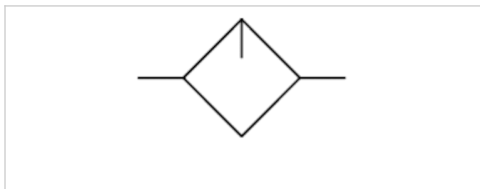
Compressed air Neutral gases

181 cm³

Semi-automatic oil filling during operation

Manual oil filling

See table below



Technical data

Part No.	Port	Nominal flow Q _n	Material Reservoir	Protective guard
R412009225	G 3/4	15800 l/min	Polycarbonate	Polyamide
R412009229	G 3/4	15800 l/min	Die cast zinc with window	-
R412009226	G 3/4	15800 l/min	Polycarbonate	Polyamide
R412009231	G 1	15800 l/min	Polycarbonate	Polyamide
R412009235	G 1	15800 l/min	Die cast zinc with window	-
R412009232	G 1	15800 l/min	Polycarbonate	Polyamide

Part No.	Reservoir	Weight	
R412009225	reservoir, PA, with PA protective guard	0.76 kg	
R412009229	reservoir, metal, standard, with inspection glass	0.762 kg	
R412009226	reservoir, PA, with PA protective guard	0.77 kg	1)
R412009231	reservoir, PA, with PA protective guard	0.76 kg	
R412009235	reservoir, metal, standard, with inspection glass	0.762 kg	
R412009232	reservoir, PA, with PA protective guard	0.77 kg	1)

Nominal flow Q_n with secondary pressure p₂ = 6 bar at Δp = 1 bar

1) Electrical level detection

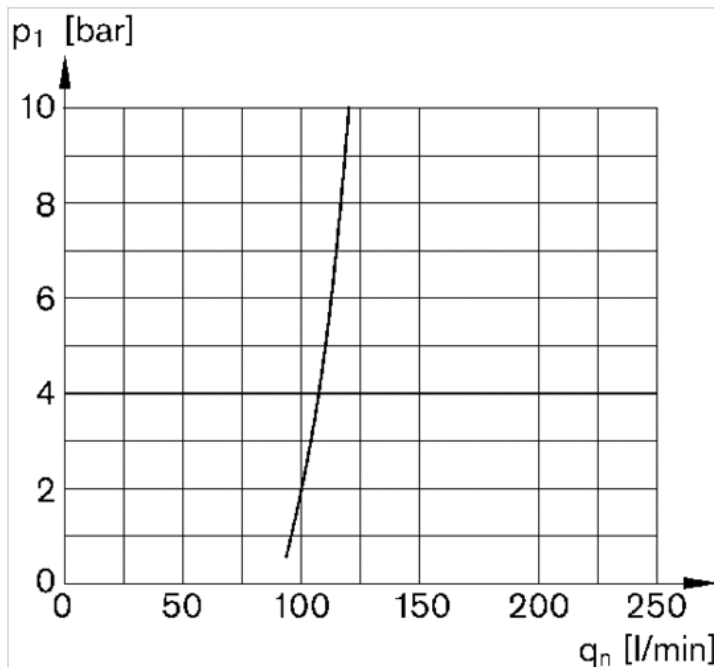
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with inspection glass
- 3) Holder for sensor
- 4) Port for semi-automatic oil filling

Dimensions in mm

A1	A2	A7	A8	B	C	D	E1	H1	H2	M	T7
G 3/4	G 3/4	G 1/8	G 1/4	85	103	109	30.5	239	243	58	8.5
G 1	G 1	G 1/8	G 1/4	85	103	109	30.5	239	243	58	8.5

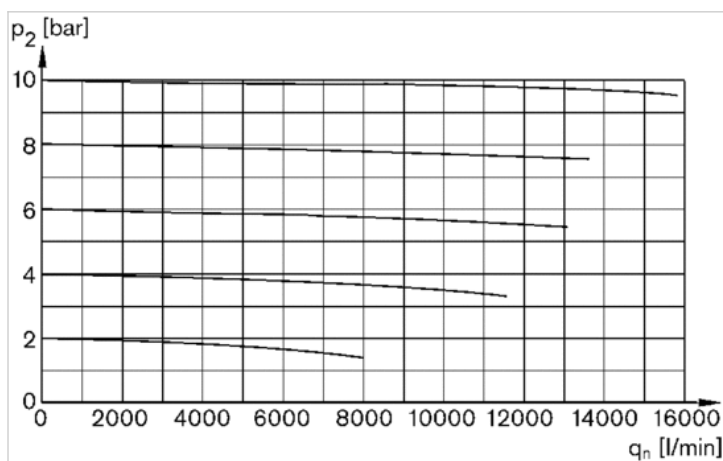
Diagrams

Lubricator activation margin



p_1 = working pressure
 q_n = nominal flow

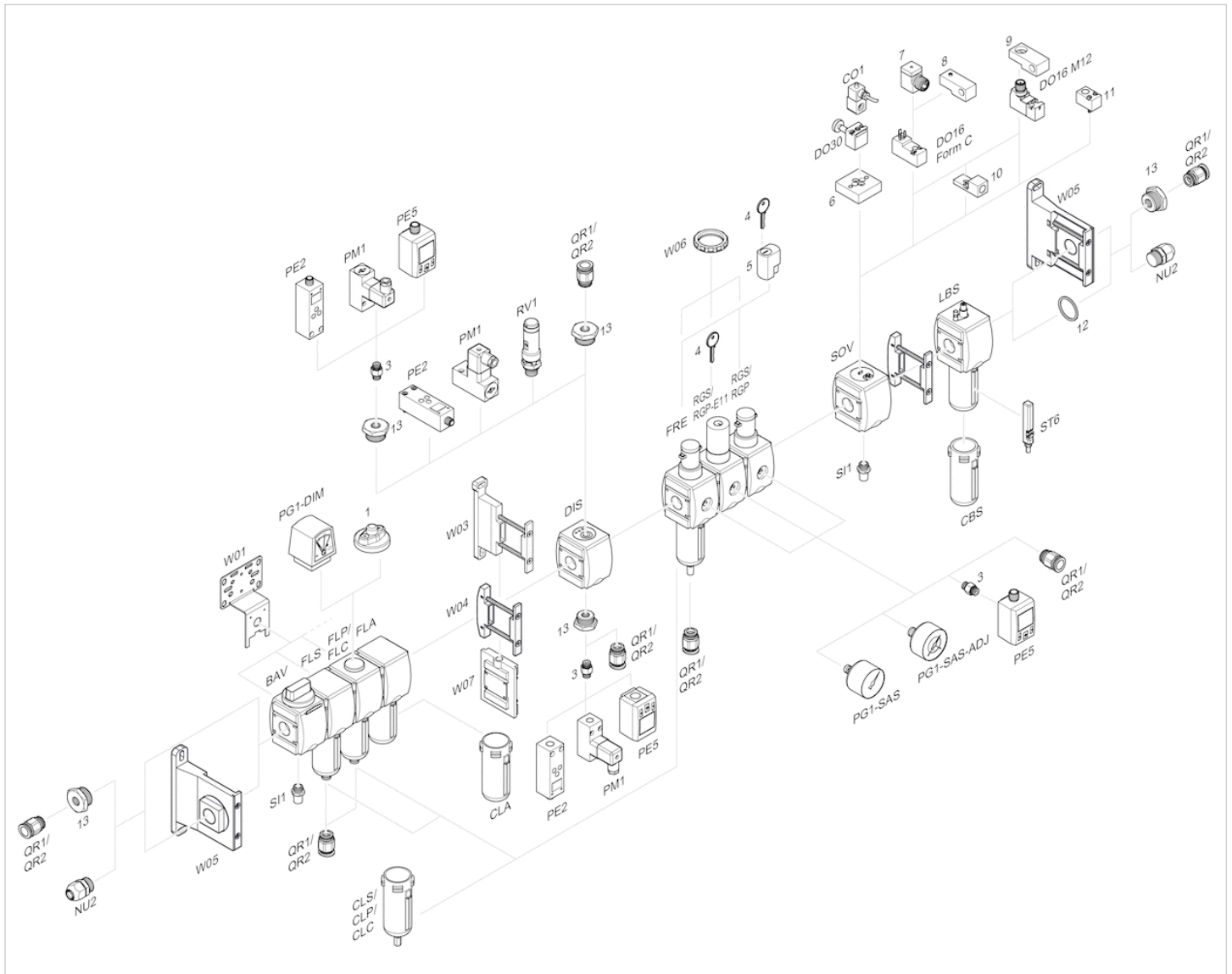
Flow rate characteristic



p_2 = secondary pressure

qn = nominal flow

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
- 13 = Reducing nipple

Filling unit, electrically operated, Series AS5-SSU

- adjustable filling time
- Compressed air connection G 3/4 G 1
- Pipe connection



Version	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow	8750 l/min
Nominal flow 1 ► 2	8750 l/min
Nominal flow 2 ► 3	3700 l/min
Working pressure min./max.	2.5 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Pilot	Internal
Sealing principle	Soft sealing
Max. particle size	25 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Protection class acc. to DIN EN 61140 Without valve plug connector	See table below
Duty cycle	100 %
Weight	See table below

Technical data

Part No.			Compressed air connection input	Compressed air connection output	Exhaust
R412009277		—	G 3/4	G 3/4	G 1/2
R412009282		—	G 1	G 1	G 1/2
R412009287		—	G 1	G 1	G 1/2
R412009278			G 3/4	G 3/4	G 1/2
R412009280			G 3/4	G 3/4	G 1/2
R412009378			G 1	G 1	G 1/2
R412009283			G 1	G 1	G 1/2
R412009285			G 1	G 1	G 1/2

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412009277	-	-	-
R412009282	-	-	-
R412009287	-	-	-
R412009278	24 V	-	-
R412009280	-	220 V	230 V
R412009378	24 V	-	-
R412009283	24 V	-	-
R412009285	-	220 V	230 V

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
R412009277	-	-	-	-
R412009282	-	-	-	-
R412009287	-	-	-	-
R412009278	2 W	-	-	-
R412009280	-	1.6 VA	1.4 VA	2.2 VA
R412009378	2 W	-	-	-
R412009283	2 W	-	-	-
R412009285	-	1.6 VA	1.4 VA	2.2 VA

Part No.	Switch-on power	Electrical connection	Connector standard
	AC 60 Hz	Pilot valve	
R412009277	-	-	-
R412009282	-	-	-
R412009287	-	-	-
R412009278	-	Plug, EN 175301-803, form C	ISO 15217
R412009280	1.6 VA	Plug, EN 175301-803, form C	ISO 15217
R412009378	-	Plug, M12x1	-
R412009283	-	Plug, EN 175301-803, form C	ISO 15217
R412009285	1.6 VA	Plug, EN 175301-803, form C	ISO 15217

Part No.	basic valve with electrical connector
R412009277	Basic valve without pilot valve
R412009282	Basic valve without pilot valve

Part No.	basic valve with electrical connector
R412009287	Basic valve without pilot valve, with CNOMO subbase
R412009278	Basic valve with pilot valve
R412009280	Basic valve with pilot valve
R412009378	Basic valve with pilot valve
R412009283	Basic valve with pilot valve
R412009285	Basic valve with pilot valve

Part No.	Reverse polarity protection	Weight	Fig.	
R412009277	-	0.889 kg	Fig. 1	
R412009282	-	0.889 kg	Fig. 1	
R412009287	-	0.895 kg	Fig. 2	
R412009278	Protected against polarity reversal	0.924 kg	Fig. 3	
R412009280	Protected against polarity reversal	0.924 kg	Fig. 3	
R412009378	-	0.9 kg	Fig. 4	1)
R412009283	Protected against polarity reversal	0.924 kg	Fig. 3	
R412009285	Protected against polarity reversal	0.924 kg	Fig. 3	

Nominal flow Q_n with secondary pressure $p_2 = 6$ bar at $\Delta p = 1$ bar

1) With adjustment screw lock

Technical information

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

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.

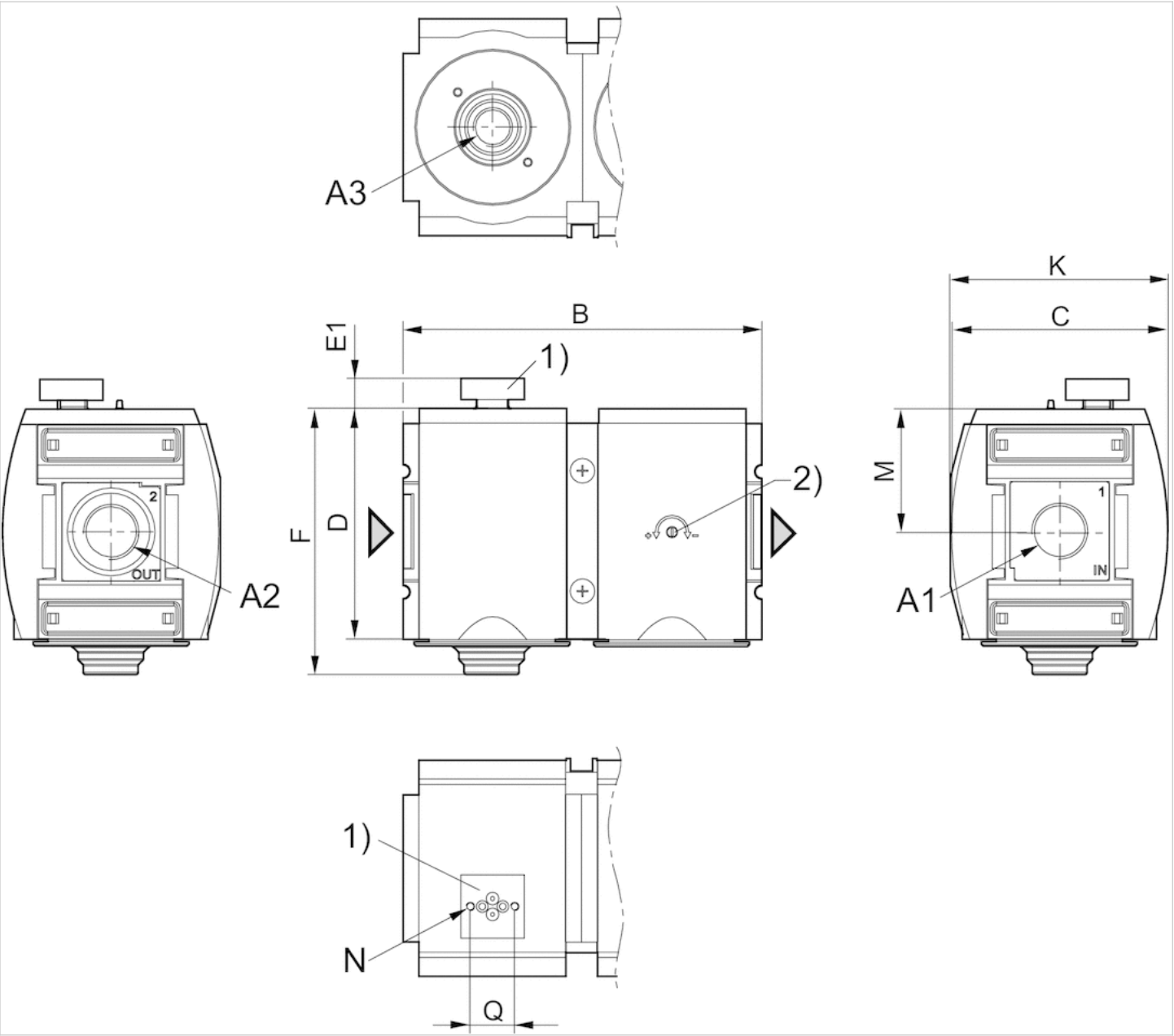
The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Fig. 2: Filling unit with transition plate for pilot valve series DO30



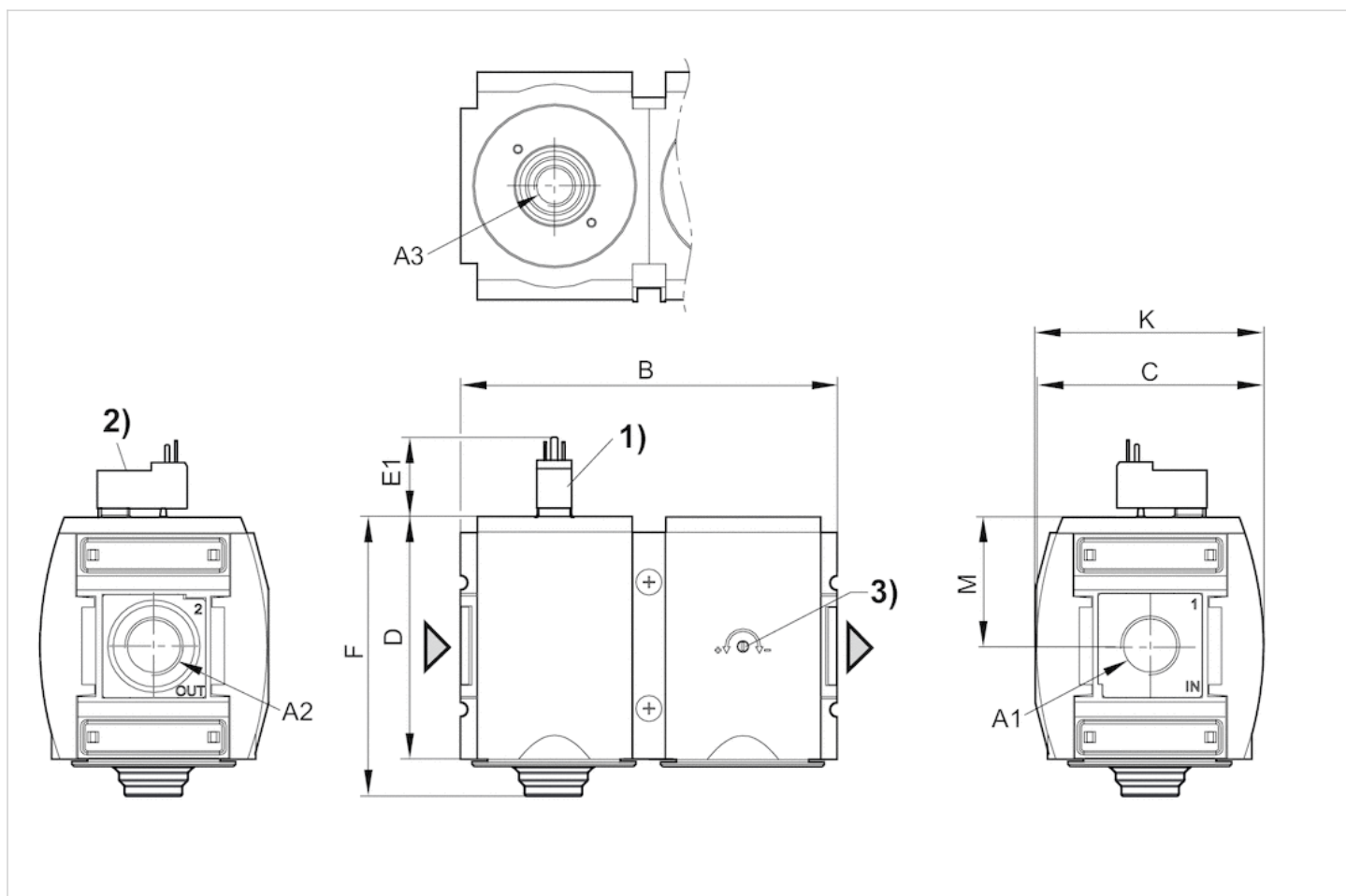
- A1 = input
A2 = output
A3 = ventilation port
1) Transition plate with CNOMO porting configuration for pilot valve DO30
2) Adjustment screw for filling time

Dimensions in mm

A1	A2	A3	B	C	D	E1	F	K	M	N	Q
G 1	G 1	G 1/2	170	103	109	14.2	125	103.5	58	M4	21

Dimensions

Fig. 3: Filling unit with pilot valve and port for electrical connector form C



A1 = input

A2 = output

A3 = ventilation port

1) Connection for valve plug connector according to ISO 15217 (form C)

2) Manual override

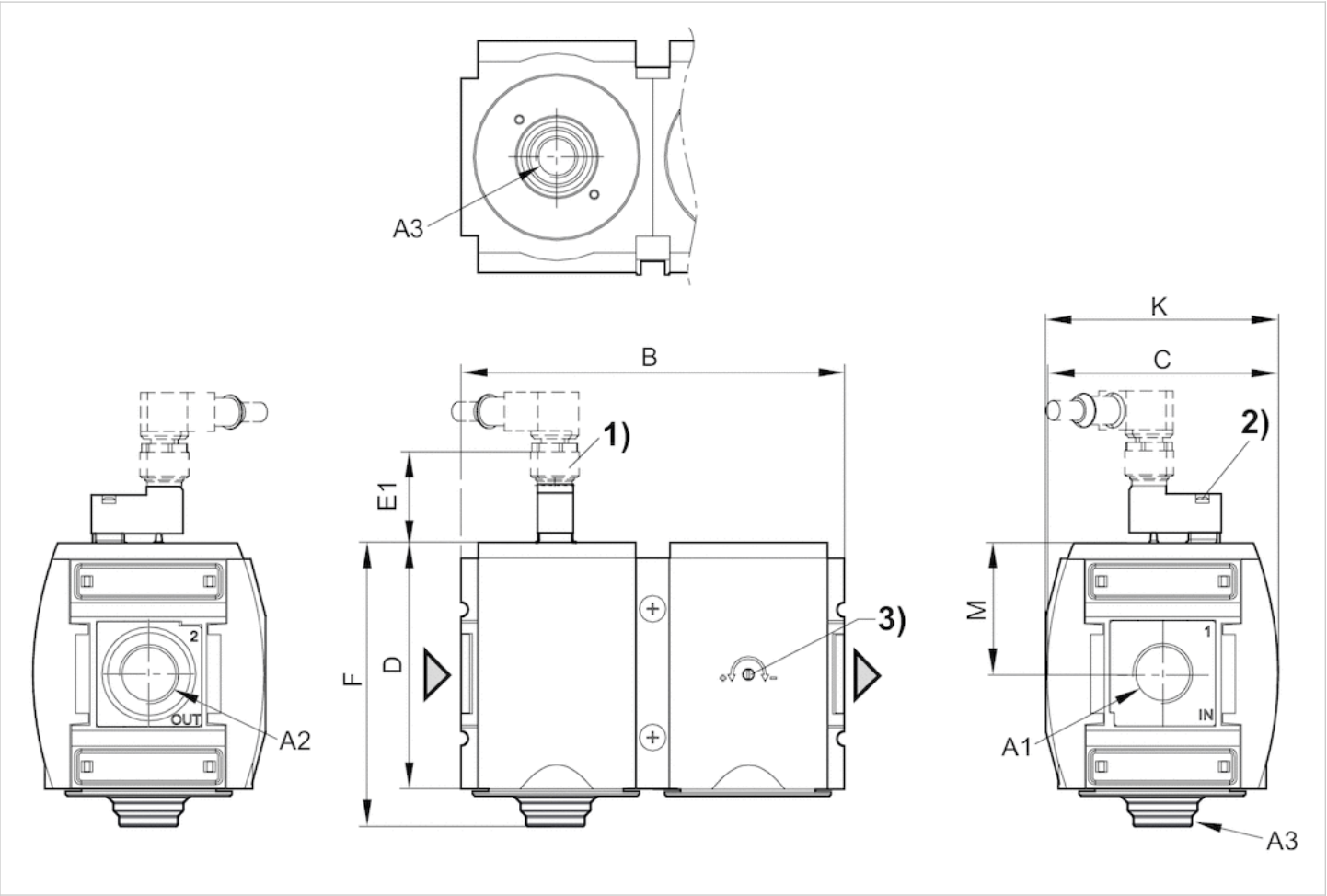
3) Adjustment screw for filling time

Dimensions in mm

A1	A2	A3	B	C	D	E1	F	K	M
G 3/4	G 3/4	G 1/2	170	103	109	25.1	125	103.5	58
G 1	G 1	G 1/2	170	103	109	25.1	125	103.5	58

Dimensions

Fig. 4: Filling unit with pilot valve, push-in fitting M12x1



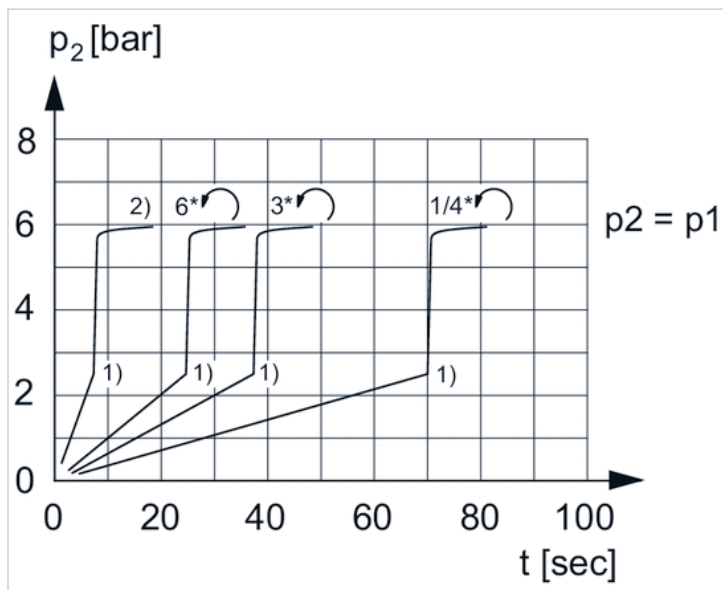
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) plug M12
- 2) Manual override
- 3) Adjustment screw for filling time

Dimensions in mm

A1	A2	A3	B	C	D	E1	F	M
G 1	G 1	G 1/2	170	103	109	39	125	58

Diagrams

Secondary pressure while filling



p_1 = working pressure

p_2 = secondary pressure

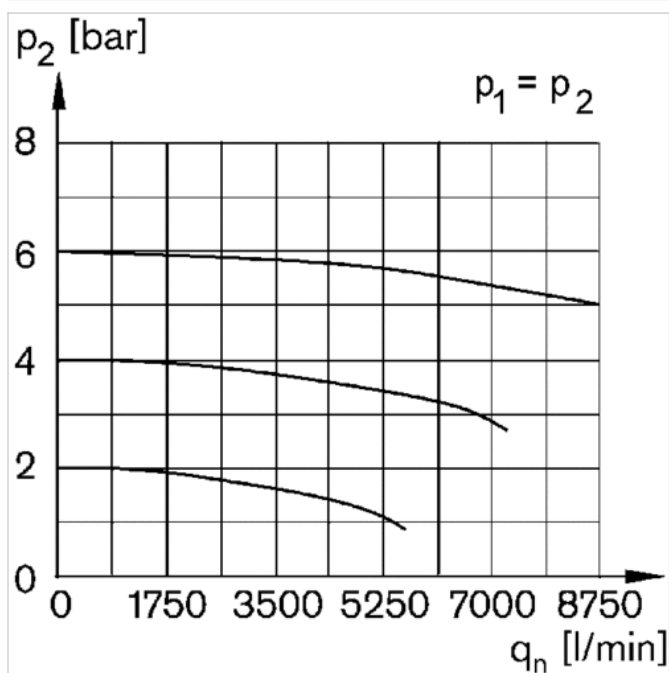
t = filling time, adjustable via adjustment screw (throttle)

1) Switching point: adjustable filling time, fixed change-over pressure $\approx 0.5 \times p_1$ (50%)

2) Throttle fully opened

* Adjustment screw rotations

Flow rate characteristic

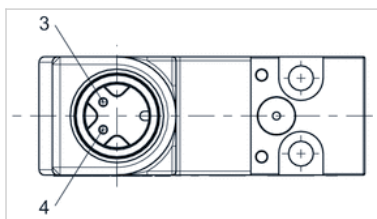


p_1 = Working pressure

p_2 = Secondary pressure

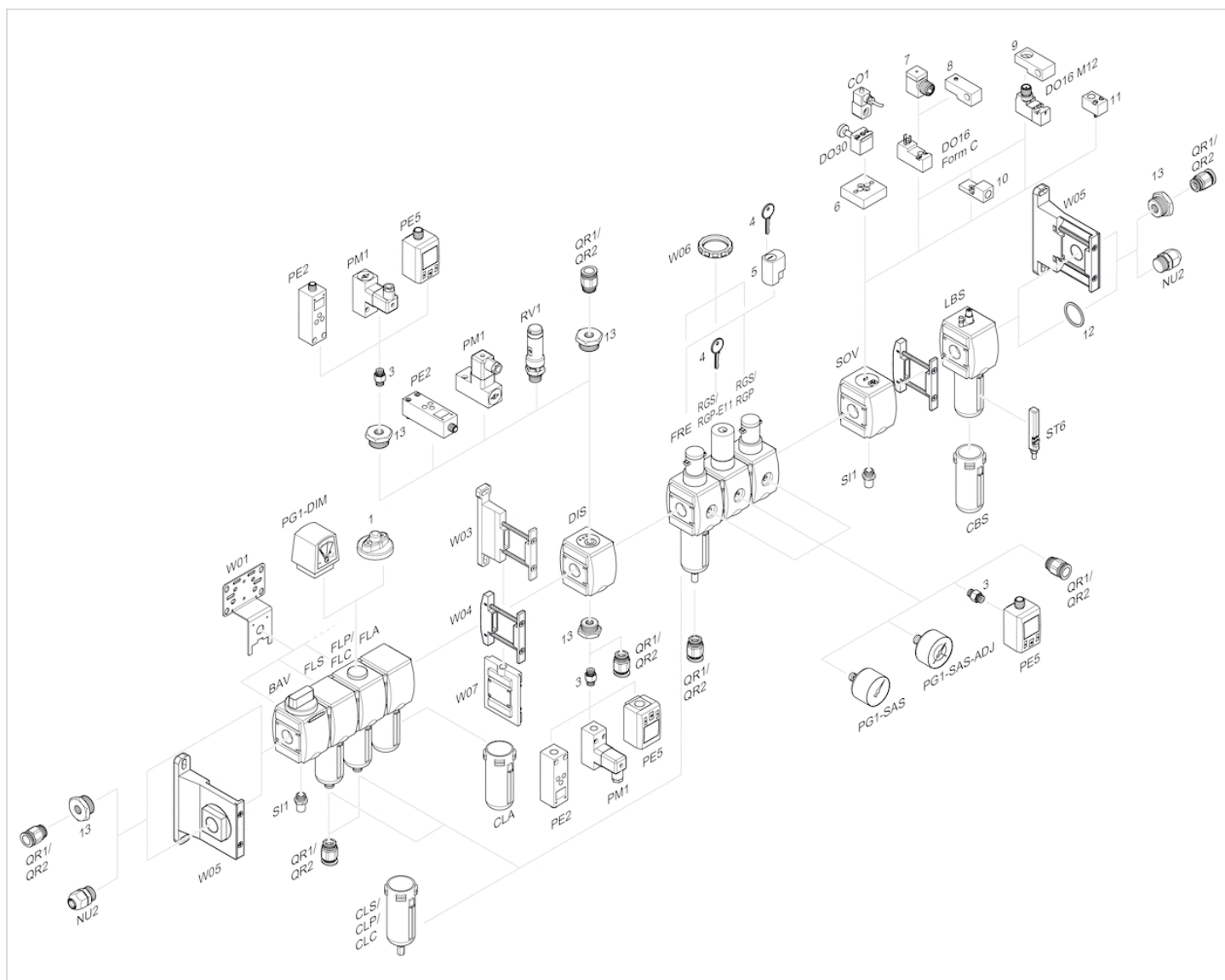
q_n = Nominal flow

Pin assignment M12x1



4: +/-

Accessories overview

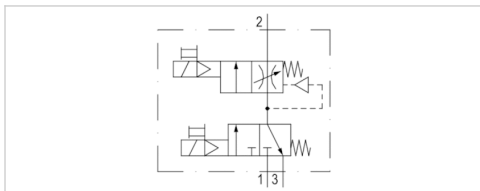


- 1 = contamination display
3 = Double nipple
4 = Key for E11 locking
5 = mortise lock

- 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
- 13 = Reducing nipple

Filling unit, electrically operated, Series AS5-SSU

- With electrical priority circuit, adjustable filling time., Increased flow rate 2►3
- Compressed air connection G 1
- Pipe connection
- Electrical connection: Plug, M12x1



Version	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow	8750 l/min
Nominal flow 1 ► 2	8750 l/min
Nominal flow 2 ► 3	3700 l/min
Working pressure min./max.	2.5 ... 9 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Pilot	Internal
Sealing principle	Soft sealing
Max. particle size	25 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	0.924 kg

Technical data

Part No.		Compressed air connection input	Compressed air connection output	Exhaust
R412009381		G 1	G 1	G 1/2

Part No.	Operational voltage	Power consumption	Electrical connection
	DC	DC	Pilot valve
R412009381	24 V	2 W	Plug, M12x1

Nominal flow Q_n with secondary pressure p₂ = 6 bar at Δp = 1 bar, MO = Manual override

Technical information

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

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.

For unthrottled operation, the filling valve must be permanently electrically actuated.

Actuating the electric priority circuit disrupts the slow pressure build-up and pressure p₁ is immediately applied.

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.

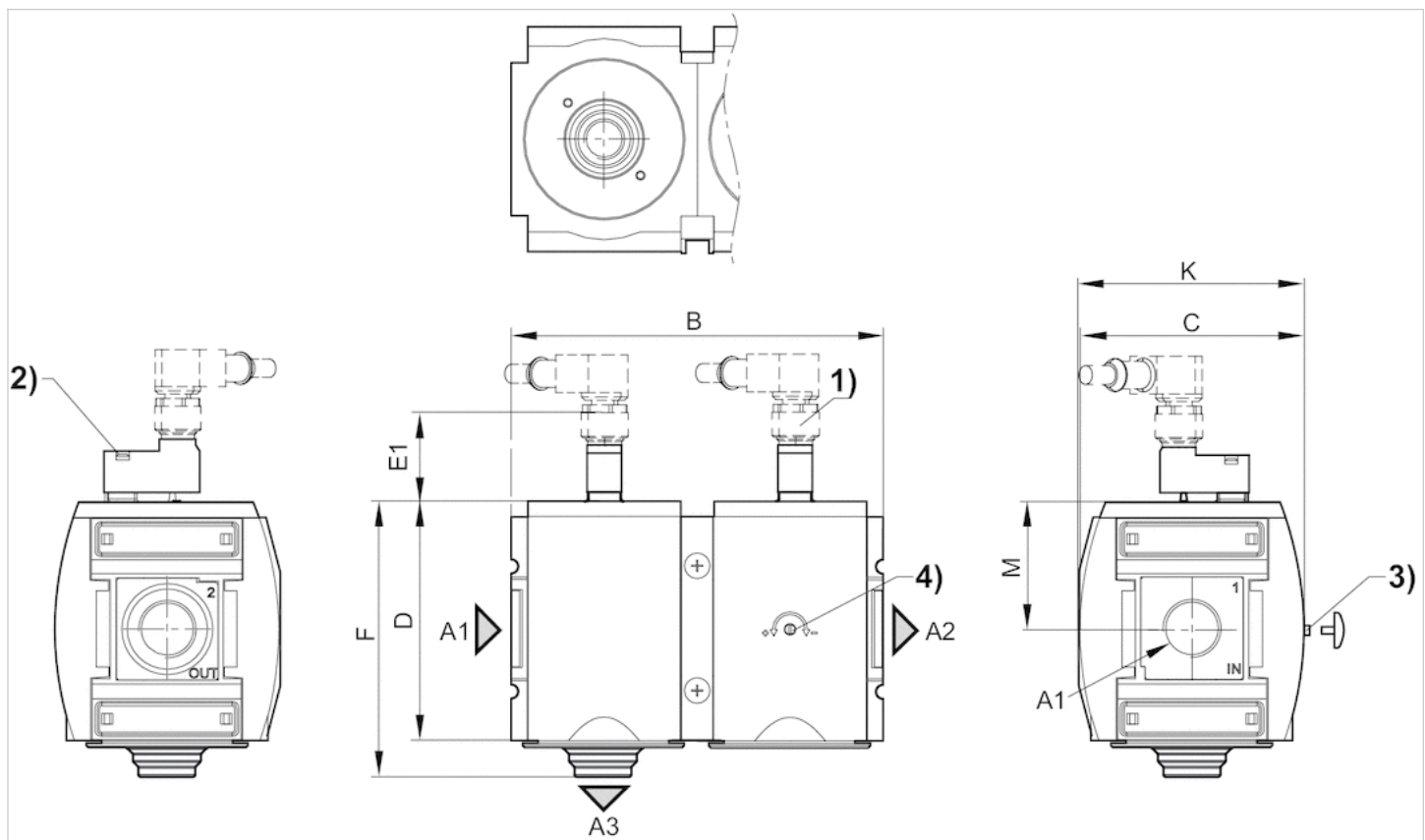
Rear exhaust flow rate 2►3 substantially increased.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



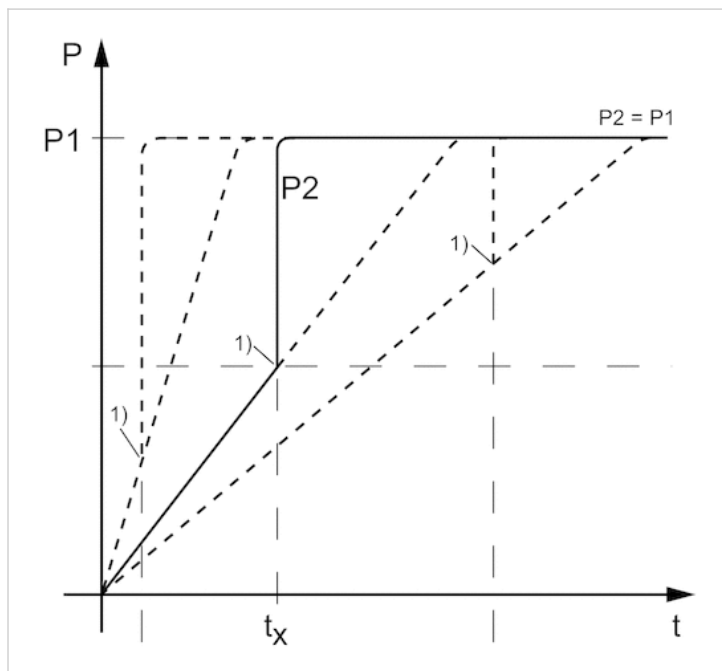
- A1 = input
 A2 = output
 A3 = ventilation port
 1) plug M12
 2) Manual override
 3) Adjustment screw lock
 4) Adjustment screw for filling time

Dimensions in mm

A1	A2	A3	B	C	D	E1	F	K	M
G 1	G 1	G 1/2	170	103	109	39	125	103.5	58

Diagrams

Secondary pressure while filling



p_1 = working pressure

p_2 = secondary pressure

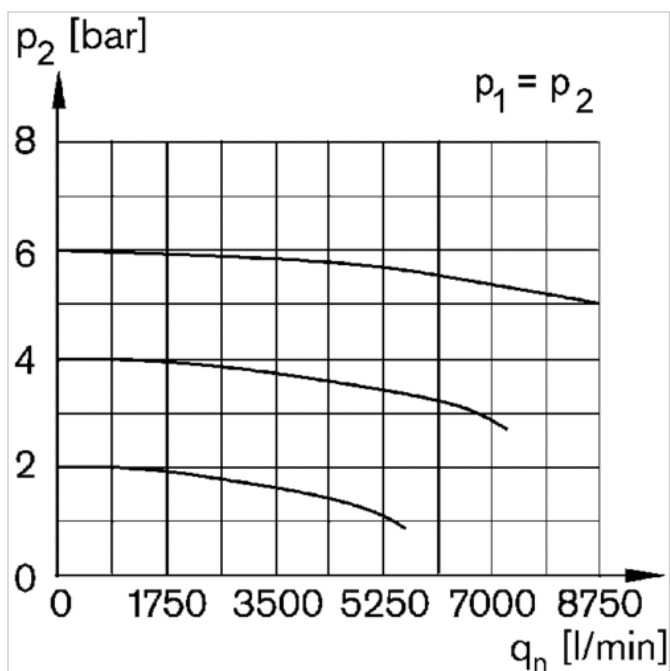
t = filling time

t_x = switchover time

1) Electrically triggered switching point

Filling time adjustable via adjustment screw (throttle)

Flow rate characteristic

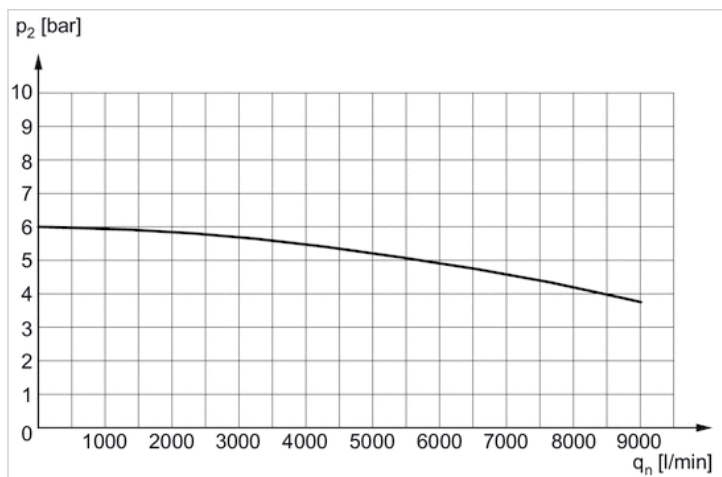


p_1 = Working pressure

p_2 = Secondary pressure

q_n = Nominal flow

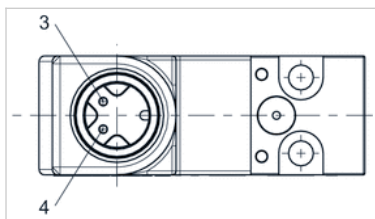
Rear exhaust, 2 3



p2 = secondary pressure
qn = nominal flow

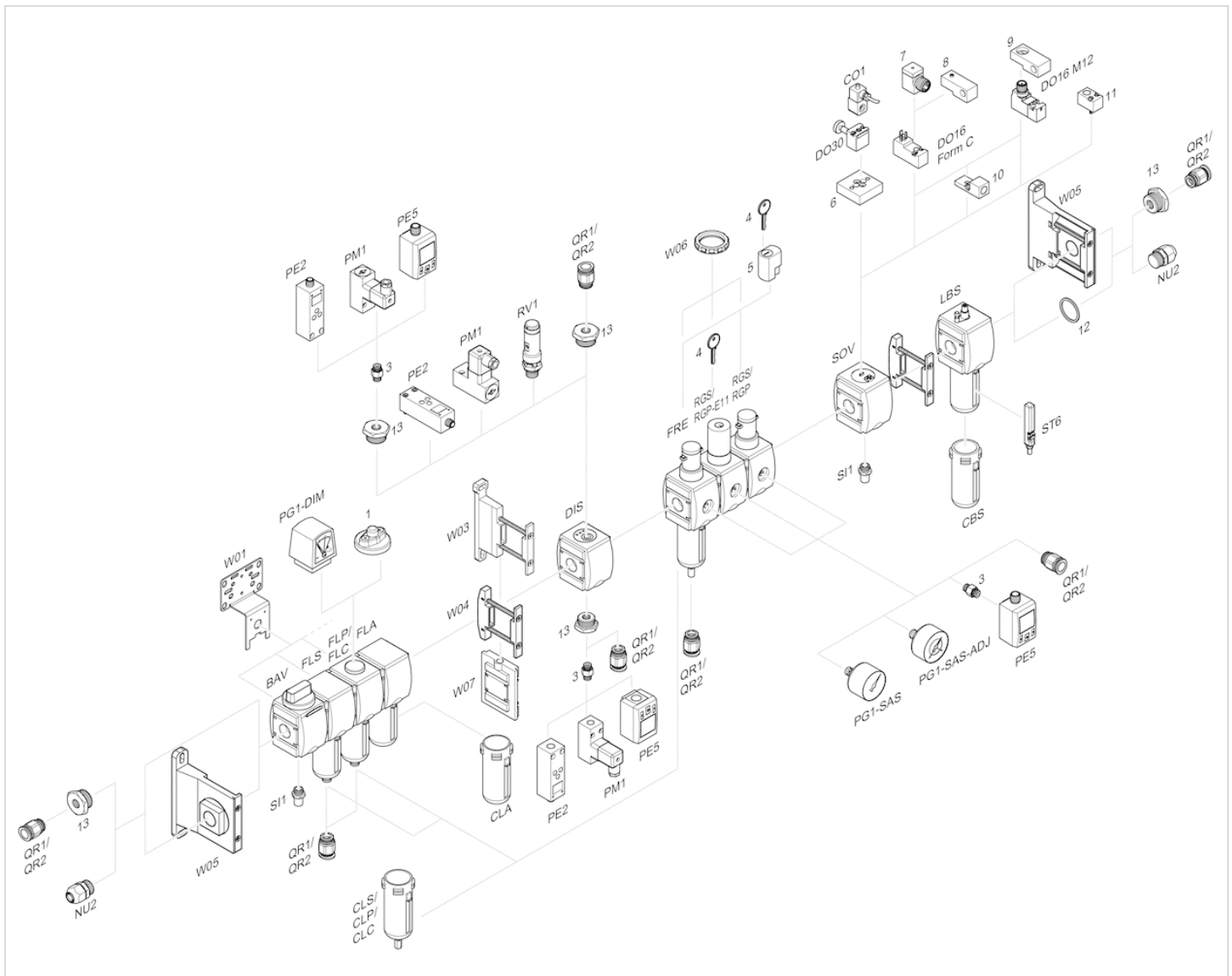
Pin assignments

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
- 13 = Reducing nipple

Filling unit, pneumatically operated, Series AS5-SSU

- adjustable filling time
- Compressed air connection G 3/4 G 1
- Pipe connection



Version

Pilot

Sealing principle

Working pressure min./max.

Control pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Max. particle size

Weight

Poppet valve, Can be assembled into blocks

Internal

Soft sealing

0 ... 16 bar

2.5 ... 16 bar

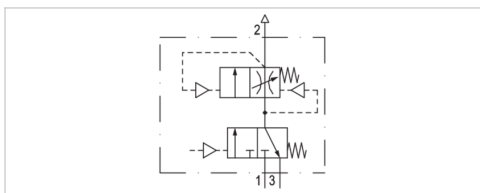
-10 ... 50 °C

-10 ... 50 °C

Compressed air Neutral gases

40 µm

0.924 kg



Technical data

Part No.	Port	Pilot connection	Exhaust	Flow	Flow	Flow	
				Qn	Qn 1→2	Qn 2→3	
R412009276	G 3/4	G 1/8	G 1/2	8750 l/min	8750 l/min	3700 l/min	-
R412009281	G 1	G 1/8	G 1/2	8750 l/min	8750 l/min	3700 l/min	-
R412009289	G 1	G 1/8	G 1/2	8750 l/min	8750 l/min	3700 l/min	1)

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

1) With adjustment screw lock

Technical information

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

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.

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.

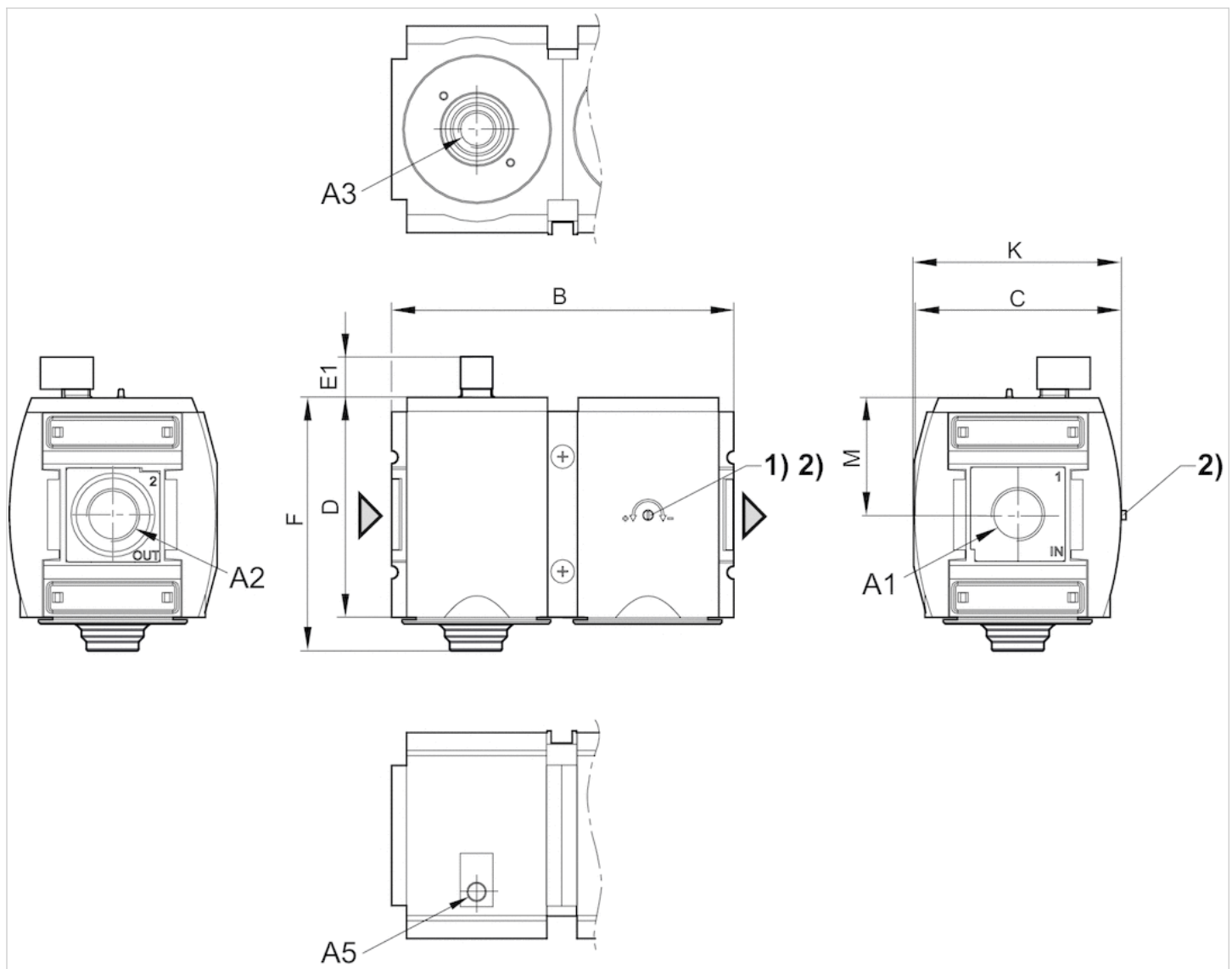
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



A1 = input

A2 = output

A3 = ventilation port

A5 = control pressure connection

1) Adjustment screw for filling time

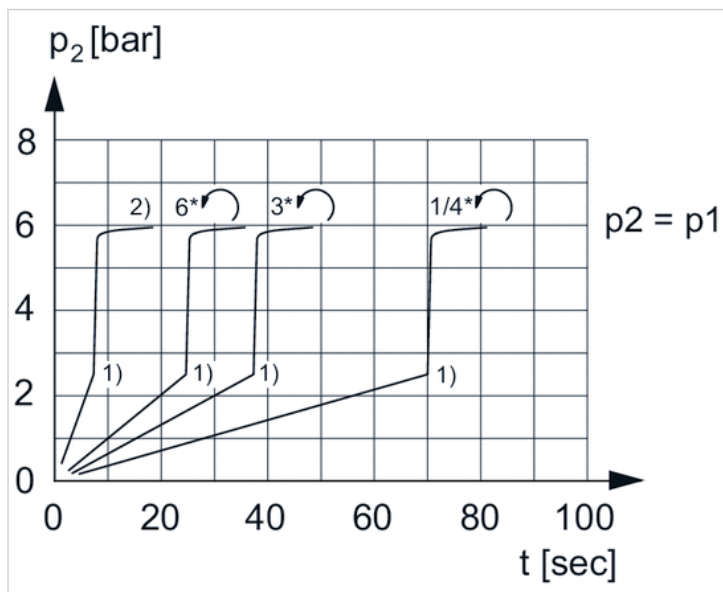
2) Adjustment screw lock

Dimensions in mm

A1	A2	A3	A5	B	C	D	E1	F	K	M
G 3/4	G 3/4	G 1/2	G 1/8	170	103	109	20.2	125	103.5	58
G 1	G 1	G 1/2	G 1/8	170	103	109	20.2	125	103.5	58

Diagrams

Secondary pressure while filling



p_1 = working pressure

p_2 = secondary pressure

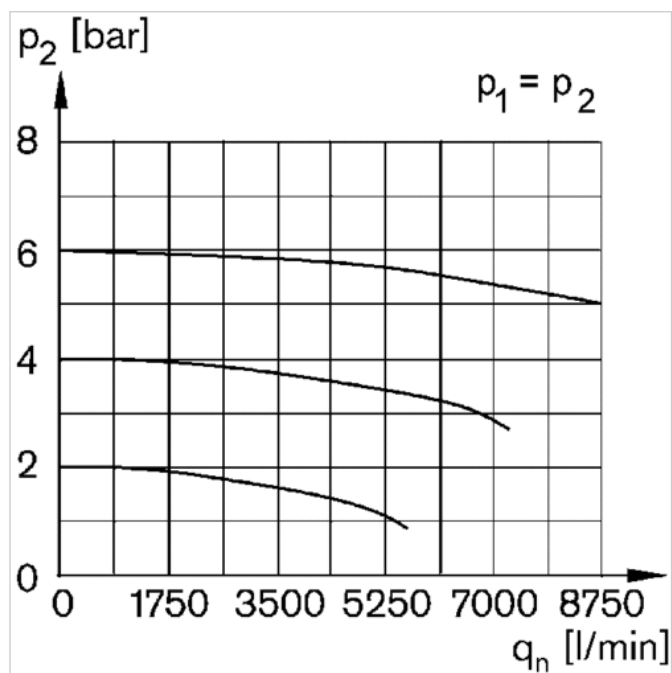
t = filling time, adjustable via adjustment screw (throttle)

1) Switching point: adjustable filling time, fixed change-over pressure $\approx 0.5 \times p_1$ (50%)

2) Throttle fully opened

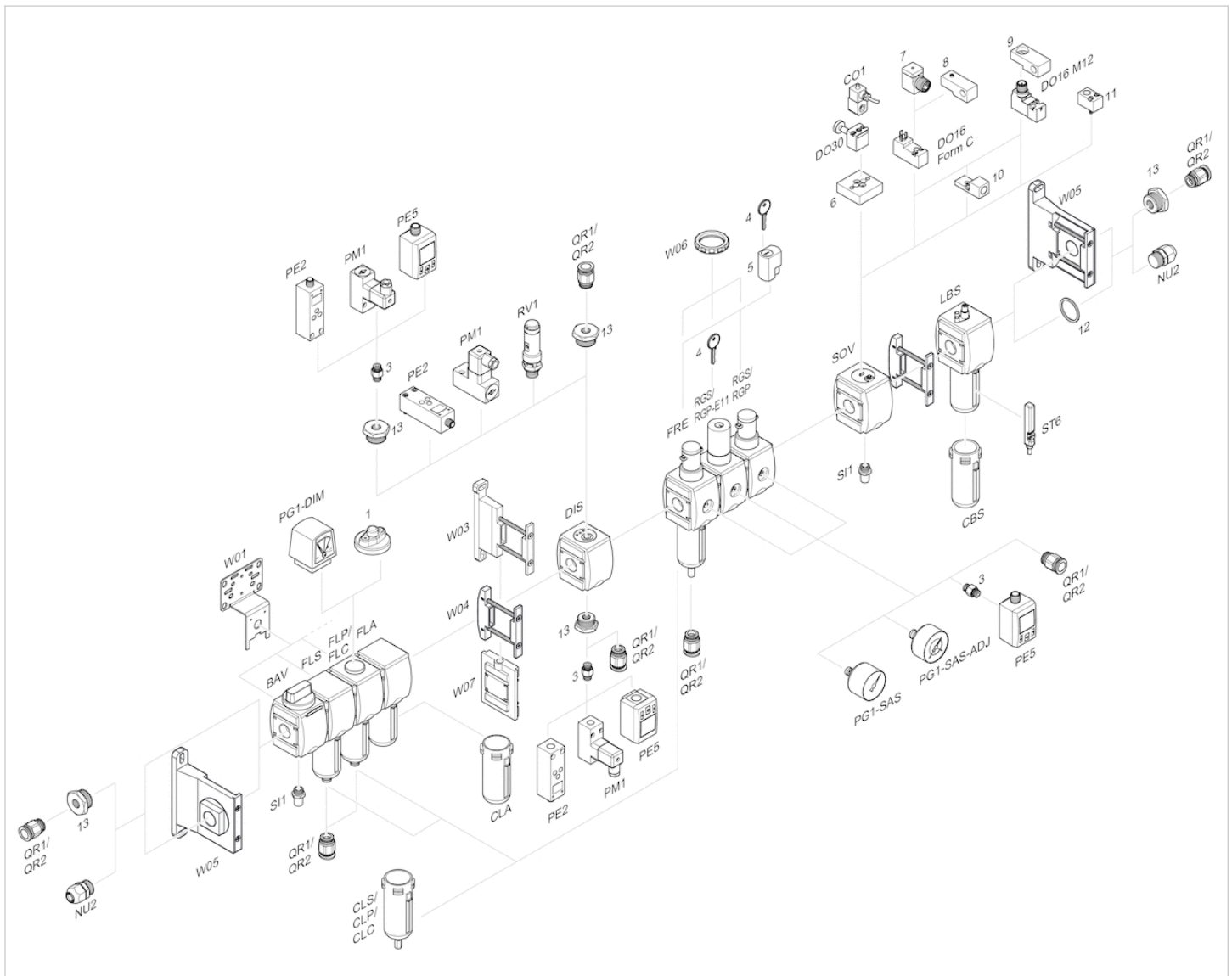
* Adjustment screw rotations

Flow rate characteristic



p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow

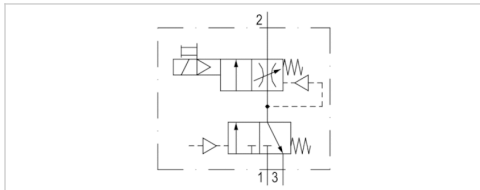
Accessories overview



- 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
- 13 = Reducing nipple

Filling unit, pneumatically operated, Series AS5-SSU

- With electrical priority circuit, adjustable filling time.
- Compressed air connection G 1
- Pipe connection



Version	Poppet valve, Can be assembled into blocks
Pilot	Internal
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 16 bar
Control pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Max. particle size	25 µm
Duty cycle	100 %
Protection class according to EN 60529:2000, without electrical connector	IP65
Weight	0.924 kg

Technical data

Part No.	Port	Pilot connection	Exhaust	Flow	Flow	Flow
				Qn	Qn 1→2	Qn 2→3
R412009379	G 1	G 1/8	G 1/2	8750 l/min	8750 l/min	3700 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Technical information

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

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.

Actuating the electric priority circuit disrupts the slow pressure build-up and pressure p1 is immediately applied.

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.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

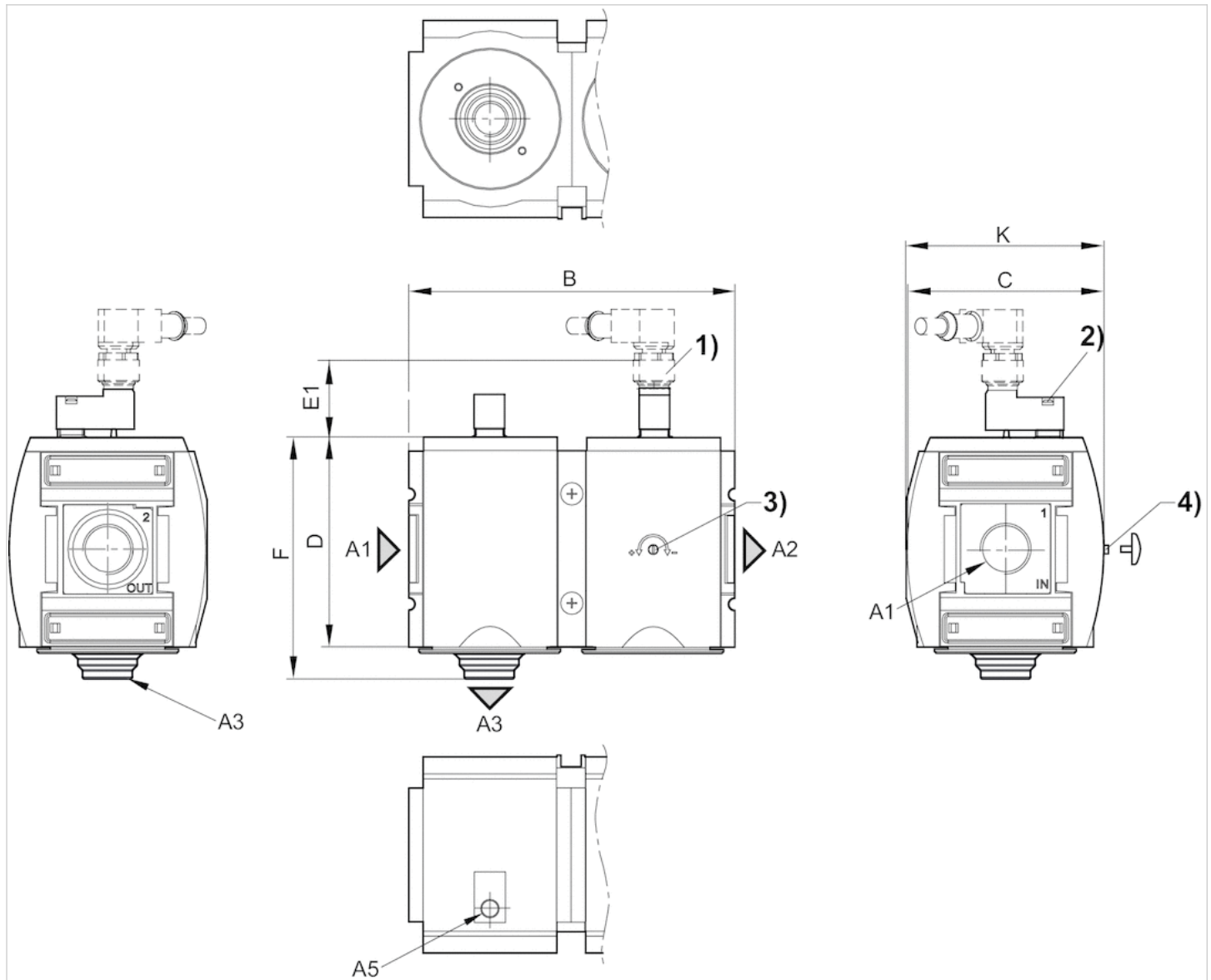
Material

Threaded bushing

Die cast zinc

Dimensions

Dimensions



A1 = input

A2 = output

A3 = ventilation port

A5 = control pressure connection

1) plug M12

2) Manual override

3) Adjustment screw for filling time

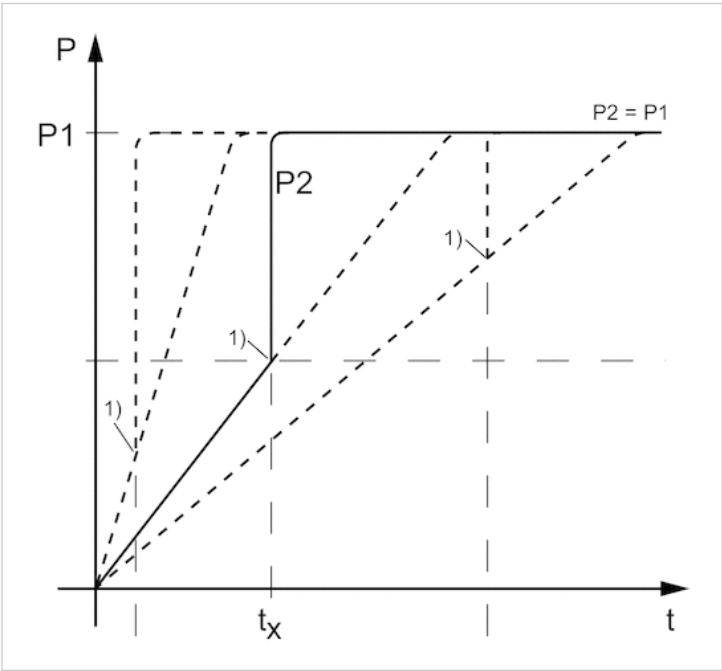
4) Adjustment screw lock

Dimensions in mm

A1	A2	A3	A5	B	C	D	E1	F	K
G 1	G 1	G 1/2	G 1/8	170	103	109	39	125	103.5

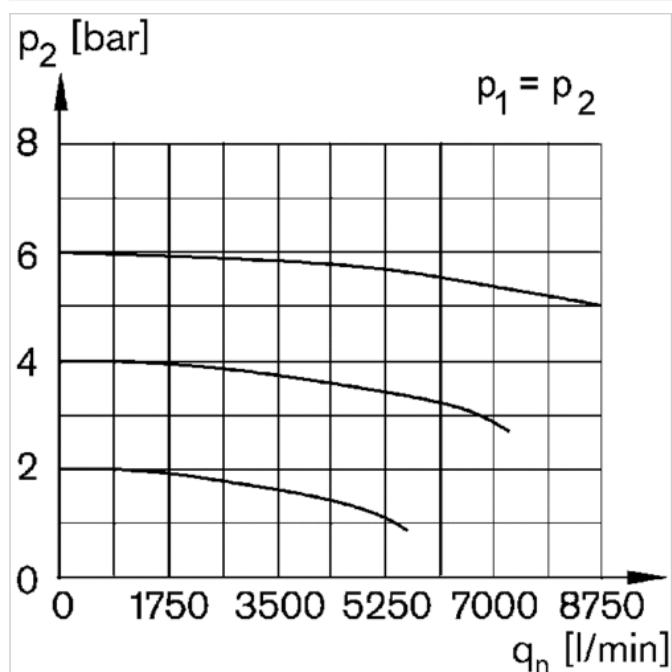
Diagrams

Secondary pressure while filling



p1 = working pressure
 p2 = secondary pressure
 t = filling time
 tx = switchover time
 1) Electrically triggered switching point
 Filling time adjustable via adjustment screw (throttle)

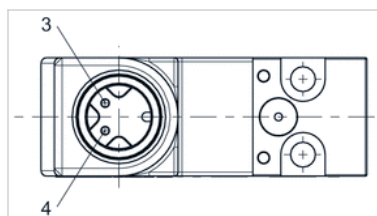
Flow rate characteristic



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

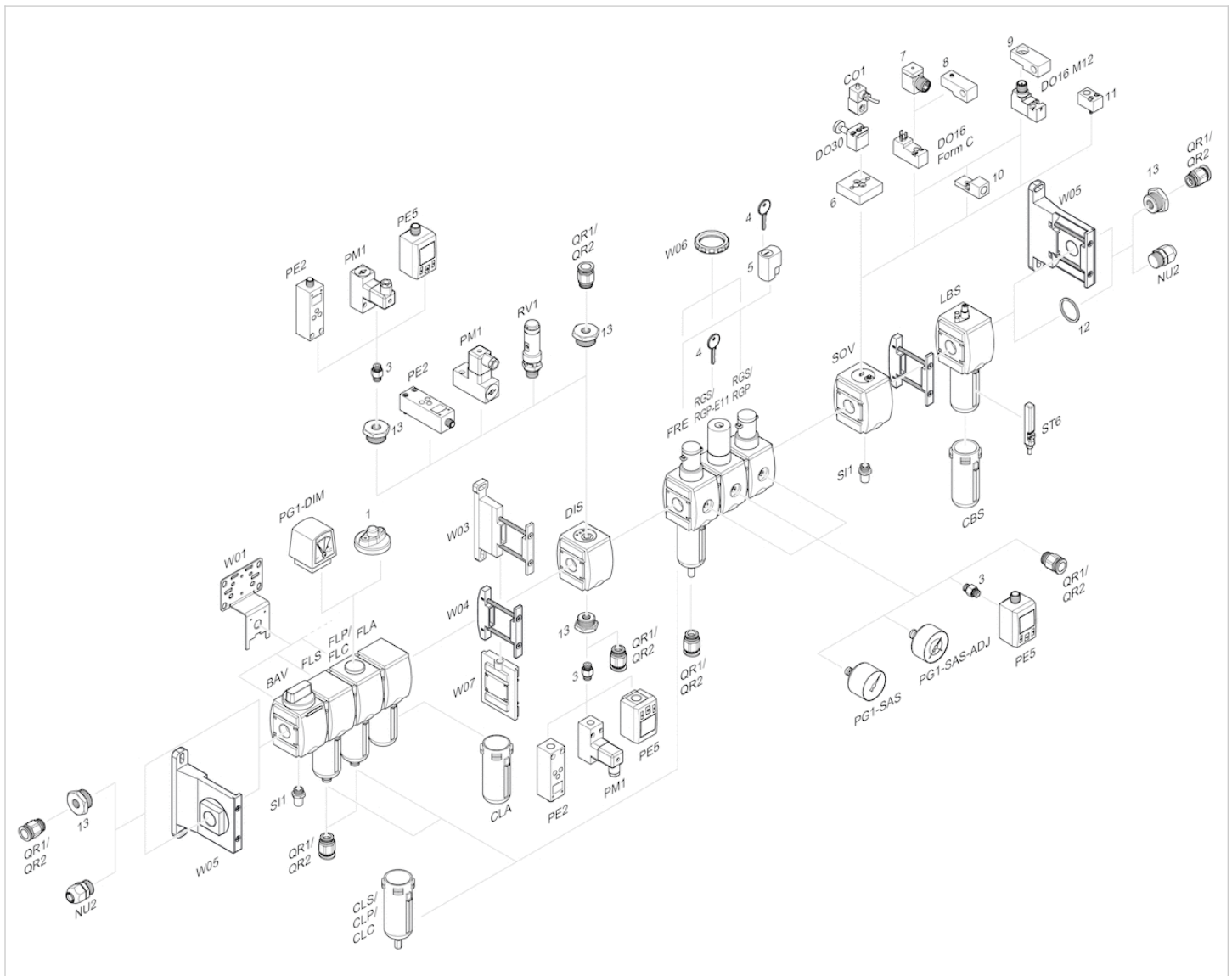
Pin assignments

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
- 13 = Reducing nipple

Filling valve, Series AS5-SSV

- adjustable filling time
- Compressed air connection G 3/4 G 1



Version

Sealing principle

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Max. particle size

Weight

Poppet valve, Can be assembled into blocks

Soft sealing

2.5 ... 16 bar

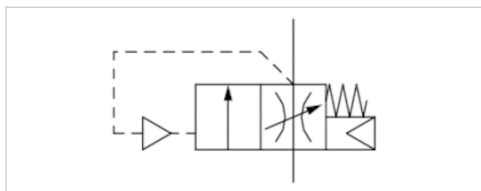
-10 ... 50 °C

-10 ... 50 °C

Compressed air Neutral gases

40 µm

0.43 kg



Technical data

Part No.	Port	Flow	
		Qn	
R412009272	G 3/4	10000 l/min	1)
R412009273	G 1	10000 l/min	
R412009275	G 1	10000 l/min	

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

1) With adjustment screw lock

Technical information

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

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.

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.

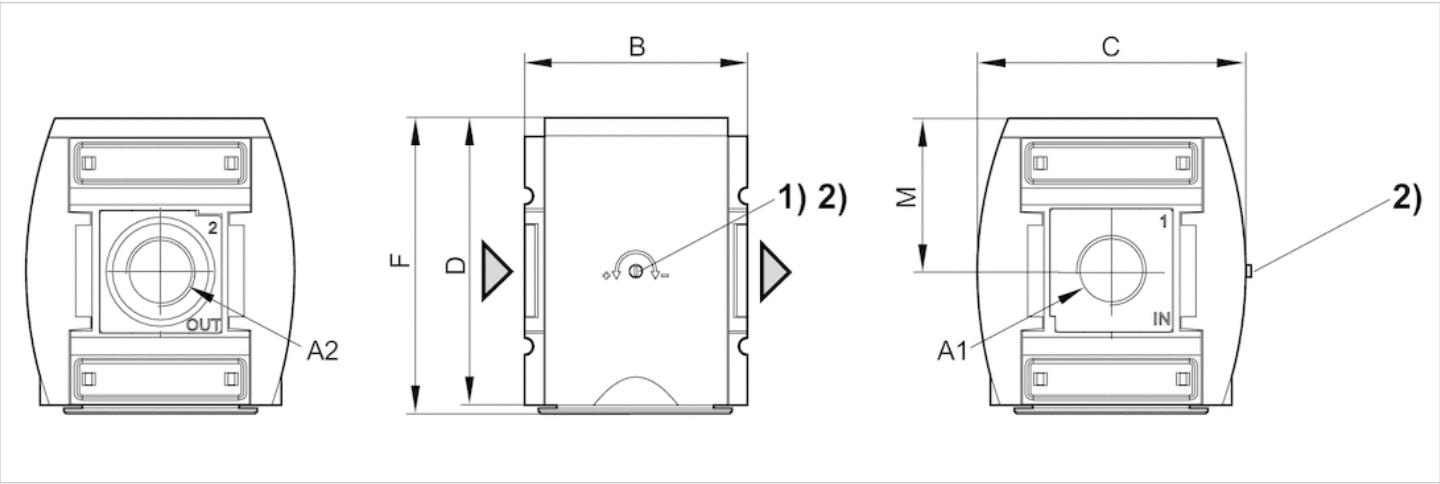
Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



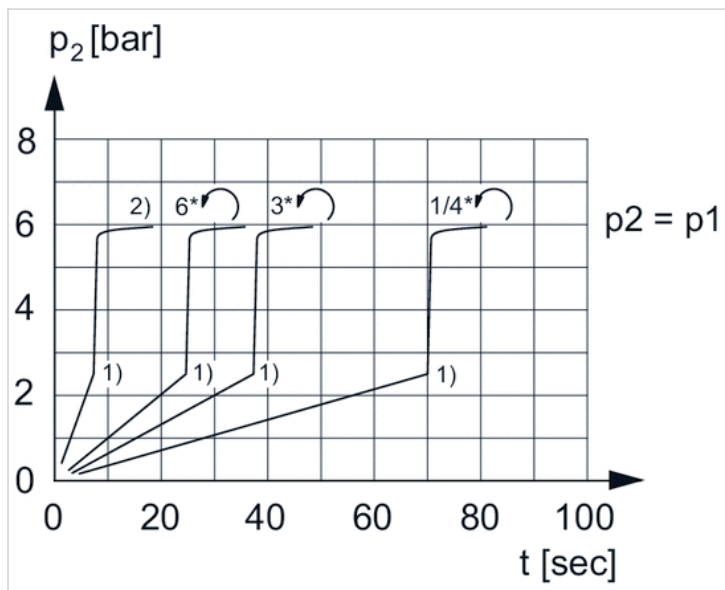
- A1 = input
A2 = output
1) Adjustment screw for filling time
2) Adjustment screw lock

Dimensions in mm

A1	A2	B	C	D	F	M
G 3/4	G 3/4	85	103	109	112	58
G 1	G 1	85	103	109	112	58

Diagrams

Secondary pressure while filling



p_1 = working pressure

p_2 = secondary pressure

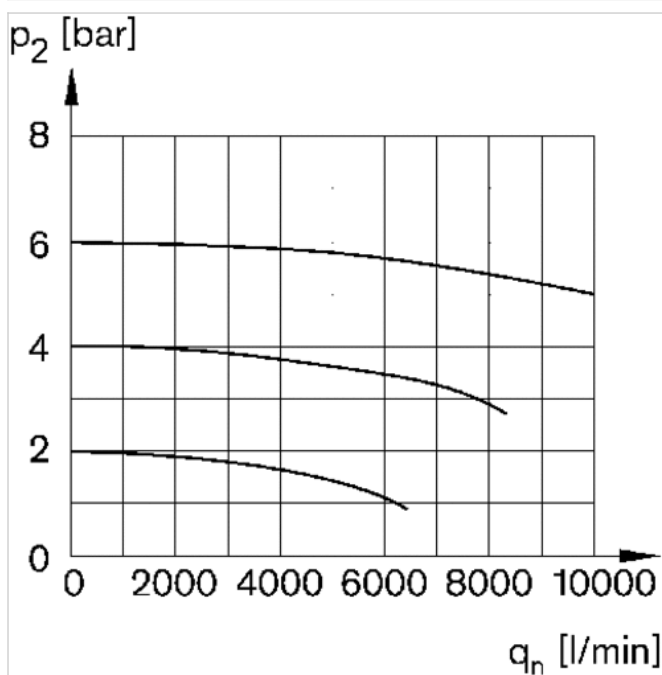
t = filling time, adjustable via adjustment screw (throttle)

1) Switching point: adjustable filling time, fixed change-over pressure $\approx 0.5 \times p_1$ (50%)

2) Throttle fully opened

* Adjustment screw rotations

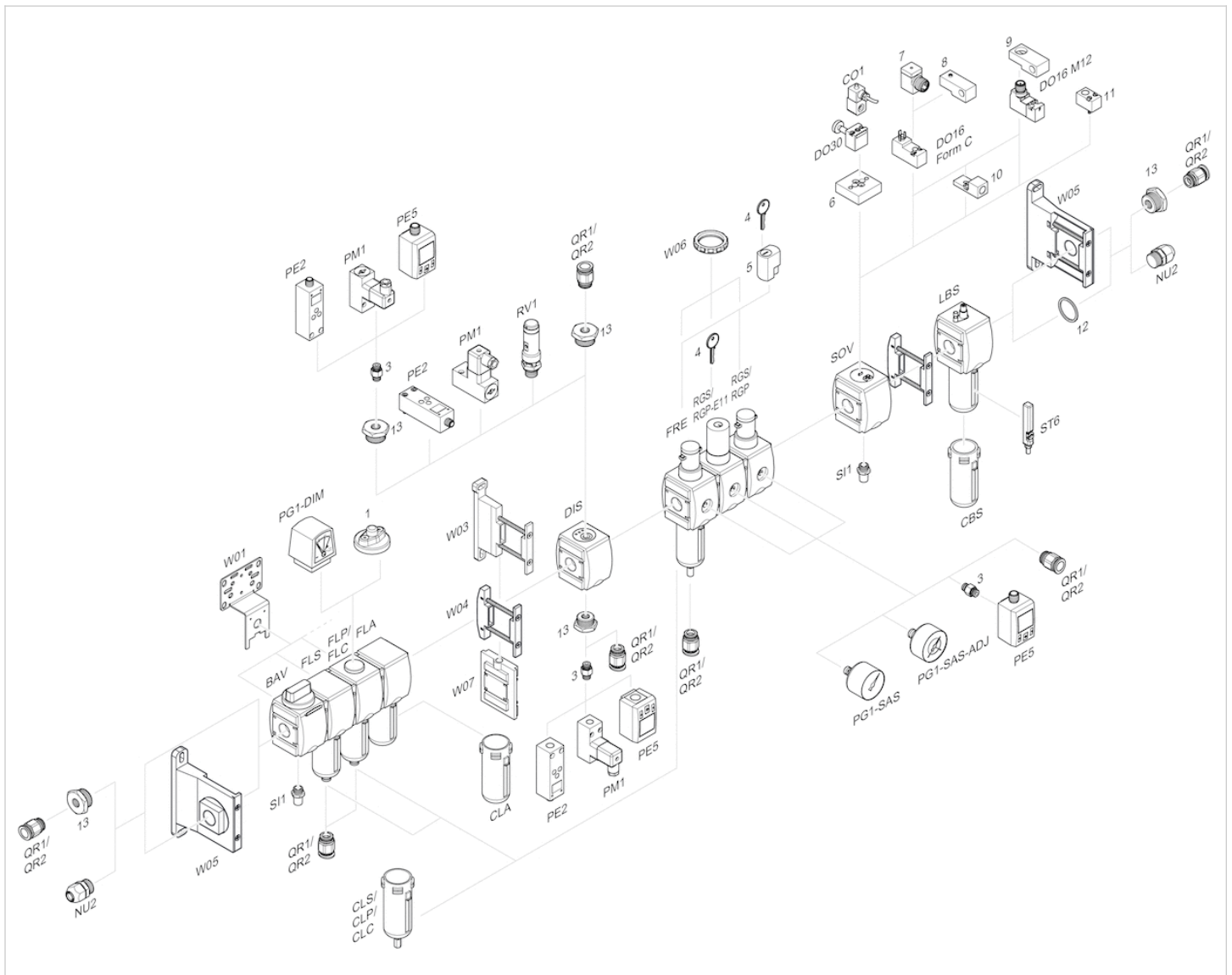
Flow rate characteristic



p_2 = secondary pressure

q_n = nominal flow

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
- 13 = Reducing nipple

Filling valve, pneumatically operated, Series AS5-SSV

- With pneumatic priority circuit, adjustable filling time.
- Compressed air connection G 3/4 G 1
- Pipe connection



Version

Sealing principle
Working pressure min./max.
Ambient temperature min./max.
Medium temperature min./max.
Medium
Max. particle size
Weight

Poppet valve, Can be assembled into blocks

Soft sealing

See table below

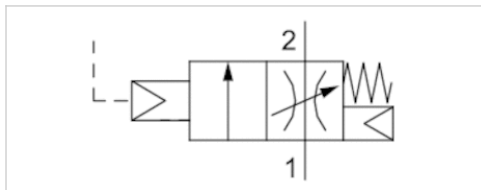
-10 ... 50 °C

-10 ... 50 °C

Compressed air Neutral gases

40 µm

1 kg



Technical data

Part No.	Port	Pilot connection	Flow	Working pressure min./max.
			Qn 1→2	
R412009311	G 3/4	G 1/8	10000 l/min	1 ... 16 bar
R412009312	G 1	G 1/8	10000 l/min	2.5 ... 16 bar

Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar

Technical information

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

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.

