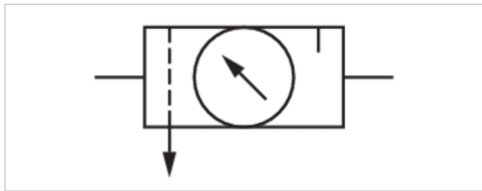


Maintenance unit, 2-part, Series AS5-ACD

- G 3/4, G 1
- lockable
- for padlocks
- with pressure gauge
- suitable for ATEX



Version	2-in-1, Can be assembled into blocks
Parts	Filter pressure regulator, Lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	12.5 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	8 ... 116 psi
Pressure supply	single
Filter reservoir volume	2.94 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Lubricator reservoir volume	6.12 fl.oz.
Type of filling	Semi-automatic oil filling during operation, Manual oil filling
Weight	See table below

Technical data

Part No.	Port	Flow	Working pressure min./max.	Condensate drain
		Qn		
R412009298	G 3/4	12.5 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009299	G 3/4	12.5 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009300	G 3/4	12.5 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009307	G 1	12.5 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009308	G 1	12.5 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009309	G 1	12.5 Cv	0 ... 232 psi	fully automatic, closed without pressure

Part No.	Weight
R412009298	4.03 lbs
R412009299	4.14 lbs
R412009300	4.14 lbs
R412009307	4.03 lbs
R412009308	4.14 lbs
R412009309	4.14 lbs

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

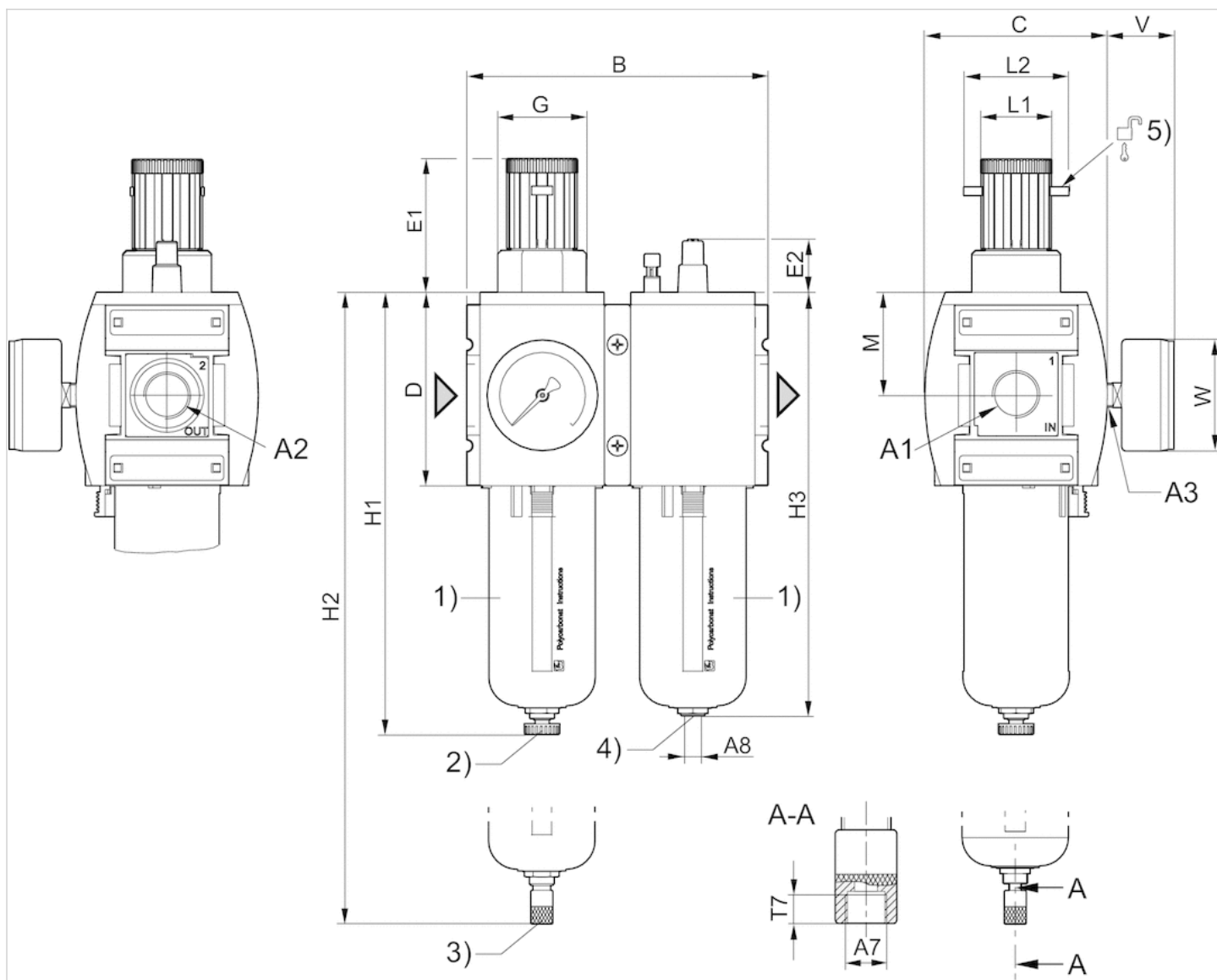
Compressed air class 6 : 7 : -

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

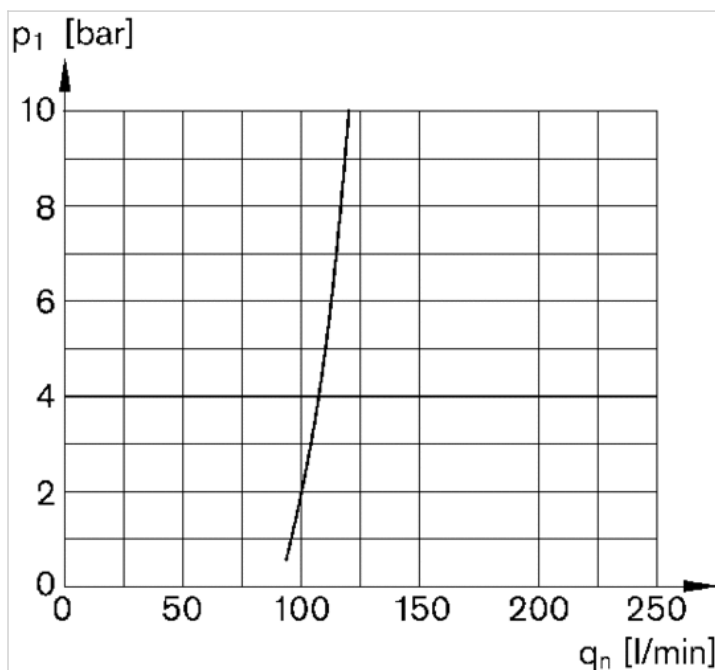
5) Mounting option for padlocks, max. shackle Ø 8

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

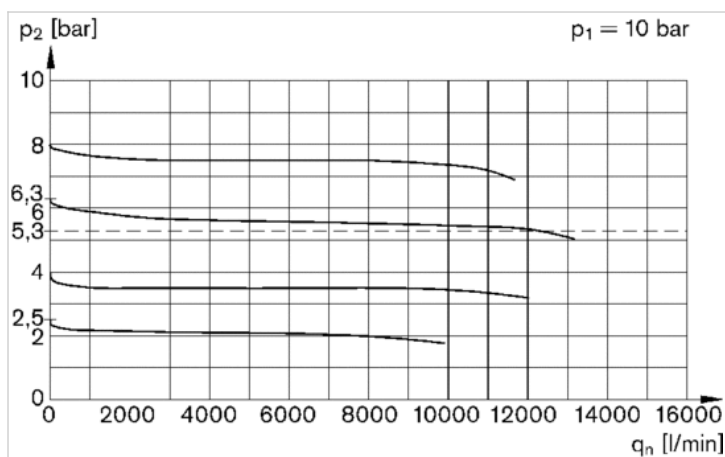
Lubricator activation margin



p_1 = working pressure

q_n = nominal flow

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



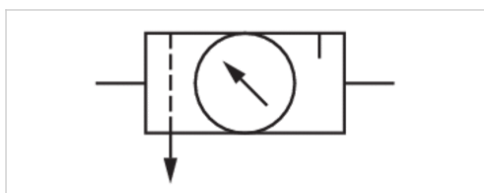
p_1 = Working pressure

p_2 = Secondary pressure

q_n = Nominal flow

Maintenance unit, 3-part, Series AS5- ACT

- G 3/4, G 1
- lockable
- for padlocks
- with pressure gauge
- suitable for ATEX



Version	3-part, Can be assembled into blocks
Parts	Pressure regulator, Filter, Lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	12.5 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	8 ... 116 psi
Pressure supply	single
Filter reservoir volume	2.94 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Lubricator reservoir volume	6.12 fl.oz.
Type of filling	Semi-automatic oil filling during operation, Manual oil filling
Weight	See table below

Technical data

Part No.	Port	Flow	Working pressure min./max.	Condensate drain
		Qn		
R412009320	G 3/4	12.5 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009318	G 3/4	12.5 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009319	G 3/4	12.5 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009329	G 1	12.5 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009327	G 1	12.5 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009328	G 1	12.5 Cv	22 ... 232 psi	fully automatic, open without pressure

Part No.	Weight
R412009320	5.9 lbs
R412009318	5.79 lbs
R412009319	5.9 lbs
R412009329	5.9 lbs
R412009327	5.79 lbs
R412009328	5.9 lbs

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

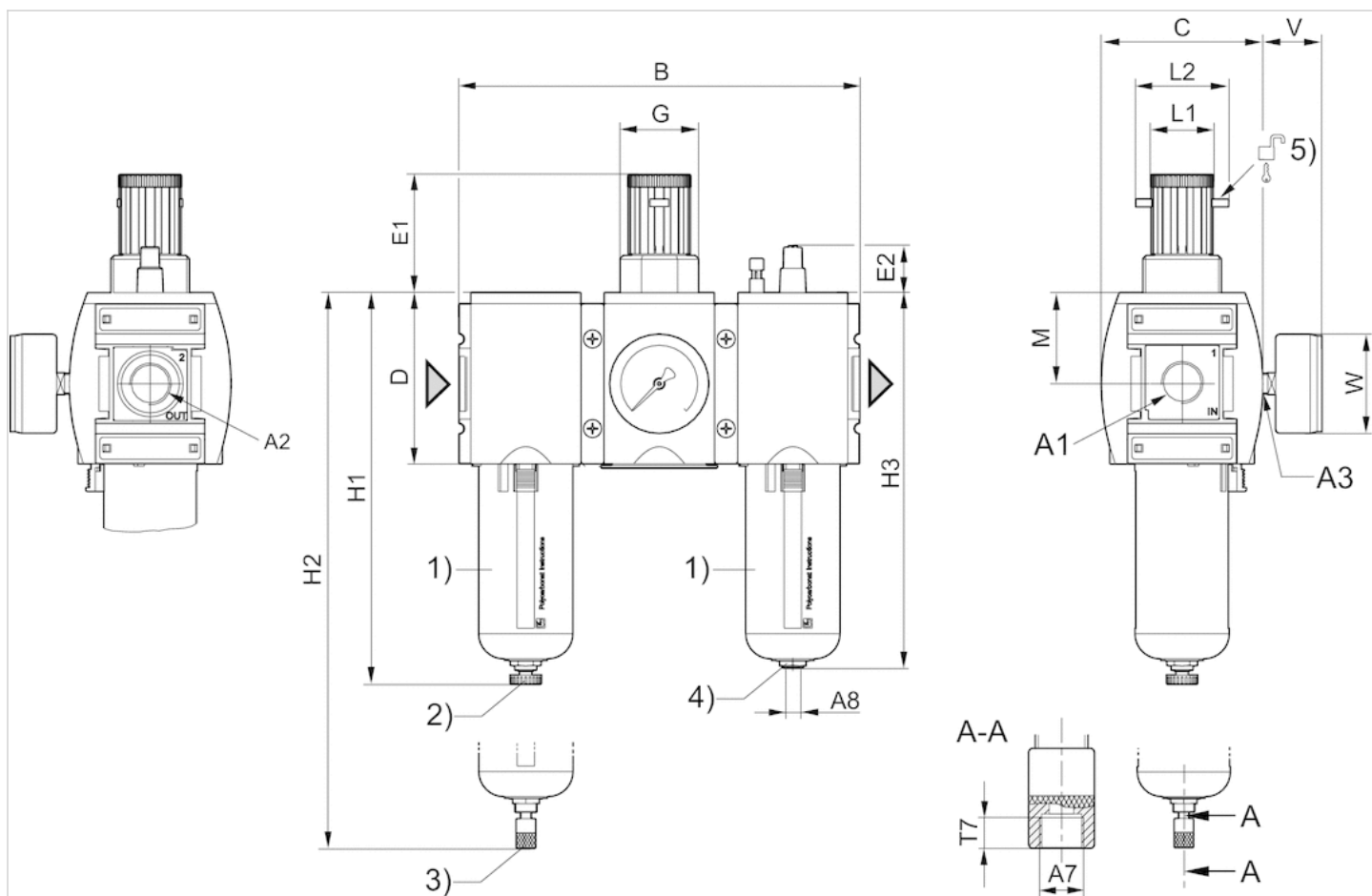
Compressed air class 6 : 7 : -

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

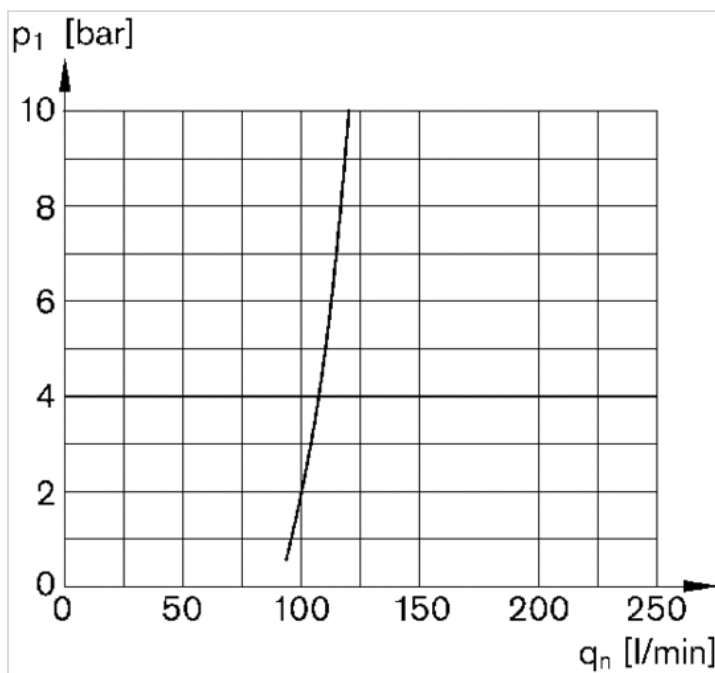
5) Mounting option for padlocks, max. shackle Ø 8

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	255	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	255	103	109	75	30.5	M50x1,5	250	266	239	41	60	58	8.5	38	63

Diagrams

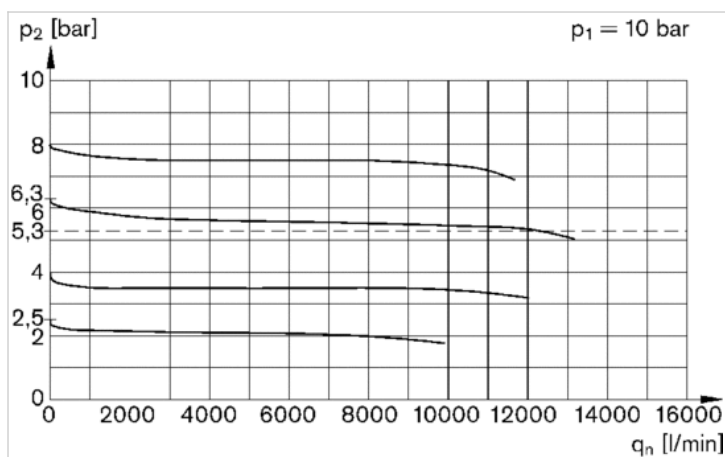
Lubricator activation margin



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

Pressure regulator, Series AS5-RGS

- G 3/4, G 1
- $Q_n = 14.74 \text{ Cv}$
- Standard pressure regulator
- Activation Mechanical
- lockable
- for padlocks
- suitable for ATEX



Parts

Mounting orientation

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Regulator type

Regulator function

Adjustment range min./max.

Lock type

Pressure supply

Activation

Internal air consumption q_{max} .

Weight

Pressure regulator

Any

suitable for ATEX

See table below

14 ... 122 °F

14 ... 122 °F

Compressed air, Neutral gases

Diaphragm-type pressure regulator, Can be assembled into blocks

with relieving air exhaust

See table below

for padlocks

single

Mechanical

0 Cv

See table below

Technical data

Part No.			Port	Flow Q_n	Working pressure min./max.	Adjustment range min./max.	Weight
R412009101			G 3/4	14.74 Cv	2 ... 232 psi	2 ... 14 psi	2.2 lbs
R412009103			G 3/4	14.74 Cv	2 ... 232 psi	2 ... 29 psi	2.2 lbs
R412009105			G 3/4	14.74 Cv	3 ... 232 psi	3 ... 58 psi	2.2 lbs
R412009107			G 3/4	14.74 Cv	8 ... 232 psi	8 ... 116 psi	2.2 lbs
R412009109			G 3/4	14.74 Cv	8 ... 232 psi	8 ... 145 psi	2.2 lbs
R412009111			G 3/4	14.74 Cv	8 ... 232 psi	8 ... 232 psi	2.2 lbs
R412009100		—	G 3/4	14.74 Cv	2 ... 232 psi	2 ... 14 psi	2 lbs
R412009102		—	G 3/4	14.74 Cv	2 ... 232 psi	2 ... 29 psi	2 lbs
R412009104		—	G 3/4	14.74 Cv	3 ... 232 psi	3 ... 58 psi	2 lbs
R412009106		—	G 3/4	14.74 Cv	8 ... 232 psi	8 ... 116 psi	2 lbs
R412009108		—	G 3/4	14.74 Cv	8 ... 232 psi	8 ... 145 psi	2 lbs
R412009110		—	G 3/4	14.74 Cv	8 ... 232 psi	8 ... 232 psi	2 lbs
R412009113			G 1	14.74 Cv	2 ... 232 psi	2 ... 14 psi	2.2 lbs
R412009115			G 1	14.74 Cv	2 ... 232 psi	2 ... 29 psi	2.2 lbs
R412009117			G 1	14.74 Cv	3 ... 232 psi	3 ... 58 psi	2.2 lbs
R412009119			G 1	14.74 Cv	8 ... 232 psi	8 ... 116 psi	2.2 lbs
R412009121			G 1	14.74 Cv	8 ... 232 psi	8 ... 145 psi	2.2 lbs
R412009123			G 1	14.74 Cv	8 ... 232 psi	8 ... 232 psi	2.2 lbs
R412009112		—	G 1	14.74 Cv	2 ... 232 psi	2 ... 14 psi	2 lbs

Part No.			Port	Flow	Working pressure min./max.	Adjustment range min./max.	Weight
				Qn			
R412009114		—	G 1	14.74 Cv	2 ... 232 psi	2 ... 29 psi	2 lbs
R412009116		—	G 1	14.74 Cv	3 ... 232 psi	3 ... 58 psi	2 lbs
R412009118		—	G 1	14.74 Cv	8 ... 232 psi	8 ... 116 psi	2 lbs
R412009120		—	G 1	14.74 Cv	8 ... 232 psi	8 ... 145 psi	2 lbs
R412009122		—	G 1	14.74 Cv	8 ... 232 psi	8 ... 232 psi	2 lbs

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

Nominal flow Qn with secondary pressure p2 = 87 psi at $\Delta p = 14.5$ psi

1) Pressure gauge enclosed separately, Suitable for use in Ex zones 1, 2, 21, 22

2) Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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).

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

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 (≤ 4.35 psi over set pressure)

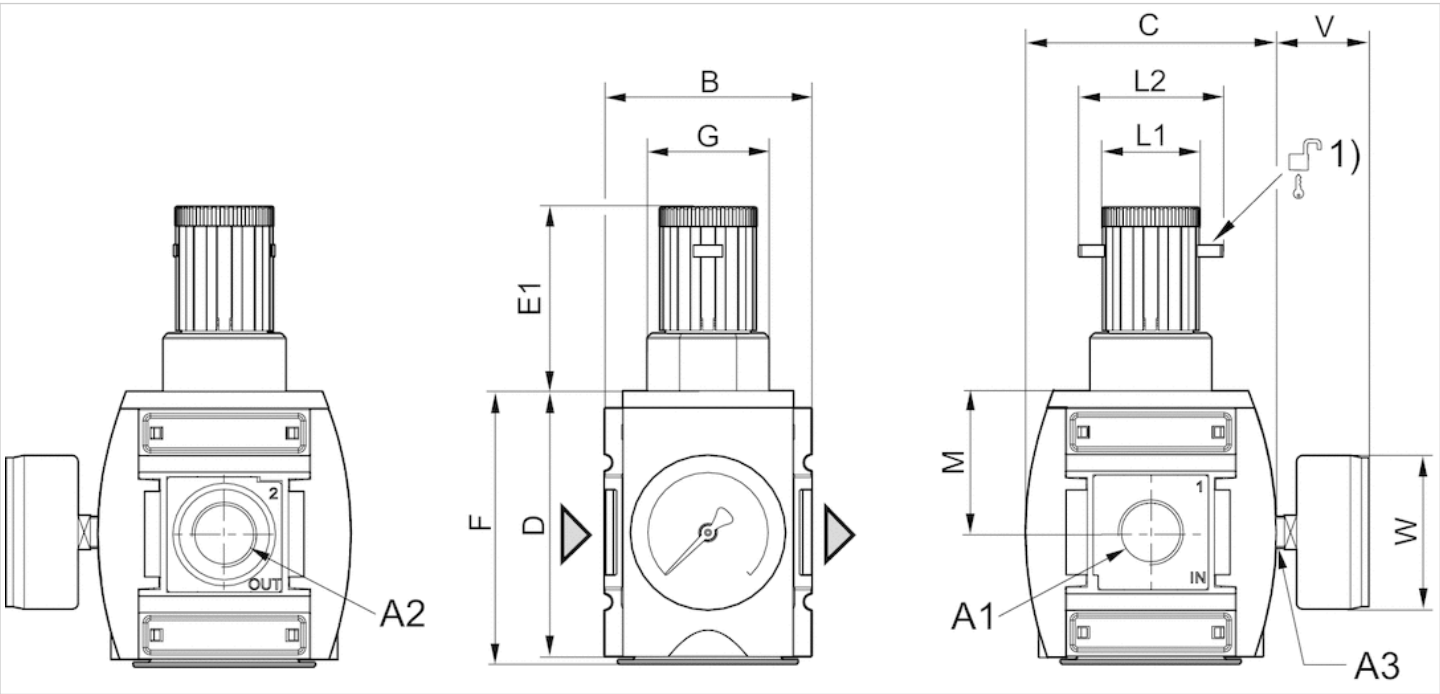
With rear exhaust (> 43.5 psi)

Technical information

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

Dimensions

Dimensions



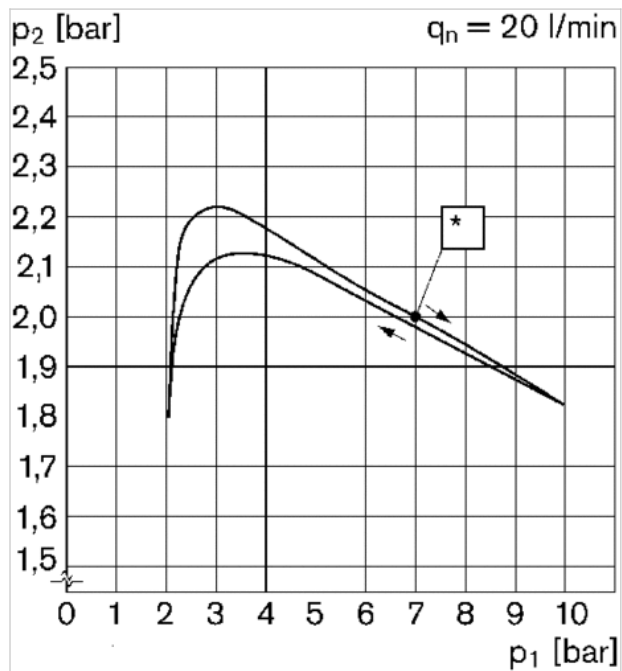
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- 1) Mounting option for padlocks, max. shackle Ø 8

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

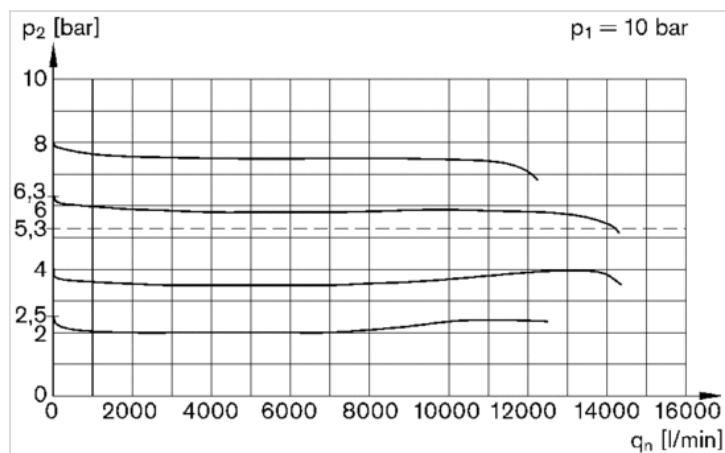
Diagrams

Pressure characteristics curve



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

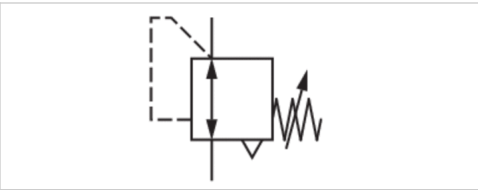
Flow rate characteristic (setting range p_2 : 0.5 - 8 bar)



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

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

- G 1
- Qn = 14.74 Cv
- Standard pressure regulator
- Activation Mechanical
- lockable
- with E11 locking



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
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.	See table below
Lock type	with E11 locking
Pressure supply	single
Activation	Mechanical
Internal air consumption q,max.	0 Cv
Weight	2 lbs

Technical data

Part No.	Port	Flow	Working pressure min./max.	Adjustment range min./max.
		Qn		
R412009099	G 1	14.74 Cv	8 ... 232 psi	8 ... 145 psi
R412009158	G 1	14.74 Cv	3 ... 232 psi	3 ... 58 psi

Order pressure gauge separately, Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

The E11 locking is delivered without a key (see accessories for keys).