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.

Actuating the electric priority circuit disrupts the slow pressure build-up and pressure p1 is immediately applied.

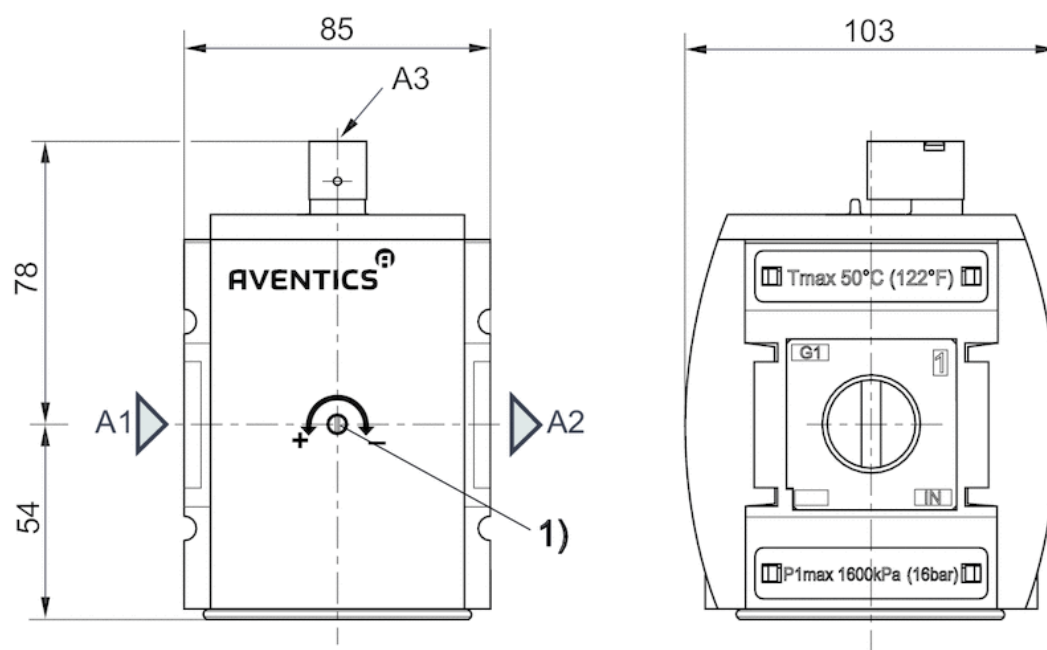
For unthrottled operation, the filling valve must be permanently electrically actuated.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



A1 = input

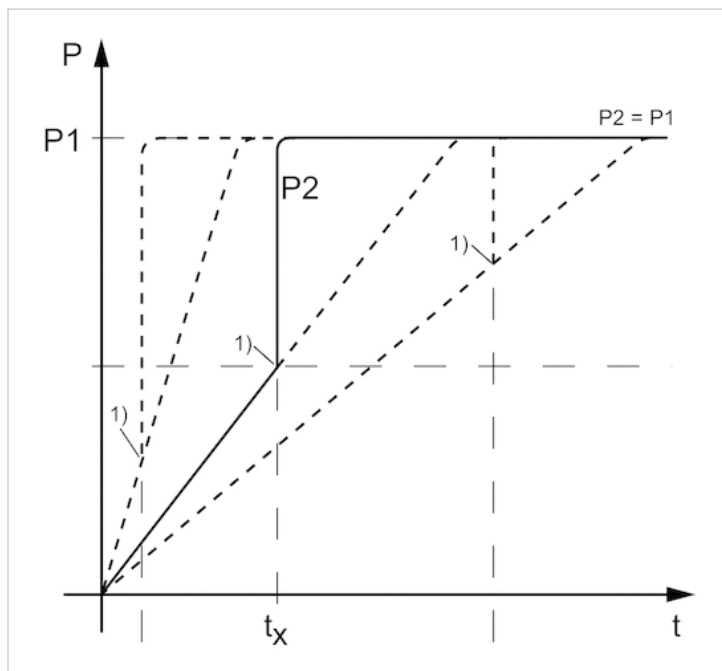
A2 = output

A3 = control pressure connection

1) Adjustment screw for filling time

Diagrams

Secondary pressure while filling



p1 = working pressure

p2 = output pressure

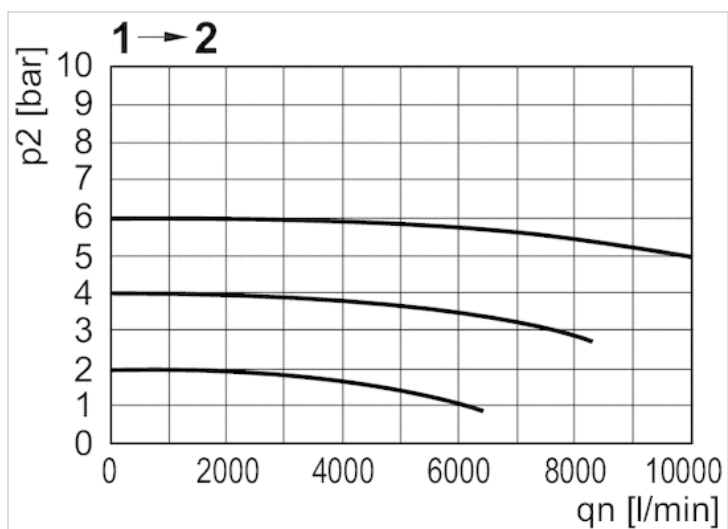
t = filling time

tx = switchover time

1) Pneumatically triggered switching point

Filling time adjustable via adjustment screw (throttle)

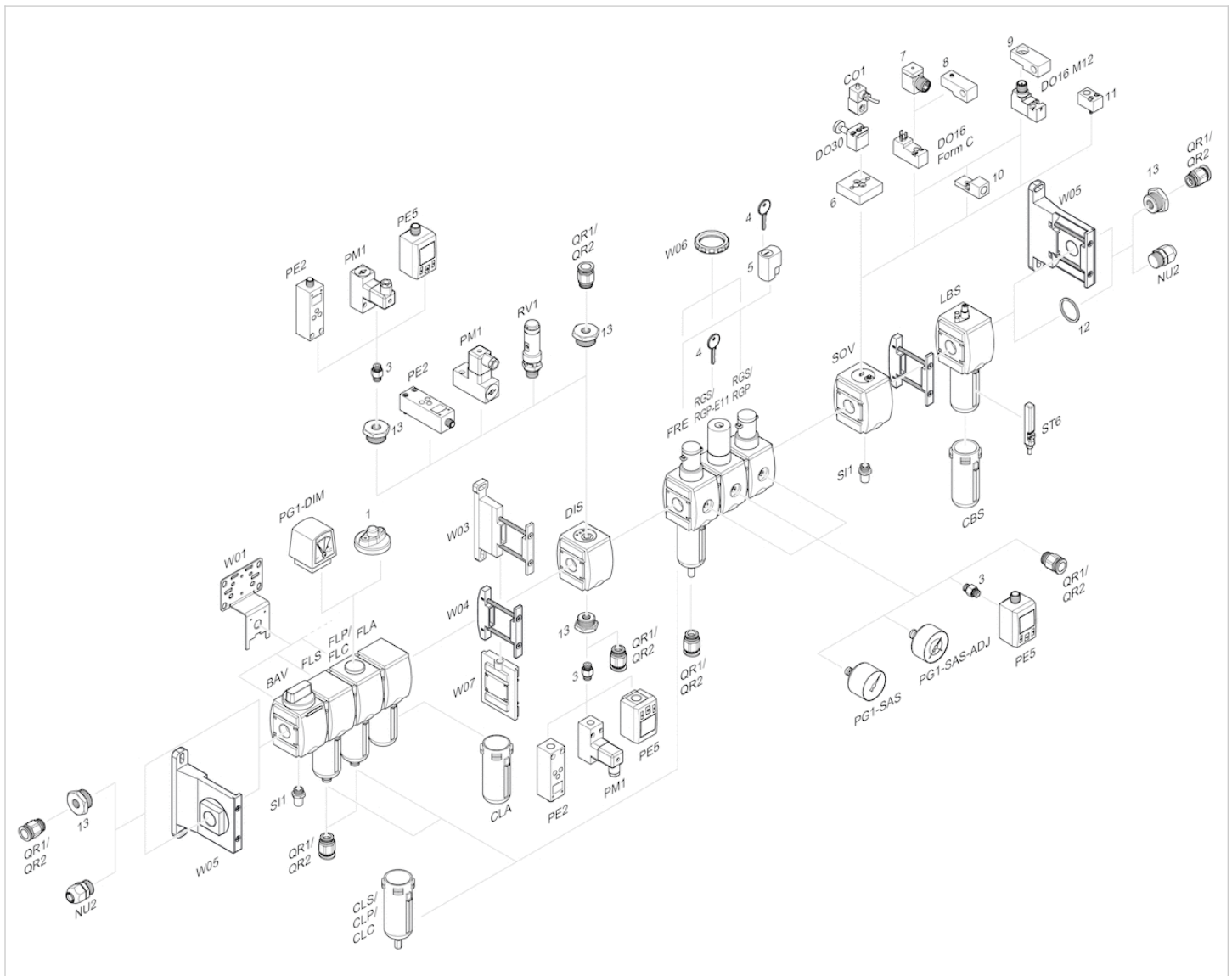
Flow rate characteristic



p2 = secondary pressure

qn = nominal flow

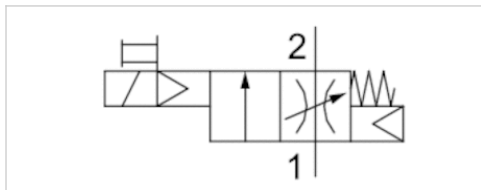
Accessories overview



- 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
- 13 = Reducing nipple

Filling valve, electrically operated, series AS5-SSV

- With electrical priority circuit, adjustable filling time.
- Compressed air connection G 3/4 G 1
- Electrical connection: Plug, M12x1



Version	Poppet valve with elect. priority circuit, Can be assembled into blocks
Parts	Filling valve
Nominal flow	10000 l/min
Working pressure min./max.	2.5 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Sealing principle	Soft sealing
Max. particle size	25 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	0.43 kg

Technical data

Part No.		Compressed air connection input	Compressed air connection output	Operational voltage
				DC
R412009373		G 3/4	G 3/4	24 V
R412009374		G 1	G 1	24 V

Part No.	Electrical connection
	Pilot valve
R412009373	Plug, M12x1
R412009374	Plug, M12x1

Nominal flow Q_n with secondary pressure p₂ = 6 bar at Δp = 1 bar

Technical information

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

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.

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.

Actuating the electric priority circuit disrupts the slow pressure build-up and pressure p₁ is immediately applied.

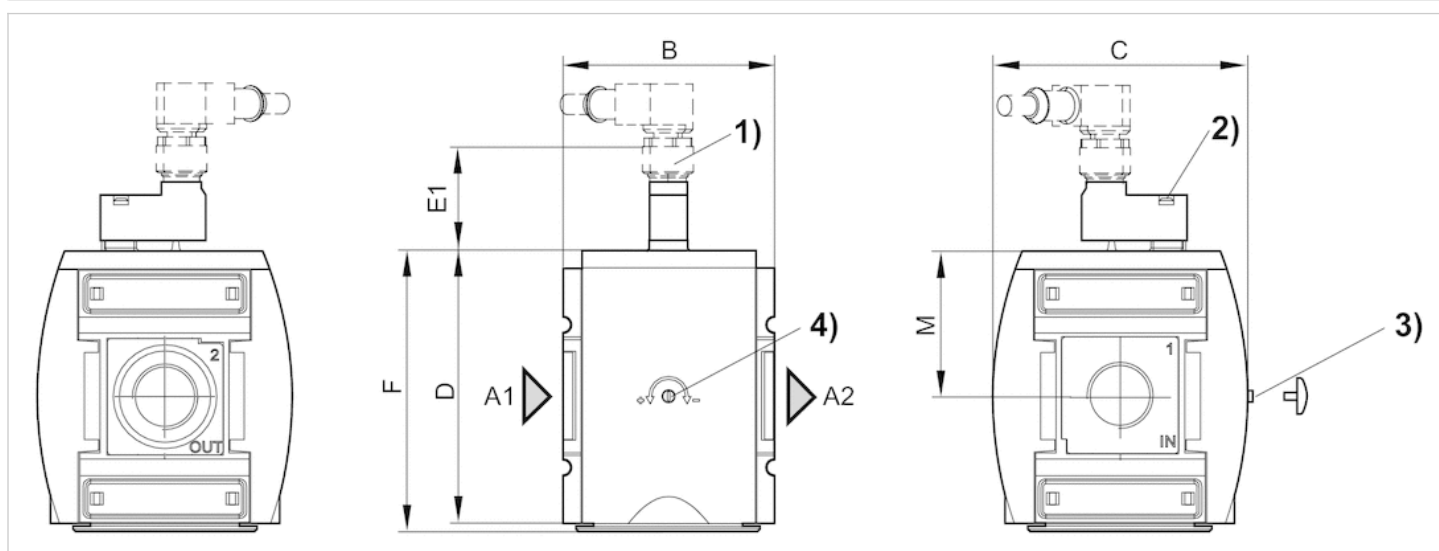
For unthrottled operation, the filling valve must be permanently electrically actuated.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



A1 = input

A2 = output

1) plug M12

2) Manual override

3) Adjustment screw for filling time

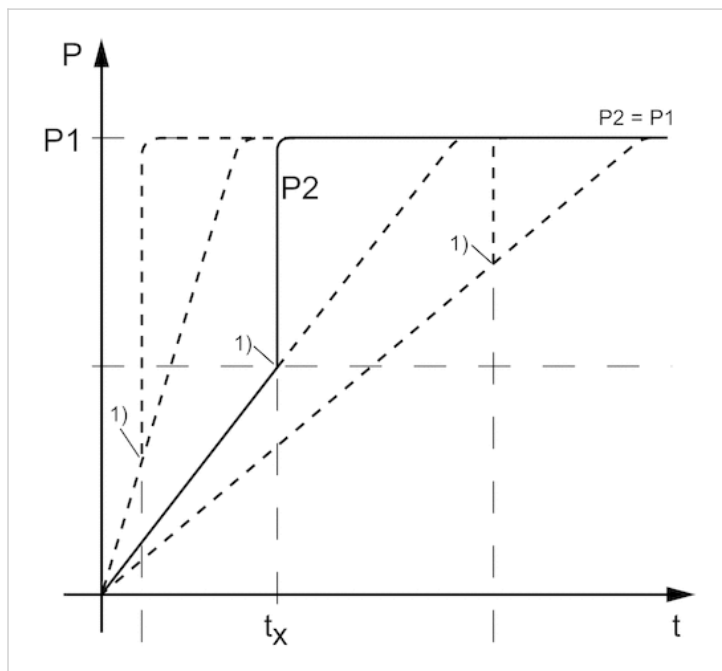
4) Adjustment screw lock

Dimensions in mm

A1	A2	B	C	D	E1	F	M
G 3/4	G 3/4	85	103	109	39	112	58
G 1	G 1	85	103	109	39	112	58

Diagrams

Secondary pressure while filling



p_1 = working pressure

p_2 = secondary pressure

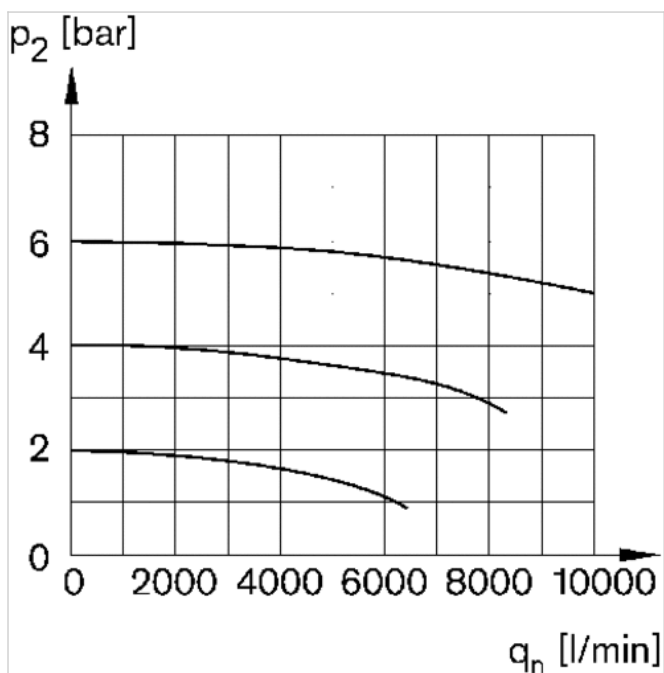
t = filling time

t_x = switchover time

1) Electrically triggered switching point

Filling time adjustable via adjustment screw (throttle)

Flow rate characteristic

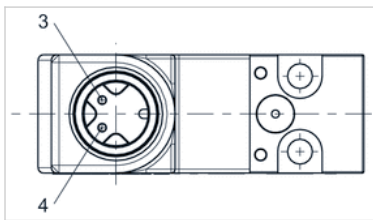


p_2 = secondary pressure

q_n = nominal flow

Pin assignments

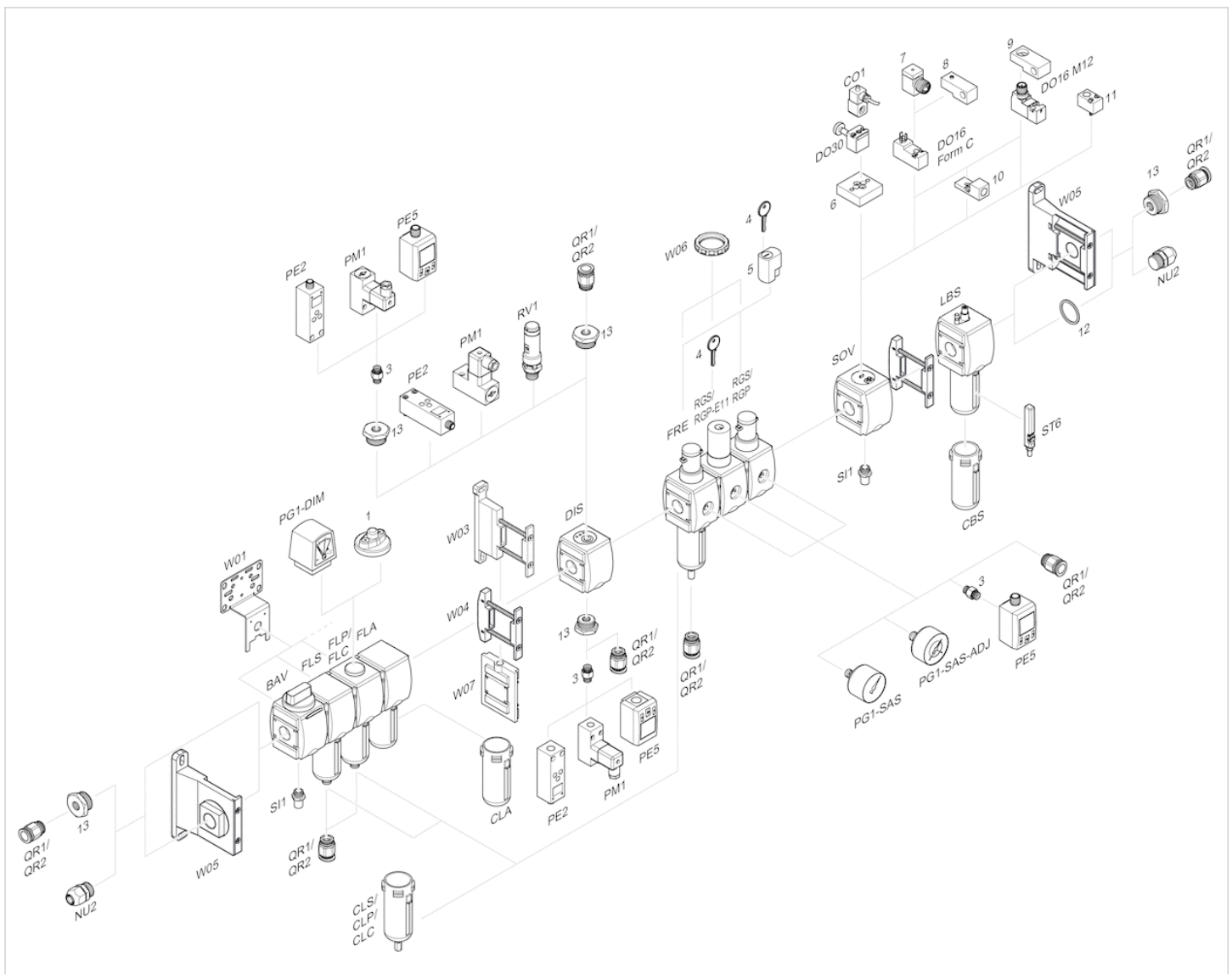
Pin assignment M12x1



3: +/-

4: +/-

Accessories overview



1 = contamination display

3 = Double nipple

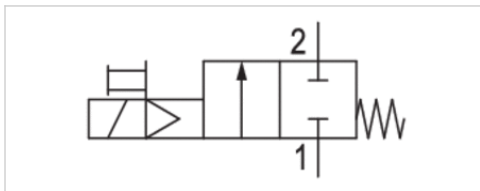
4 = Key for E11 locking

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
- 13 = Reducing nipple

2/2-directional valve, electrically operated, Series AS5-SOV

- Compressed air connection G 1
- Pipe connection
- NC
- Electrical connection: Plug, ISO 15217, form C



Version	Poppet valve, Can be assembled into blocks
Parts	2/2-directional valve, electrically operated
Nominal flow	12500 l/min
Working pressure min./max.	3 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Sealing principle	Soft sealing
Max. particle size	25 µm
Connector standard	ISO 15217
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	1.14 kg

Technical data

Part No.			Compressed air connection input	Compressed air connection output
R412009301		NC	G 1	G 1

Part No.	Operational voltage	Power consumption	Electrical connection
		DC	Pilot valve
R412009301	24 V	2 W	Plug, ISO 15217, form C

Part No.	basic valve with electrical connector	Reverse polarity protection
R412009301	Basic valve with pilot valve	Protected against polarity reversal

Nominal flow Q_n with secondary pressure p₂ = 6 bar at Δp = 1 bar, MO = Manual override

Technical information

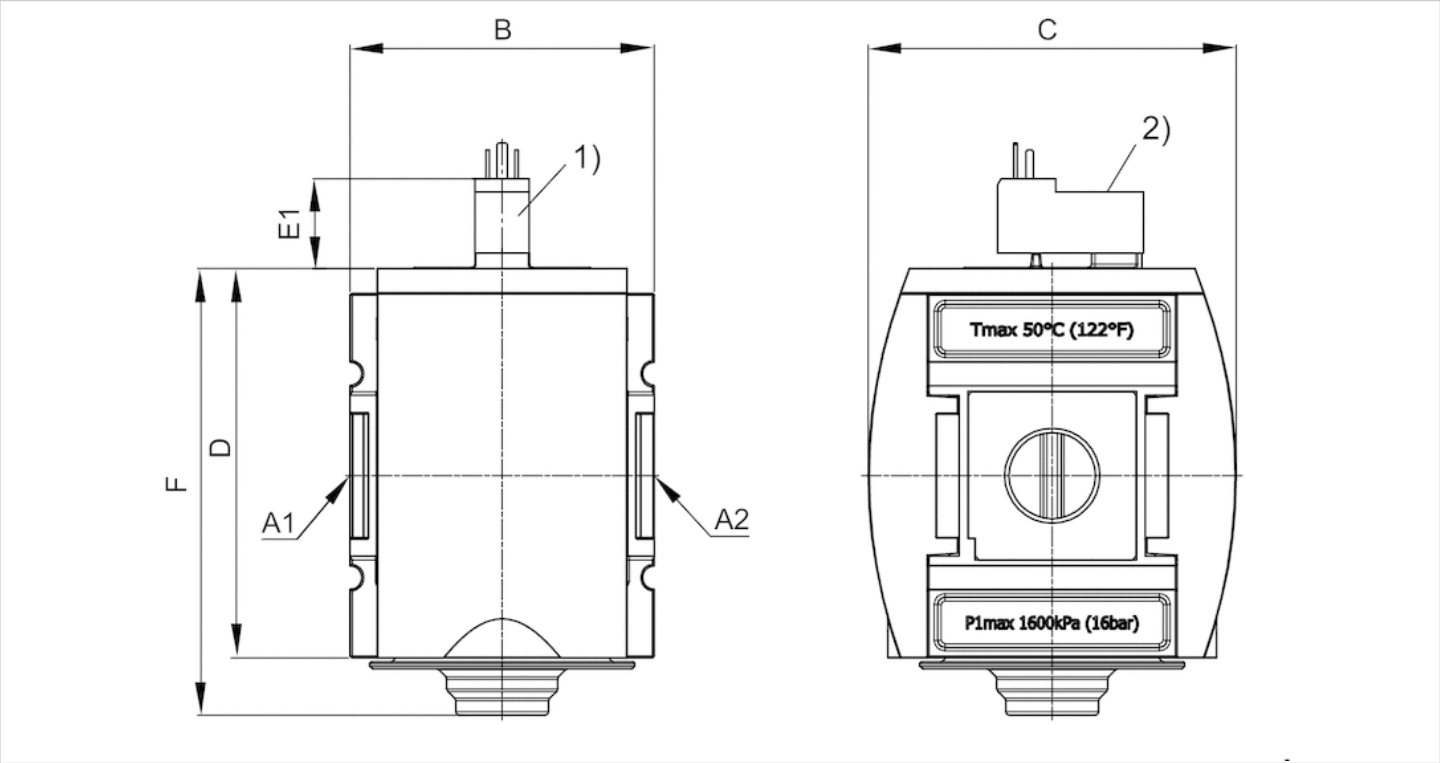
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



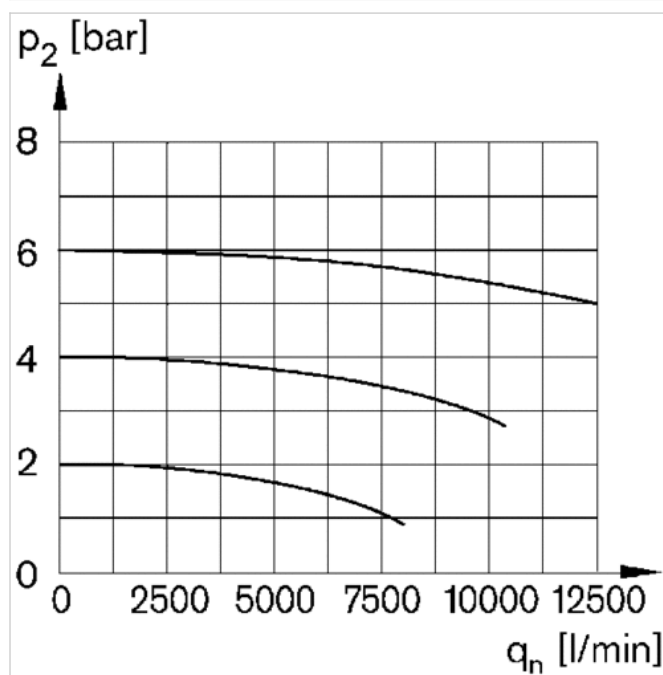
- A1 = input
- A2 = output
- 1) Connection for valve plug connector according to ISO 15217 (form C)
- 2) Manual override

Dimensions in mm

A1	A2	B	C	D	E1	F
G 1	G 1	85	103	109	25.1	125

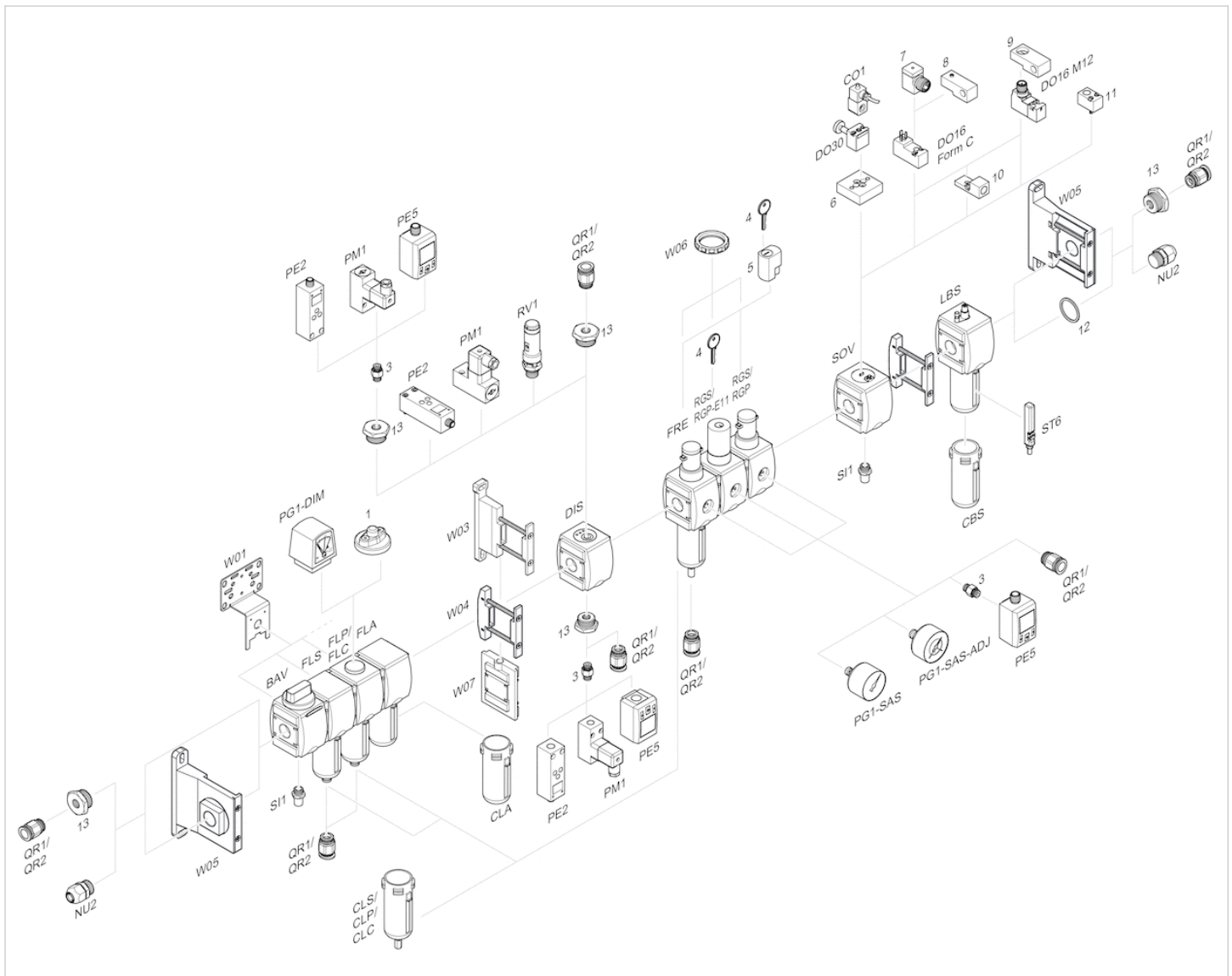
Diagrams

Flow rate characteristic, 1 2



p_2 = secondary pressure
 q_n = nominal flow

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
- 13 = Reducing nipple

2/2-directional valve, electrically operated, Series AS5-SOV

R414014102

Series AS5

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



Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Q_n
12500 l/min

Version
NO

Compressed air connection output
G 1

Working pressure min.
2.5 bar

Working pressure max
8 bar

DC operating voltage
24 V

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts
2/2-directional valve

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve with pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Min. medium temperature
-10 °C

Max. medium temperature
50 °C

Medium

Compressed air
Neutral gases

Max. particle size

25 µm

Compressed air connection

G 1

Compressed air connection input

G 1

Power consumption DC

2 W

Protection class

IP65

Connector standard

ISO 15217, form C

Dimensions in mm

Reverse polarity protection

Protected against polarity reversal

Weight

0.875 kg

Housing material

Polyamide

Seal material

Acrylonitrile butadiene rubber

Material threaded bushing

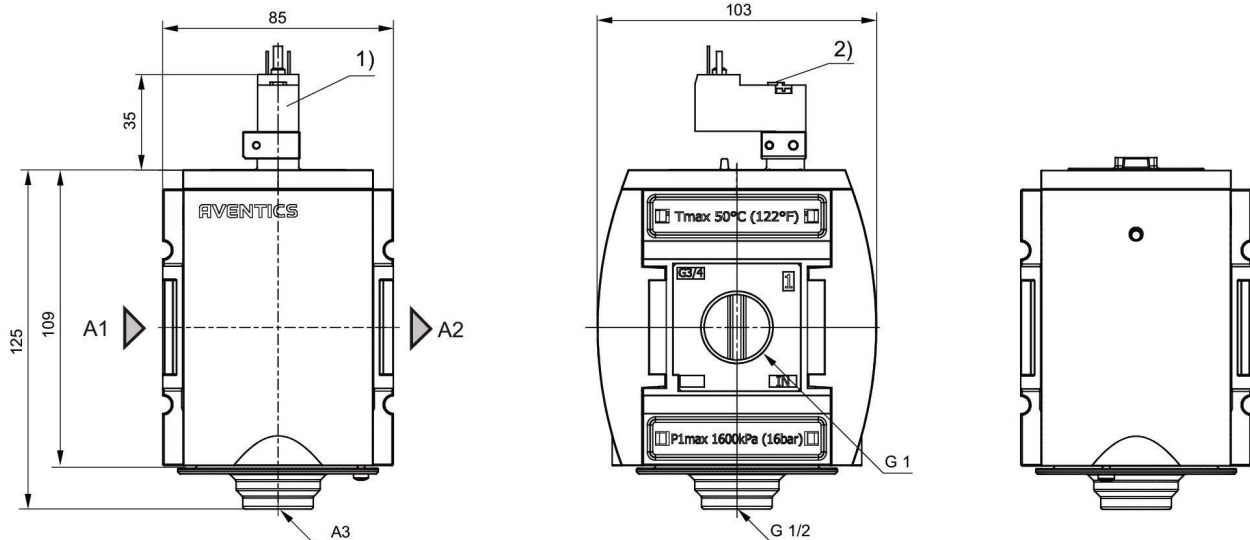
Die cast zinc

Material front plate

Acrylonitrile butadiene styrene

Part No.

R414014102

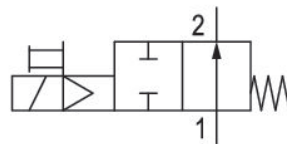
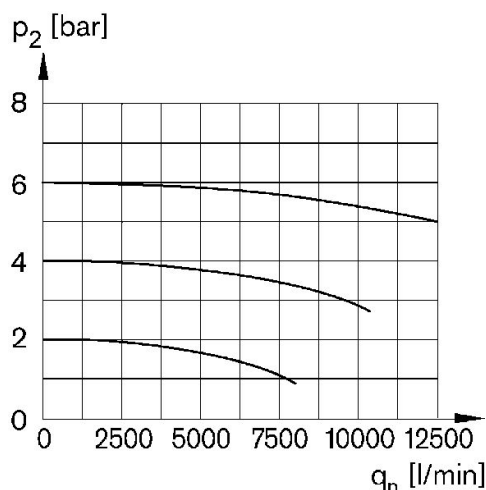


A1 = input A2 = output A3 = ventilation port

1) Connection for valve plug connector according to ISO 15217 (form C)

2) Manual override

Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

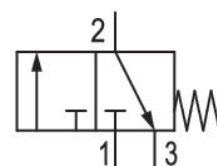
AVENTICS

3/2-directional valve, electrically operated, Series AS5-SOV

R412009258

General series information Series AS5

- The AVENTICS Series AS5 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

Activation

Electrically

Nominal flow Q_n

12500 l/min

Compressed air connection

G 3/4

Working pressure min.

2.5 bar

Working pressure max

16 bar

Sealing principle

Soft Seal

Connection type

Pipe connection

Parts

3/2-directional valve

Can be assembled into blocks

Can be assembled into blocks

basic valve with electrical connector

Basic valve without pilot valve, with CNOMO subbase

Type

Poppet valve

Min. ambient temperature

-10 °C

Max. ambient temperature

50 °C

Medium

Compressed air

Neutral gases

Max. particle size
5 µm

Compressed air connection, exhaust
G 1/2

Nominal flow Qn 1 to 2
12500 l/min

Nominal flow Qn 2 to 3
3700 l/min

Weight
0.62 kg

Material

Housing material
Polyamide

Seal material
Acrylonitrile butadiene rubber

Material threaded bushing
Die cast zinc

Material front plate
Acrylonitrile butadiene styrene

Part No.
R412009258

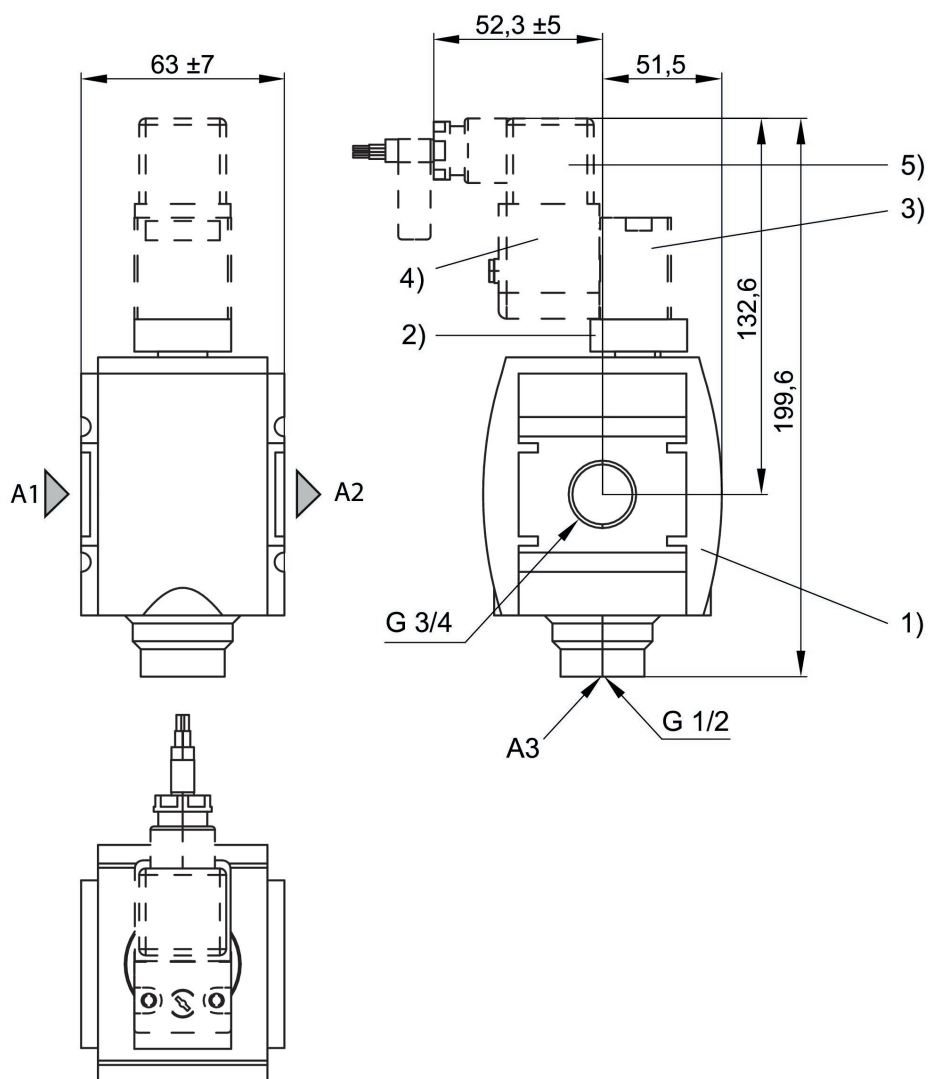
Technical information

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

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.

Nominal flow Qn with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 1 \text{ bar}$

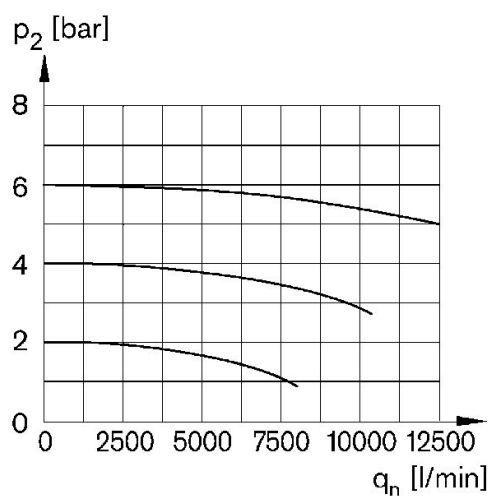
Dimensions in mm



A1 = input A2 = output
A3 = ventilation port
1) Shut-off valve
2) Transition plate
3) Pilot valve
4) Coil
5) Valve plug connector
See accessories for pilot valve and coil

Flow rate characteristic

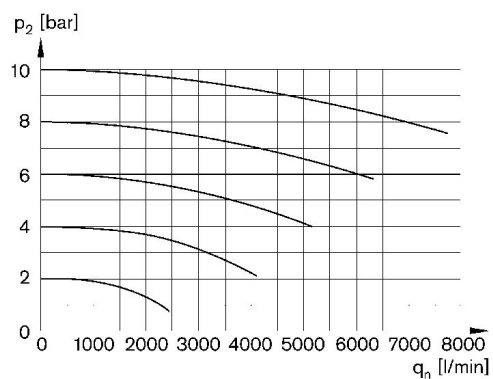
$p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



p_2 = Secondary pressure
 q_n = Nominal flow

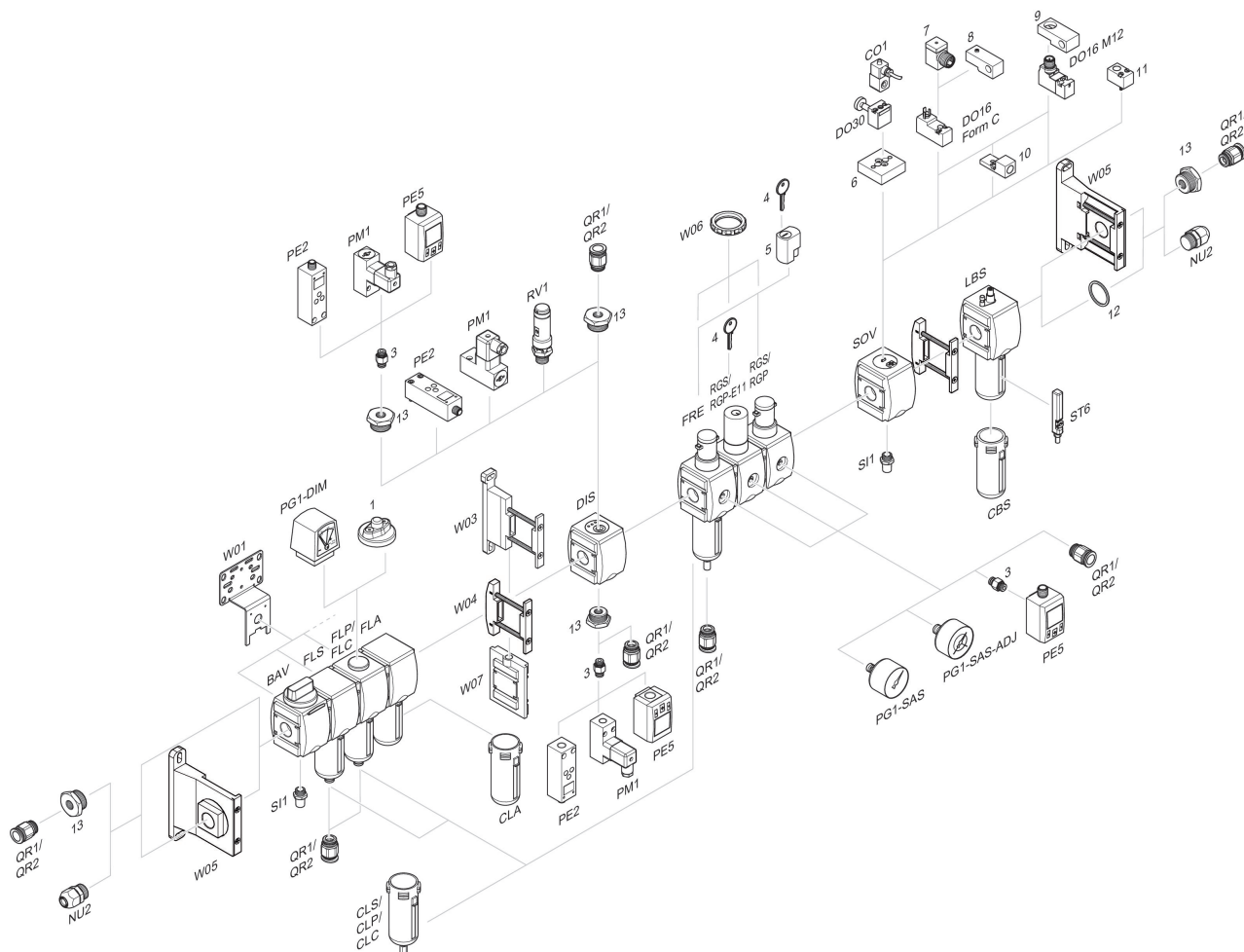
Rear exhaust

$2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview



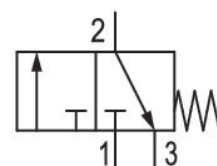
1 = contamination display 3 = Double nipple 4 = Key for E11 locking 5 = mortise lock 6 = Transition plate DO30 7 = Adapter, Series CON-VP 8 = Mounting aid DO16, form C 9 = Mounting aid DO16, M12 10 = Adapter for external pilot air 11 = Adapter pneumatic operation 12 = Sealing ring 13 = Reducing nipple

3/2-directional valve, electrically operated, Series AS5-SOV

R412009259

General series information Series AS5

- The AVENTICS Series AS5 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

Activation
Electrically

Nominal flow Q_n
12500 l/min

Compressed air connection
G 1

Working pressure min.
2.5 bar

Working pressure max
16 bar

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts

3/2-directional valve

Can be assembled into blocks

Can be assembled into blocks

basic valve with electrical connector

Basic valve without pilot valve, with CNOMO subbase

Type

Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Medium

Compressed air

Neutral gases

Max. particle size
5 µm

Compressed air connection, exhaust
G 1/2

Nominal flow Qn 1 to 2
12500 l/min

Nominal flow Qn 2 to 3
3700 l/min

Weight
0.62 kg

Material

Housing material
Polyamide

Seal material
Acrylonitrile butadiene rubber

Material threaded bushing
Die cast zinc

Material front plate
Acrylonitrile butadiene styrene

Part No.
R412009259

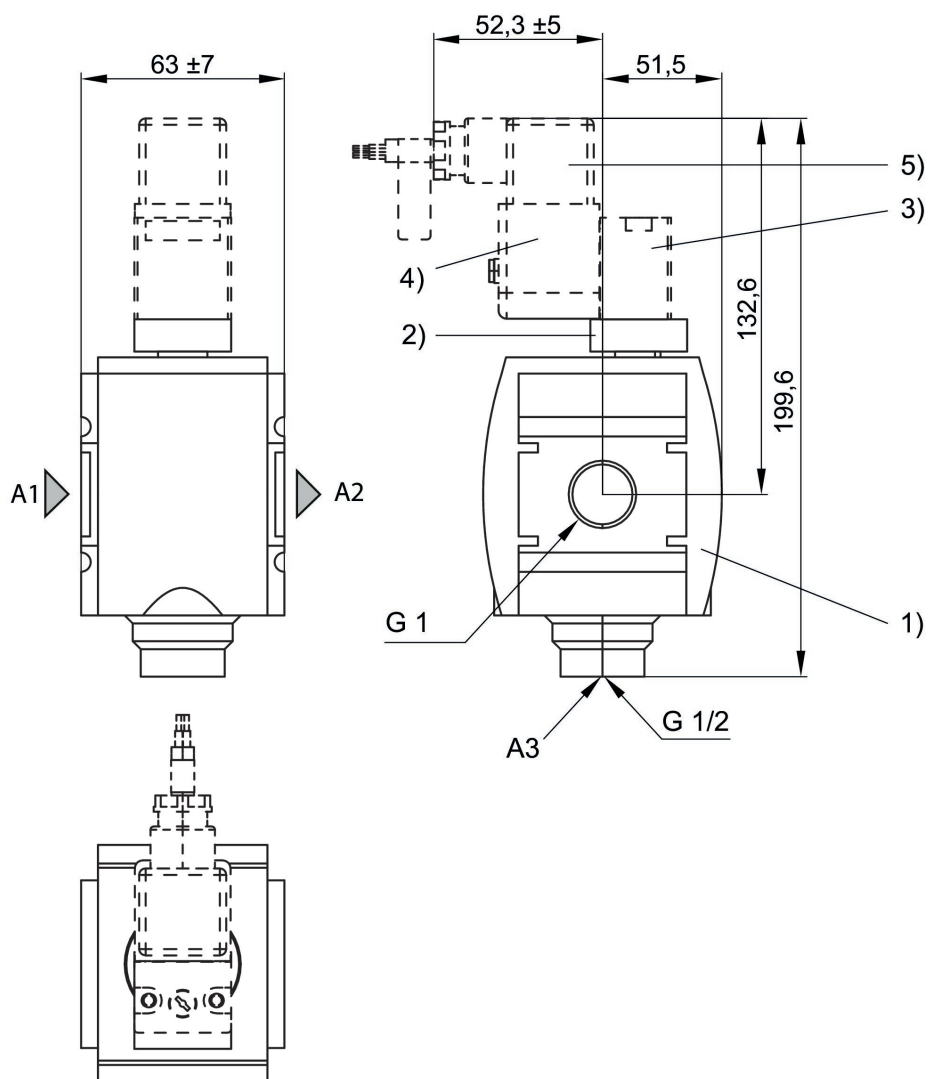
Technical information

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

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.

Nominal flow Qn with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 1 \text{ bar}$

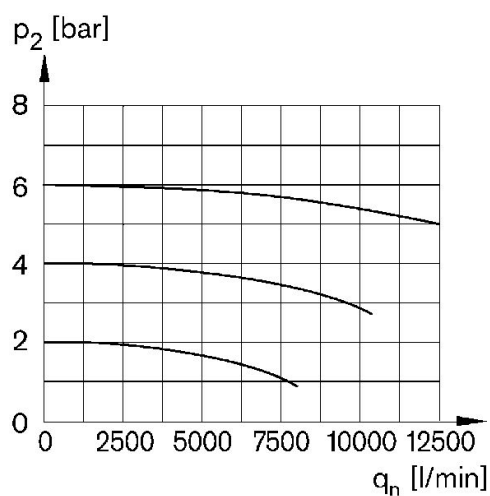
Dimensions in mm



A1 = input A2 = output
A3 = ventilation port
1) Shut-off valve
2) Transition plate
3) Pilot valve
4) Coil
5) Valve plug connector
See accessories for pilot valve and coil

Flow rate characteristic

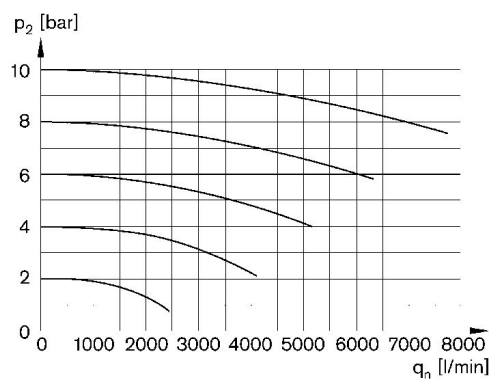
$p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



p_2 = Secondary pressure
 q_n = Nominal flow

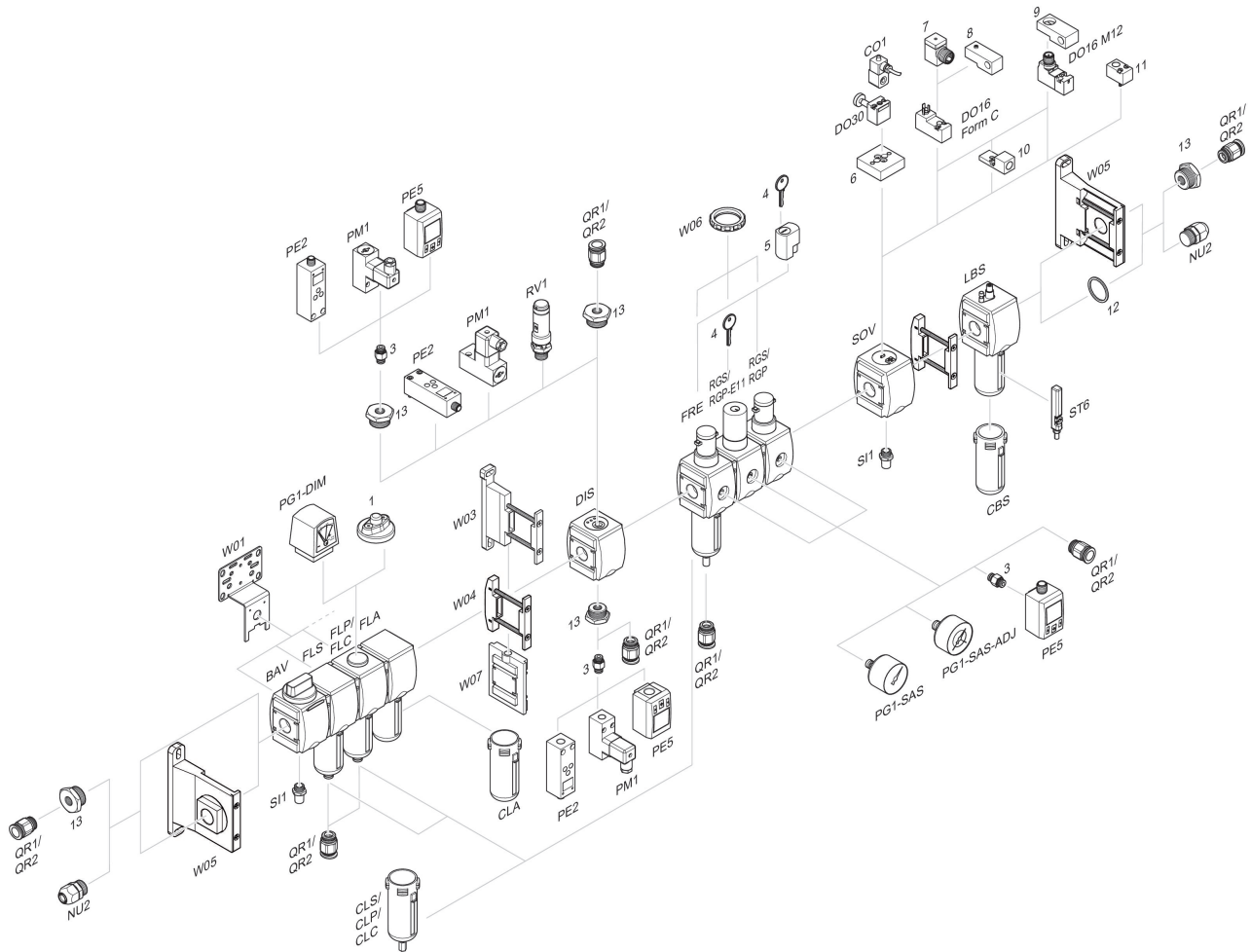
Rear exhaust

$2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview



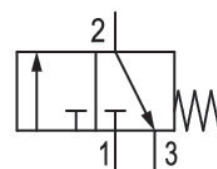
1 = contamination display 3 = Double nipple 4 = Key for E11 locking 5 = mortise lock 6 = Transition plate DO30 7 = Adapter, Series CON-VP 8 = Mounting aid DO16, form C 9 = Mounting aid DO16, M12 10 = Adapter for external pilot air 11 = Adapter pneumatic operation 12 = Sealing ring 13 = Reducing nipple

3/2-directional valve, electrically operated, Series AS5-SOV

R412009264

General series information Series AS5

- The AVENTICS Series AS5 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

Activation

Electrically

Nominal flow Qn

12500 l/min

Compressed air connection

G 3/4

Working pressure min.

2.5 bar

Working pressure max

16 bar

Sealing principle

Soft Seal

Connection type

Pipe connection

Parts

3/2-directional valve

Can be assembled into blocks

Can be assembled into blocks

basic valve with electrical connector

Basic valve without pilot valve

Type

Poppet valve

Min. ambient temperature

-10 °C

Max. ambient temperature

50 °C

Medium

Compressed air

Neutral gases

Max. particle size
5 µm

Compressed air connection, exhaust
G 1/2

Nominal flow Qn 1 to 2
12500 l/min

Nominal flow Qn 2 to 3
3700 l/min

Weight
0.641 kg

Material

Housing material
Polyamide

Seal material
Acrylonitrile butadiene rubber

Material threaded bushing
Die cast zinc

Material front plate
Acrylonitrile butadiene styrene

Part No.
R412009264

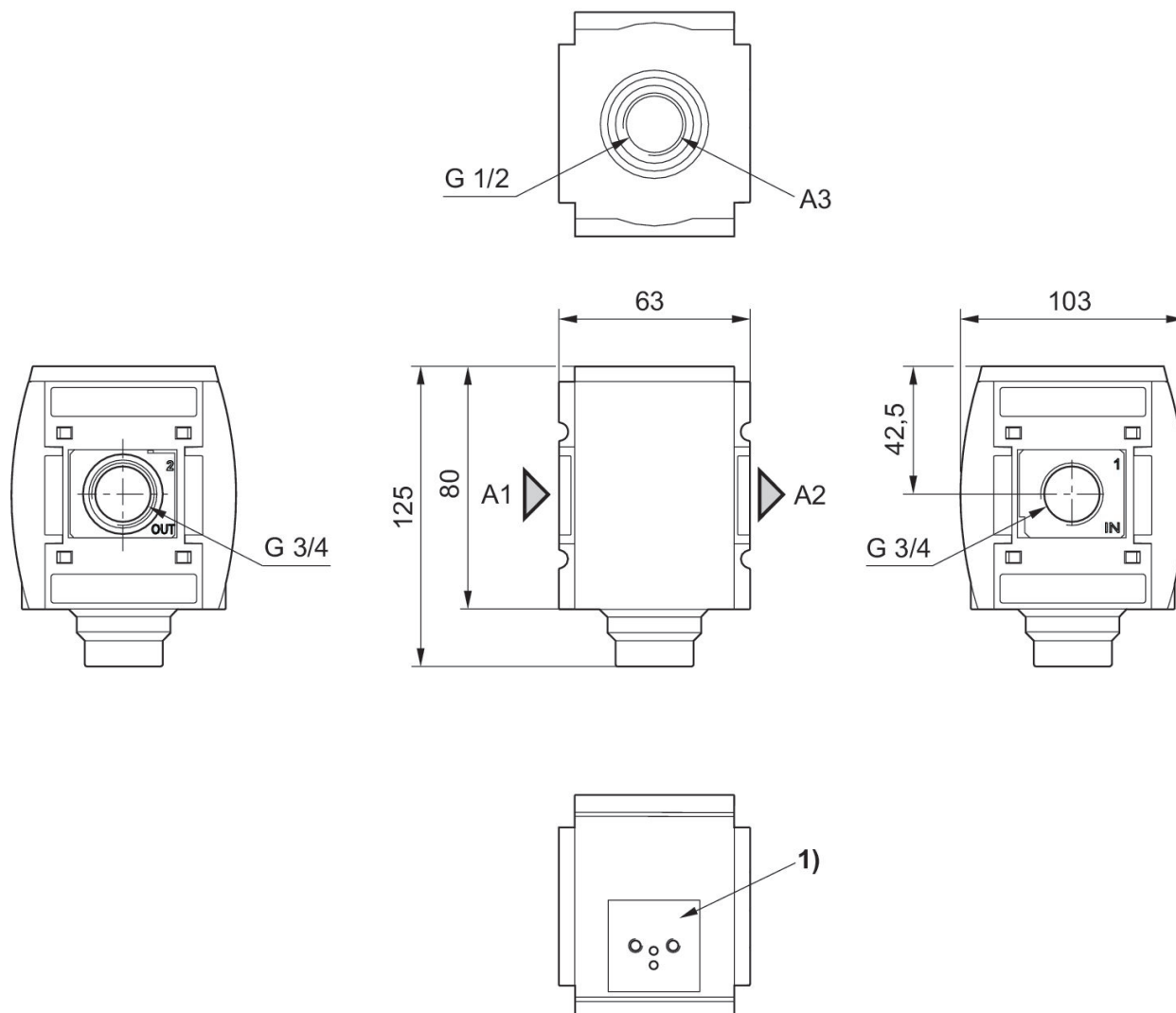
Technical information

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

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.

Nominal flow Qn with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 1 \text{ bar}$

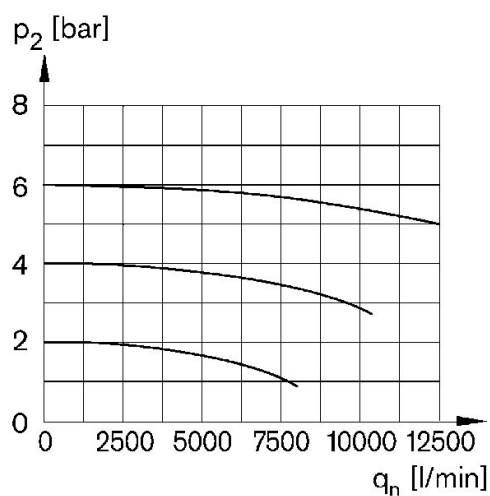
Dimensions in mm



A1 = input
A2 = output
A3 = ventilation port
1) For pilot valve series DO16

Flow rate characteristic

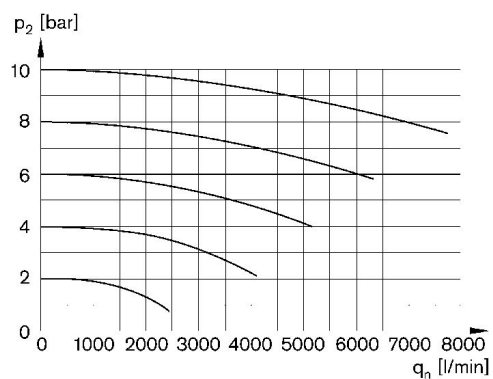
$p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



p_2 = Secondary pressure
 q_n = Nominal flow

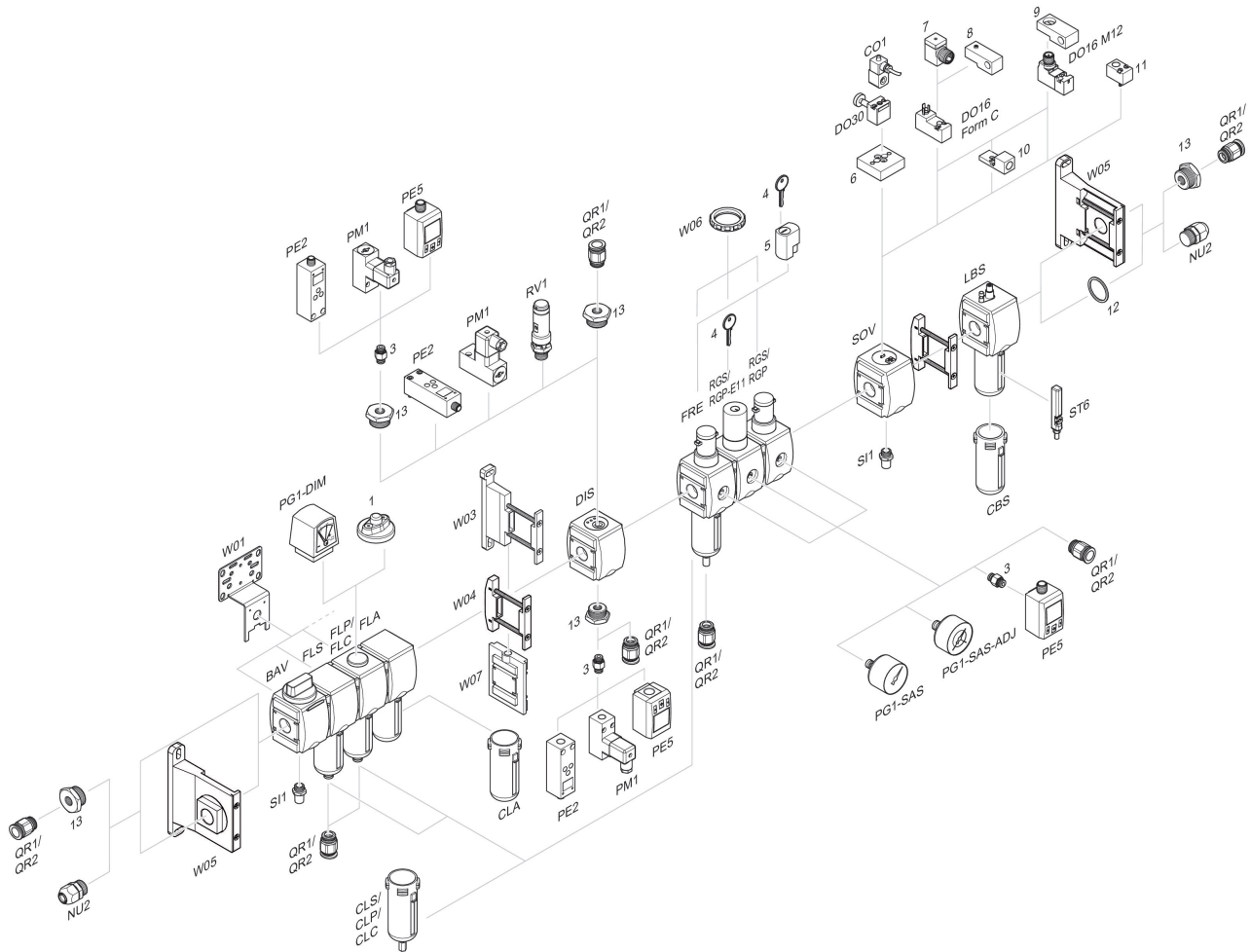
Rear exhaust

$2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview



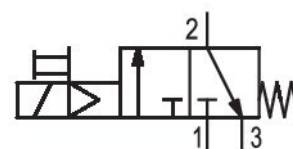
1 = contamination display 3 = Double nipple 4 = Key for E11 locking 5 = mortise lock 6 = Transition plate DO30 7 = Adapter, Series CON-VP 8 = Mounting aid DO16, form C 9 = Mounting aid DO16, M12 10 = Adapter for external pilot air 11 = Adapter pneumatic operation 12 = Sealing ring 13 = Reducing nipple

3/2-directional valve, electrically operated, Series AS5-SOV

R412009265

General series information Series AS5

- The AVENTICS Series AS5 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

Activation
Electrically

Nominal flow Q_n
12500 l/min

Compressed air connection
G 3/4

Working pressure min.
2.5 bar

Working pressure max
10 bar

DC operating voltage
24 V

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts
3/2-directional valve

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve with pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Medium
Compressed air

Neutral gases
Max. particle size
5 µm
Compressed air connection, exhaust
G 1/2
Nominal flow Qn 1 to 2
12500 l/min
Nominal flow Qn 2 to 3
3700 l/min
Power consumption DC
2 W
Duty cycle
100 %

Connector standard
ISO 15217
Protection class with connection
IP65
Reverse polarity protection
Protected against polarity reversal
Electrical connection type 2
Plug
Electrical connection 2, thread size
ISO 15217, form C
Weight
0.677 kg

Material

Housing material
Polyamide
Seal material
Acrylonitrile butadiene rubber
Material threaded bushing
Die cast zinc

Material front plate
Acrylonitrile butadiene styrene
Part No.
R412009265

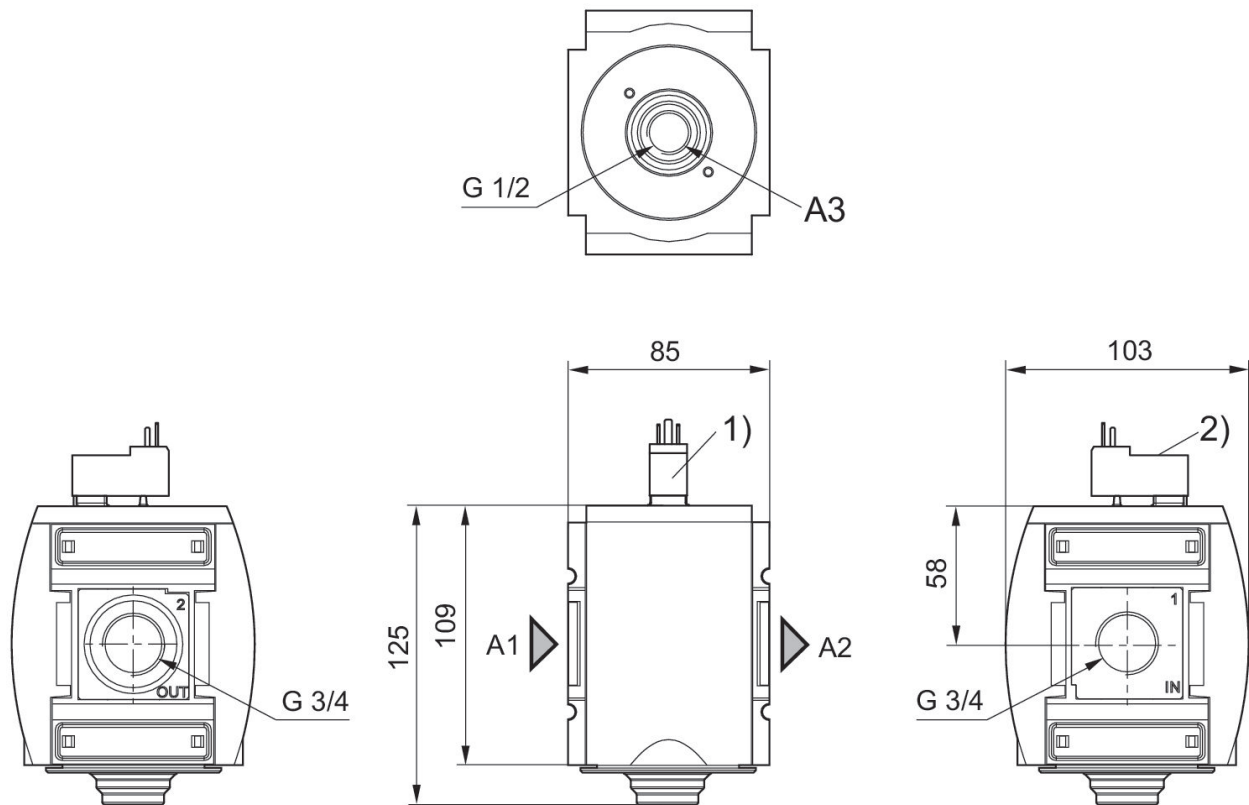
Technical information

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

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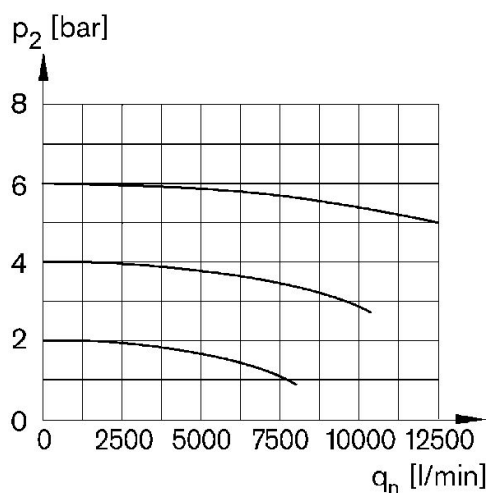
Nominal flow Qn with secondary pressure p2 = 6 bar at $\Delta p = 1$ bar

Dimensions in mm



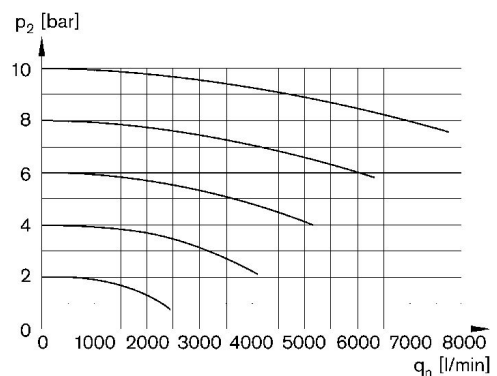
A1 = input
A2 = output
A3 = ventilation port
1) For valve plug connectors according to ISO 15217 (form C)
2) Manual override

Flow rate characteristic $p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



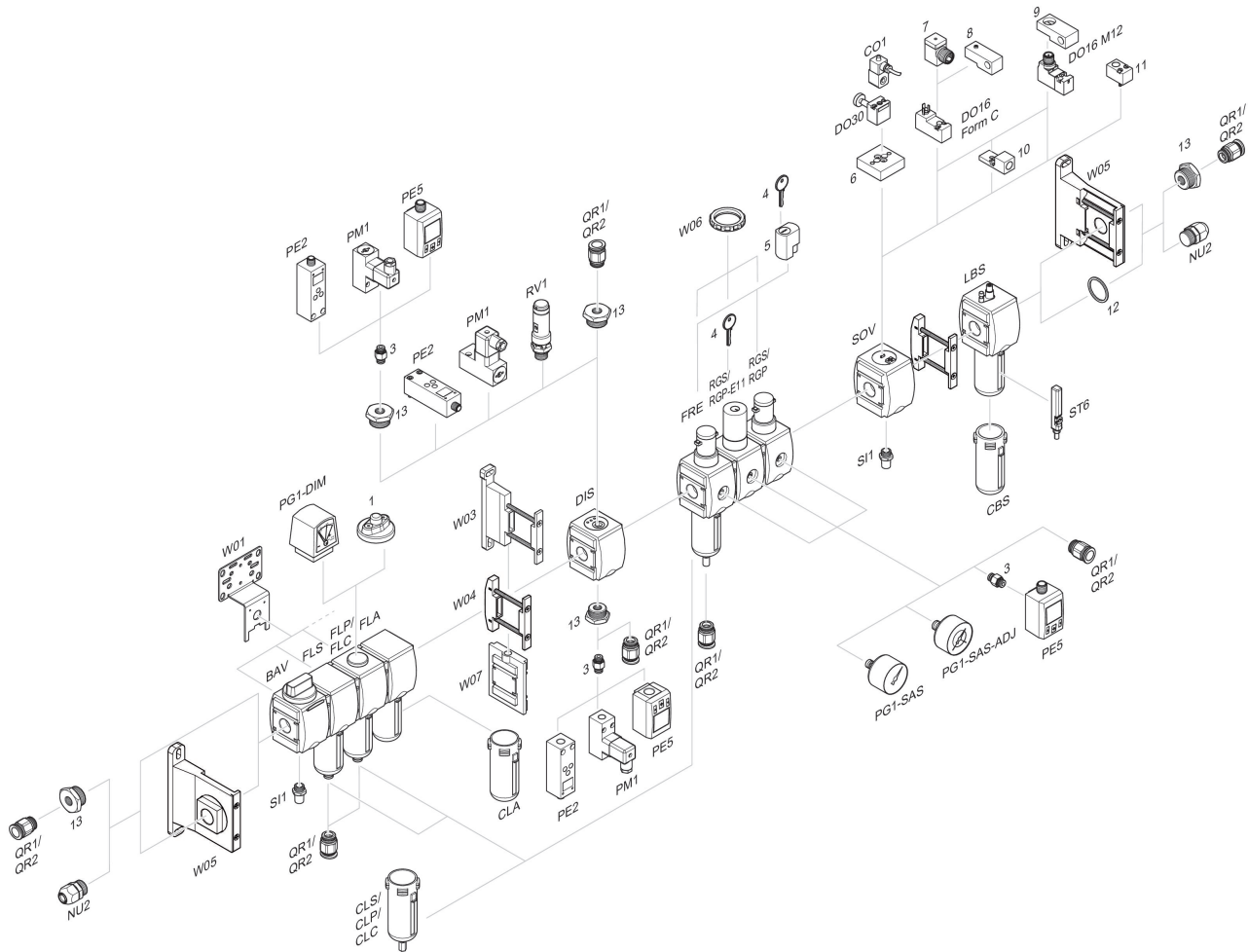
p_2 = Secondary pressure
 q_n = Nominal flow

Rear exhaust $2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview



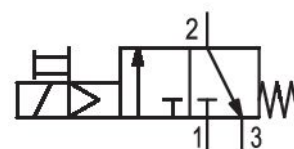
1 = contamination display 3 = Double nipple 4 = Key for E11 locking 5 = mortise lock 6 = Transition plate DO30 7 = Adapter, Series CON-VP 8 = Mounting aid DO16, form C 9 = Mounting aid DO16, M12 10 = Adapter for external pilot air 11 = Adapter pneumatic operation 12 = Sealing ring 13 = Reducing nipple

3/2-directional valve, electrically operated, Series AS5-SOV

R412009266

General series information Series AS5

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Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Q_n
12500 l/min

Compressed air connection
G 3/4

Working pressure min.
2.5 bar

Working pressure max
10 bar

Operational voltage AC at 50 Hz
110 V

Operational voltage AC at 60 Hz
110 V

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts
3/2-directional valve

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve with pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Medium

Compressed air
Neutral gases

Max. particle size

5 µm

Compressed air connection, exhaust

G 1/2

Nominal flow Qn 1 to 2

12500 l/min

Nominal flow Qn 2 to 3

3700 l/min

Holding power AC 50 Hz

1.6 VA

Holding power AC 60 Hz

1.4 VA

Switch-on power AC 50 Hz

2.2 VA

Switch-on power AC 60 Hz

1.6 VA

Duty cycle

100 %

Connector standard

ISO 15217

Protection class with connection

IP65

Reverse polarity protection

Protected against polarity reversal

Electrical connection type 2

Plug

Electrical connection 2, thread size

ISO 15217, form C

Weight

0.677 kg

Material

Housing material

Polyamide

Seal material

Acrylonitrile butadiene rubber

Material threaded bushing

Die cast zinc

Material front plate

Acrylonitrile butadiene styrene

Part No.