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 (≤ 4.35 psi over set pressure)

With rear exhaust (> 43.5 psi)

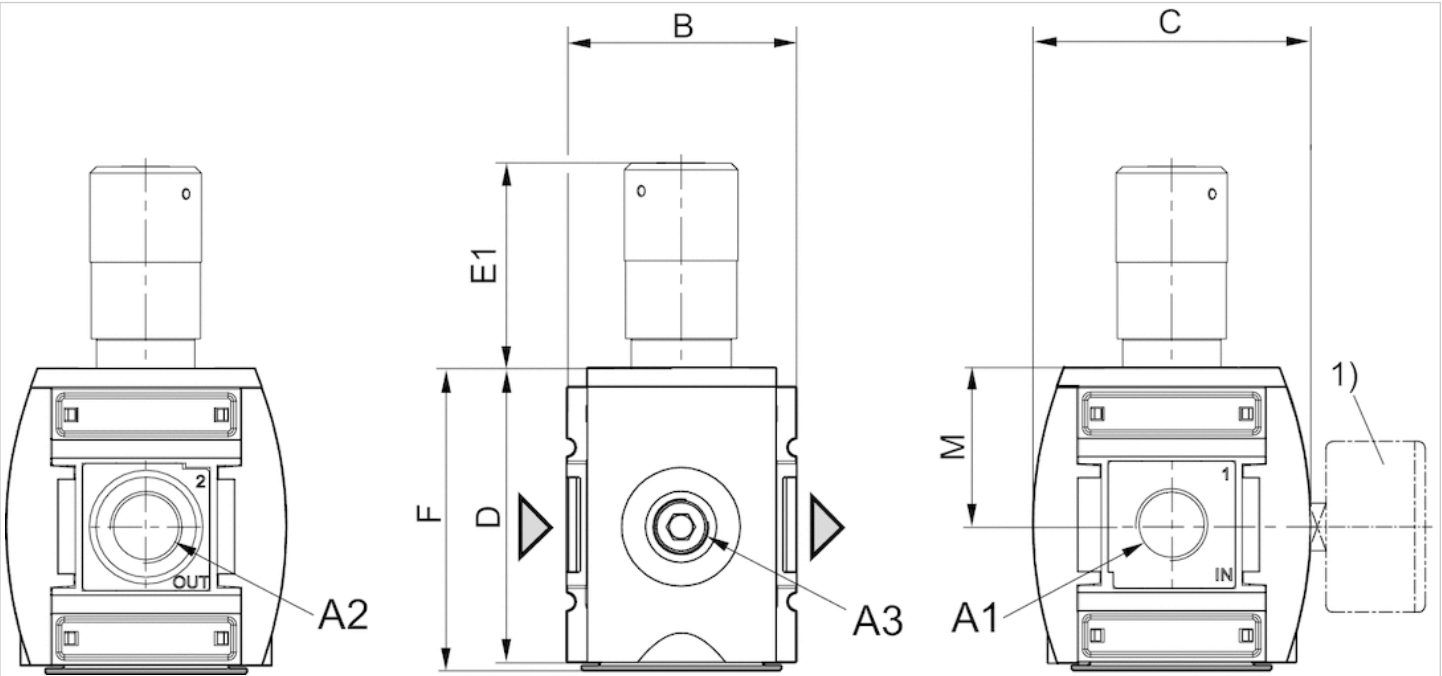
Technical information

Material

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

Dimensions

Dimensions



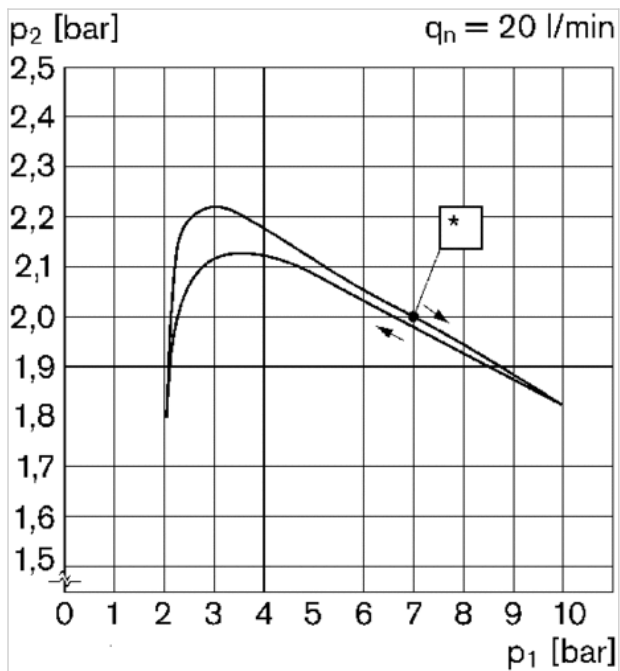
A1 = input
 A2 = output
 A3 = pressure gauge connection
 1) Order pressure gauge separately

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

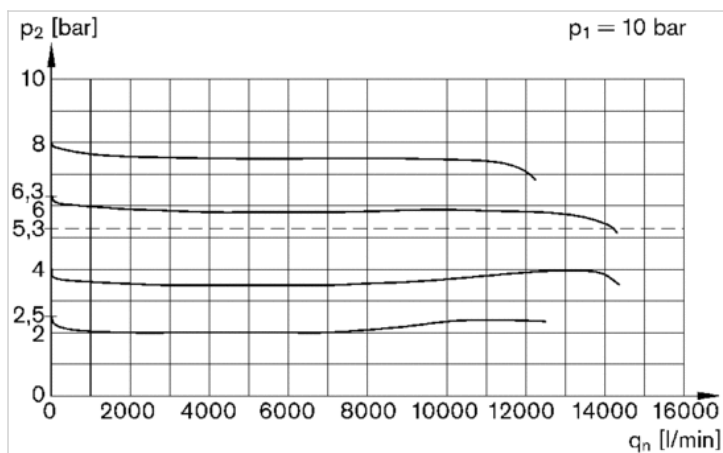
Diagrams

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

Pressure regulator, Series AS5-RGS

- G 3/4, G 1
- Qn = 16.77 Cv
- Standard pressure regulator
- Activation Pneumatically



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
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.	8 ... 232 psi
Pressure supply	single
Activation	Pneumatically
Weight	2.37 lbs

Technical data

Part No.	Port	Flow
		Qn
R412009094	G 3/4	16.77 Cv
R412009095	G 1	16.77 Cv

Control pressure: see diagram, Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

Order pressure gauge separately

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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 (≤ 4.35 psi over set pressure)

With rear exhaust (> 43.5 psi)

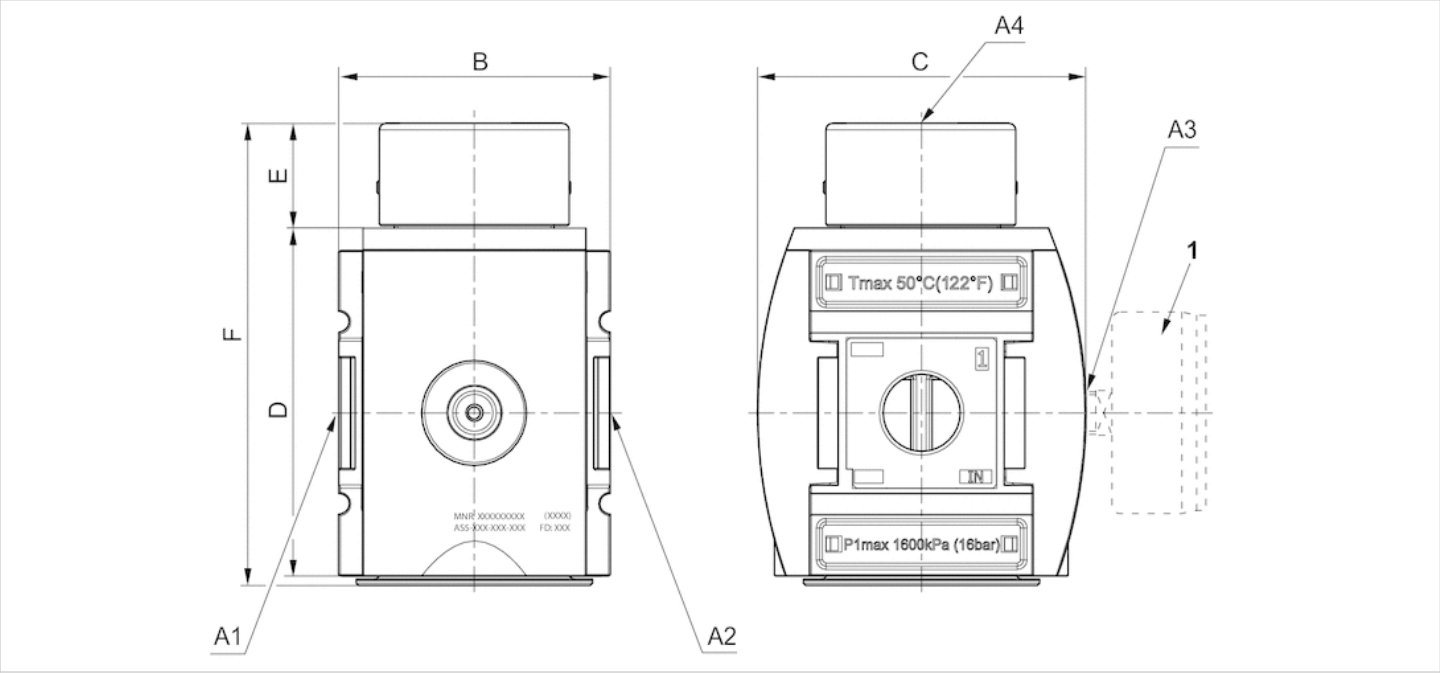
Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



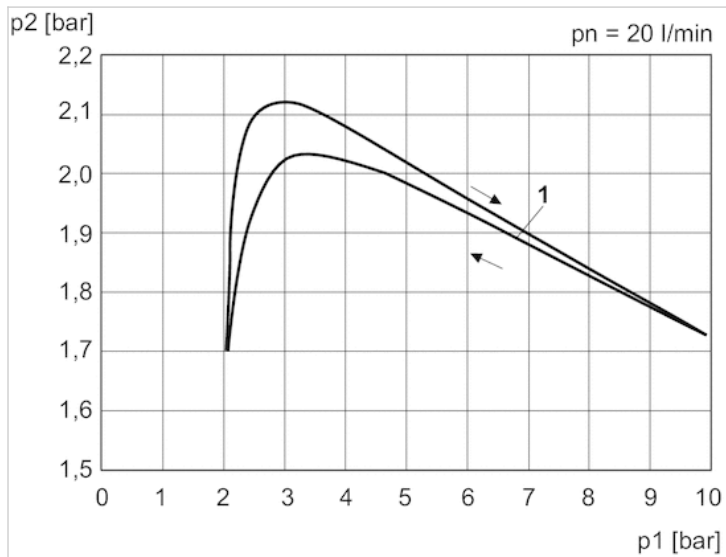
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- A4 = control pressure connection
- 1) Order pressure gauge separately

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

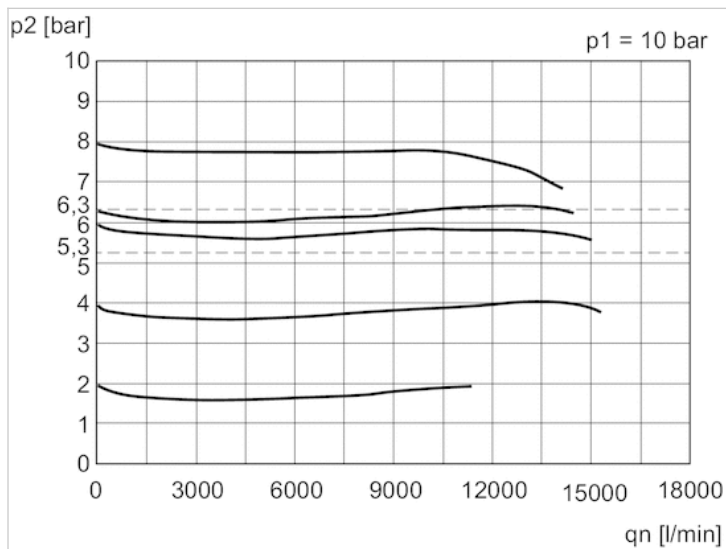
Diagrams

Pressure characteristics curve



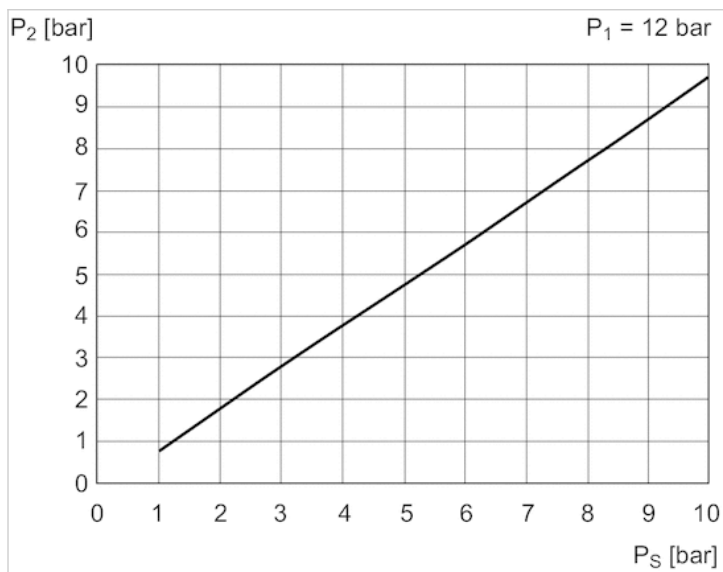
p1 = working pressure
 p2 = secondary pressure
 qn = nominal flow
 1) = Starting point

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



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

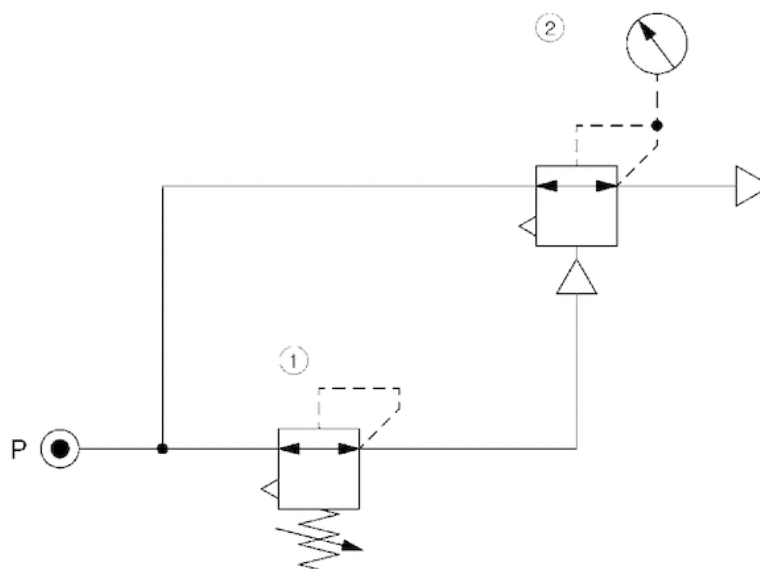
control pressure characteristic



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

Filter pressure regulator, Series AS5-FRE

- G 3/4, G 1
- lockable
- for padlocks
- suitable for ATEX



Version	1-in-1, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	14.23 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Filter reservoir volume	2.94 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Max. Internal air consumption	0 Cv
Weight	See table below

Technical data

Part No.			Port	Flow	Working pressure min./max.	Adjustment range min./max.
				Qn		
R412009200			G 3/4	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009201			G 3/4	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009202			G 3/4	14.23 Cv	0 ... 232 psi	8 ... 116 psi
R412009206			G 3/4	14.23 Cv	22 ... 232 psi	8 ... 145 psi
R412009207			G 3/4	14.23 Cv	22 ... 232 psi	8 ... 145 psi
R412009208			G 3/4	14.23 Cv	0 ... 232 psi	8 ... 145 psi
R412009175		—	G 3/4	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009176		—	G 3/4	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009177		—	G 3/4	14.23 Cv	0 ... 232 psi	8 ... 116 psi
R412009193		—	G 3/4	14.23 Cv	22 ... 232 psi	8 ... 145 psi
R412009194		—	G 3/4	14.23 Cv	22 ... 232 psi	8 ... 145 psi
R412009195		—	G 3/4	14.23 Cv	0 ... 232 psi	8 ... 145 psi
R412009181		—	G 3/4	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009182		—	G 3/4	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009183		—	G 3/4	14.23 Cv	0 ... 232 psi	8 ... 116 psi
R412009209			G 1	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009210			G 1	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009211			G 1	14.23 Cv	0 ... 232 psi	8 ... 116 psi
R412009215			G 1	14.23 Cv	22 ... 232 psi	8 ... 145 psi

Part No.			Port	Flow	Working pressure min./max.	Adjustment range min./max.
				Qn		
R412009216			G 1	14.23 Cv	22 ... 232 psi	8 ... 145 psi
R412009217			G 1	14.23 Cv	0 ... 232 psi	8 ... 145 psi
R412009184		—	G 1	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009185		—	G 1	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009186		—	G 1	14.23 Cv	0 ... 232 psi	8 ... 116 psi
R412009190		—	G 1	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009191		—	G 1	14.23 Cv	22 ... 232 psi	8 ... 116 psi
R412009192		—	G 1	14.23 Cv	0 ... 232 psi	8 ... 116 psi
R412009196		—	G 1	14.23 Cv	22 ... 232 psi	8 ... 145 psi
R412009197		—	G 1	14.23 Cv	22 ... 232 psi	8 ... 145 psi
R412009198		—	G 1	14.23 Cv	0 ... 232 psi	8 ... 145 psi

Part No.	Condensate drain	Reservoir	Protective guard	Weight	
R412009200	semi-automatic, open without pressure	Polycarbonate	Polyamide	2.39 lbs	1)
R412009201	fully automatic, open without pressure	Polycarbonate	Polyamide	2.5 lbs	1)
R412009202	fully automatic, closed without pressure	Polycarbonate	Polyamide	2.5 lbs	1)
R412009206	semi-automatic, open without pressure	Die cast zinc	-	3.46 lbs	1)
R412009207	fully automatic, open without pressure	Die cast zinc	-	3.57 lbs	1)
R412009208	fully automatic, closed without pressure	Die cast zinc	-	3.57 lbs	1)
R412009175	semi-automatic, open without pressure	Polycarbonate	Polyamide	2.18 lbs	2)
R412009176	fully automatic, open without pressure	Polycarbonate	Polyamide	2.29 lbs	2)
R412009177	fully automatic, closed without pressure	Polycarbonate	Polyamide	2.29 lbs	2)
R412009193	semi-automatic, open without pressure	Polycarbonate	Polyamide	2.18 lbs	2)
R412009194	fully automatic, open without pressure	Polycarbonate	Polyamide	2.29 lbs	2)
R412009195	fully automatic, closed without pressure	Polycarbonate	Polyamide	2.29 lbs	2)
R412009181	semi-automatic, open without pressure	Die cast zinc	-	3.26 lbs	2)
R412009182	fully automatic, open without pressure	Die cast zinc	-	3.37 lbs	2)
R412009183	fully automatic, closed without pressure	Die cast zinc	-	3.37 lbs	2)
R412009209	semi-automatic, open without pressure	Polycarbonate	Polyamide	2.39 lbs	1)
R412009210	fully automatic, open without pressure	Polycarbonate	Polyamide	2.5 lbs	1)
R412009211	fully automatic, closed without pressure	Polycarbonate	Polyamide	2.5 lbs	1)
R412009215	semi-automatic, open without pressure	Die cast zinc	-	3.46 lbs	1)
R412009216	fully automatic, open without pressure	Die cast zinc	-	3.57 lbs	1)
R412009217	fully automatic, closed without pressure	Die cast zinc	-	3.57 lbs	1)
R412009184	semi-automatic, open without pressure	Polycarbonate	Polyamide	2.18 lbs	2)
R412009185	fully automatic, open without pressure	Polycarbonate	Polyamide	2.29 lbs	2)
R412009186	fully automatic, closed without pressure	Polycarbonate	Polyamide	2.29 lbs	2)
R412009190	semi-automatic, open without pressure	Die cast zinc	-	3.26 lbs	2)
R412009191	fully automatic, open without pressure	Die cast zinc	-	3.37 lbs	2)
R412009192	fully automatic, closed without pressure	Die cast zinc	-	3.37 lbs	2)
R412009196	semi-automatic, open without pressure	Polycarbonate	Polyamide	2.18 lbs	2)
R412009197	fully automatic, open without pressure	Polycarbonate	Polyamide	2.29 lbs	2)
R412009198	fully automatic, closed without pressure	Polycarbonate	Polyamide	2.29 lbs	2)

Nominal flow Qn with secondary pressure p2 = 87 psi at $\Delta p = 14.5$ psi

1) Pressure gauge enclosed separately, Suitable for use in Ex zones 1, 2, 21, 22

2) Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

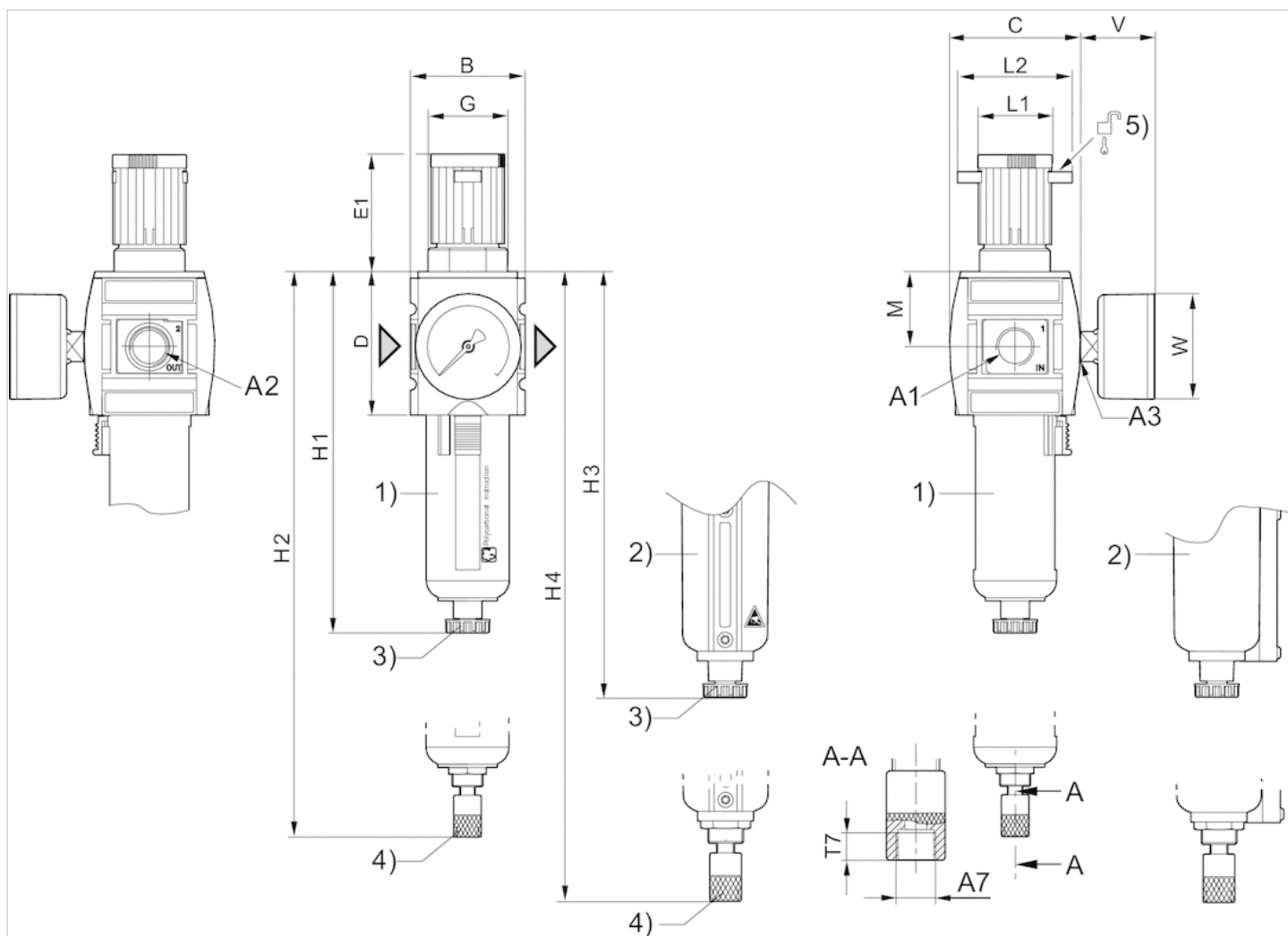
Compressed air class 6 : 7 : -

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

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

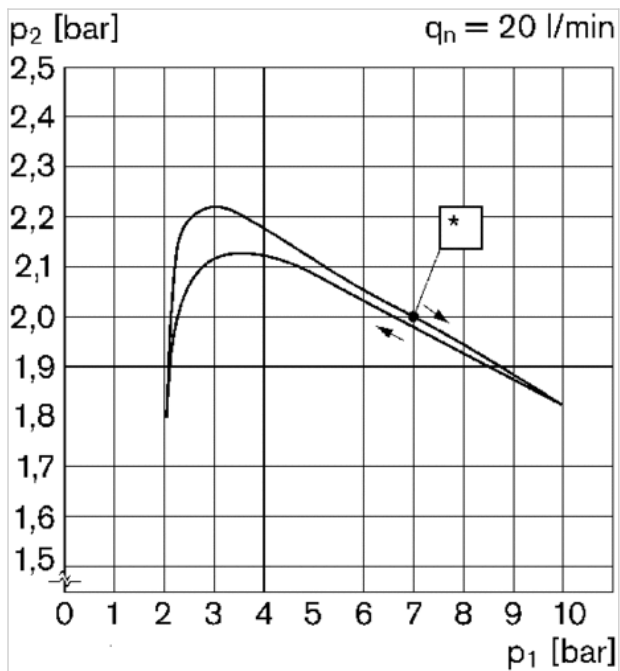
5) Mounting option for padlocks, max. shackle Ø 8

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

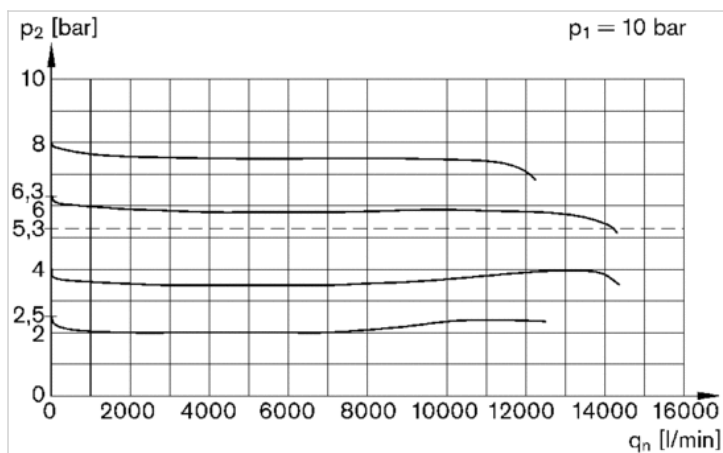
Diagrams

Pressure characteristics curve



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

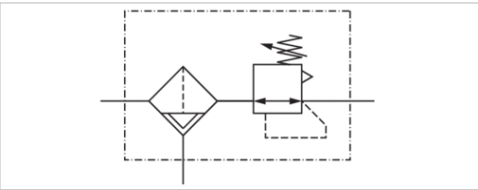
Flow rate characteristic (setting range p_2 : 0.5 - 8 bar)



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

Filter pressure regulator, Series AS5-FRE

- G 3/4, G 1
- lockable
- for padlocks
- suitable for ATEX



Version	1-in-1, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	22 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	13.21 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	8 ... 116 psi
Pressure supply	single
Filter reservoir volume	2.94 fl.oz.
Filter element	exchangeable
Condensate drain	semi-automatic, open without pressure
Max. Internal air consumption	0 Cv
Weight	3.46 lbs

Technical data

Part No.	Port	Flow	Condensate drain
		Qn	
R412009188	G 3/4	13.21 Cv	semi-automatic, open without pressure
R412009189	G 1	13.21 Cv	semi-automatic, open without pressure

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi
 Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22

Technical information

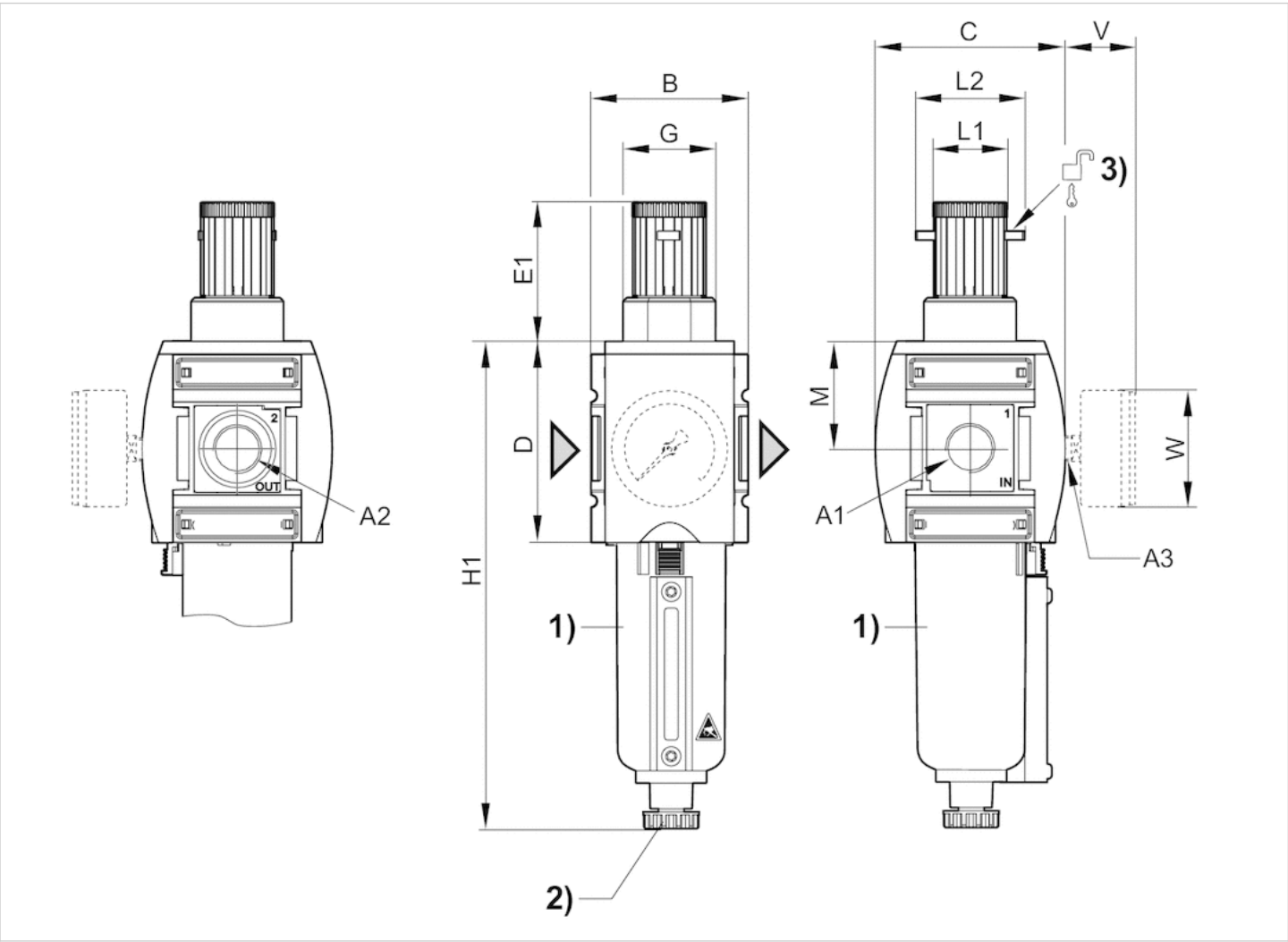
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
 Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".
 Suitable for use in Ex zones 1, 2, 21, 22
 A change in the flow 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.
 Compressed air class 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