R412009266

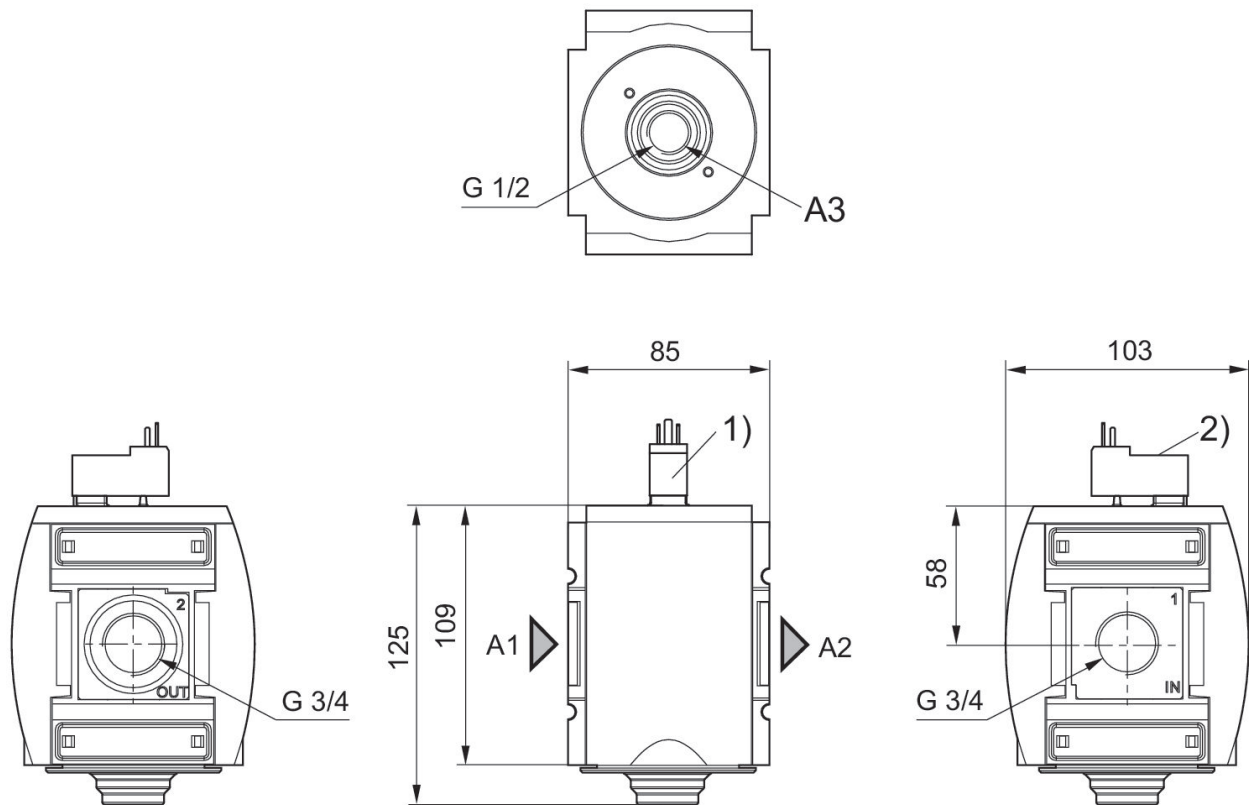
Technical information

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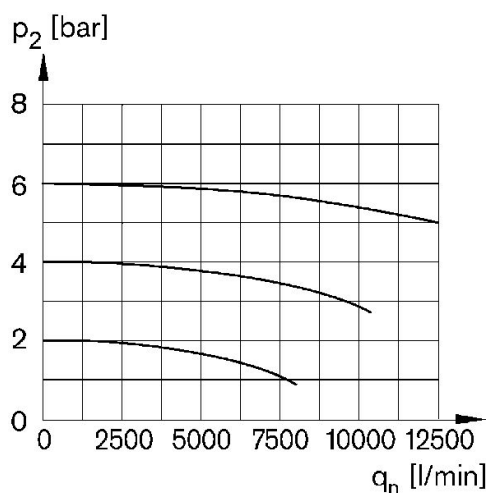
Nominal flow Qn with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 1 \text{ bar}$

Dimensions in mm



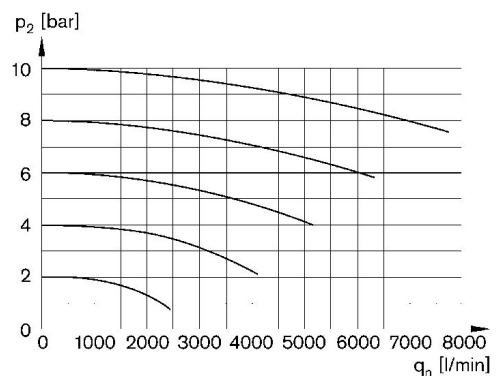
A1 = input
A2 = output
A3 = ventilation port
1) For valve plug connectors according to ISO 15217 (form C)
2) Manual override

Flow rate characteristic $p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



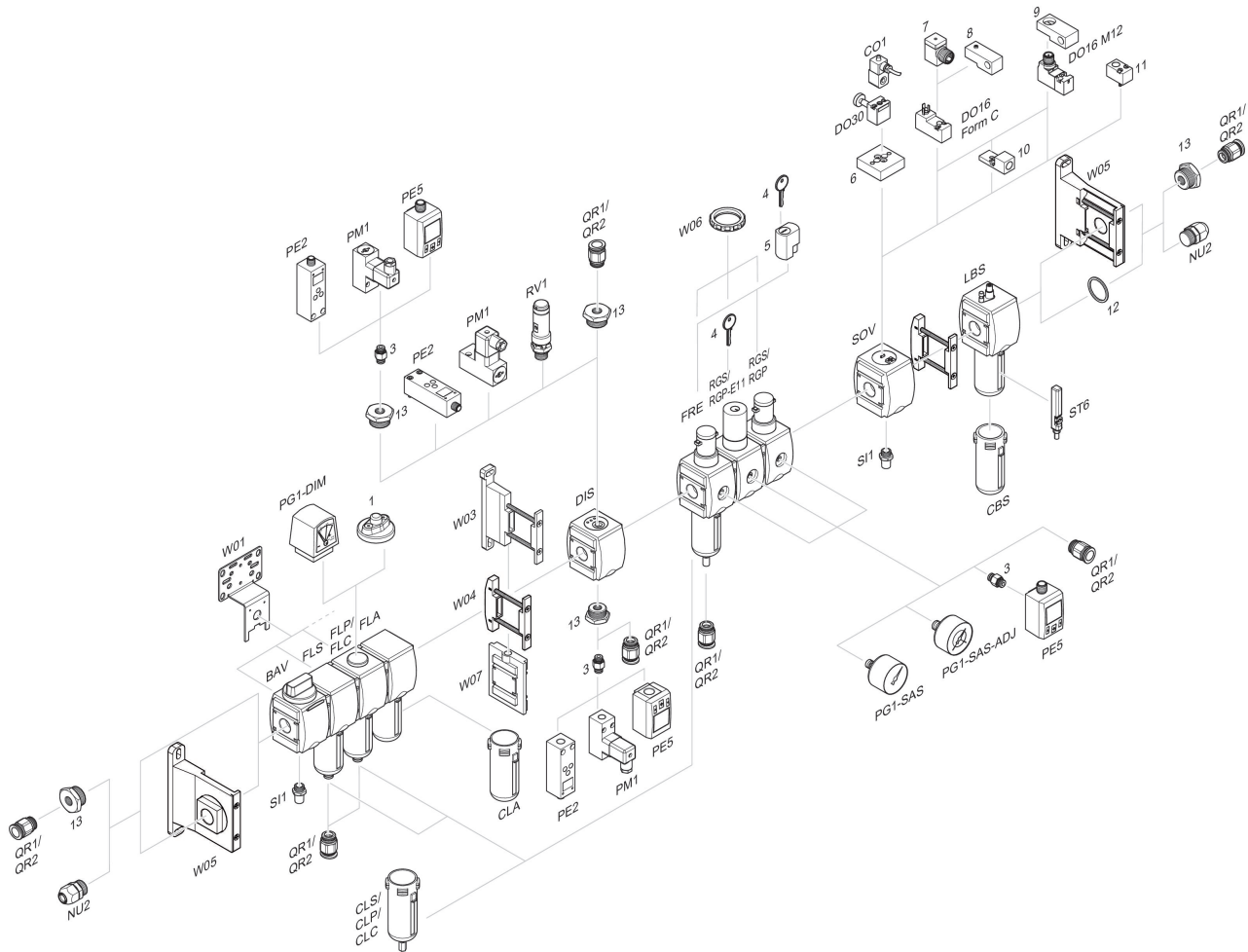
p_2 = Secondary pressure
 q_n = Nominal flow

Rear exhaust $2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview



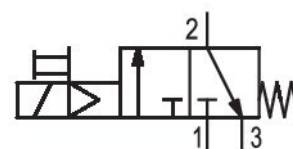
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3/2-directional valve, electrically operated, Series AS5-SOV

R412009267

General series information Series AS5

- The AVENTICS Series AS5 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

Activation
Electrically

Nominal flow Q_n
12500 l/min

Compressed air connection
G 3/4

Working pressure min.
2.5 bar

Working pressure max
10 bar

Operational voltage AC at 50 Hz
220 V

Operational voltage AC at 60 Hz
230 V

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts
3/2-directional valve

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve with pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Medium

Compressed air
Neutral gases

Max. particle size

5 µm

Compressed air connection, exhaust

G 1/2

Nominal flow Qn 1 to 2

12500 l/min

Nominal flow Qn 2 to 3

3700 l/min

Holding power AC 50 Hz

1.6 VA

Holding power AC 60 Hz

1.4 VA

Switch-on power AC 50 Hz

2.2 VA

Switch-on power AC 60 Hz

1.6 VA

Duty cycle

100 %

Connector standard

ISO 15217

Protection class with connection

IP65

Reverse polarity protection

Protected against polarity reversal

Electrical connection type 2

Plug

Electrical connection 2, thread size

ISO 15217, form C

Weight

0.677 kg

Material

Housing material

Polyamide

Seal material

Acrylonitrile butadiene rubber

Material threaded bushing

Die cast zinc

Material front plate

Acrylonitrile butadiene styrene

Part No.

R412009267

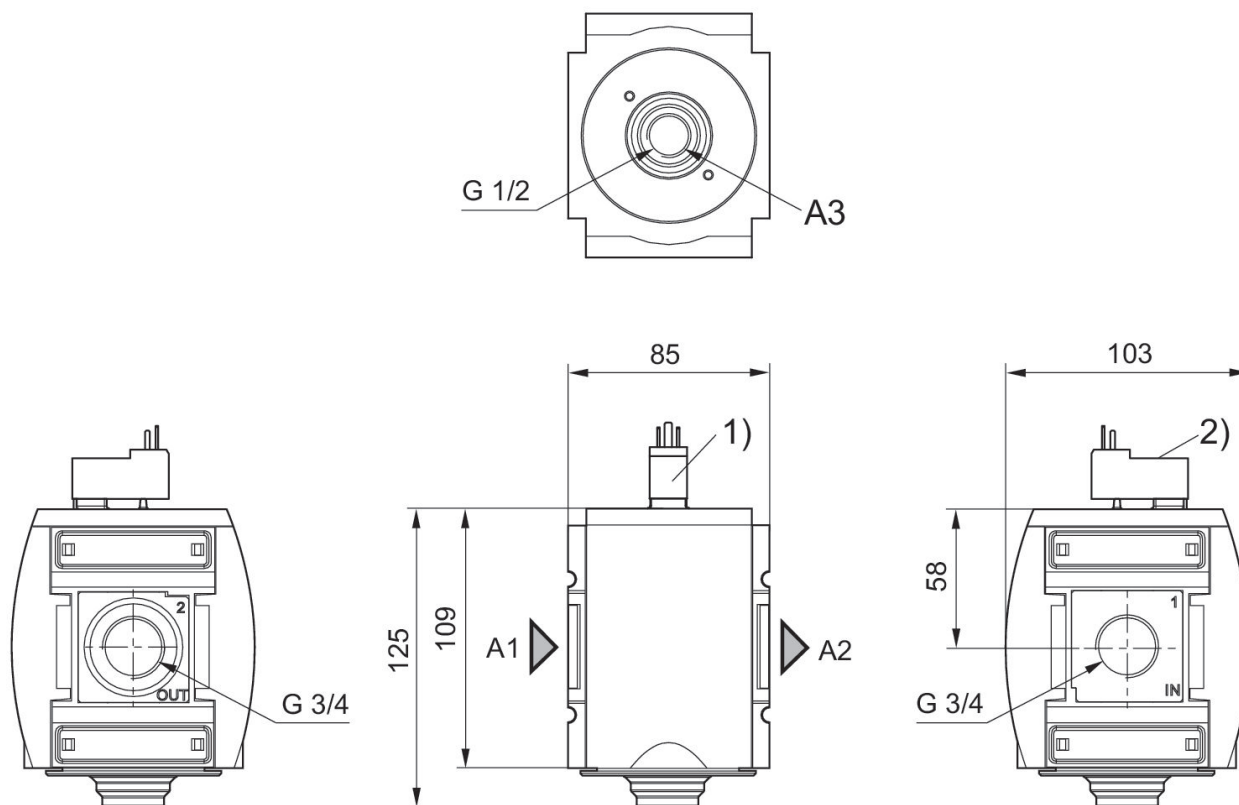
Technical information

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

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.

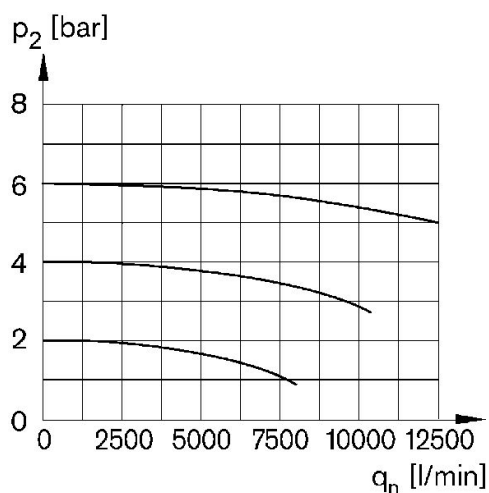
Nominal flow Qn with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 1 \text{ bar}$

Dimensions in mm



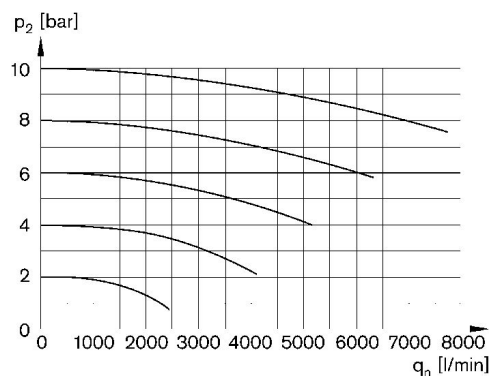
A1 = input
A2 = output
A3 = ventilation port
1) For valve plug connectors according to ISO 15217 (form C)
2) Manual override

Flow rate characteristic $p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



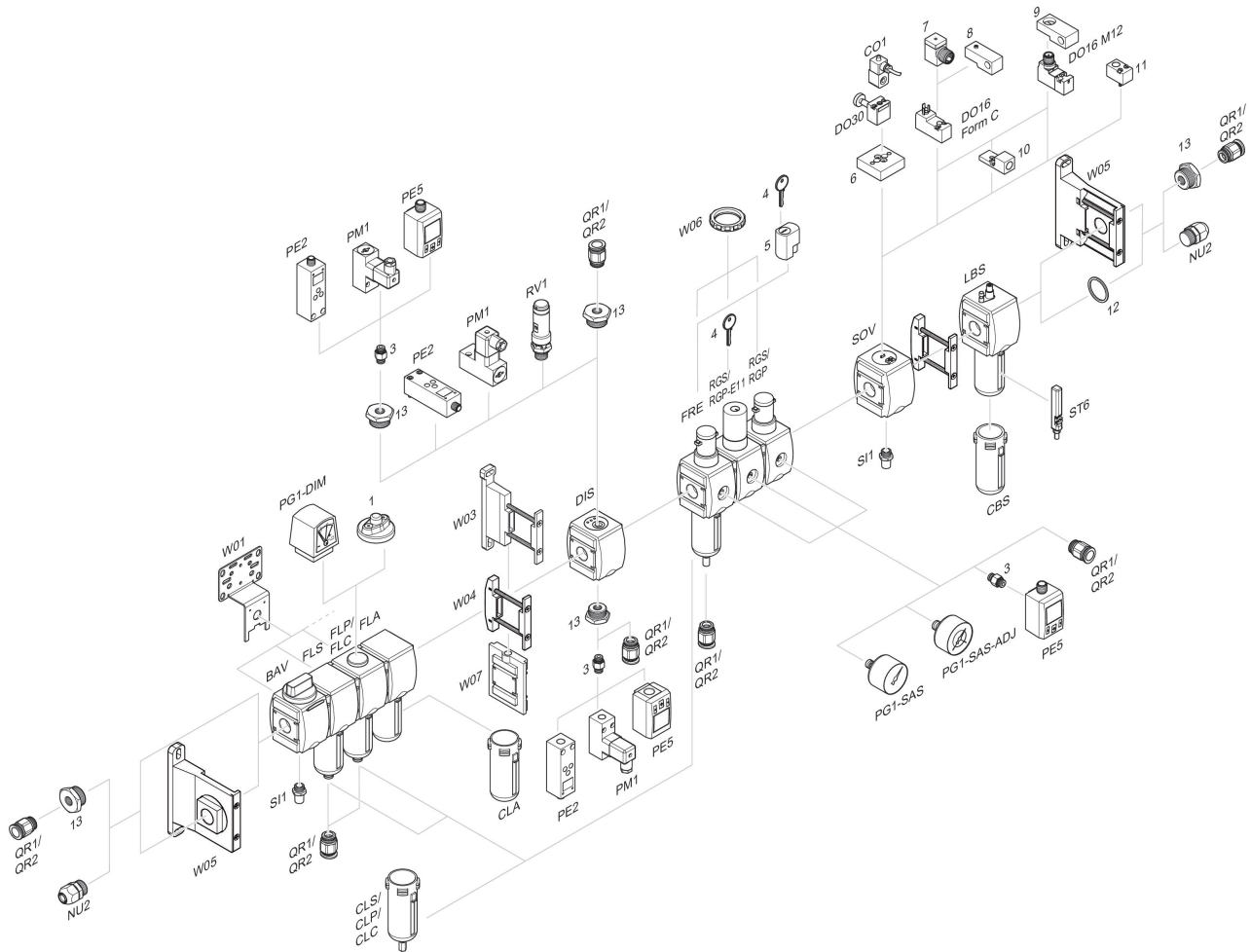
p_2 = Secondary pressure
 q_n = Nominal flow

Rear exhaust $2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview



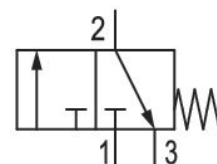
1 = contamination display 3 = Double nipple 4 = Key for E11 locking 5 = mortise lock 6 = Transition plate DO30 7 = Adapter, Series CON-VP 8 = Mounting aid DO16, form C 9 = Mounting aid DO16, M12 10 = Adapter for external pilot air 11 = Adapter pneumatic operation 12 = Sealing ring 13 = Reducing nipple

3/2-directional valve, electrically operated, Series AS5-SOV

R412009268

General series information Series AS5

- The AVENTICS Series AS5 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

Activation
Electrically

Nominal flow Q_n
12500 l/min

Compressed air connection
G 1

Working pressure min.
2.5 bar

Working pressure max
16 bar

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts
3/2-directional valve

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve without pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Medium
Compressed air
Neutral gases

Max. particle size
5 µm

Compressed air connection, exhaust
G 1/2

Nominal flow Q_n 1 to 2
12500 l/min

Nominal flow Q_n 2 to 3
3700 l/min

Weight
0.641 kg

Material

Housing material
Polyamide

Seal material
Acrylonitrile butadiene rubber

Material threaded bushing
Die cast zinc

Material front plate
Acrylonitrile butadiene styrene

Part No.
R412009268

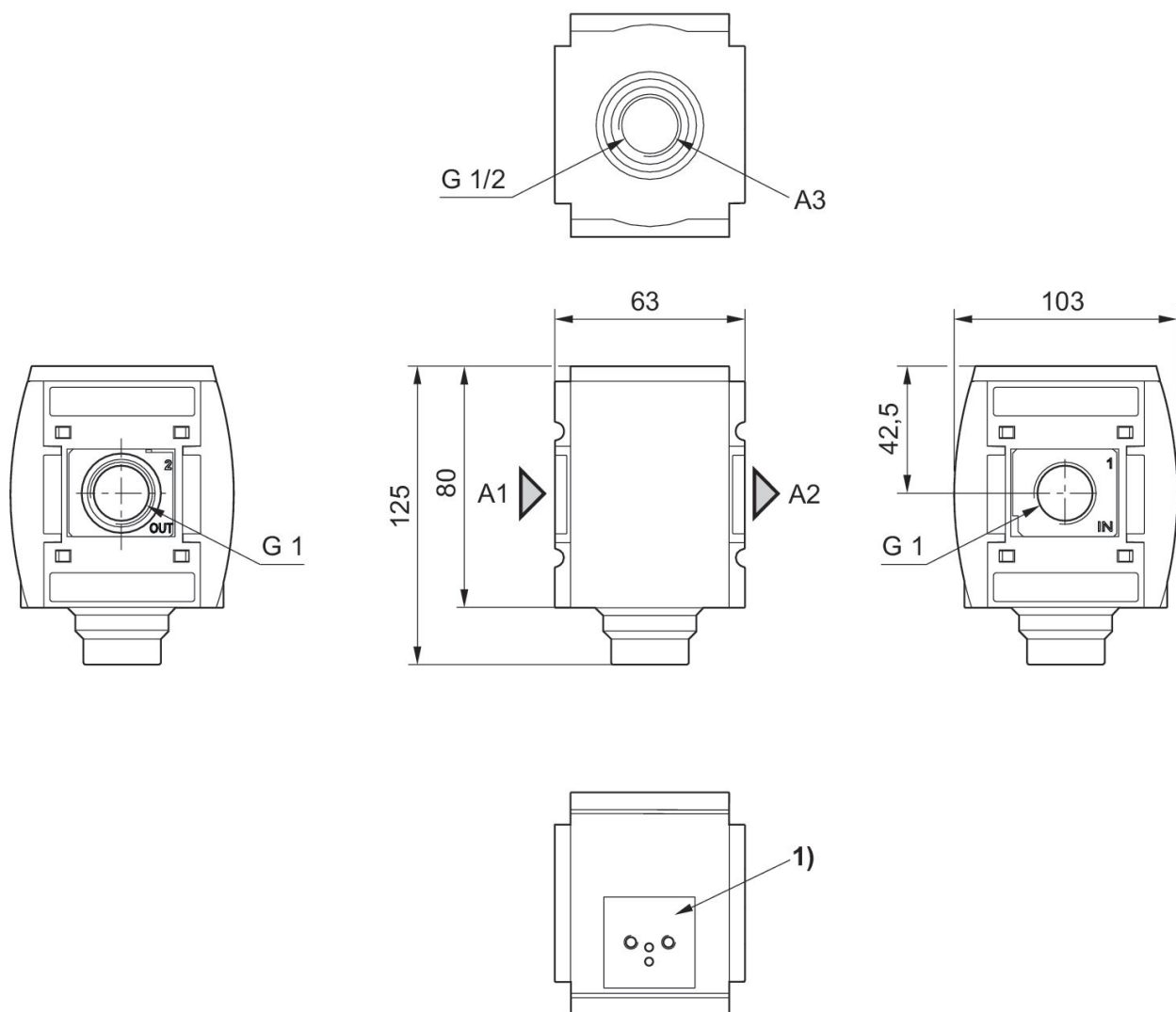
Technical information

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

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.

Nominal flow Q_n with secondary pressure $p_2 = 6$ bar at $\Delta p = 1$ bar

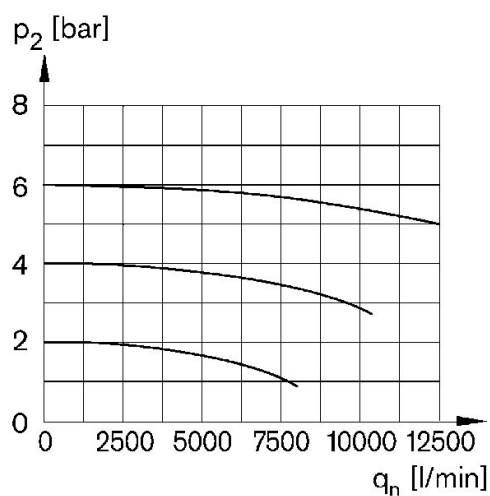
Dimensions in mm



A1 = input
A2 = output
A3 = ventilation port
1) For pilot valve series DO16

Flow rate characteristic

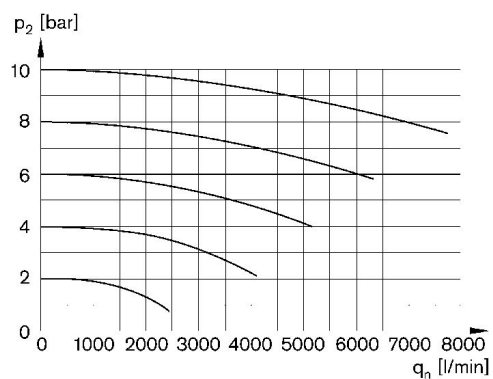
$p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



p_2 = Secondary pressure
 q_n = Nominal flow

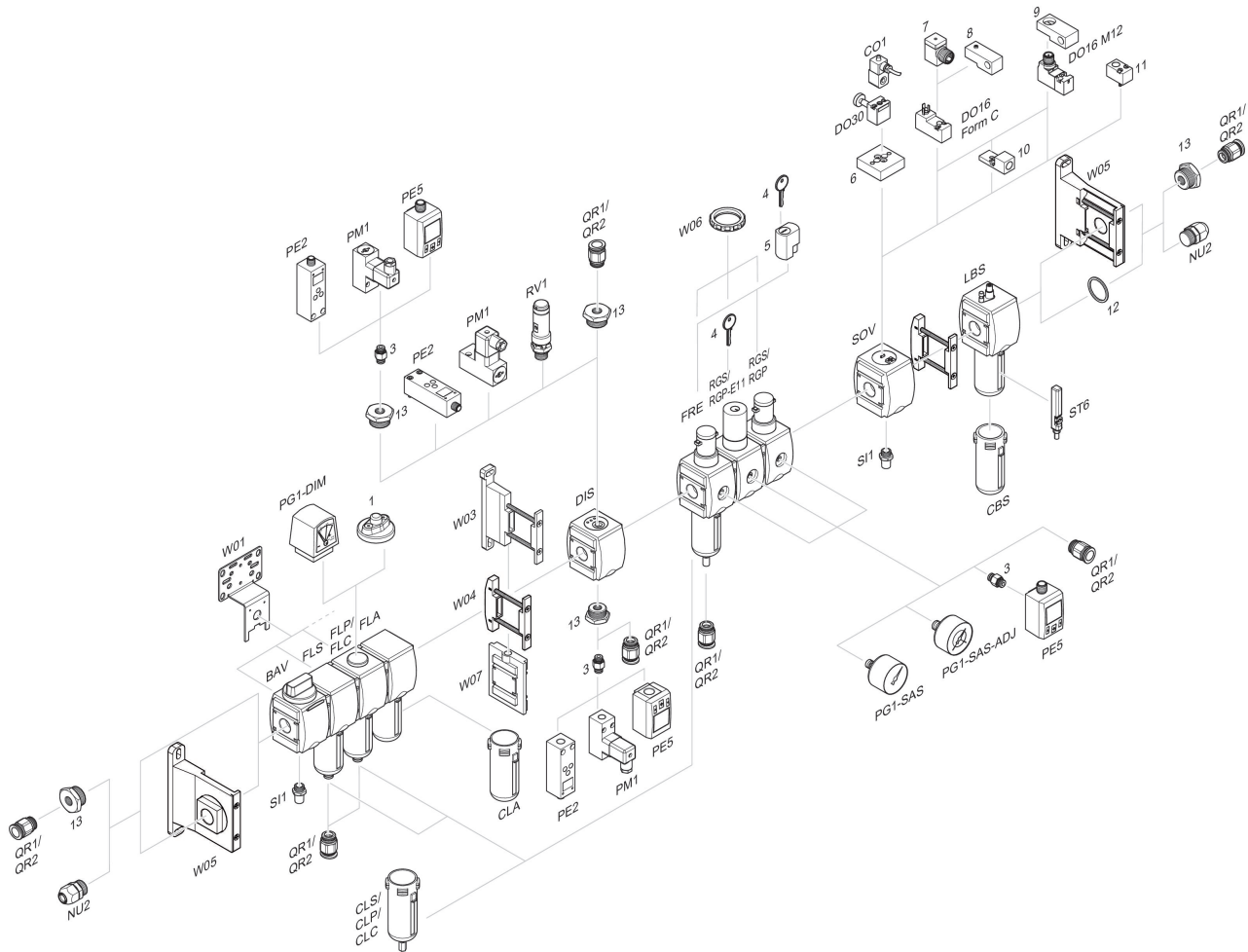
Rear exhaust

$2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview



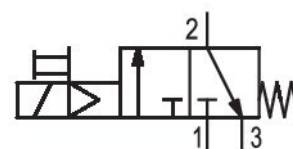
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3/2-directional valve, electrically operated, Series AS5-SOV

R412009269

General series information Series AS5

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Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Q_n
12500 l/min

Compressed air connection
G 1

Working pressure min.
2.5 bar

Working pressure max
10 bar

DC operating voltage
24 V

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts
3/2-directional valve

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve with pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Medium
Compressed air

Neutral gases
Max. particle size
5 µm
Compressed air connection, exhaust
G 1/2
Nominal flow Qn 1 to 2
12500 l/min
Nominal flow Qn 2 to 3
3700 l/min
Power consumption DC
2 W
Duty cycle
100 %

Connector standard
ISO 15217
Protection class with connection
IP65
Reverse polarity protection
Protected against polarity reversal
Electrical connection type 2
Plug
Electrical connection 2, thread size
ISO 15217, form C
Weight
0.677 kg

Material

Housing material
Polyamide
Seal material
Acrylonitrile butadiene rubber
Material threaded bushing
Die cast zinc

Material front plate
Acrylonitrile butadiene styrene
Part No.
R412009269

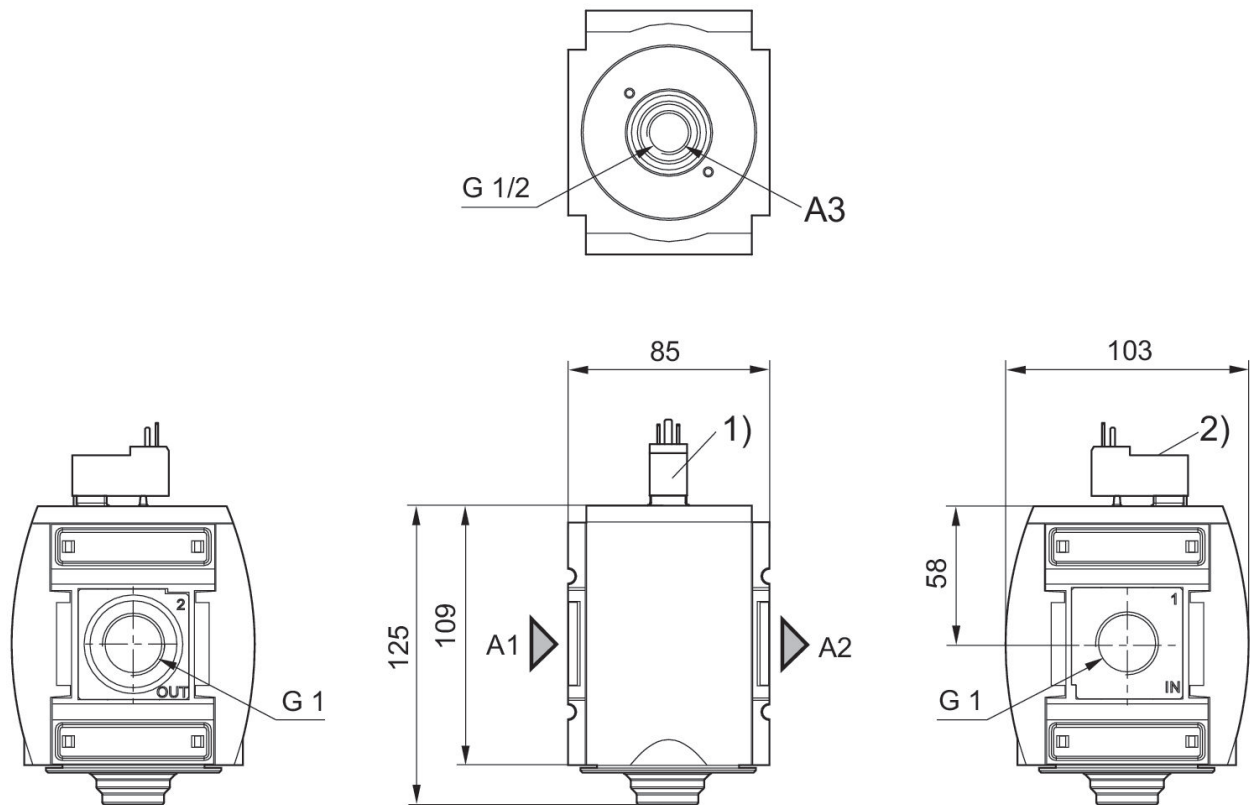
Technical information

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

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.

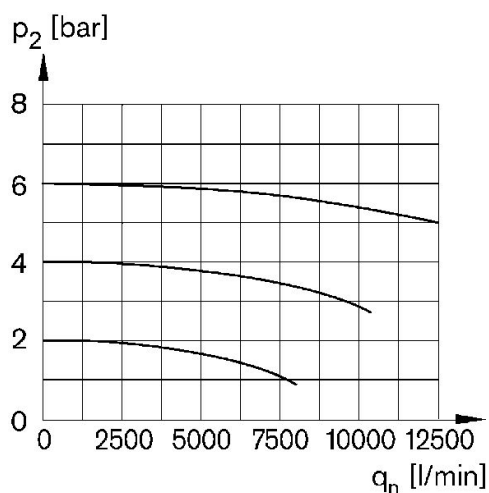
Nominal flow Qn with secondary pressure p2 = 6 bar at $\Delta p = 1$ bar

Dimensions in mm



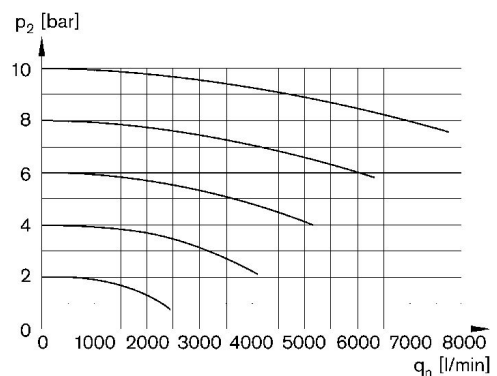
A1 = input
A2 = output
A3 = ventilation port
1) For valve plug connectors according to ISO 15217 (form C)
2) Manual override

Flow rate characteristic $p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



p_2 = Secondary pressure
 q_n = Nominal flow

Rear exhaust $2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

[illegible]

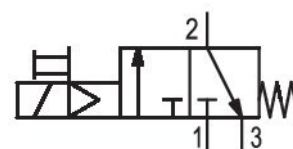
AVENTICS

3/2-directional valve, electrically operated, Series AS5-SOV

R412009270

General series information Series AS5

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Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Q_n
12500 l/min

Compressed air connection
G 1

Working pressure min.
2.5 bar

Working pressure max
10 bar

Operational voltage AC at 50 Hz
110 V

Operational voltage AC at 60 Hz
110 V

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts
3/2-directional valve

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve with pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Medium

Compressed air
Neutral gases

Max. particle size

5 µm

Compressed air connection, exhaust

G 1/2

Nominal flow Qn 1 to 2

12500 l/min

Nominal flow Qn 2 to 3

3700 l/min

Holding power AC 50 Hz

1.6 VA

Holding power AC 60 Hz

1.4 VA

Switch-on power AC 50 Hz

2.2 VA

Switch-on power AC 60 Hz

1.6 VA

Duty cycle

100 %

Connector standard

ISO 15217

Protection class with connection

IP65

Reverse polarity protection

Protected against polarity reversal

Electrical connection type 2

Plug

Electrical connection 2, thread size

ISO 15217, form C

Weight

0.677 kg

Material

Housing material

Polyamide

Seal material

Acrylonitrile butadiene rubber

Material threaded bushing

Die cast zinc

Material front plate

Acrylonitrile butadiene styrene

Part No.

R412009270

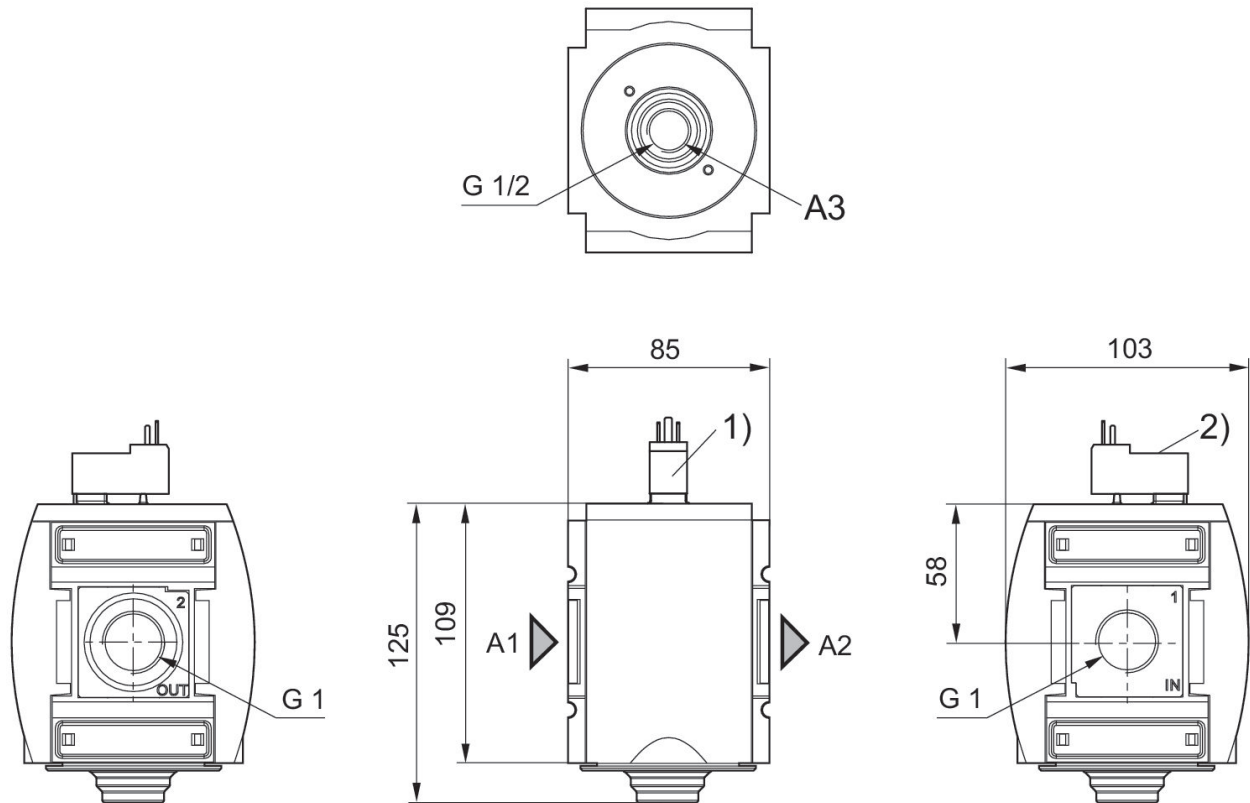
Technical information

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

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.

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

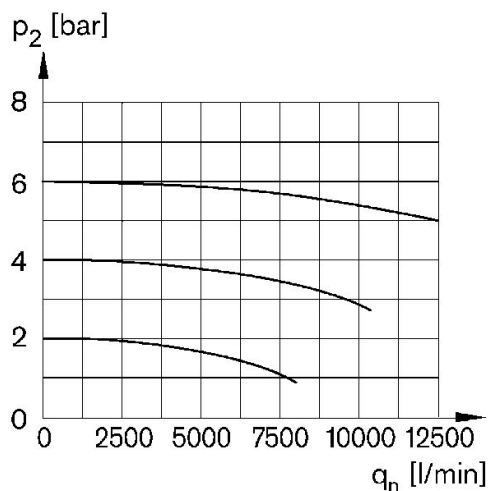
Dimensions in mm



A1 = input
A2 = output
A3 = ventilation port
1) For valve plug connectors according to ISO 15217 (form C)
2) Manual override

Flow rate characteristic

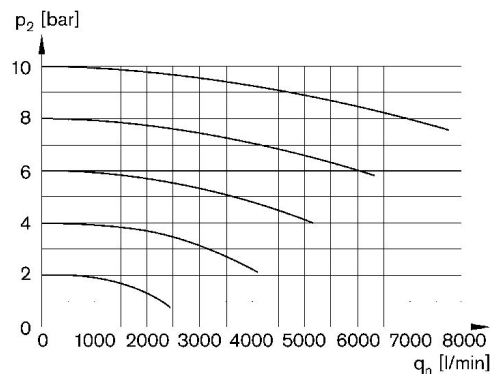
$p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



p_2 = Secondary pressure
 q_n = Nominal flow

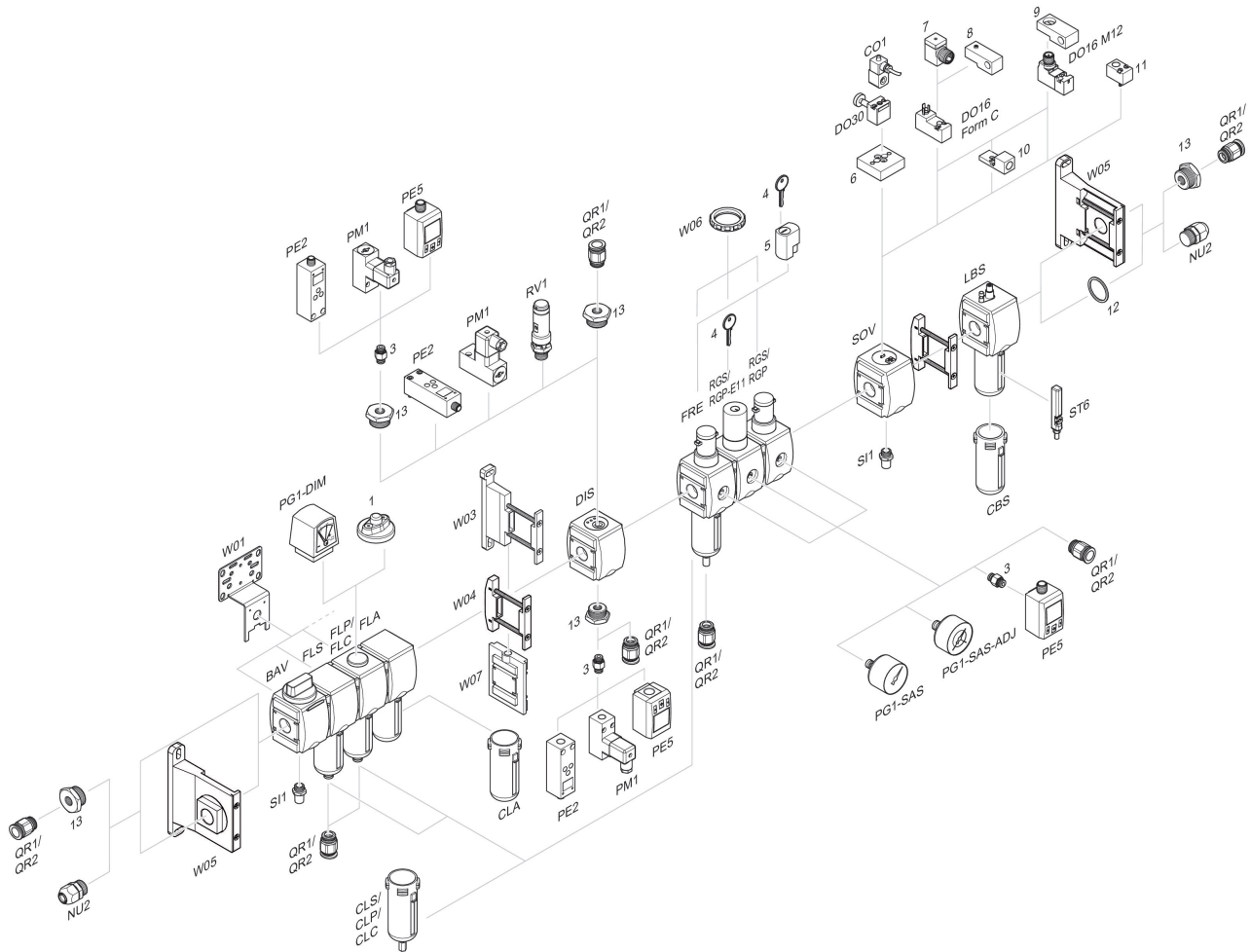
Rear exhaust

$2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview



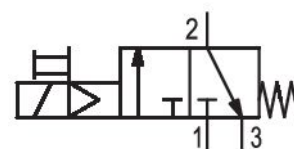
1 = contamination display 3 = Double nipple 4 = Key for E11 locking 5 = mortise lock 6 = Transition plate DO30 7 = Adapter, Series CON-VP 8 = Mounting aid DO16, form C 9 = Mounting aid DO16, M12 10 = Adapter for external pilot air 11 = Adapter pneumatic operation 12 = Sealing ring 13 = Reducing nipple

3/2-directional valve, electrically operated, Series AS5-SOV

R412009271

General series information Series AS5

- The AVENTICS Series AS5 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

Activation
Electrically

Nominal flow Q_n
12500 l/min

Compressed air connection
G 1

Working pressure min.
2.5 bar

Working pressure max
10 bar

Operational voltage AC at 50 Hz
220 V

Operational voltage AC at 60 Hz
230 V

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts
3/2-directional valve

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve with pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Medium

Compressed air
Neutral gases

Max. particle size

5 µm

Compressed air connection, exhaust

G 1/2

Nominal flow Qn 1 to 2

12500 l/min

Nominal flow Qn 2 to 3

3700 l/min

Holding power AC 50 Hz

1.6 VA

Holding power AC 60 Hz

1.4 VA

Switch-on power AC 50 Hz

2.2 VA

Switch-on power AC 60 Hz

1.6 VA

Duty cycle

100 %

Connector standard

ISO 15217

Protection class with connection

IP65

Reverse polarity protection

Protected against polarity reversal

Electrical connection type 2

Plug

Electrical connection 2, thread size

ISO 15217, form C

Weight

0.677 kg

Material

Housing material

Polyamide

Seal material

Acrylonitrile butadiene rubber

Material threaded bushing

Die cast zinc

Material front plate

Acrylonitrile butadiene styrene

Part No.

R412009271

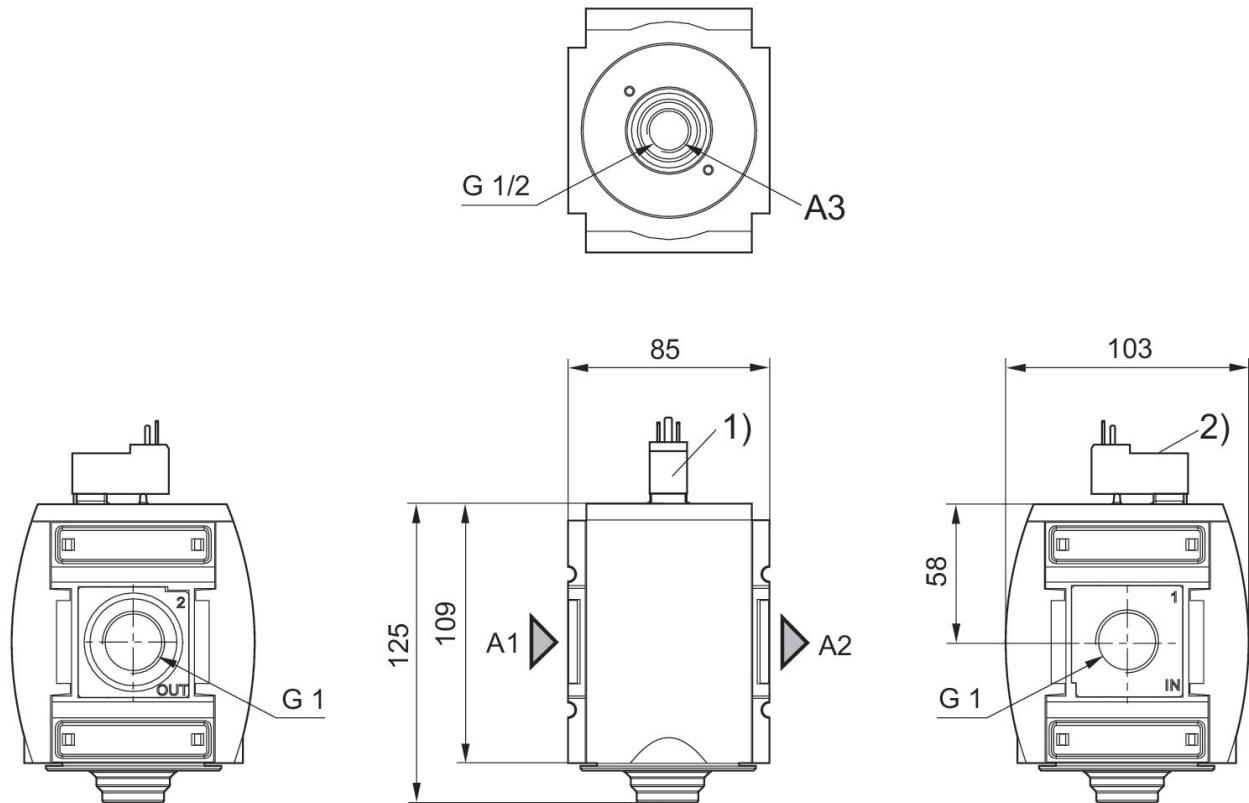
Technical information

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

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.

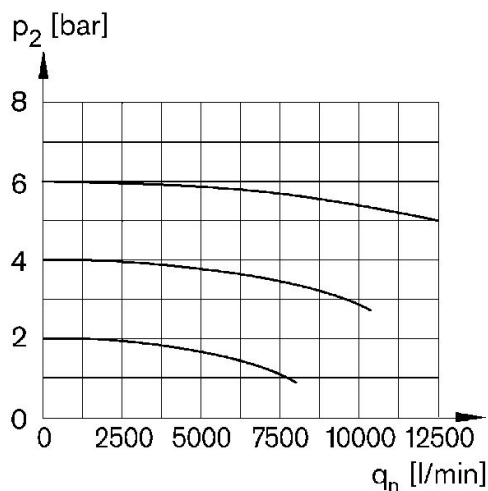
Nominal flow Qn with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 1 \text{ bar}$

Dimensions in mm



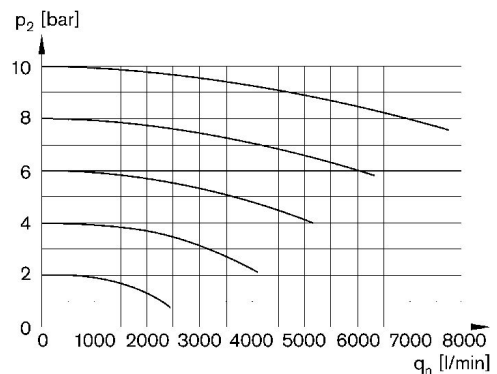
- A1 = input
A2 = output
A3 = ventilation port
1) For valve plug connectors according to ISO 15217 (form C)
2) Manual override

Flow rate characteristic $p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



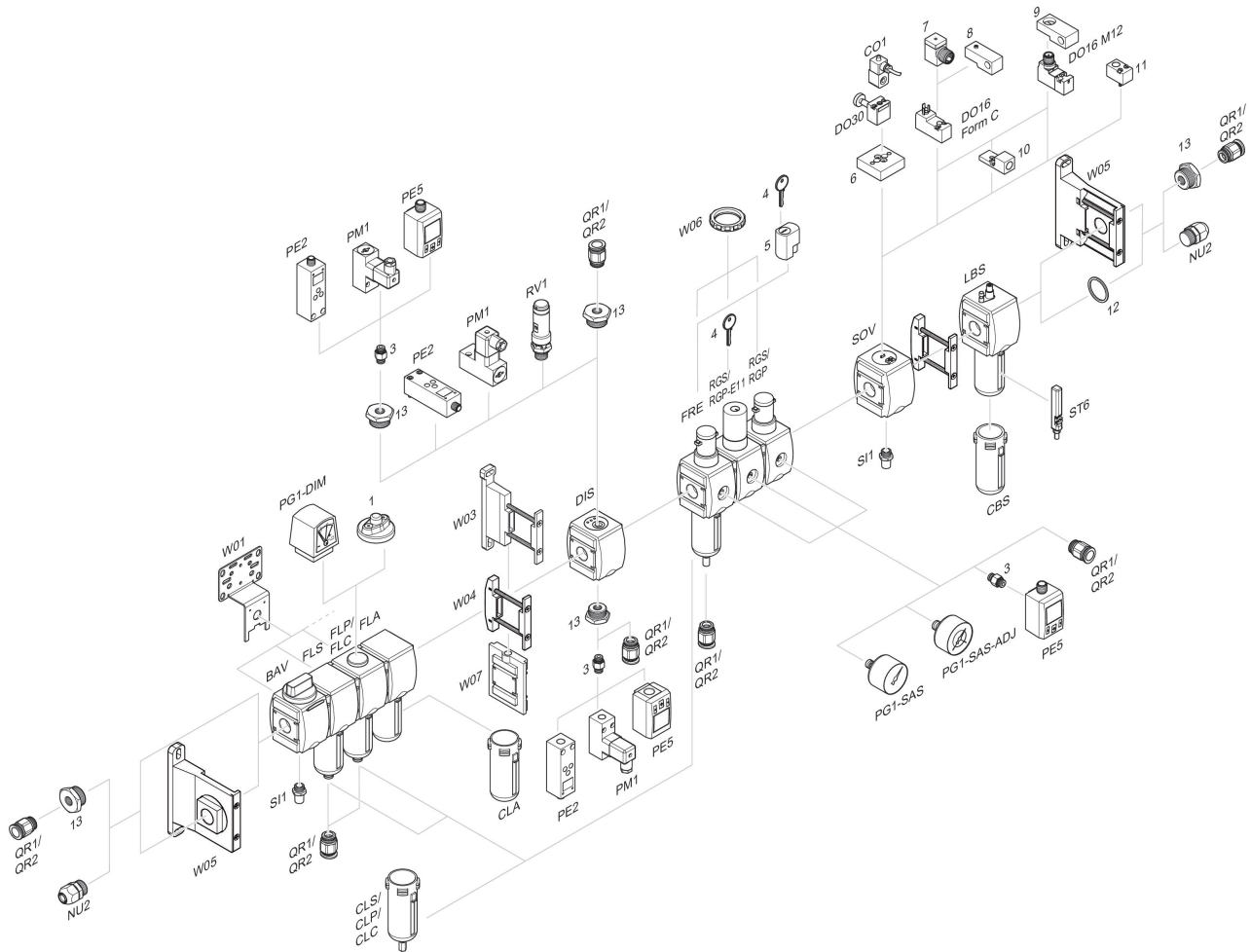
p_2 = Secondary pressure
 q_n = Nominal flow

Rear exhaust $2 > 3$



p_2 = Secondary pressure
 q_n = Nominal flow

Accessories overview



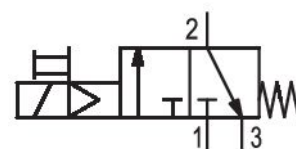
1 = contamination display 3 = Double nipple 4 = Key for E11 locking 5 = mortise lock 6 = Transition plate DO30 7 = Adapter, Series CON-VP 8 = Mounting aid DO16, form C 9 = Mounting aid DO16, M12 10 = Adapter for external pilot air 11 = Adapter pneumatic operation 12 = Sealing ring 13 = Reducing nipple

3/2-directional valve, electrically operated, Series AS5-SOV

R412009375

General series information Series AS5

- The AVENTICS Series AS5 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

Activation
Electrically

Nominal flow Qn
12500 l/min

Working pressure min.
2.5 bar

Working pressure max
10 bar

DC operating voltage
24 V

Sealing principle
Soft Seal

Connection type
Pipe connection

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve with pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Min. medium temperature
-10 °C

Max. medium temperature
50 °C

Medium	Power consumption DC
Compressed air	2 W
Neutral gases	Duty cycle
Max. particle size	100 %
25 µm	Protection class with connection
Compressed air connection, exhaust	IP65
G 1/2	Electrical connection type 2
Nominal flow Qn 1 to 2	Plug
12500 l/min	Electrical connection 2, thread size
Nominal flow Qn 2 to 3	M12x1
3700 l/min	Weight
	0.65 kg

Material

Housing material	Material front plate
Polyamide	Acrylonitrile butadiene styrene
Seal material	Part No.
Acrylonitrile butadiene rubber	R412009375
Material threaded bushing	
Die cast zinc	

Technical information

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

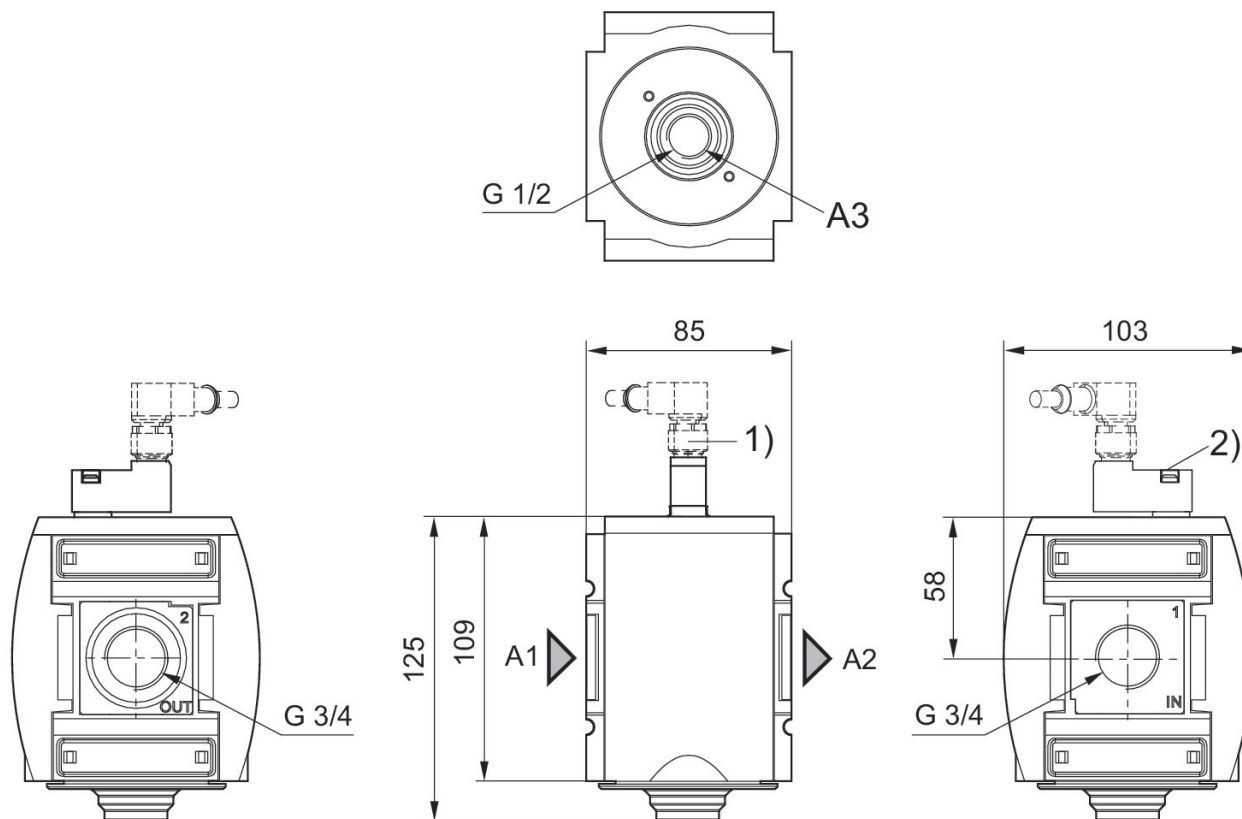
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in <https://www.emerson.com/en-us/support>).

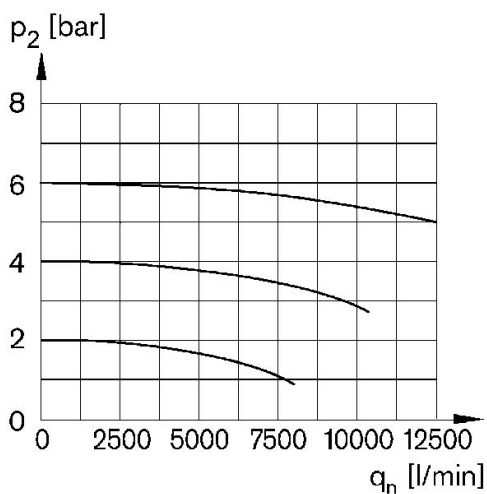
Dimensions in mm



A1 = input
A2 = output
A3 = ventilation port
1) plug M12
2) Manual override

Flow rate characteristic

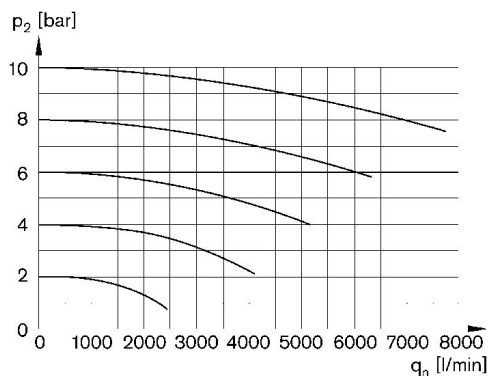
$p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



p_2 = Secondary pressure
 q_n = Nominal flow

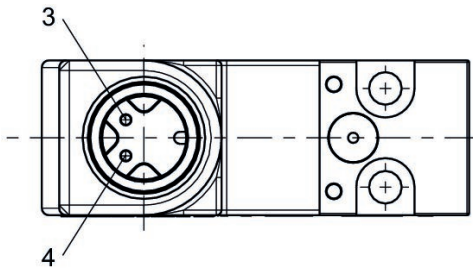
Rear exhaust

$2 > 3$



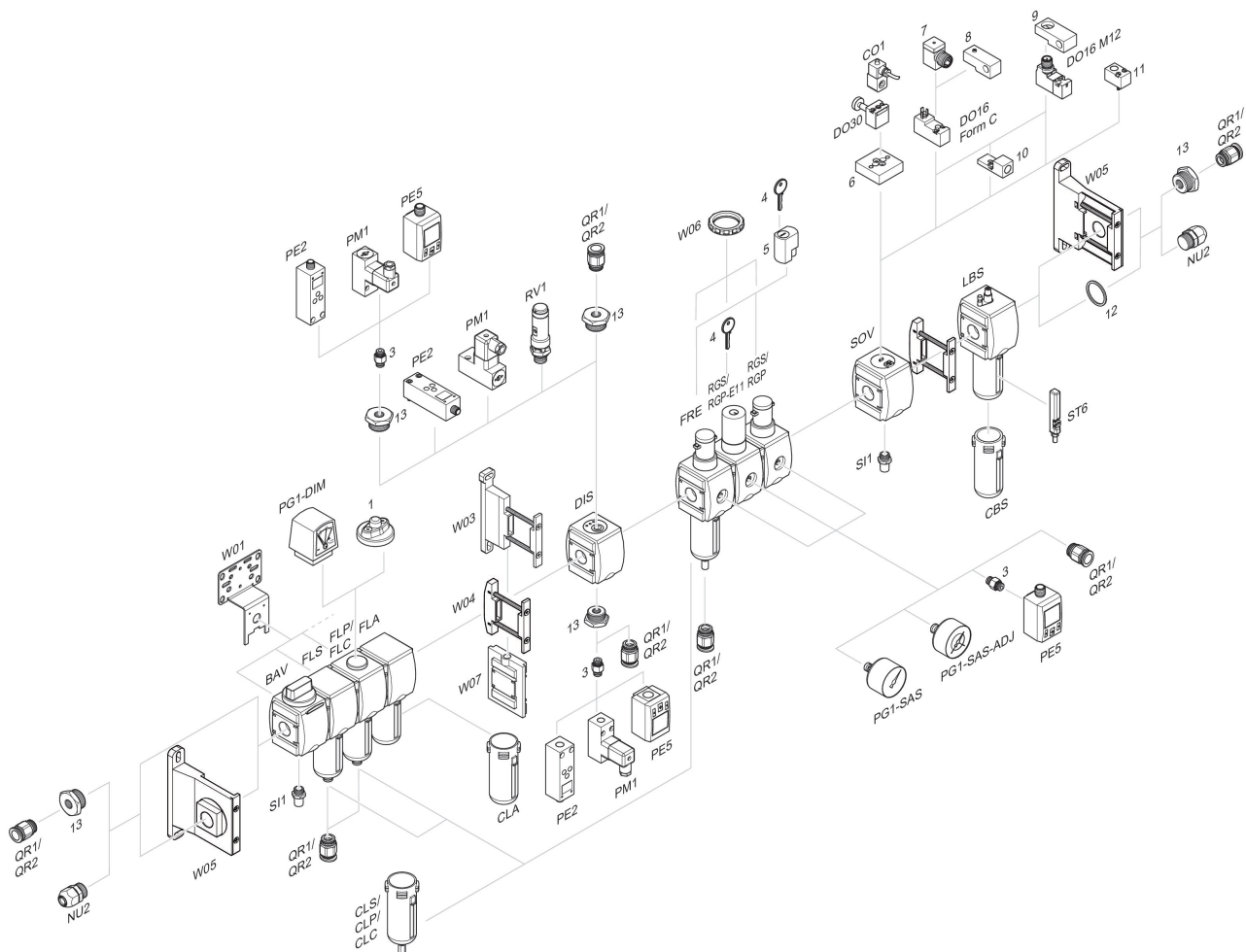
p_2 = Secondary pressure
 q_n = Nominal flow

Pin assignment M12x1



3: +/-
4: +/-

Accessories overview



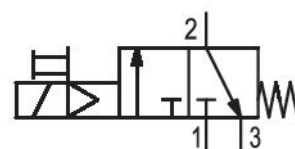
1 = contamination display 3 = Double nipple 4 = Key for E11 locking 5 = mortise lock 6 = Transition plate DO30 7 = Adapter, Series CON-VP 8 = Mounting aid DO16, form C 9 = Mounting aid DO16, M12 10 = Adapter for external pilot air 11 = Adapter pneumatic operation 12 = Sealing ring 13 = Reducing nipple

3/2-directional valve, electrically operated, Series AS5-SOV

R412009376

General series information Series AS5

- The AVENTICS Series AS5 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

Activation
Electrically

Nominal flow Q_n
12500 l/min

Compressed air connection
G 1

Working pressure min.
2.5 bar

Working pressure max
10 bar

DC operating voltage
24 V

Sealing principle
Soft Seal

Connection type
Pipe connection

Parts
3/2-directional valve

Can be assembled into blocks
Can be assembled into blocks

basic valve with electrical connector
Basic valve with pilot valve

Type
Poppet valve

Min. ambient temperature
-10 °C

Max. ambient temperature
50 °C

Medium
Compressed air

Neutral gases	Power consumption DC
Max. particle size	2 W
5 µm	Protection class with connection
Compressed air connection, exhaust	IP65
G 1/2	Electrical connection type 2
Nominal flow Qn 1 to 2	Plug
12500 l/min	Electrical connection 2, thread size
Nominal flow Qn 2 to 3	M12x1
3700 l/min	Weight
	0.65 kg

Material

Housing material	Material front plate
Polyamide	Acrylonitrile butadiene styrene
Seal material	Part No.
Acrylonitrile butadiene rubber	R412009376
Material threaded bushing	
Die cast zinc	

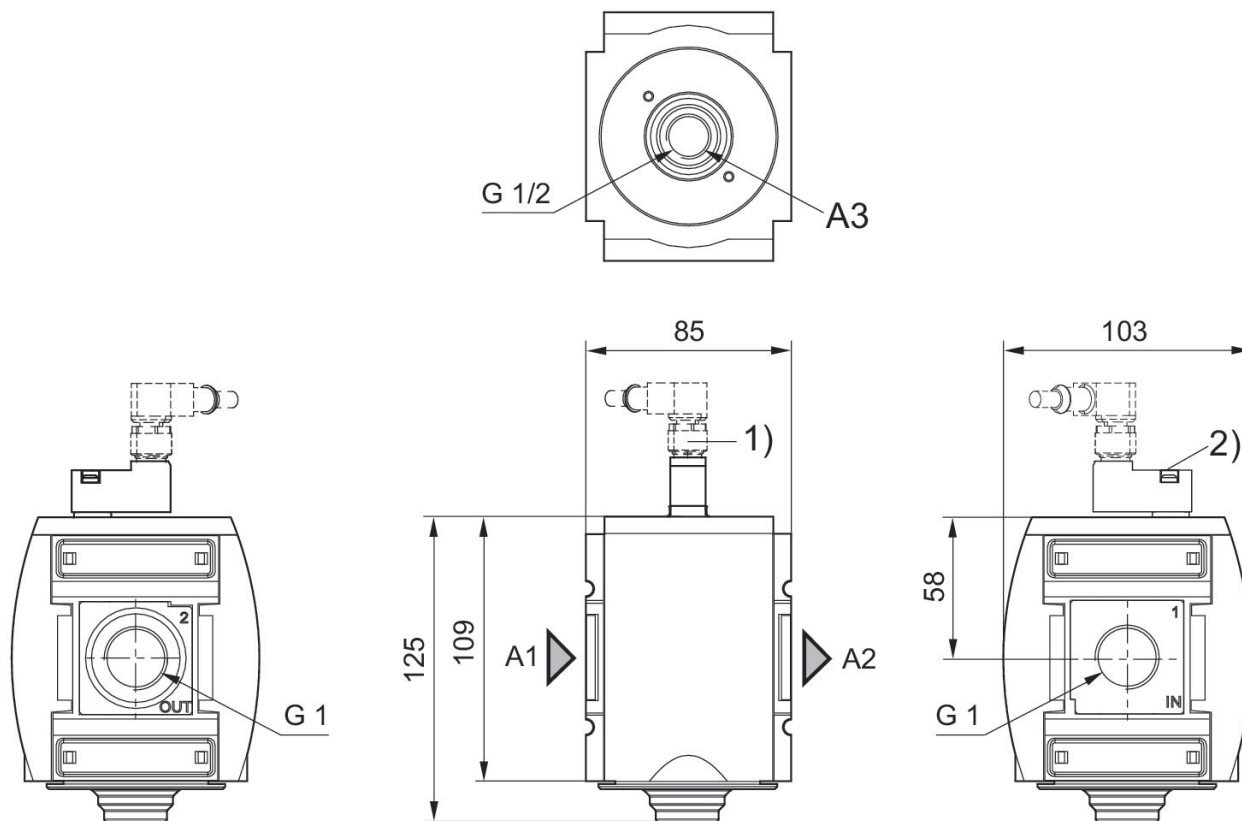
Technical information

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

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.

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

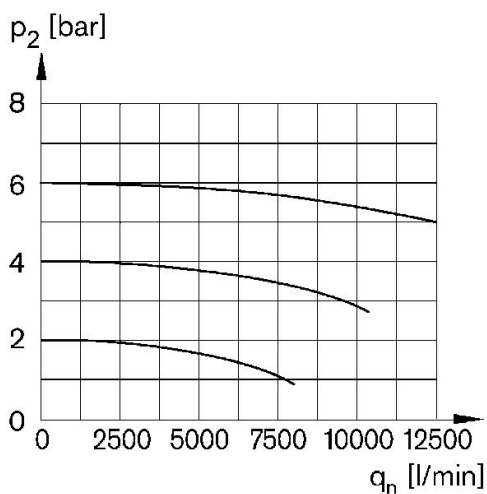
Dimensions in mm



A1 = input
A2 = output
A3 = ventilation port
1) plug M12
2) Manual override

Flow rate characteristic

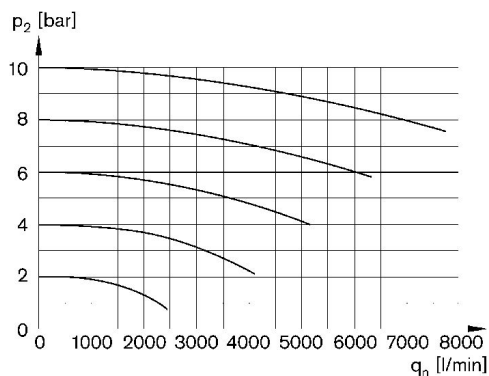
$p_2 = 0,05 - 7 \text{ bar}$, $1 > 2$



p_2 = Secondary pressure
 q_n = Nominal flow

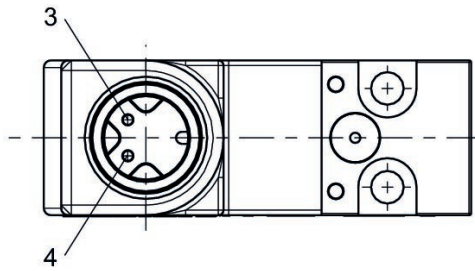
Rear exhaust

$2 > 3$



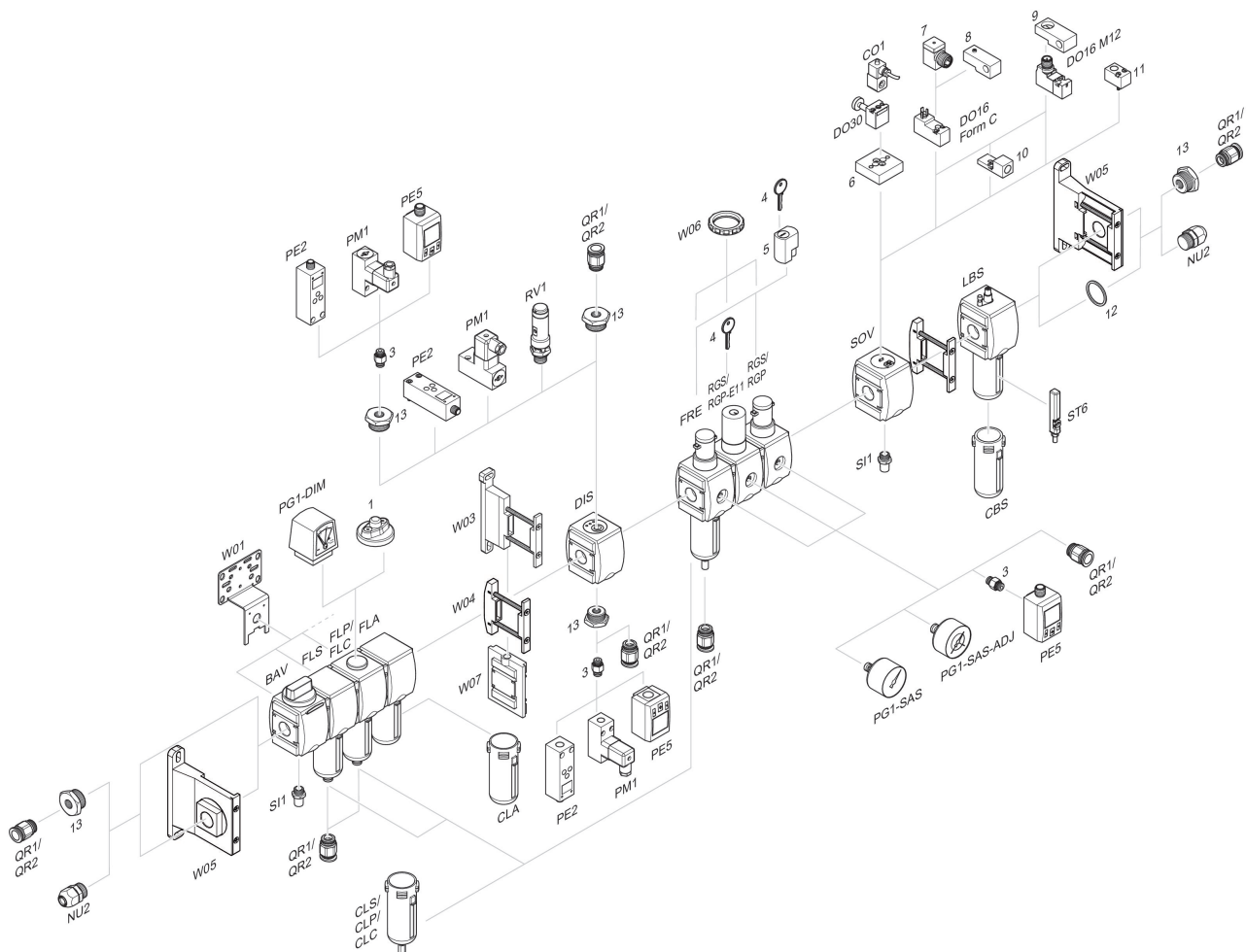
p_2 = Secondary pressure
 q_n = Nominal flow

Pin assignment M12x1



3: +/-
4: +/-

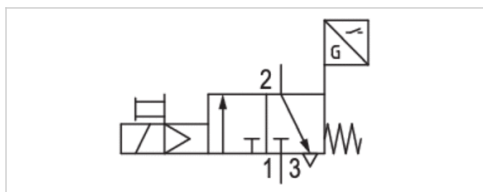
Accessories overview



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 13 = Reducing nipple

3/2-directional valve, electrically operated, Series AS5-SOV-...-POS

- With position inquiry, with integrated sensor
- Compressed air connection G 3/4 G 1
- Electrical connection: Plug, ISO 15217, form C



Version

Parts

Nominal flow

Nominal flow 1 ► 2

Nominal flow 2 ► 3

Working pressure min./max.

Medium

Medium temperature min./max.

Ambient temperature min./max.