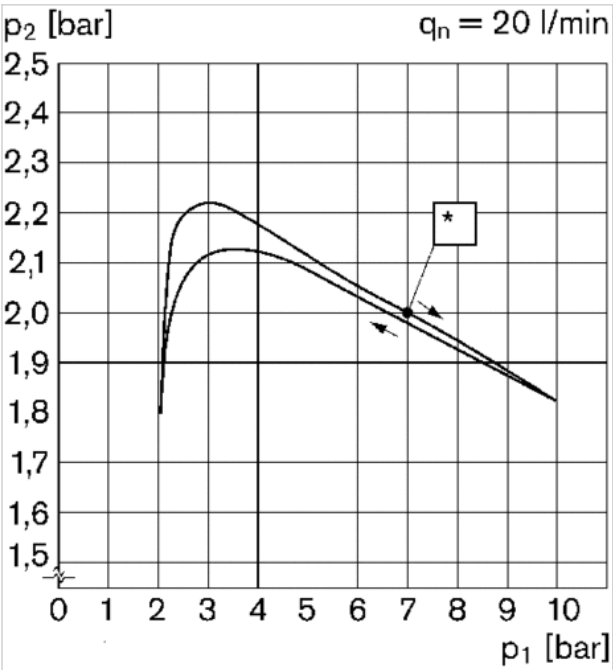
- A1 = input
 A2 = output
 A3 = pressure gauge connection
 1) Metal reservoir with level indicator
 2) Semi-automatic condensate drain
 3) Mounting option for padlocks, max. shackle Ø 8

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

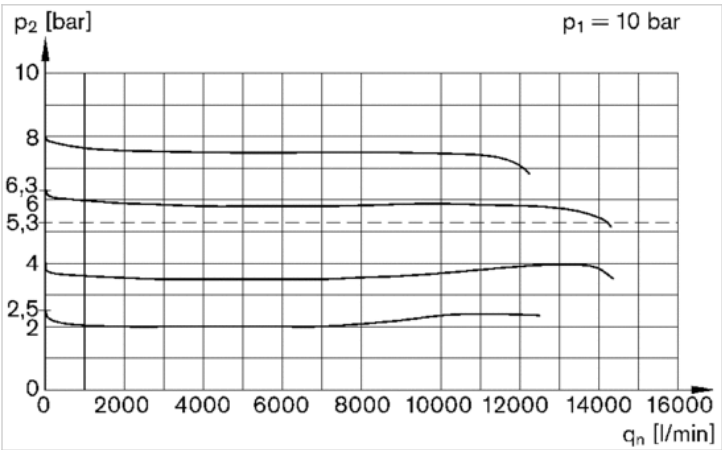
Diagrams

Pressure characteristics curve



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

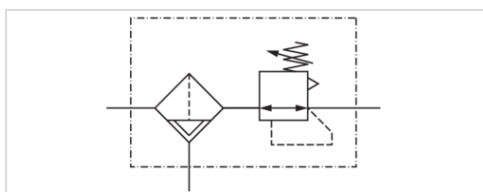
Flow rate characteristic (setting range p_2 : 0.5 - 8 bar)



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

Filter pressure regulator, Series AS5-FRE

- G 3/4, G 1
- lockable
- for padlocks
- suitable for ATEX



Version	1-in-1, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	14.23 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	8 ... 145 psi
Pressure supply	single
Filter reservoir volume	2.94 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Max. Internal air consumption	0 Cv
Weight	See table below

Technical data

Part No.	Port	Flow	Working pressure min./max.	Condensate drain
		Qn		
R412009218	G 3/4	14.23 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009219	G 3/4	14.23 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009220	G 3/4	14.23 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009221	G 1	14.23 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009222	G 1	14.23 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009223	G 1	14.23 Cv	0 ... 232 psi	fully automatic, closed without pressure

Part No.	Weight
R412009218	2.18 lbs
R412009219	2.29 lbs
R412009220	2.29 lbs
R412009221	2.18 lbs
R412009222	2.29 lbs
R412009223	2.29 lbs

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

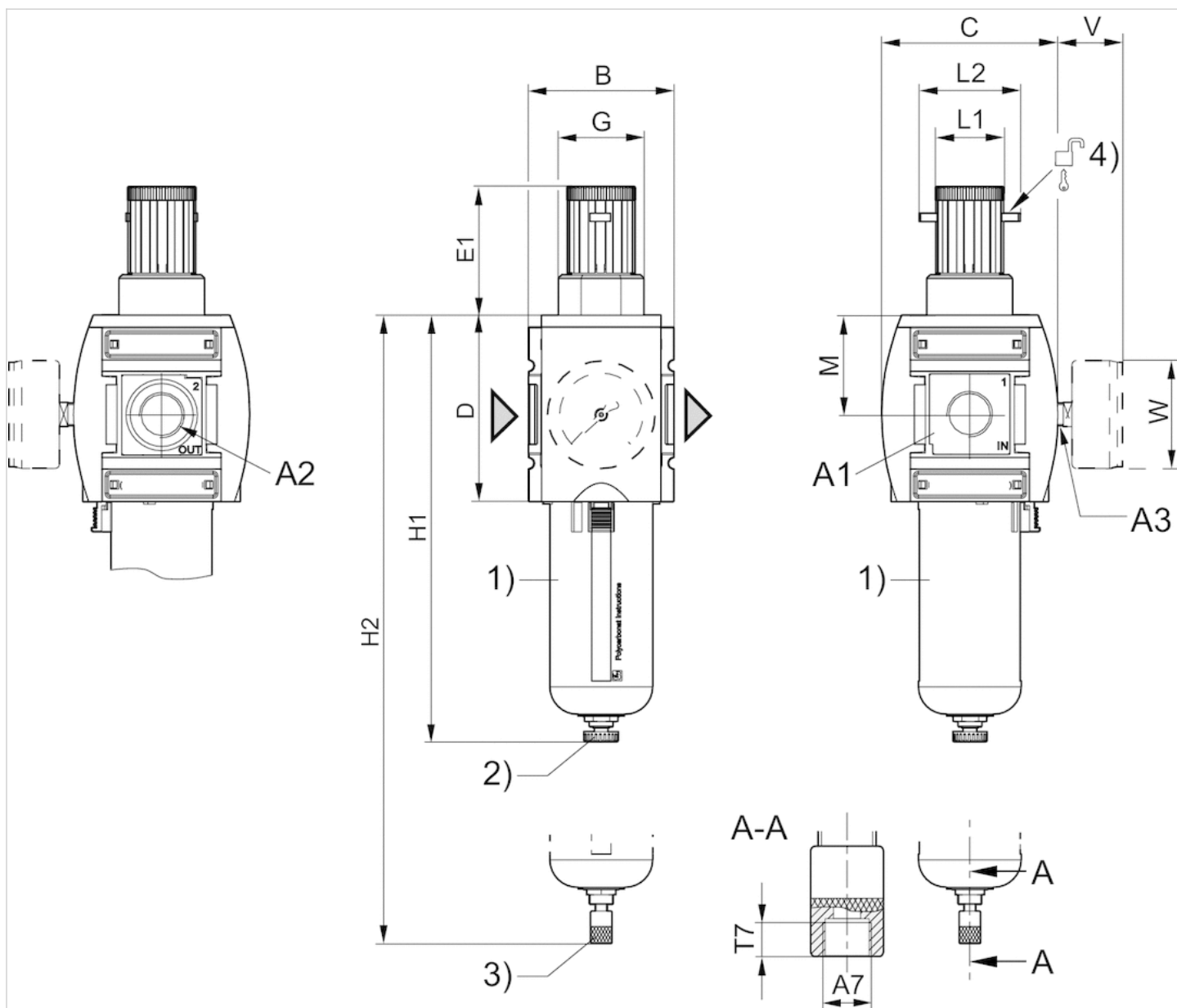
Compressed air class 7 : 7 : -

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

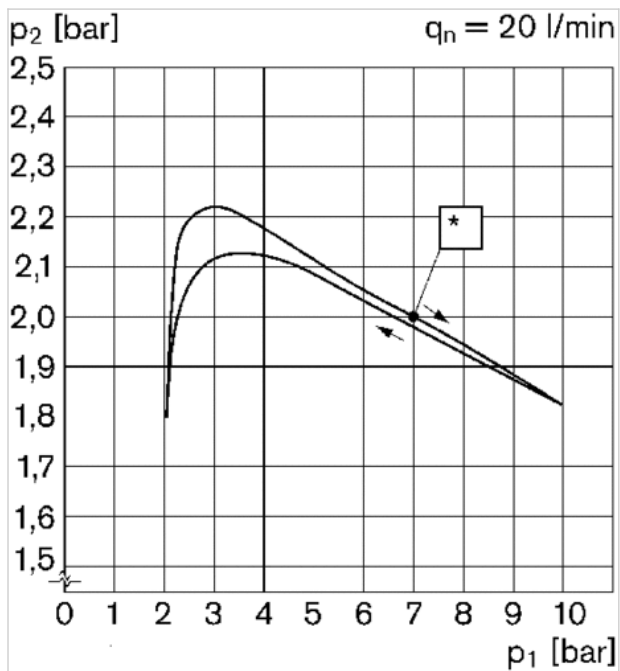
4) Mounting option for padlocks, max. shackle Ø 8

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

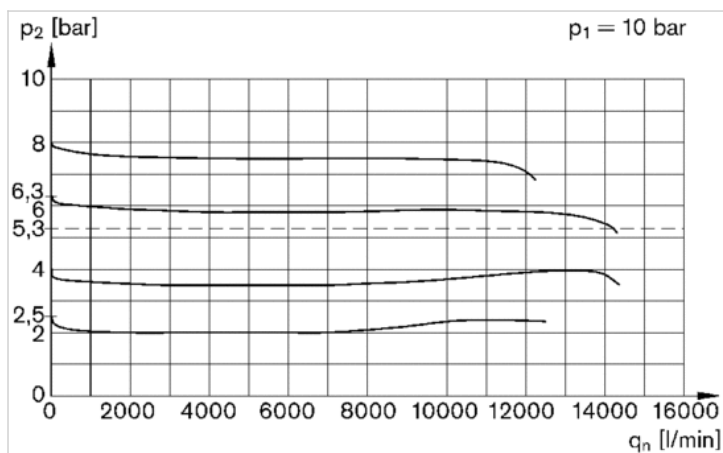
Diagrams

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)

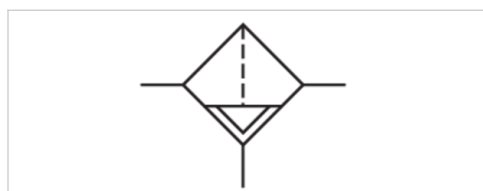


p_1 = working pressure
 p_2 = secondary pressure
 q_n = nominal flow

Filter, Series AS5-FLS

- G 3/4, G 1

- suitable for ATEX



Version

Parts

Mounting orientation

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Filter reservoir volume

Filter element

Condensate drain

Weight

Standard filter, Can be assembled into blocks

Filter

vertical

suitable for ATEX

See table below

14 ... 122 °F

14 ... 122 °F

Compressed air, Neutral gases

2.94 fl.oz.

exchangeable

See table below

See table below

Technical data

Part No.	Port	Qn	Working pressure min./max.	Condensate drain
R412009000	G 3/4	7.93 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009001	G 3/4	7.93 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009002	G 3/4	7.93 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009006	G 3/4	7.93 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009007	G 3/4	7.93 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009008	G 3/4	7.93 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009009	G 1	7.93 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009010	G 1	7.93 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009011	G 1	7.93 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009015	G 1	7.93 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009016	G 1	7.93 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009017	G 1	7.93 Cv	0 ... 232 psi	fully automatic, closed without pressure

Part No.	Reservoir	Protective guard	Weight
R412009000	Polycarbonate	Polyamide	1.58 lbs
R412009001	Polycarbonate	Polyamide	1.7 lbs
R412009002	Polycarbonate	Polyamide	1.7 lbs
R412009006	Die cast zinc, with window	-	2.67 lbs
R412009007	Die cast zinc, with window	-	2.78 lbs
R412009008	Die cast zinc, with window	-	2.78 lbs
R412009009	Polycarbonate	Polyamide	1.58 lbs
R412009010	Polycarbonate	Polyamide	1.7 lbs

Part No.	Reservoir	Protective guard	Weight
R412009011	Polycarbonate	Polyamide	1.7 lbs
R412009015	Die cast zinc, with window	-	2.67 lbs
R412009016	Die cast zinc, with window	-	2.78 lbs
R412009017	Die cast zinc, with window	-	2.78 lbs

Nominal flow Qn with secondary pressure p2 = 87 psi at $\Delta p = 14.5$ psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

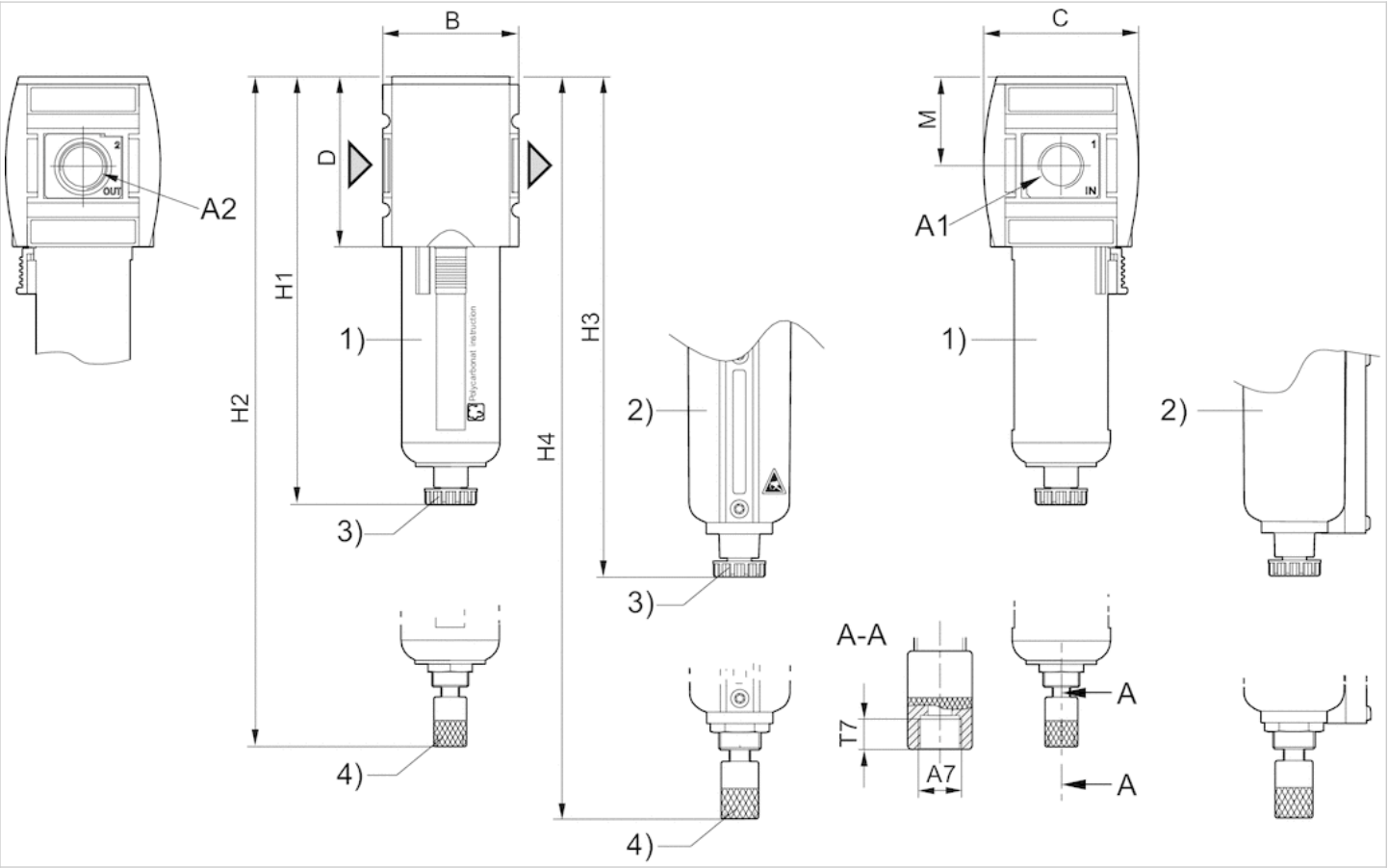
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

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



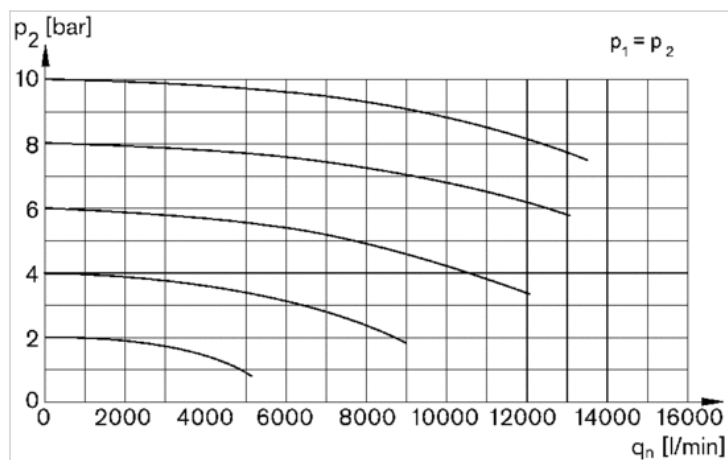
- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with level indicator
- 3) Semi-automatic condensate drain
- 4) Fully automatic condensate drain

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

Filter, Series AS5-FLS

- G 3/4, G 1
- suitable for ATEX



Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	22 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Filter reservoir volume	2.94 fl.oz.
Filter element	exchangeable
Condensate drain	semi-automatic, open without pressure
Weight	See table below

Technical data

Part No.	Port	Qn	Weight
R412009089	G 3/4	7.93 Cv	2.67 lbs
R412009090	G 1	7.93 Cv	2.78 lbs

Nominal flow with secondary pressure 91.35 psi at $\Delta p = 14.5$ psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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 : -

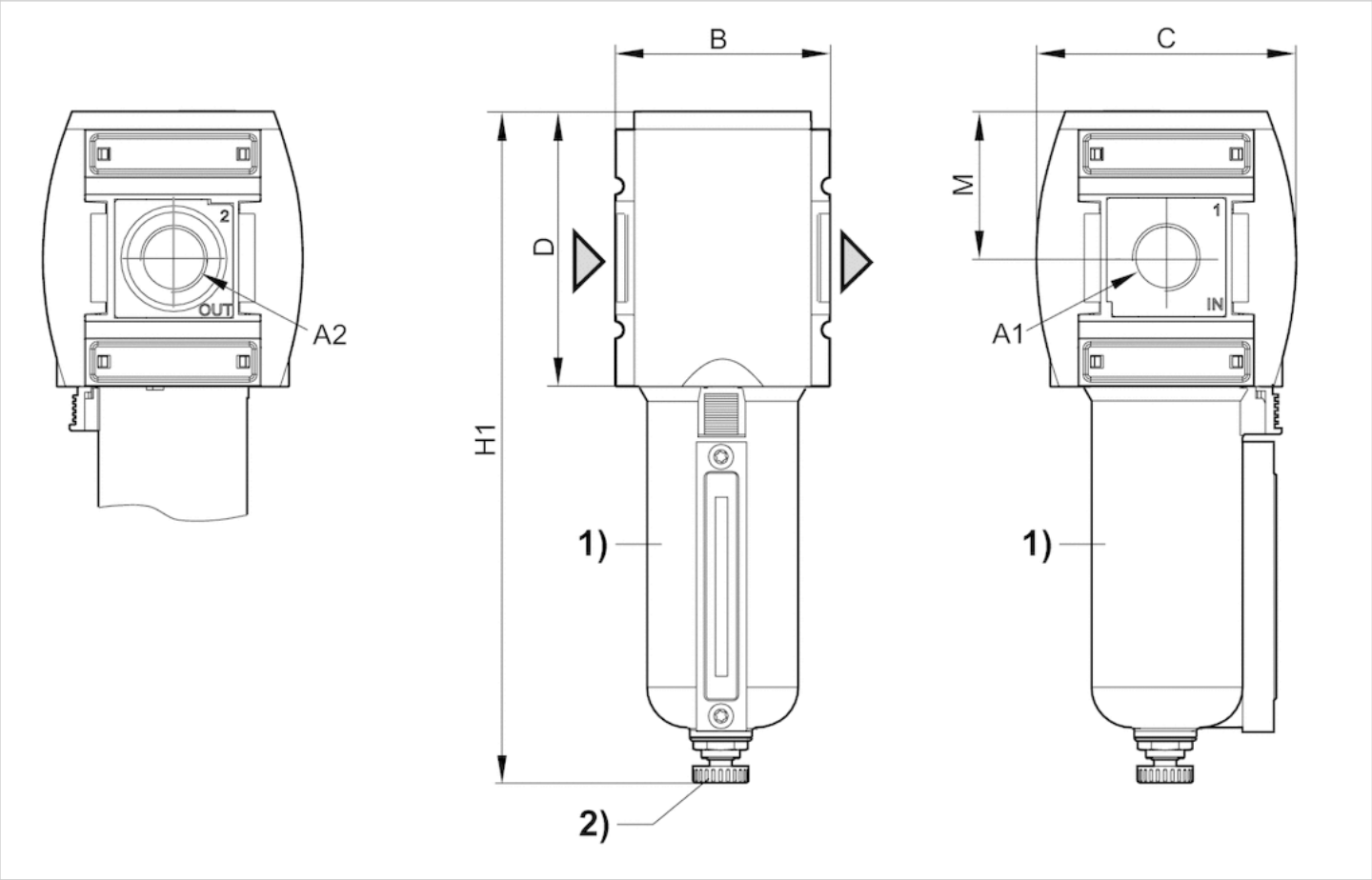
Technical information

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

Material	
Threaded bushing	Die cast zinc
Reservoir	Die cast zinc
Filter insert	Polyethylene

Dimensions

Dimensions



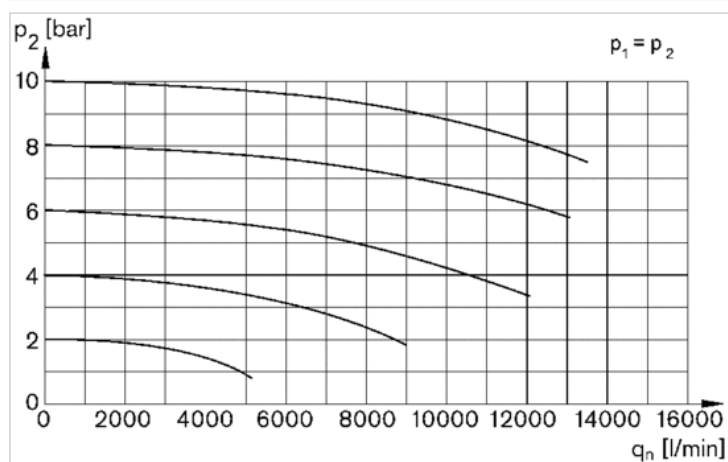
- A1 = input
A2 = output
1) Metal reservoir with level indicator
2) Semi-automatic condensate drain

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

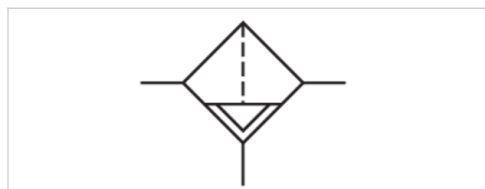
p_2 = Secondary pressure

q_n = Nominal flow

Filter, Series AS5-FLS

- G 3/4, G 1

- suitable for ATEX



Version

Parts

Mounting orientation

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Filter reservoir volume

Filter element

Condensate drain

Weight

Standard filter, Can be assembled into blocks

Filter

vertical

suitable for ATEX

See table below

14 ... 122 °F

14 ... 122 °F

Compressed air, Neutral gases

2.94 fl.oz.

exchangeable

See table below

See table below

Technical data

Part No.	Port	Qn	Working pressure min./max.	Condensate drain
R412009003	G 3/4	7.93 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009004	G 3/4	7.93 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009005	G 3/4	7.93 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009012	G 1	7.93 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009013	G 1	7.93 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009014	G 1	7.93 Cv	0 ... 232 psi	fully automatic, closed without pressure

Part No.	Weight
R412009003	1.58 lbs
R412009004	1.7 lbs
R412009005	1.7 lbs
R412009012	1.58 lbs
R412009013	1.7 lbs
R412009014	1.7 lbs

Nominal flow Qn with secondary pressure p2 = 87 psi at $\Delta p = 14.5$ psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

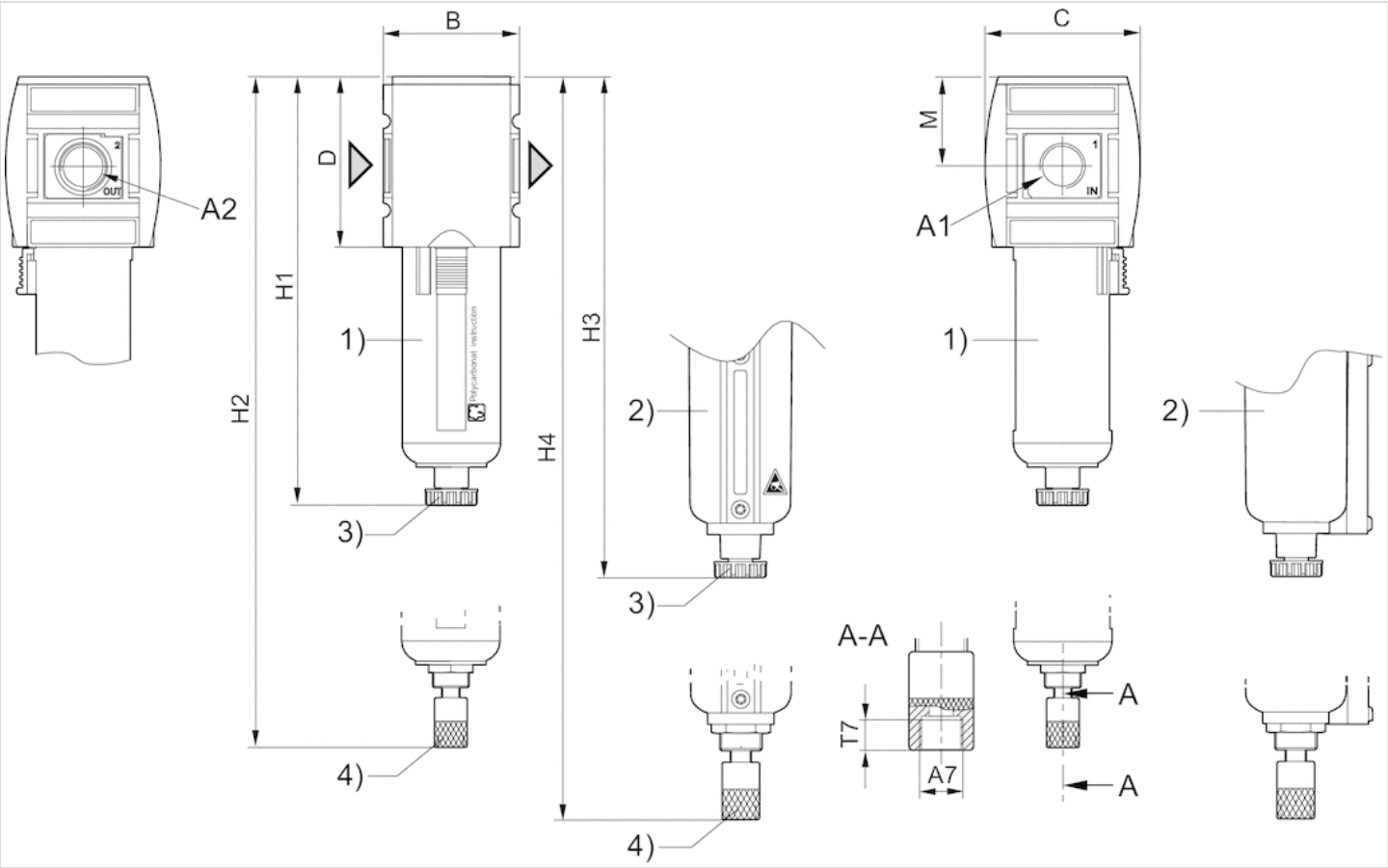
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