Sealing principle

Max. particle size

Protection class acc. to DIN EN 61140 with plug

Weight

Poppet valve, Can be assembled into blocks

3/2-directional valve, electrically operated

12500 l/min

12500 l/min

3700 l/min

2.5 ... 10 bar

Compressed air Neutral gases

-10 ... 50 °C

-10 ... 50 °C

Soft sealing

25 µm

IP65

0.459 kg

Technical data

Part No.		Compressed air connection input	Compressed air connection output	Exhaust
R412009382		G 3/4	G 3/4	G 1/2
R412009388		G 1	G 1	G 1/2

Part No.	Operational voltage	Power consumption	Electrical connection
		DC	Pilot valve
R412009382	24 V	2 W	Plug, ISO 15217, form C
R412009388	24 V	2 W	Plug, ISO 15217, form C

Part No.	Electrical connection	Cable length
	Sensor	Sensor
R412009382	without wire end ferrule, tin-plated	3 m
R412009388	without wire end ferrule, tin-plated	3 m

Nominal flow Q_n with secondary pressure p₂ = 6 bar at Δp = 1 bar

Technical information

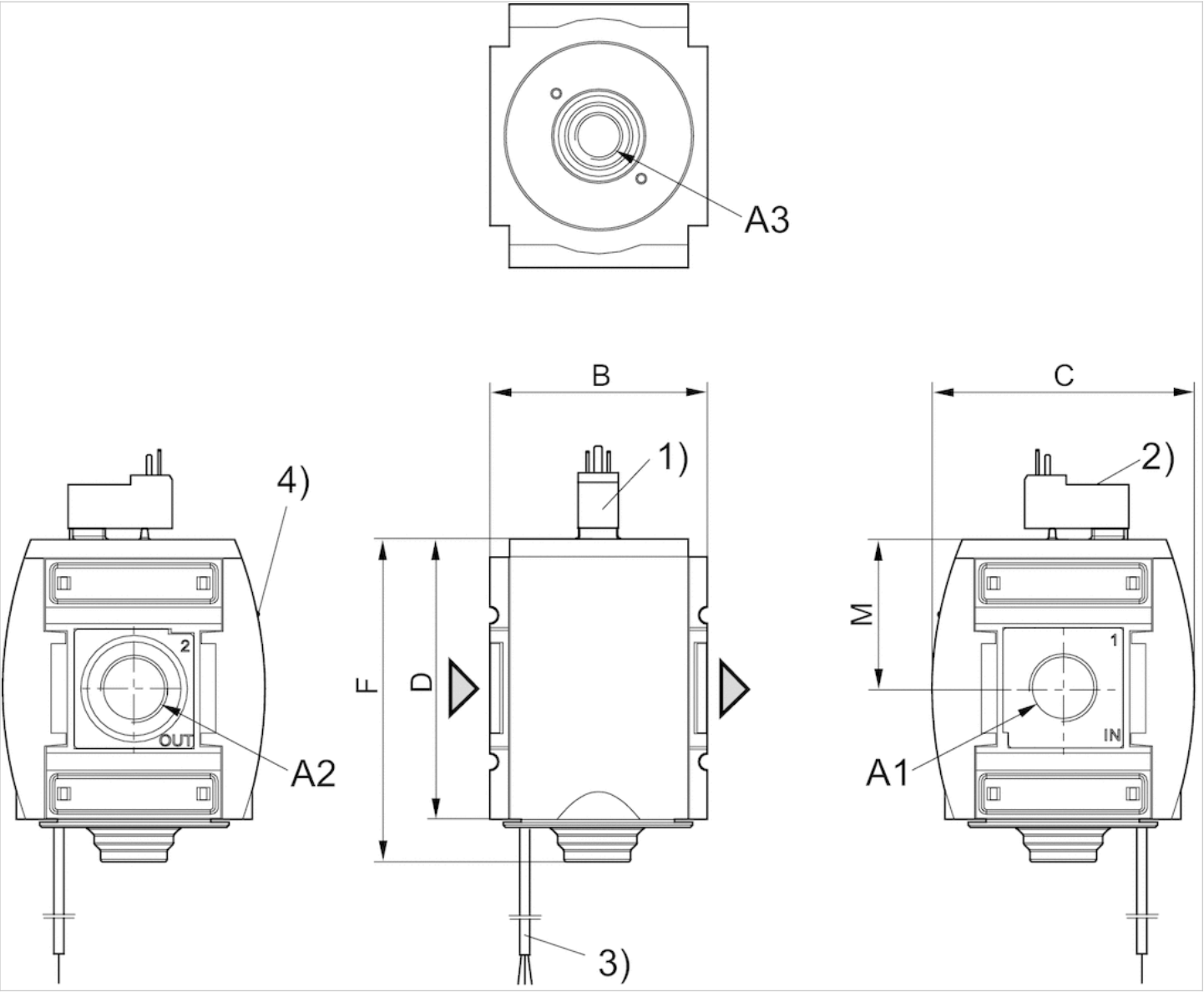
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
The sensor signal is visible on the front of the cover.
Electronic sensor R412003658 included in scope of delivery (assembled).
For sensor connection, see the selection table.
An ST6 sensor (contactless) is used to detect the switching position in the non-actuated state (position: exhaust).

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

3/2-directional valve with pilot valve and port for electrical connector form C



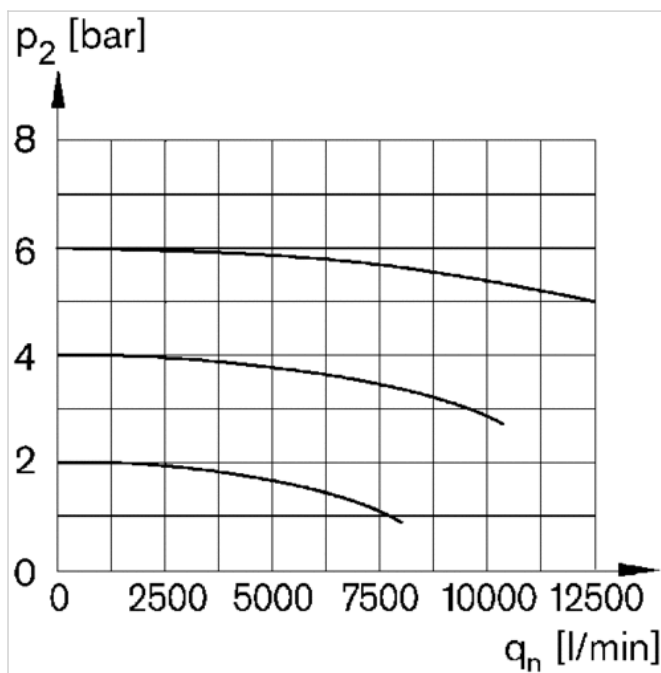
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) Electr. connection: valve plug connector form C, ISO 15217
- 2) Manual override
- 3) For version with sensor: cable length 3 m PUR.
- 4) Optical switch status indicator

Dimensions in mm

A1	A2	A3	B	C	D	F	M
G 3/4	G 3/4	G 1/2	85	103	109	125	58
G 1	G 1	G 1/2	85	103	109	125	58

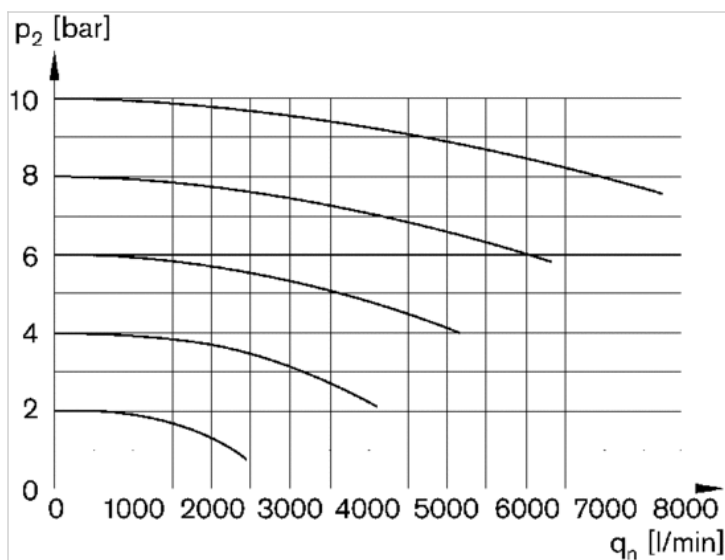
Diagrams

Flow rate characteristic, 1 2



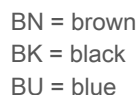
p_2 = secondary pressure
 q_n = nominal flow

Rear exhaust, 2 3



p_2 = secondary pressure
 q_n = nominal flow

Sensor pin assignment, tin-plated wire ends

[illegible]

- 1 = contamination display
3 = Double nipple
4 = Key for E11 locking

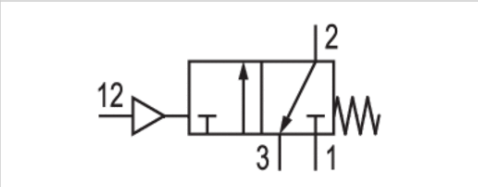
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring
- 13 = Reducing nipple

3/2-directional valve, pneumatically operated, Series AS5-SOV

- Compressed air connection G 3/4 G 1
- Pipe connection



Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 16 bar
Control pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Weight	0.459 kg



Technical data

Part No.	Port	Pilot connection	Exhaust	Flow	Flow	Flow
				Qn	Qn 1►2	Qn 2►3
R412009262	G 3/4	G 1/8	G 1/2	12500 l/min	12500 l/min	3700 l/min
R412009263	G 1	G 1/8	G 1/2	12500 l/min	12500 l/min	3700 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Technical information

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

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

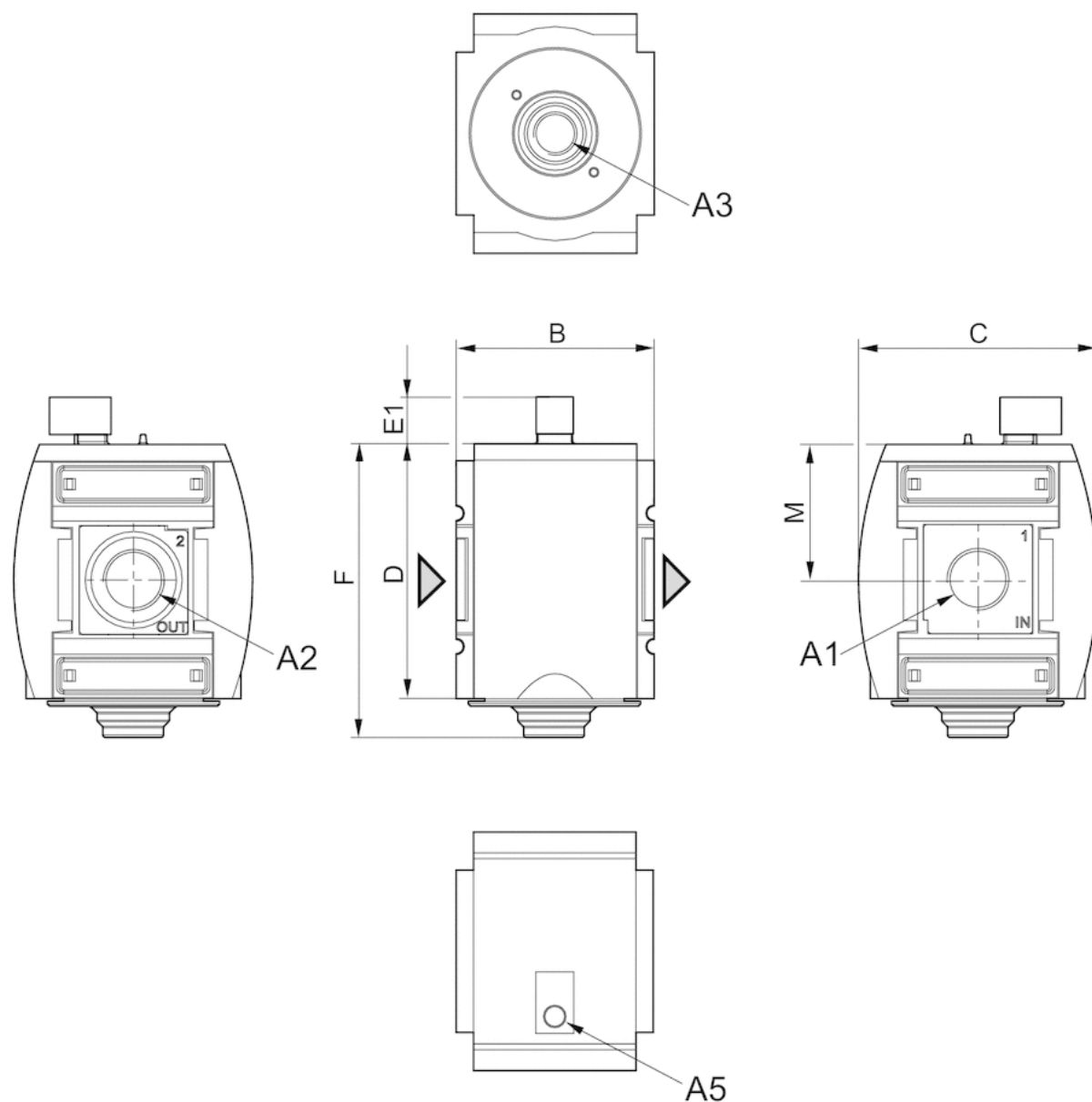
Material

Threaded bushing

Die cast zinc

Dimensions

Dimensions



A1 = input

A2 = output

A3 = ventilation port

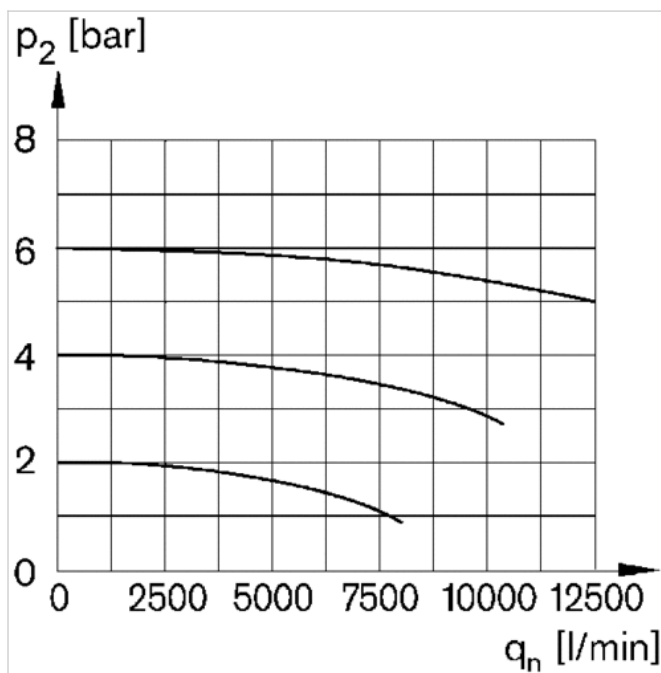
A5 = control pressure connection

Dimensions in mm

A1	A2	A3	A5	B	C	D	E1	F	M
G 3/4	G 3/4	G 1/2	G 1/8	85	103	109	20.2	125	58
G 1	G 1	G 1/2	G 1/8	85	103	109	20.2	125	58

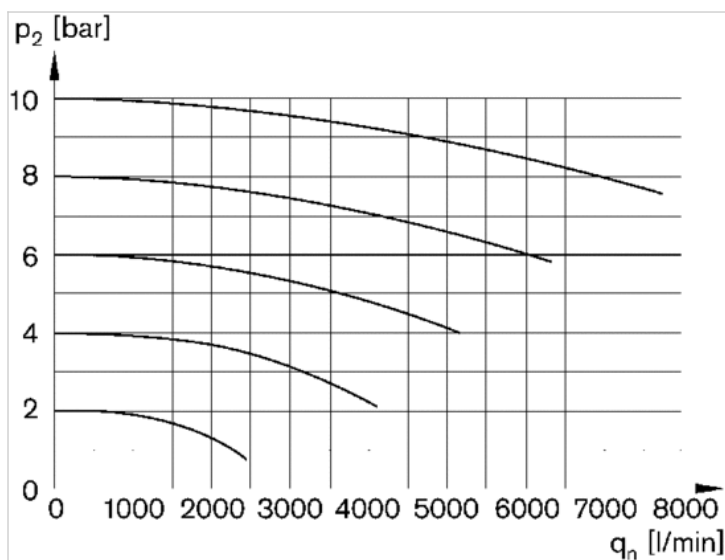
Diagrams

Flow rate characteristic, 1 2



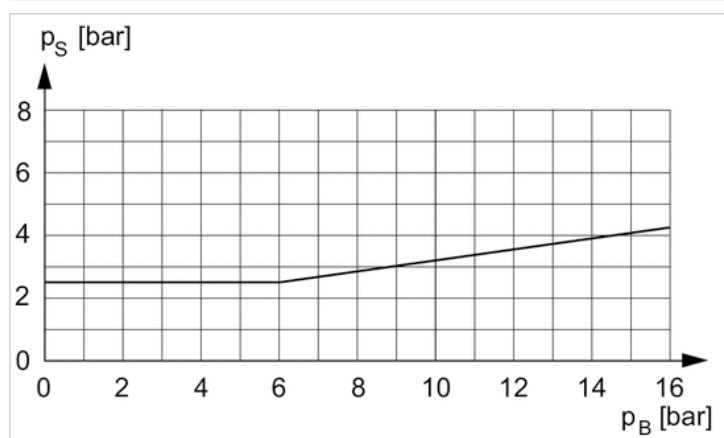
p_2 = secondary pressure
 q_n = nominal flow

Rear exhaust, 2 3



p_2 = secondary pressure
 q_n = nominal flow

control pressure characteristic

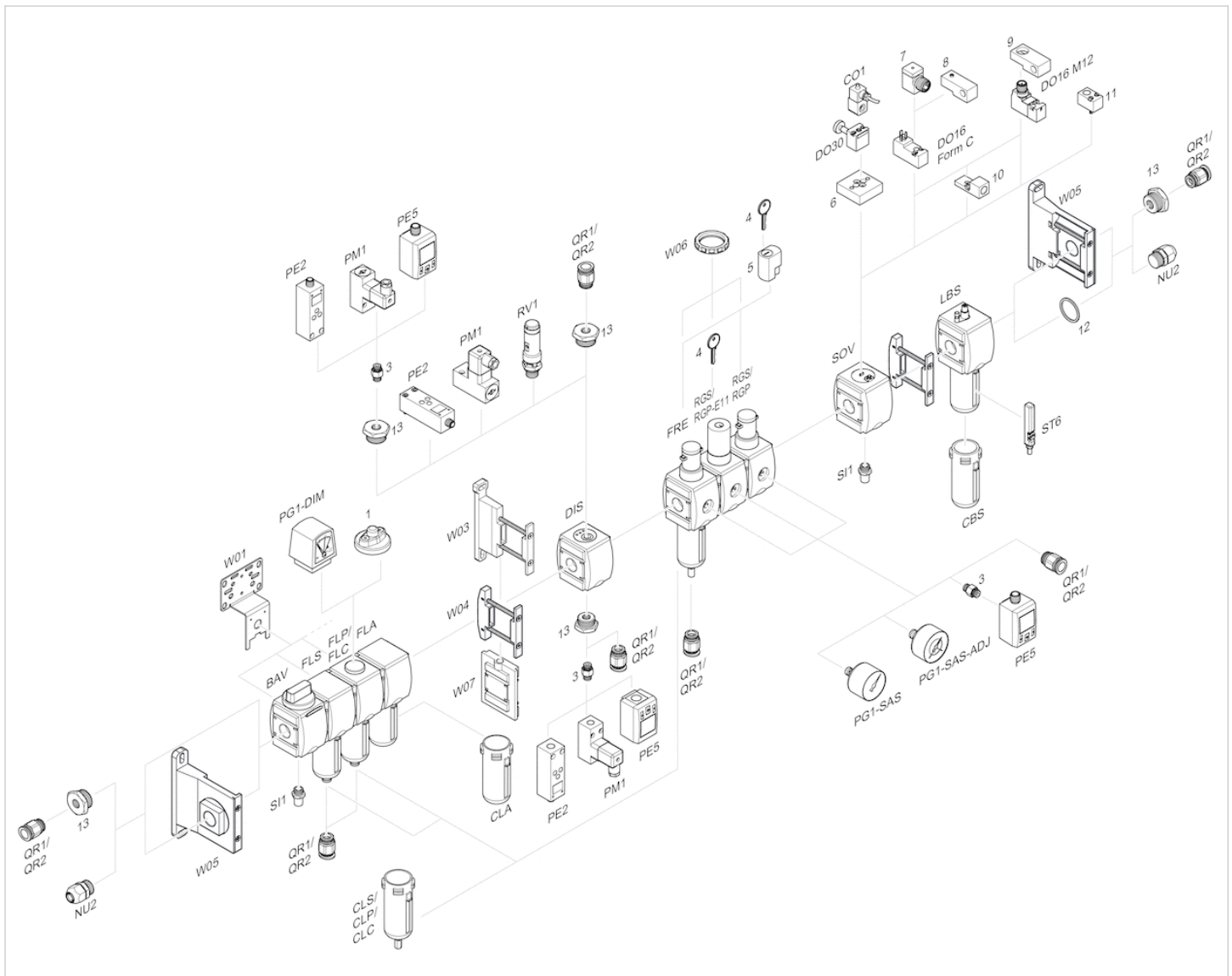


minimum pilot pressure depending on working pressure

PS = control pressure

PB= Working pressure

Accessories overview



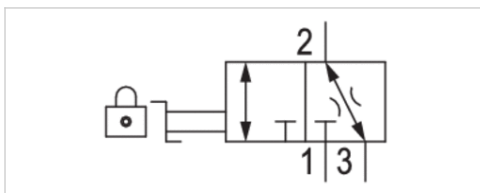
- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring
- 13 = Reducing nipple

3/2-shut-off valve, mechanically operated, Series AS5-BAV

- Qn 1►2 = 30000 l/min
- Qn 2►3 = 130 l/min
- Compressed air connection output G 3/4 G 1



Version	Ball valve
Activation	Mechanical
Lock type	lockable
Actuating element	rotary switch
Sealing principle	metal/metal sealing
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Max. particle size	25 µm
Weight	0.825 kg



Technical data

Part No.	Compressed air connection type	Compressed air connection Input	Compressed air connection Output
R412009260	Internal thread	G 3/4	G 3/4
R412009261	Internal thread	G 1	G 1

Part No.	Compressed air connection Exhaust	Flow	Flow	Lock type	Locking base
		Qn 1 ► 2	Qn 2 ► 3		
R412009260	G 3/4	30000 l/min	130 l/min	for padlocks	Steel galvanized
R412009261	G 3/4	30000 l/min	130 l/min	for padlocks	Steel galvanized

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Technical information

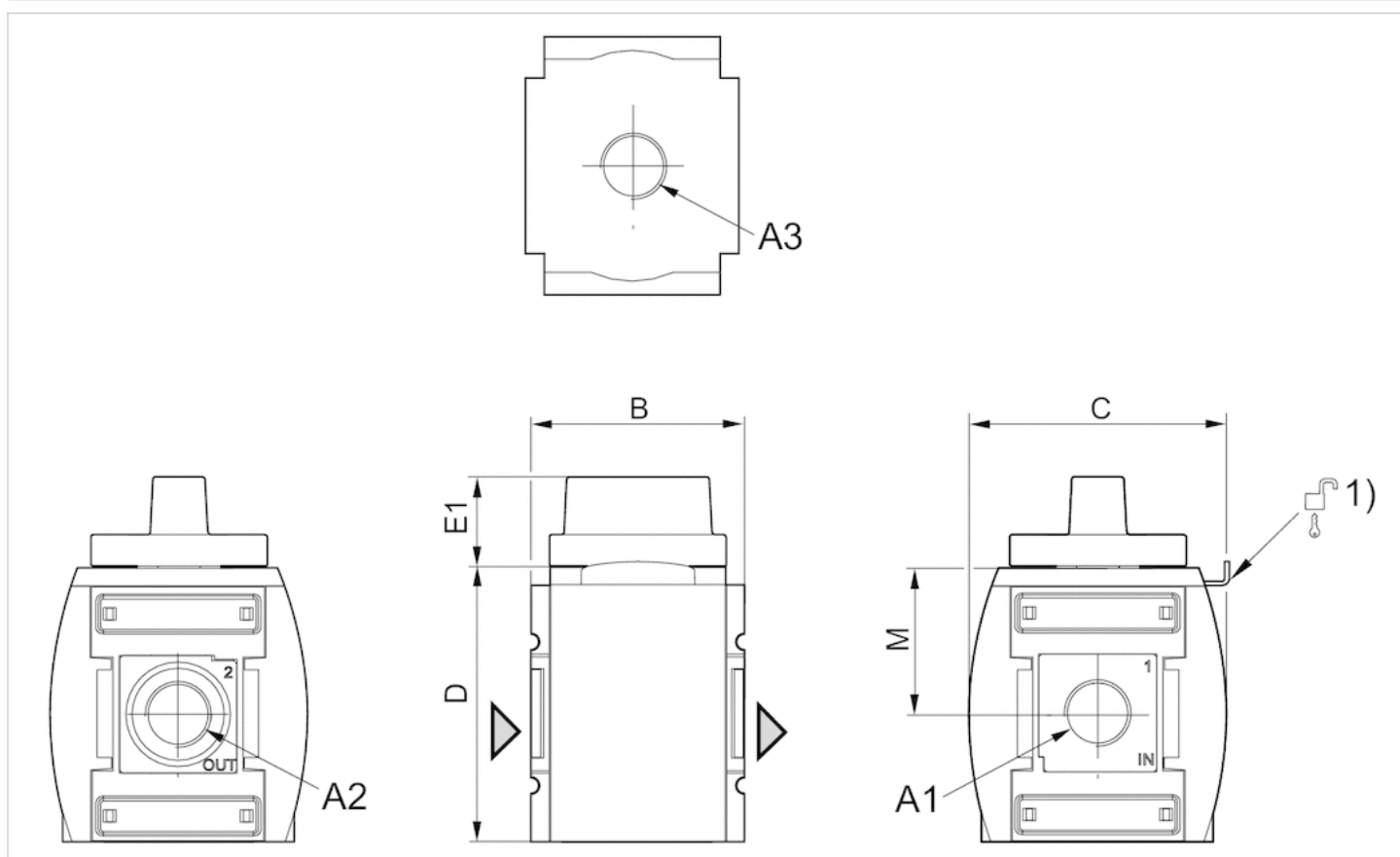
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Polytetrafluorethylene
Threaded bushing	Die cast zinc
Actuating element	Polyoxymethylene
Locking base	Steel, galvanized

Dimensions

Dimensions



A1 = input

A2 = output

A3 = ventilation port

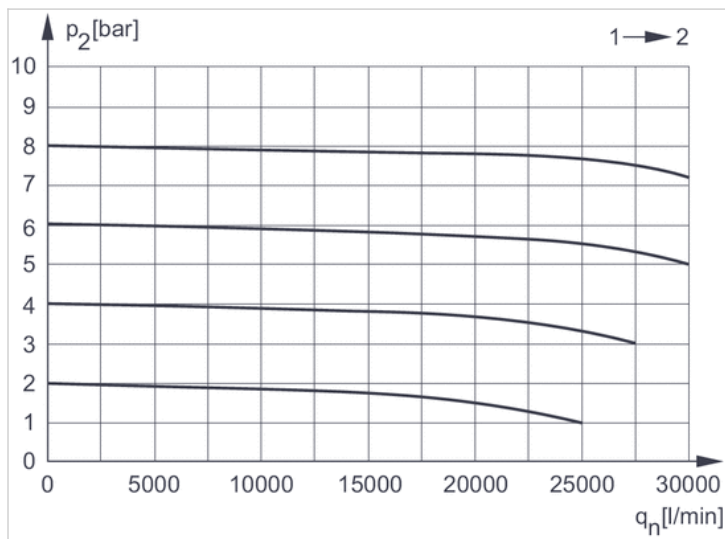
1) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A2	A3	B	C	D	E1	M
G 3/4	G 3/4	85	103	109	36	58
G 1	G 3/4	85	103	109	36	58

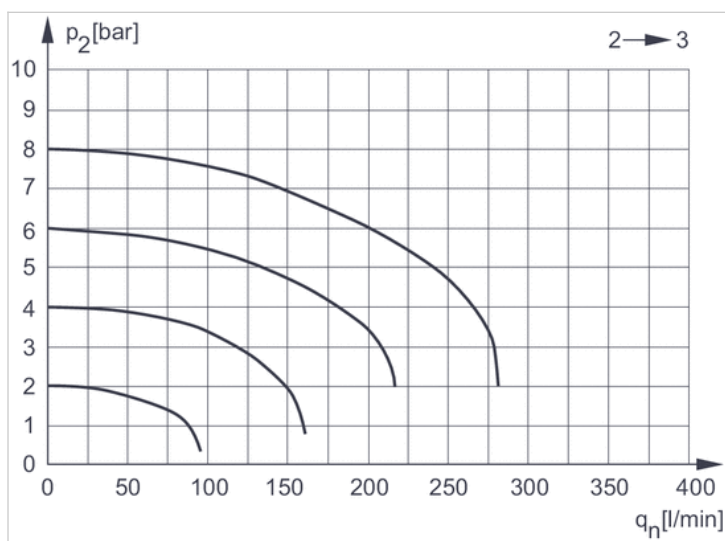
Diagrams

Flow rate characteristic



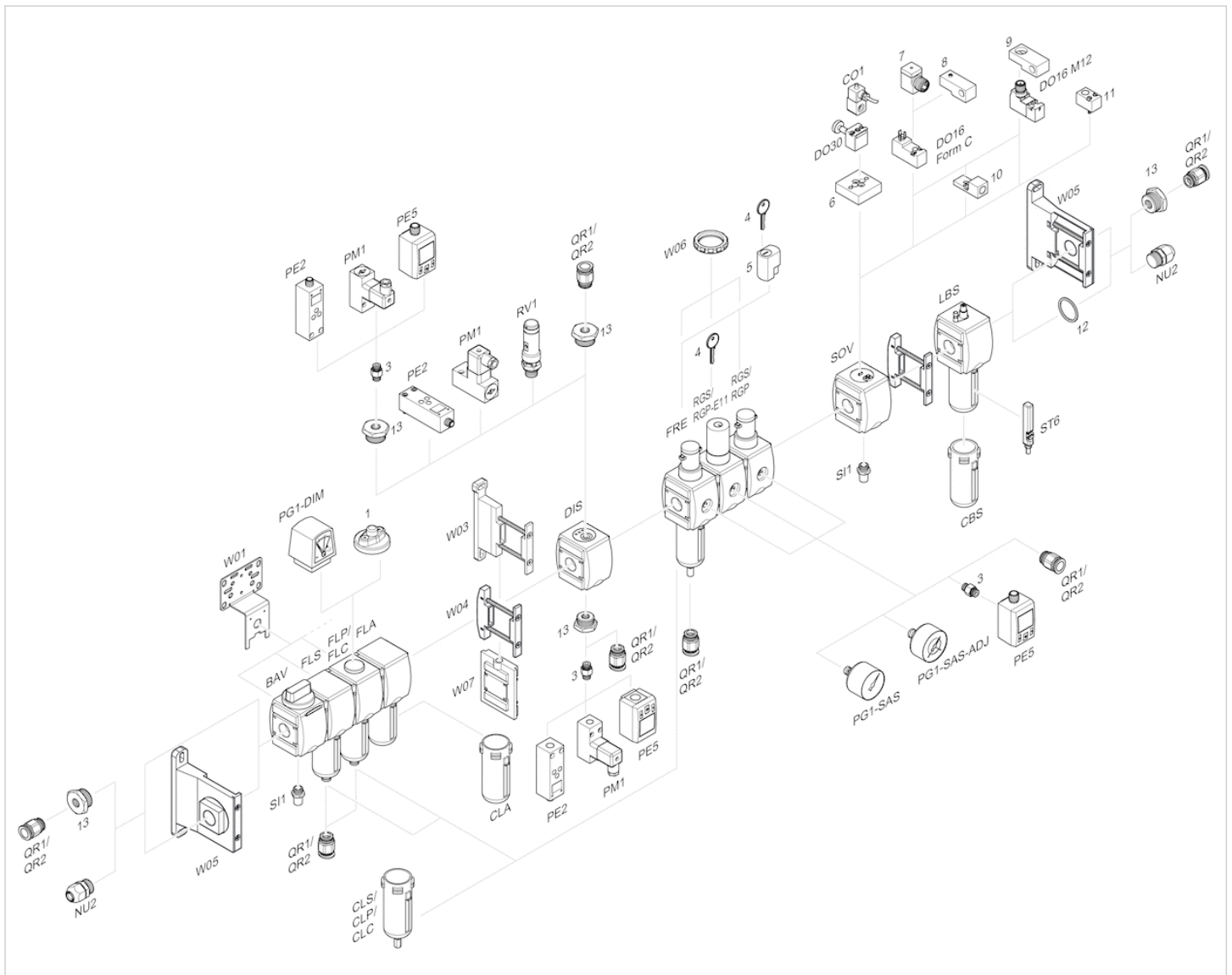
p_2 = secondary pressure
 q_n = nominal flow

Rear exhaust



p_2 = secondary pressure
 q_n = nominal flow

Accessories overview



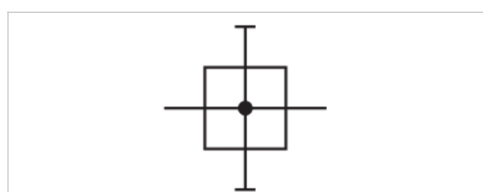
- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring
- 13 = Reducing nipple

Distributor, Series AS5-DIS

- G 3/4 G 1
- Distributor 2x
- Distributor



Version	Distributor, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Weight	0.648 kg



Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow
		Qn 1►2	Qn 1►3	Qn 1►5
R412009250	G 3/4	18000 l/min	8500 l/min	12000 l/min
R412009251	G 1	18000 l/min	8500 l/min	12000 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
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.
Suitable for direct mounting of a PE2 and PM1 series pressure sensor (flange version).

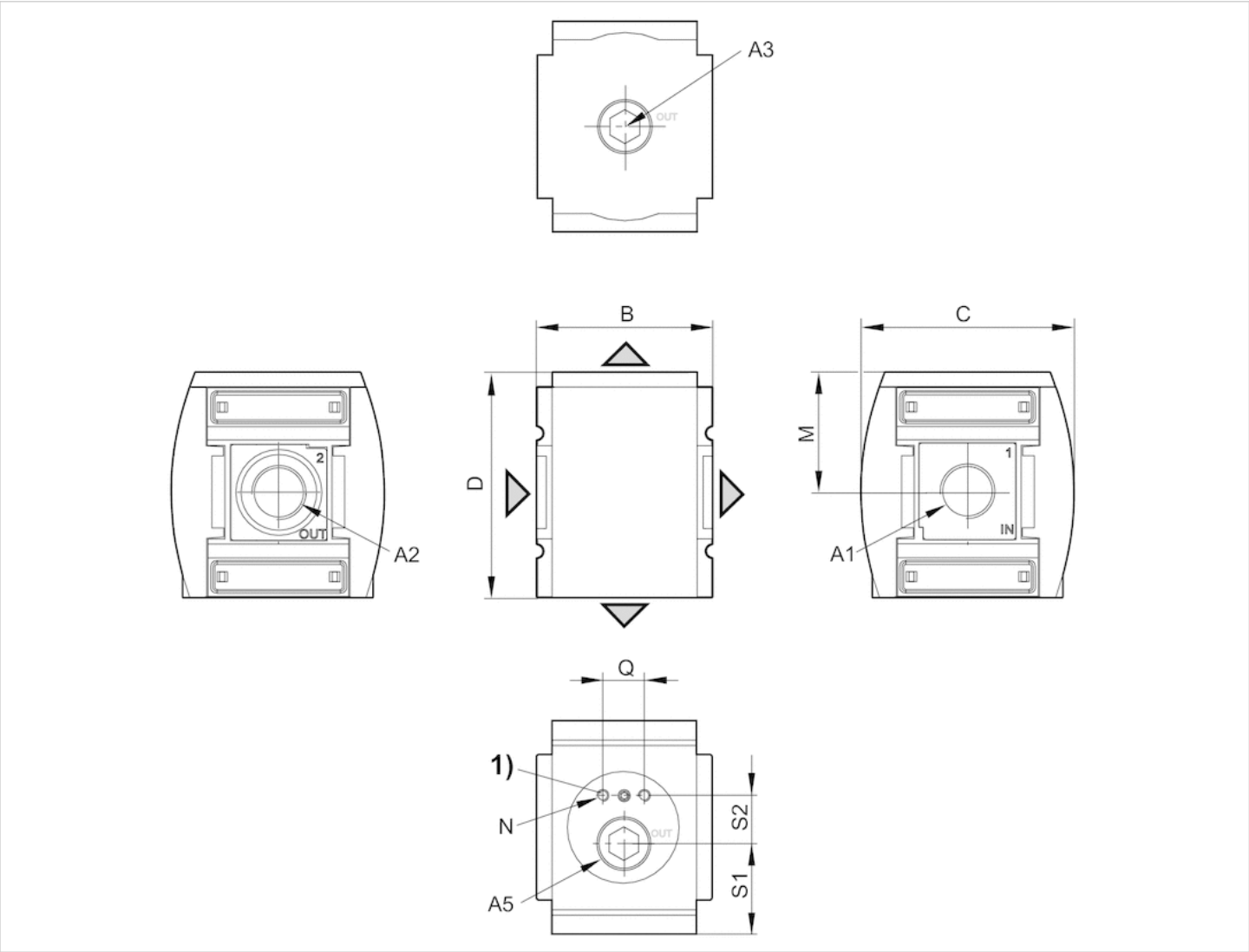
Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

Material	
Threaded bushing	Die cast zinc

Dimensions

Dimensions

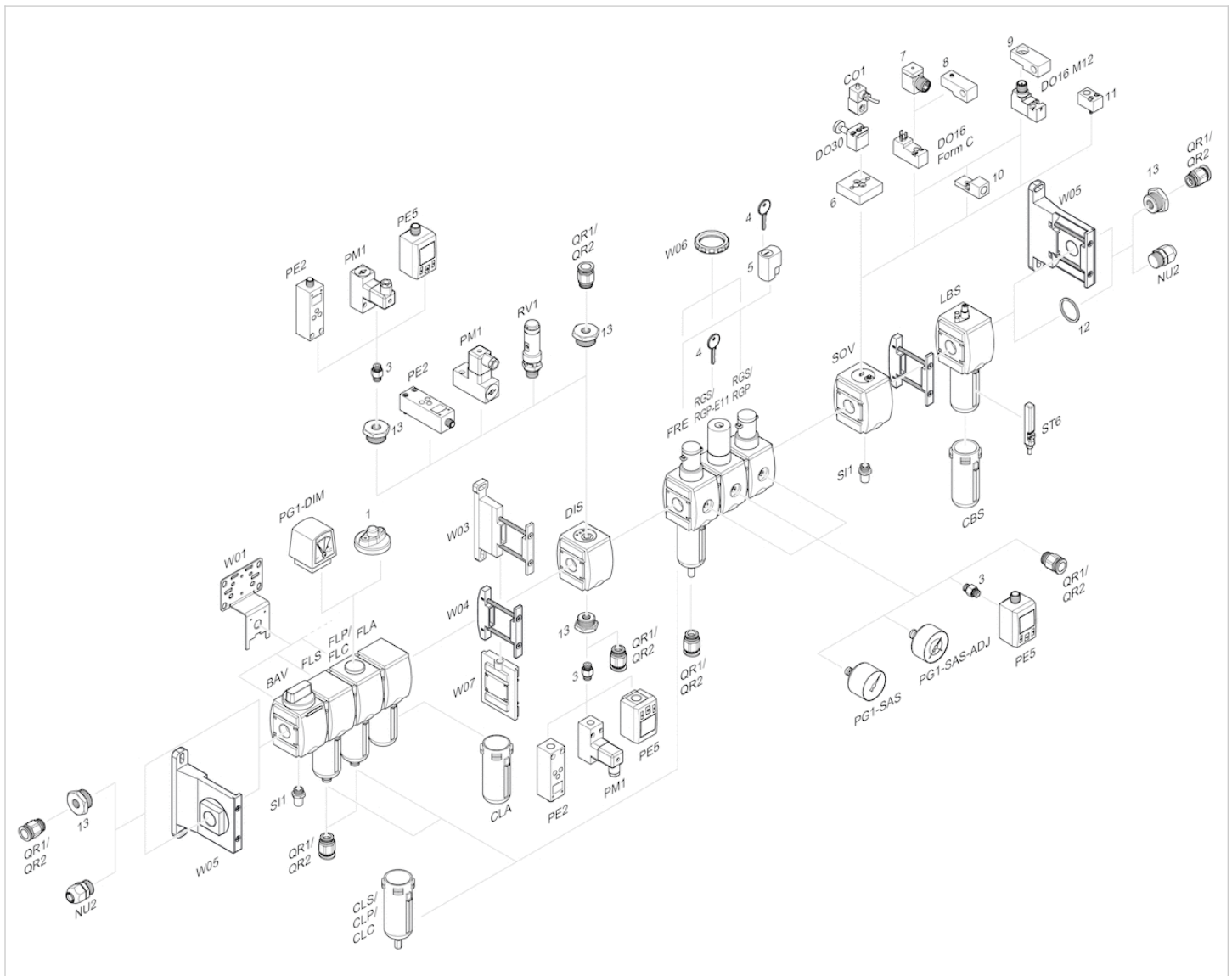


- A1 = input
- A2 = output
- A3 = output
- A5 = output
- 1) Mounting thread for pressure sensor

Dimensions in mm

A1	A2	A3	A5	B	C	D	M	N	Q	S1	S2
G 3/4	G 3/4	G 3/4	G 3/4	85	103	109	58	M5	20	44.5	22
G 1	G 1	G 3/4	G 3/4	85	103	109	58	M5	20	44.5	22

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
- 13 = Reducing nipple

Distributor, Series AS5-DIN

- G 3/4 G 1
- Non-return valve



Version	Non-return valve, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Working pressure min./max.	0.4 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases



Technical data

Part No.	Port	Nominal flow
		Qn 1→2
R412009252	G 3/4	16000 l/min
R412009253	G 1	16000 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Technical information

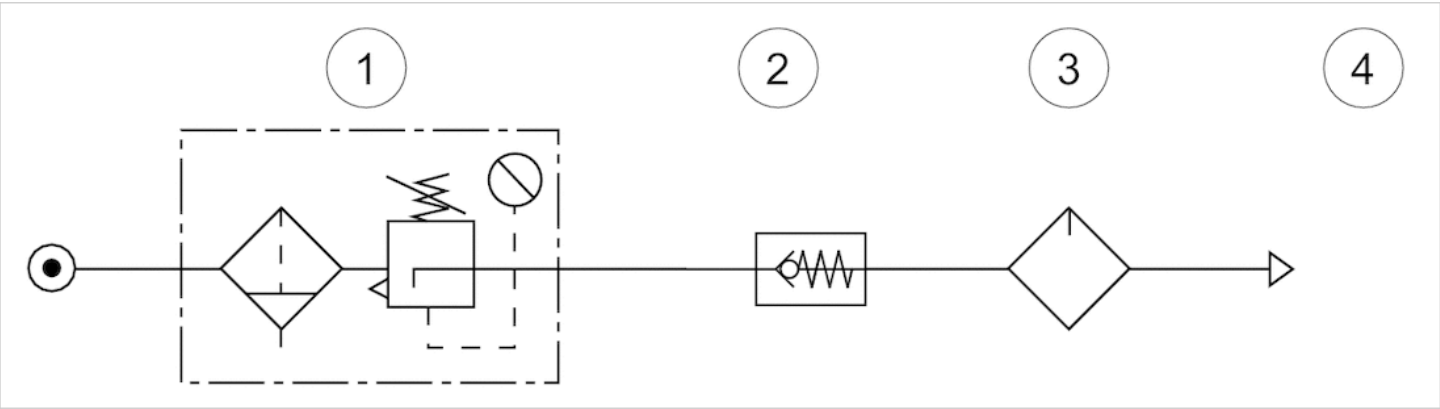
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

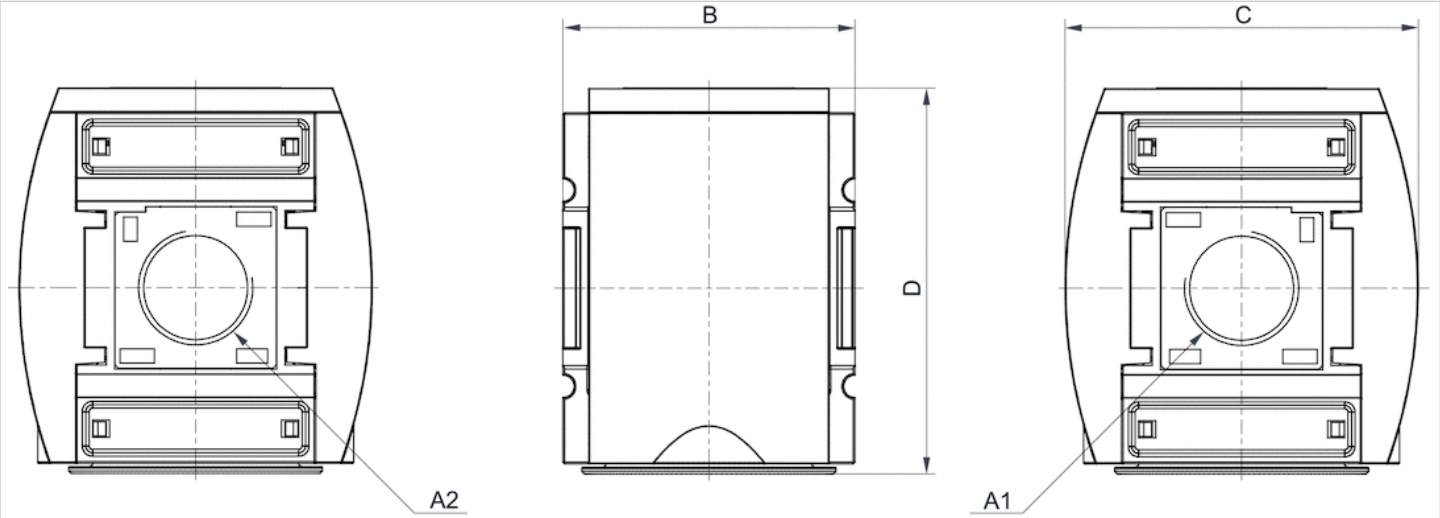
Dimensions

usage



- 1) Filter pressure regulator
- 2) Non-return valve
- 3) Lubricator
- 4) Compressed air

Dimensions



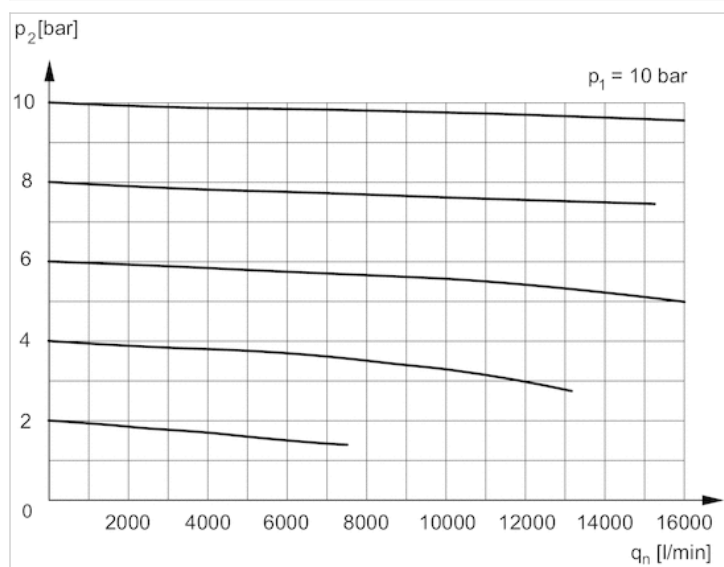
A1 = input
A2 = output

Dimensions in mm

A1	A2	B	C	D
G 3/4	G 3/4	85	103	112
G 1	G 1	85	103	112

Diagrams

Flow rate characteristic

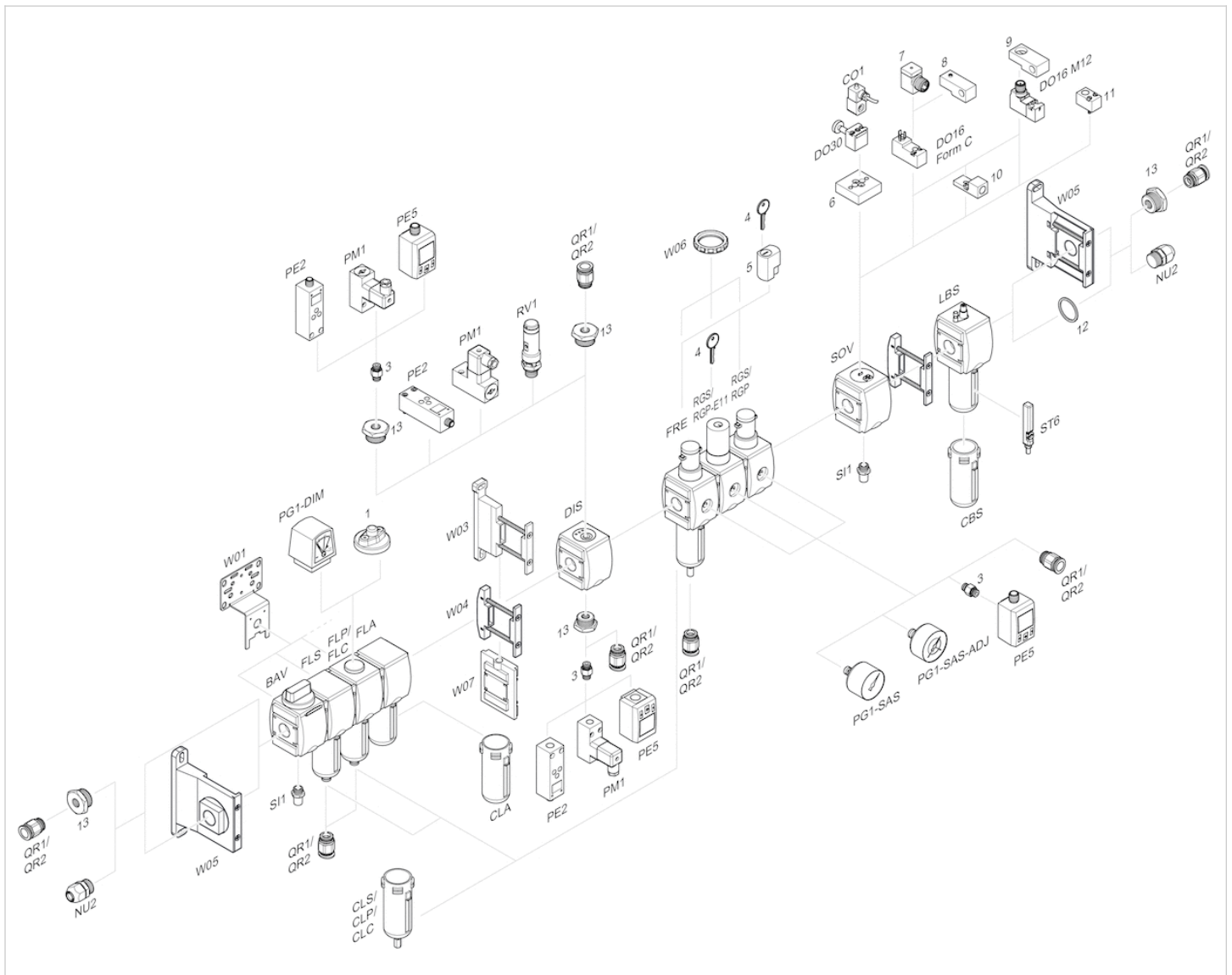


p_1 = Working pressure

p_2 = Secondary pressure

q_n = Nominal flow

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
- 13 = Reducing nipple

Reservoir, Series AS5-CLS/ -CLP/ -CLC

- for filters, pre-filters and microfilters
- Material Polycarbonate Die cast zinc



Version	Reservoir
Working pressure min./max.	16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Filter reservoir volume	87 cm ³
Weight	See table below

Technical data

Part No.	Condensate drain	Reservoir
R412009338	semi-automatic, open without pressure	Polycarbonate
R412009339	fully automatic, open without pressure	Polycarbonate
R412009340	fully automatic, closed without pressure	Polycarbonate
R412009344	semi-automatic, open without pressure	Die cast zinc, with window
R412009345	fully automatic, open without pressure	Die cast zinc, with window
R412009346	fully automatic, closed without pressure	Die cast zinc, with window

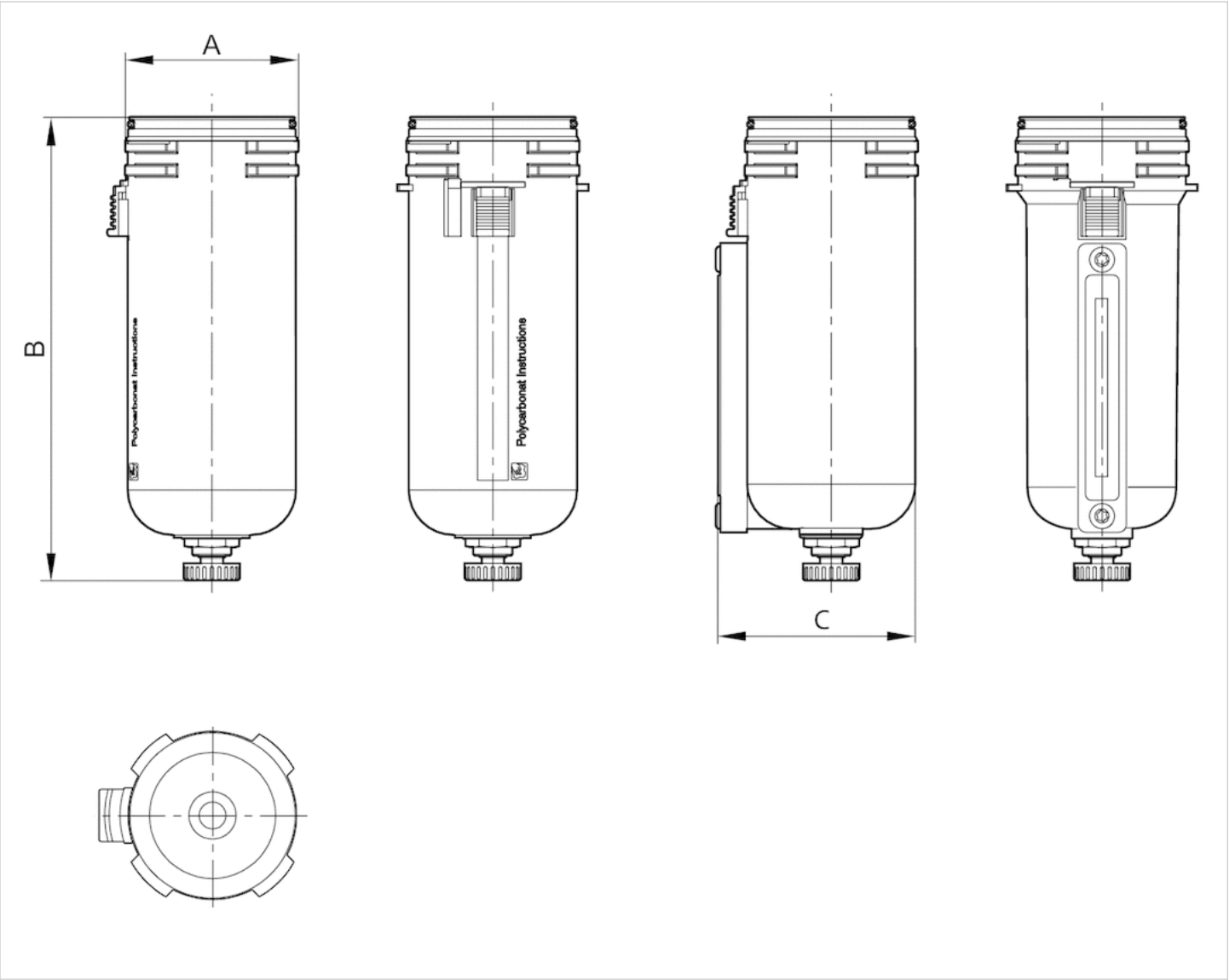
Part No.	Protective guard	Weight	Fig.
R412009338	Polyamide	0.086 kg	Fig. 1
R412009339	Polyamide	0.116 kg	Fig. 2
R412009340	Polyamide	0.116 kg	Fig. 2
R412009344	-	0.68 kg	Fig. 1
R412009345	-	0.74 kg	Fig. 2
R412009346	-	0.74 kg	Fig. 2

Technical information

Material	
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions

Fig. 1

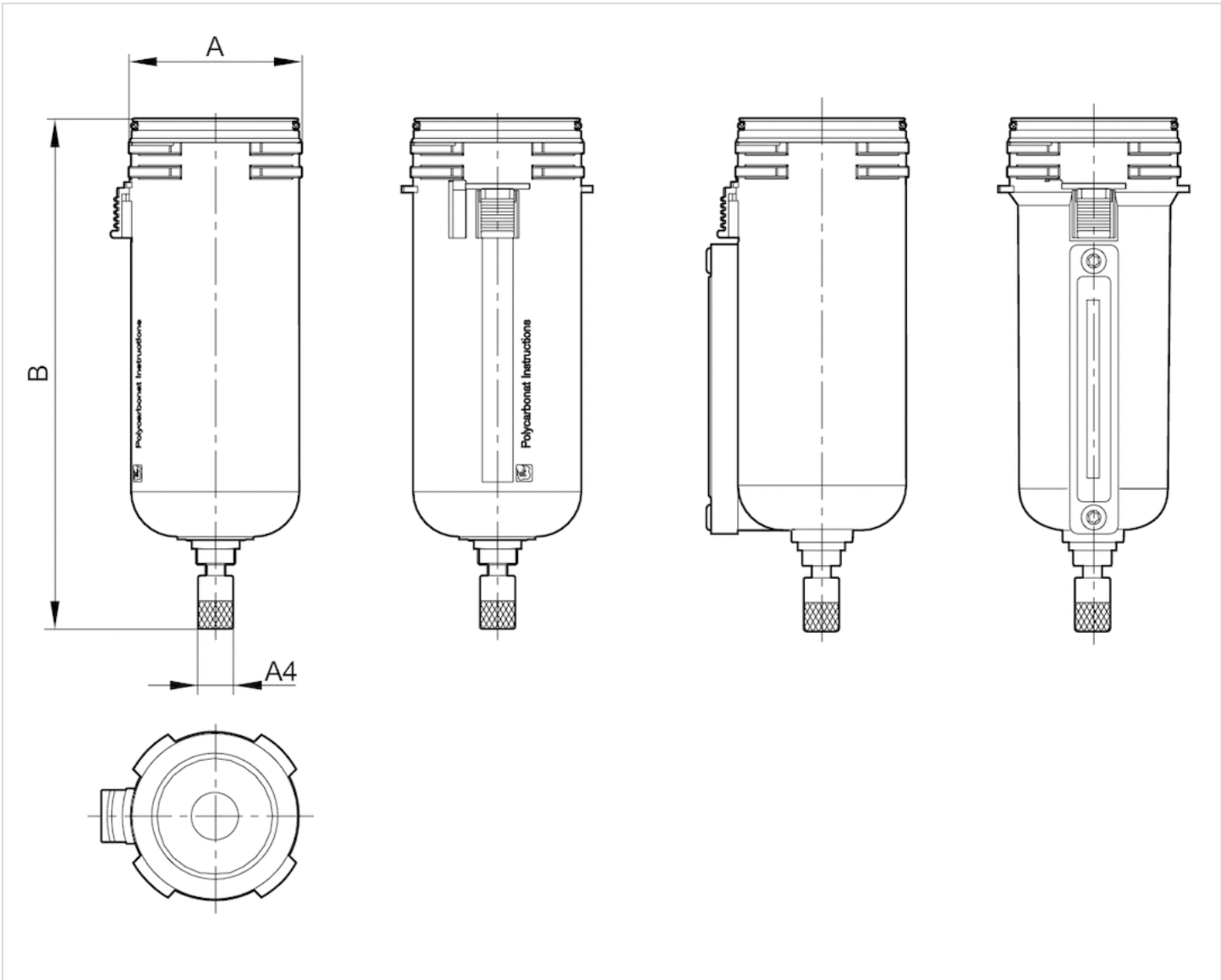


Dimensions

Part No.	A	B	C
R412009338	60	165.3	64.7
R412009344	60	165.3	64.7

Dimensions

Fig. 2



Dimensions

Part No.	A4	A	B
R412009339	G 1/8	60	182
R412009340	G 1/8	60	182
R412009345	G 1/8	60	182
R412009346	G 1/8	60	182

Reservoir, Series AS5-CLA

- for active carbon filter
- Material Polycarbonate Die cast zinc



Version	Reservoir
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Filter reservoir volume	87 cm³
Weight	See table below

Technical data

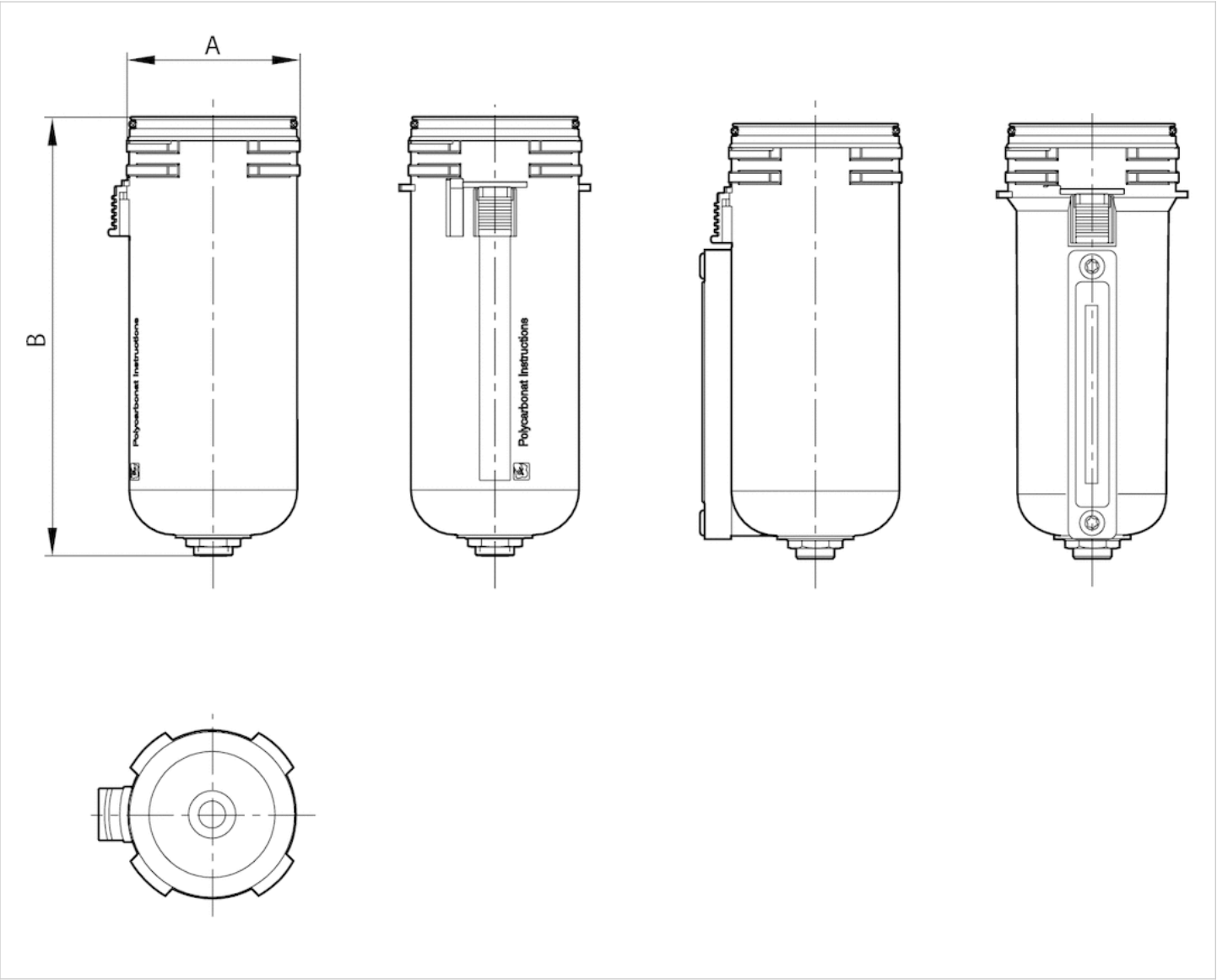
Part No.	Reservoir	Protective guard	Weight
R412009347	Polycarbonate	Polyamide	0.086 kg
R412009349	Die cast zinc, with window	-	0.77 kg

Technical information

Material	
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B
R412009347	60	157.5
R412009349	60	157.5

Reservoir, Series AS5-CBS

- for lubricator

- Material Polycarbonate Die cast zinc



Version

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Lubricator reservoir volume

Weight

Reservoir

0 ... 16 bar

-10 ... 50 °C

-10 ... 50 °C

Compressed air Oil

181 cm³

See table below

Technical data

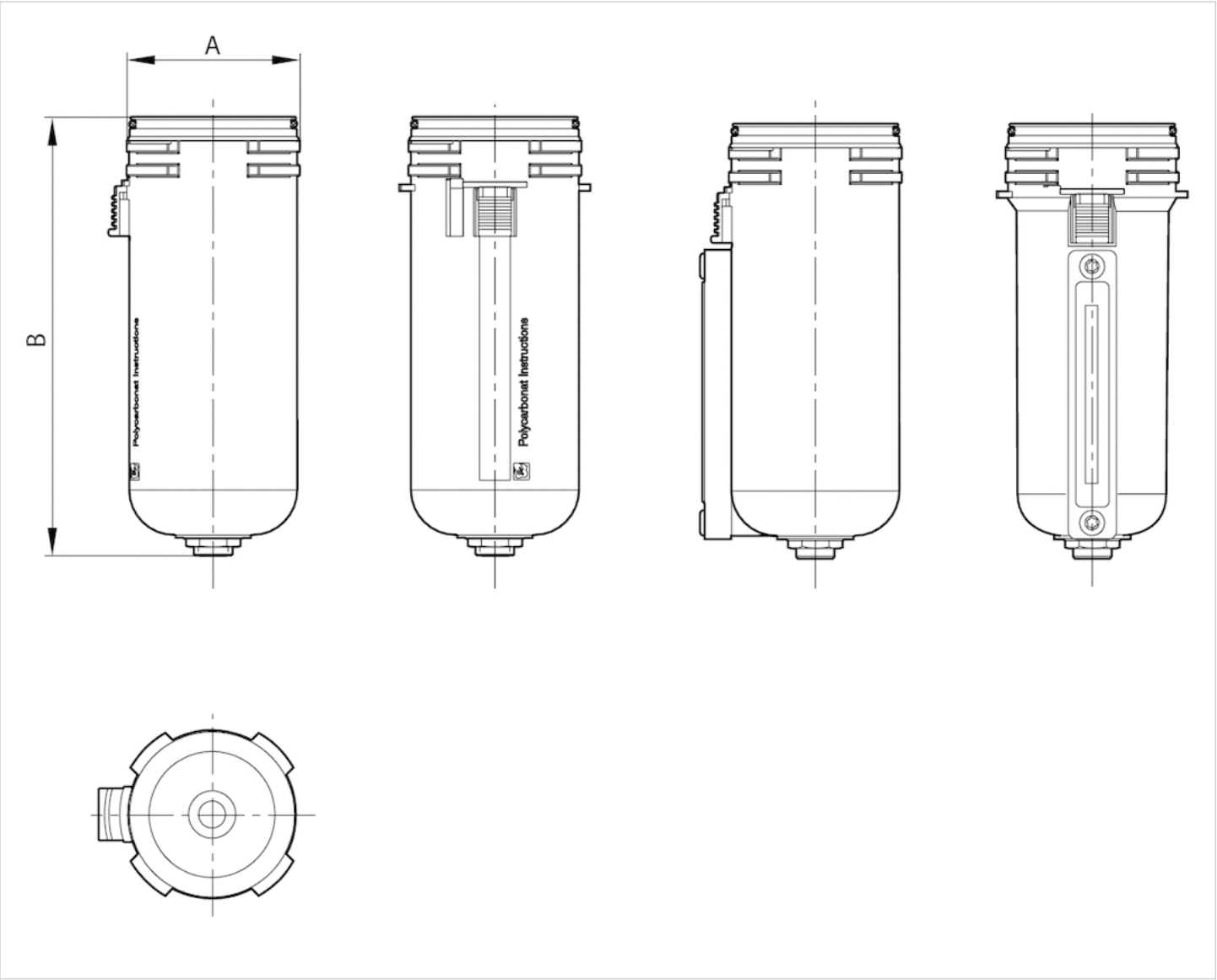
Part No.	Electrical level indicator	Reservoir	Protective guard	Weight
R412009351	with external query	Polycarbonate	Polyamide	0.086 kg
R412009352	-	Polycarbonate	Polyamide	0.335 kg
R412009358	-	Die cast zinc, with window	-	0.68 kg

Technical information

Material	
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B
R412009351	60	154.8
R412009352	60	154.8
R412009358	60	154.8

Mounting plate, Series AS5-MBR-...-



Ambient temperature min./max.
Weight

-10 ... 50 °C
0.394 kg

Technical data

Part No.
R412009368

Scope of delivery incl. 2 mounting screws 3x10 (Torx 10 IP) DIN EN ISO 10664

Technical information

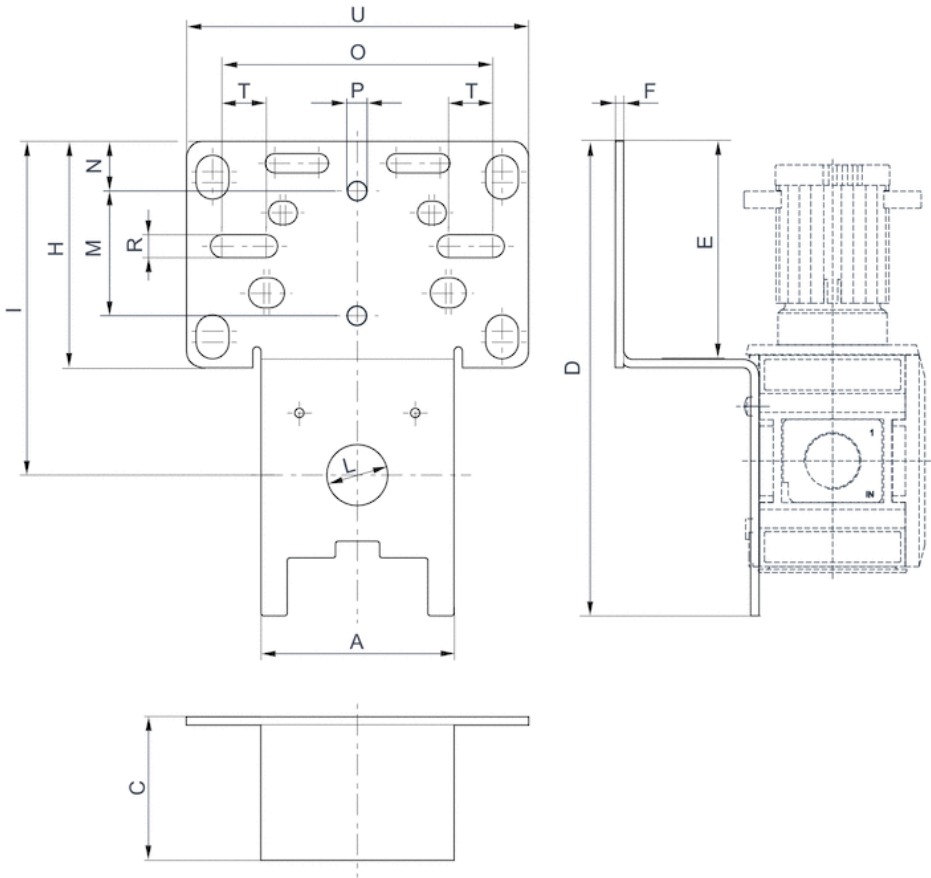
For assembly of the W01 mounting plate, the rear cover of the air preparation unit must be removed.

Technical information

Material	
Housing	Steel, galvanized
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	C	D	E	F	H	I	L	M	N	O	P	R	T	U
R412009368	70	52	172	79	3	82	121	22	45	18.5	98	6.5	7	16	124

Mounting clip, Series AS5-MBR-...-W03



Ambient temperature min./max.
Weight

-10 ... 50 °C
0.12 kg

Technical data

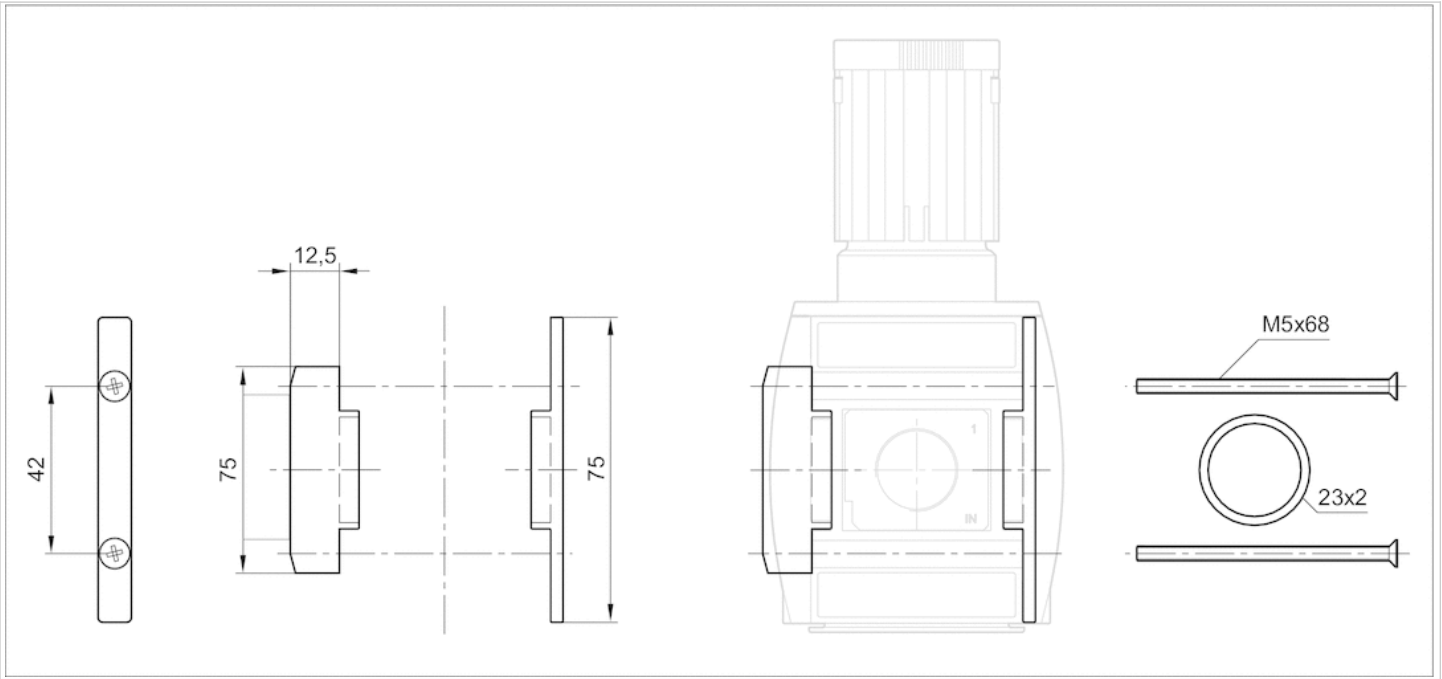
Part No.
R412009370

Scope of delivery incl. 2 mounting screws M6x90-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 1x O-ring

Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions



Block assembly kit, Series AS5-MBR...-W04



Ambient temperature min./max.
Weight

-10 ... 50 °C
0.075 kg

Technical data

Part No.
R412009371

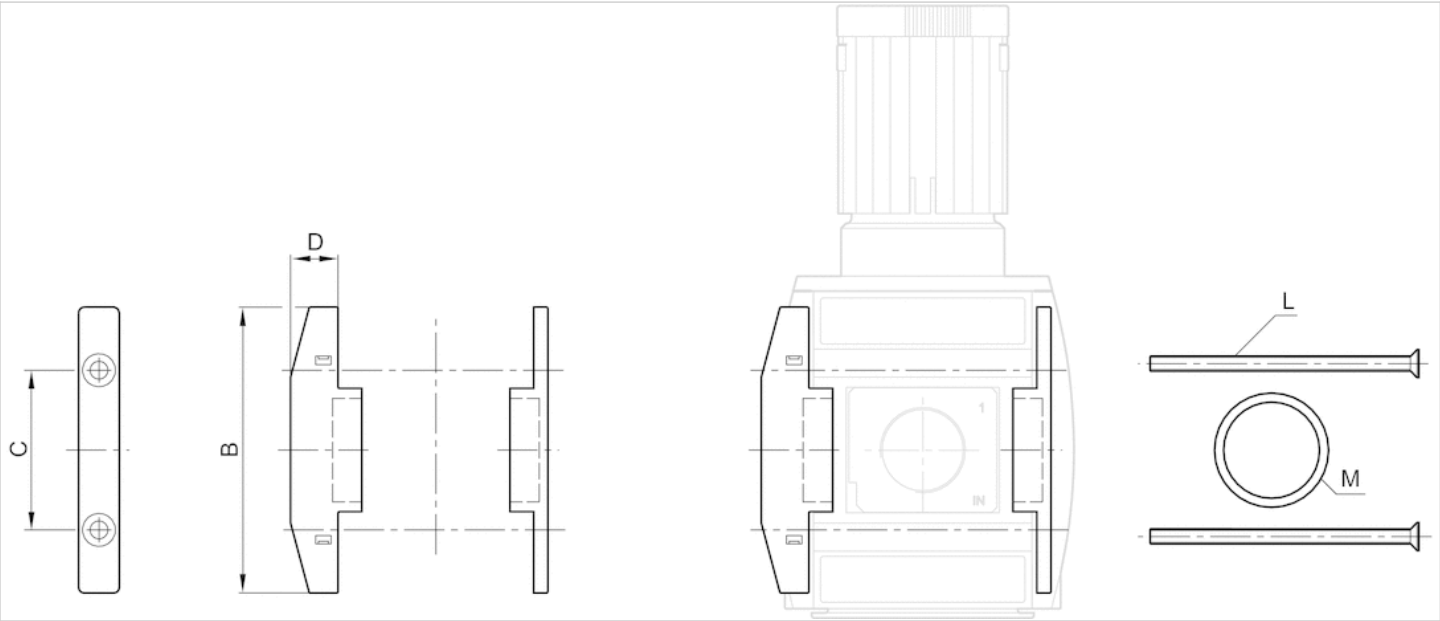
Scope of delivery incl. 2 mounting screws M6x90-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 1x O-ring

Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	B	C	D	L	M
R412009371	102	57	17	M6x90	37x2,3

Block assembly kit, Series AS5-MBR-...-W05

- G 3/4 - G 1



Ambient temperature min./max.