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

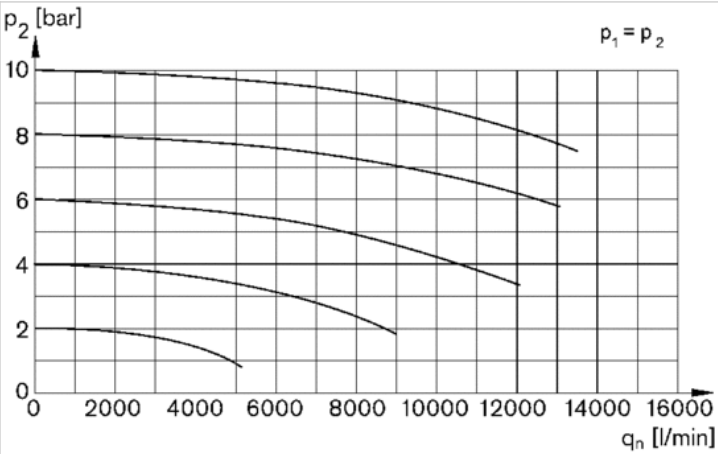
4) Fully automatic condensate drain

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

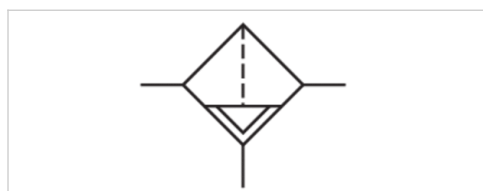
Pre-filter, Series AS5-FLP

- G 3/4, G 1

- suitable for ATEX



Version	Pre-filter, Can be assembled into blocks
Parts	Pre-filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Filter reservoir volume	2.94 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below



Technical data

Part No.	Port	Qn	Working pressure min./max.	Condensate drain
R412009018	G 3/4	2.24 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009019	G 3/4	2.24 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009020	G 3/4	2.24 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009024	G 3/4	2.24 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009025	G 3/4	2.24 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009026	G 3/4	2.24 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009027	G 1	2.24 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009028	G 1	2.24 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009029	G 1	2.24 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009033	G 1	2.24 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009034	G 1	2.24 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009035	G 1	2.24 Cv	0 ... 232 psi	fully automatic, closed without pressure

Part No.	Reservoir	Protective guard	Weight
R412009018	Polycarbonate	Polyamide	1.57 lbs
R412009019	Polycarbonate	Polyamide	1.68 lbs
R412009020	Polycarbonate	Polyamide	1.68 lbs
R412009024	Die cast zinc	-	2.67 lbs
R412009025	Die cast zinc	-	2.78 lbs
R412009026	Die cast zinc	-	2.78 lbs
R412009027	Polycarbonate	Polyamide	1.57 lbs
R412009028	Polycarbonate	Polyamide	1.68 lbs

Part No.	Reservoir	Protective guard	Weight
R412009029	Polycarbonate	Polyamide	1.68 lbs
R412009033	Die cast zinc	-	2.67 lbs
R412009034	Die cast zinc	-	2.78 lbs
R412009035	Die cast zinc	-	2.78 lbs

Nominal flow Qn with secondary pressure p2 = 87 psi at $\Delta p = 1.45$ psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

Recommended pre-filtering 5 µm

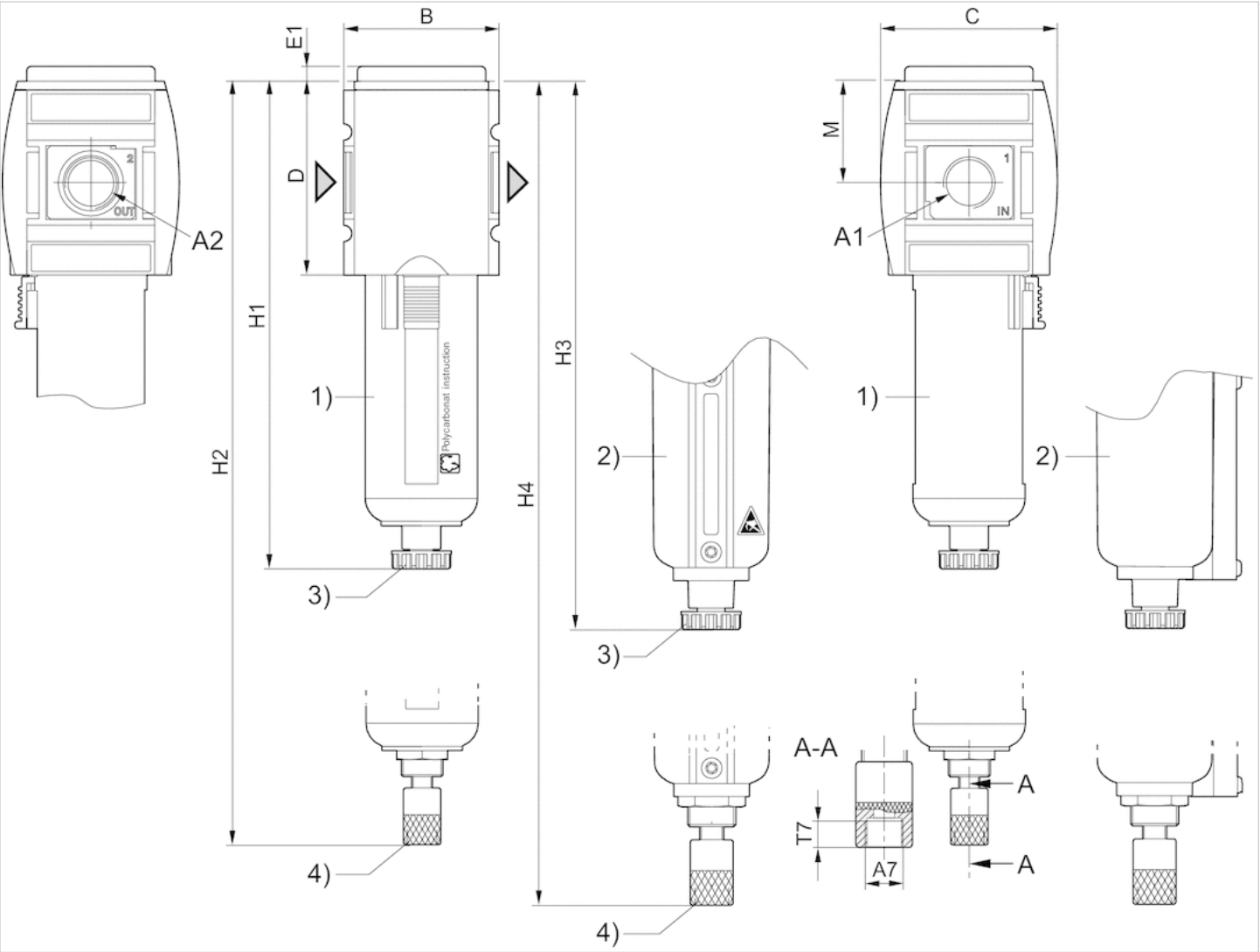
Max. achievable compressed air class acc. to ISO 8573-1:2010 2 : - : 3

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



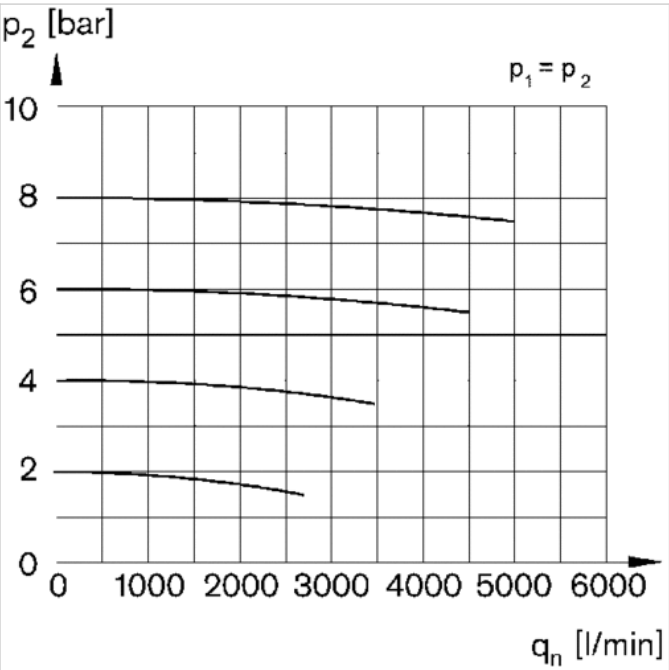
- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with inspection glass
- 3) Semi-automatic condensate drain
- 4) Fully automatic condensate drain

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

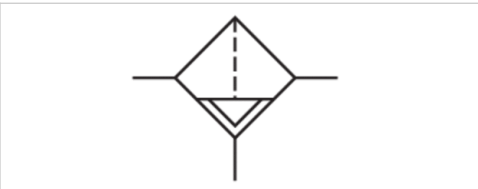
Flow rate characteristic



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

Pre-filter, Series AS5-FLP

- G 3/4, G 1
- contamination display integrated
- suitable for ATEX



Version	Pre-filter, Can be assembled into blocks
Parts	Pre-filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Filter reservoir volume	2.94 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
contamination display	integrated
Weight	See table below

Technical data

Part No.	Port	Qn	Working pressure min./max.	Condensate drain
R412009021	G 3/4	2.24 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009022	G 3/4	2.24 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009023	G 3/4	2.24 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009030	G 1	2.24 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009031	G 1	2.24 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009032	G 1	2.24 Cv	0 ... 232 psi	fully automatic, closed without pressure

Part No.	Weight
R412009021	0.796 lbs
R412009022	0.904 lbs
R412009023	0.904 lbs
R412009030	0.796 lbs
R412009031	0.904 lbs
R412009032	1.68 lbs

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 1.45 psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

Recommended pre-filtering 5 µm

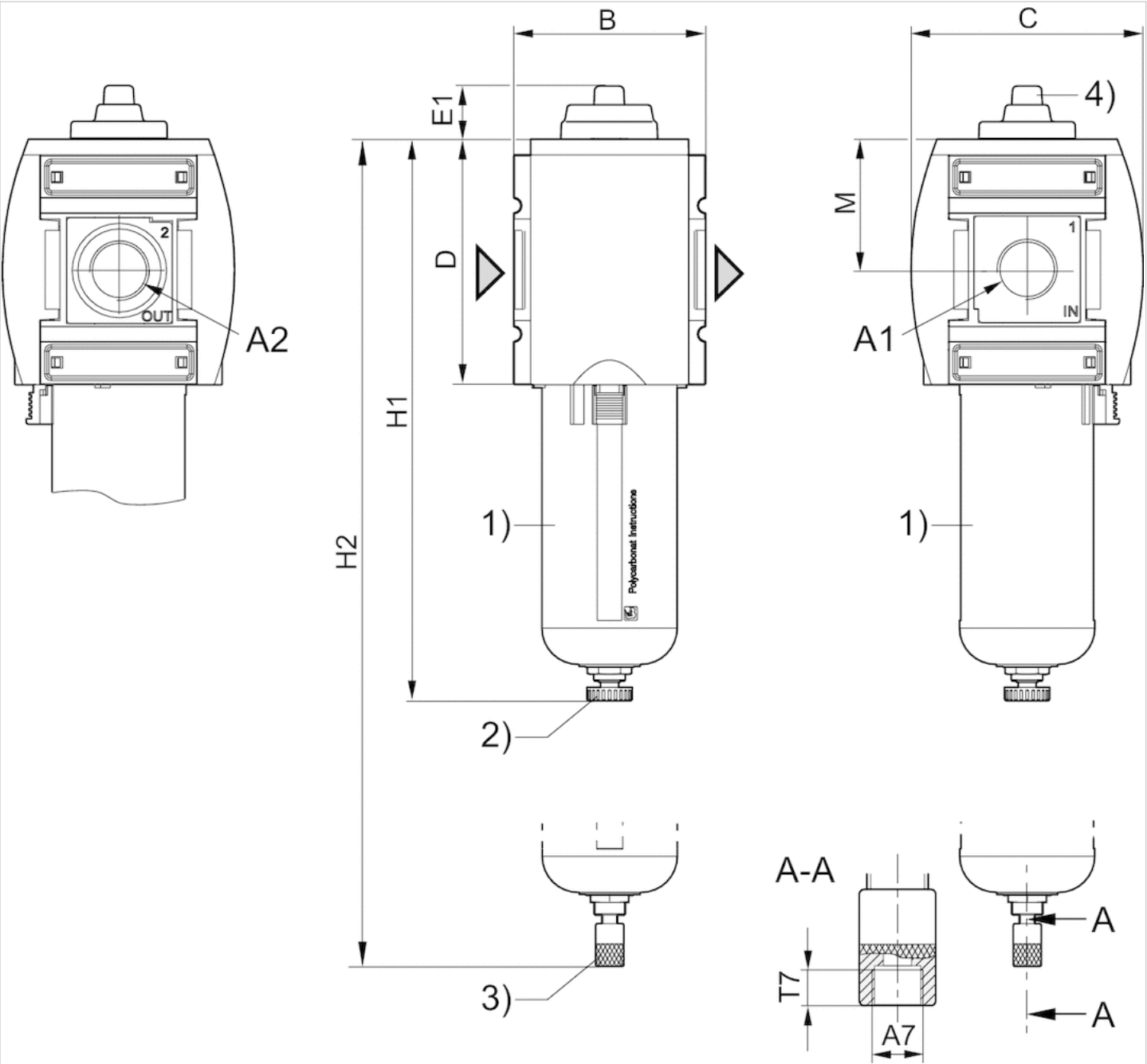
Max. achievable compressed air class acc. to ISO 8573-1:2010 2 : - : 3

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

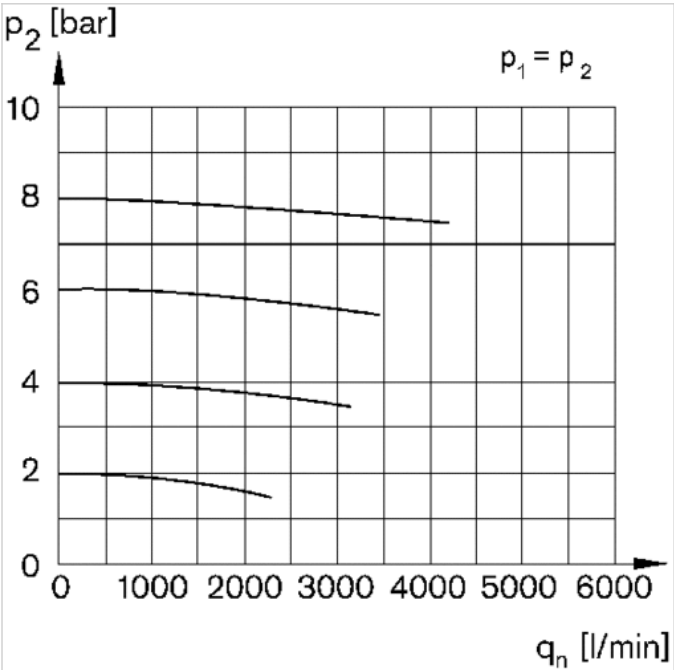
Dimensions in mm

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

Microfilter, Series AS5-FLC

- G 3/4, G 1

- suitable for ATEX



Version

Parts

Mounting orientation

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Filter reservoir volume

Filter element

Condensate drain

Weight

Microfilter, Can be assembled into blocks

Microfilter

vertical

suitable for ATEX

See table below

14 ... 122 °F

14 ... 122 °F

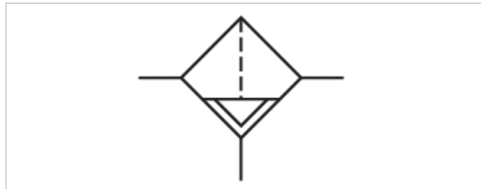
Compressed air, Neutral gases

2.94 fl.oz.

exchangeable

See table below

See table below



Technical data

Part No.	Port	Qn	Working pressure min./max.	Condensate drain
R412009036	G 3/4	1.63 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009037	G 3/4	1.63 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009038	G 3/4	1.63 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009042	G 3/4	1.63 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009043	G 3/4	1.63 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009044	G 3/4	1.63 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009045	G 1	1.63 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009046	G 1	1.63 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009047	G 1	1.63 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009051	G 1	1.63 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009052	G 1	1.63 Cv	22 ... 232 psi	fully automatic, closed without pressure
R412009053	G 1	1.63 Cv	0 ... 232 psi	fully automatic, closed without pressure

Part No.	Reservoir	Protective guard	Weight	
R412009036	Polycarbonate	Polyamide	1.57 lbs	1)
R412009037	Polycarbonate	Polyamide	1.68 lbs	1)
R412009038	Polycarbonate	Polyamide	1.68 lbs	1)
R412009042	Die cast zinc	-	2.67 lbs	2)
R412009043	Die cast zinc	-	2.78 lbs	2)
R412009044	Die cast zinc	-	2.78 lbs	2)
R412009045	Polycarbonate	Polyamide	1.57 lbs	1)
R412009046	Polycarbonate	Polyamide	1.68 lbs	1)

Part No.	Reservoir	Protective guard	Weight	
R412009047	Polycarbonate	Polyamide	1.68 lbs	1)
R412009051	Die cast zinc	-	2.67 lbs	2)
R412009052	Die cast zinc	-	2.78 lbs	2)
R412009053	Die cast zinc	-	2.78 lbs	2)

Nominal flow Q_n with secondary pressure $p_2 = 87$ psi at $\Delta p = 1.45$ psi

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

2) Reservoir with level indicator, Suitable for use in Ex zones 1, 2, 21, 22

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

Recommended pre-filtering 0.3 µm

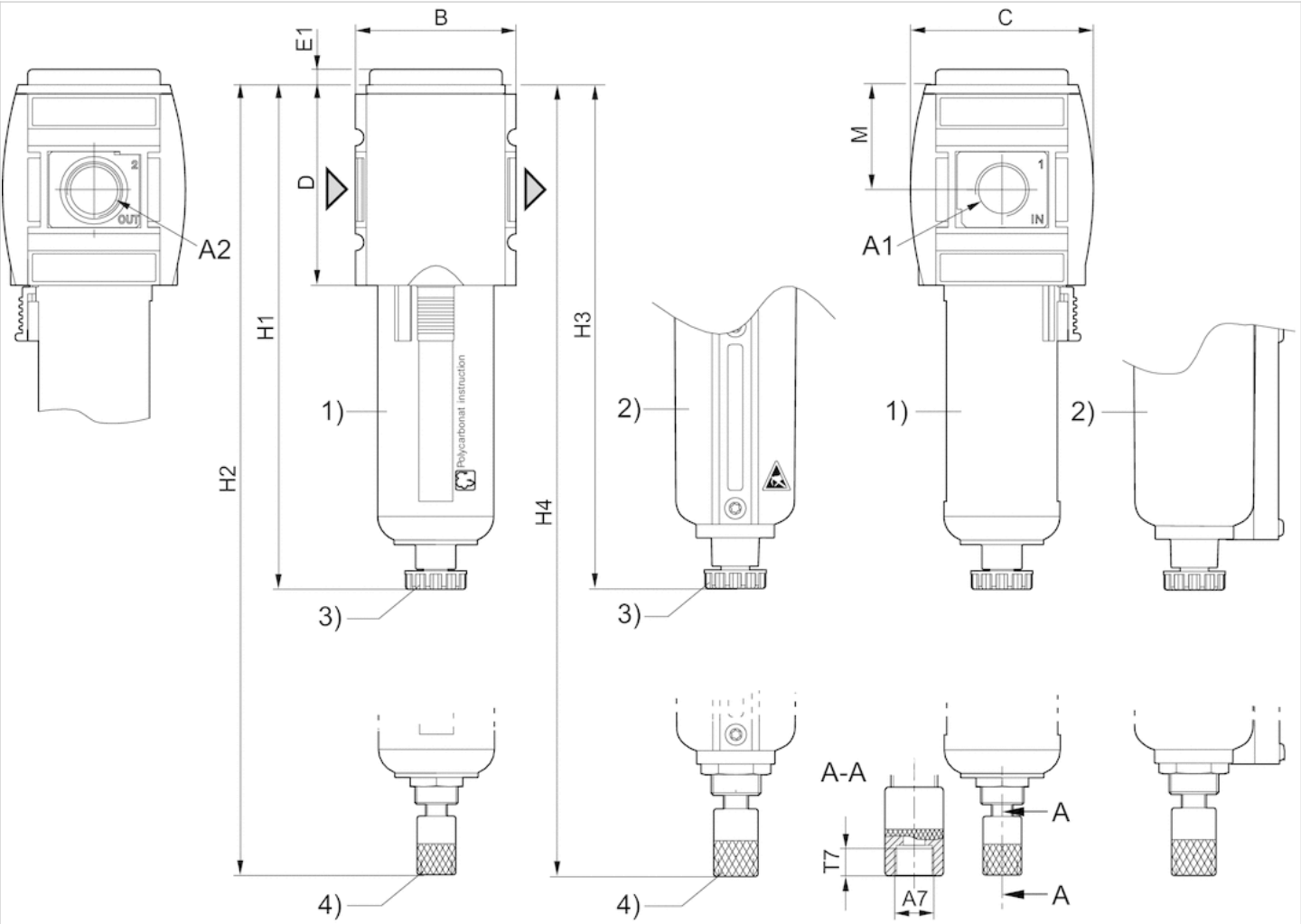
Max. achievable compressed air class acc. to ISO 8573-1:2010 1 : - : 2

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



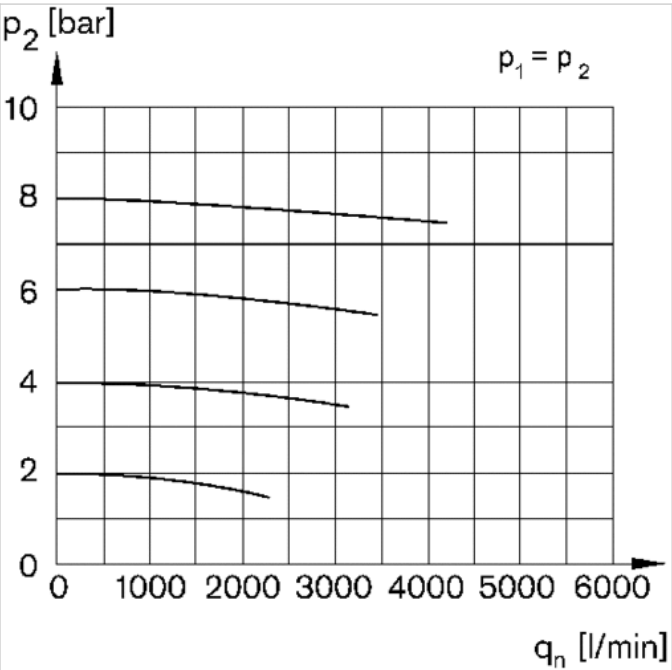
- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with inspection glass
- 3) Semi-automatic condensate drain
- 4) Fully automatic condensate drain

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

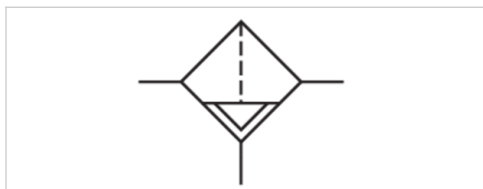
Flow rate characteristic



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

Microfilter, Series AS5-FLC

- G 3/4, G 1
- contamination display integrated
- suitable for ATEX



Version	Microfilter, Can be assembled into blocks
Parts	Microfilter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Filter reservoir volume	2.94 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
contamination display	integrated
Weight	See table below

Technical data

Part No.	Port	Qn	Working pressure min./max.	Condensate drain
R412009054	G 3/4	1.63 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009060	G 3/4	1.63 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009055	G 3/4	1.63 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009056	G 3/4	1.63 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009061	G 3/4	1.63 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009062	G 3/4	1.63 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009063	G 1	1.63 Cv	22 ... 232 psi	semi-automatic, open without pressure
R412009069	G 1	1.63 Cv	0 ... 232 psi	semi-automatic, open without pressure
R412009064	G 1	1.63 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009065	G 1	1.63 Cv	0 ... 232 psi	fully automatic, closed without pressure
R412009070	G 1	1.63 Cv	22 ... 232 psi	fully automatic, open without pressure
R412009071	G 1	1.63 Cv	0 ... 232 psi	fully automatic, closed without pressure

Part No.	Reservoir	Protective guard	Weight
R412009054	Polycarbonate	Polyamide	0.796 lbs
R412009060	Die cast zinc, with window	-	3.41 lbs
R412009055	Polycarbonate	Polyamide	0.904 lbs
R412009056	Polycarbonate	Polyamide	0.904 lbs
R412009061	Die cast zinc, with window	-	3.47 lbs
R412009062	Die cast zinc, with window	-	3.46 lbs
R412009063	Polycarbonate	Polyamide	0.796 lbs

Part No.	Reservoir	Protective guard	Weight
R412009069	Die cast zinc, with window	-	3.26 lbs
R412009064	Polycarbonate	Polyamide	0.904 lbs
R412009065	Polycarbonate	Polyamide	1.68 lbs
R412009070	Die cast zinc, with window	-	3.32 lbs
R412009071	Die cast zinc, with window	-	3.31 lbs

Nominal flow Q_n with secondary pressure $p_2 = 87$ psi at $\Delta p = 1.45$ psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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.