-10 ... 50 °C

Weight

0.68 kg

Technical data

Part No.	Port
R412009366	G 3/4
R412009367	G 1

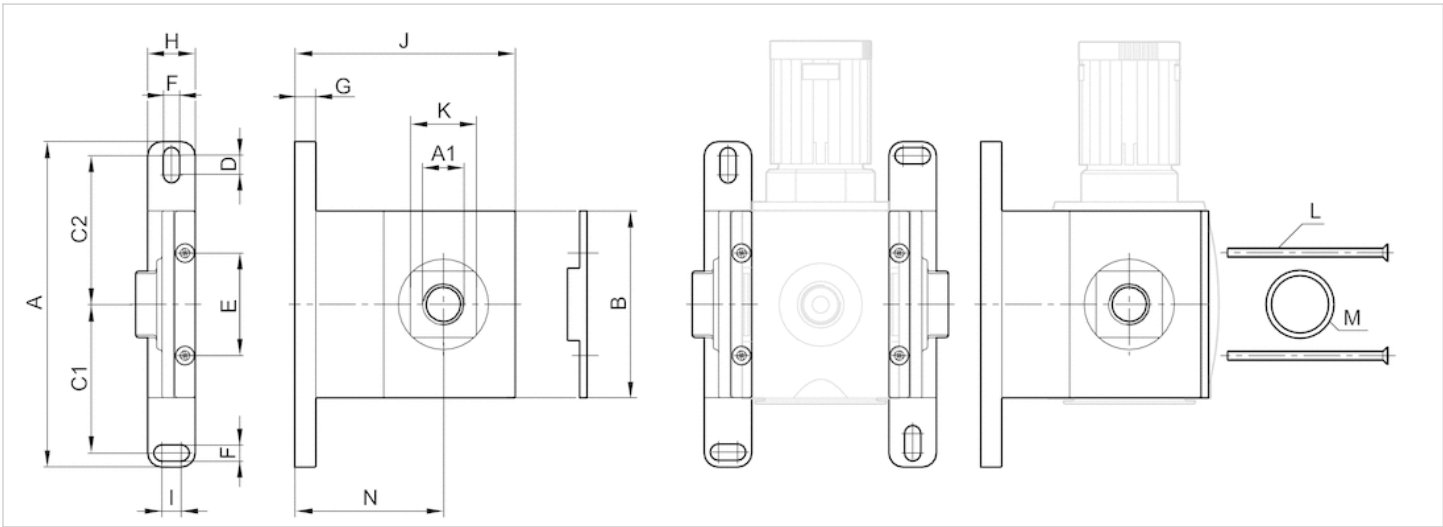
Scope of delivery incl. 4 mounting screws M6x90-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 2x O-ring

Technical information

Material	
Housing	Die cast zinc, painted
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A1	A	B	C1	C2	D	E	F	G	H	I	J	K	L	M	N
R412009366	G 3/4	160	102	72.5	72.5	10	57	8.4	10	30	10	127	41	M6x90	37x2,3	87
R412009367	G 1	160	102	72.5	72.5	10	57	8.4	10	30	10	127	41	M6x90	37x2,3	87

Block assembly kit, Series AS3/AS5-MBR-...-W07



Ambient temperature min./max. -10 ... 50 °C

Technical data

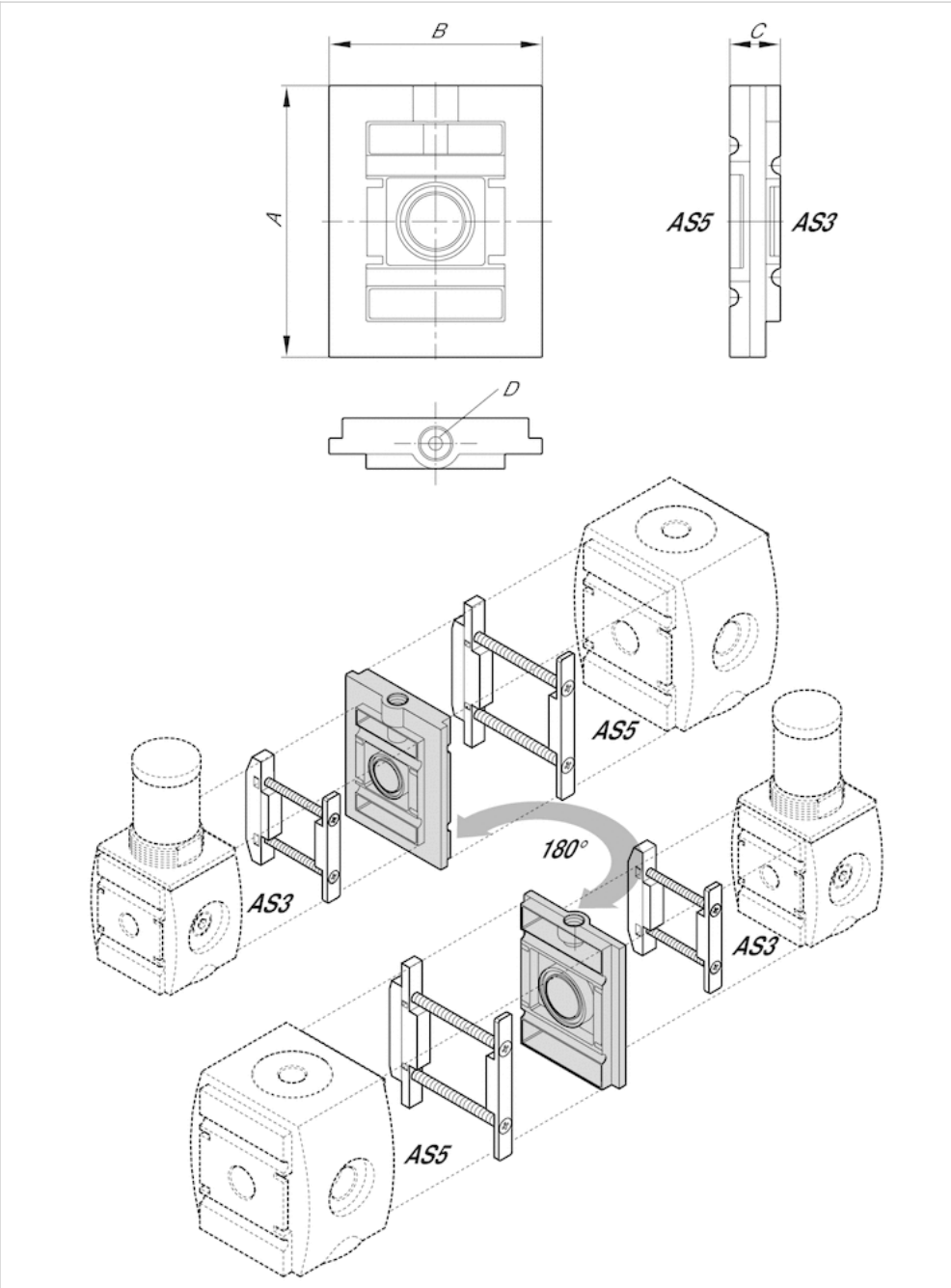
Part No.	Port
R412010122	G 1/4

scope of delivery incl. seal

Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions



Dimensions in mm

Part No.	A	B	C	D
R412010122	102	80	18	G 1/4

Panel nut, Series AS-MBR-...-W06

- M50x1.5
- for AS5 NL4



Weight

0.009 kg
The delivered product may vary from that in the illustration.

Technical data

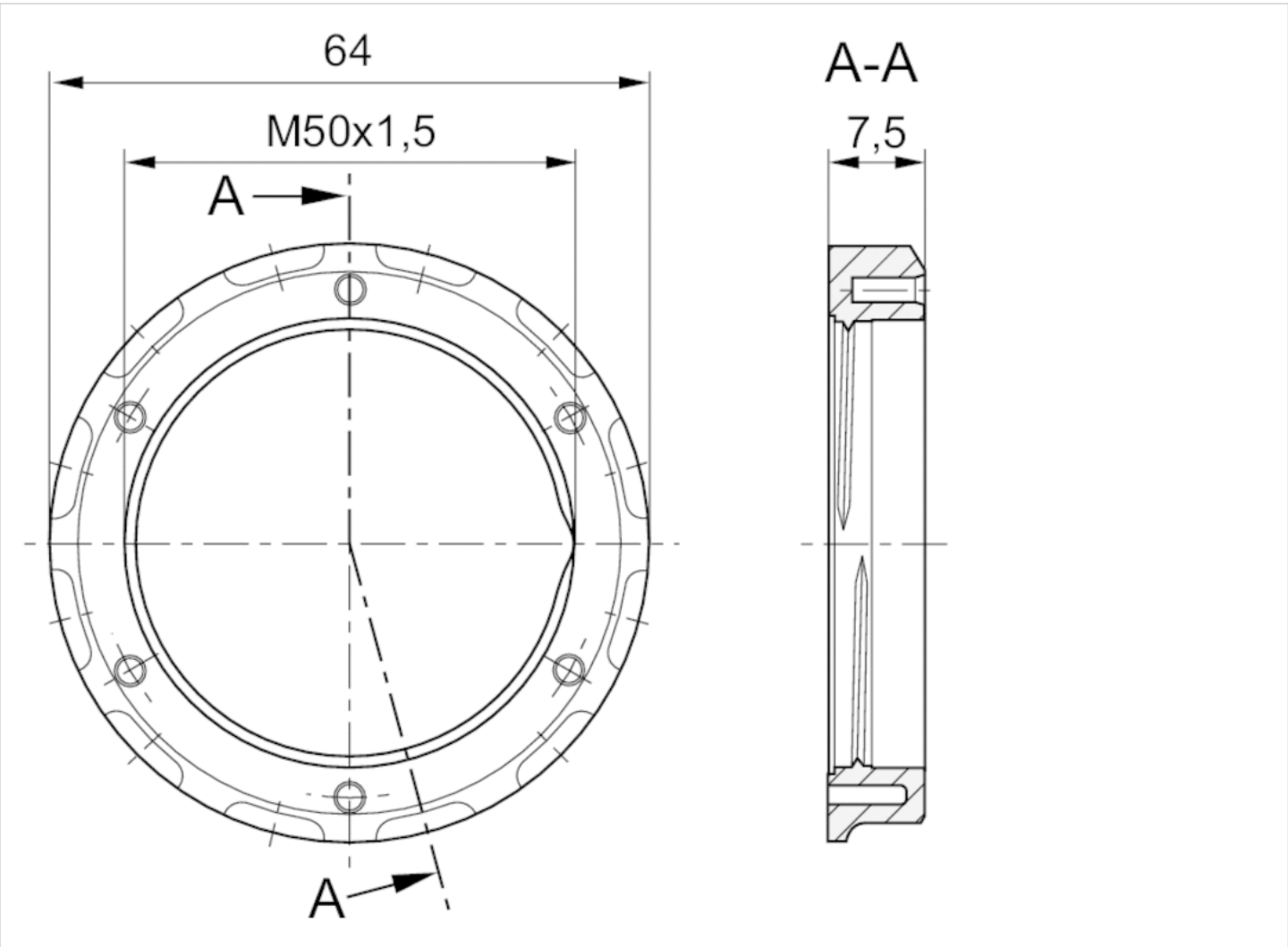
Part No.	Port	for	Scope of delivery
1829234071	M50x1.5	AS5 NL4	2 piece

Technical information

Material	
Housing	Plastic

Dimensions

Dimensions in mm

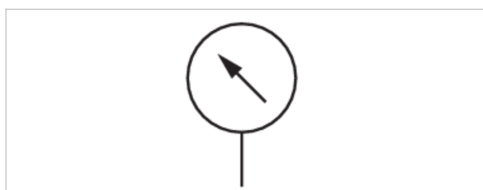


Pressure gauge, Series PG1-SAS

- Back port
- Background color Black
- Scale color White, Grey
- Viewing window Polystyrene
- Units bar
- Units psi



Version	Bourdon tube pressure gauge
Standardization	EN 837-1
Class	2,5
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Main scale unit (outside)	bar
Main scale color (outside)	White
Secondary scale unit (inside)	psi
Secondary scale color (inside)	Grey
Background color	Black
Pointer color	White
Weight	See table below



Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
R412004407	G 1/4	40 mm	0 bar ... 1.2	0 bar ... 1.6	0 ... 1.6 bar	0.05
R412004408	G 1/4	40 mm	0 bar ... 2	0 bar ... 2.5	0 ... 2.5 bar	0.1
R412004409	G 1/4	40 mm	0 bar ... 3.2	0 bar ... 4	0 ... 4 bar	0.1
R412004410	G 1/4	40 mm	0 bar ... 4	0 bar ... 6	0 ... 6 bar	0.2
R412004411	G 1/4	40 mm	0 bar ... 8	0 bar ... 10	0 ... 10 bar	0.2
R412004412	G 1/4	40 mm	0 bar ... 12	0 bar ... 16	0 ... 16 bar	0.5
R412004413	G 1/4	50 mm	0 bar ... 1.2	0 bar ... 1.6	0 ... 1.6 bar	0.05
R412004414	G 1/4	50 mm	0 bar ... 2	0 bar ... 2.5	0 ... 2.5 bar	0.1
R412004415	G 1/4	50 mm	0 bar ... 3.2	0 bar ... 4	0 ... 4 bar	0.1
R412004416	G 1/4	50 mm	0 bar ... 4	0 bar ... 6	0 ... 6 bar	0.2
R412004417	G 1/4	50 mm	0 bar ... 8 bar	0 bar ... 10 bar	0 ... 10 bar	0.2
R412004418	G 1/4	50 mm	0 bar ... 12	0 bar ... 16	0 ... 16 bar	0.5
R412007898	G 1/4	50 mm	0 bar ... 20	0 bar ... 25	0 ... 25 bar	1
R412004419	G 1/4	63 mm	0 bar ... 1.2	0 bar ... 1.6	0 ... 1.6 bar	0.05
R412004420	G 1/4	63 mm	0 bar ... 2	0 bar ... 2.5	0 ... 2.5 bar	0.1
R412004421	G 1/4	63 mm	0 bar ... 3.2	0 bar ... 4	0 ... 4 bar	0.1
R412004422	G 1/4	63 mm	0 bar ... 4	0 bar ... 6	0 ... 6 bar	0.2
R412004423	G 1/4	63 mm	0 bar ... 8	0 bar ... 10	0 ... 10 bar	0.2
R412004424	G 1/4	63 mm	0 bar ... 12	0 bar ... 16	0 ... 16 bar	0.5

Part No.	Weight	Fig.	
R412004407	0.08 kg	Fig. 1	-
R412004408	0.08 kg	Fig. 1	-
R412004409	0.08 kg	Fig. 1	-
R412004410	0.08 kg	Fig. 1	-
R412004411	0.08 kg	Fig. 1	-
R412004412	0.08 kg	Fig. 1	-
R412004413	0.09 kg	Fig. 2	-
R412004414	0.09 kg	Fig. 2	-
R412004415	0.09 kg	Fig. 2	-
R412004416	0.09 kg	Fig. 2	-
R412004417	0.09 kg	Fig. 2	1)
R412004418	0.09 kg	Fig. 2	1)
R412007898	0.09 kg	Fig. 2	-
R412004419	0.1 kg	Fig. 3	-
R412004420	0.1 kg	Fig. 3	-
R412004421	0.1 kg	Fig. 3	-
R412004422	0.1 kg	Fig. 3	-
R412004423	0.1 kg	Fig. 3	-
R412004424	0.1 kg	Fig. 3	-

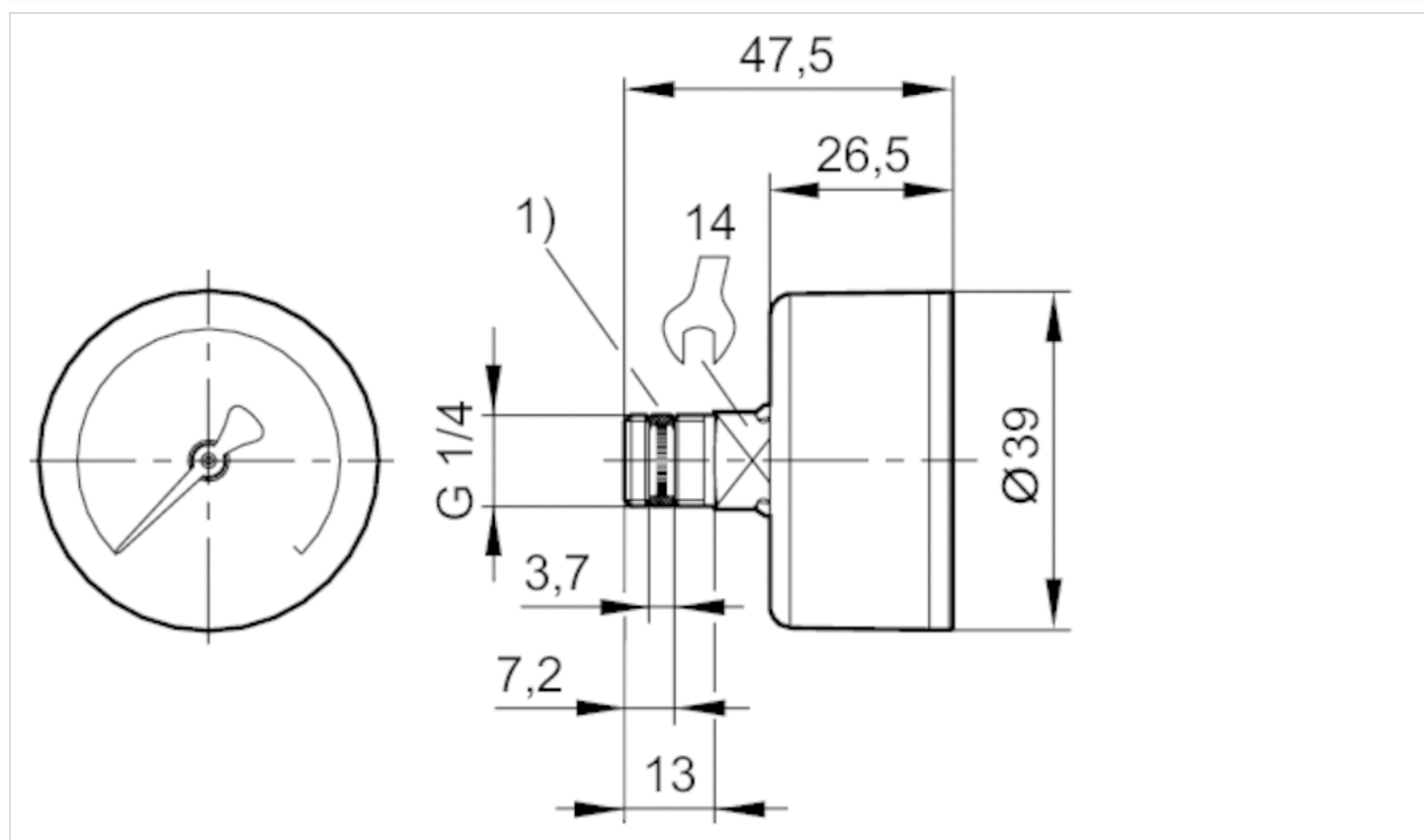
1) Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Polystyrene
Seal	Polytetrafluorethylene

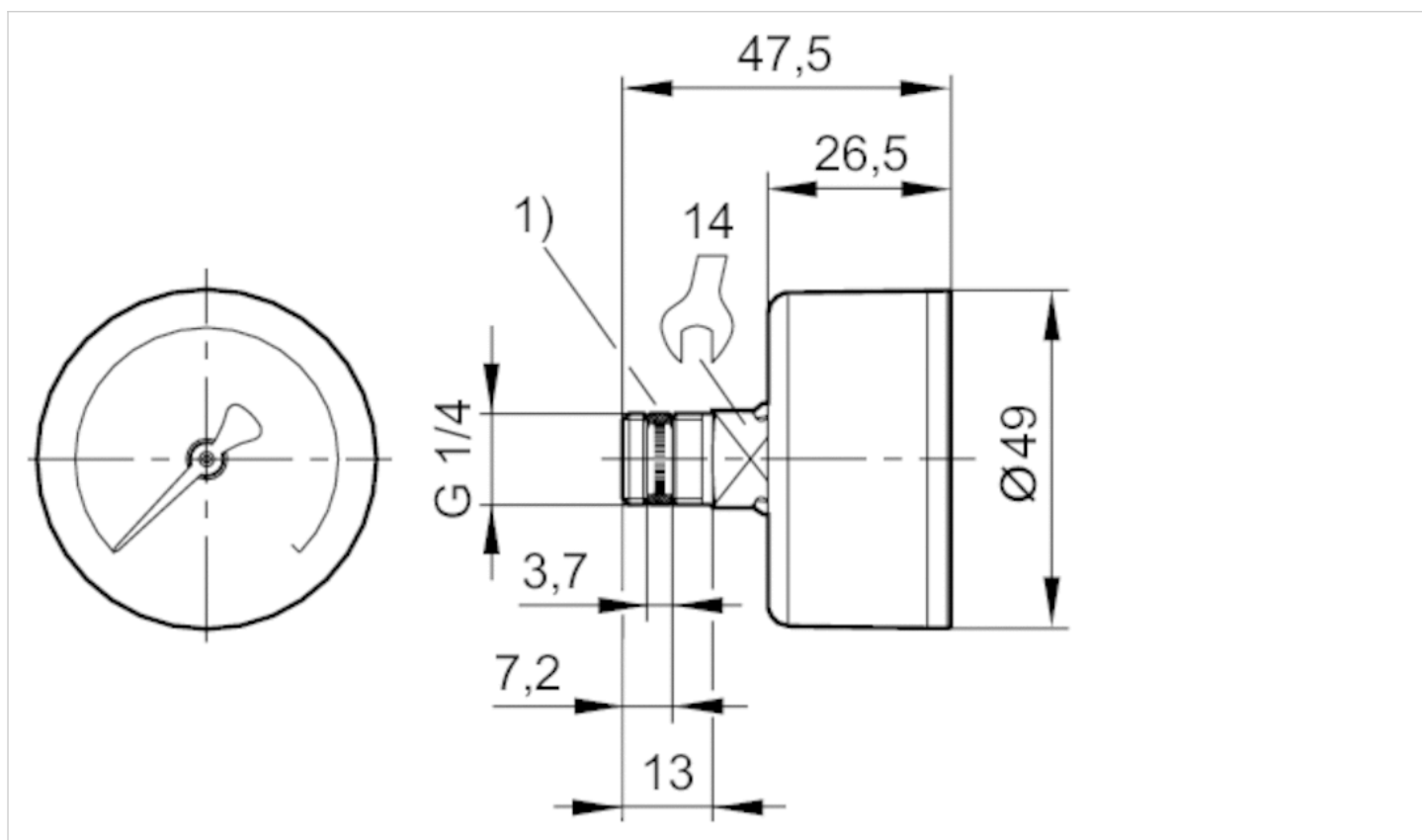
Dimensions

Dimensions in mm, Fig. 1



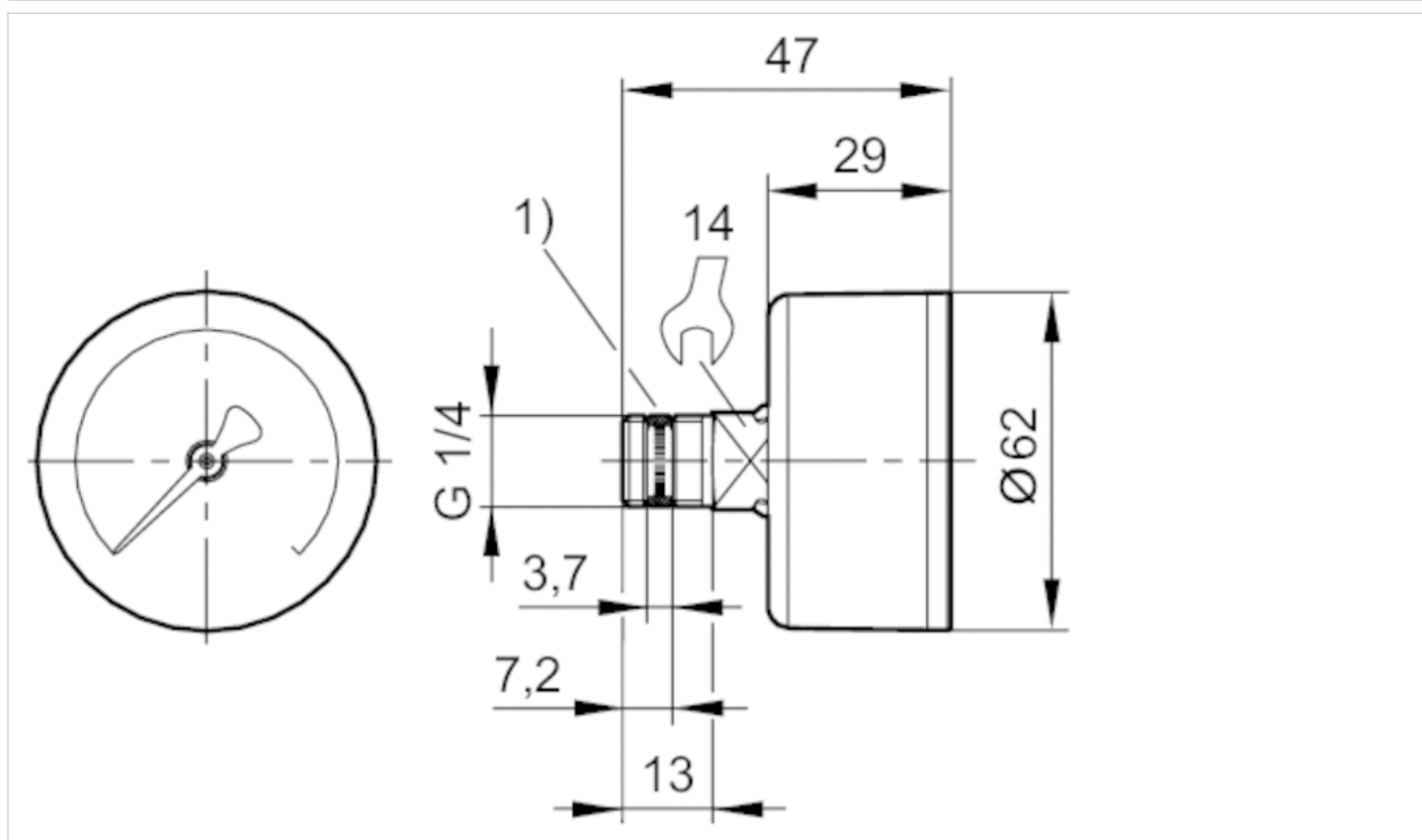
1) Gasket thread

Dimensions in mm, Fig. 2



1) Gasket thread

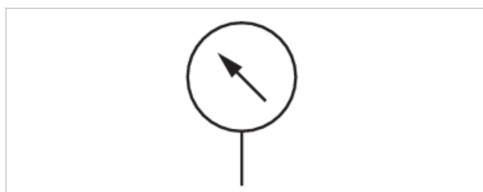
Dimensions in mm, Fig. 3



1) Gasket thread

Pressure gauge, Series PG1-SAS-ADJ

- Back port
- with adjustable work area display
- Background color Black
- Scale color White, Grey
- Viewing window Polystyrene
- Units bar
- Units psi



Version	Bourdon tube pressure gauge
Version	with adjustable work area display
Standardization	EN 837-1
Class	2,5
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Work area	adjustable work area display
Work Area Display, Color	Red Green
Main scale unit (outside)	bar
Main scale color (outside)	White
Secondary scale unit (inside)	psi
Secondary scale color (inside)	Grey
Background color	Black
Pointer color	White
Weight	0.1 kg

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
R412007867	G 1/4	50 mm	0 bar ... 1.2	0 bar ... 1.6	0 ... 1.6 bar	0.05
R412007868	G 1/4	50 mm	0 bar ... 2	0 bar ... 2.5	0 ... 2.5 bar	0.1
R412007869	G 1/4	50 mm	0 bar ... 3.2	0 bar ... 4	0 ... 4 bar	0.1
R412007870	G 1/4	50 mm	0 bar ... 4	0 bar ... 6	0 ... 6 bar	0.2
R412007871	G 1/4	50 mm	0 bar ... 8	0 bar ... 10	0 ... 10 bar	0.2
R412007872	G 1/4	50 mm	0 bar ... 12	0 bar ... 16	0 ... 16 bar	0.5

Technical information

To set the operating range, the cover (inspection glass) must be removed. To do this, carefully lift the inspection glass by inserting a pointed or flat object in the slot provided for this purpose on the housing circumference.

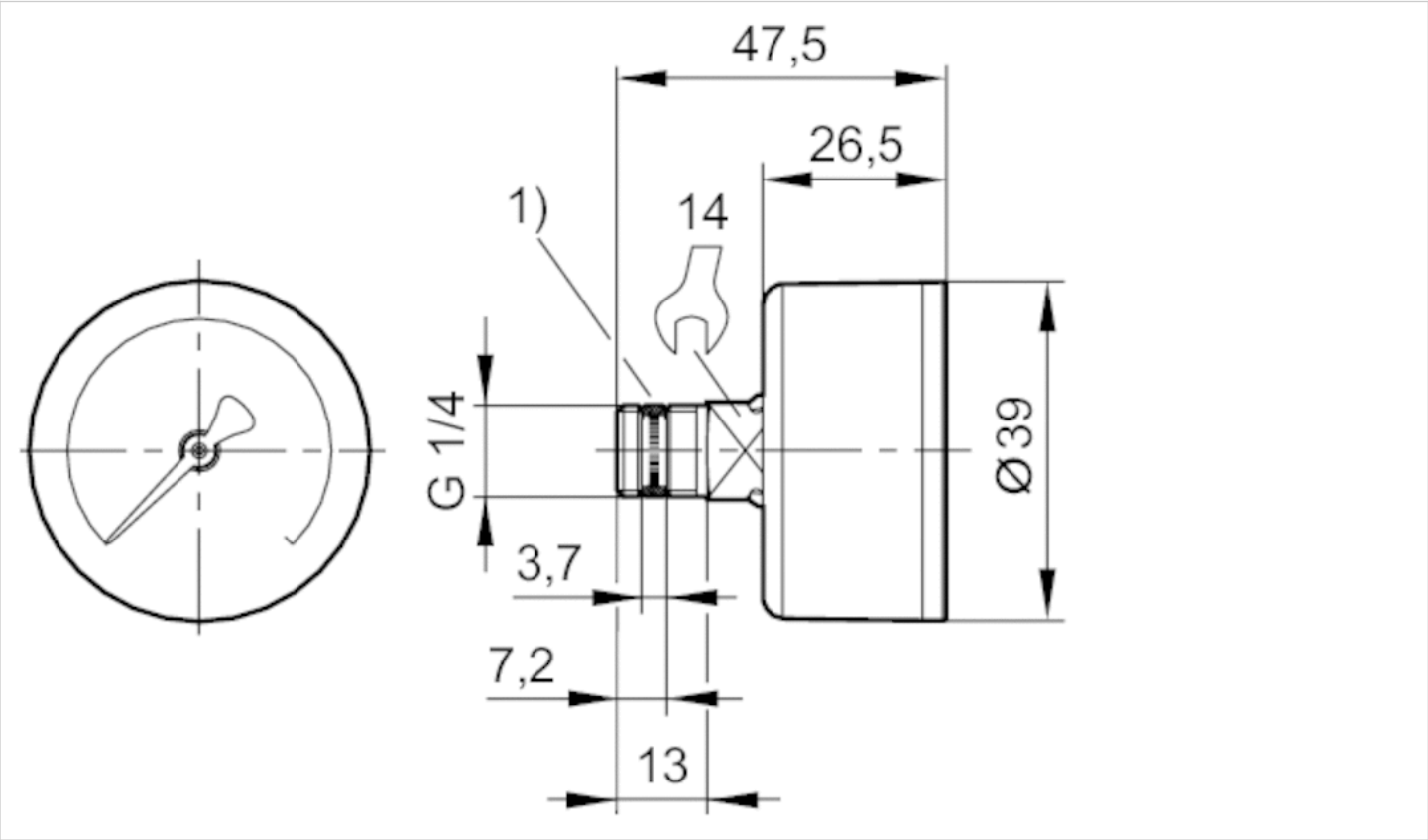
Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass

Material	
Viewing window	Polystyrene
Seal	Polytetrafluorethylene

Dimensions

Dimensions in mm, Fig. 1



1) Gasket thread

Dimensions in mm

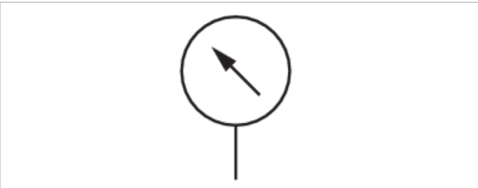
Compressed air connection	Nominal diameter	Ø A	B	C	D	E	F	SW
G 1/4	50 mm	49	47.5	26.5	13	7.2	3.7	14

Pressure gauge, Series PG1-DIM

- for differential pressure measurement for prefilters and microfilters
- flange version
- Background color White
- Scale color Black
- Viewing window Polystyrene
- Units bar
- suitable for ATEX



Version	Diaphragm pressure gauge
Mounting orientation	vertical
Ambient temperature min./max.	0 ... 60 °C
Medium	Compressed air
Color for differential pressure range	Green Red
Main scale unit (outside)	bar
Main scale color (outside)	Black
Background color	White
Pointer color	Black
Weight	0.127 kg



Technical data

Part No.	Range of application	Display range	Operating pressure	Scale value
1827231072	0 ... 0.5 bar	0 ... 0.5 bar	0 ... 16 bar	0.1

Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

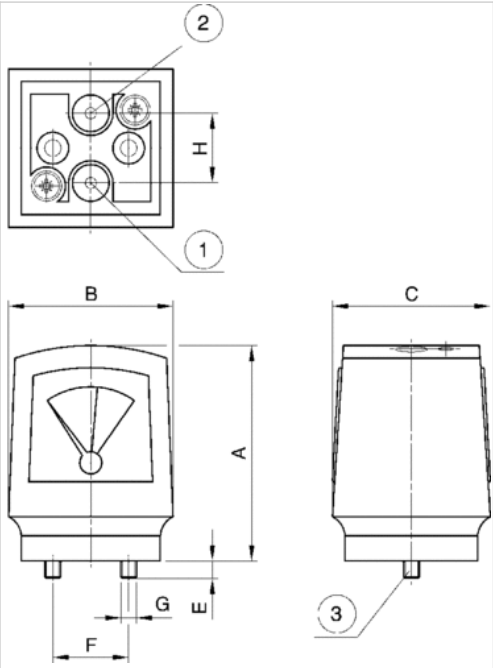
Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Viewing window	Polystyrene
Seal	Acrylonitrile butadiene styrene

Dimensions

Dimensions



- 1) Input pressure p1
- 2) Output pressure p2
- 3) Mounting screw and 2 O-rings included in scope of delivery

Dimensions in mm

A	B	C	E	F	G	H
68	52	50	6	24	M5	22

contamination display

- for prefilters and microfilters



Weight

0.025 kg

Technical data

Part No.
R412006363

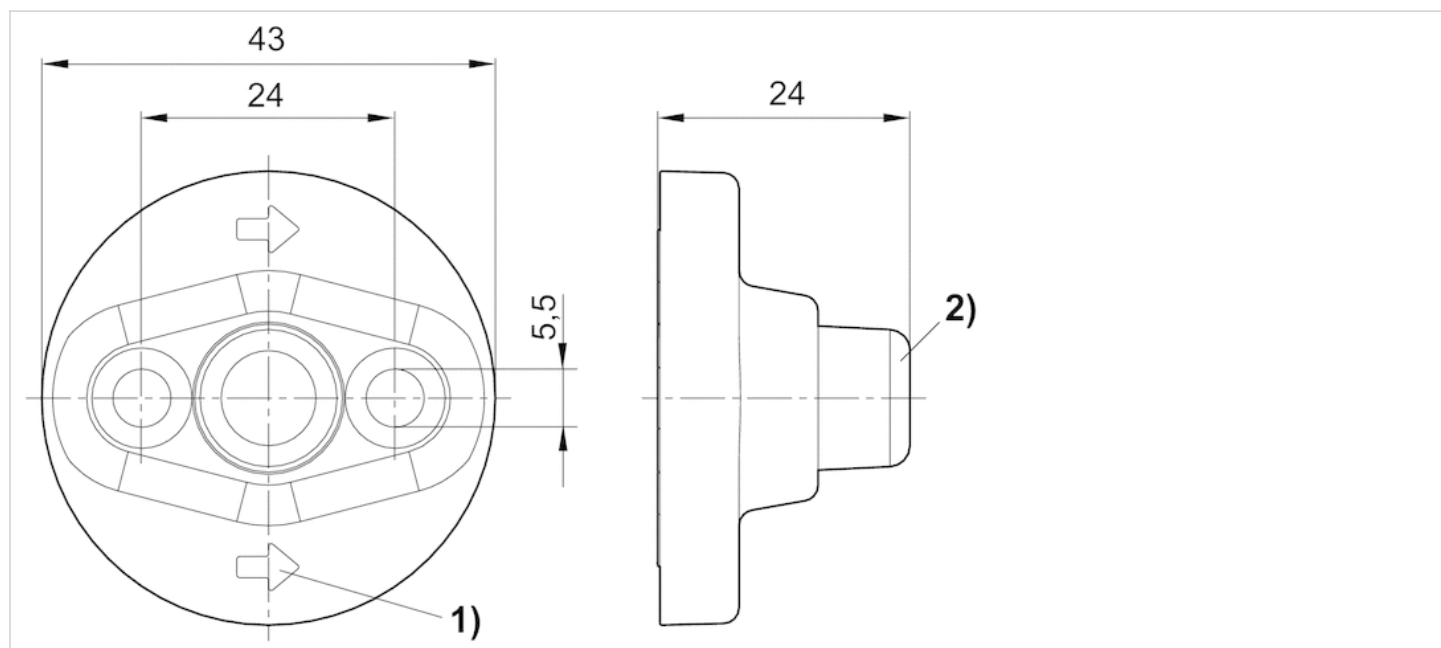
2 mounting screws and 2 O-rings supplied loose.

Technical information

Material	
Material	Polyamide

Dimensions

Dimensions in mm



1) Flow direction

2) Display in initial state: green ($= \Delta p \leq 0.35 \text{ bar}$)

Display turns red on contamination of the filter element ($= \Delta p \geq 0.35 \text{ bar}$).

3/2-directional valve, Series DO16

- 3/2
- Plate connection
- Electrical connection : Plug, ISO 15217, form C
- Manual override : without detent with detent
- With spring return



Version	Poppet valve
Activation	Electrically
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow 1 ▶ 2	See table below
Nominal flow 2 ▶ 3	See table below
Protection class acc. to DIN EN 61140	Class I
Electrically	
Protection class with connection	IP65
Duty cycle	100 %
Mounting on manifold strip	PRS strip
mounting screws	M3
Weight	0.035 kg

Technical data

Part No.		MO	Operational voltage	Operational voltage
			DC	AC 50 Hz
0820048002			24 V	-
0820048004			-	24 V
0820048005			-	-
0820048001			-	230 V
0820048026			24 V	-
0820048028			-	24 V
0820048101			-	230 V
0820048029			-	-
0820048025			-	230 V
0820048102			24 V	-
0820048126			24 V	-

Part No.	Operational voltage	Voltage tolerance		
		DC	AC 50 Hz	AC 60 Hz
0820048002	-	-10% / +15%	-	-
0820048004	-	-	-10% / +15%	-
0820048005	110 V	-	-	-10% / +15%
0820048001	-	-	-10% / +15%	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
		DC	AC 50 Hz	AC 60 Hz
0820048026	-	-10% / +15%	-	-
0820048028	-	-	-10% / +15%	-
0820048101	-	-	-10% / +15%	-
0820048029	110 V	-	-	-10% / +15%
0820048025	-	-	-10% / +15%	-
0820048102	-	-10% / +15%	-	-
0820048126	-	-10% / +15%	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
0820048002	2 W	-	-	-
0820048004	-	1.6 VA	-	2.2 VA
0820048005	-	-	1.4 VA	-
0820048001	-	1.6 VA	-	2.2 VA
0820048026	2 W	-	-	-
0820048028	-	1.6 VA	-	2.2 VA
0820048101	-	1.6 VA	-	2.2 VA
0820048029	-	-	1.4 VA	-
0820048025	-	1.6 VA	-	2.2 VA
0820048102	2 W	-	-	-
0820048126	2 W	-	-	-

Part No.	Switch-on power	Nominal flow 1 ▶ 2	Nominal flow 2 ▶ 3	Working pressure min./max.
	AC 60 Hz			
0820048002	-	25 l/min	36 l/min	0 ... 10 bar
0820048004	-	25 l/min	36 l/min	0 ... 10 bar
0820048005	2 VA	25 l/min	36 l/min	0 ... 10 bar
0820048001	-	25 l/min	36 l/min	0 ... 10 bar
0820048026	-	25 l/min	36 l/min	0 ... 10 bar
0820048028	-	25 l/min	36 l/min	0 ... 10 bar
0820048101	-	16 l/min	19 l/min	0 ... 6 bar
0820048029	2 VA	25 l/min	36 l/min	0 ... 10 bar
0820048025	-	25 l/min	36 l/min	0 ... 10 bar
0820048102	-	20 l/min	26 l/min	0 ... 8 bar
0820048126	-	20 l/min	26 l/min	0 ... 8 bar

Nominal flow Q_n at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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

The oil content of compressed air must remain constant during the life cycle.

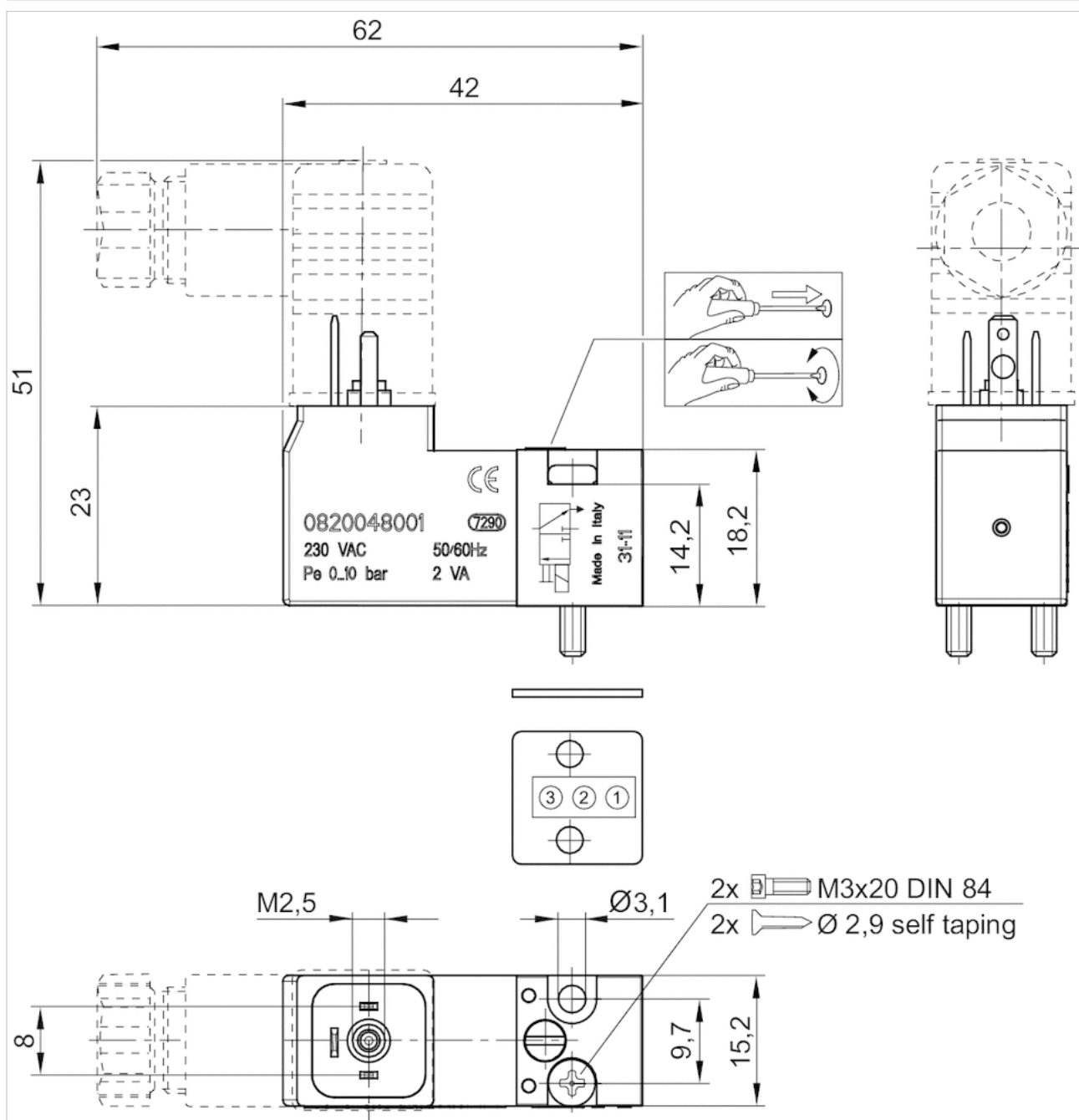
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	polyphenylene sulfide Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

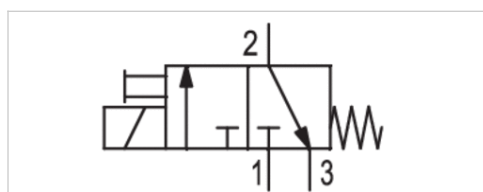
Dimensions

Dimensions



3/2-directional valve, Series DO16

- 3/2
- NC
- Plate connection
- Electrical connection : M12, 3-pin
- Manual override : without detent
- With spring return



Version	Poppet valve
Activation	Electrically
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow 1 ► 2	18 l/min
Nominal flow 2 ► 3	24 l/min
Protection class acc. to DIN EN 61140	Class I
Electrically	
Duty cycle	100 %
Mounting on manifold strip	PRS strip
Weight	0.035 kg

Technical data

Part No.	MO		Operational voltage	Power consumption	
				DC	
R412013391		NC	24 V	1.5 W	1)
R412019226		NC	24 V	1.5 W	2)

1) Pilot valve only

2) Incl. pilot valve, seal, screws, and manual

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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

The oil content of compressed air must remain constant during the life cycle.

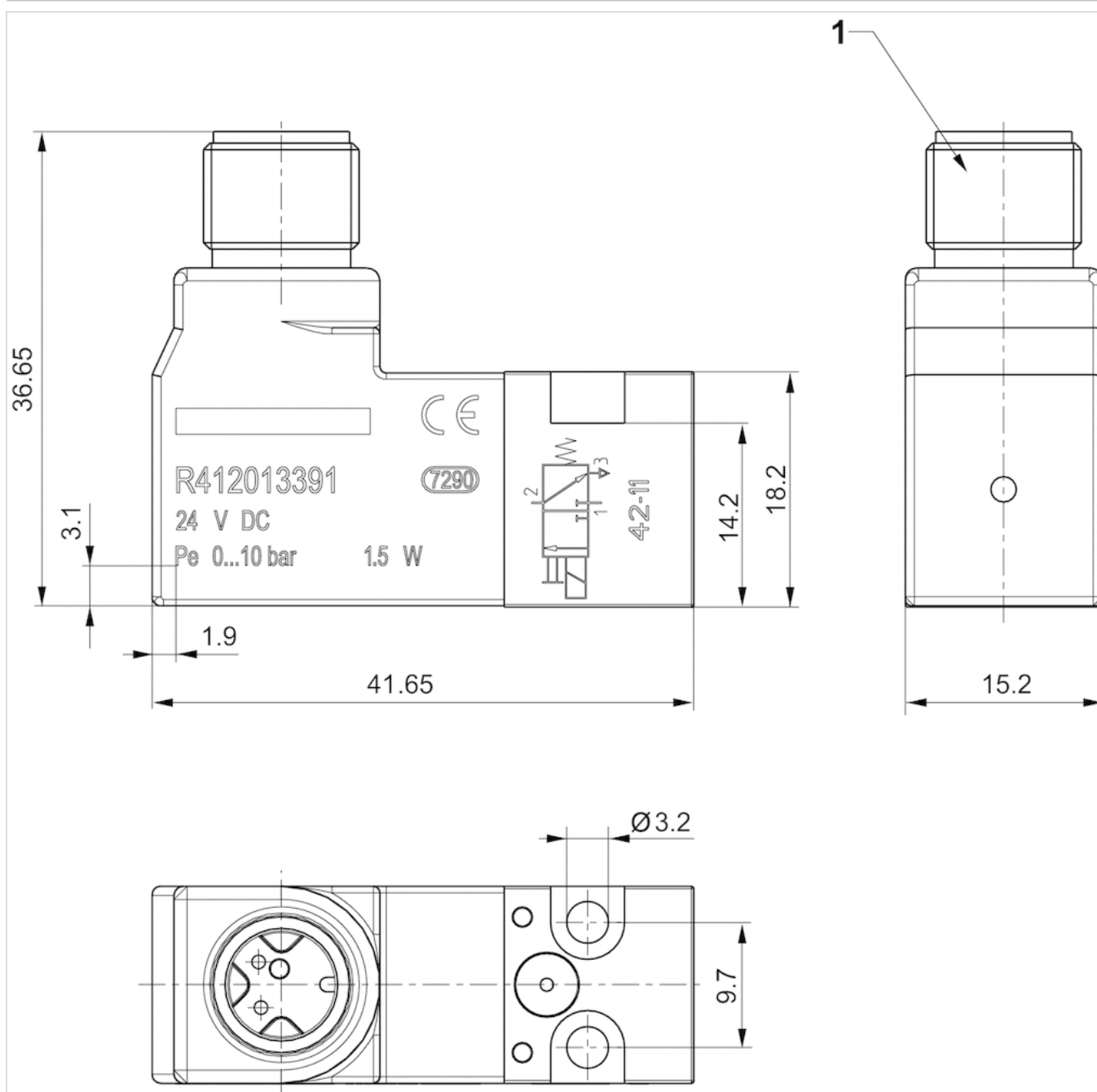
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	polyphenylene sulfide Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



1) Port for plug M12x1

3/2-directional valve, Series DO30

- 3/2
- Pilot valve width : 30 mm
- Plate valve with pipe connection
- Compressed air connection output : CNOMO
- Electrical connection : Plug, EN 175301-803, form A
- Manual override : without detent with detent
- With spring return
- suitable for ATEX



Version	Poppet valve
Activation	Electrically
Sealing principle	Soft sealing
Standards	CNOMO / NFE 49-003-1
Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow 1 ► 2	See table below
Nominal flow 2 ► 3	See table below
Protection class with connection	IP65
Compatibility index	15
Duty cycle	100 %
Mounting on manifold strip	P-strip
mounting screws	M4
Weight	0.06 kg

Technical data

Part No.		MO	Compressed air connection	
			Input	Output
0820019985			CNOMO	CNOMO
0820019980			CNOMO	CNOMO

Part No.	Compressed air connection	Nominal flow 1 ► 2	Nominal flow 2 ► 3
	Exhaust		
0820019985	M5	68 l/min	90 l/min
0820019980	M5	65 l/min	80 l/min

Part No.	basic valve with electrical connector	Power consumption	ATEX
0820019985	Basic valve without coil	Higher voltage tolerance	suitable for ATEX
0820019980	Basic valve without coil	Higher voltage tolerance	suitable for ATEX

Nominal flow Q_n at 6 bar and Δp = 1 bar, MO = Manual override
pilot valve without coil

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

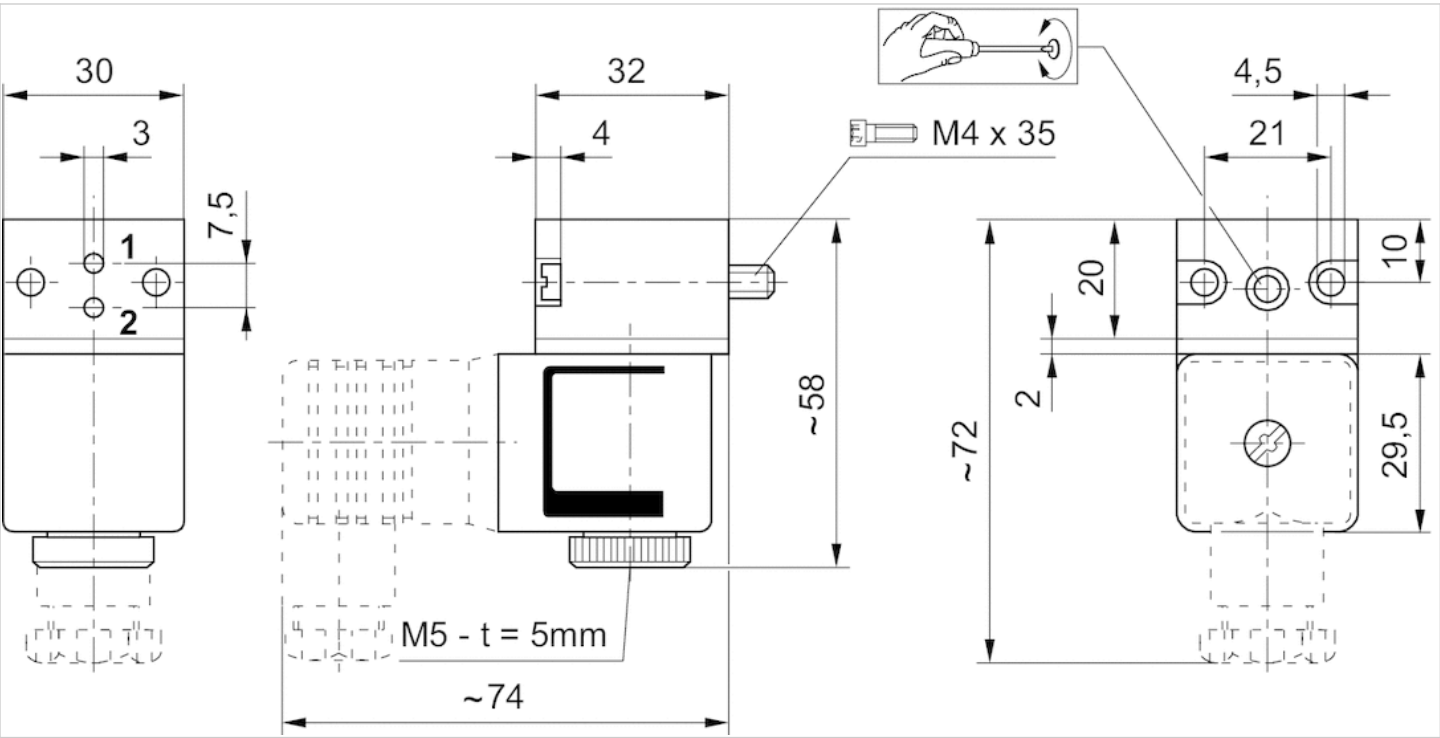
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Material	
Housing	Plastic
Seals	Fluorocaoutchouc

Dimensions

Dimensions



t = depth

Coil, Series CO1

- Cable with valve plug connector
- Coil width 30 mm
- Power consumption DC 3.25 W
- Holding power AC 2.9-3 VA
- Switch-on power AC 3-3.1 VA
- ATEX



Certificates

ATEX class G

ATEX class D

Ambient temperature min./max.

Protection class

Duty cycle ED

Compatibility index

Weight

ATEX

II 2G Ex mb IIC T4 Gb

II 2D Ex mb tb IIIC T130°C Db IP65

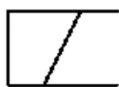
-20 ... 50 °C

IP65

100 %

14

See table below



Technical data

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
1827414297	-	230 V	230 V
1827414298	-	230 V	230 V
1827414299	-	110 V	110 V
1827414303	24 V	-	-
1827414304	24 V	-	-

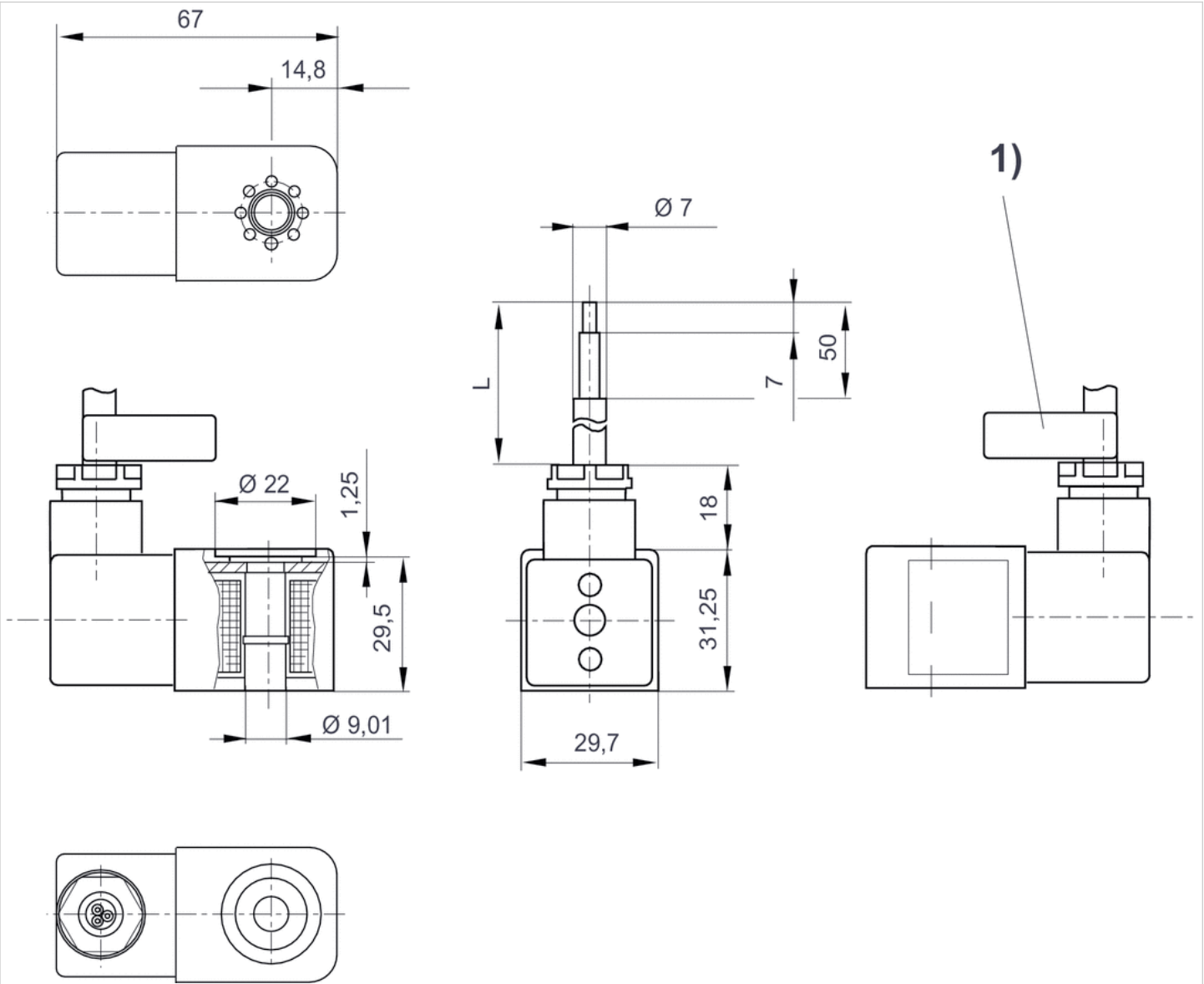
Part No.	Voltage tolerance	Voltage tolerance	Power consumption	Holding power
	DC	AC 50 Hz	DC	AC 50 Hz
1827414297	-	-10% / +10%	-	3 VA
1827414298	-	-10% / +10%	-	3 VA
1827414299	-	-10% / +10%	-	2.9 VA
1827414303	-10% / +10%	-	3.25 W	-
1827414304	-10% / +10%	-	3.25 W	-

Part No.	Switch-on power	Cable length	Weight
	AC 50 Hz		
1827414297	3.1 VA	3 m	0.38 kg
1827414298	3.1 VA	10 m	0.91 kg
1827414299	3 VA	3 m	0.38 kg

Part No.	Switch-on power	Cable length	Weight
	AC 50 Hz		
1827414303	-	3 m	0.38 kg
1827414304	-	10 m	0.91 kg

Dimensions

Dimensions



L = cable length
1) Cable ID band with serial number

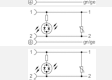
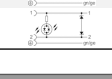
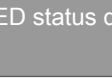
Valve plug connector, series CON-VP

- Socket form C 2+E angled 90°
- open cable ends 3-pin
- with cable
- unshielded



Ambient temperature min./max.	-20 ... 80 °C
Operational voltage	See table below
Protection class	IP67
Wire cross-section	0.75 mm ²
Mounting screw tightening torque	0.4 Nm
Weight	See table below

Technical data

Part No.		Operational voltage	Max. current	Protective circuit	Contact assignment
1834484213		230 V AC/DC	6 A	-	2+E
1834484215		230 V AC/DC	6 A	-	2+E
1834484205		24 V AC/DC	6 A	Z-diode	2+E
1834484207		24 V AC/DC	6 A	Z-diode	2+E
1834484209		230 V AC/DC	6 A	Varistor	2+E
1834484211		230 V AC/DC	6 A	Varistor	2+E
1834484236		24 V AC/DC	6 A	Z-diode	2+E

Part No.	LED status display	Number of wires	Cable-Ø	Cable length	Weight	Fig.	
1834484213	-	3	5.9 mm	3 m	0.183 kg	Fig. 2	-
1834484215	-	3	5.9 mm	5 m	0.308 kg	Fig. 2	-
1834484205	Yellow	3	5.9 mm	3 m	0.185 kg	Fig. 2	1)
1834484207	Yellow	3	5.9 mm	5 m	0.298 kg	Fig. 2	1)
1834484209	Yellow	3	5.9 mm	3 m	0.194 kg	Fig. 2	1)
1834484211	Yellow	3	5.9 mm	5 m	0.285 kg	Fig. 2	1)
1834484236	Yellow	3	5.9 mm	10 m	0.571 kg	Fig. 2	1)

1) Scope of delivery incl. flat gasket

Technical information

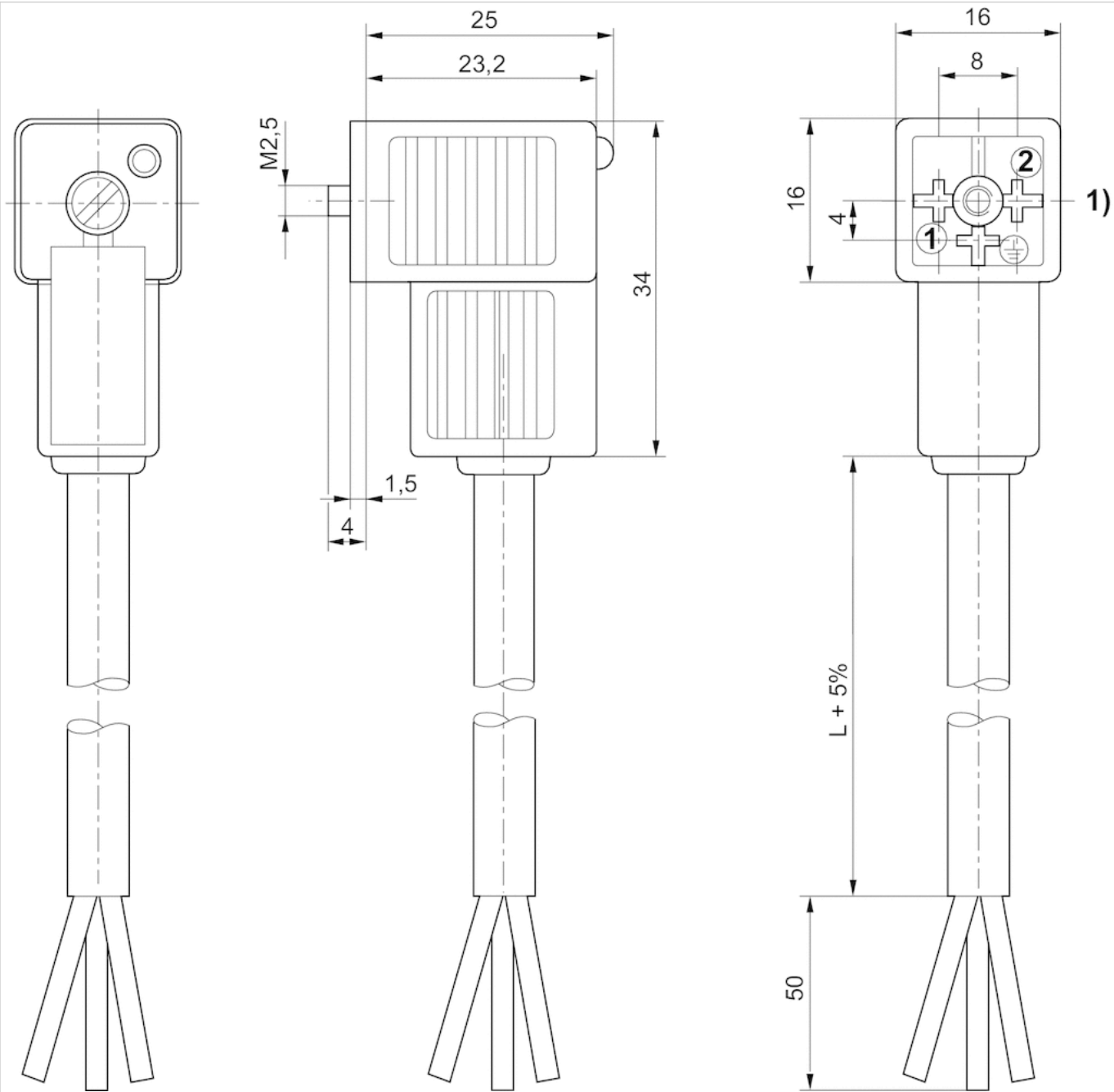
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc
Cable sheath	Polyvinyl chloride

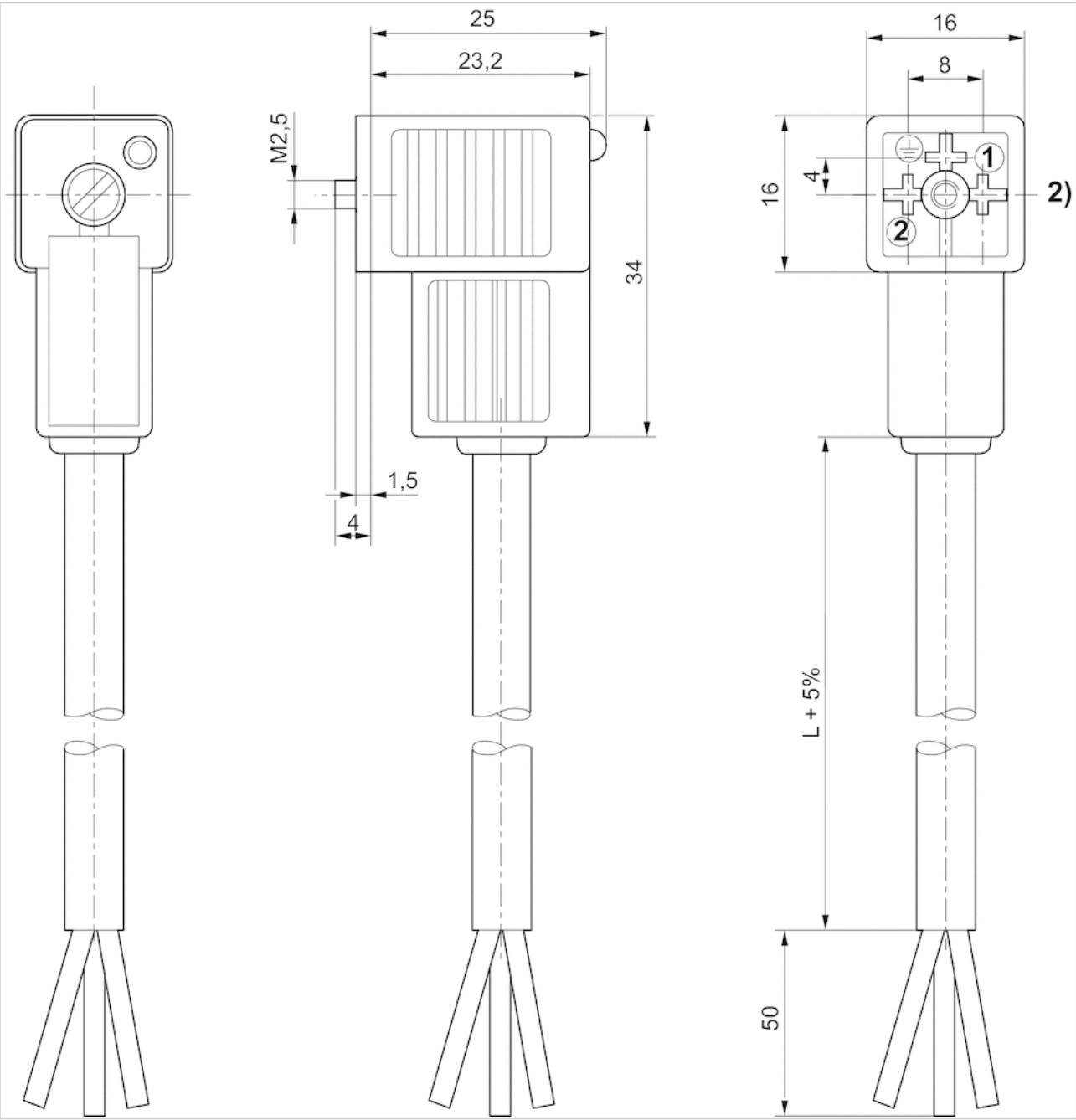
Dimensions

Fig. 1



1) 0° female insert

Fig. 2



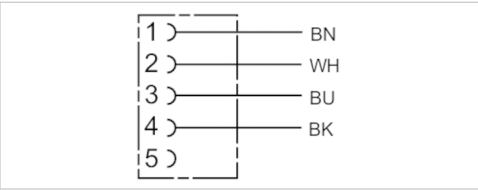
2) 180° female insert

Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- for DeviceNet
- with cable
- unshielded



Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP65
Wire cross-section	0.34 mm²
Weight	See table below



Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484259	4 A	4	5.2 mm	3 m	0.126 kg
1834484260	4 A	4	5.2 mm	5 m	0.195 kg
1834484261	4 A	4	5.2 mm	10 m	0.38 kg

Technical information

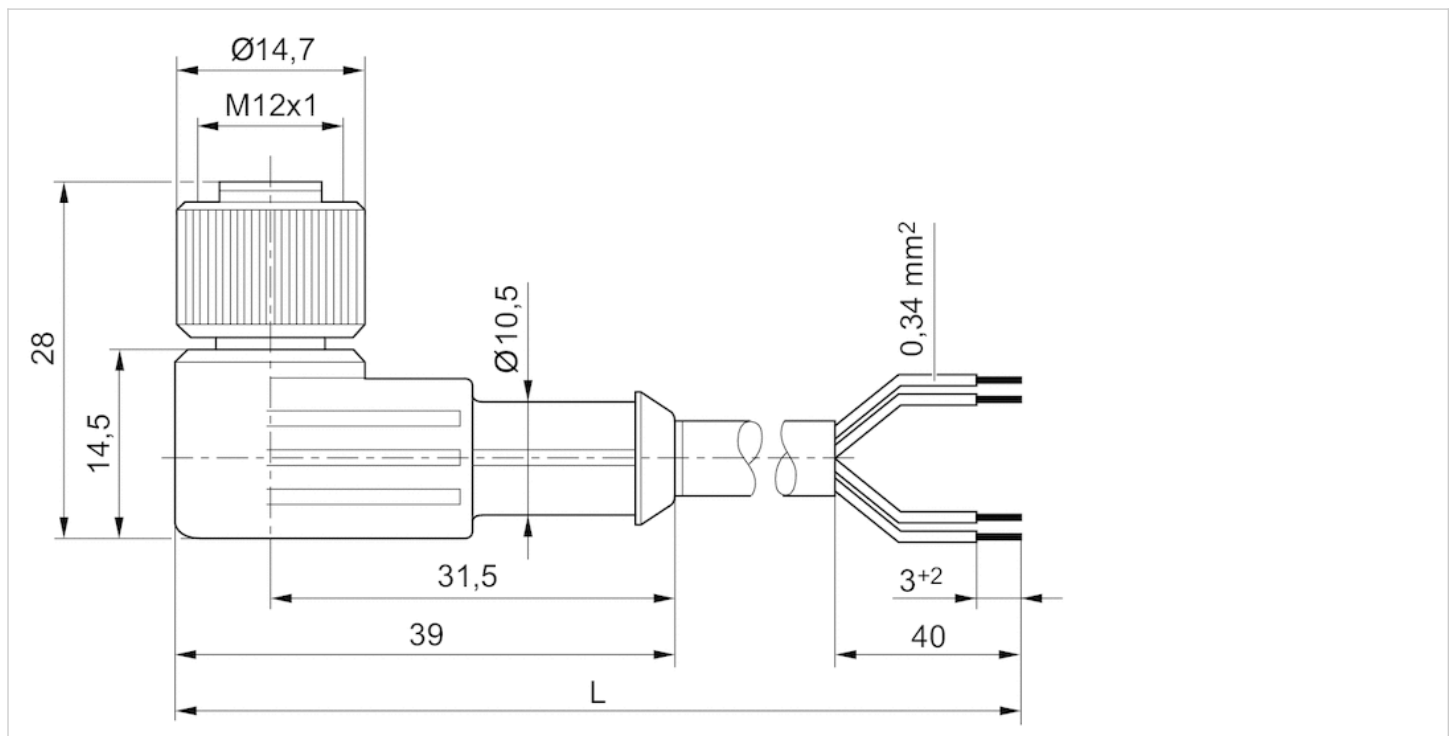
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

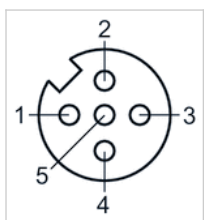
Dimensions



L = length

Pin assignments

Pin assignment, socket



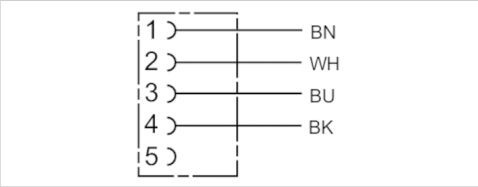
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) not assigned

Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded straight 180°
- open cable ends
- with cable
- unshielded



Ambient temperature min./max.	-25 ... 70 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm²
Weight	See table below



Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484256	4 A	4	5.2 mm	3 m	0.122 kg
1834484257	4 A	4	5.2 mm	5 m	0.194 kg
1834484258	4 A	4	5.2 mm	10 m	0.373 kg

Technical information

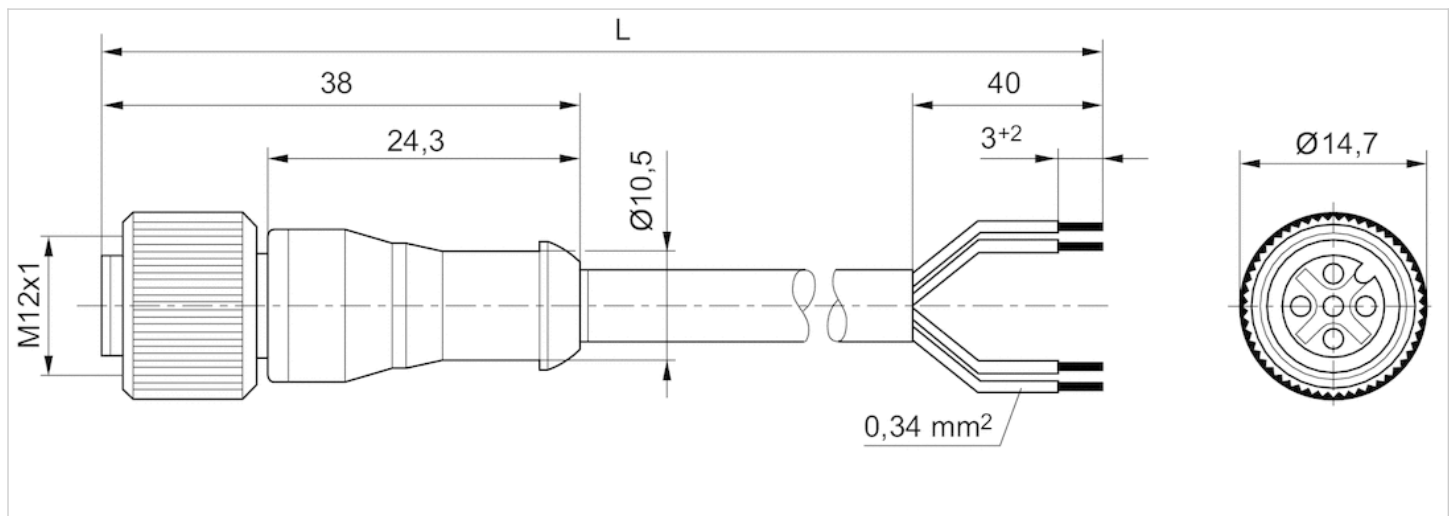
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

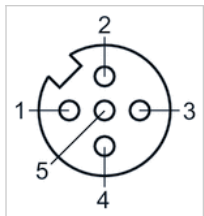
Dimensions



L = length

Pin assignments

Pin assignment, socket



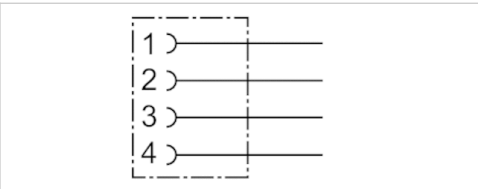
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) not assigned

Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, straight, 180°
- UL (Underwriters Laboratories)
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.015 kg



Technical data

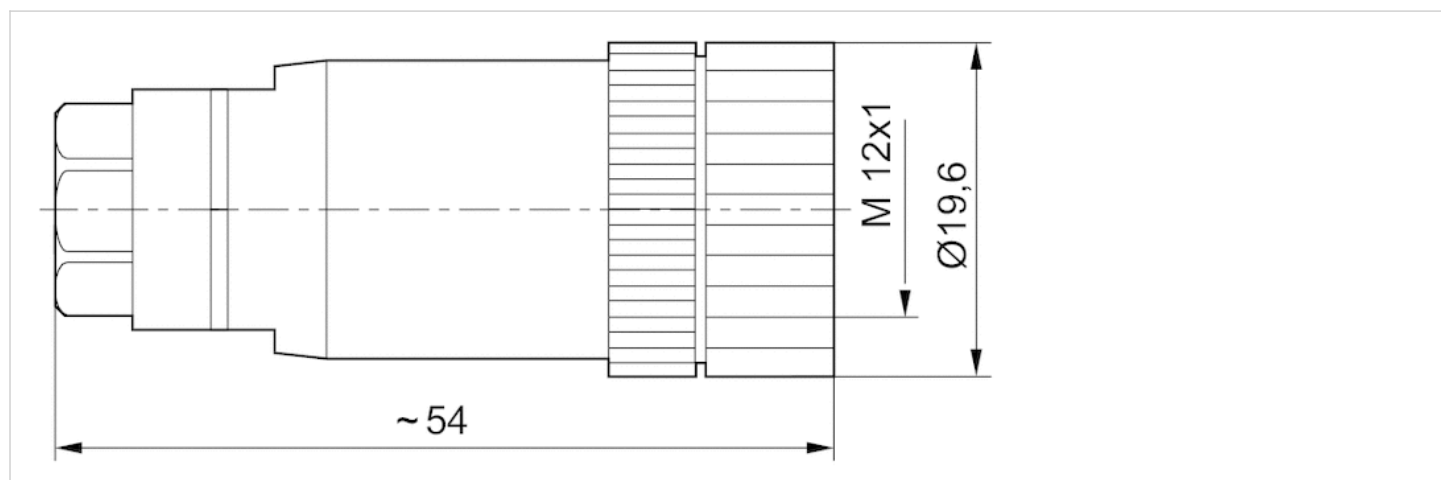
Part No.	Max. current	suitable cable-Ø min./max
1834484177	4 A	4 / 6 mm

Technical information

Material	
Housing	Polyamide

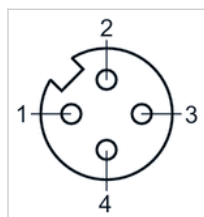
Dimensions

Dimensions



Pin assignments

Pin assignment, socket

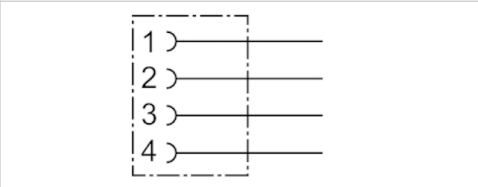


Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, angled, 90°
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.016 kg



Technical data

Part No.	Max. current	suitable cable-Ø min./max
1834484178	4 A	4 mm

Technical information

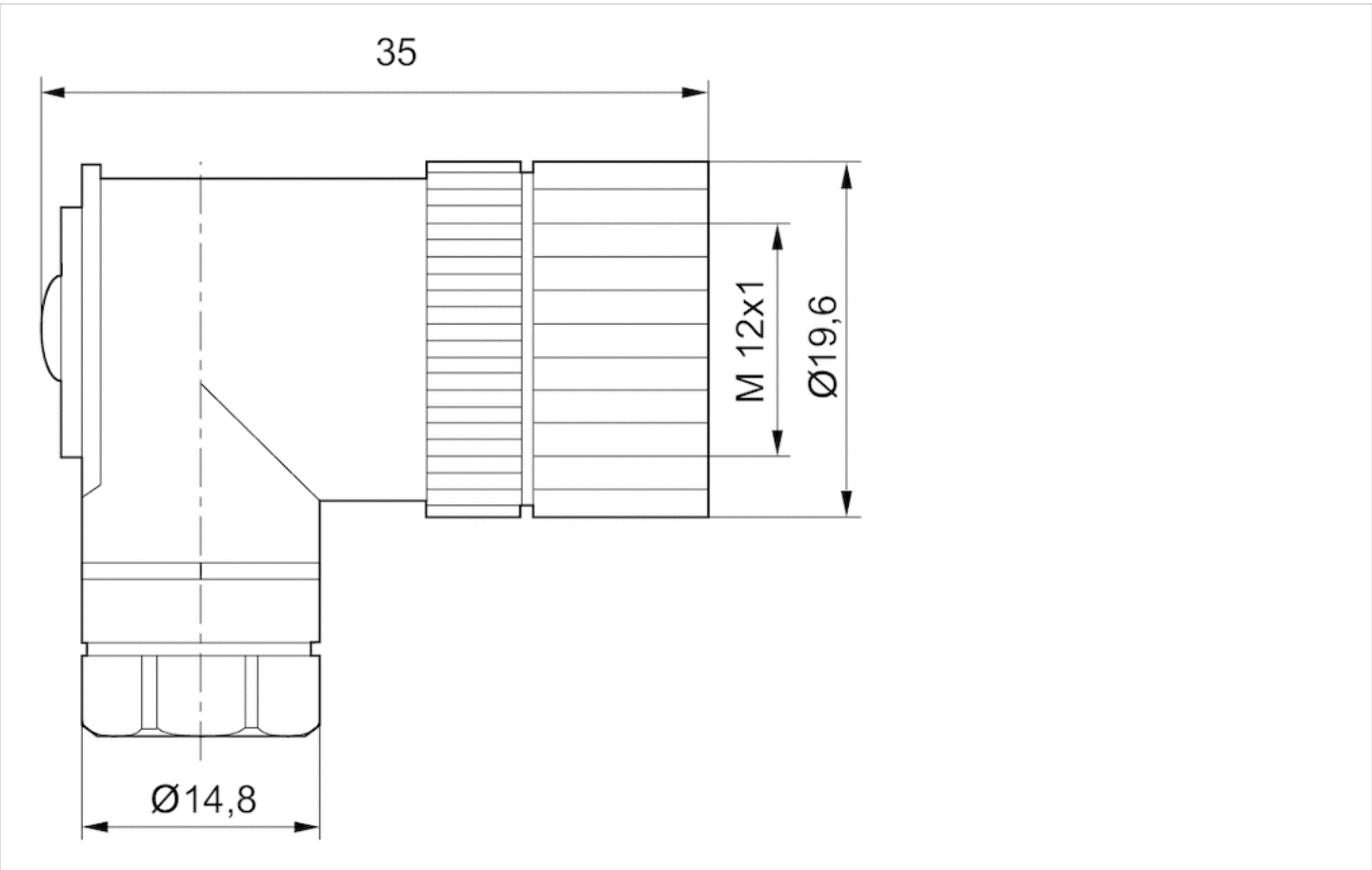
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyamide

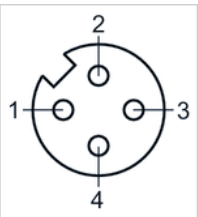
Dimensions

Dimensions



Pin assignments

Pin assignment, socket

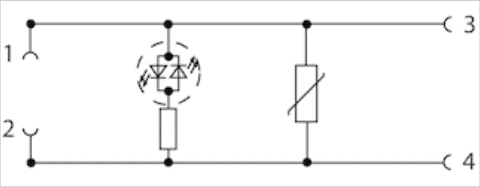


Adapter, Series CON-VP

- Socket, form C, 2+E, angled, 90°
- Plug, M12x1, 3-pin, A-coded, straight, 180°
- unshielded
- with LED Yellow



Ambient temperature min./max.	-10 ... 0 °C
Operational voltage	24 V DC
Protection class	IP65
Protective circuit	Varistor
Mounting screw tightening torque	0.6 Nm
Weight	0.013 kg



Technical data

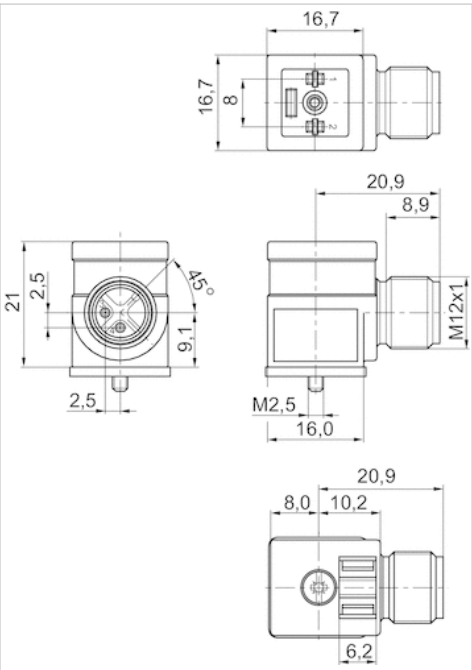
Part No.	Max. current	Protective circuit	Contact assignment	LED status display
R412009553	1 A	Varistor	2+E	Yellow

Technical information

Material	
Housing	Polyurethane

Dimensions

Dimensions



Transition plate, Series AS1, AS2, AS3, AS5

- Adapter plate for assembling a series DO30 pilot valve with CNOMO porting configuration on a 3/2-way shut-off valve without pilot



Weight

0.025 kg

Technical data

Part No.
R412006360

Scope of delivery incl. 4 mounting screws, 2 O-rings

Technical information

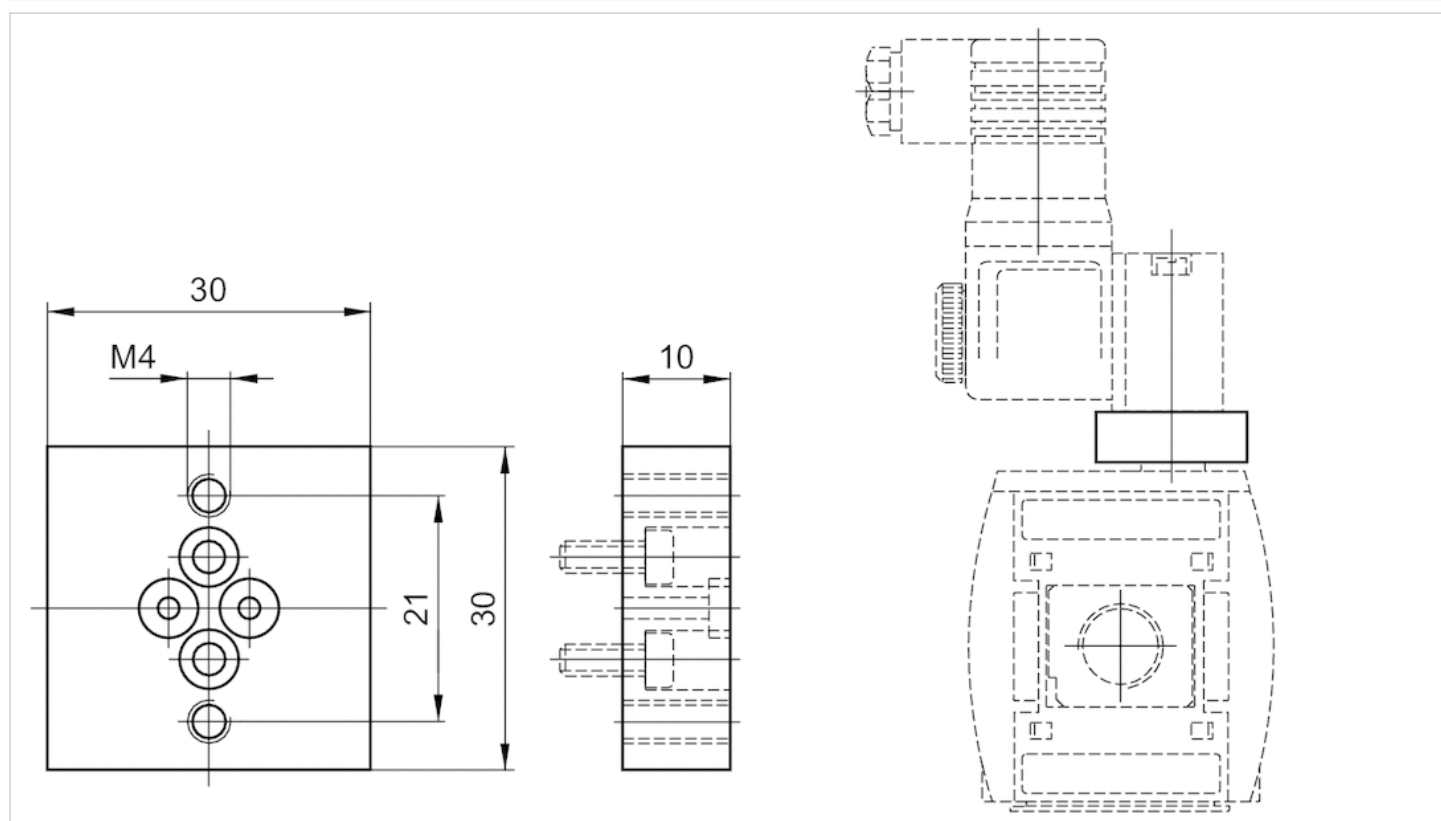
Adapter plate for assembling a series DO30 pilot valve with CNOMO porting configuration on a 3/2-way shut-off valve without pilot

Technical information

Material	
Material	Aluminum

Dimensions

Dimensions in mm



Adapter

- Adapter for connecting the control pressure to a AS series 3/2 directional shut-off valve without pilot control to realize pneumatic actuation, G 1/8
- G 1/8
- AS1 AS2 AS3 AS5



Weight

0.019 kg

Technical data

Part No.	Port G
R412006359	G 1/8

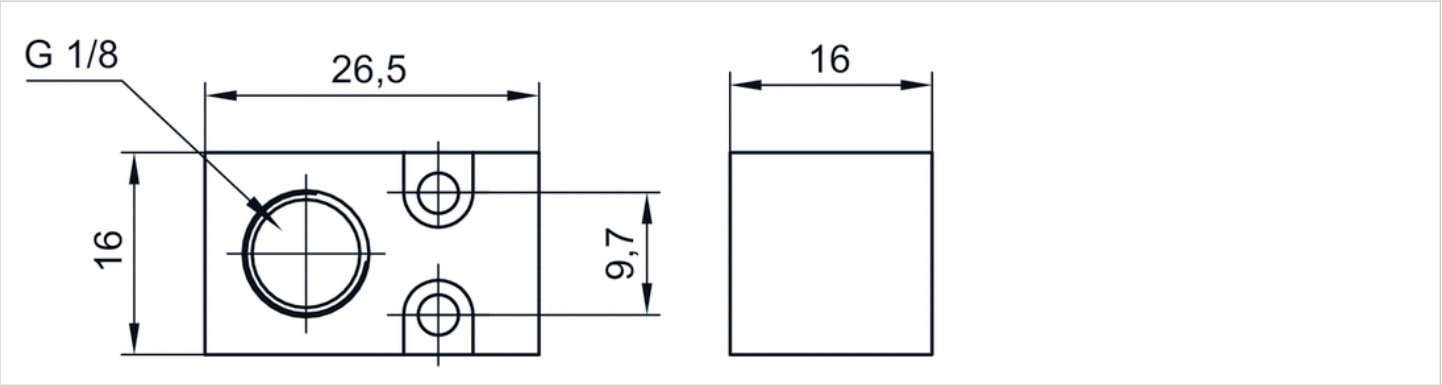
Delivery incl. 2 mounting screws M3x20, Flat gasket

Technical information

Material	
Material	Aluminum

Dimensions

Dimensions in mm



Adapter for external pilot air



Ambient temperature min./max.
Weight

50 °C
0.015 kg

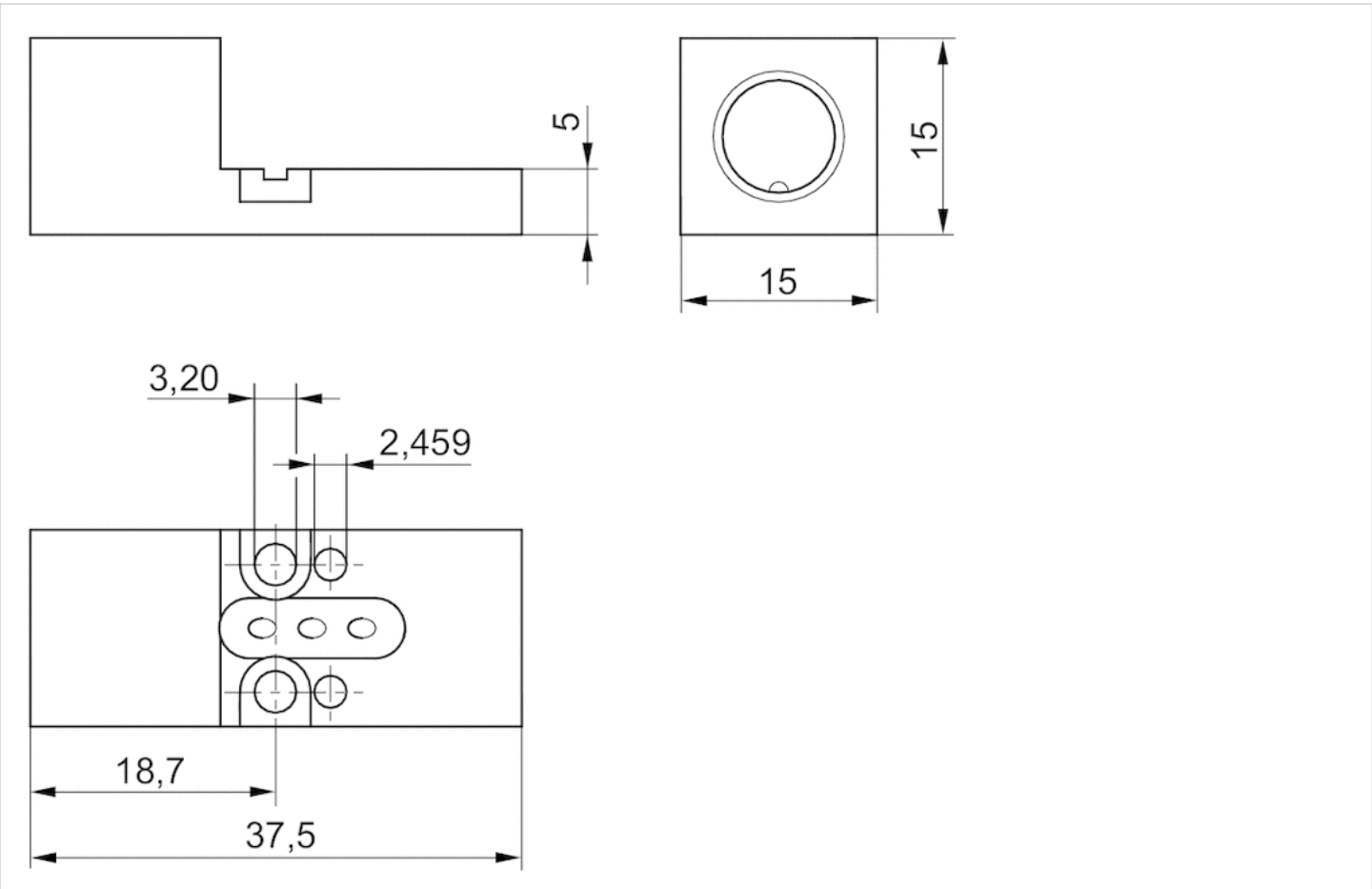
Technical data

Part No.
R412025904

Delivery incl. 1 seal plate, 1 screw 3x10, 1 screw DIN 84-M3x18

Dimensions

Dimensions in mm



Mounting aid

- Assembly aid for permanent actuation of manual override ("press") on pilot valve DO16 with electrical push-in fitting, form C.



Technical data

Part No.
R412019278

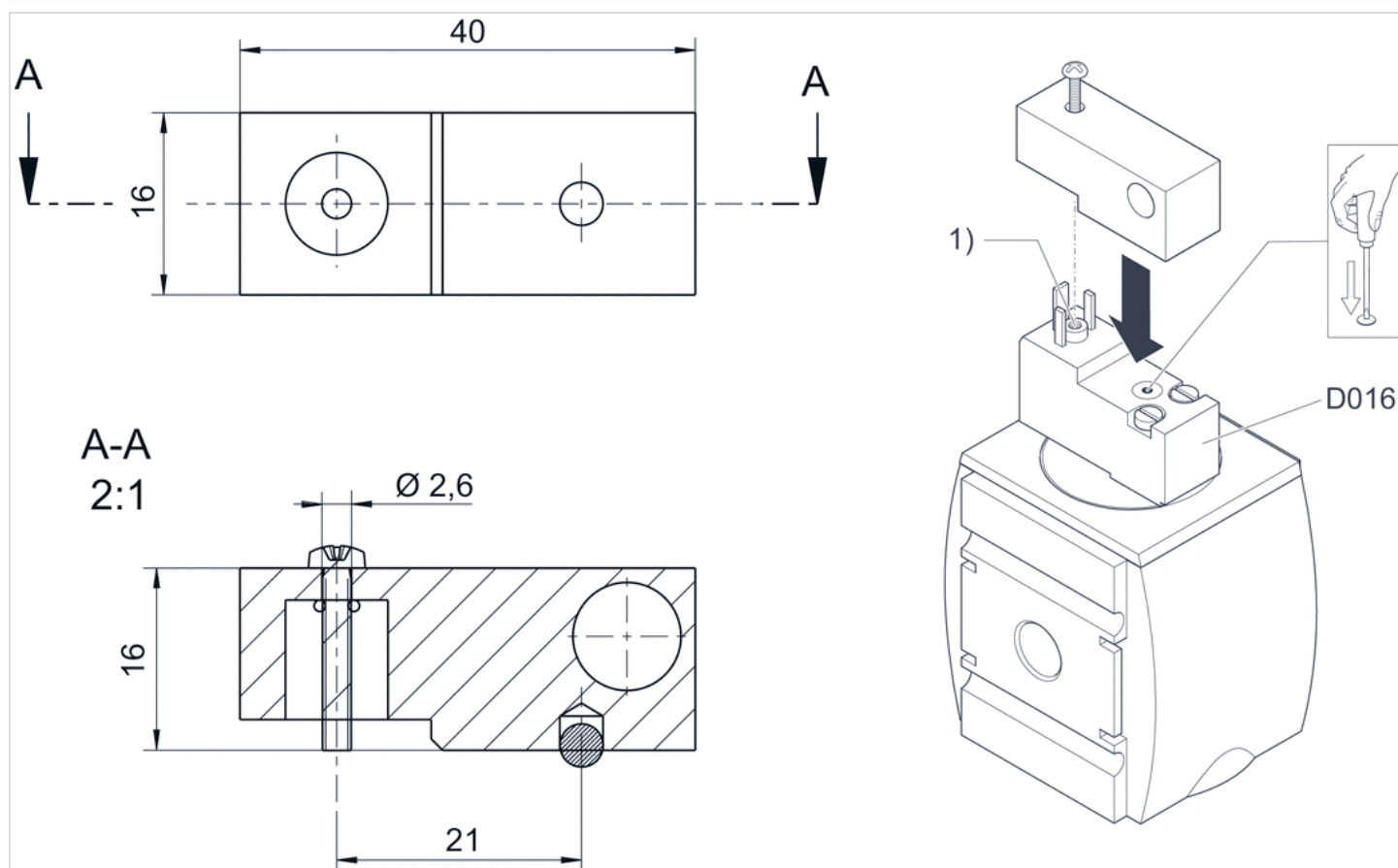
Scope of delivery incl. 1 mounting screw, 1 O-ring

Technical information

Material	
Housing	Aluminum

Dimensions

Dimensions in mm



1) ISO 15217, form C

Mounting aid

- Assembly aid for permanent actuation of manual override ("press") on pilot valve DO16 with electrical connection M12x1.



Weight0.023 kg

Technical data

Part No.
R412015193

Technical information

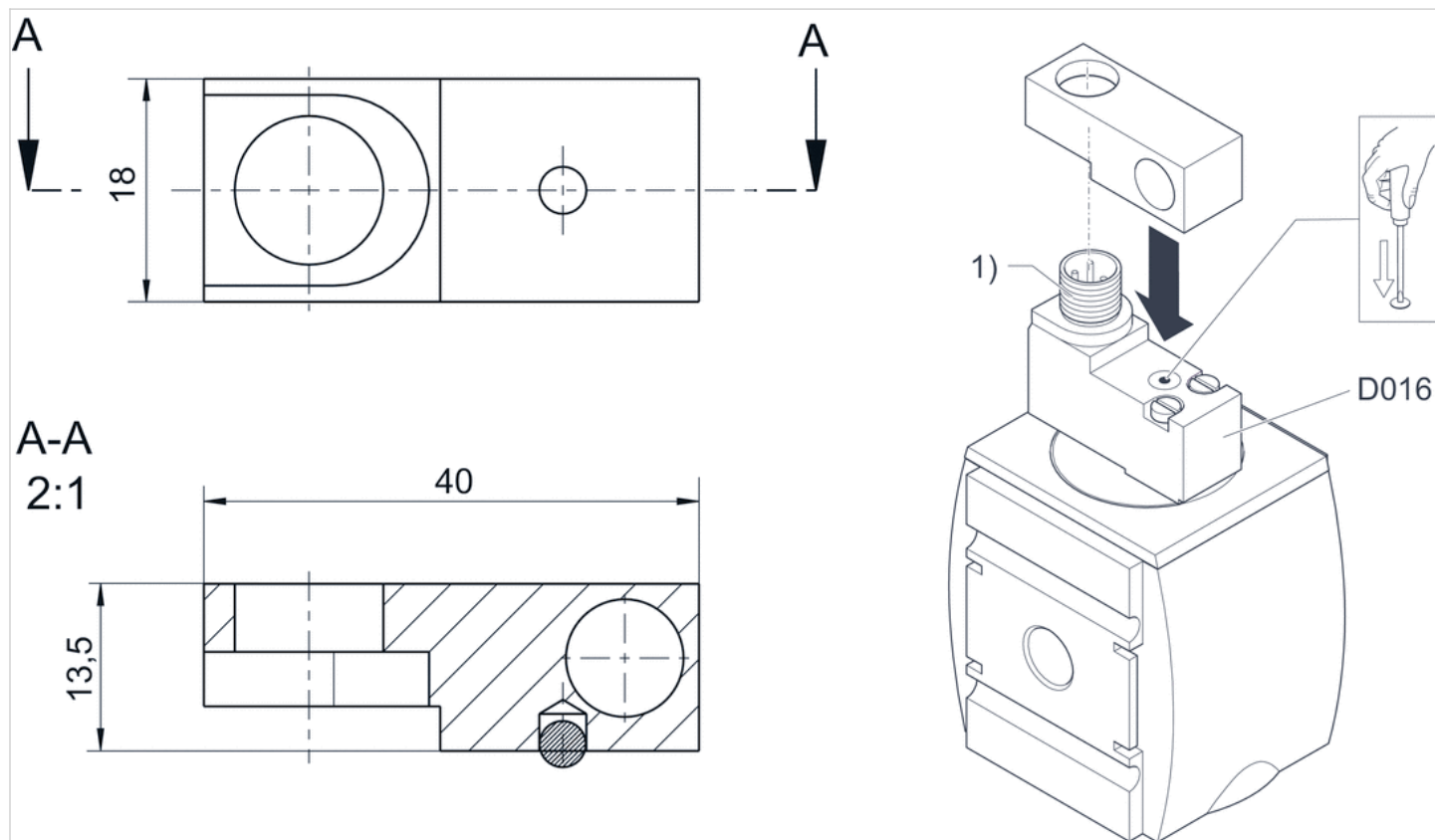
Mounting the assembly aid to the pilot valve using valve plug connector M12x1

Technical information

Material	
Housing	Aluminum

Dimensions

Dimensions in mm



1) M12x1

mortise lock

- for AS2 AS3 AS5



Technical data

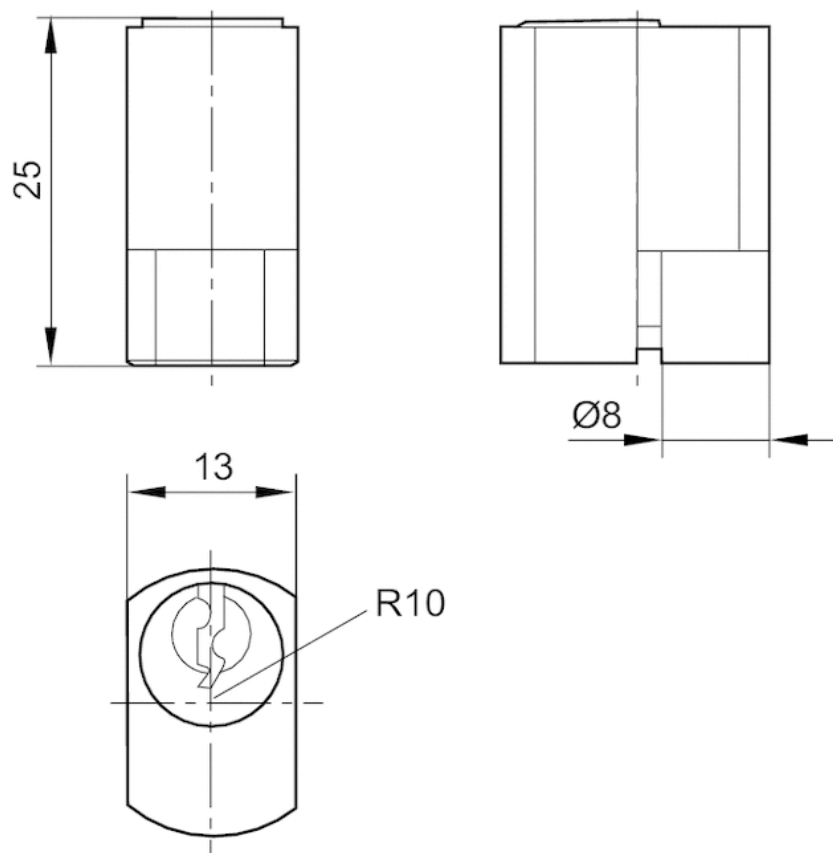
Part No.	Type
R412007959	Standard locking, with key
R412006374	E11 locking, without key

Technical information

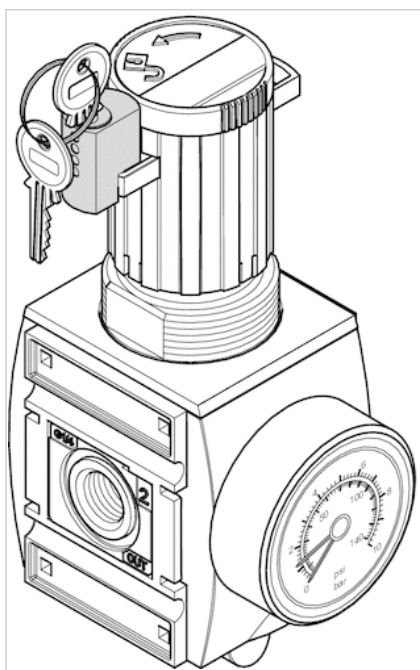
Material	
Housing	Steel

Dimensions

Dimensions in mm



Application example



Key for E11 locking

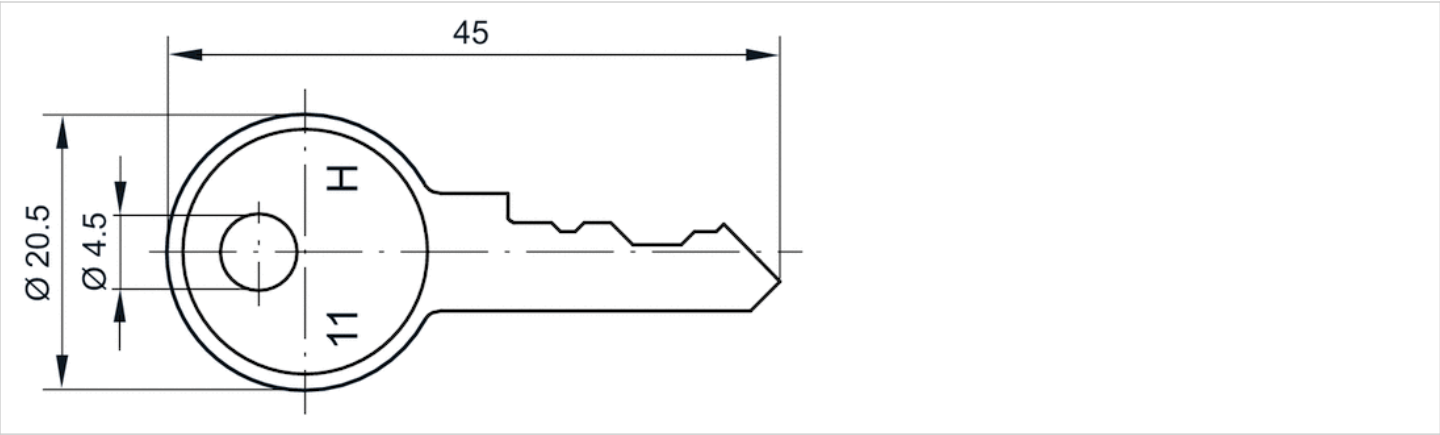


Technical data

Part No.	Delivery unit
R961403407	1 piece

Dimensions

Dimensions in mm



Pressure sensor, Series PE5

- Operating pressure -1 ... 0 -1 ... 1 0 ... 6 0 ... 10 0 ... 12 bar
- electronic
- Output signal analog 0 - 10 V DC, 4 - 20 mA
- Output signal digital 2 x PNP, NPN, Push-pull PNP, NPN, Push-pull PNP, NPN, push-pull, 1x IO-Link
- Electr. connection Plug M12x1 4-pin
- Compressed air connection Internal thread G 1/4



Type	electronic
Certificates	CE declaration of conformity cULus RoHS Conforms with REACH Free of substances that impair surface wetting in the coating process
Compressed air connection	Internal thread G 1/4
Ambient temperature min./max.	0 ... 60 °C
Medium temperature min./max.	0 ... 60 °C
Medium	Compressed air (max. 40 µm)
Max. oil content of compressed air	40 mg/m³
Measurement	Relative pressure
Display	LCD display, 4 digits Color setting: green or red
Units displayed	bar, psi, kPa, MPa, inHg
Switching logic	NO/NC (adjustable)
Shock resistance max.	30 g
Vibration resistance	5 g (10 - 150 Hz)
Precision (% of full scale value)	±1.5% in temperature range of 10 - 30°C ± 2 % including temperature drift
Repeatability (% of full scale value)	± 0,2 %
Switching time	5 ms
Switching point	adjustable 0 ... 100%
Resetting point	adjustable 0 ... 100%
Hysteresis	adjustable
Delayed hysteresis	adjustable
Window function	adjustable
DC operating voltage min./max.	17 ... 30 V DC
Analog output	0 - 10 V DC, 4 - 20 mA
Quiescent current consumption	40 mA
Analog output linearity	± 0.5% of the final value
Maximum load (analog current output)	600 Ω
Short circuit resistance	Max. 600 ohms (current output) Min. 3K ohms (voltage output)
Mounting types	Directly on hat rail and wall mounting For panel installation using mounting kit via double nipple
Protection class	IP65, IP67 with connections assembled
Electr. connection	Plug M12x1 4-pin
Weight	0.04 kg

Technical data

Part No.		Operating pressure range	Protection against overpressure
		min./max.	
R412010761		-1 ... 0 bar	5 bar
R412010769		-1 ... 0 bar	5 bar
R412010775		-1 ... 0 bar	5 bar
R412010763		-1 ... 1 bar	5 bar
R412010771		0 ... 6 bar	15 bar
R412010765		0 ... 6 bar	15 bar
R412010777		0 ... 6 bar	15 bar
R412010773		0 ... 10 bar	15 bar
R412010767		0 ... 10 bar	15 bar
R412010779		0 ... 10 bar	15 bar
R412010782		0 ... 12 bar	16 bar
R412010806		0 ... 12 bar	16 bar

Part No.	Output signal	Output signal	Fig.	
	Analog	digital		
R412010761	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010769	0 - 10 V DC-4 ... 20 mA	PNP, NPN, Push-pull	Fig. 1	-
R412010775	-	PNP, NPN, push-pull, 1x IO-Link	Fig. 1	1)
R412010763	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010771	0 - 10 V DC-4 ... 20 mA	PNP, NPN, Push-pull	Fig. 1	-
R412010765	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010777	-	PNP, NPN, push-pull, 1x IO-Link	Fig. 1	1)
R412010773	0 - 10 V DC-4 ... 20 mA	PNP, NPN, Push-pull	Fig. 1	-
R412010767	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010779	-	PNP, NPN, push-pull, 1x IO-Link	Fig. 1	1)
R412010782	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010806	-	PNP, NPN, push-pull, 1x IO-Link	Fig. 1	1)

1) The IO-Link device description (IODD) for the PE5 pressure sensor is available for download in the Media Centre.

Technical information

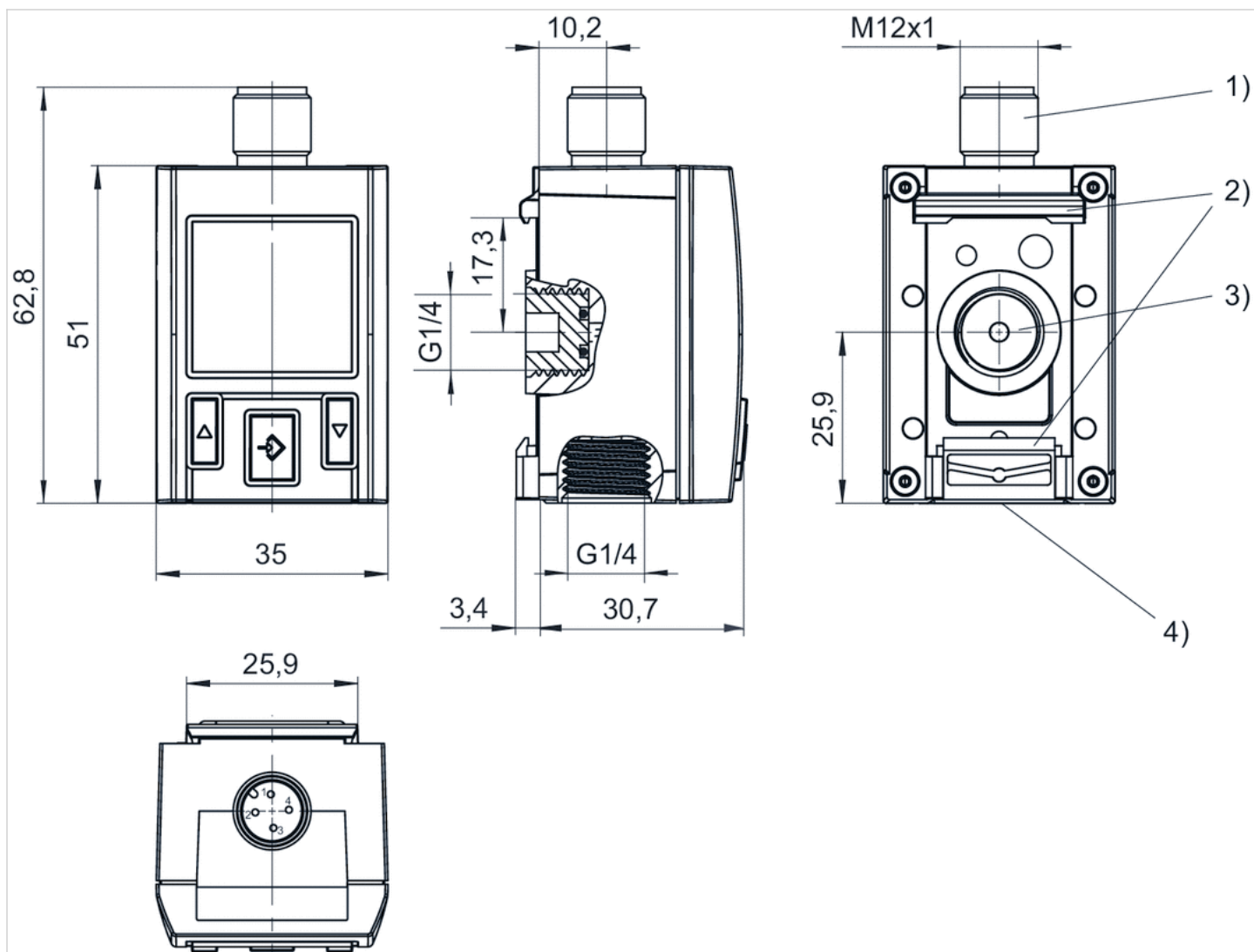
Alternative pressure connection (G1/4) on the rear side (closed with plug)
Display color selectable, red or green

Technical information

Material	
Housing	Polycarbonate
Seals	Acrylonitrile butadiene rubber
Blanking plug	Polyoxymethylene
Electr. connection	Aluminum, black anodized

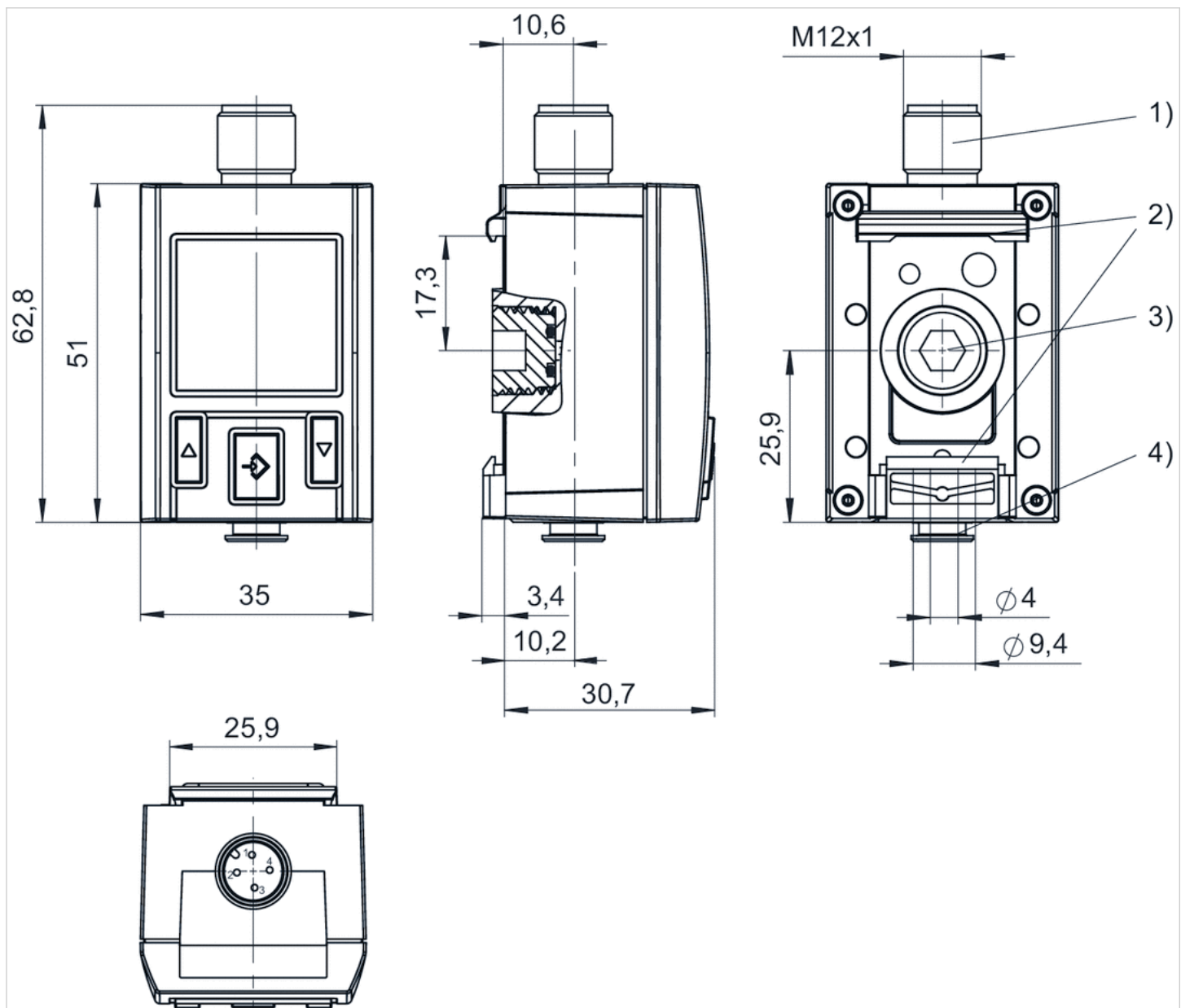
Dimensions

Fig. 1



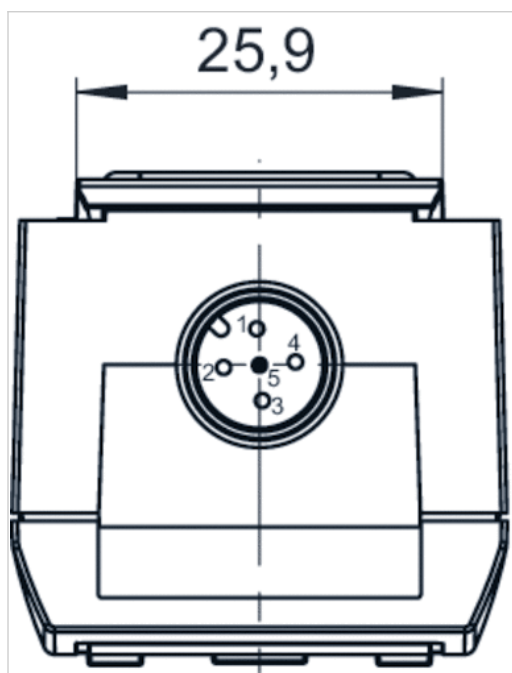
- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection G1/4

Fig. 2

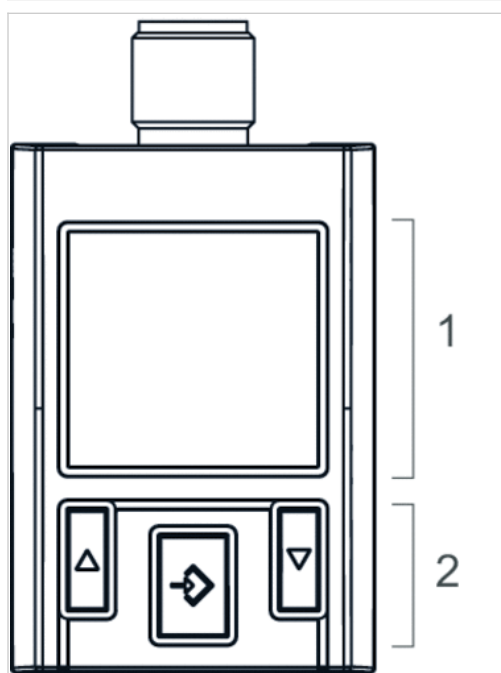


- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection, tubing $\varnothing$ 4 mm

Fig. 3, Electr. connection for leak test



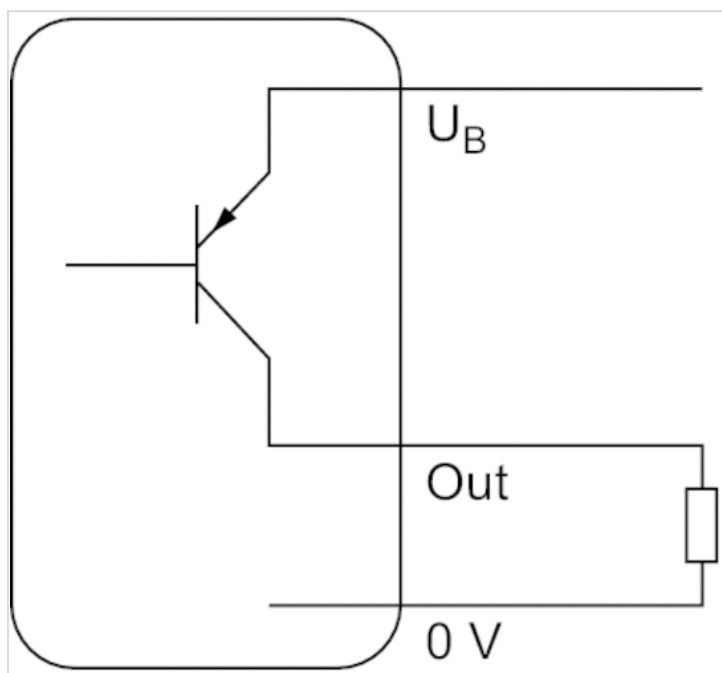
Display and operation area



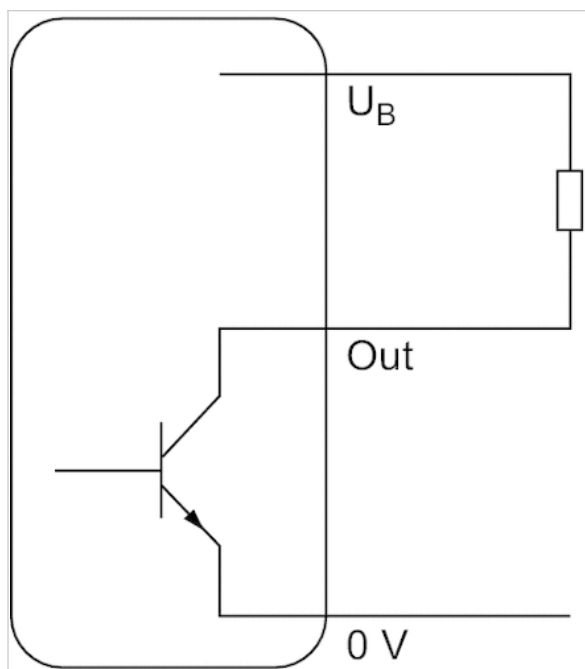
- 1) LCD display
- 2) Control panel with 3 buttons

Diagrams

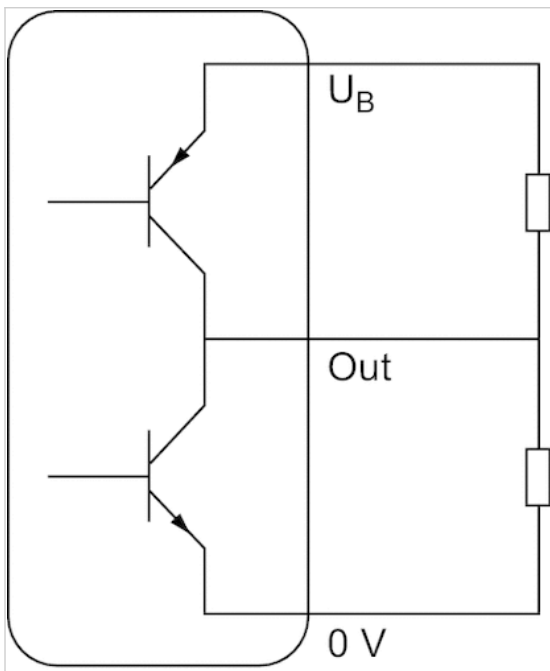
Operating mode, PNP



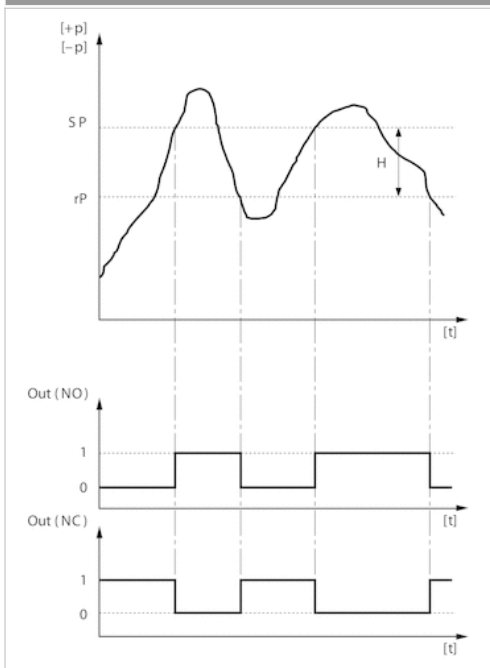
Operating mode, NPN



Operating mode, Push-pull



Hysteresis function: switching and resetting behavior dependent on pressure p and time t , in case of overpressure



H: Hysteresis

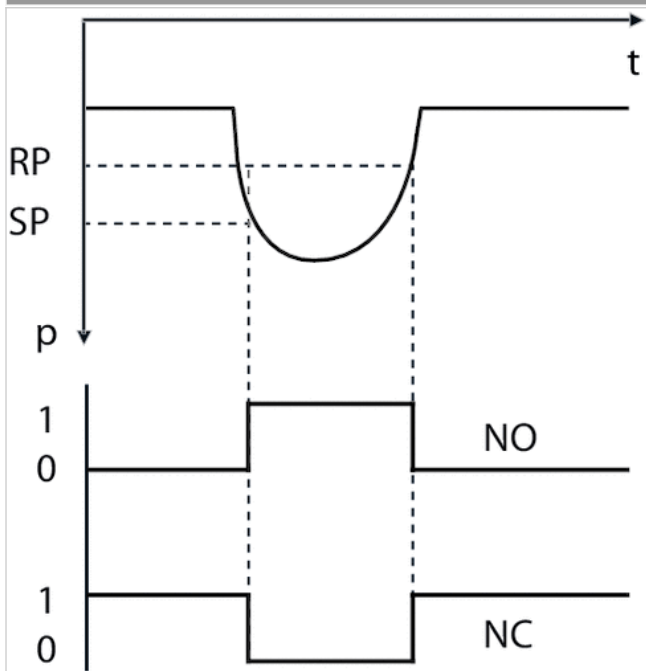
SP = switching point

RP = resetting point

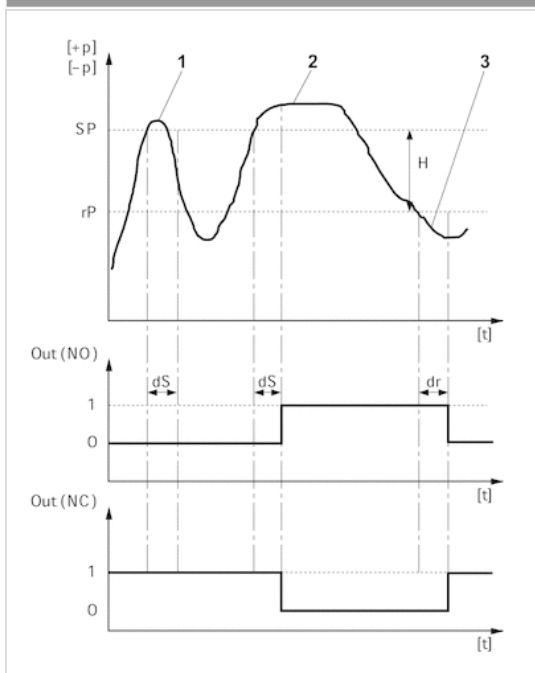
Out (NC): switch output, break contact

Out (NO): switch output, make contact

Hysteresis function: switching and resetting behavior dependent on pressure p and time t , in case of underpressure



Delayed hysteresis function: switching and resetting behavior depending on pressure p and time t



H: Hysteresis

SP = switching point

RP = resetting point

Out (NC): switch output, break contact

Out (NO): switch output, make contact

dS: switching delay

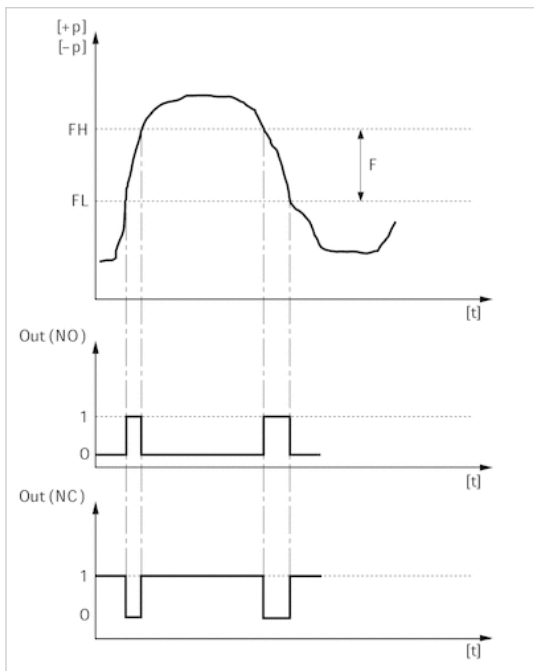
dR = reset delay

1) period of pressure over the switching point dS : pressure sensor does not switch

2) Period of pressure over the switching point $> dS$: pressure sensor switches

3) Period of pressure under the resetting point $> dR$: pressure sensor switches

Window function: switching and resetting behavior depending on pressure p and time t



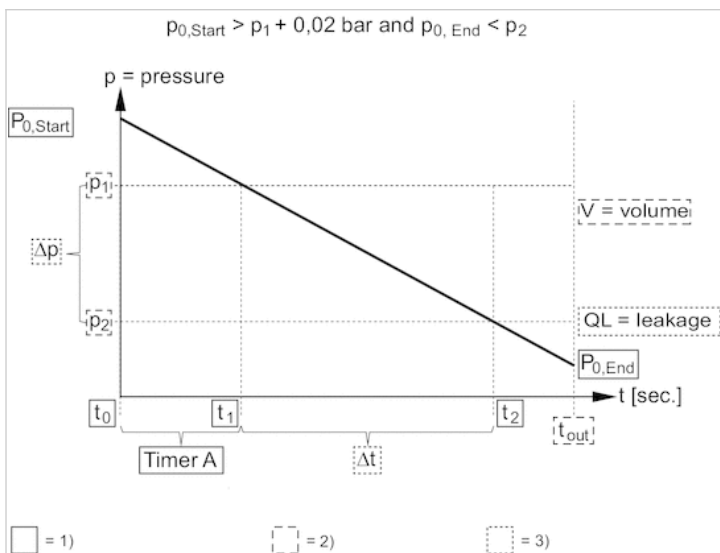
FH: pressure band, upper value

FL: pressure band, lower value

Out (NC): switch output, break contact

Out (NO): switch output, make contact

Leakage characteristic



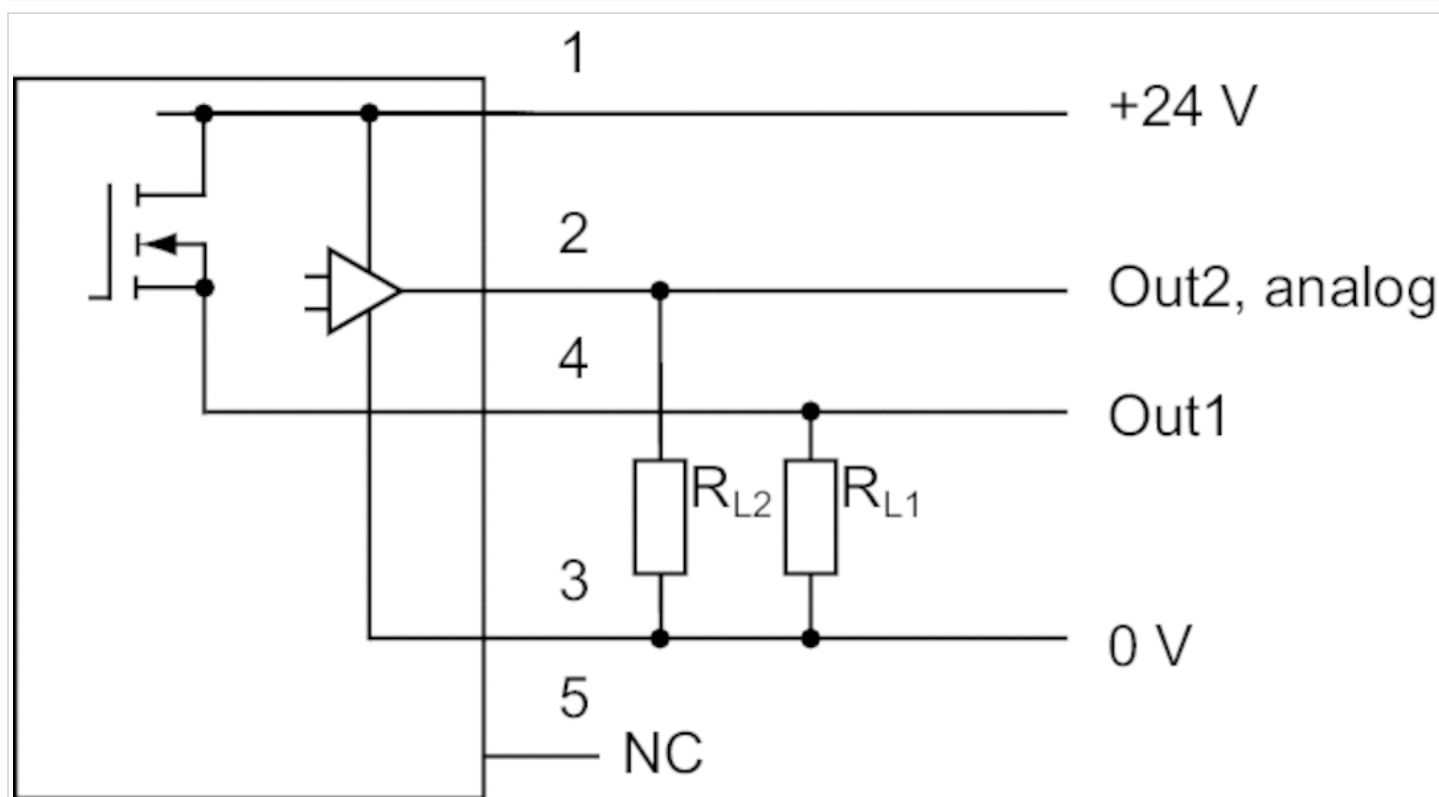
1) Internally stored parameter

2) Adjustable parameter

3) Output value

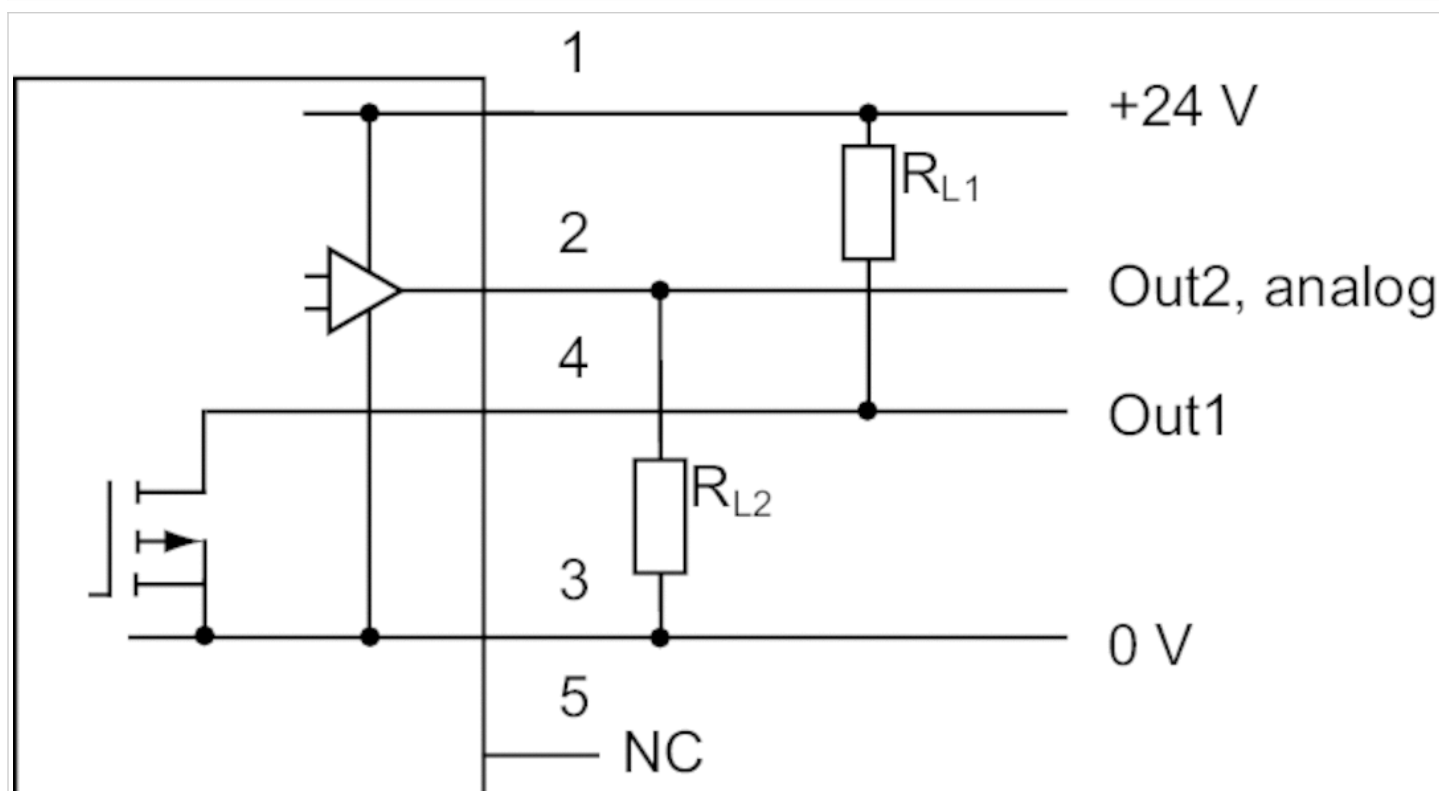
Circuit diagram

Block diagram, 1x PNP and 1x analog



RL = storable position

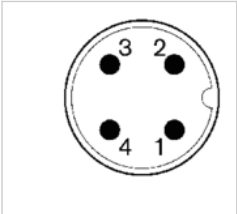
Block diagram, 1x NPN and 1x analog



RL = storable position

Pin assignments

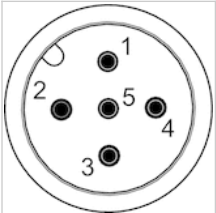
Pin assignments, M12x1, 4-pin



Pin	1
Allocation	operational voltage + UB
2	3
switch output Out2, analog: A or V, digital: PNP, NPN, push-pull	0 V
4	
switch output Out1, digital: PNP, NPN, push-pull	

Pin assignments

Pin assignments, M12x1, 5-pin



Pin	1	2	3
Allocation	Supply Voltage	Switch output PNP/NPN/push-pull, switchable	0 V
4			
Switch output PNP/NPN/push-pull/leakage mode, digital switch input PNP			
5			
Analog output (0 to 10 V DC, 4 to 20 mA)			

Pressure sensor, Series PE2

- Operating pressure -1 ... 1 0 ... 16 bar
- electronic
- Output signal analog 1 x PNP, 1 x analog 4-20 mA
- Electr. connection Plug M12x1 5-pin
- Compressed air connection Internal thread G 1/4 Flange with O-ring Ø 5x1,5



Type	electronic
Function	1 x PNP, 2 x PNP 1x PNP and 1x analog
Mounting orientation	Any
Certificates	CE declaration of conformity EMV
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 75 °C
Medium temperature min./max.	-10 ... 75 °C
Medium	Compressed air Neutral gases
Measurement	Relative pressure
Display	OLED
Units displayed	bar, mbar, psi, kPa, MPa, %
Switching logic	Hysteresis function NO/NC (programmable) Window function NO/NC (programmable)
Operating pressure display	2 LED
Shock resistance max.	30 g
Vibration resistance	5 g (10 - 150 Hz)
Precision (% of full scale value)	± 1 % including temperature drift
Switching time	10 ms at loads 100 kΩ > 10 ms at loads > 100 kΩ
Switching point	Adjustable ≥ 0.5% ... 100% FS
Resetting point	Adjustable 0% FS to SP -0.5% FS (or +0.5% FS when SP 0)
Hysteresis	adjustable
Switching/reset delay	adjustable
DC operating voltage min./max.	15 ... 32 V DC
Analog output	1 x PNP, 1 x analog 4-20 mA
Quiescent current consumption	50 mA
Maximum load (analog current output)	600 Ω
Short circuit resistance	short circuit resistant
Mounting types	via through holes
Protection class	IP65
Electr. connection	Plug M12x1 5-pin
Weight	0.3 kg

Technical data

Part No.		Type	Operating pressure range
			min./max.
R412010848		PE2-P1-G014-V10-010-M012	-1 ... 1 bar
R412010849		PE2-P1-F001-V10-010-M012	-1 ... 1 bar
R412010853		PE2-P2-G014-V10-010-M012	-1 ... 1 bar
R412010856		PE2-PA-G014-V10-010-M012	-1 ... 1 bar
R412010850		PE2-P1-G014-000-160-M012	0 ... 16 bar
R412010851		PE2-P1-F001-000-160-M012	0 ... 16 bar
R412010854		PE2-P2-G014-000-160-M012	0 ... 16 bar
R412010855		PE2-P2-F001-000-160-M012	0 ... 16 bar
R412010857		PE2-PA-G014-000-160-M012	0 ... 16 bar
R412010858		PE2-PA-F001-000-160-M012	0 ... 16 bar

Part No.	Protection against overpressure	Output signal	Output signal	Compressed air connection
		Analog	digital	
R412010848	10 bar	-	1 x PNP	Internal thread, G 1/4
R412010849	10 bar	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010853	10 bar	-	2 x PNP	Internal thread, G 1/4
R412010856	10 bar	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010850	40 bar	-	1 x PNP	Internal thread, G 1/4
R412010851	40 bar	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010854	40 bar	-	2 x PNP	Internal thread, G 1/4
R412010855	40 bar	-	2 x PNP	Flange with O-ring, Ø 5x1,5
R412010857	40 bar	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010858	40 bar	4 ... 20 mA	1 x PNP	Flange with O-ring, Ø 5x1,5

Part No.	Fig.
R412010848	Fig. 1
R412010849	Fig. 2
R412010853	Fig. 1
R412010856	Fig. 1
R412010850	Fig. 1
R412010851	Fig. 2
R412010854	Fig. 1
R412010855	Fig. 2
R412010857	Fig. 1
R412010858	Fig. 2

Technical information

Menu navigation is based on the VDMA specification with an additional plain text menu.

Technical information

Material	
Housing	Aluminum, Vibration-ground
Seals	Fluorocautchouc
Electr. connection	Aluminum with polymer insert
flange connection	Nitrile butadiene rubber, Fluorocautchouc

Dimensions

Fig. 1

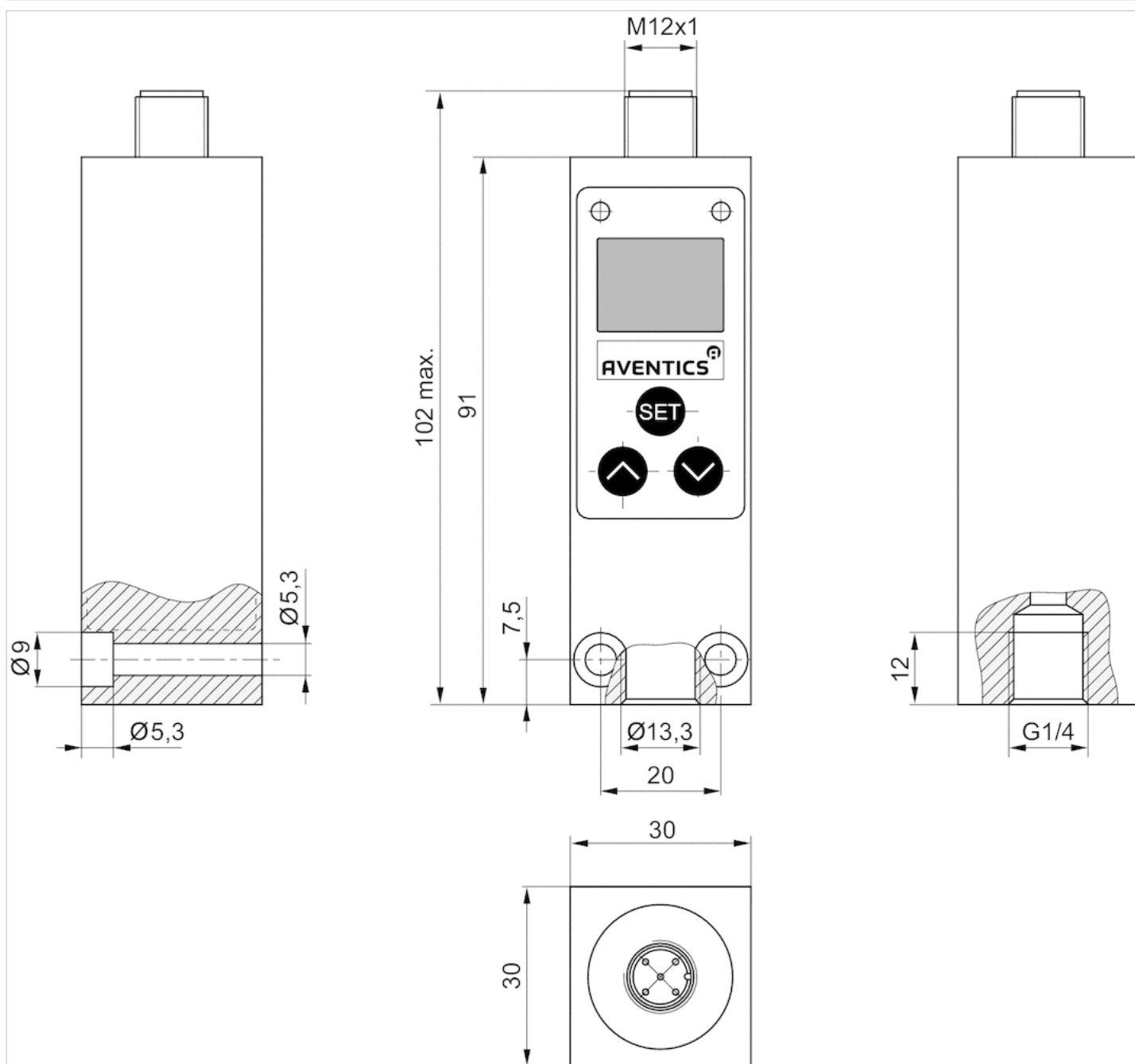
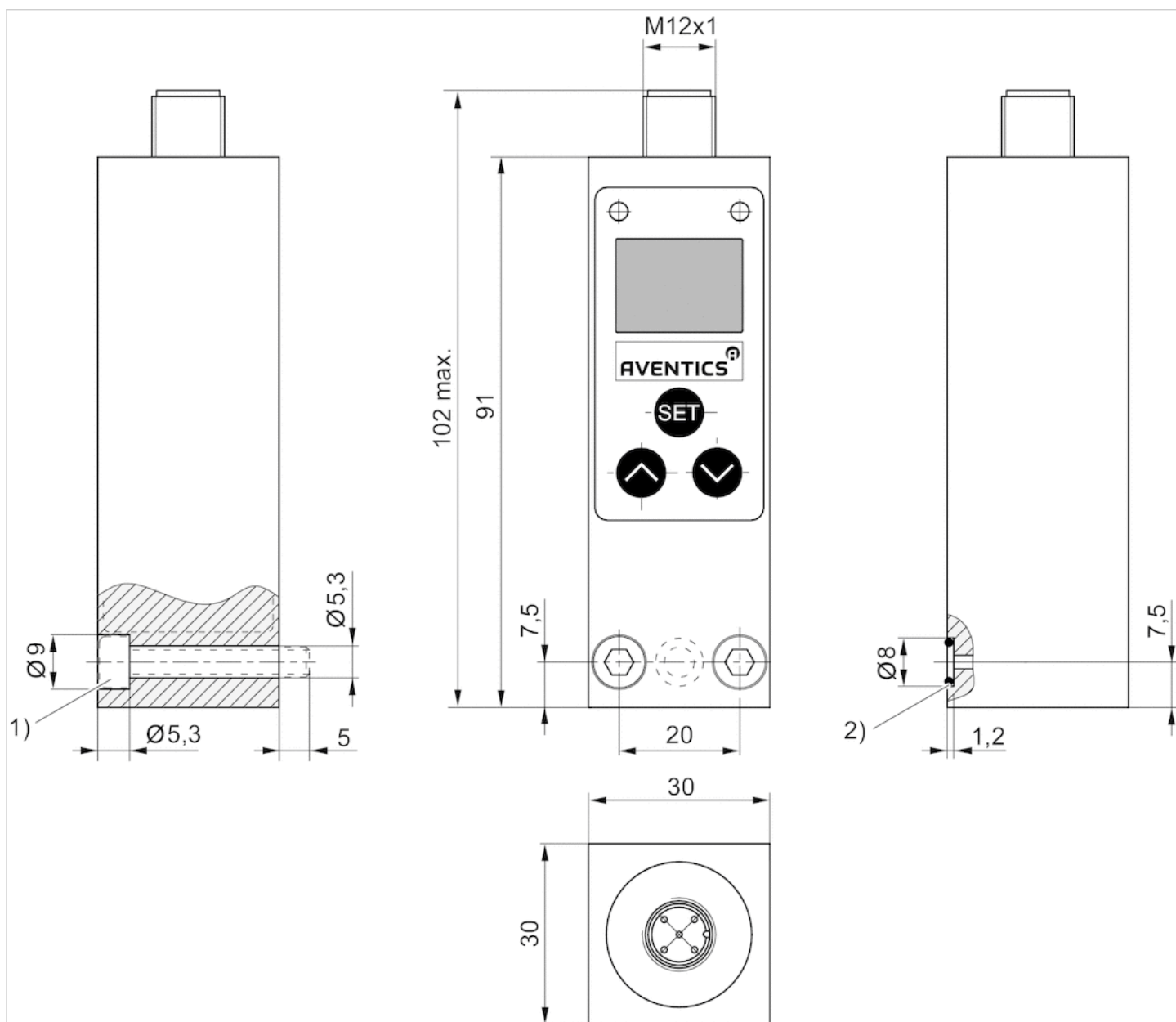


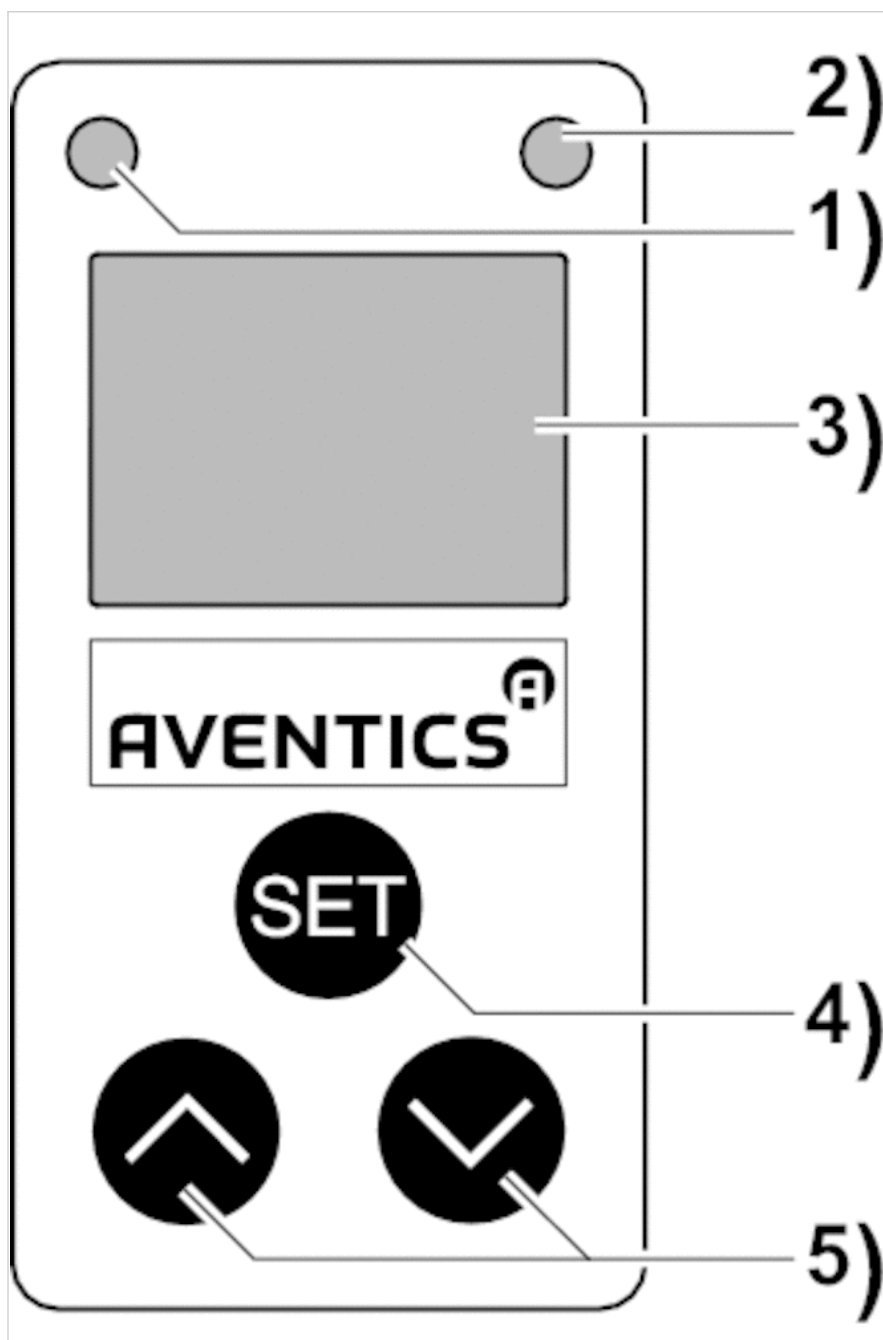
Fig. 2



1) cylinder screw M5x35 (included in scope of delivery)

2) O-ring Ø5x1,5 (included)

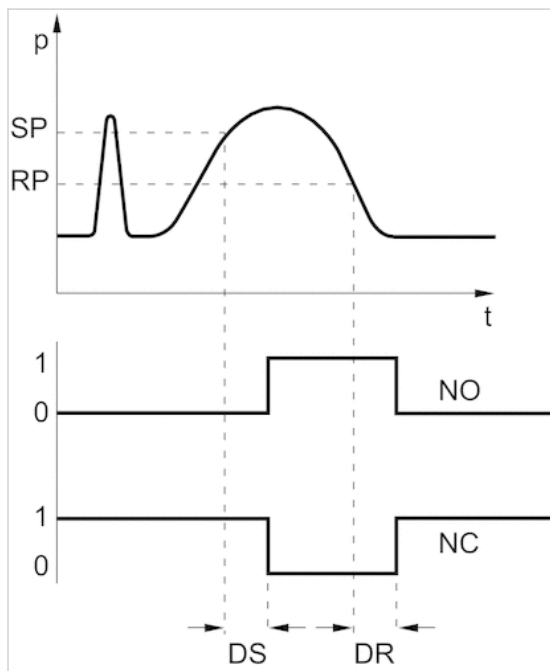
Display and operation area



- 1) LED for switch output 1
- 2) LED for switch output 2
- 3) Display (pressure, operating modes, navigation)
- 4) Confirm menu/menu item selection
- 5) Button for menu item/parameter change selection

Diagrams

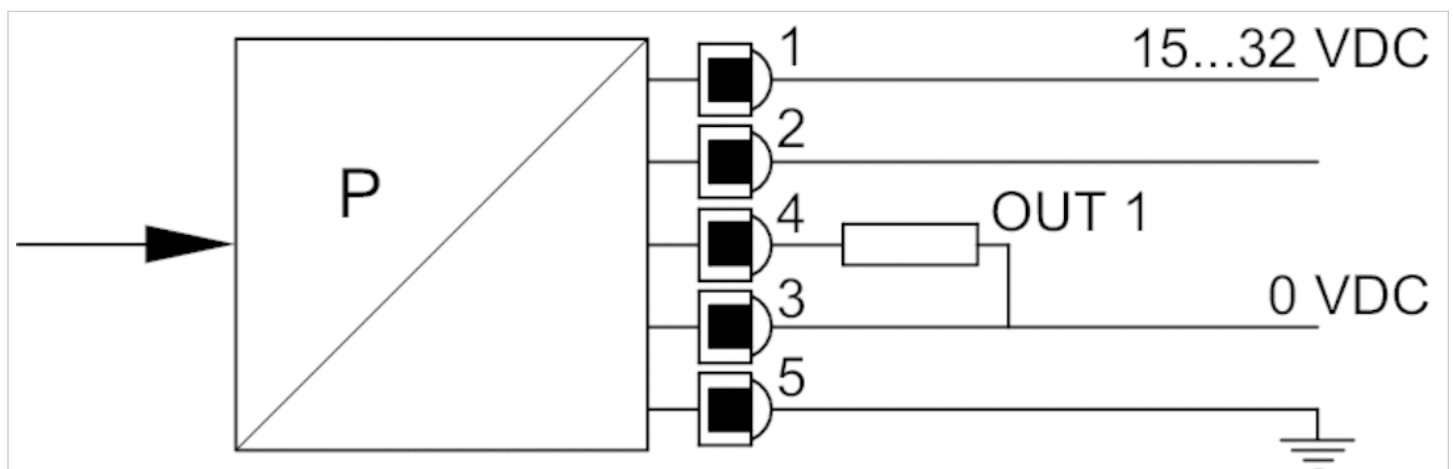
Pressure-voltage characteristics curve



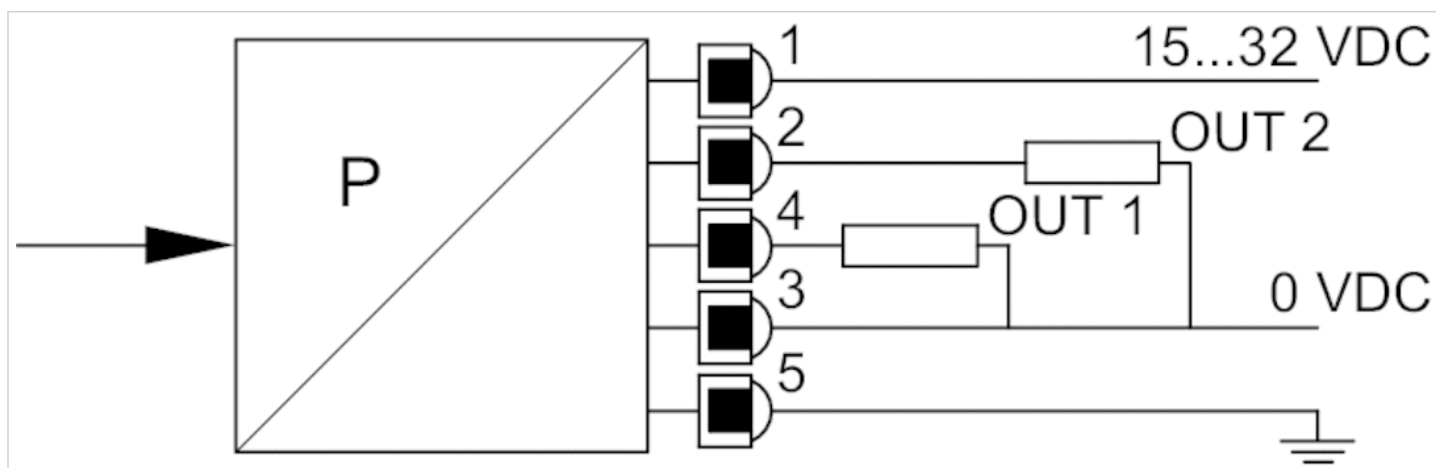
SP = switching point
 RP = resetting point
 NO = Switching function open
 NC = Switching function closed without current
 DS = Delay for the switching point
 DR = Delay for the resetting point

Circuit diagram

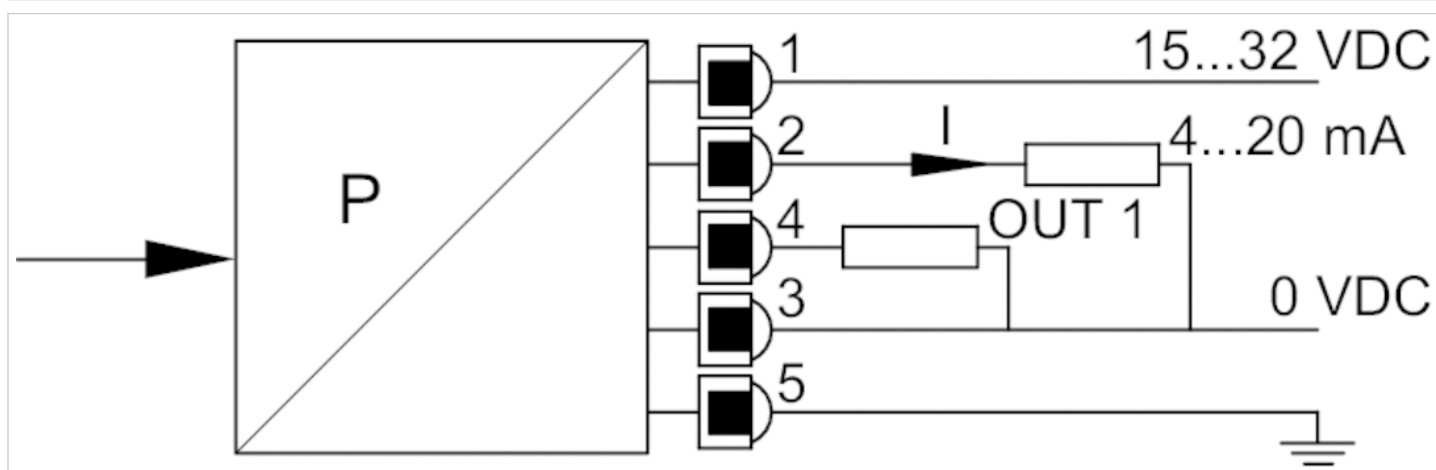
Block diagram, 1 x PNP



Block diagram, 2 x PNP

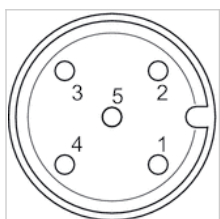


Block diagram, 1x PNP and 1x analog



Pin assignments

Pin assignments



pin 1: signal + UB, color: brown pin 2: signal: out 2 (PNP)/analog 4 - 20 mA, color: white pin 3: signal: 0 volt, color: blue pin 4: signal: out 1 (PNP), color: black pin 5: signal: FE, color: gray

Pressure Switches, Series PM1

- Operating pressure -0.9 ... 0 -0.9 ... 3 0.2 ... 16 bar
- Mechanical
- Spring-loaded bellows, adjustable
- Electr. connection Plug EN 175301-803, form A
- Compressed air connection Internal thread G 1/4 Flange with O-ring Ø 5x1,5



Type	Mechanical
Function	change-over contact (mechanical)
Mounting orientation	Any
Working pressure min./max.	See table below
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-10 ... 80 °C
Medium	Compressed air Hydraulic oil
Measurement	Relative pressure
Switching element	microswitch (input/output)
Protection against overpressure	80 bar
Max. switching frequency	1,5 Hz
Shock resistance max.	15 g
Vibration resistance	10 g (60 - 500 Hz)
Repeatability (% of full scale value)	± 1 %
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage min./max.	12 ... 30 V DC
Operational voltage AC min./max.	12 ... 250 V AC
Mounting types	via through holes
Protection class	IP65
Electr. connection	Plug EN 175301-803, form A
Weight	0.16 kg

Technical data

Part No.		Type	Operating pressure range	Compressed air connection
			min./max.	
R412010711		PM1-M3-G014	-0.9 ... 0 bar	Internal thread, G 1/4
R412022752		PM1-M3-G014	-0.9 ... 3 bar	Internal thread, G 1/4
R412010712		PM1-M3-G014	0.2 ... 16 bar	Internal thread, G 1/4
R412010713		PM1-M3-G014	0.2 ... 16 bar	Internal thread, G 1/4
R412010714		PM1-M3-F001	-0.9 ... 0 bar	Flange with O-ring, Ø 5x1,5
R412010715		PM1-M3-F001	0.2 ... 16 bar	Flange with O-ring, Ø 5x1,5
R412010718		PM1-M3-F001	0.2 ... 16 bar	Flange with O-ring, Ø 5x1,5

Part No.	Scope of delivery	Fig.	
R412010711	With valve plug connector	Fig. 1	-
R412022752	Without valve plug connector	Fig. 1	-
R412010712	Without valve plug connector	Fig. 1	1)
R412010713	With valve plug connector	Fig. 1	1)
R412010714	With valve plug connector	Fig. 2	-
R412010715	Without valve plug connector	Fig. 2	1)

Part No.	Scope of delivery	Fig.	
R412010718	With valve plug connector	Fig. 2	1)

1) Min. switching pressure range 0.2 bar falling/0.5 bar rising

Technical information

Switching function increasing pressure: contact switches from 1-2 to 1-3.