Recommended pre-filtering 0.3 µm

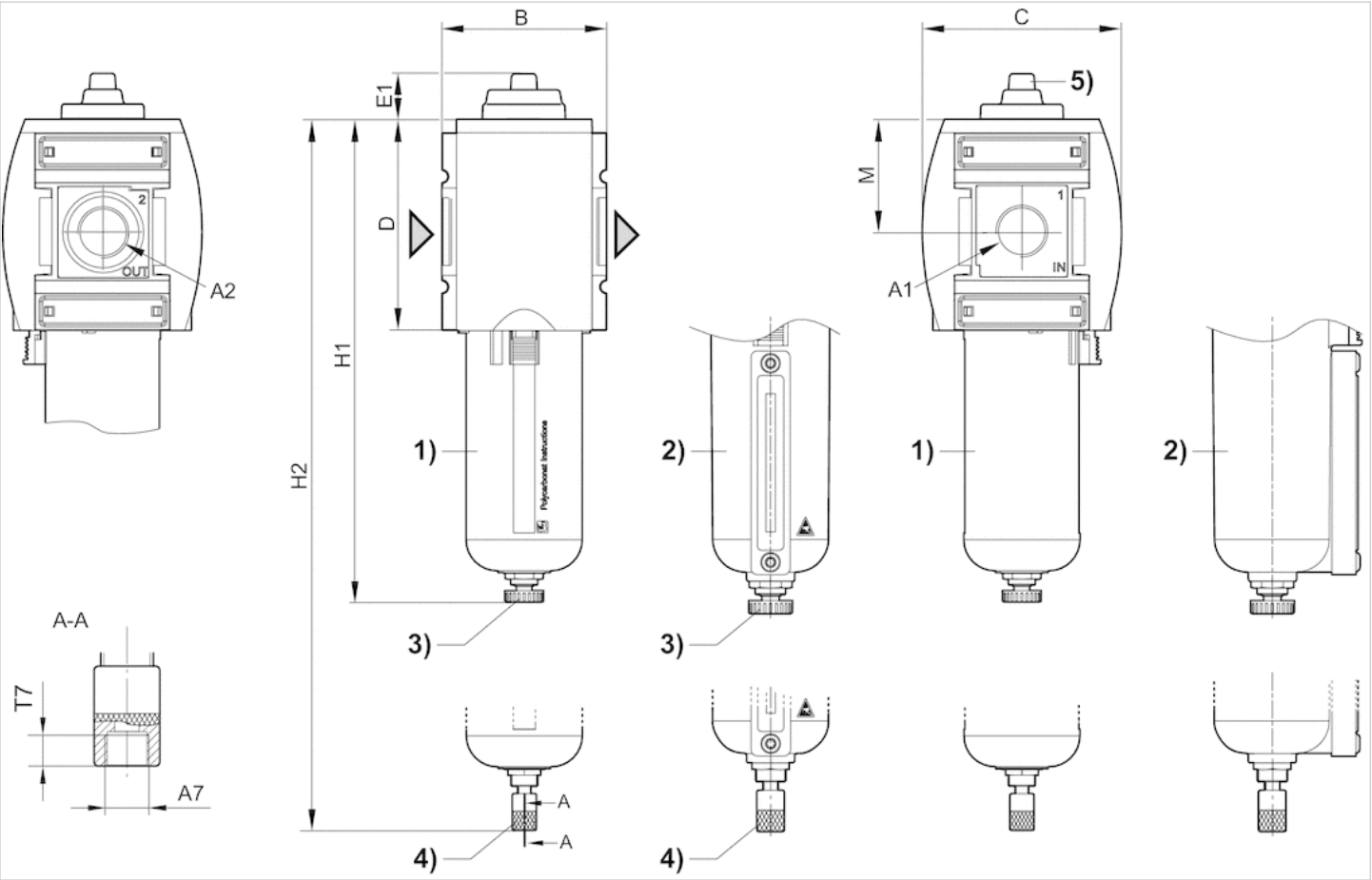
Max. achievable compressed air class acc. to ISO 8573-1:2010 1 : - : 2

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



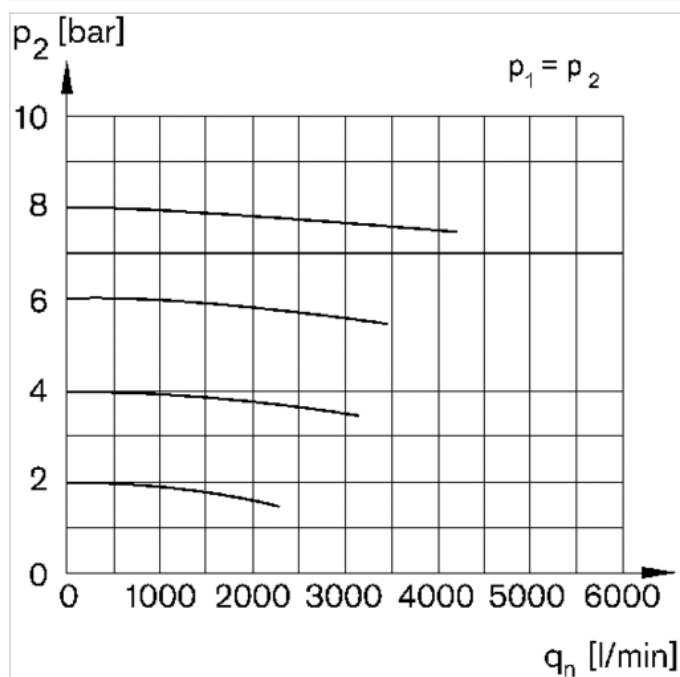
- A1 = input
A2 = output
A7 = condensate drain
1) Plastic reservoir and protective guard with window
2) Metal reservoir with level indicator
3) Semi-automatic condensate drain
4) Fully automatic condensate drain
5) contamination display

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

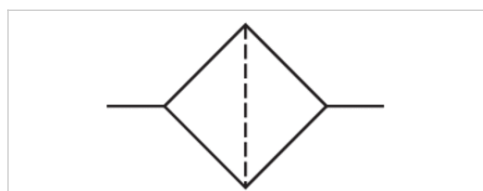


p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow

Active carbon filter, Series AS5-FLA

- G 3/4, G 1

- suitable for ATEX



Version

Active carbon filter, Can be assembled into blocks

Parts

Active carbon filter

Mounting orientation

vertical

Certificates

suitable for ATEX

Working pressure min./max.

0 ... 232 psi

Ambient temperature min./max.

14 ... 122 °F

Medium temperature min./max.

14 ... 122 °F

Medium

Compressed air, Neutral gases

Filter reservoir volume

2.94 fl.oz.

Filter element

exchangeable

Condensate drain

without

Weight

See table below

Technical data

Part No.	Port	Qn	Reservoir	Protective guard	Weight
R412009072	G 3/4	1.73 Cv	Polycarbonate	Polyamide	1.57 lbs
R412009074	G 3/4	1.73 Cv	Die cast zinc, with window	-	0.827 lbs
R412009075	G 1	1.73 Cv	Polycarbonate	Polyamide	1.57 lbs
R412009077	G 1	1.73 Cv	Die cast zinc, with window	-	0.827 lbs

Nominal flow Qn with secondary pressure p2 = 87 psi at $\Delta p = 1.45$ psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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

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 μ m

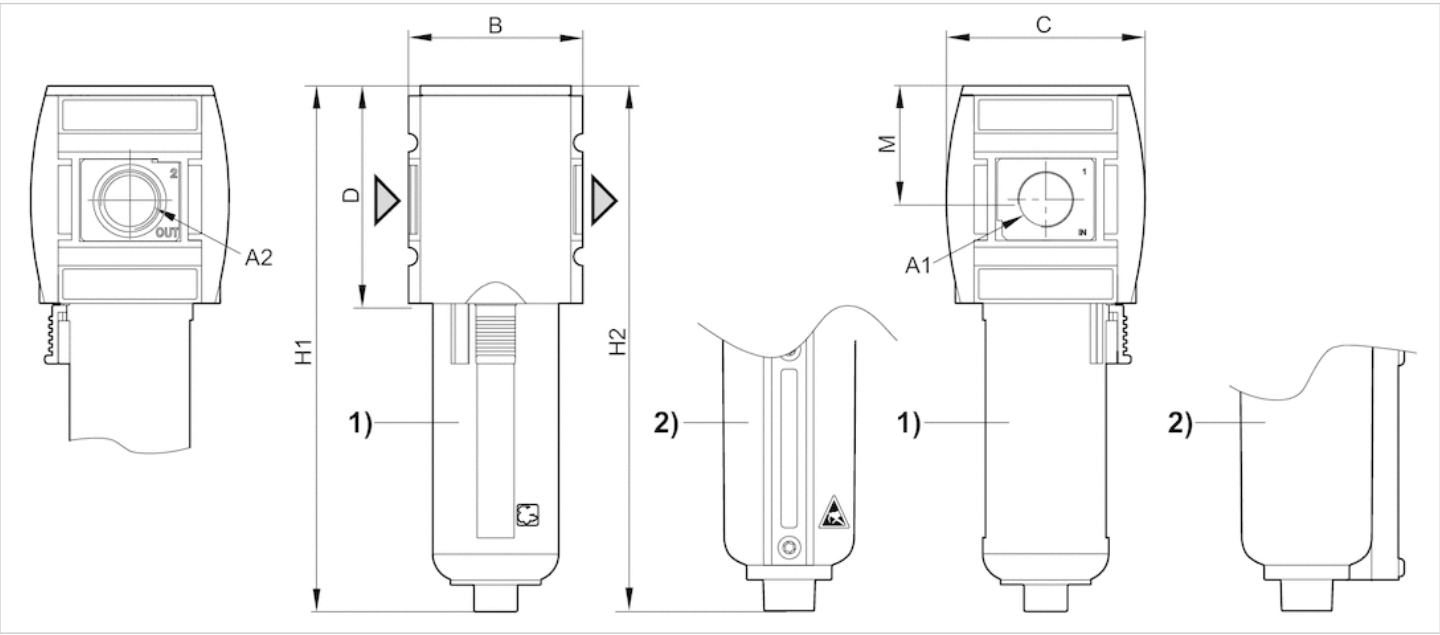
Max. achievable compressed air class acc. to ISO 8573-1:2010 - : - : 1

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



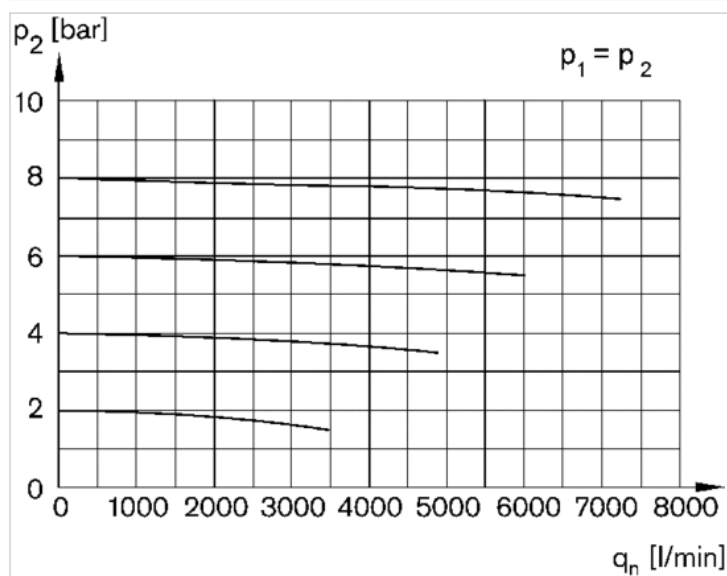
- A1 = input
A2 = output
1) Plastic reservoir and protective guard with window
2) Metal reservoir with inspection glass

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



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

Standard oil-mist lubricator, Series AS5-LBS

- G 3/4, G 1
 - suitable for ATEX



Version	Oil-mist lubricator, Can be assembled into blocks
Parts	Standard oil-mist lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Lubricator reservoir volume	6.12 fl.oz.
Type of filling	Semi-automatic oil filling during operation, Manual oil filling
Weight	See table below

Technical data

Part No.	Port	Nominal flow Qn	Reservoir	Protective guard	Weight	
R412009225	G 3/4	16.06 Cv	Polycarbonate	Polyamide	1.68 lbs	1)
R412009229	G 3/4	16.06 Cv	Die cast zinc, with window	-	1.68 lbs	1)
R412009226	G 3/4	16.06 Cv	Polycarbonate	Polyamide	1.7 lbs	2)
R412009231	G 1	16.06 Cv	Polycarbonate	Polyamide	1.68 lbs	1)
R412009235	G 1	16.06 Cv	Die cast zinc, with window	-	1.68 lbs	1)
R412009232	G 1	16.06 Cv	Polycarbonate	Polyamide	1.7 lbs	2)

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

- 1) Suitable for use in Ex zones 1, 2, 21, 22
- 2) Suitable for use in Ex zones 1, 2, 21, 22, Electrical level detection

Technical information

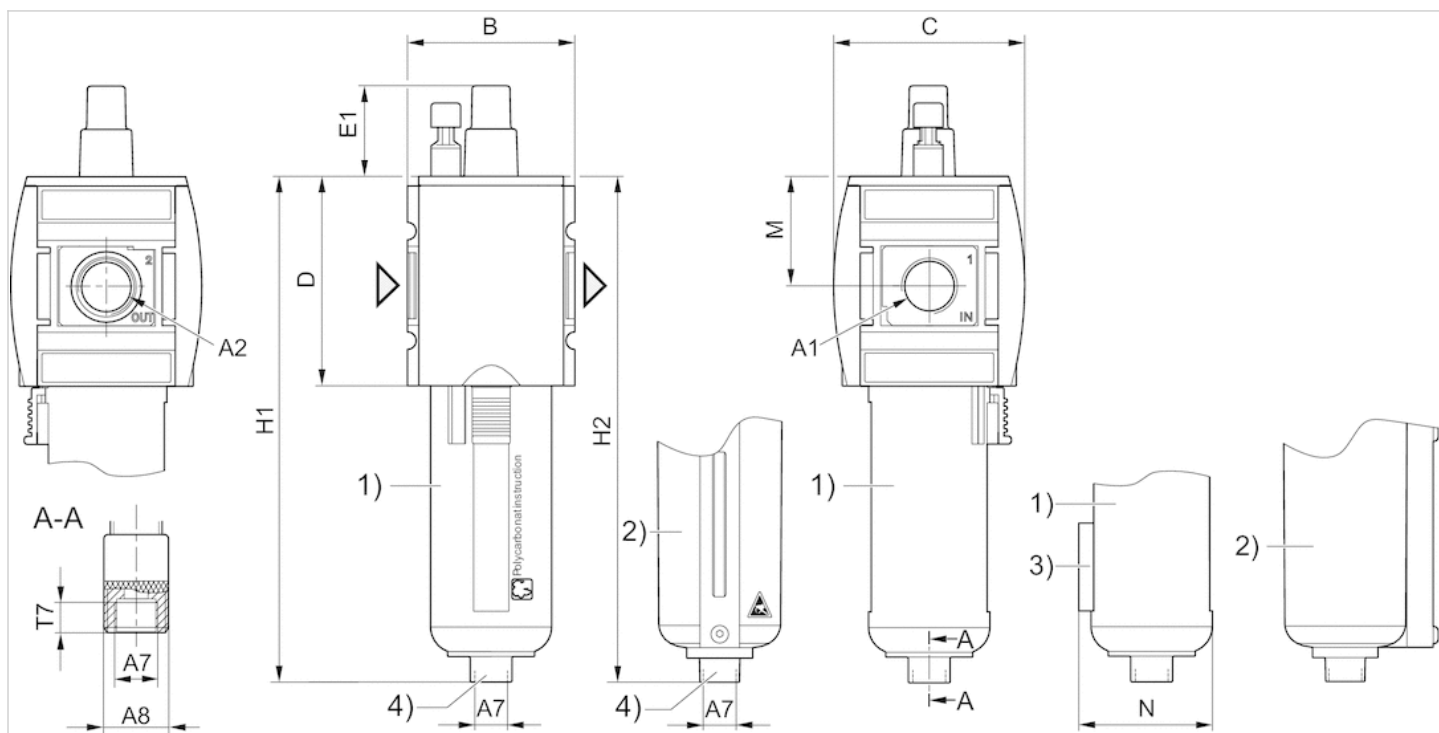
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
 Electrical level detection only with ST6 sensor with reed contact, sensor holder included in the scope of the delivery.
 Sensor not included in scope of delivery, sensor installation prepared.
 The entire preset drip quantity enters the pressure system
 Manual oil filling possible during operation at a maximum operating pressure of 10 bar.
 Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".
 Suitable for use in Ex zones 1, 2, 21, 22
 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.
 Oil dosing at 1 Cv 1-2 drops

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

Dimensions

Dimensions



A1 = input

A2 = output

1) Plastic reservoir and protective guard with window

2) Metal reservoir with inspection glass

3) Holder for sensor

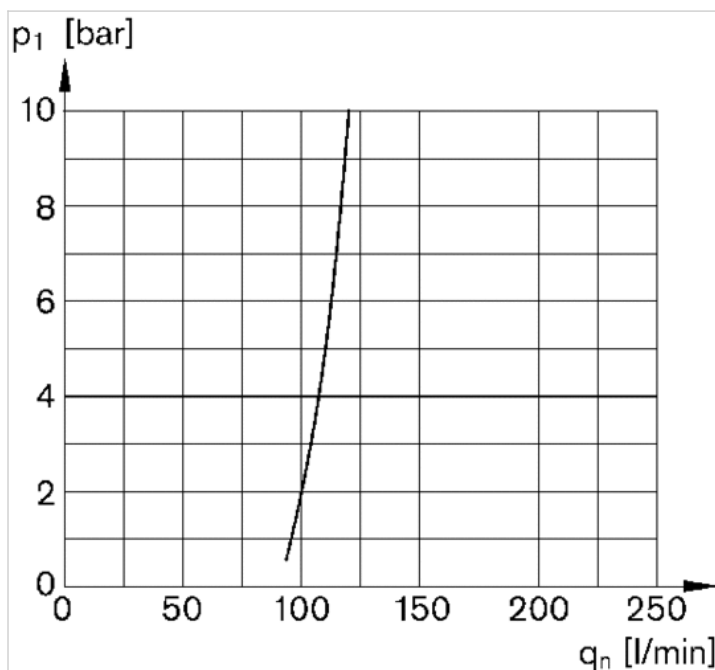
4) Port for semi-automatic oil filling

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

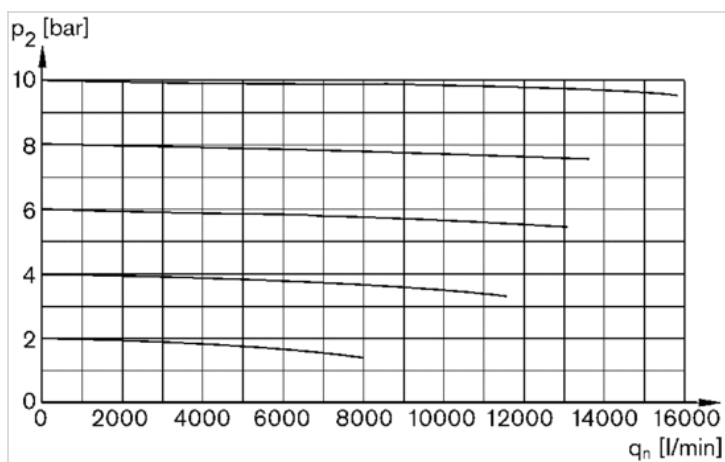
Lubricator activation margin



p_1 = working pressure

q_n = nominal flow

Flow rate characteristic



p_2 = secondary pressure

q_n = nominal flow

Filling unit, electrically operated, Series AS5-SSU

- Compressed air connection G 3/4, G 1
- Pipe connection
- ATEX optional



Version	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow	8.89 Cv
Nominal flow 1 ▶ 2	8.89 Cv
Nominal flow 2 ▶ 3	3.76 Cv
Working pressure min./max.	37 ... 145 psi
Medium	Compressed air, Neutral gases
Medium temperature min./max.	14 ... 122 °F
Ambient temperature min./max.	14 ... 122 °F
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
R412009286		—	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
R412009279			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
R412009284			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	-	-	-
R412009286	-	-	-
R412009282	-	-	-
R412009287	-	-	-
R412009278	24 V	-	-
R412009279	-	110 V	110 V
R412009280	-	220 V	230 V
R412009378	24 V	-	-
R412009283	24 V	-	-
R412009284	-	110 V	110 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	-	-	-	-
R412009286	-	-	-	-
R412009282	-	-	-	-
R412009287	-	-	-	-
R412009278	2 W	-	-	-
R412009279	-	1.6 VA	1.4 VA	2.2 VA
R412009280	-	1.6 VA	1.4 VA	2.2 VA
R412009378	2 W	-	-	-
R412009283	2 W	-	-	-
R412009284	-	1.6 VA	1.4 VA	2.2 VA
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	-	-	-
R412009286	-	-	-
R412009282	-	-	-
R412009287	-	-	-

Part No.	Switch-on power	Electrical connection	Connector standard
	AC 60 Hz	Pilot valve	
R412009278	-	Plug, EN 175301-803, form C	ISO 15217
R412009279	1.6 VA	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
R412009284	1.6 VA	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
R412009286	Basic valve without pilot valve, with CNOMO subbase
R412009282	Basic valve without pilot valve
R412009287	Basic valve without pilot valve, with CNOMO subbase
R412009278	Basic valve with pilot valve
R412009279	Basic valve with pilot valve
R412009280	Basic valve with pilot valve
R412009378	Basic valve with pilot valve
R412009283	Basic valve with pilot valve
R412009284	Basic valve with pilot valve
R412009285	Basic valve with pilot valve

Part No.	Reverse polarity protection	Weight	Fig.	
R412009277	-	1.96 lbs	Fig. 1	1)
R412009286	-	1.97 lbs	Fig. 2	1)
R412009282	-	1.96 lbs	Fig. 1	1)
R412009287	-	1.97 lbs	Fig. 2	1)
R412009278	Protected against polarity reversal	2.04 lbs	Fig. 3	-
R412009279	Protected against polarity reversal	2.04 lbs	Fig. 3	-
R412009280	Protected against polarity reversal	2.04 lbs	Fig. 3	-
R412009378	-	1.98 lbs	Fig. 4	2)
R412009283	Protected against polarity reversal	2.04 lbs	Fig. 3	-
R412009284	Protected against polarity reversal	2.04 lbs	Fig. 3	-
R412009285	Protected against polarity reversal	2.04 lbs	Fig. 3	-

Nominal flow Q_n with secondary pressure p₂ = 87 psi at Δp = 14.5 psi

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

2) With adjustment screw lock

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F.

Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.

ATEX optional: The ATEX ID depends on the selected pilot valve.

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.

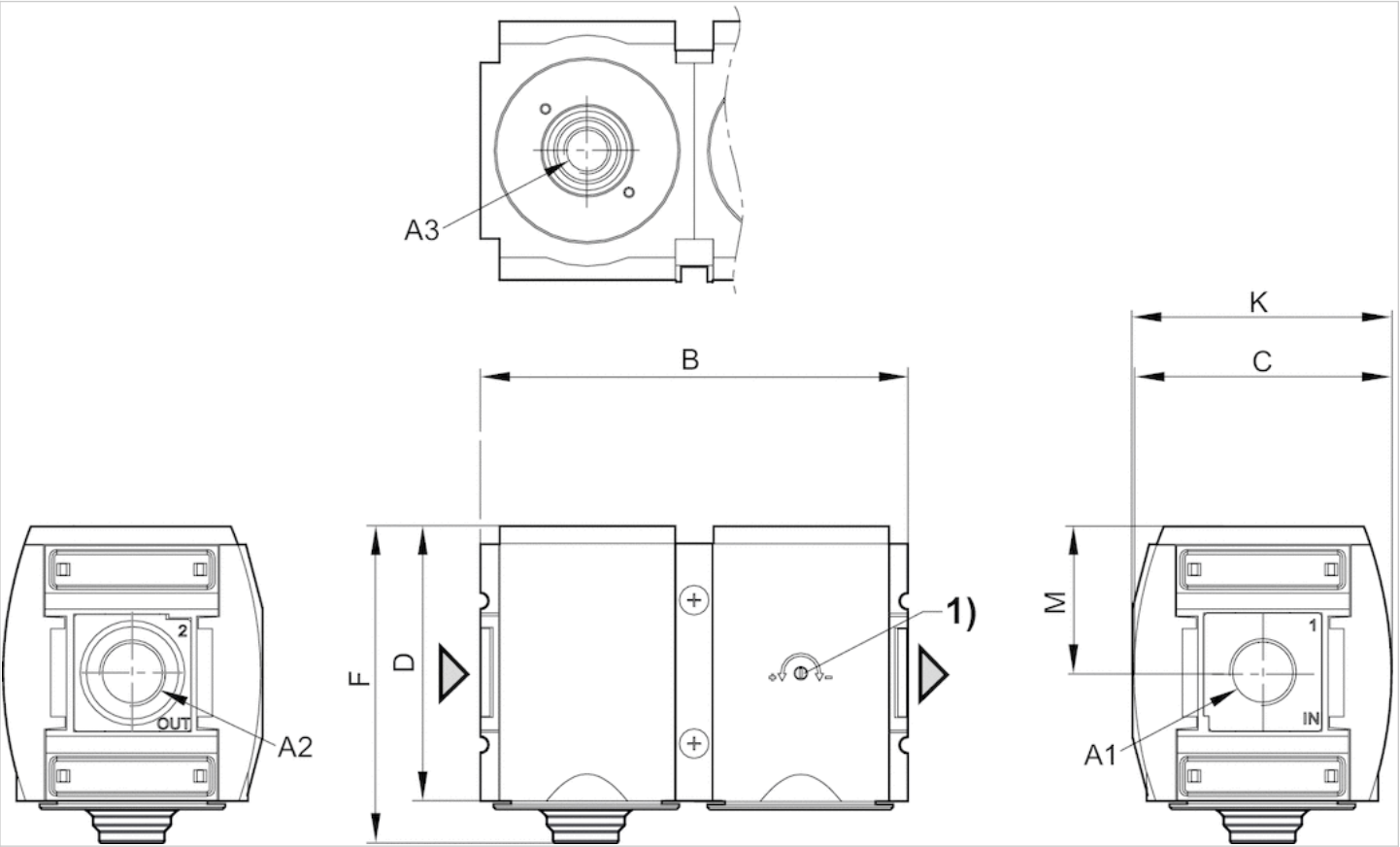
Technical information

Material

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

Dimensions

Fig. 1: Filling unit without pilot valve with porting configuration for series DO16



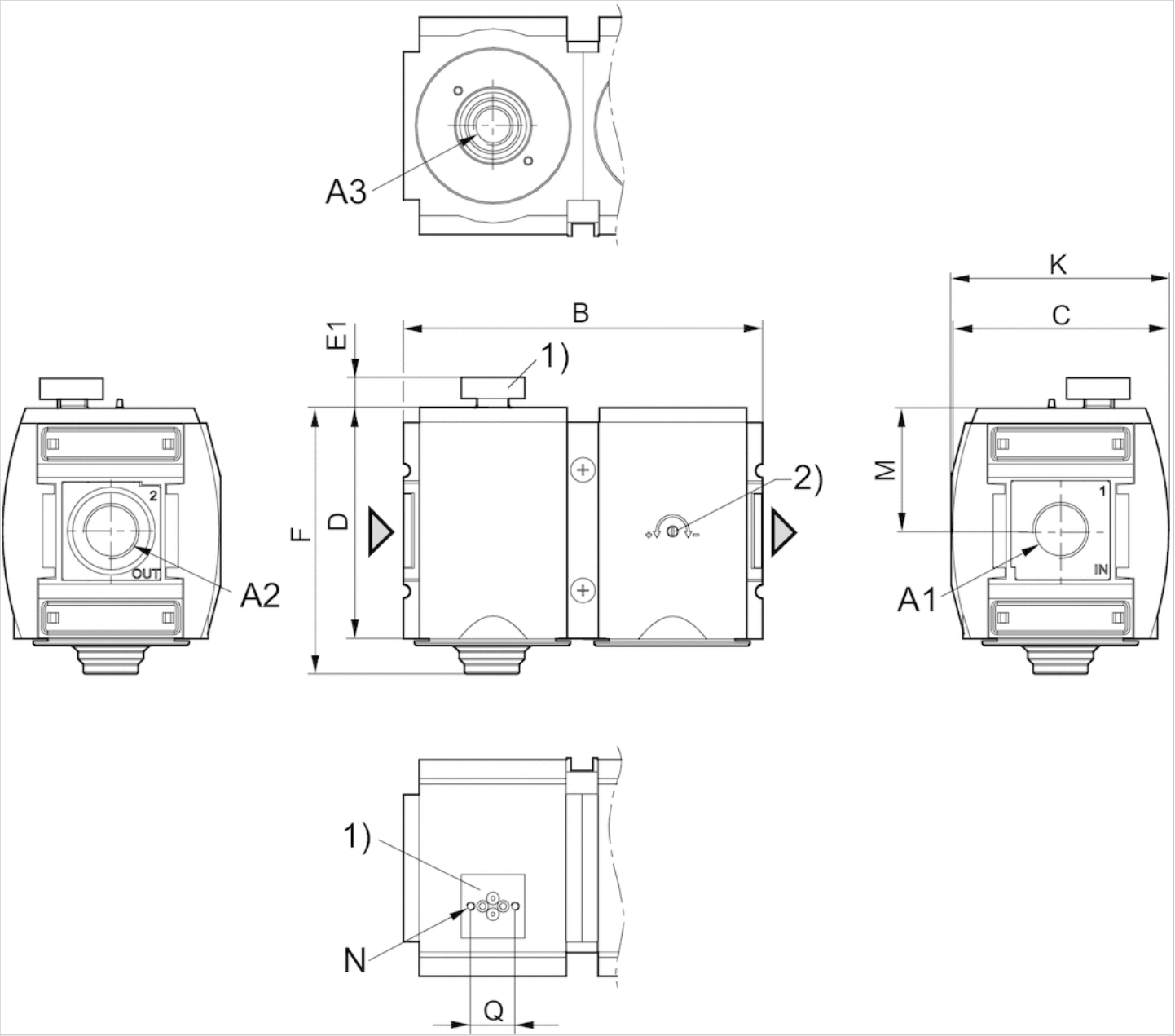
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) Adjustment screw for filling time

Dimensions in mm

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

Dimensions

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



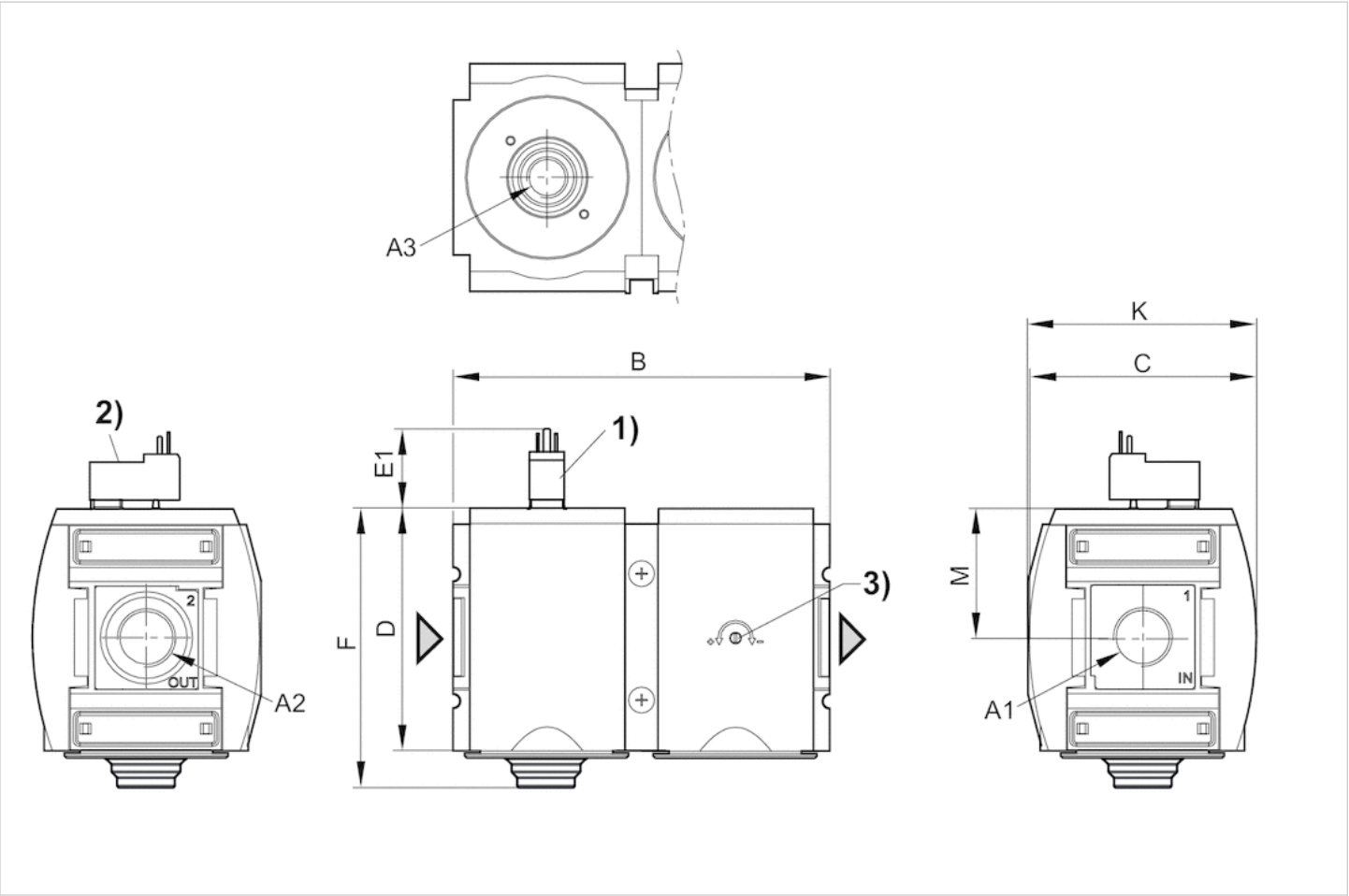
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) Transition plate with CNOMO porting configuration for pilot valve DO30
- 2) Adjustment screw for filling time

Dimensions in mm

A1	A2	A3	B	C	D	E1	F	K	M	N	Q
G 3/4	G 3/4	G 1/2	170	103	109	14.2	125	103.5	58	M4	21
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



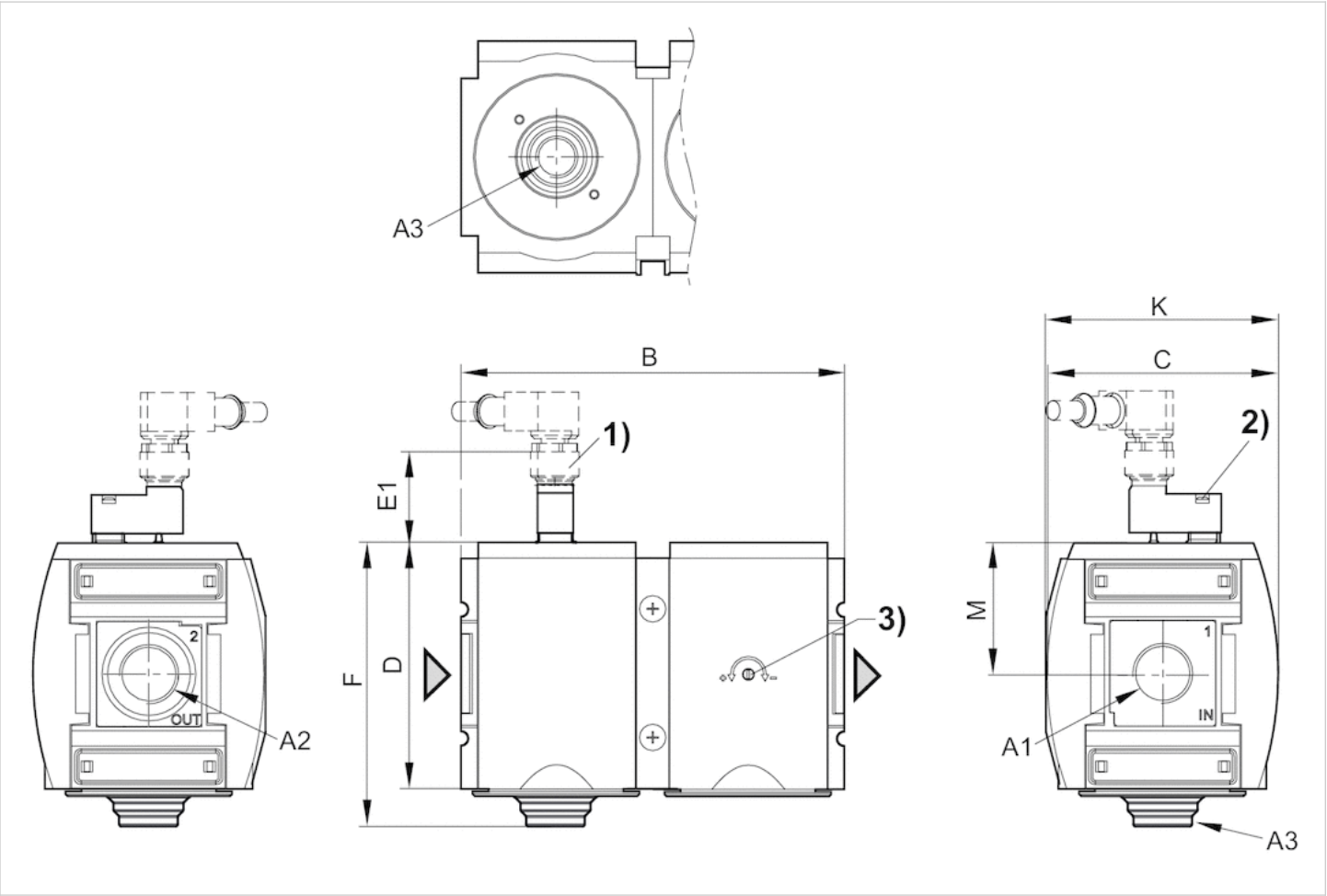
- A1 = input
 A2 = output
 A3 = ventilation port
 1) Connection for valve plug connector according to ISO 15217 (form C)
 2) Manual override
 3) Adjustment screw for filling time

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



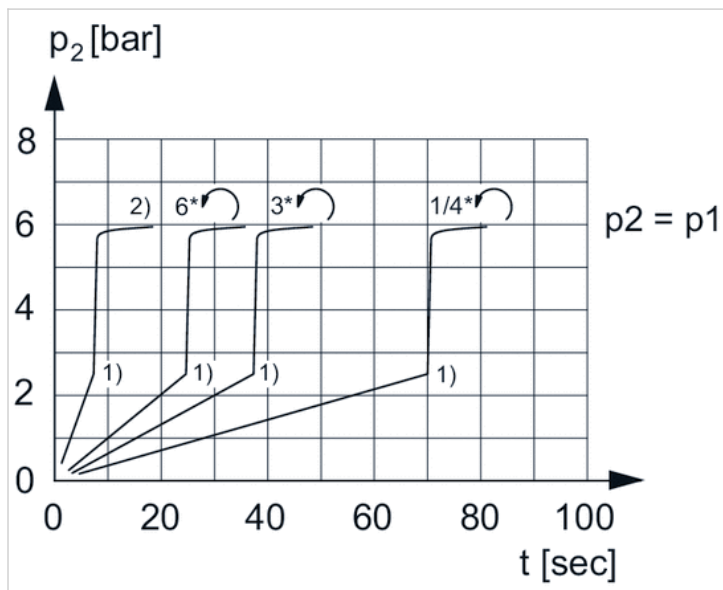
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) plug M12
- 2) Manual override
- 3) Adjustment screw for filling time

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

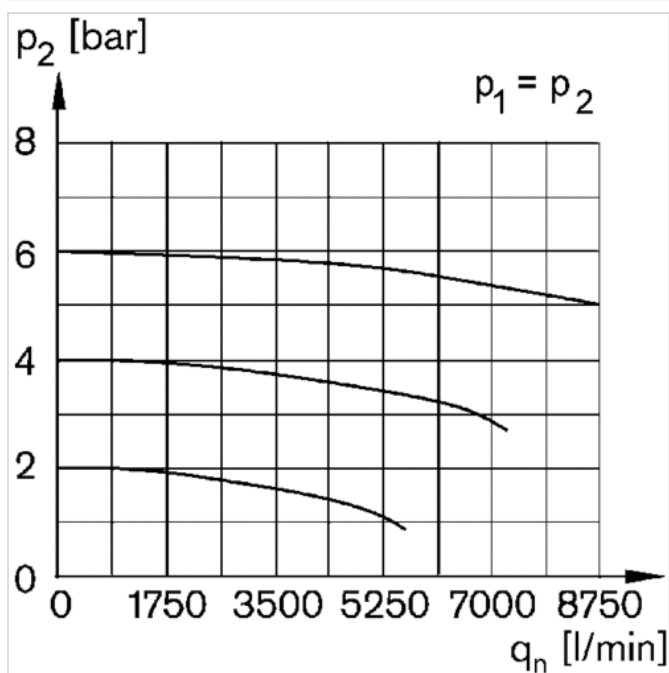
t = filling time, adjustable via adjustment screw (throttle)

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



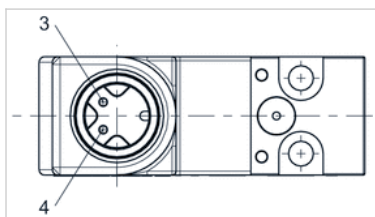
p_1 = Working pressure

p_2 = Secondary pressure

q_n = Nominal flow

Pin assignments

Pin assignment M12x1

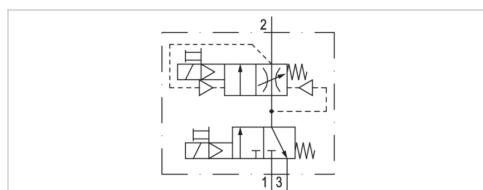


3: +/-

4: +/-

Filling unit, electrically operated, Series AS5-SSU

- adjustable filling time and change-over pressure, Increased flow rate 2►3
- Compressed air connection G 1
- Pipe connection
- Electrical connection: Plug, M12x1
- ATEX optional



Version	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow	8.89 Cv
Nominal flow 1 ► 2	8.89 Cv
Nominal flow 2 ► 3	3.76 Cv
Working pressure min./max.	37 ... 130 psi
Medium	Compressed air, Neutral gases
Medium temperature min./max.	14 ... 122 °F
Ambient temperature min./max.	14 ... 122 °F
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	2.04 lbs

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 = 87 psi at Δp = 14.5 psi, MO = Manual override

Technical information

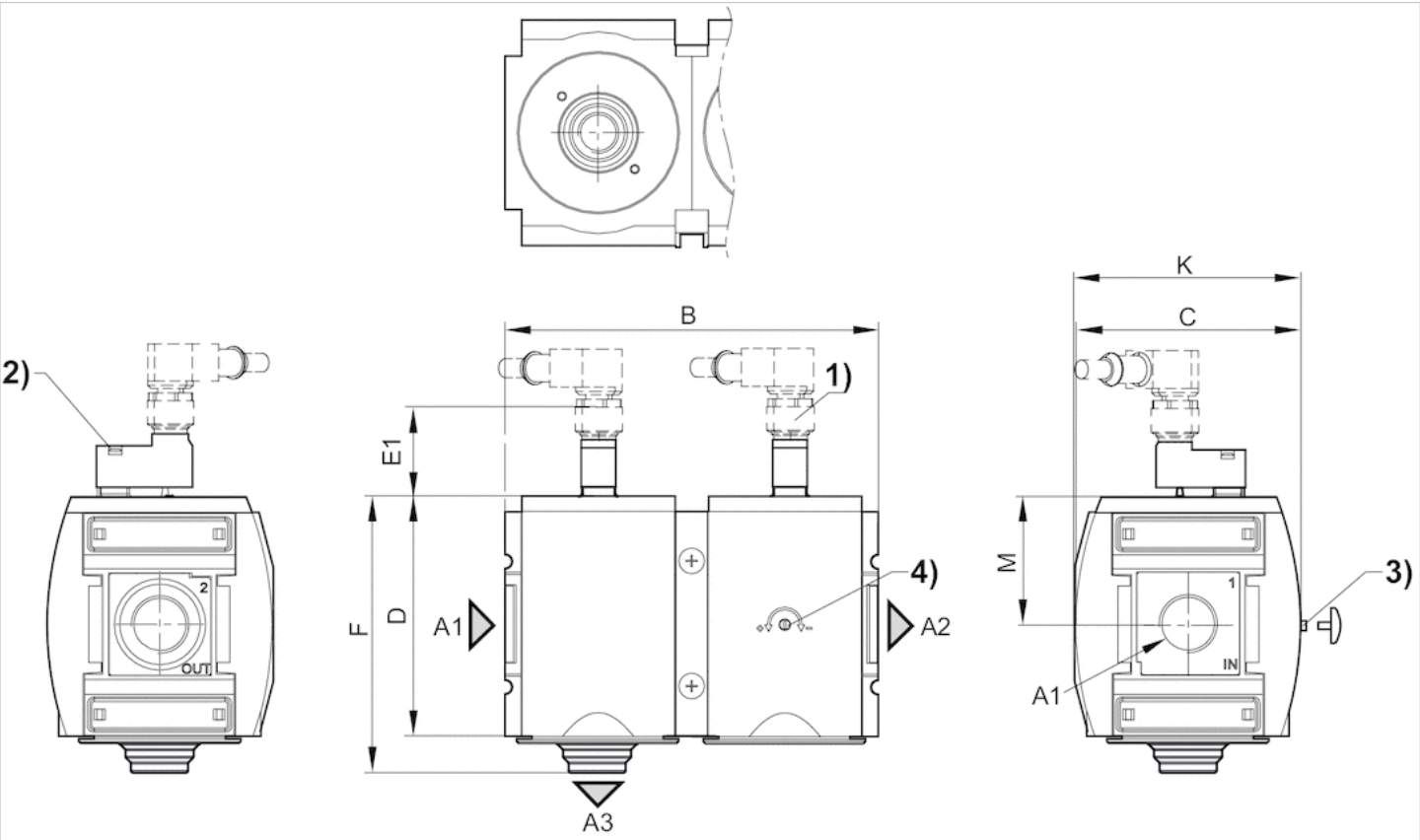
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F . Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements. Actuating the electric priority circuit disrupts the slow pressure build-up and pressure p₁ is immediately applied. Rear exhaust flow rate 2►3 substantially increased. 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



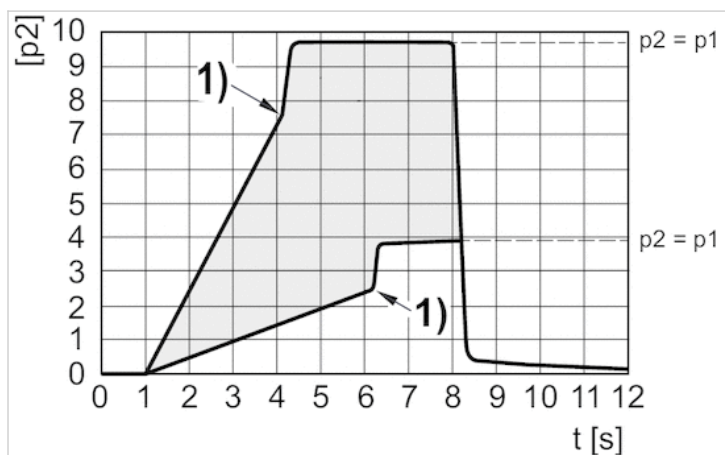
- A1 = input
 A2 = output
 A3 = ventilation port
 1) plug M12
 2) Manual override
 3) Adjustment screw lock
 4) Adjustment screw for filling time

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

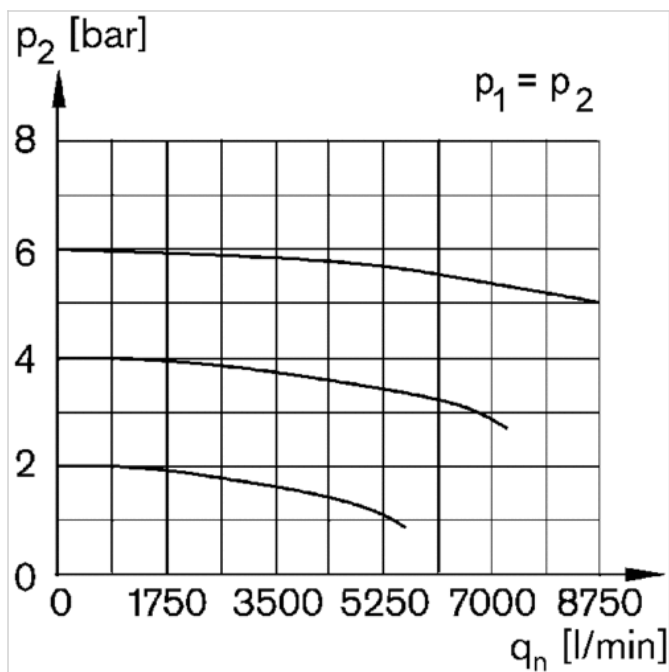
p_2 = secondary pressure

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

Change-over pressure individually adjustable via electrical signal

1) Switching point: adjustable filling time and change-over pressure

Flow rate characteristic

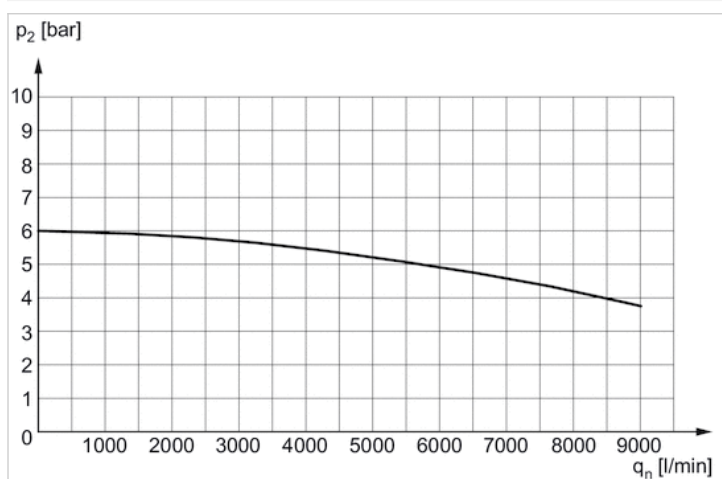


p_1 = Working pressure

p_2 = Secondary pressure

q_n = Nominal flow

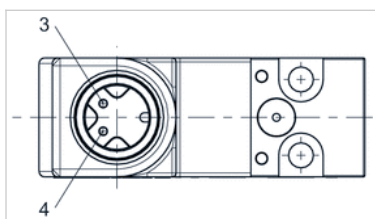
Rear exhaust 2 3



p2 = secondary pressure
qn = nominal flow

Pin assignments

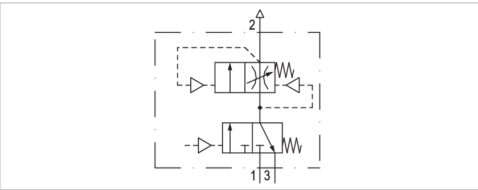
Pin assignment M12x1



3: +/-
4: +/-

Filling unit, pneumatically operated, Series AS5-SSU

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



Version	Poppet valve, Can be assembled into blocks
Pilot	Internal
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 232 psi
Control pressure min./max.	37 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Max. particle size	40 µm
Weight	2.04 lbs

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	8.89 Cv	8.89 Cv	3.76 Cv	1)
R412009281	G 1	G 1/8	G 1/2	8.89 Cv	8.89 Cv	3.76 Cv	1)
R412009289	G 1	G 1/8	G 1/2	8.89 Cv	8.89 Cv	3.76 Cv	2)

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

- 1)
- 2) With adjustment screw lock

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.

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.

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

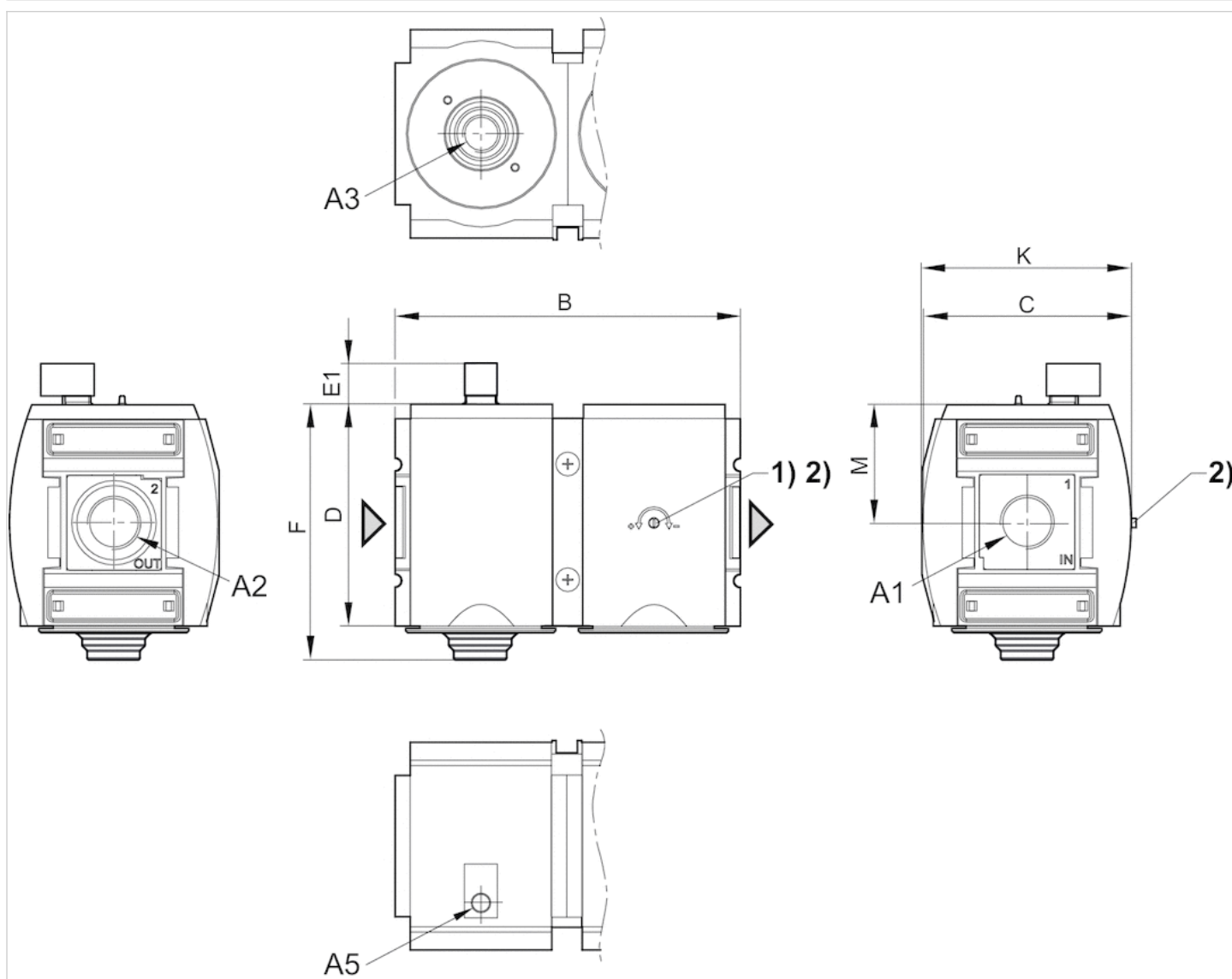
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

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

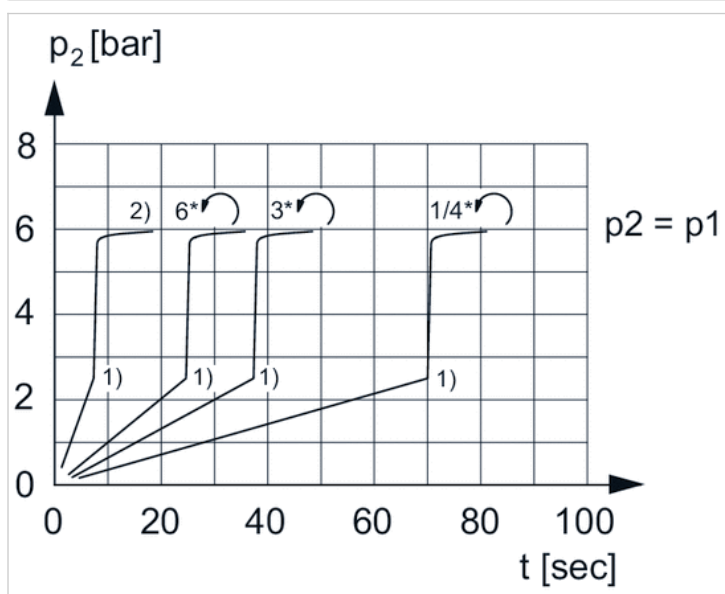
2) Adjustment screw lock

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

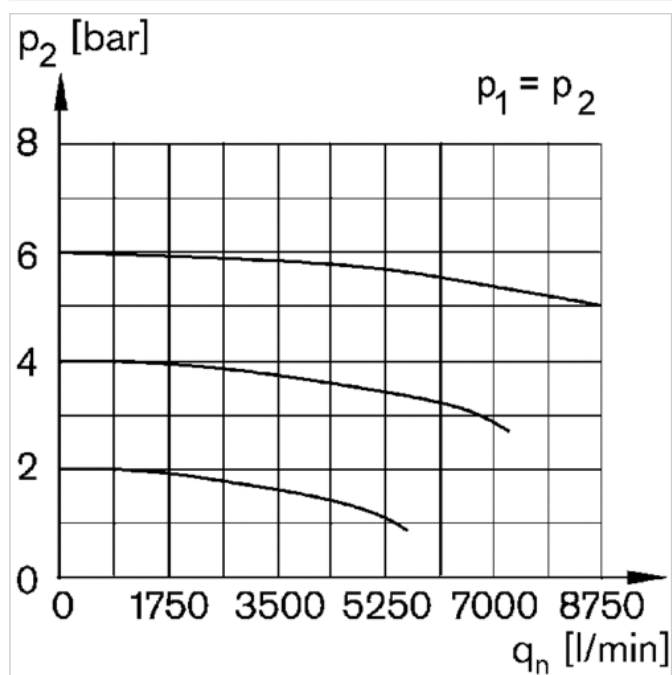
t = filling time, adjustable via adjustment screw (throttle)

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

2) Throttle fully opened

* Adjustment screw rotations

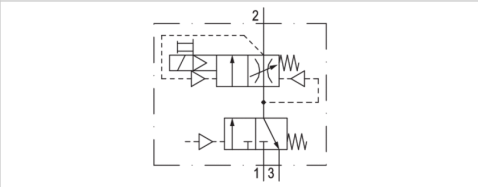
Flow rate characteristic



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

Filling unit, pneumatically operated, Series AS5-SSU

- adjustable filling time and change-over pressure
- 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 ... 232 psi
Control pressure min./max.	37 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
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	2.04 lbs

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	8.89 Cv	8.89 Cv	3.76 Cv

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.

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

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.