Switching function decreasing pressure: contact switches from 1-3 to 1-2.

Notice: Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!

The microswitch has silver-plated contacts.

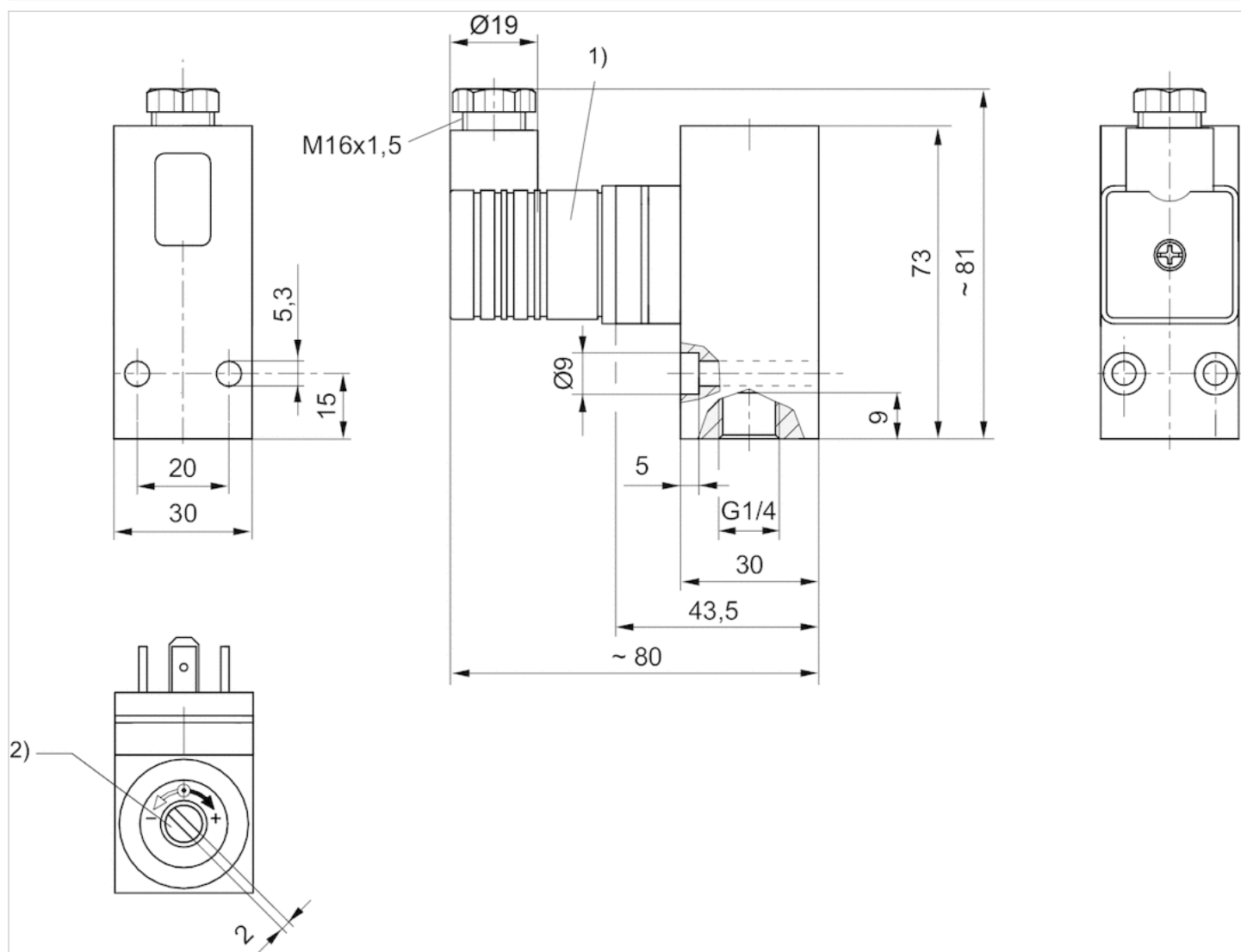
Please observe the pin assignment when selecting plug connectors.

Technical information

Material	
Housing	Aluminum
Seals	Acrylonitrile butadiene rubber
Electr. connection	Brass, nickel-plated

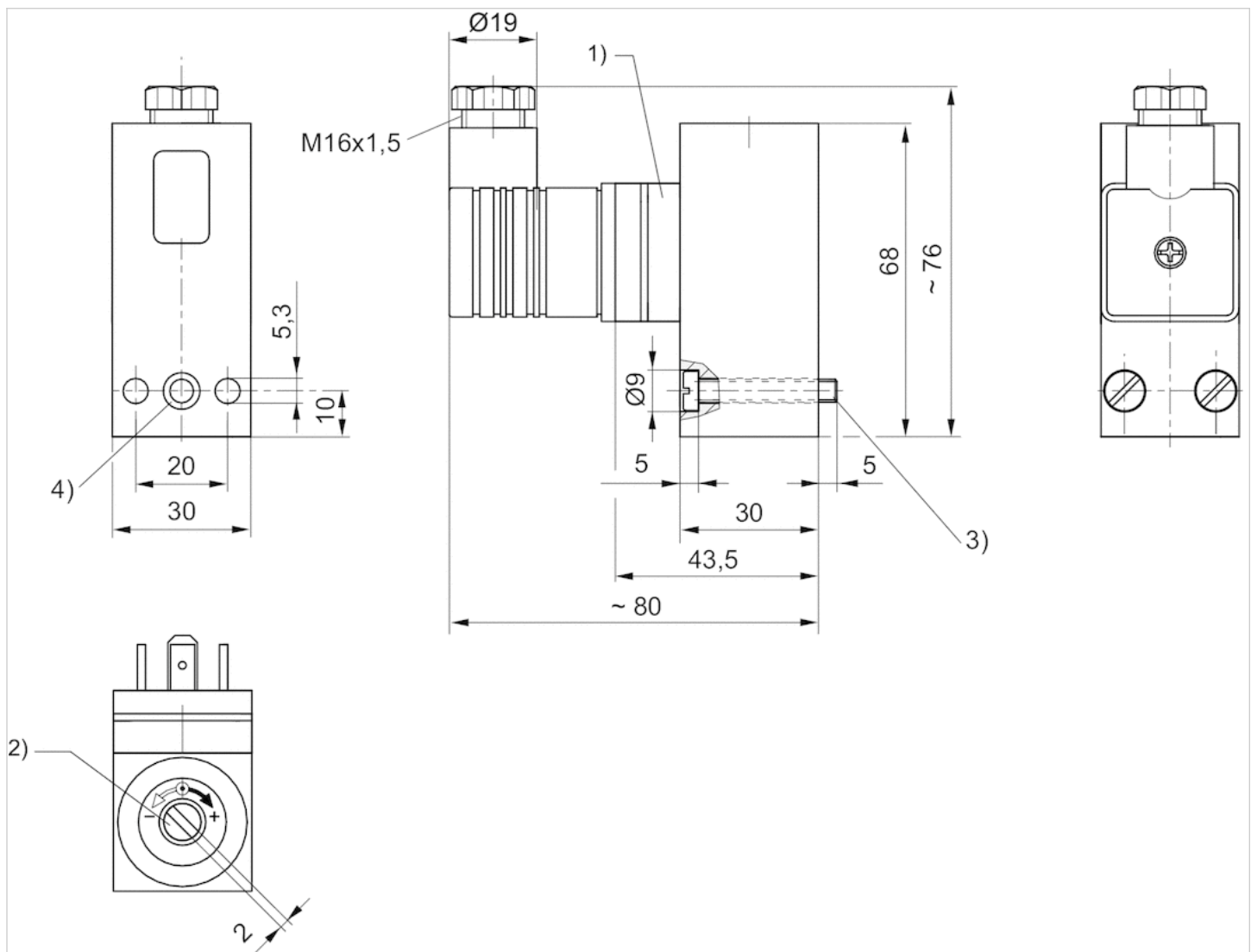
Dimensions

Fig. 1



- 1) Valve plug connector
2) Adjustment screw, self-holding

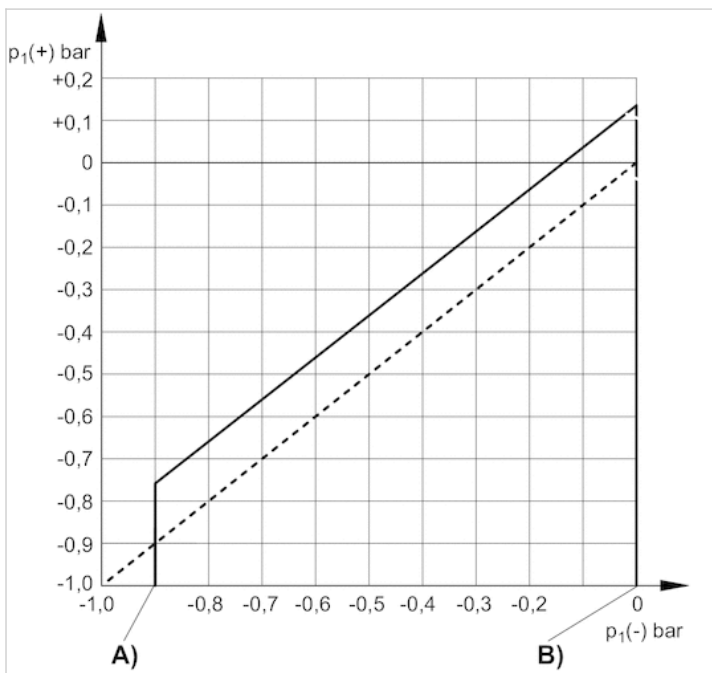
Fig. 2



- 1) Valve plug connector
- 2) Adjustment screw, self-holding
- 3) cylinder screw M5x30 (included in scope of delivery)
- 4) O-ring $\varnothing 5 \times 1,5$ (included)

Diagrams

differential switching pressure characteristic curve (-0,9 - 0 bar)



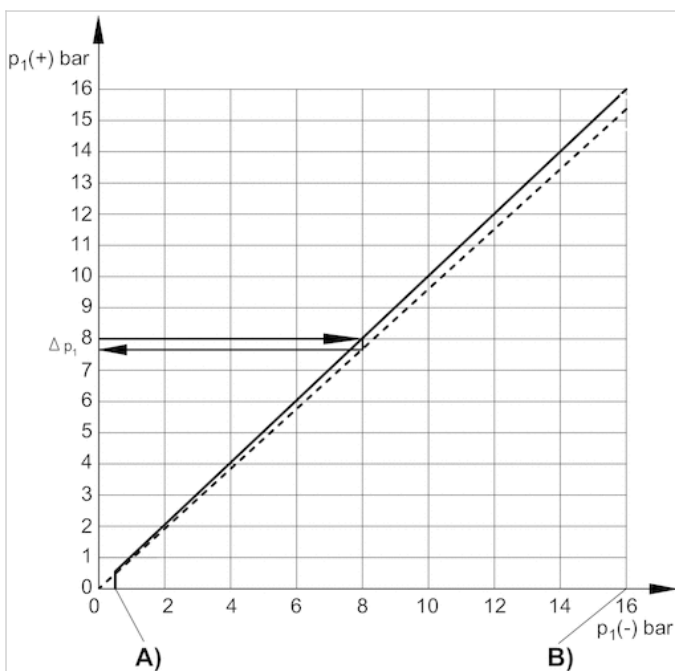
A) $p_1(-)$, min.

B) $p_1(-)$, max.

$p_1(+)$ = upper switching pressure with increasing pressure

$p_1(-)$ = lower switching pressure with decreasing pressure

differential switching pressure characteristic curve (0,2 - 16 bar)



A) $p_1(-)$, min.

B) $p_1(-)$, max.

$p_1(+)$ = upper switching pressure with increasing pressure

$p_1(-)$ = lower switching pressure with decreasing pressure

Δp_1 = max. operating pressure difference or hysteresis

Example:

$p_1 (+) = 8 \text{ bar} > p_1 (-) = 7.6 \text{ bar}$
 $\Delta p_1 = 0.4 \text{ bar}$

max. permissible continuous current $I_{\text{max. [A]}}$ with ohmic load

U [V]	I [A] 1)	I [A] 2)
30	5	3
48	5	1,2
60	5	0,8
125	5	0,4
250	5	–

reference cycle: 30/min., reference temperature: + 30 °C

1) AC

2) DC

max. permissible continuous current $I_{\text{max. [A]}}$ with inductive load

U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	–

reference cycle: 30/min., reference temperature: + 30 °C

1) AC

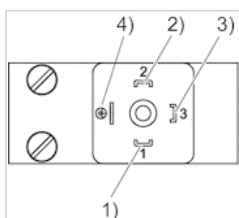
2) DC

3) $\cos \approx 0,7^\circ$

4) $L/R \approx 10 \text{ ms}$

Pin assignments

PIN assignment for valve plug connectors



Pin	1	2	3	4
Allocation	+UB	break contact	NO (make contact)	GND

Pressure Switches, Series PM1

- Operating pressure -0.9 ... 0 0.2 ... 16 bar
- Mechanical
- Spring-loaded bellow, adjustable
- Electr. connection Plug M12x1
- Compressed air connection Internal thread G 1/4 Flange with O-ring Ø 5x1,5



Type	Mechanical
Function	change-over contact (mechanical)
Mounting orientation	Any
Working pressure min./max.	See table below
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-10 ... 80 °C
Medium	Compressed air Hydraulic oil
Measurement	Relative pressure
Switching element	microswitch (input/output)
Protection against overpressure	80 bar
Max. switching frequency	1,5 Hz
Shock resistance max.	15 g
Vibration resistance	10 g (60 - 500 Hz)
Repeatability (% of full scale value)	± 1 %
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage min./max.	12 ... 30 V DC
Operational voltage AC min./max.	12 ... 30 V AC
Mounting types	via through holes
Protection class	IP67
Electr. connection	Plug M12x1
Weight	0.15 kg

Technical data

Part No.		Type	Operating pressure range	Compressed air connection
			min./max.	
R412010716		PM1-M3-G014	-0.9 ... 0 bar	Internal thread, G 1/4
R412010717		PM1-M3-G014	0.2 ... 16 bar	Internal thread, G 1/4
R412010719		PM1-M3-F001	-0.9 ... 0 bar	Flange with O-ring, Ø 5x1,5
R412010720		PM1-M3-F001	0.2 ... 16 bar	Flange with O-ring, Ø 5x1,5

Part No.	Fig.	
R412010716	Fig. 1	-
R412010717	Fig. 1	1)
R412010719	Fig. 2	-
R412010720	Fig. 2	1)

1) Min. switching pressure range 0.2 bar falling/0.5 bar rising

Technical information

Switching function increasing pressure: contact switches from 1-2 to 1-3.

Switching function decreasing pressure: contact switches from 1-3 to 1-2.

Notice: Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!

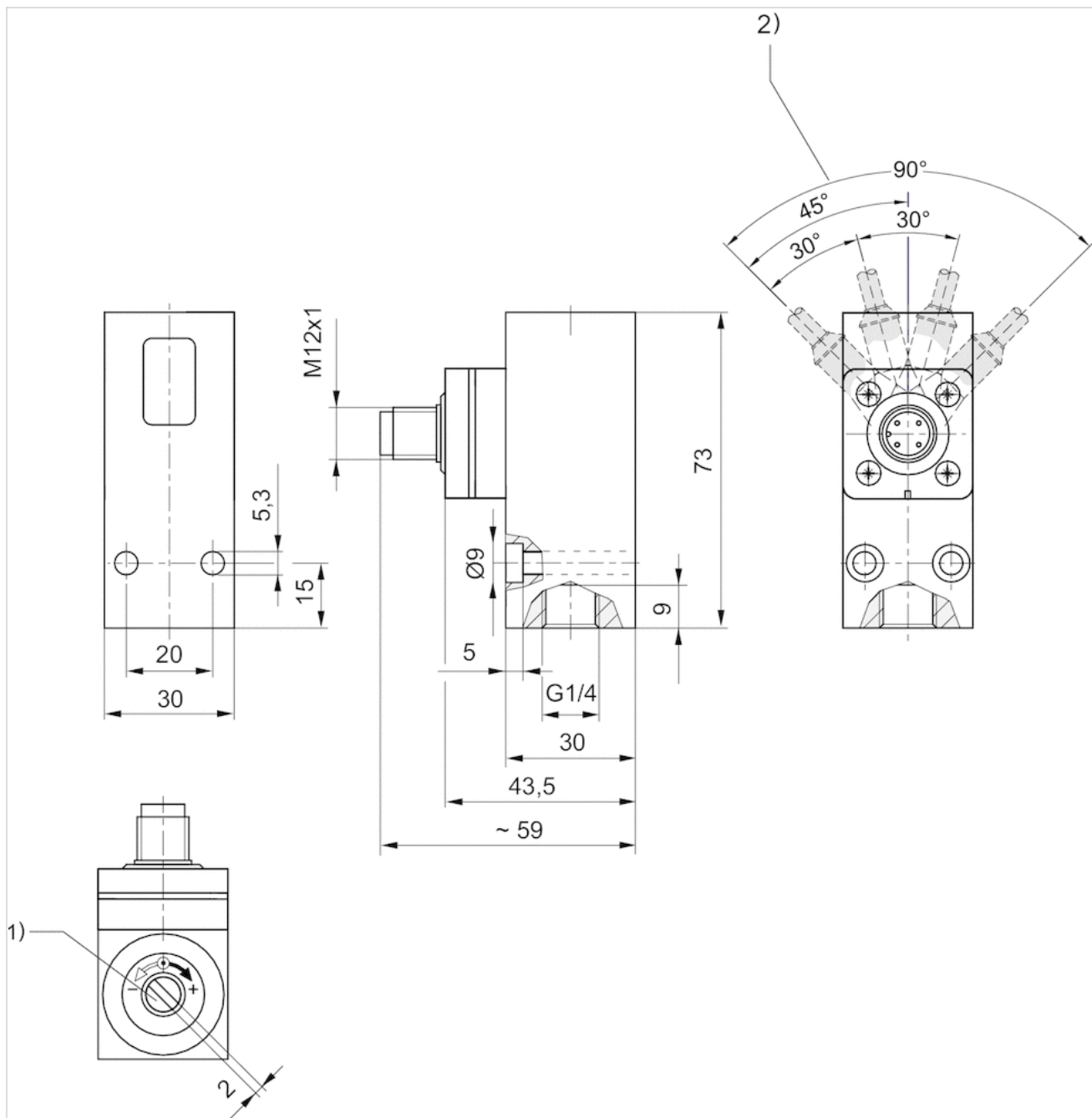
The microswitch has silver-plated contacts.

Technical information

Material	
Housing	Aluminum
Seals	Acrylonitrile butadiene rubber
Electr. connection	Brass, nickel-plated

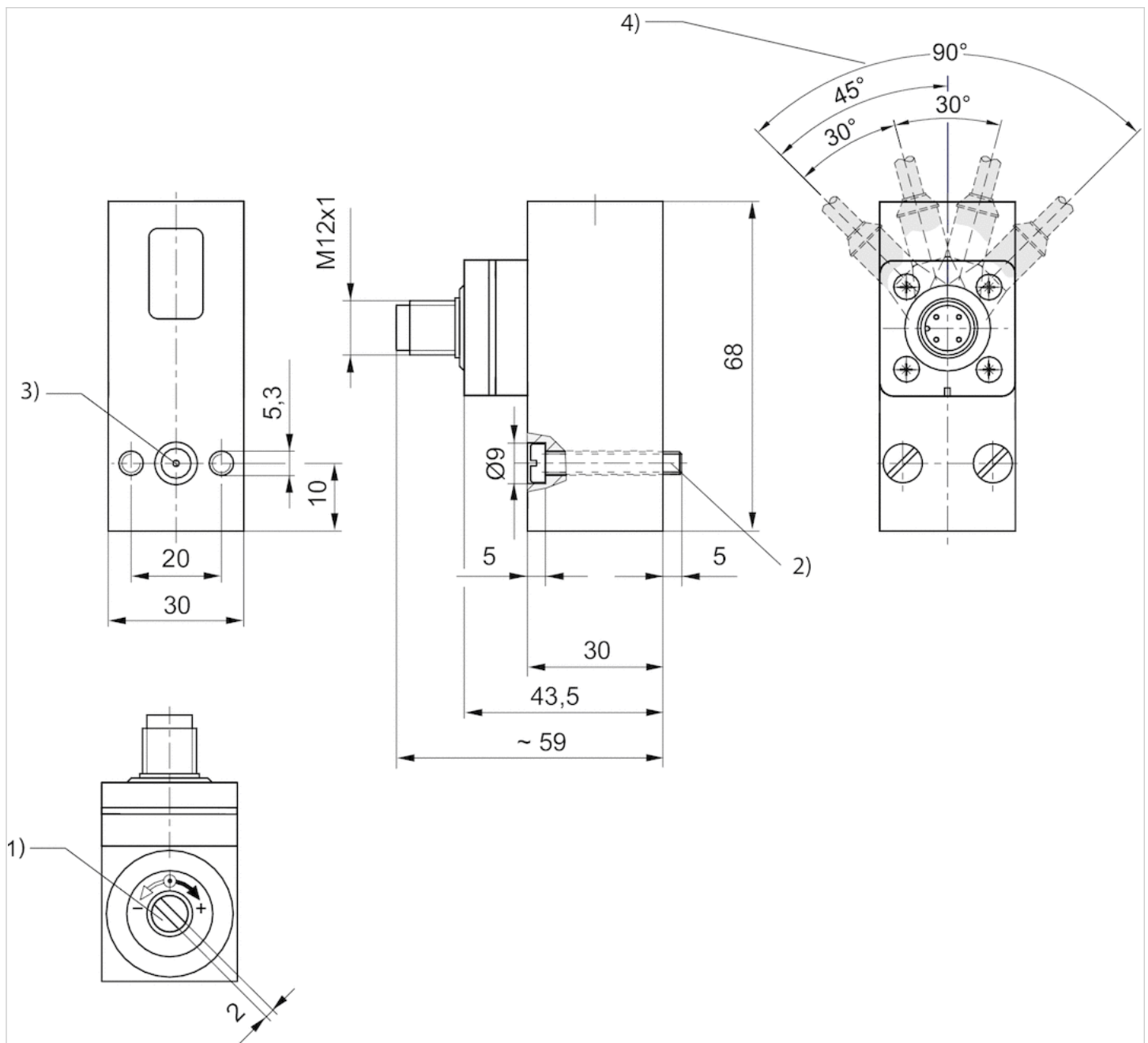
Dimensions

Fig. 1



- 1) Adjustment screw, self-holding
2) Detent position

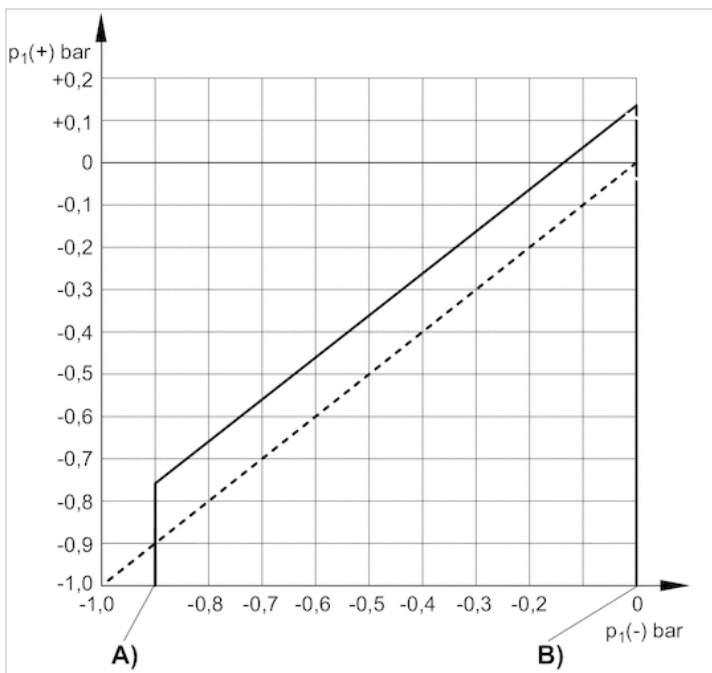
Fig. 2



- 1) Adjustment screw, self-holding
- 2) cylinder screw M5x30 (included in scope of delivery)
- 3) O-ring Ø5x1,5 (included)
- 4) Detent position

Diagrams

differential switching pressure characteristic curve (-0,9 - 0 bar)



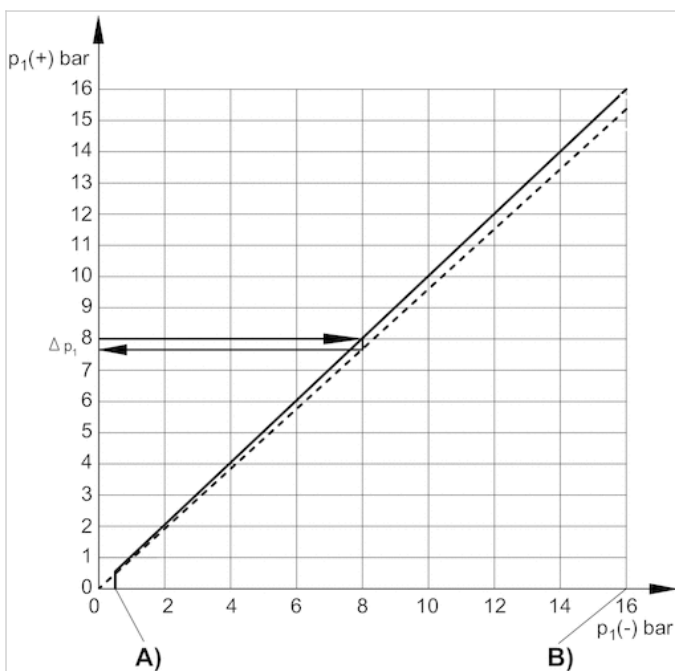
A) $p_1(-)$, min.

B) $p_1(-)$, max.

$p_1(+)$ = upper switching pressure with increasing pressure

$p_1(-)$ = lower switching pressure with decreasing pressure

differential switching pressure characteristic curve (0,2 - 16 bar)



A) $p_1(-)$, min.

B) $p_1(-)$, max.

$p_1(+)$ = upper switching pressure with increasing pressure

$p_1(-)$ = lower switching pressure with decreasing pressure

Δp_1 = max. operating pressure difference or hysteresis

Example:

$p_1 (+) = 8 \text{ bar} > p_1 (-) = 7.6 \text{ bar}$
 $\Delta p_1 = 0.4 \text{ bar}$

max. permissible continuous current $I_{\text{max.}}$ [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30-250	3A	
30 / 48 / 60 / 125		3 / 1,2 / 0,8 / 0,4

reference cycle: 30/min., reference temperature: + 30 °C

1) AC

2) DC

max. permissible continuous current $I_{\text{max.}}$ [A] with inductive load

U [V]	I [A] 1) 3)	I [A] 2) 4)
30-250	3A	
30 / 48 / 60 / 125		2 / 0,55 / 0,4 / 0,2

reference cycle: 30/min., reference temperature: + 30 °C

1) AC

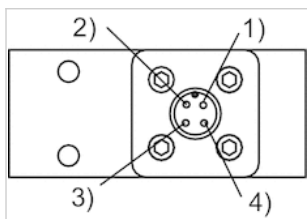
2) DC

3) $\cos \approx 0,7^\circ$

4) $L/R \approx 10 \text{ ms}$

Pin assignments

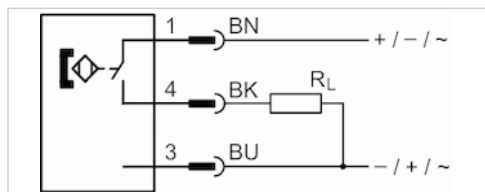
Pin assignments



Pin	1	2	3	4
Allocation	+UB	break contact	No function	NO (make contact)

Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M12, 4-pin, with knurled screw
- UL certification
- Reed
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, RPC, ICS-D2, ICM, KHZ, TRR



Certificates

Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision	±0,1 mT
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	10 ... 30 V AC
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Cable length L	0.3 m

CE declaration of conformity cULus RoHS

Technical data

Part No.	for	Type of contact	Cable length L
R412022876	PRA PRE CCI KPZ SSI GPC CVI	Reed	0.3 m

Part No.	Voltage drop U at I _{max}	DC switching current, max.
R412022876	≤ 0,1 V	0.3 A

Part No.	AC switching current, max.	Max. switching frequency
R412022876	0.5 A	400 Hz

Part No.	Version
R412022876	Protected against polarity reversal

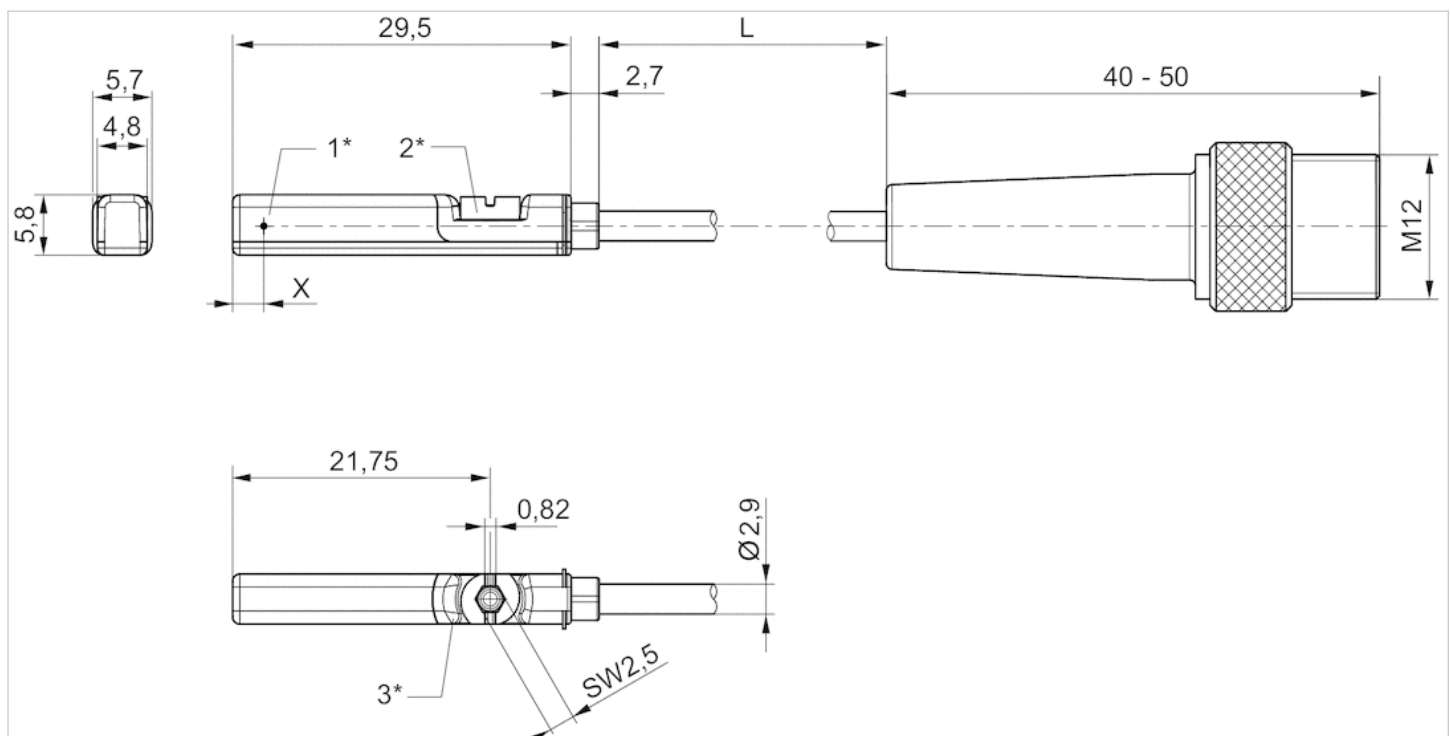
The product of operating voltage and continuous current must not exceed the maximum switching capacity.

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent

L = cable length

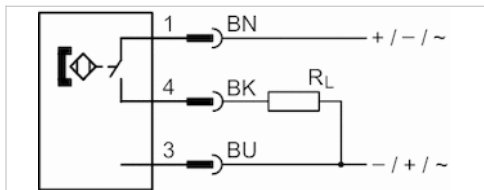
X = PNP: 11,6 mm, reed: 8,3 mm

Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M8, 3-pin, with knurled screw
- UL certification
- Reed
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, RPC, ICS-D2, ICM, KHZ, TRR



Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision	±0,1 mT
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	10 ... 30 V AC
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Cable length L	0.3 0.5 m



Technical data

Part No.	for	Type of contact	Cable sheath
R412022873	PRA PRE CCI KPZ SSI GPC CVI	Reed	Polyurethane
R412022875	PRA PRE CCI KPZ SSI GPC CVI	Reed	Polyvinyl chloride
R412022874	PRA PRE CCI KPZ SSI GPC CVI	Reed	Polyurethane

Part No.	Cable length L	Voltage drop U at I _{max}	DC switching current, max.
R412022873	0.3 m	I*Rs	0.3 A
R412022875	0.3 m	I*Rs	0.3 A
R412022874	0.5 m	I*Rs	0.3 A

Part No.	AC switching current, max.	Max. switching frequency
R412022873	0.5 A	400 Hz
R412022875	0.5 A	400 Hz
R412022874	0.5 A	400 Hz

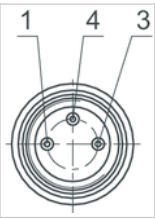
Technical information

Dimensions

PDF creation date: 20.06.2020

Pin assignments

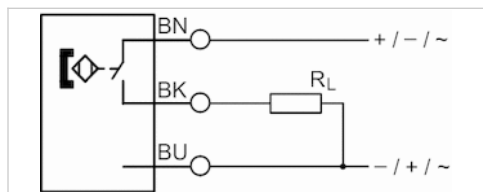
Pin assignments



Pin	1	3	4
Allocation	(+)	(-)	(OUT)

Sensor, Series ST6

- 6 mm T-slot
- with cable
- open cable ends, 3-pin
- UL certification
- Reed
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, RPC, ICS-D2, ICM, KHZ, TRR



Certificates

Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67, IP69K
Switching point precision	±0,1 mT
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	10 ... 30 V AC
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Cable length L	3 5 10 m

CE declaration of conformity cULus RoHS

Technical data

Part No.	for	Type of contact	Cable length L
R412022869	PRA PRE CCI KPZ SSI GPC CVI	Reed	3 m
R412022870	PRA PRE CCI KPZ SSI GPC CVI	Reed	5 m
R412022871	PRA PRE CCI KPZ SSI GPC CVI	Reed	10 m

Part No.	Voltage drop U at I _{max}	DC switching current, max.
R412022869	I*Rs	0.3 A
R412022870	≤ 0,1 V	0.3 A
R412022871	I*Rs	0.3 A

Part No.	AC switching current, max.	Max. switching frequency
R412022869	0.5 A	400 Hz
R412022870	0.5 A	400 Hz
R412022871	0.5 A	400 Hz

Part No.	Version	Fig.
R412022869	Protected against polarity reversal	Fig. 2
R412022870	Protected against polarity reversal	Fig. 2
R412022871	Protected against polarity reversal	Fig. 2

open cable ends, 3-pin, The product of operating voltage and continuous current must not exceed the maximum switching capacity.

Technical information

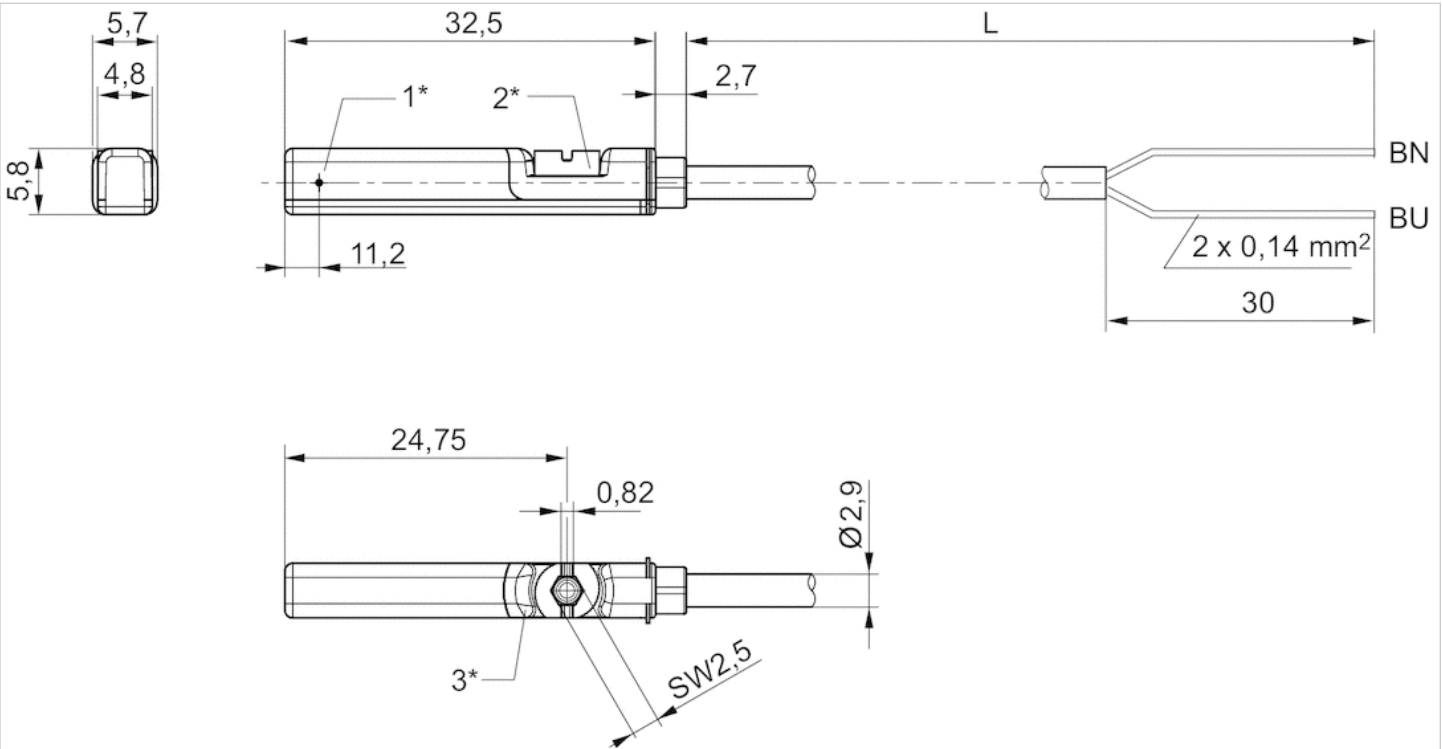
No cULus certification for 230 V variant.

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

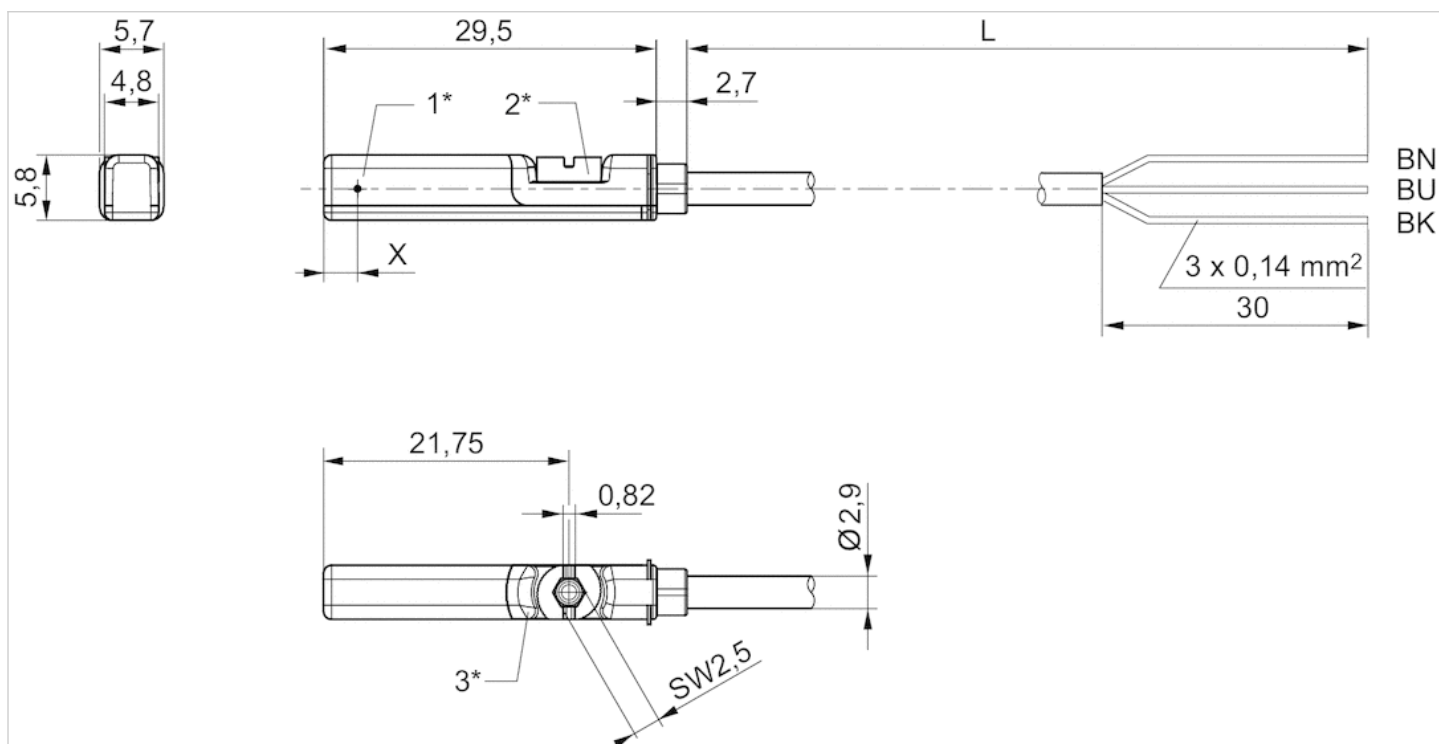
Dimensions

Fig. 1



1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN=brown, BU=blue

Fig. 2



1* = switching point 2* = locking screw 3* = LED window, transparent

L = cable length

BN = brown, BK = black, BU = blue

X = electronic: 11.6 mm

QR1-S-RPN standard series

- Straight fitting
- External thread
- G 1/2
- push-in fitting
- Ø 8 Ø 10 Ø 12 Ø 14 Ø 16
- QR1-S-RPN



Working pressure min./max.

-0.95 ... 10 bar

Ambient temperature min./max.

0 ... 60 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
R412005001	G 1/2	Ø 8	10 piece	0.052 kg
2121010120	G 1/2	Ø 10	10 piece	0.058 kg
2121012120	G 1/2	Ø 12	10 piece	0.057 kg
2121014120	G 1/2	Ø 14	10 piece	0.064 kg
R412005006	G 1/2	Ø 16	10 piece	0.067 kg

Technical information

The series QR1 (plastic) and QR2 (metal) can not be combined
Thread seal with captive O-ring

For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

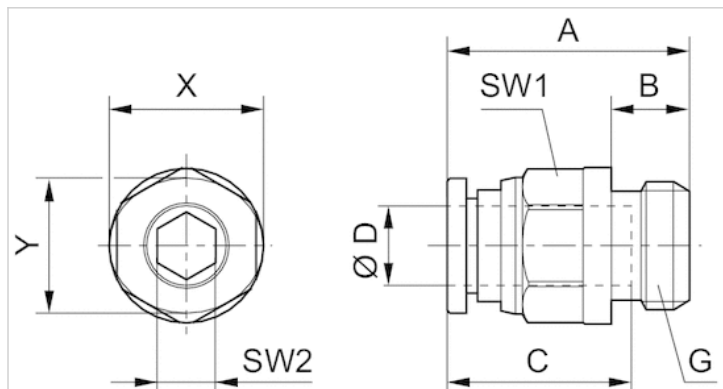
Technical information

Material	
Material	nickel-plated
Housing	Brass, nickel-plated
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Polyoxymethylene
Release ring holder	Die cast zinc Brass, nickel-plated

Material	
Thread	Brass, nickel-plated

Dimensions

Dimensions



Dimensions

Part No.	Port D	Port G	A	B	C	SW1	SW2	X	Y
R412005001	Ø 8	G 1/2	25.7	8.5	18.5	14	6	16	14
2121010120	Ø 10	G 1/2	27.4	8.5	21	17	8	19	17
2121012120	Ø 12	G 1/2	29.5	8.5	23	21	10	23	21
2121014120	Ø 14	G 1/2	25.6	8.5	24.6	24	11	25	23
R412005006	Ø 16	G 1/2	36.3	8.5	25.5	24	10	27	24

QR1-S-RVT standard series

- Elbow fitting
- External thread
- G 1/2
- push-in fitting
- Ø 8 Ø 10 Ø 12 Ø 14 Ø 16
- QR1-S-RVT



Working pressure min./max.

-0.95 ... 10 bar

Ambient temperature min./max.

0 ... 60 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
R412005093	G 1/2	Ø 8	10 piece	0.049 kg
2122010120	G 1/2	Ø 10	10 piece	0.05 kg
2122012120	G 1/2	Ø 12	10 piece	0.056 kg
2122014120	G 1/2	Ø 14	5 piece	0.066 kg
R412005098	G 1/2	Ø 16	5 piece	0.076 kg

Technical information

The series QR1 (plastic) and QR2 (metal) can not be combined
Thread seal with captive O-ring

For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

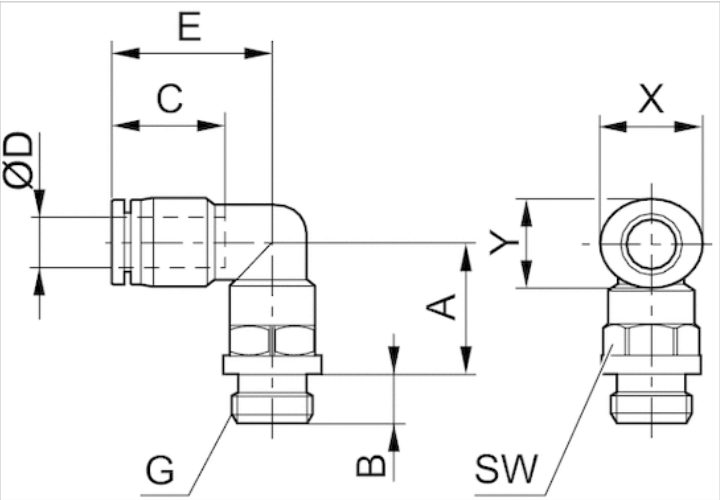
Technical information

Material	
Material	nickel-plated
Housing	Polybutyleneterephthalate
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Polyoxymethylene
Release ring holder	Die cast zinc Brass, nickel-plated

Material	
Thread	Brass, nickel-plated

Dimensions

Dimensions



Dimensions

Part No.	Port D	Port G	A	B	C	E	SW	X	Y
R412005093	Ø 8	G 1/2	12.5	8.5	18.5	22.6	24	16	14
2122010120	Ø 10	G 1/2	14.1	8.5	21	27	24	19	14
2122012120	Ø 12	G 1/2	15.8	8.5	22.5	29.2	24	23	21
2122014120	Ø 14	G 1/2	17.1	8.5	24.6	32.1	24	25	23
R412005098	Ø16	G 1/2	18.2	8.5	24.8	33.3	24	27	24

Series QR2-S-RPN standard

- Straight fitting
- External thread
- G 1/2
- push-in fitting
- Ø 12 Ø 14 Ø 16
- QR2-S-RPN



Working pressure min./max.

-0.95 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece	Fig.
1823373054	G 1/2	Ø 12	5 piece	0.048 kg	Fig. 1
1823373055	G 1/2	Ø 14	5 piece	0.064 kg	Fig. 1
R412007955	G 1/2	Ø 16	1 piece	0.072 kg	Fig. 1

Technical information

The series QR1 (plastic) and QR2 (metal) can not be combined
Thread seal with captive O-ring

For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Brass, nickel-plated
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Brass, nickel-plated
Thread	Brass, nickel-plated

Dimensions

Fig. 1

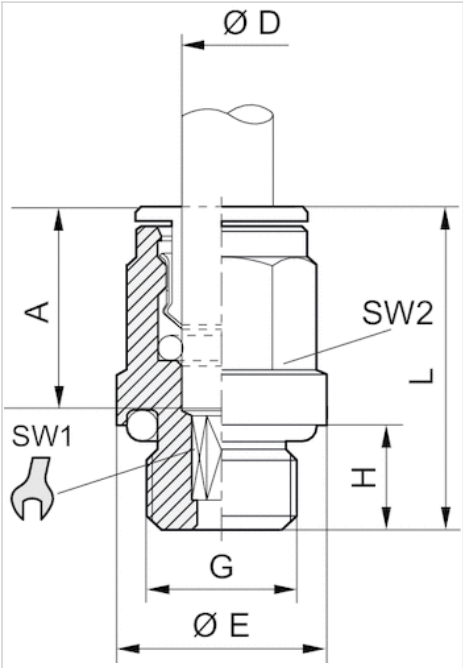
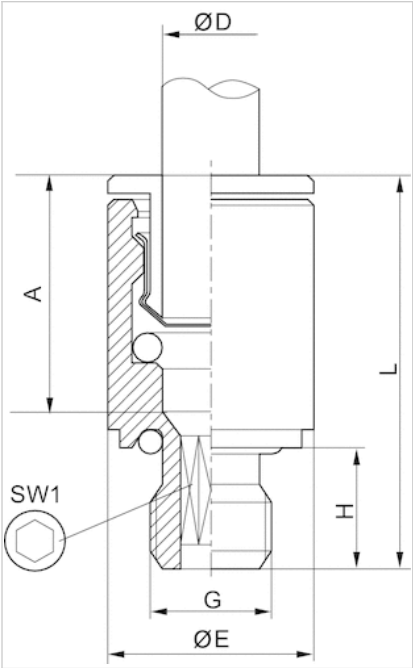


Fig. 2



Dimensions

Part No.	Port D	Port G	Ø E	H	L	A Insertion depth	SW 1	SW 2	Fig.
1823373054	Ø 12	G 1/2	24	11	31	20	10	18	Fig. 1
1823373055	Ø 14	G 1/2	24	11	34	22	12	21	Fig. 1
R412007955	Ø16	G 1/2	24	11	37	12	24	-	Fig. 1

Series QR2-S-RVT standard

- Elbow fitting, rotatable
- External thread
- G 1/2
- push-in fitting
- Ø 10 Ø 12 Ø 14 Ø 16
- QR2-S-RVT



Working pressure min./max.

-0.95 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
R412007589	G 1/2	Ø 10	5 piece	0.046 kg
1823391840	G 1/2	Ø 12	5 piece	0.065 kg
1823391841	G 1/2	Ø 14	5 piece	0.07 kg
R412007956	G 1/2	Ø 16	1 piece	0.084 kg

Technical information

The series QR1 (plastic) and QR2 (metal) can not be combined

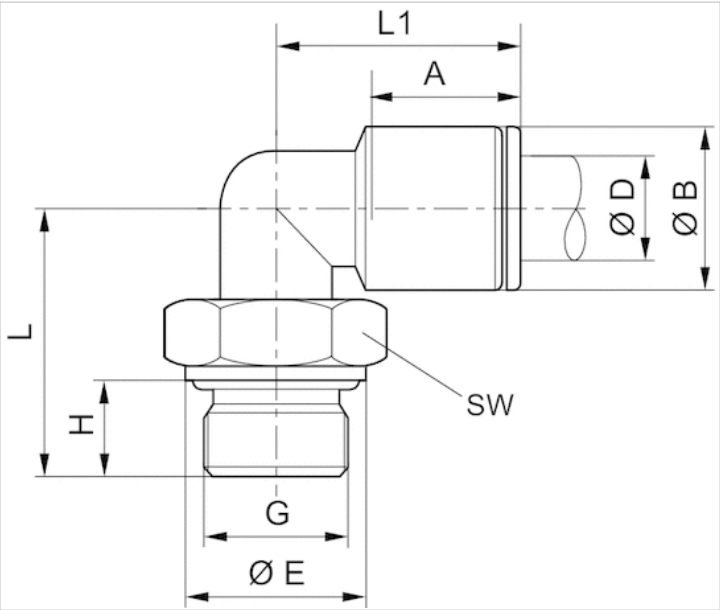
Thread seal with captive O-ring

For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Brass, nickel-plated
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Brass, nickel-plated
Thread	Brass, nickel-plated

Dimensions



Dimensions

Part No.	Port D	Port G	ØB	ØE	H	L	L1	A Insertion depth	SW
R412007589	Ø 10	G 1/2	15	25	11	30	27	19	16
1823391840	Ø 12	G 1/2	17	25	11	33.5	28	20	20
1823391841	Ø 14	G 1/2	20	25	11	33.5	31	22	20
R412007956	Ø16	G 1/2	23	25	11	38	33	23.5	20

Series NU2

- Swivel banjo connection 1-fold
- External thread
- G 3/4 G 1
- plug-in with tube nut
- Ø 18
- NU2-S-RW1



Working pressure min./max.

-0.95 ... 10 bar

Ambient temperature min./max.

-10 ... 60 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
1823391807	G 3/4	Ø 18	10 piece	0.208 kg
1823391808	G 1	Ø 18	10 piece	0.276 kg

Technical information

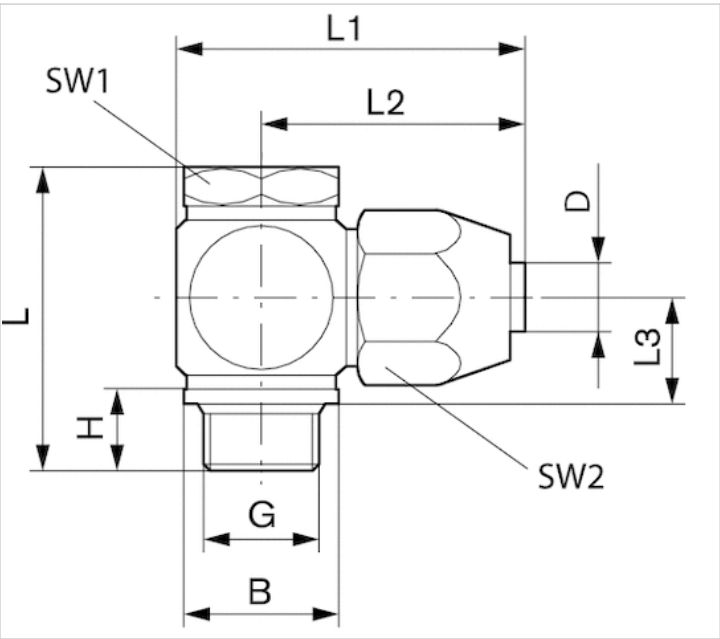
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Aluminum, anodized
Seal	Polyvinyl chloride

Dimensions

Dimensions



for fabric-reinforced plastic tubing

Dimensions

Part No.	Port D	Port G	B	H	L	L1	L2	L3	SW1	SW2
1823391807	Ø 18	G 3/4	33	18.5	66	69	51	25	32	41
1823391808	Ø 18	G 1	40	20.5	70	77	55	25	41	41

Connection D = inside diameter of the tubing to be used

Double nipple, Series PE5

- External thread



Weight per piece

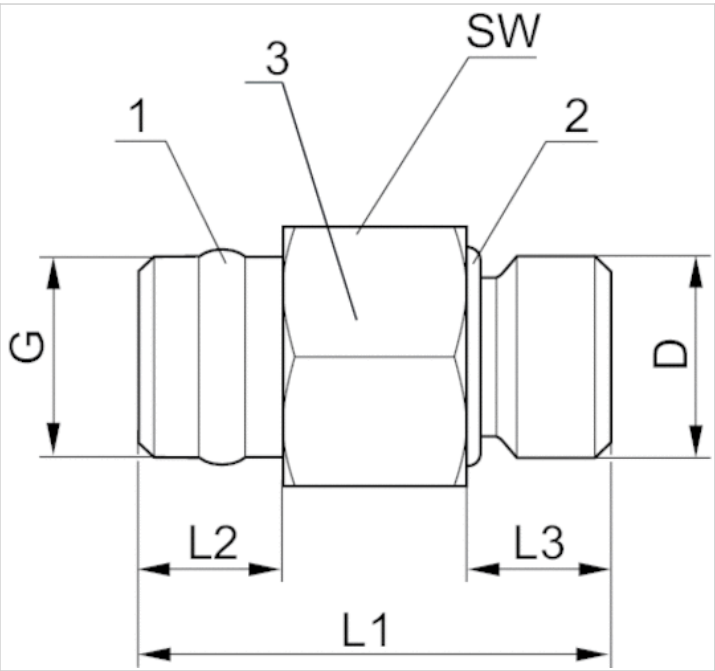
0.04 kg

Technical data

Part No.	Port G	Port D	Delivery unit
R412010015	G 1/4	G 1/8	2 piece
R412010016	G 1/4	G 1/4	2 piece

Dimensions

Dimensions



- 1) sealing ring Polytetrafluorethylen
- 2) O-ring - acrylonitrile butadiene rubber
- 3) Housing - brass, nickel-plated

Dimensions

Part No.	Port G	Port D	L1	L2	L3	SW
R412010015	G 1/4	G 1/8	30	10	8.5	17
R412010016	G 1/4	G 1/4	30	10	8.5	17

Blanking screw

- External thread
- G 1/8 G 1/4
- FPT-S-RIO



Working pressure min./max.

0 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

Technical data

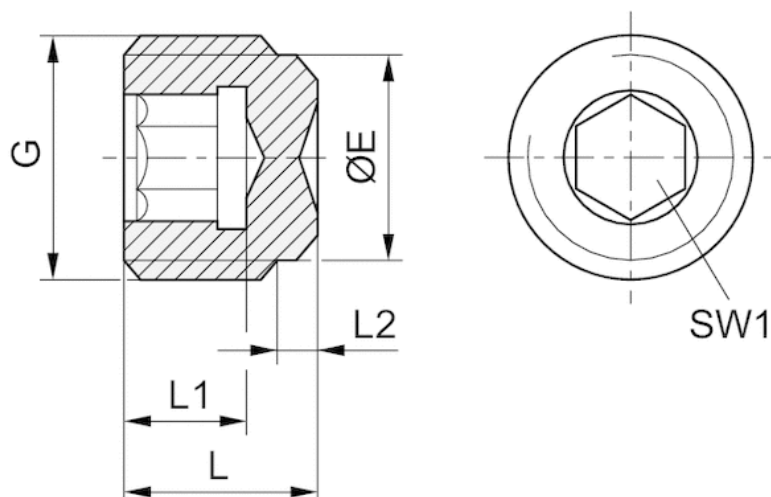
Part No.	Port G	Delivery unit
1823462004	G 1/8	10 piece
1823462003	G 1/4	10 piece

Technical information

Material	
Material	Brass

Dimensions

Dimensions



Dimensions in mm

Port G	ØE	L	L1	L2	SW1
G 1/8	8	8	5	2	5
G 1/4	11	11	7	3.5	6

plugs



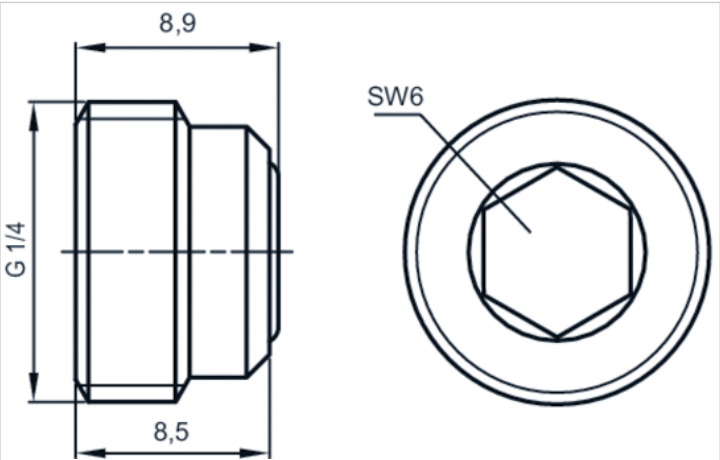
Technical data

Part No.	Type	Suitable for	Delivery unit
R412010124	plugs	Pressure gauge connection: G 1/4	10 piece

Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions



Reducing nipple

- External thread
- G 3/4
- Internal thread
- G 1/4
- FPT-S-RDZ



Working pressure min./max.

0 ... 60 bar

Ambient temperature min./max.

-20 ... 70 °C

Technical data

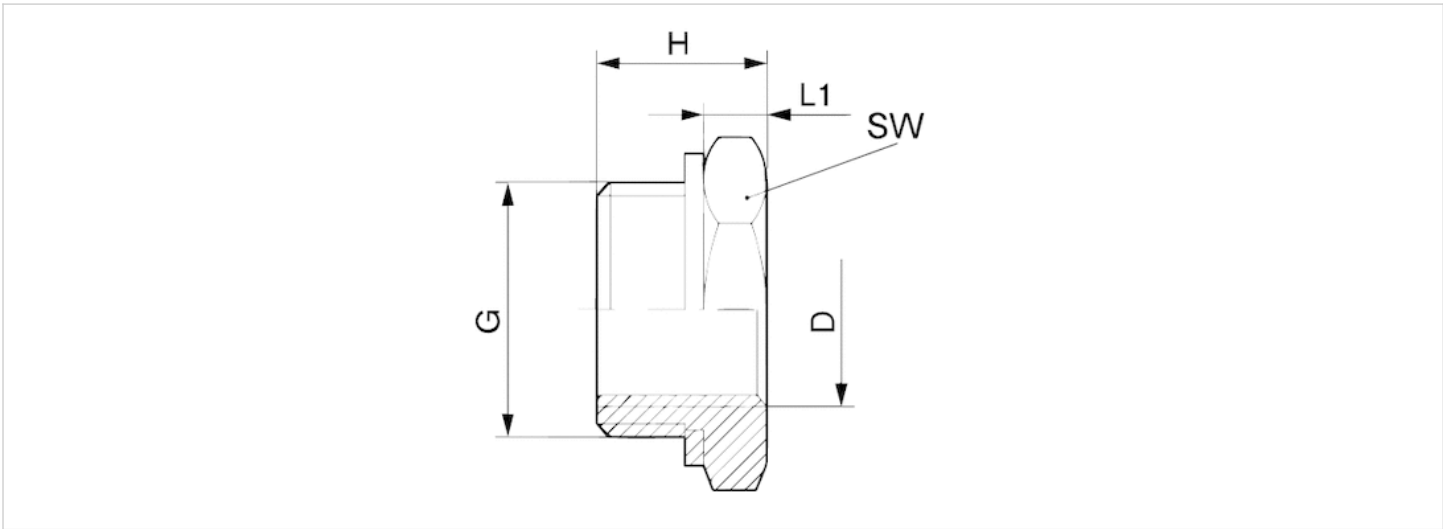
Part No.	Port G	Port D	Delivery unit
1823391301	G 3/4	G 1/4	5 piece

Technical information

Material	
Material	Brass, nickel-plated
Seal	Polyvinyl chloride, hard

Dimensions

Dimensions



Dimensions

Part No.	Port D	Port G	H	L1	SW
1823391301	G 1/4	G 3/4	19	7	32

Sealing ring

- Acrylonitrile butadiene styrene



Working pressure min./max.

-0.95 ... 16 bar

Ambient temperature min./max.

-10 ... 60 °C

Technical data

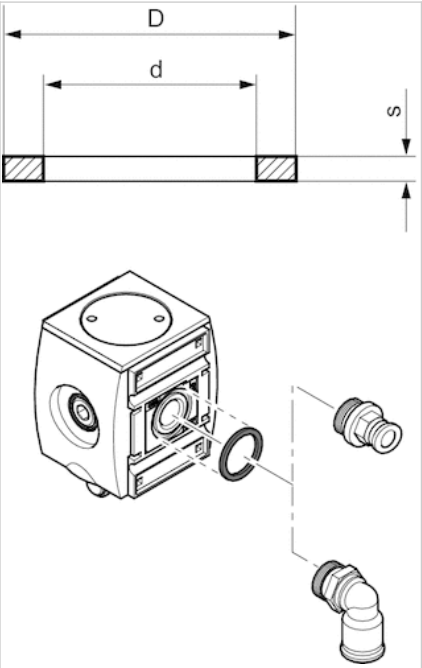
Part No.	Port G	Delivery unit
R412010148	G 3/8	10 piece
R412010149	G 1/2	10 piece
R412010150	G 1	10 piece

For inserting into the O-ring groove when using series QR1 and QR2 fittings.

Technical information

Material	
Material	Acrylonitrile butadiene styrene

Dimensions



Dimensions

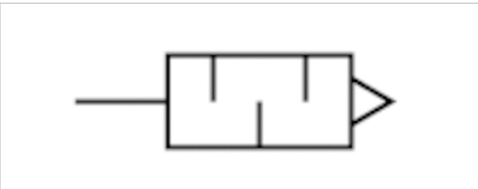
Part No.	usage	Type	d	D	s
R412010148	AS2	For compressed air connection G 3/8	18.5	22.8	2.0
R412010149	AS3	For compressed air connection G 1/2	22.4	26.4	2.0
R412010150	AS5	For compressed air connection G 1	36.9	41.9	2.0

silencers, series SI1

- G 1/2
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	90 dB
Weight	0.08 kg
Comment	Flow characteristic curves can be found under "Diagrams".



Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000003	G 1/2	7223 l/min	2 piece

Weight per piece

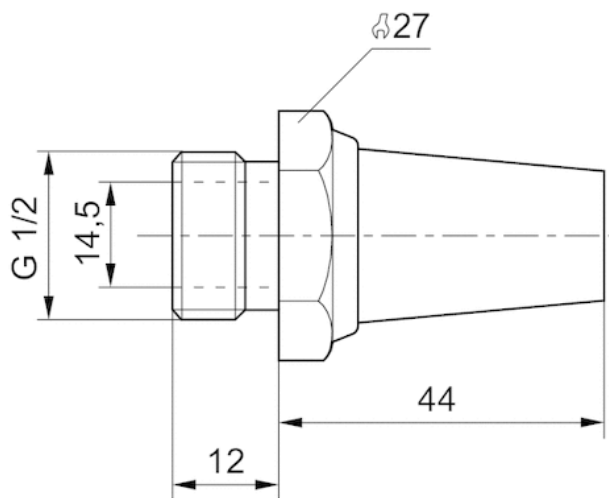
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

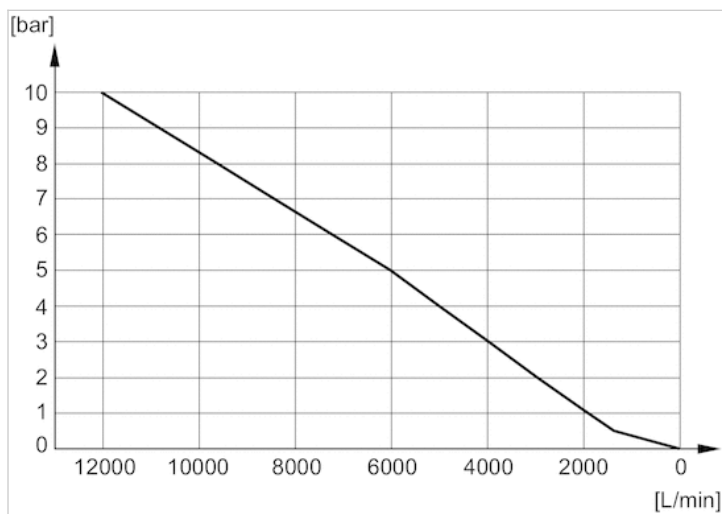
Dimensions

Dimensions in mm



Diagrams

Flow diagram, 1827000003

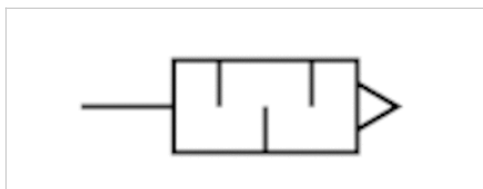


Silencers, series SI1

- G 3/4
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	92 dB
Weight	0.13 kg
Comment	Flow characteristic curves can be found under "Diagrams".



Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000004	G 3/4	8394 l/min	1 piece

Weight per piece

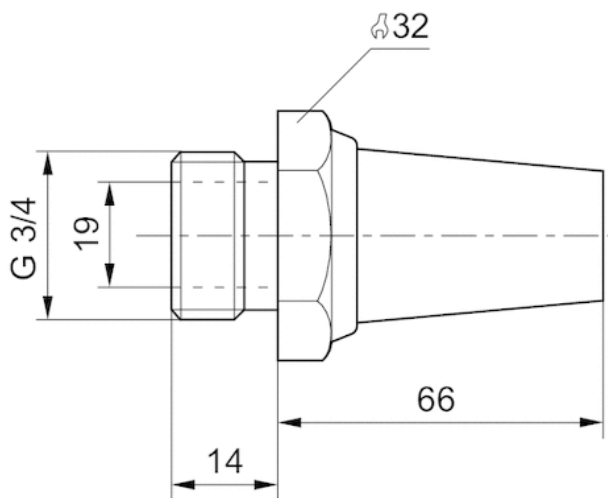
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

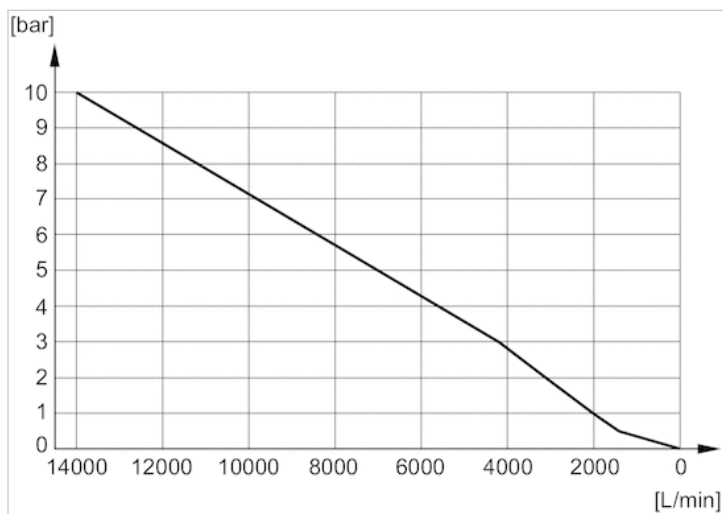
Dimensions

Dimensions in mm



Diagrams

Flow diagram, 1827000004

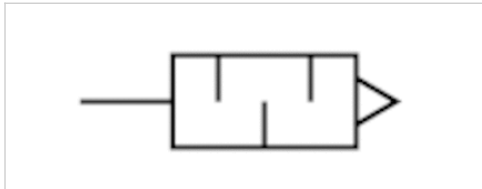


Silencers, series SI1

- G 1/2
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	85 dB
Weight	0.035 kg
Comment	Flow characteristic curves can be found under "Diagrams".



Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000035	G 1/2	2568 l/min	2 piece

Weight per piece

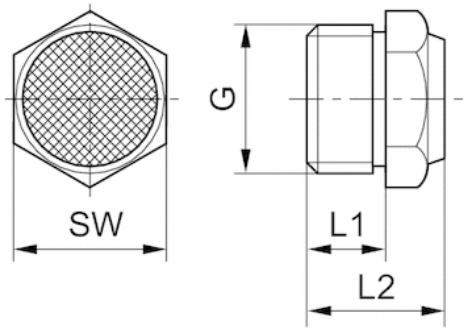
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

Dimensions

Dimensions



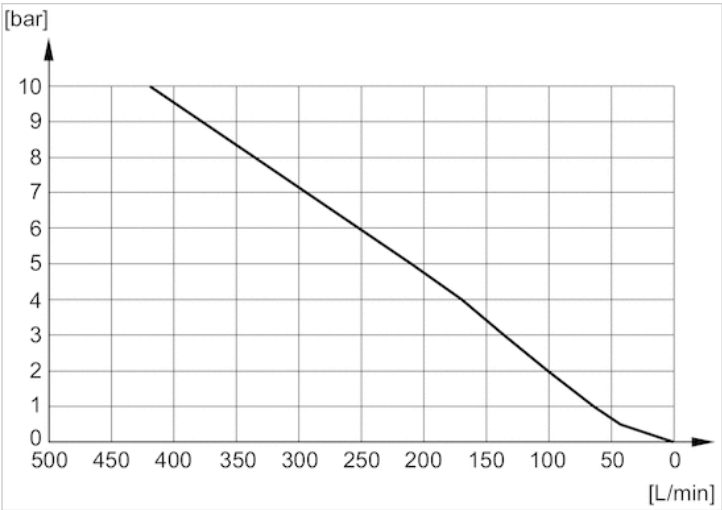
Dimensions

Part No.	Port G	L1	L2	SW
1827000035	G 1/2	12	19.5	27

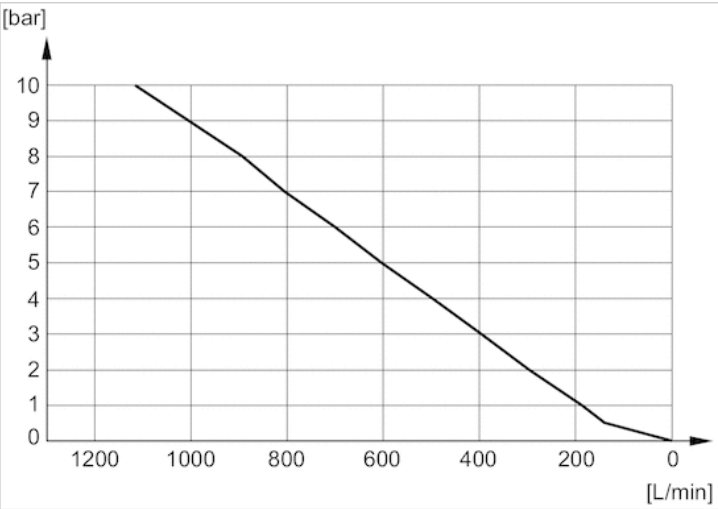
Sound pressure level measured at 6 bar at 1 m distance

Diagrams

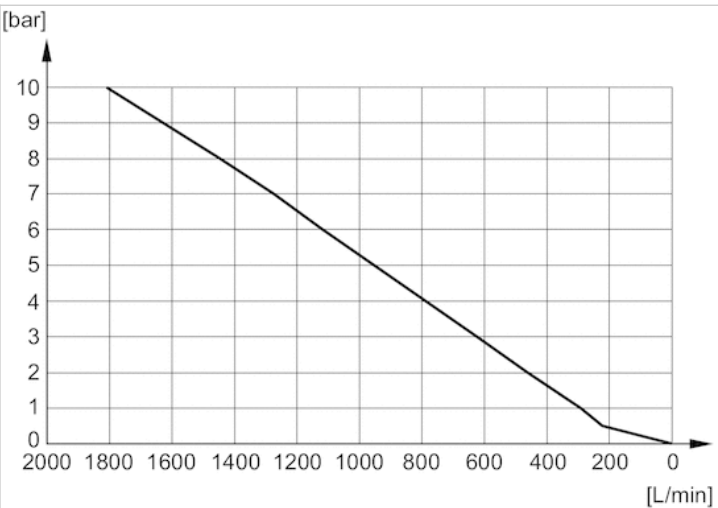
Flow diagram, 1827000032



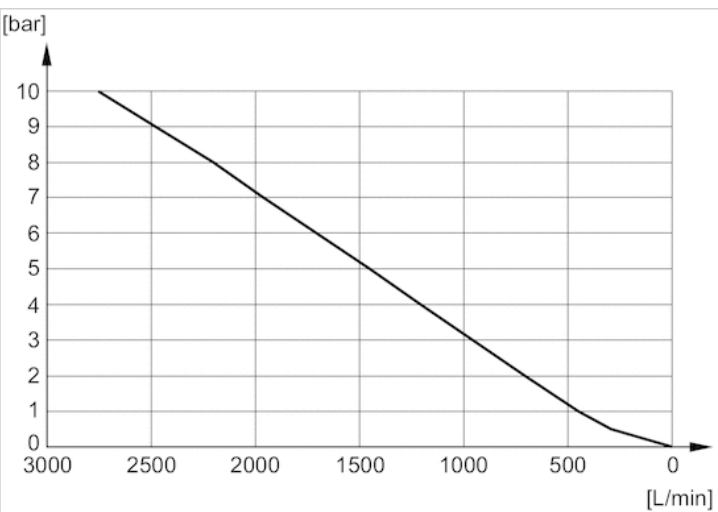
Flow diagram, 1827000031



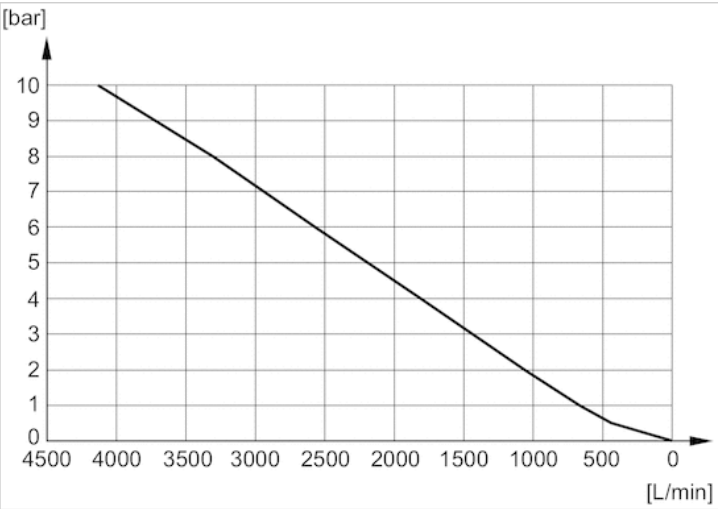
Flow diagram, 1827000033



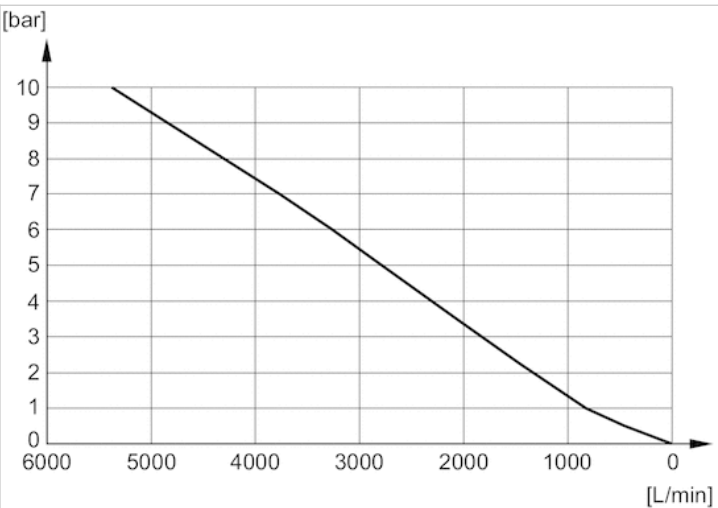
Flow diagram, 1827000034



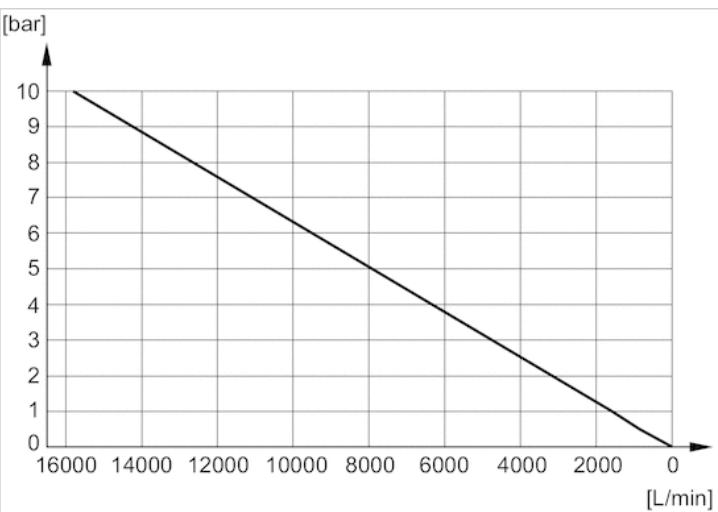
Flow diagram, 1827000035



Flow diagram, 8145003400



Flow diagram, 8145001000

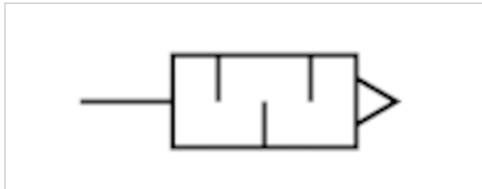


Silencers, series SI1

- G 1/2
- Polyethylene



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	88 dB
Weight	0.013 kg



Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000022	G 1/2	7142 l/min	1 piece

Weight per piece

Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

Technical information

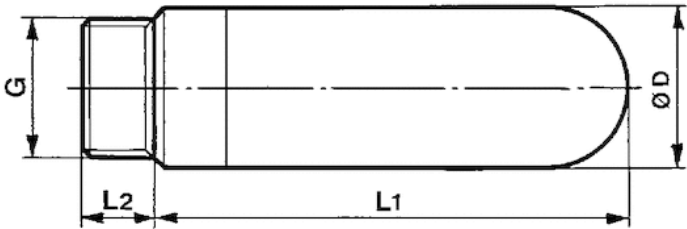
Flow characteristic curves can be found under "Diagrams".

Technical information

Material	
Silencer	Polyethylene
Thread	Polyethylene

Dimensions

Dimensions

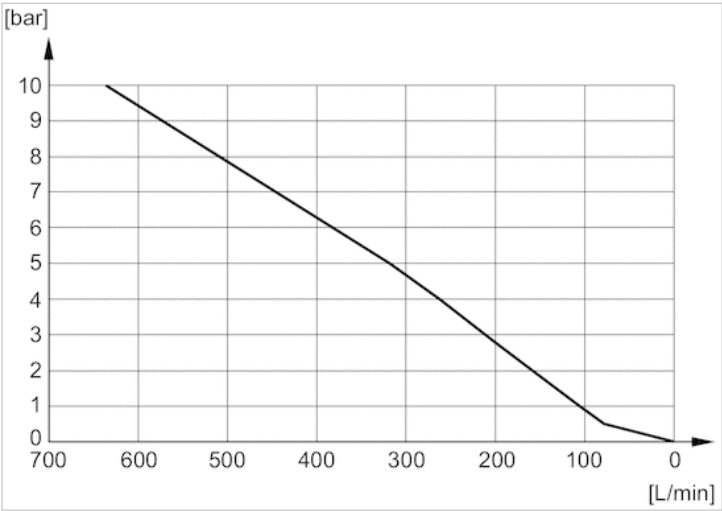


Dimensions

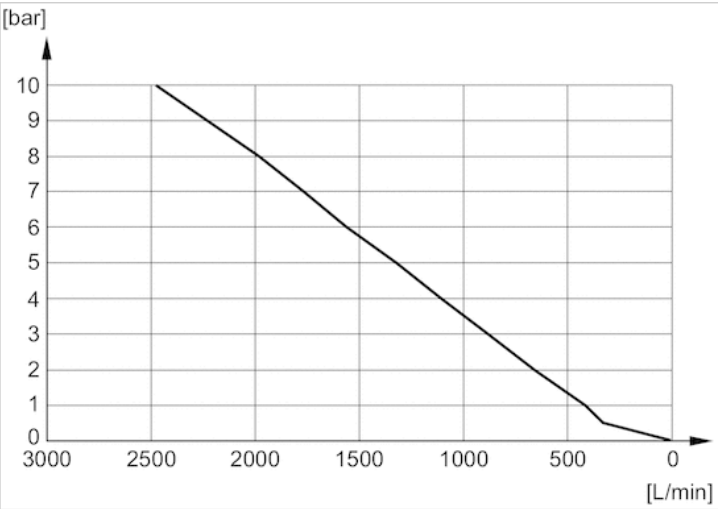
Part No.	Port G	Ø D	L1	L2
1827000022	G 1/2	23.3	66.5	11

Diagrams

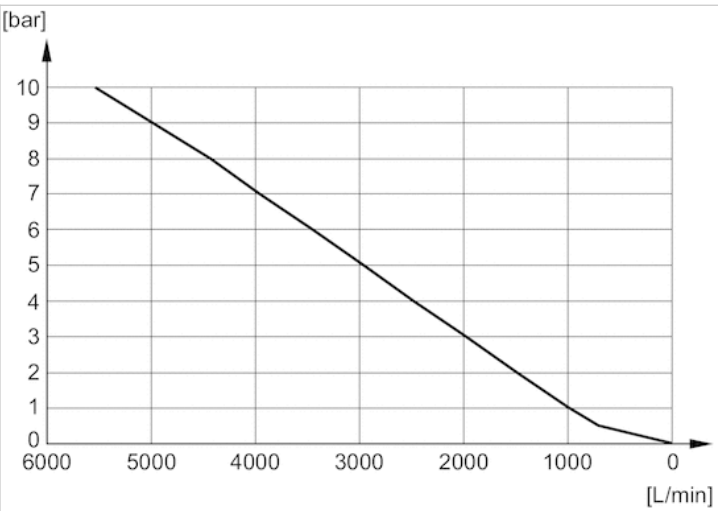
Flow diagram, 1827000018



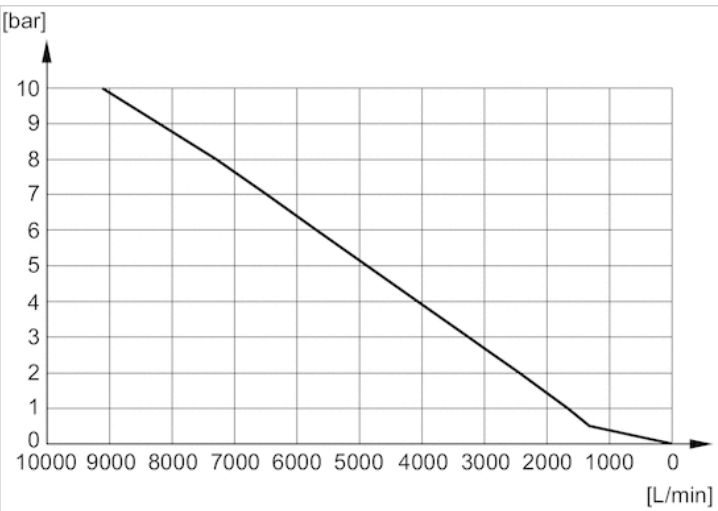
Flow diagram, 1827000019



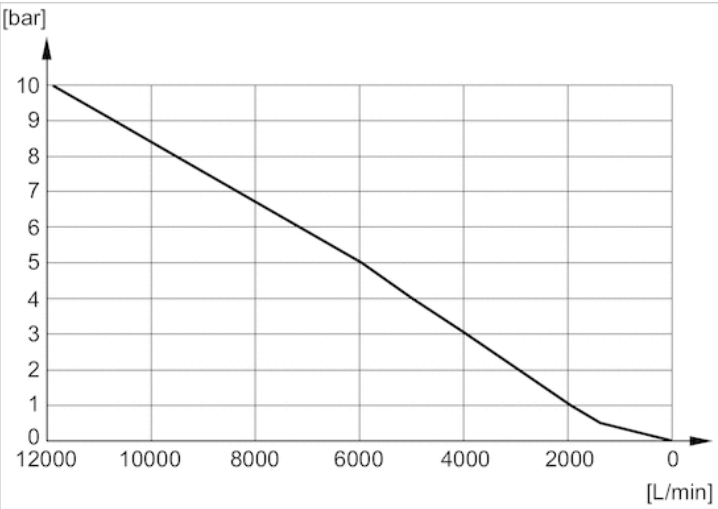
Flow diagram, 1827000020



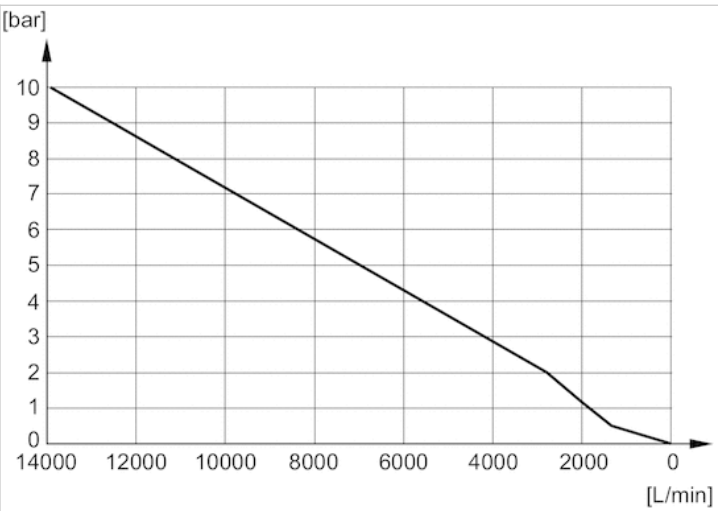
Flow diagram, 1827000021



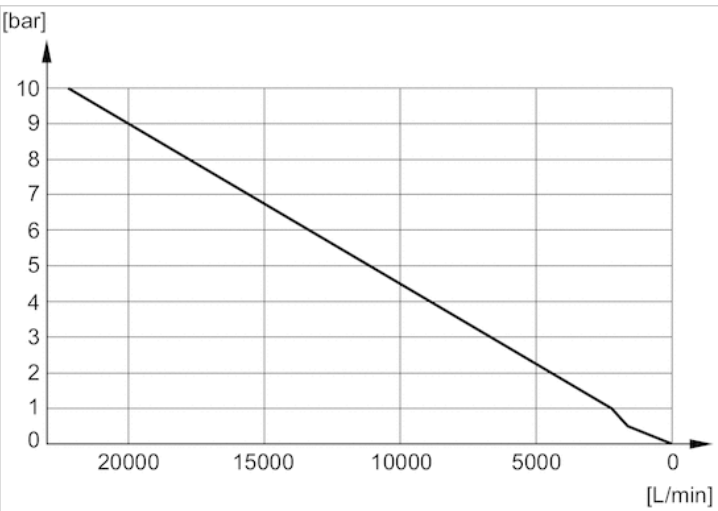
Flow diagram, 1827000022



Flow diagram, 1827000023



Flow diagram, 1827000024



Mounting clip, Series AS3-MBR-...-W03, Aluminum



Ambient temperature min./max.

-10 ... 50 °C

Weight

0.133 kg

Technical data

Part No.
R412026828

Scope of delivery incl. 2 mounting screws M5x68-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 1x O-ring

Technical information

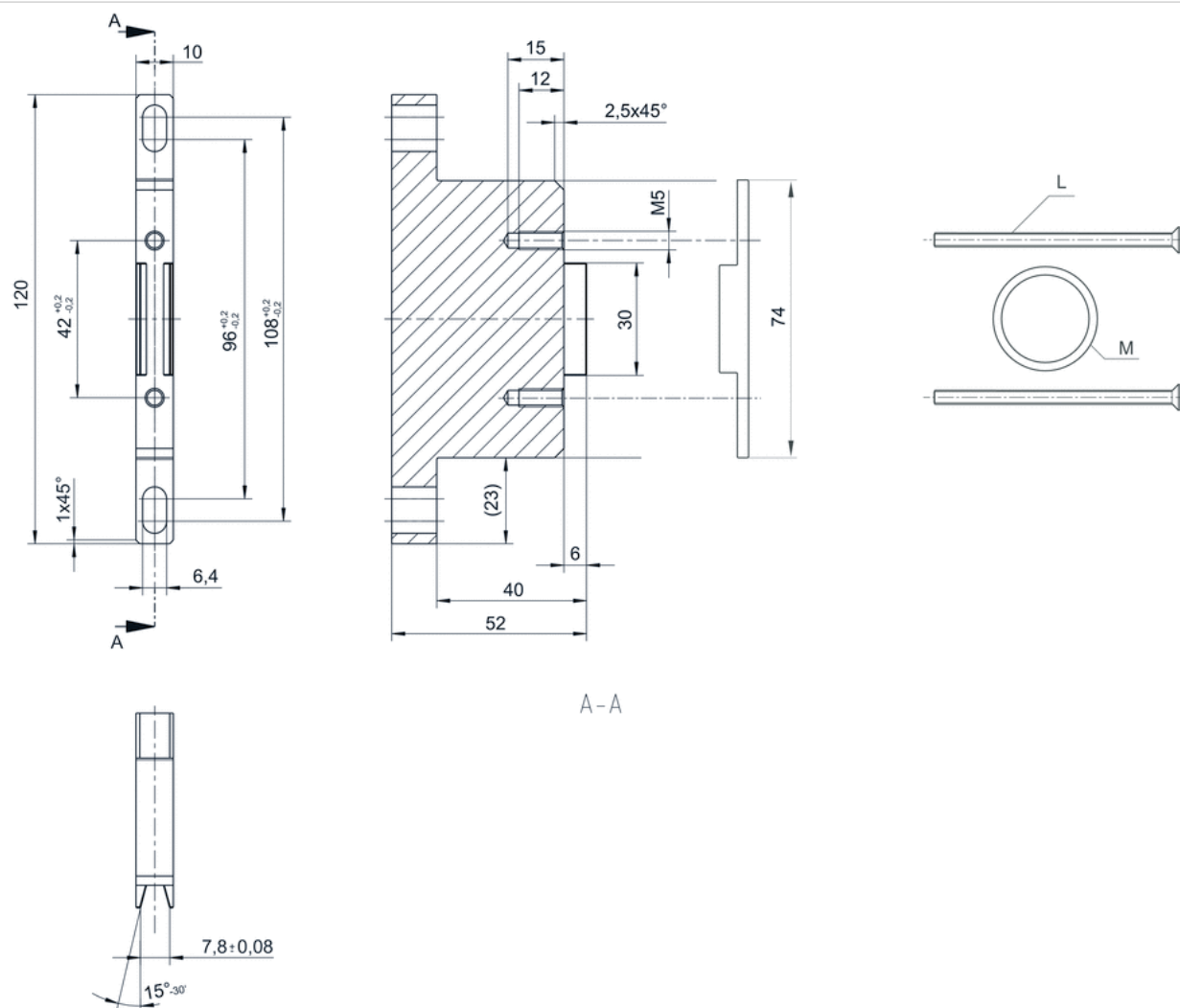
This mounting clip is recommended for installing an AS3-SV safety valve in an air preparation unit.

Technical information

Material	
Housing	Aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



L = Mounting screw
M = O-ring

Block assembly kit, Series AS3-MBR-...-W05

- G 3/8 - G 1/2



Ambient temperature min./max.

-10 ... 50 °C

Weight

0.825 kg

Technical data

Part No.	Port
R412007366	G 3/8
R412007367	G 1/2

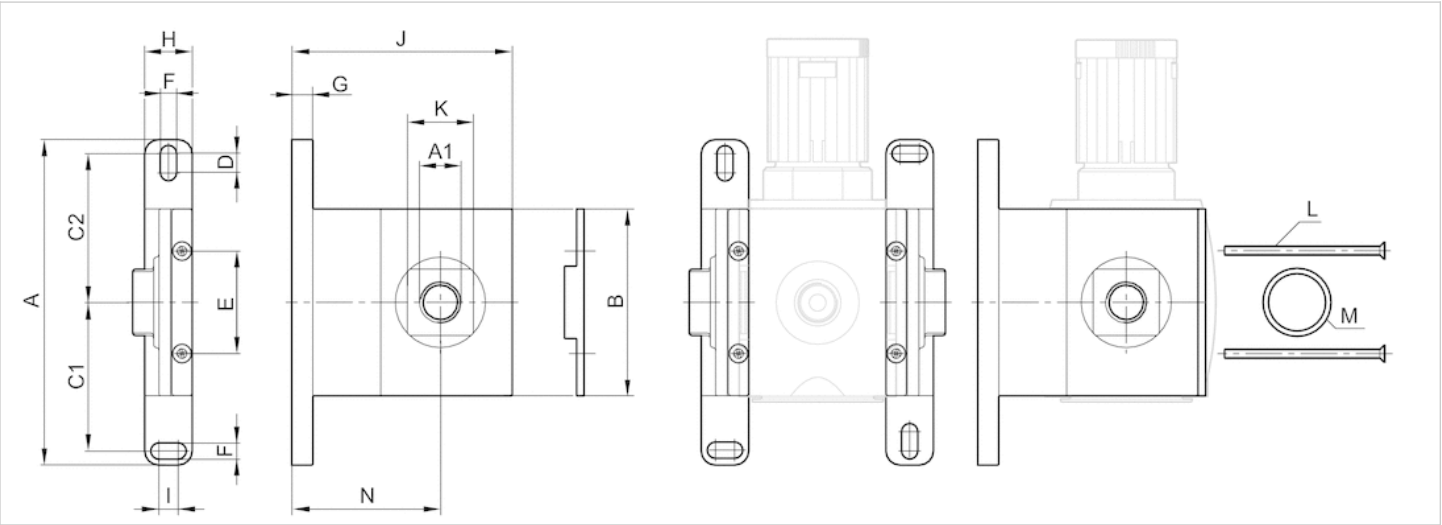
Scope of delivery incl. 4 mounting screws M5x68-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 2x O-ring

Technical information

Material	
Housing	Die cast zinc, painted
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A1	A	B	C1	C2	D	E	F	G	H	I	J	K	L	M	N
R412007366	G 3/8	120	75	54	54	8	42	6.4	7	20	8	102.5	30	M5x68	23x2	72
R412007367	G 1/2	120	75	54	54	8	42	6.4	7	20	8	102.5	30	M5x68	23x2	72

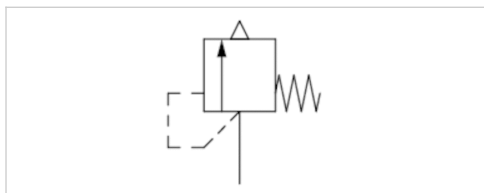
Series RV1

- Qn 1►2 = 2627-33505 l/min
- thread-in
- External thread
- G 3/4
- Uncollected



Version
 Certificates
 Working pressure min./max.
 Opening pressure of valve
 Ambient temperature min./max.
 Medium

Poppet valve
 CE declaration of conformity
 0 ... 20 bar
 See table below
 -20 ... 100 °C
 Compressed air



Technical data

Part No.	Port 1	Opening pressure of valve	Flow
			Qn 1►2
R412007544	G 3/4	0.5 bar	2627 l/min
R412007684	G 3/4	1 bar	3783 l/min
R412007545	G 3/4	3.5 bar	8737 l/min
R412007546	G 3/4	6 bar	13690 l/min
R412007547	G 3/4	6.5 bar	14754 l/min
R412007548	G 3/4	8 bar	17653 l/min
R412007549	G 3/4	10 bar	21616 l/min
R412007550	G 3/4	11 bar	23598 l/min
R412007551	G 3/4	12.5 bar	26570 l/min
R412007552	G 3/4	16 bar	33505 l/min

Technical information

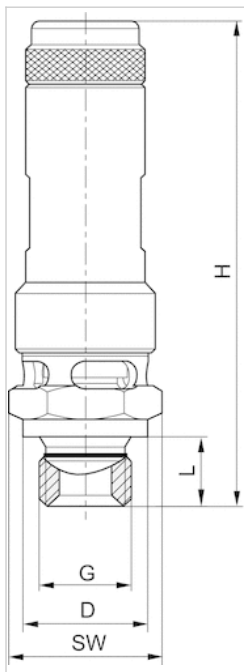
The specified performance values are achieved at a 10% (PE 1 bar , 0.1 bar) pressure increase, measured with compressed air at 20 °C .

Technical information

Material	
Housing	Brass
Seals	Fluorocaoutchouc

Dimensions

Dimensions



G = connection 1

Dimensions

Part No.	Port G	Ø D	H	L	SW	T [Nm]	NW
R412007544	G 3/4	32	106	12	30	60	20
R412007684	G 3/4	32	106	12	30	60	20
R412007545	G 3/4	32	106	12	30	60	20
R412007546	G 3/4	32	106	12	30	60	20
R412007547	G 3/4	32	106	12	30	60	20
R412007548	G 3/4	32	106	12	30	60	20
R412007549	G 3/4	32	116	12	30	60	20
R412007550	G 3/4	32	116	12	30	60	20
R412007551	G 3/4	32	116	12	30	60	20
R412007552	G 3/4	32	116	12	30	60	20

T = maximum torque

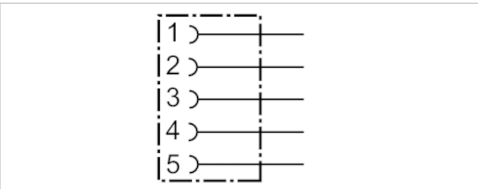
NW = nominal width

Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, straight, 180°
- for DeviceNet
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.016 kg



Technical data

Part No.	Max. current	suitable cable-Ø min./max
4407230020	4 A	4 mm

Technical information

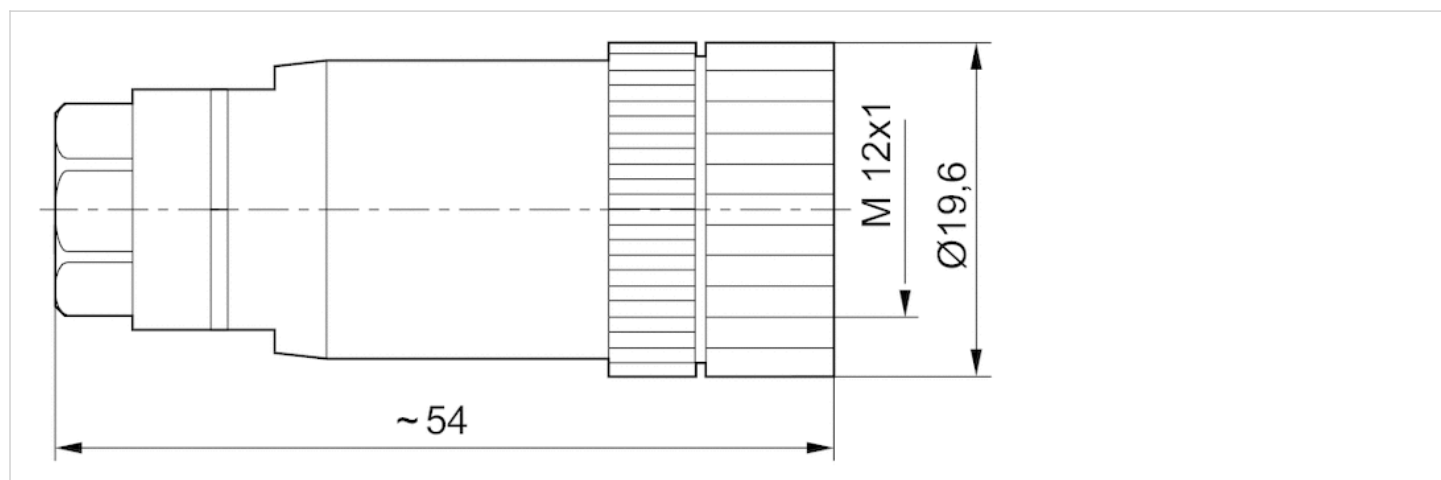
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyamide

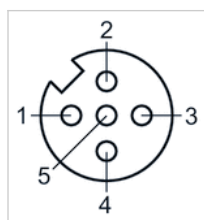
Dimensions

Dimensions



Pin assignments

Pin assignment, socket

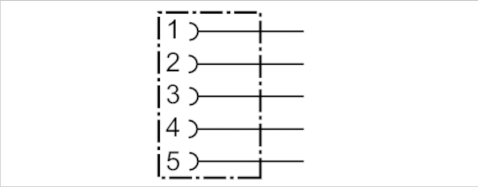


Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, angled, 90°
- for CANopen
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.072 kg



Technical data

Part No.	Max. current	suitable cable-Ø min./max
1824484029	4 A	6 / 8 mm

Technical information

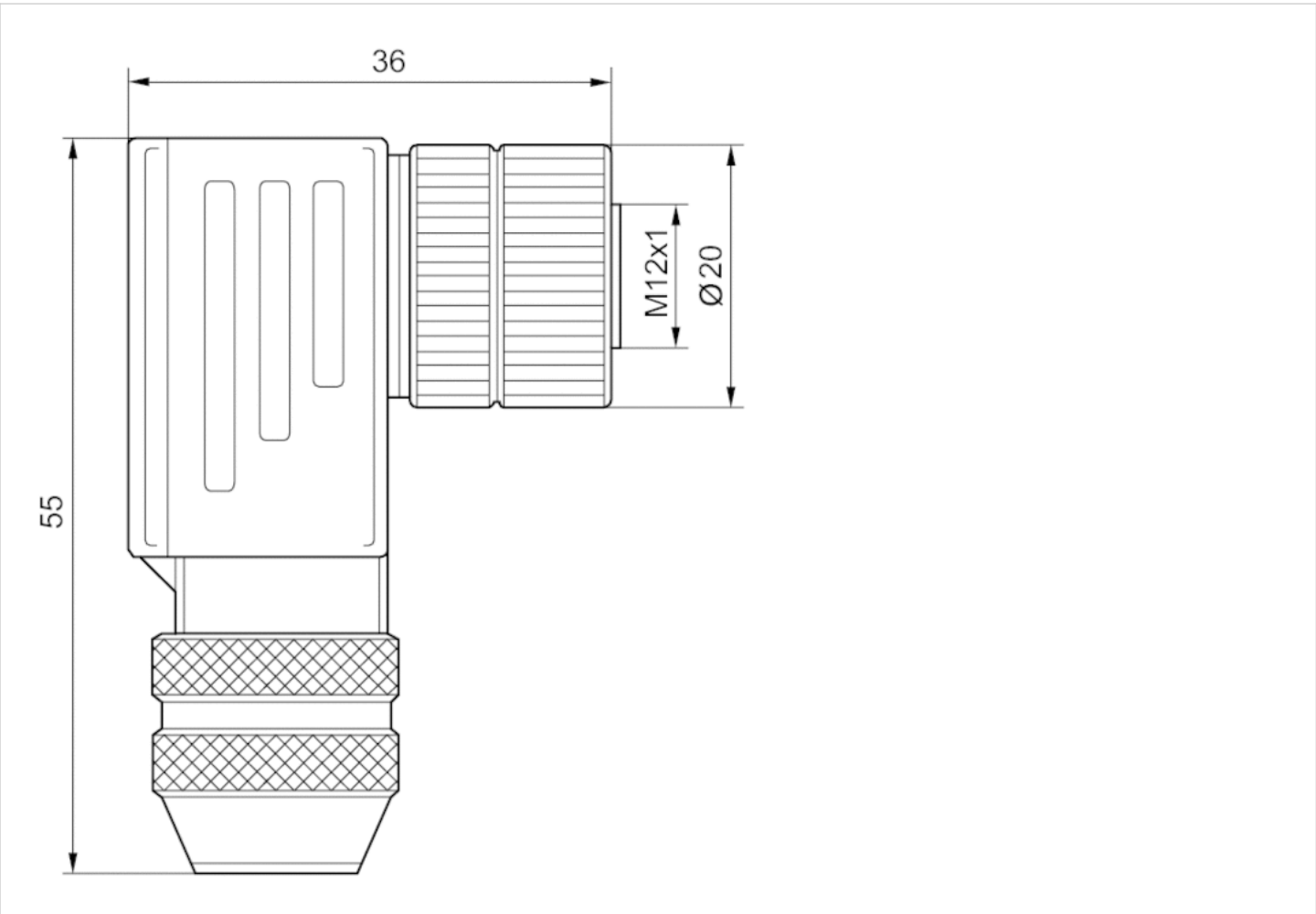
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Die cast zinc

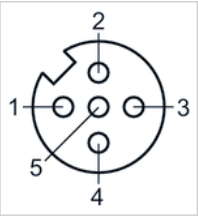
Dimensions

Dimensions



Pin assignments

Pin assignment, socket



Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, straight, 180°
- for CANopen, DeviceNet
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.48 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
8942051612	4 A	6 / 8 mm

Technical information

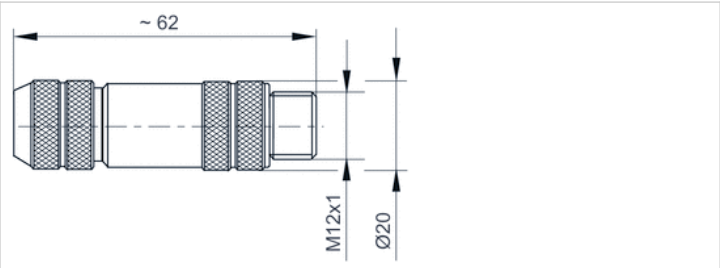
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Brass, nickel-plated

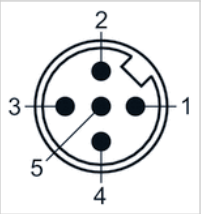
Dimensions

Dimensions



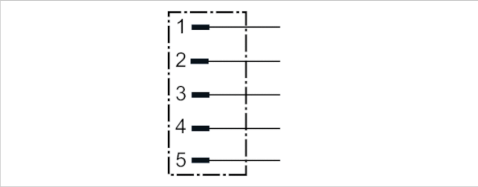
Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, angled, 90°
- for CANopen
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.068 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
1824484028	4 A	6 / 8 mm

Technical information

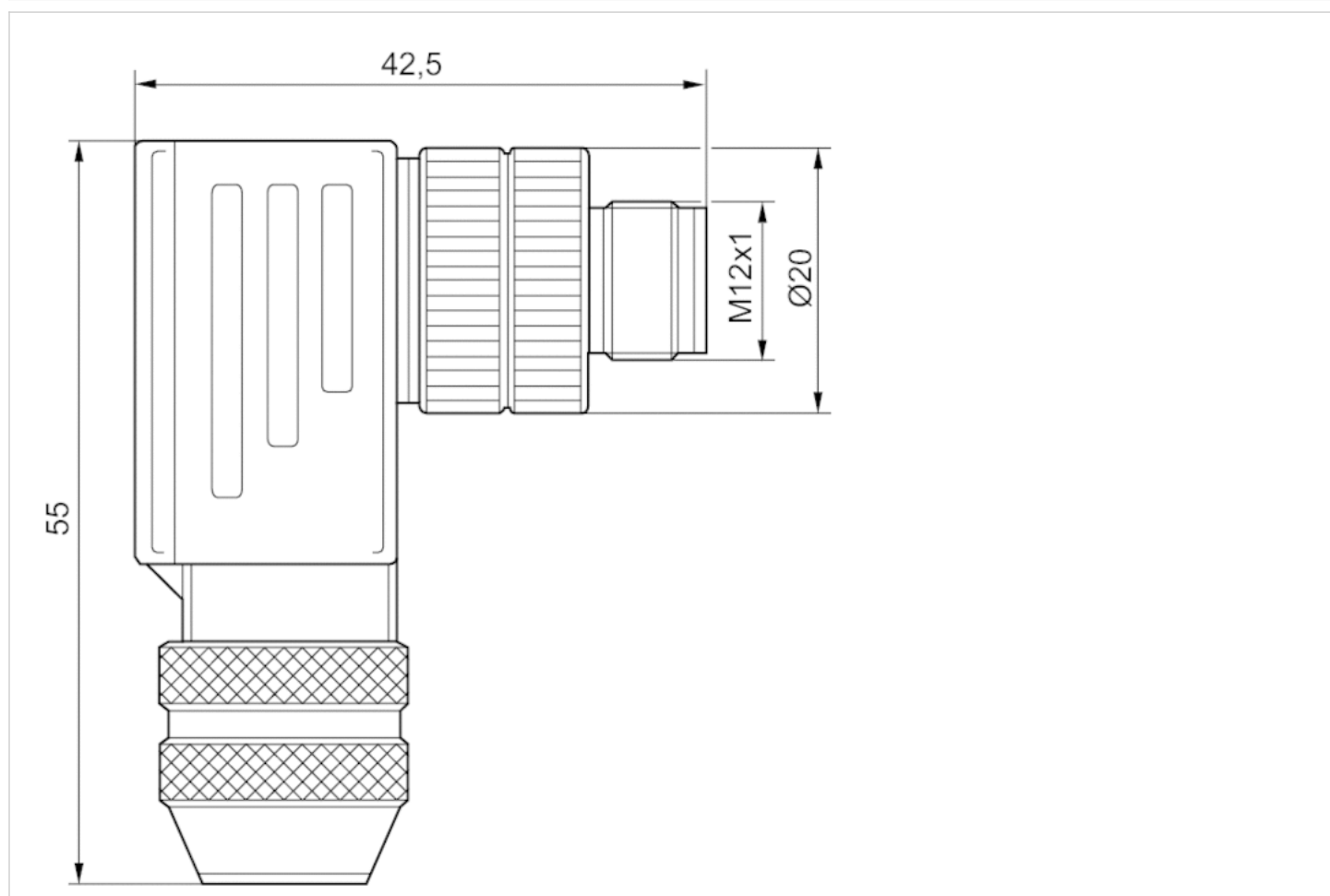
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Brass, nickel-plated

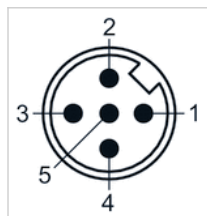
Dimensions

Dimensions



Pin assignments

Plug pin assignment

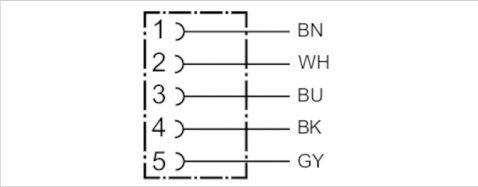


Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- with cable
- shielded



Ambient temperature min./max.	-25 ... 80 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm²
Weight	See table below



Technical data

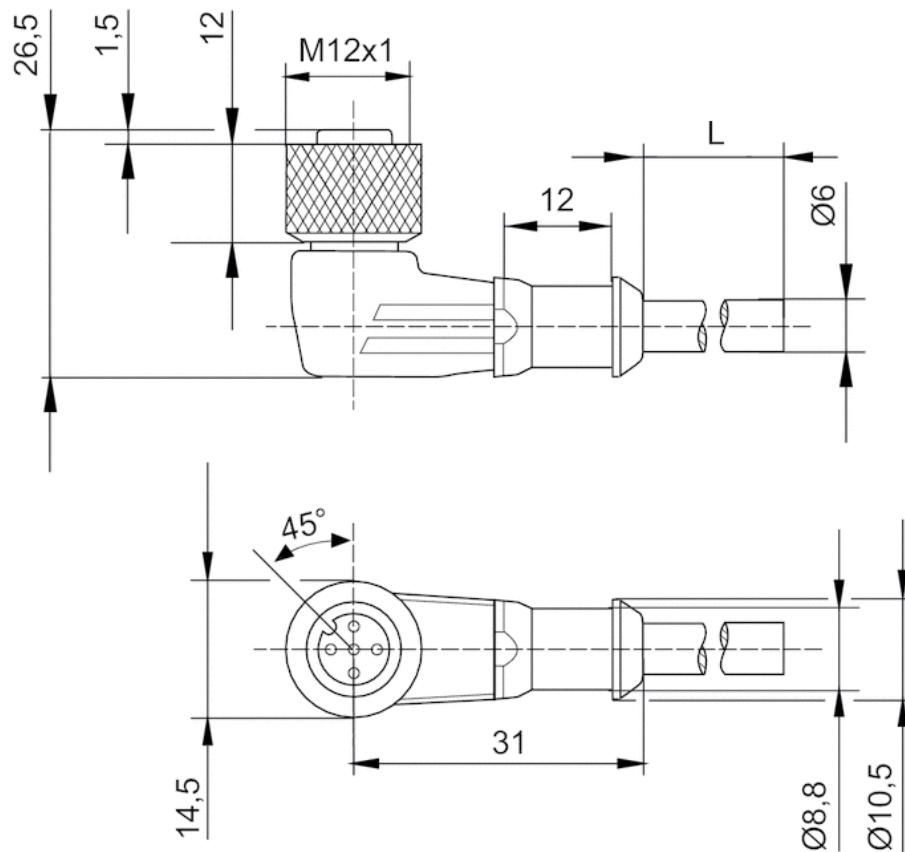
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	6 mm	2.5 m	0.145 kg
R419800110	4 A	5	6 mm	5 m	0.27 kg
R419800546	4 A	5	6 mm	10 m	0.514 kg

Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

Dimensions

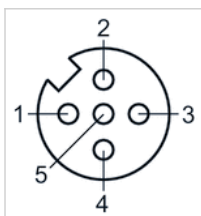
Dimensions



L = length

Pin assignments

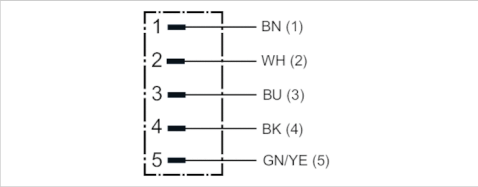
Pin assignment, socket



- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GY=grey

Round plug connector, Series CON-RD

- Plug M12x1 5-pin A-coded straight 180°
- open cable ends 5-pin
- with cable
- unshielded



Protection class
Weight

IP68
See table below
The delivered product may vary from that in the illustration.

Technical data

Part No.	Number of wires	Cable length	Weight
8946203432	5	2 m	0.102 kg
8946203442	5	5 m	0.238 kg

with self-clinching screw

Technical information

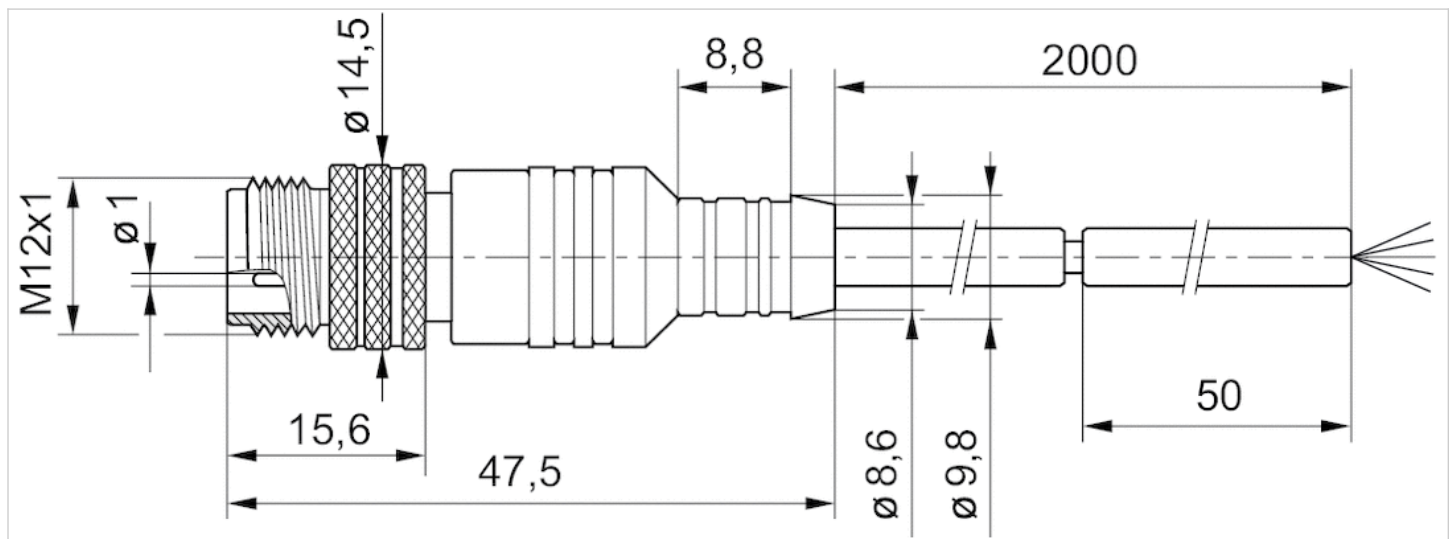
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyvinyl chloride

Dimensions

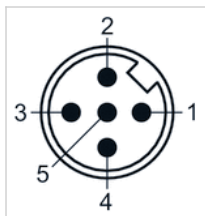
Dimensions



L = length

Pin assignments

Plug pin assignment



- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GRN-Y=green-yellow

Round plug connector, Series CON-RD

- Plug M12x1 5-pin A-coded angled 90°
- open cable ends 5-pin
- with cable
- suitable for dynamic laying
- unshielded



Ambient temperature min./max.	See table below
Operational voltage	48 V AC/DC
Protection class	IP68
Wire cross-section	0.34 mm ²
Mounting screw tightening torque	0.8 Nm
Weight	See table below

1	BN (1)
2	WH(2)
3	BU (3)
4	BK (4)
5	GR (5)

Technical data

Part No.	Ambient temperature min./max.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length
R412021691	-40 ... 85 °C	4 A	5	50 mm	5 mm	2 m
R412021692	-40 ... 85 °C	4 A	5	50 mm	5 mm	5 m
R412021693	-25 ... 85 °C	4 A	5	50 mm	5 mm	10 m

Part No.	Weight
R412021691	0.093 kg
R412021692	0.2 kg
R412021693	0.381 kg

suitable for dynamic laying

Technical information

The specified protection class is only valid in assembled and tested state.

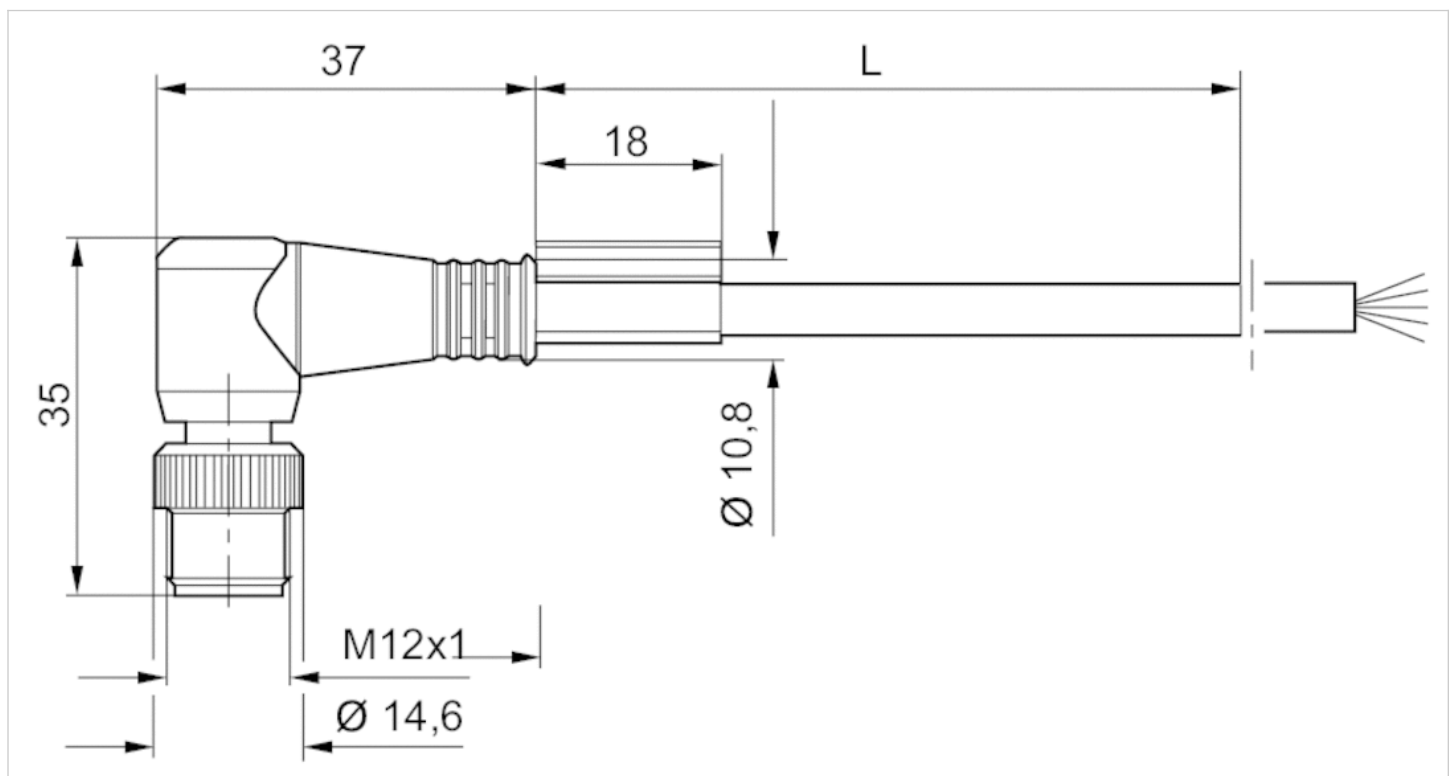
Technical information

Material

Housing	Polyurethane
Cable sheath	Polyurethane

Dimensions

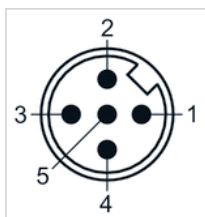
Dimensions



L = length

Pin assignments

Plug pin assignment



- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GY=grey

Silencers, series SI1

- G 1/8 G 1/4 G 3/8 G 1/2 G 3/4 G 1

- Metal braiding



Working pressure min./max.

Ambient temperature min./max.

Medium

Sound pressure level

Comment

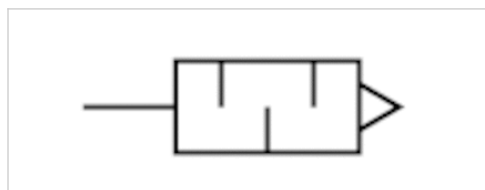
0 ... 15 bar

-10 ... 150 °C

Compressed air

See table below

Flow characteristic curves can be found under "Diagrams".



Technical data

Part No.	Compressed air connection	Sound pressure level	Flow	Delivery unit
			Qn	
R412010283	G 1/8	94 dB	1664 l/min	10 piece
R412010245	G 1/4	96 dB	2687 l/min	10 piece
R412010246	G 3/8	98 dB	4709 l/min	5 piece
R412010247	G 1/2	100 dB	6285 l/min	5 piece
R412010248	G 3/4	102 dB	6455 l/min	2 piece
R412010249	G 1	104 dB	10642 l/min	2 piece

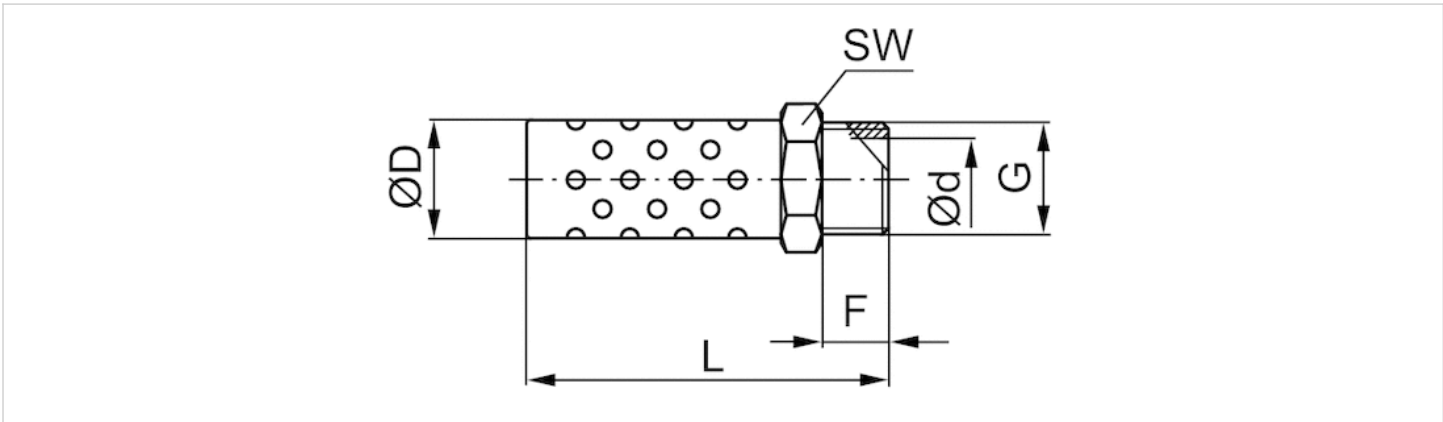
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

Technical information

Material	
Silencer	Metal braiding
Thread	Aluminum

Dimensions

Dimensions



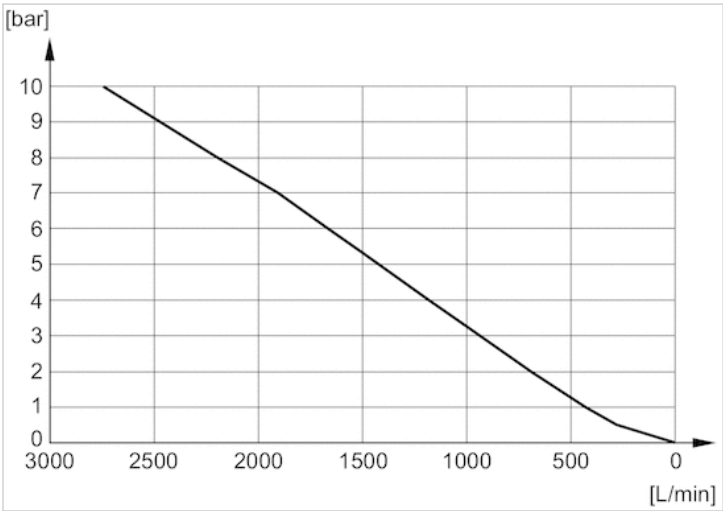
Dimensions

Part No.	Port G	L	F	D	d	SW
R412010283	G 1/8	33.5	6	10.4	6	11
R412010245	G 1/4	42.5	8.5	13.4	8.5	14
R412010246	G 3/8	49.2	9	16.5	12	17
R412010247	G 1/2	65.2	11	21.5	15	22
R412010248	G 3/4	74.5	12	26.5	20	27
R412010249	G 1	91	15.5	32.3	26	34

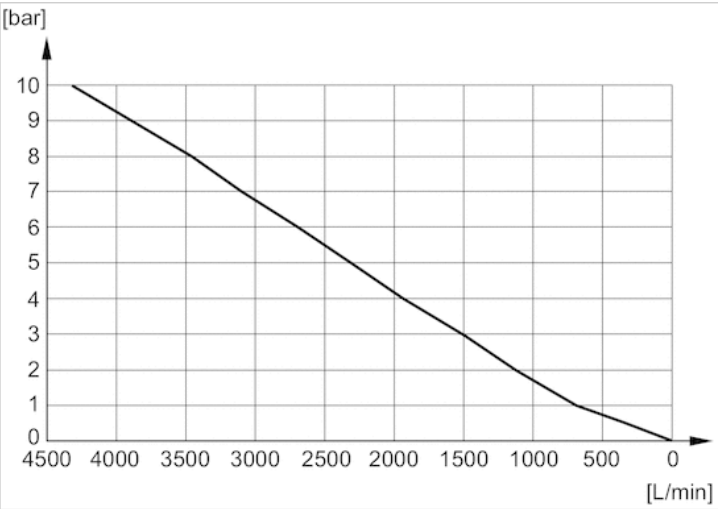
Sound pressure level measured at 6 bar at 1 m distance

Diagrams

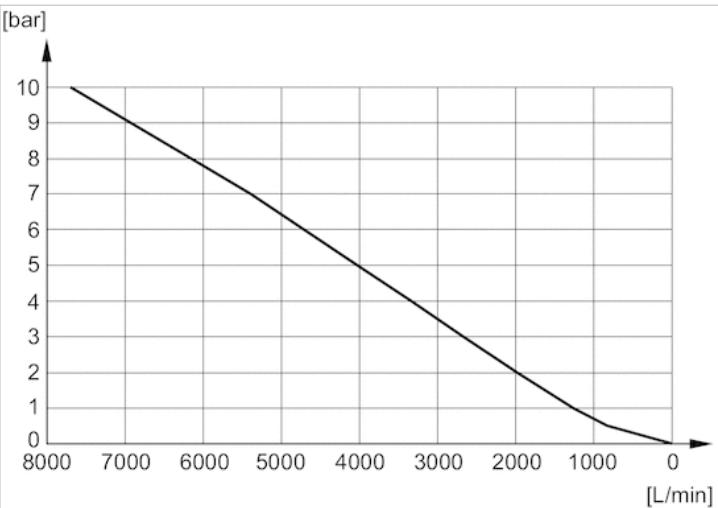
Flow diagram, R412010283



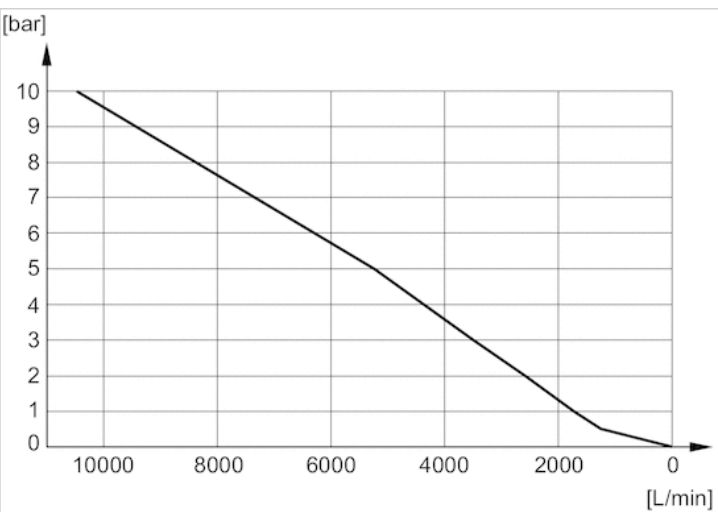
Flow diagram, R412010245



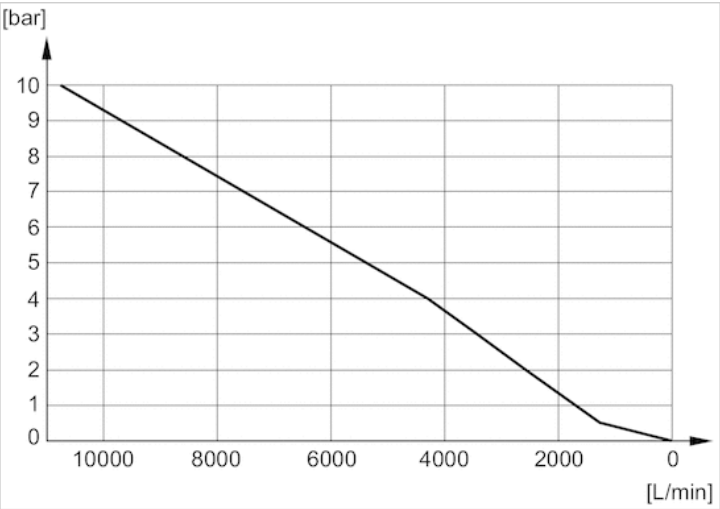
Flow diagram, R412010246



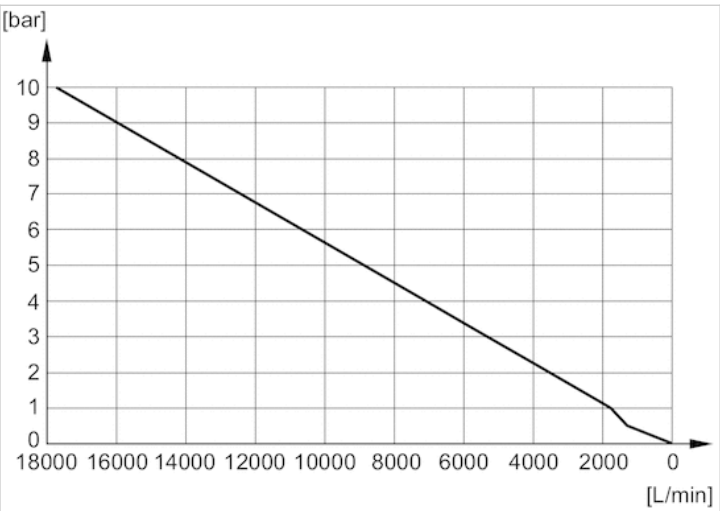
Flow diagram, R412010247



Flow diagram, R412010248



Flow diagram, R412010249

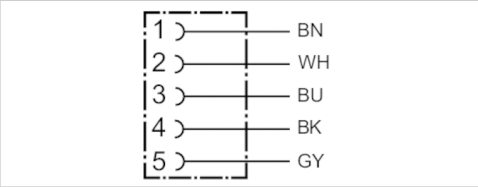


Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- with cable
- shielded



Ambient temperature min./max.	-25 ... 80 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm²
Weight	See table below



Technical data

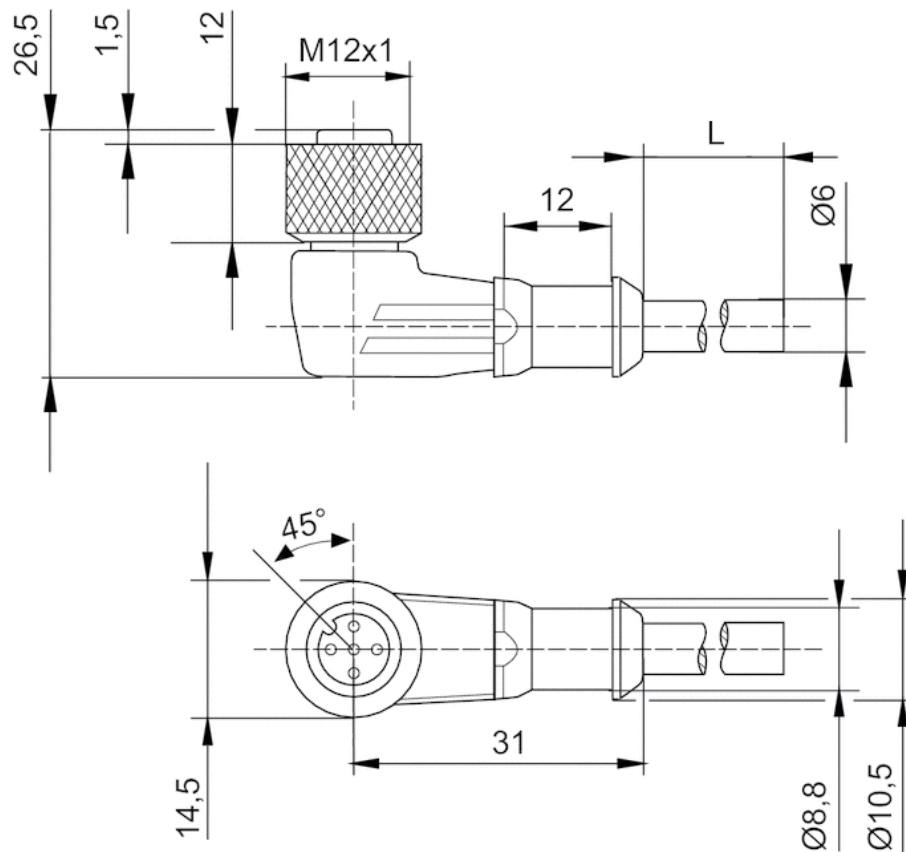
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	6 mm	2.5 m	0.145 kg
R419800110	4 A	5	6 mm	5 m	0.27 kg
R419800546	4 A	5	6 mm	10 m	0.514 kg

Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

Dimensions

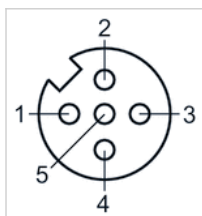
Dimensions



L = length

Pin assignments

Pin assignment, socket



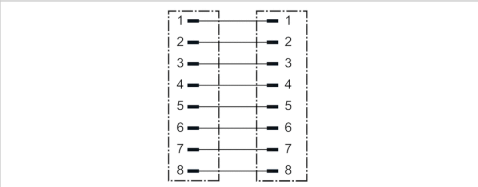
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GY=grey

Round plug connectors with cable, Series CON-RD

- Plug M12x1 8-pin X-coded angled 90°
- Plug RJ45 8-pin X-coded straight
- shielded



Ambient temperature min./max.	-25 ... 85 °C
Protection class	IP66K
Wire cross-section	0.14 mm²



Technical data

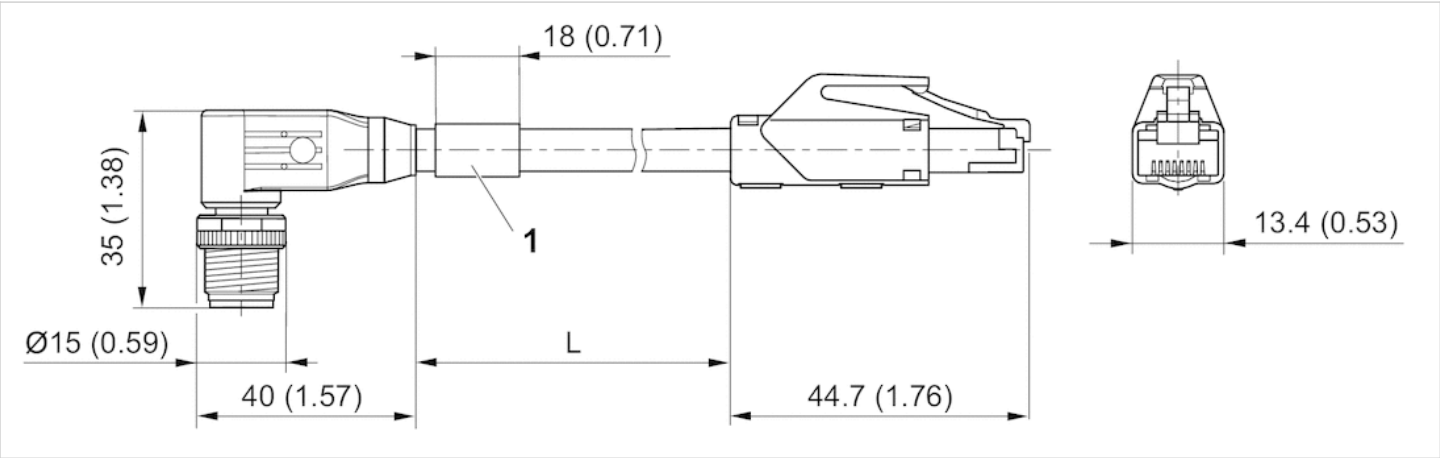
Part No.	Max. current	Cable length
R412027647	0.5 A	5 m

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

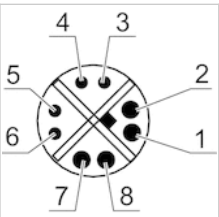
Dimensions



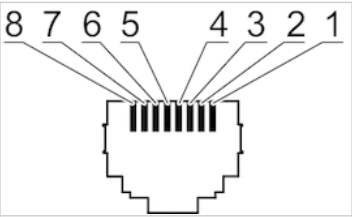
1) Name plate

Pin assignments

Plug pin assignment



Plug pin assignment

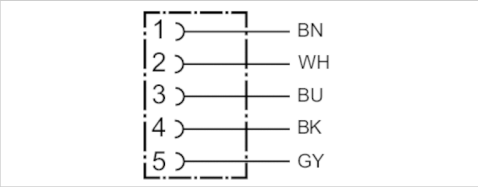


Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- with cable
- shielded



Ambient temperature min./max.	-25 ... 80 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm²
Weight	See table below



Technical data

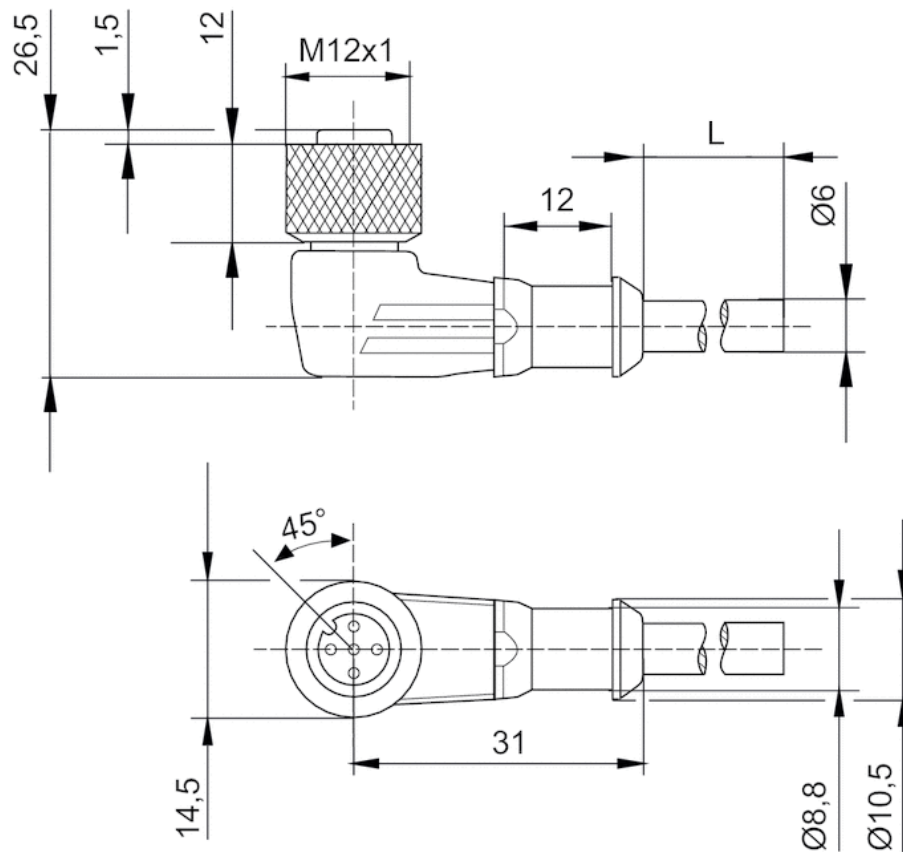
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	6 mm	2.5 m	0.145 kg
R419800110	4 A	5	6 mm	5 m	0.27 kg
R419800546	4 A	5	6 mm	10 m	0.514 kg

Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

Dimensions

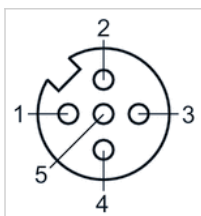
Dimensions



L = length

Pin assignments

Pin assignment, socket



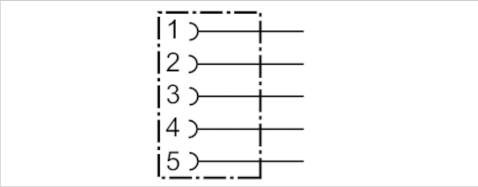
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GY=grey

Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, angled, 90°
- for CANopen
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.072 kg



Technical data

Part No.	Max. current	suitable cable-Ø min./max
1824484029	4 A	6 / 8 mm

Technical information

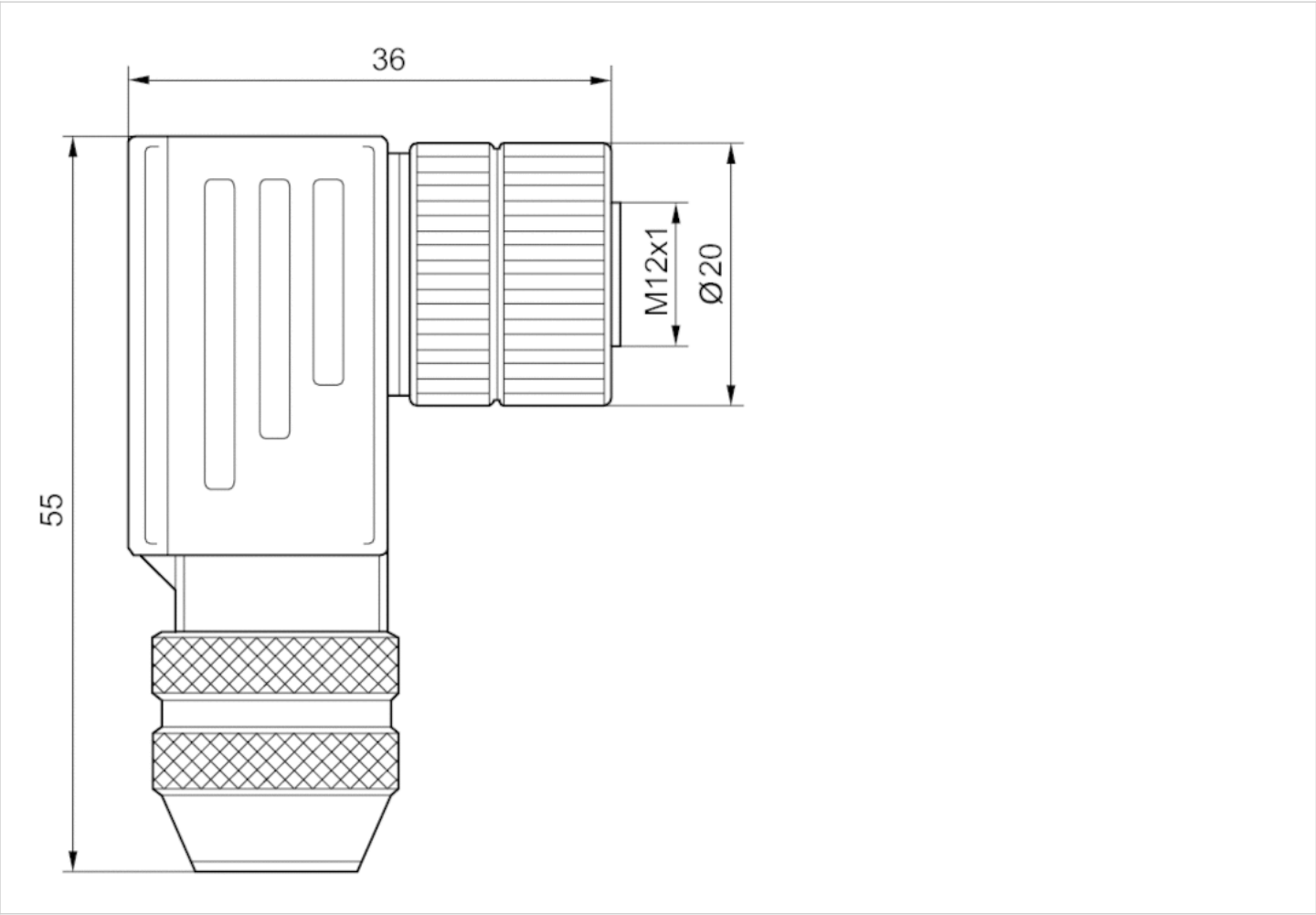
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Die cast zinc

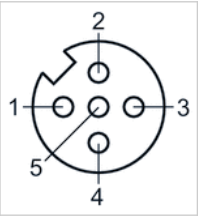
Dimensions

Dimensions



Pin assignments

Pin assignment, socket



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