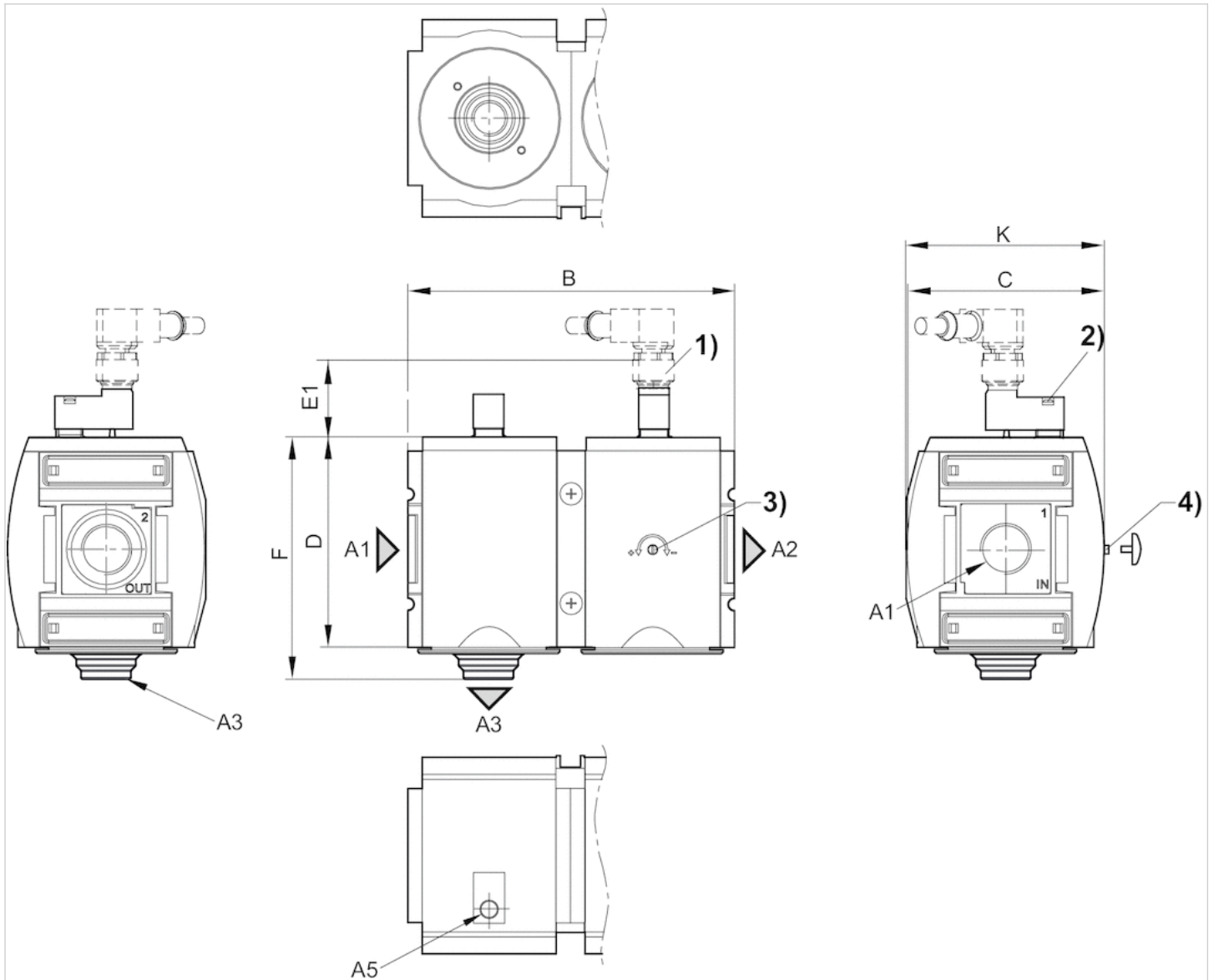
Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



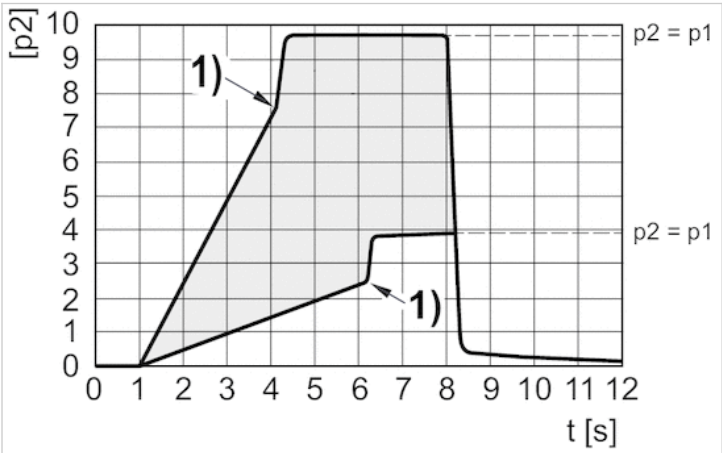
- A1 = input
 A2 = output
 A3 = ventilation port
 A5 = control pressure connection
 1) plug M12
 2) Manual override
 3) Adjustment screw for filling time
 4) Adjustment screw lock

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

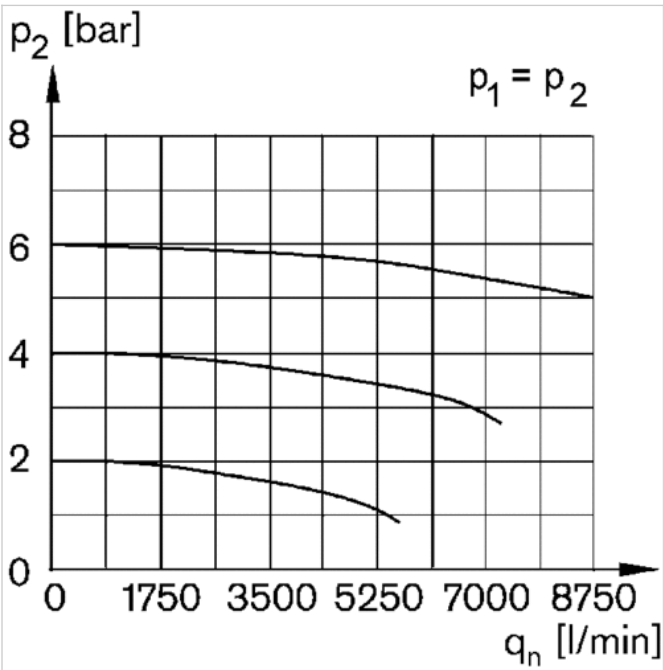
Diagrams

Secondary pressure while filling



p1 = working pressure
 p2 = secondary pressure
 t = filling time, adjustable via adjustment screw (throttle)
 Change-over pressure individually adjustable via electrical signal
 1) Switching point: adjustable filling time and change-over pressure

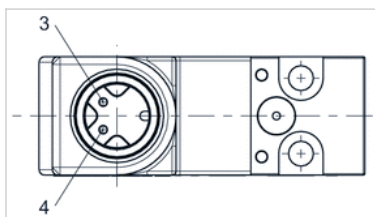
Flow rate characteristic



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

Pin assignments

Pin assignment M12x1



3: +/-

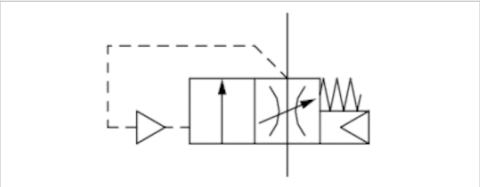
4: +/-

Filling valve, Series AS5-SSV

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



Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Working pressure min./max.	37 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Max. particle size	40 µm
Weight	0.948 lbs



Technical data

Part No.	Port	Flow	
		Qn	
R412009272	G 3/4	10.16 Cv	1)
R412009273	G 1	10.16 Cv	1)
R412009275	G 1	10.16 Cv	2)

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

- 1) Suitable for use in Ex zones 1, 2, 21, 22
- 2) With adjustment screw lock

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.

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.

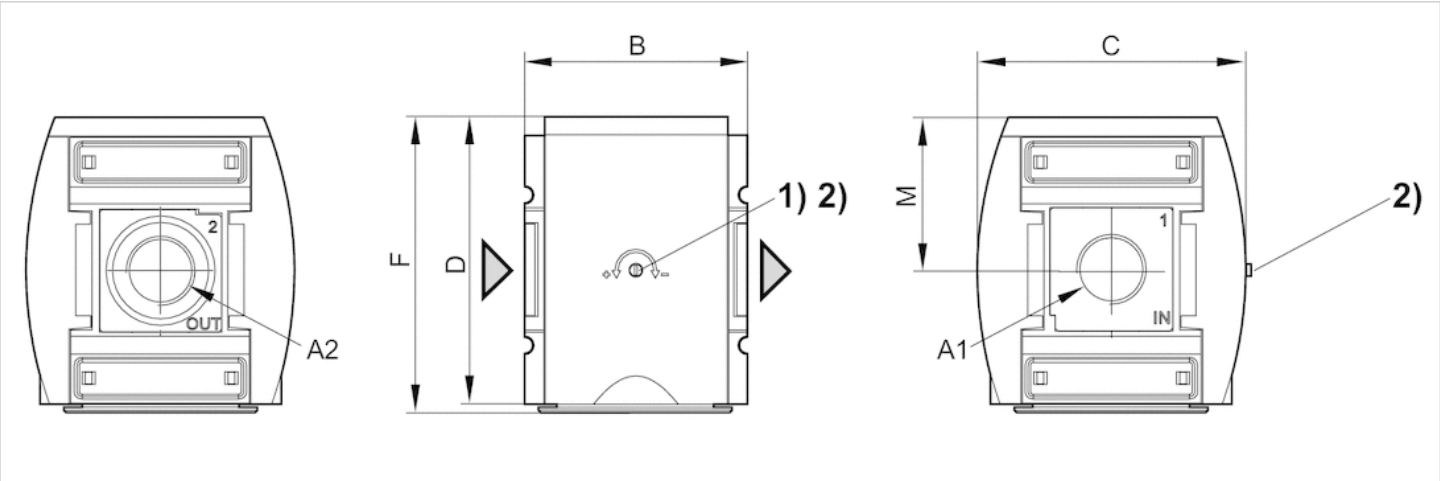
Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



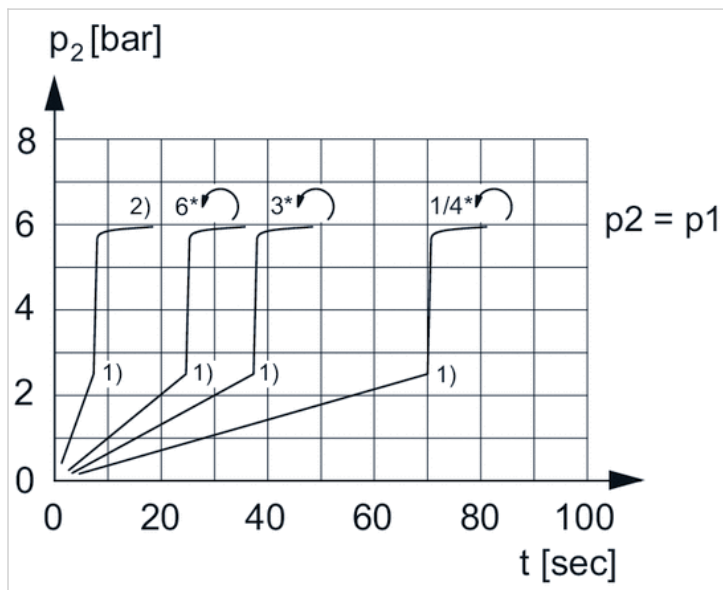
- A1 = input
A2 = output
1) Adjustment screw for filling time
2) Adjustment screw lock

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



p1 = working pressure

p2 = secondary pressure

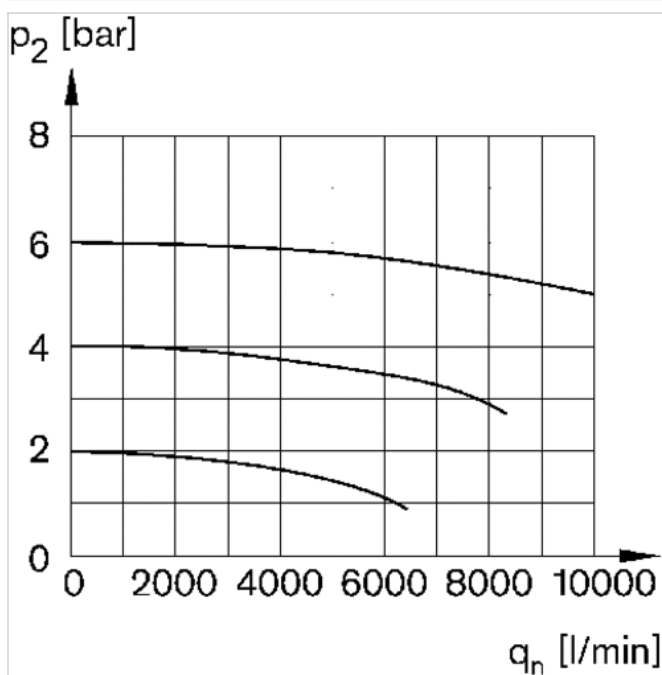
t = filling time, adjustable via adjustment screw (throttle)

1) Switching point: adjustable filling time, fixed change-over pressure $\approx 0.5 \times p1$ (50%)

2) Throttle fully opened

* Adjustment screw rotations

Flow rate characteristic

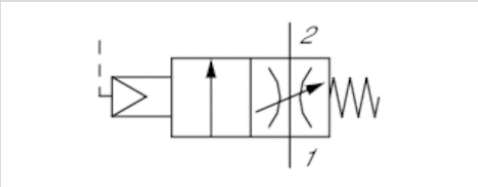


p2 = secondary pressure

qn = nominal flow

Filling valve, pneumatically operated, Series AS5-SSV

- adjustable filling time and change-over pressure
- 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.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Max. particle size	40 µm
Weight	0.948 lbs

Technical data

Part No.	Port	Pilot connection	Flow	Working pressure min./max.
			Qn 1►2	
R412009311	G 3/4	G 1/8	10.16 Cv	15 ... 232 psi
R412009312	G 1	G 1/8	10.16 Cv	37 ... 232 psi

Nominal flow Qn at p1 = 91.35 psi and Δp = 14.5 psi

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F . Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements. 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.

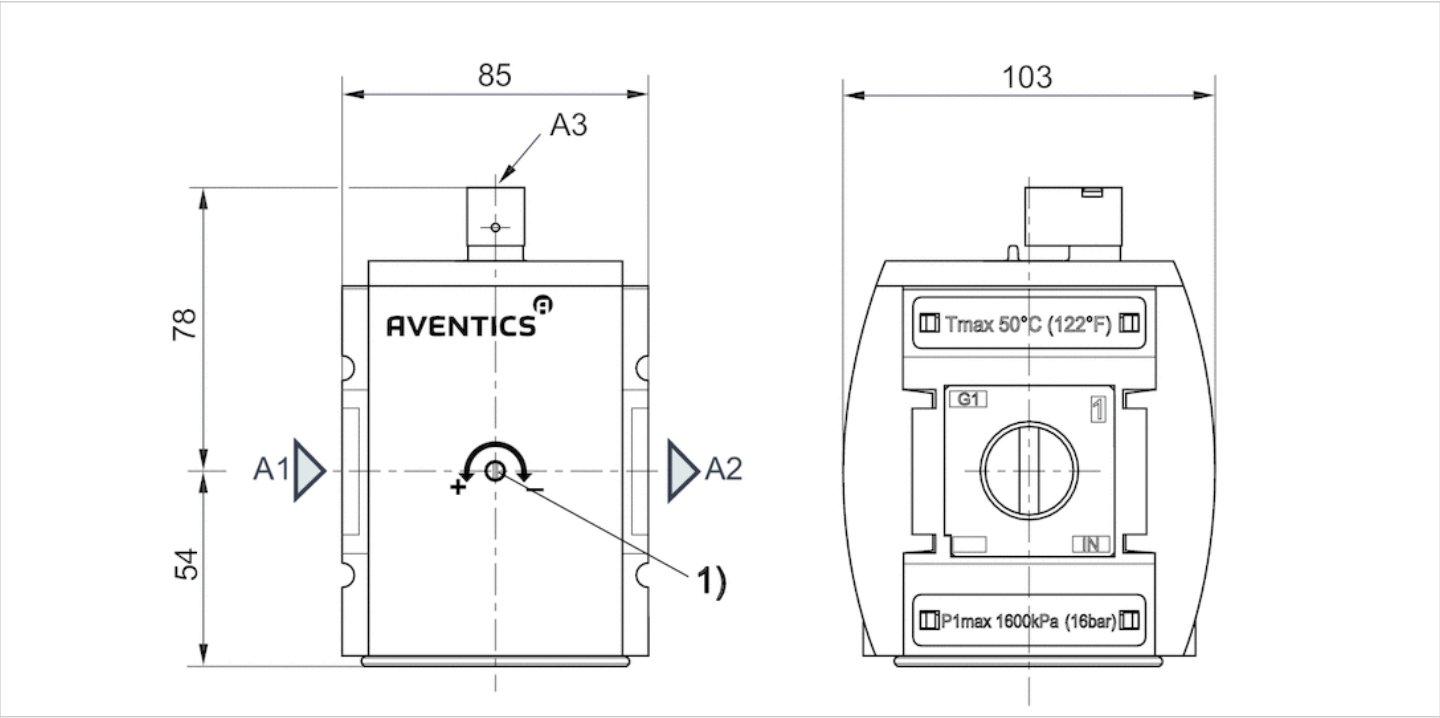
Technical information

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

Material	
Threaded bushing	Die cast zinc

Dimensions

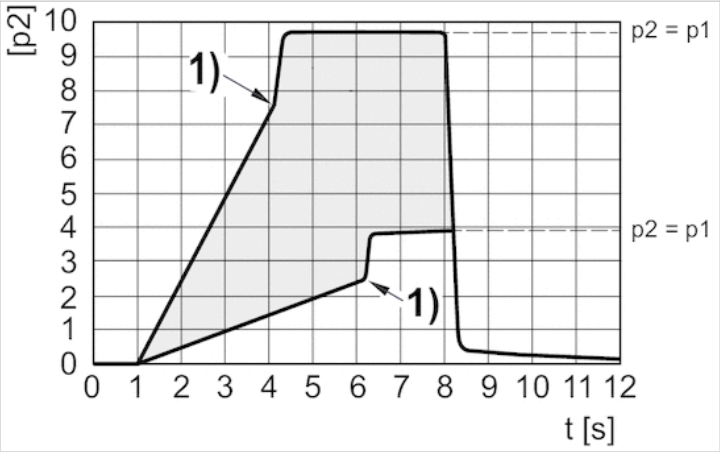
Dimensions



- A1 = input
- A2 = output
- A3 = control pressure connection
- 1) Adjustment screw for filling time

Diagrams

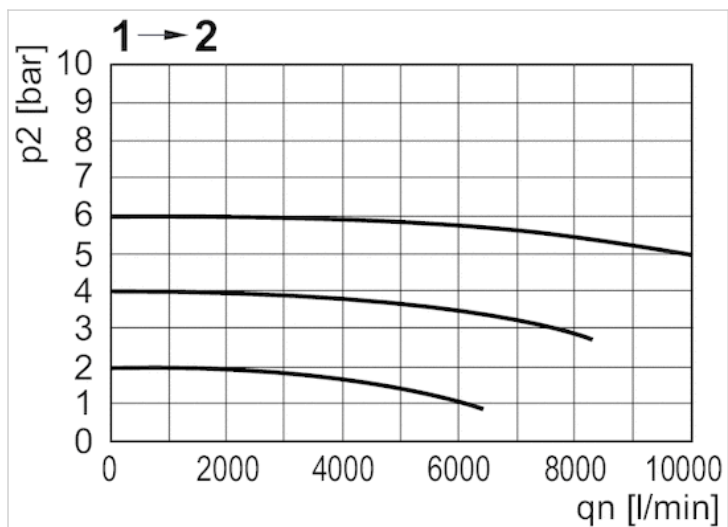
secondary pressure while filling



- p_1 = working pressure
- p_2 = secondary pressure
- t = filling time, adjustable via adjustment screw (throttle)

Change-over pressure individually adjustable via pneumatic signal
1) Switching point: adjustable filling time and change-over pressure

Flow rate characteristic



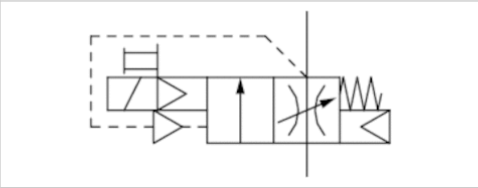
p2 = secondary pressure
qn = nominal flow

Filling valve, electrically operated, series AS5-SSV

- adjustable filling time and change-over pressure, Electr. connection: valve plug connector M12x1
- Compressed air connection G 3/4, G 1



Version	Poppet valve with elect. priority circuit, Can be assembled into blocks
Sealing principle	Soft sealing
Working pressure min./max.	37 ... 145 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
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	0.948 lbs



Technical data

Part No.		Port	Flow
			Qn
R412009373		G 3/4	10.16 Cv
R412009374		G 1	10.16 Cv

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F . Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements. Actuating the electric priority circuit disrupts the slow pressure build-up and pressure p1 is immediately applied. 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.

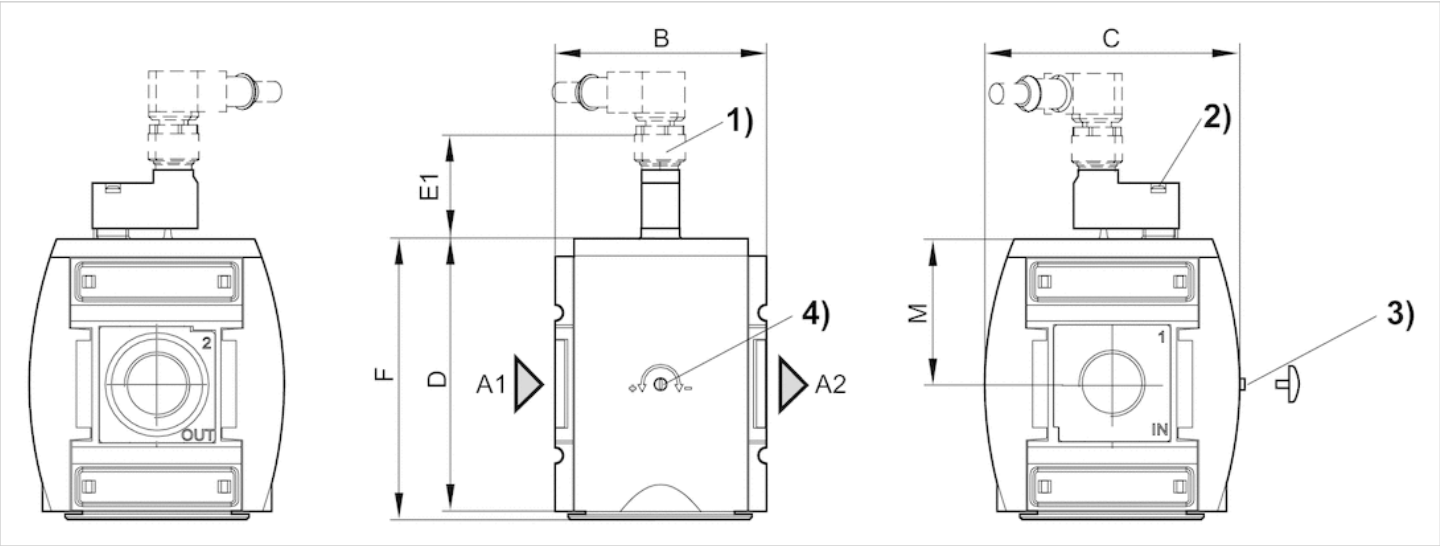
Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Dimensions



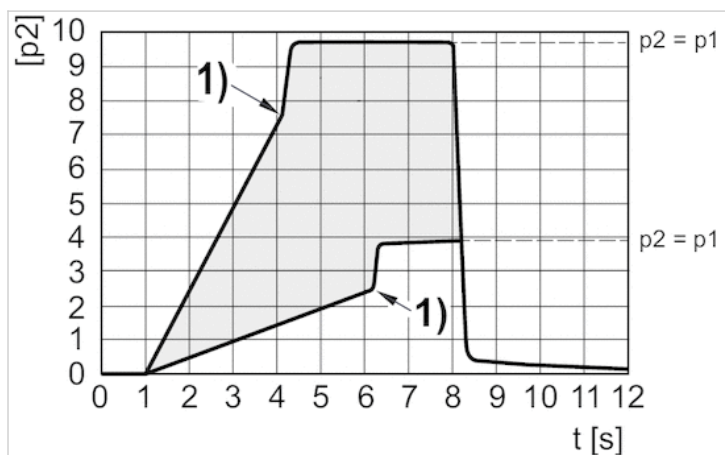
- A1 = input
A2 = output
1) plug M12
2) Manual override
3) Adjustment screw for filling time
4) Adjustment screw lock

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

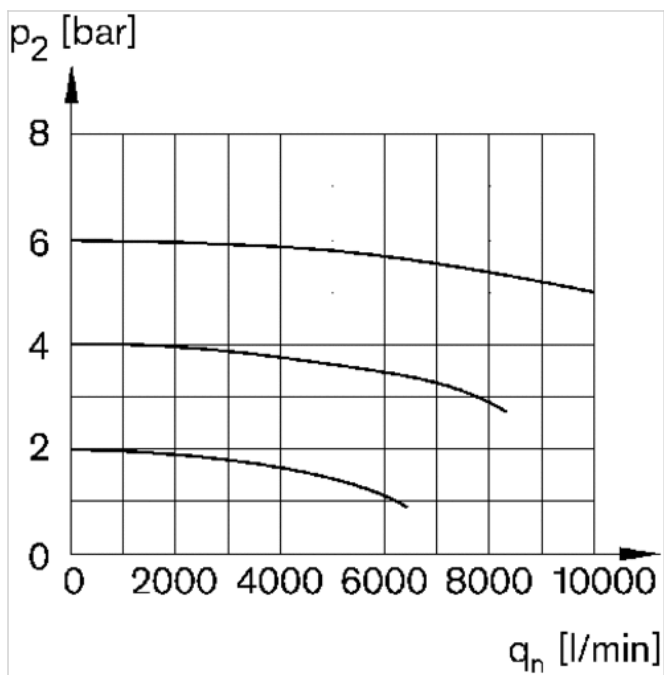
p_2 = secondary pressure

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

Change-over pressure individually adjustable via electrical signal

1) Switching point: adjustable filling time and change-over pressure

Flow rate characteristic

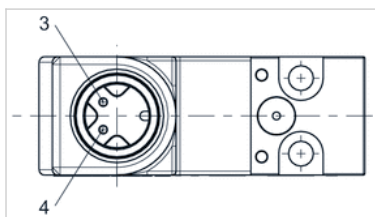


p_2 = secondary pressure

q_n = nominal flow

Pin assignments

Pin assignment M12x1

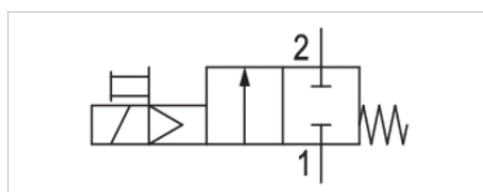


3: +/-

4: +/-

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	12.7 Cv
Working pressure min./max.	44 ... 145 psi
Medium	Compressed air, Neutral gases
Medium temperature min./max.	14 ... 122 °F
Ambient temperature min./max.	14 ... 122 °F
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	2.5 lbs

Technical data

Part No.		Compressed air connection input	Compressed air connection output	Operational voltage
R412009301		G 1	G 1	DC 24 V

Part No.	Power consumption	Electrical connection	basic valve with electrical connector
	DC	Pilot valve	
R412009301	2 W	Plug, ISO 15217, form C	Basic valve with pilot valve

Part No.	Reverse polarity protection
R412009301	Protected against polarity reversal

Nominal flow Q_n with secondary pressure p₂ = 87 psi at Δp = 14.5 psi, MO = Manual override

Technical information

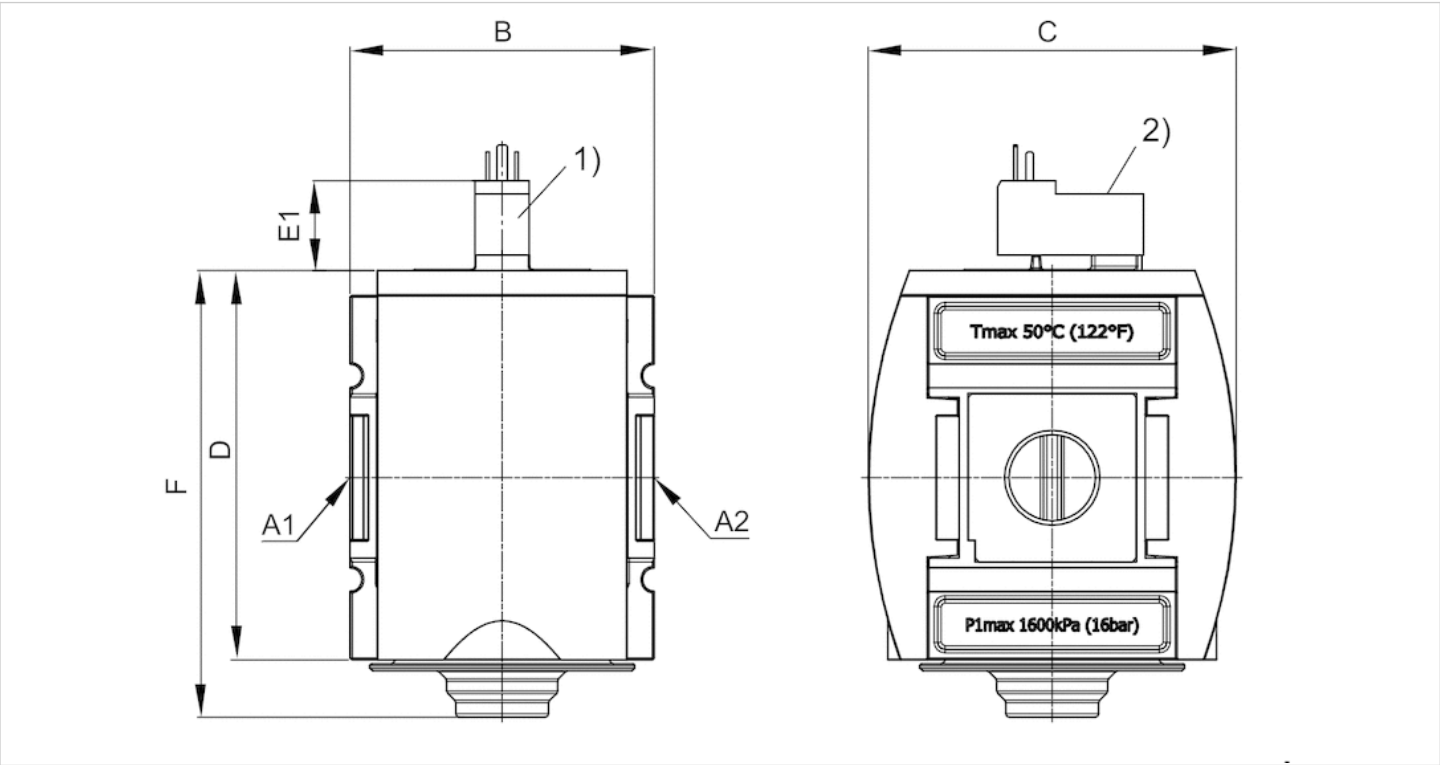
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

Dimensions

Dimensions



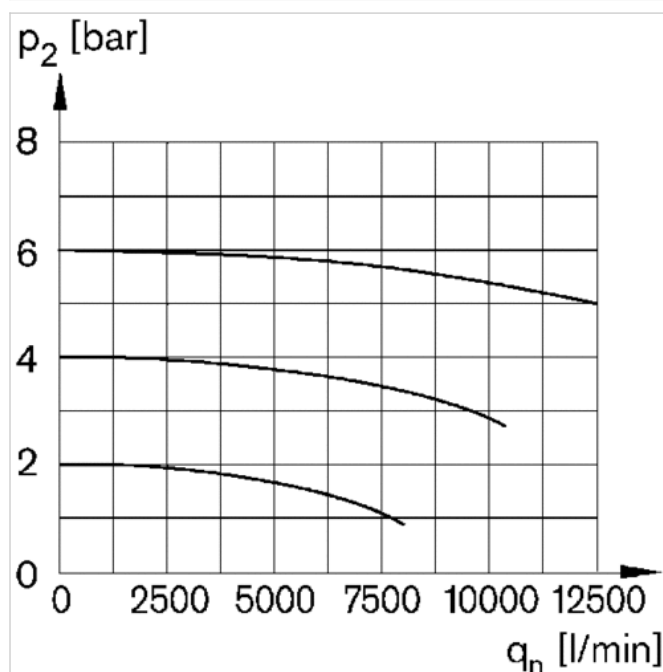
- A1 = input
 A2 = output
 1) Connection for valve plug connector according to ISO 15217 (form C)
 2) Manual override

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

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

- Compressed air connection G 3/4, G 1
- Pipe connection
- ATEX optional



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

12.7 Cv

12.7 Cv

3.76 Cv

37 ... 145 psi

Compressed air, Neutral gases

14 ... 122 °F

14 ... 122 °F

Soft sealing

5 µm

See table below

See table below

Technical data

Part No.			Compressed air connection input	Compressed air connection output	Exhaust
R412009265			G 3/4	G 3/4	G 1/2
R412009266			G 3/4	G 3/4	G 1/2
R412009267			G 3/4	G 3/4	G 1/2
R412009269			G 1	G 1	G 1/2
R412009270			G 1	G 1	G 1/2
R412009271			G 1	G 1	G 1/2
R412009264		—	G 3/4	G 3/4	G 1/2
R412009258		—	G 3/4	G 3/4	G 1/2
R412009268		—	G 1	G 1	G 1/2
R412009376			G 1	G 1	G 1/2
R412009259		—	G 1	G 1	G 1/2

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412009265	24 V	-	-
R412009266	-	110 V	110 V
R412009267	-	220 V	230 V
R412009269	24 V	-	-
R412009270	-	110 V	110 V
R412009271	-	220 V	230 V
R412009264	-	-	-
R412009258	-	-	-
R412009268	-	-	-

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412009376	24 V	-	-
R412009259	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
R412009265	2 W	-	-	-
R412009266	-	1.6 VA	1.4 VA	2.2 VA
R412009267	-	1.6 VA	1.4 VA	2.2 VA
R412009269	2 W	-	-	-
R412009270	-	1.6 VA	1.4 VA	2.2 VA
R412009271	-	1.6 VA	1.4 VA	2.2 VA
R412009264	-	-	-	-
R412009258	-	-	-	-
R412009268	-	-	-	-
R412009376	2 W	-	-	-
R412009259	-	-	-	-

Part No.	Switch-on power	Protection class	Electrical connection	Connector standard
	AC 60 Hz		Pilot valve	
R412009265	-	IP65	Plug, ISO 15217, form C	ISO 15217
R412009266	1.6 VA	IP65	Plug, ISO 15217, form C	ISO 15217
R412009267	1.6 VA	IP65	Plug, ISO 15217, form C	ISO 15217
R412009269	-	IP65	Plug, ISO 15217, form C	ISO 15217
R412009270	1.6 VA	IP65	Plug, ISO 15217, form C	ISO 15217
R412009271	1.6 VA	IP65	Plug, ISO 15217, form C	ISO 15217
R412009264	-	-	-	-
R412009258	-	-	-	-
R412009268	-	-	-	-
R412009376	-	IP65	Plug, M12x1	-
R412009259	-	-	-	-

Part No.	basic valve with electrical connector
R412009265	Basic valve with pilot valve
R412009266	Basic valve with pilot valve
R412009267	Basic valve with pilot valve
R412009269	Basic valve with pilot valve
R412009270	Basic valve with pilot valve
R412009271	Basic valve with pilot valve
R412009264	Basic valve without pilot valve
R412009258	Basic valve without pilot valve, with CNOMO subbase
R412009268	Basic valve without pilot valve
R412009376	Basic valve with pilot valve
R412009259	Basic valve without pilot valve, with CNOMO subbase

Part No.	Reverse polarity protection	Weight	Fig.	
R412009265	Protected against polarity reversal	1.49 lbs	Fig. 3	-
R412009266	Protected against polarity reversal	1.49 lbs	Fig. 3	-

Part No.	Reverse polarity protection	Weight	Fig.	
R412009267	Protected against polarity reversal	1.49 lbs	Fig. 3	-
R412009269	Protected against polarity reversal	1.49 lbs	Fig. 3	-
R412009270	Protected against polarity reversal	1.49 lbs	Fig. 3	-
R412009271	Protected against polarity reversal	1.49 lbs	Fig. 3	-
R412009264	-	1.41 lbs	Fig. 1	1)
R412009258	-	1.37 lbs	Fig. 2	1)
R412009268	-	1.41 lbs	Fig. 1	1)
R412009376	-	1.43 lbs	Fig. 4	-
R412009259	-	1.37 lbs	Fig. 2	1)

Nominal flow Qn with secondary pressure p2 = 87 psi at $\Delta p = 14.5$ psi, MO = Manual override

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

ATEX optional: The ATEX ID depends on the selected pilot valve.

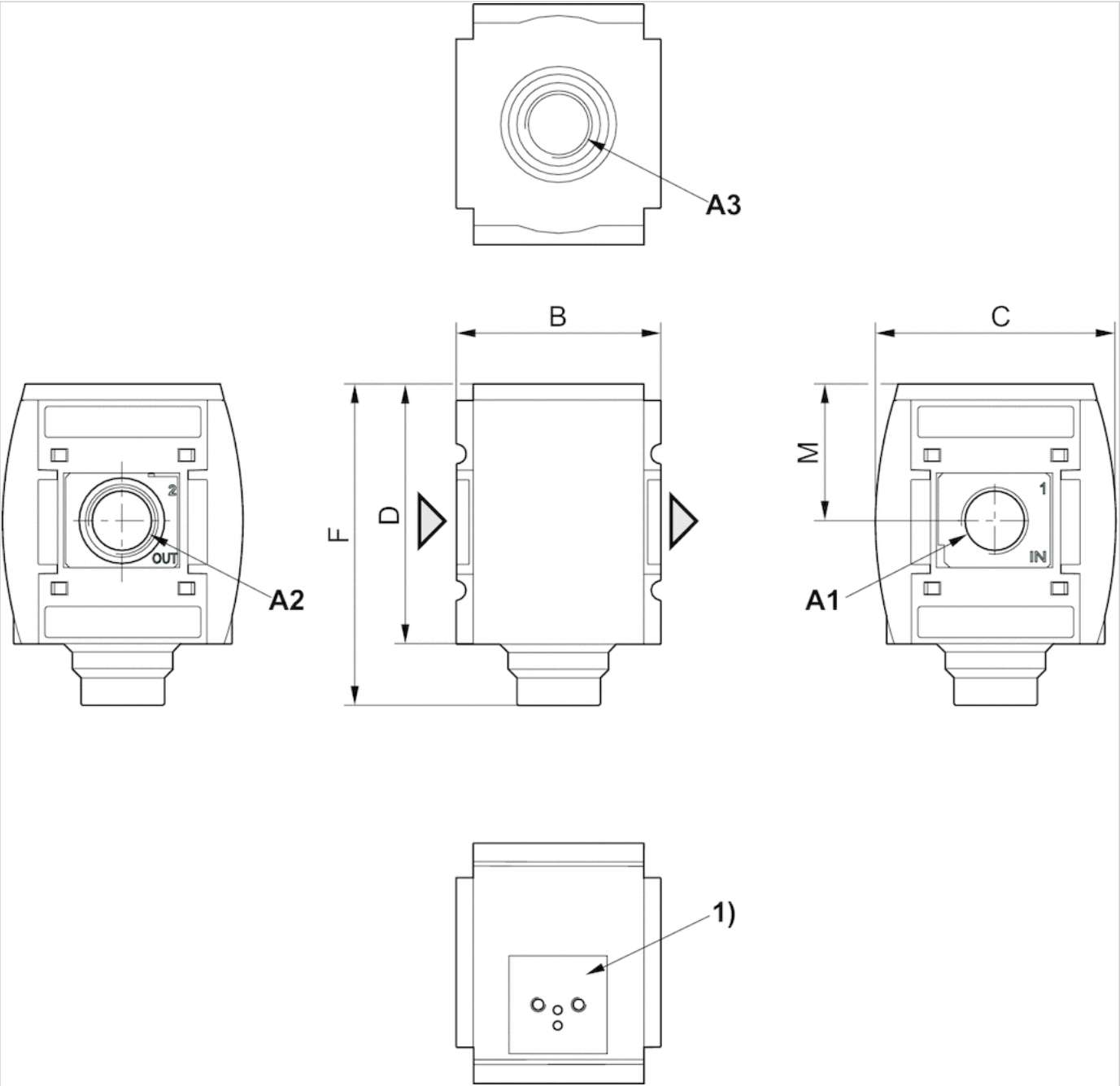
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

Dimensions

Fig. 1: 3/2-directional valve without pilot valve with porting configuration for series DO16



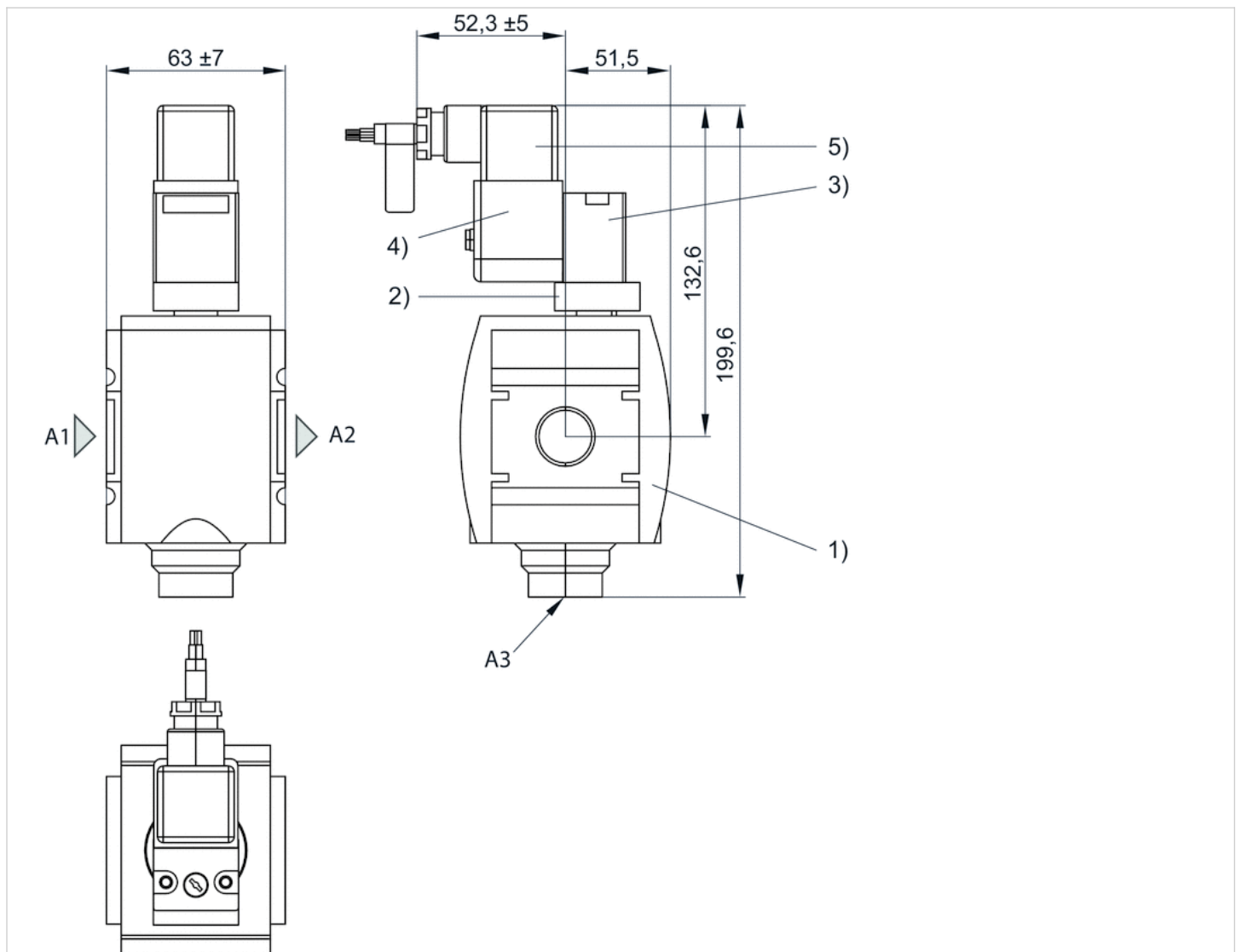
A1 = input
 A2 = output
 A3 = ventilation port
 1) For pilot valve series DO16

Dimensions in mm

A1	A2	A3	B	C	D	F	M
G 3/4	G 3/4	G 1/2	63	103	80	125	42.5
G 1	G 1	G 1/2	63	103	80	125	42.5

Dimensions

Fig. 2: 3/2 directional valve with transition plate (suitable for ATEX)



A1 = input

A2 = output

A3 = ventilation port

1) Shut-off valve

2) Transition plate

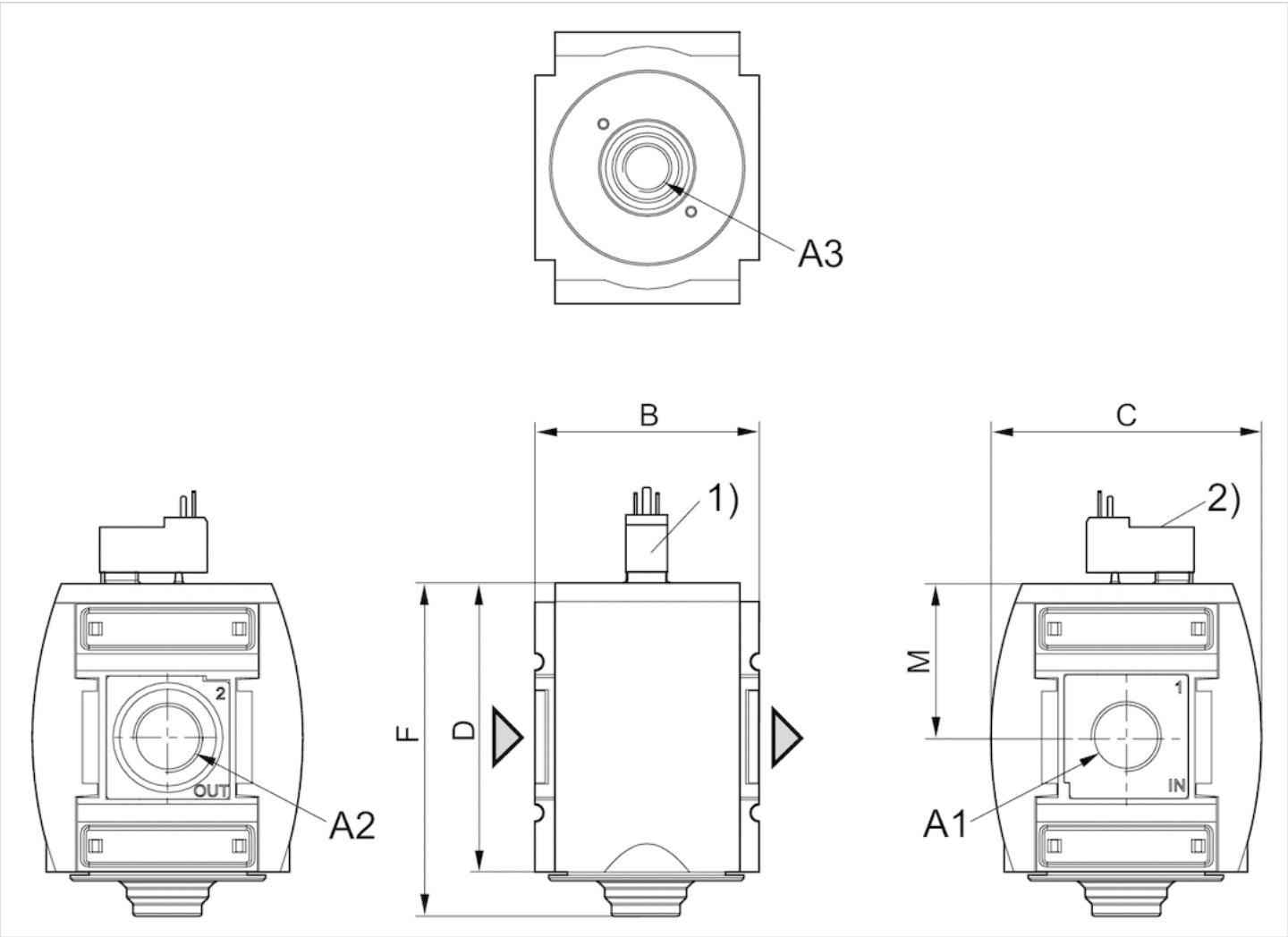
3) Pilot valve

4) Coil

5) Electrical connector

See accessories for pilot valve and coil

Fig. 3: 3/2 directional valve with pilot valve and connection for valve plug connector



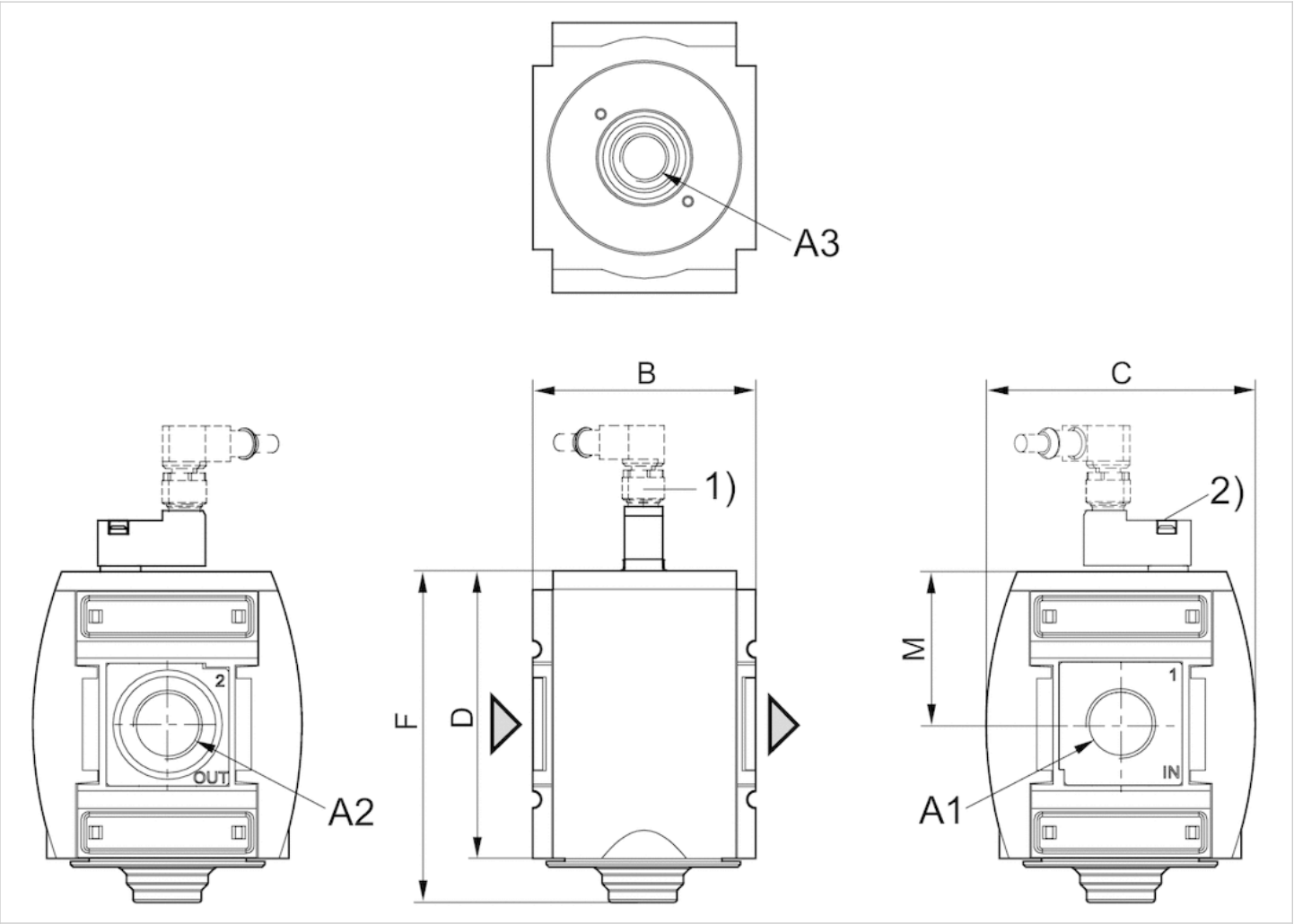
A1 = input
 A2 = output
 A3 = ventilation port
 1) For valve plug connectors according to ISO 15217 (form C)
 2) Manual override

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

Dimensions

Fig. 4: 3/2-directional valve with pilot valve push-in fitting M12x1



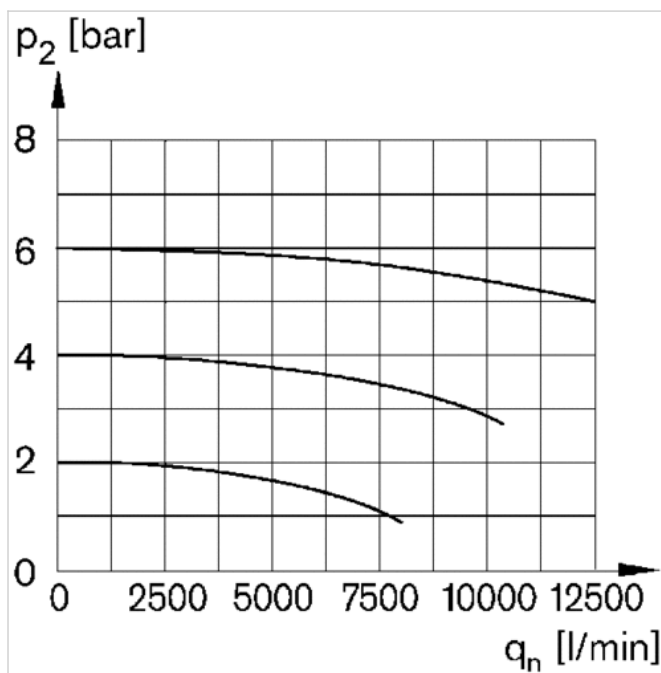
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) plug M12
- 2) Manual override

Dimensions in mm

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

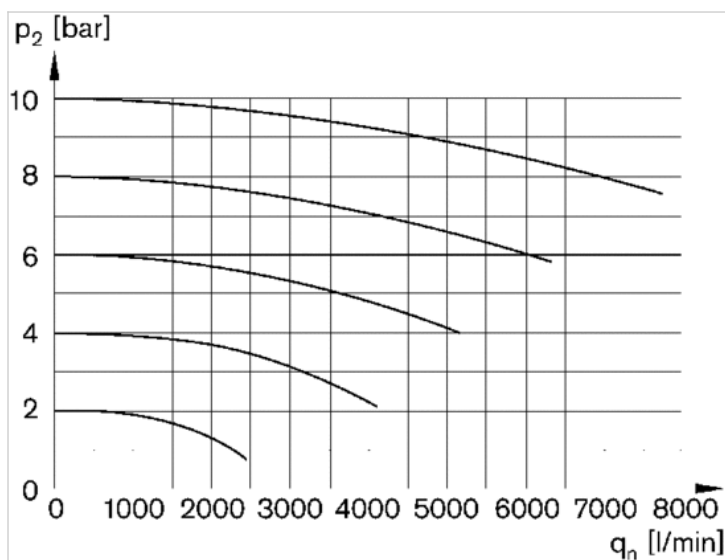
Diagrams

Flow rate characteristic 1 2



p_2 = secondary pressure
 q_n = nominal flow

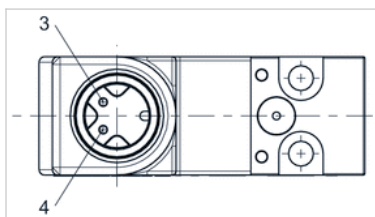
Rear exhaust 2 3



p_2 = secondary pressure
 q_n = nominal flow

Pin assignments

Pin assignment M12x1

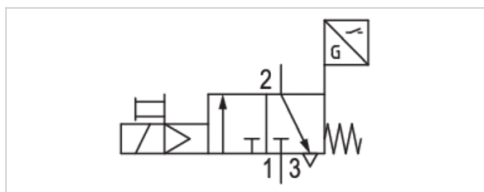


3: +/-

4: +/-

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

12.7 Cv

12.7 Cv

3.76 Cv

37 ... 145 psi

Compressed air, Neutral gases

14 ... 122 °F

14 ... 122 °F

Soft sealing

25 µm

IP65

1.01 lbs

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 = 87 psi at Δp = 14.5 psi

Technical information

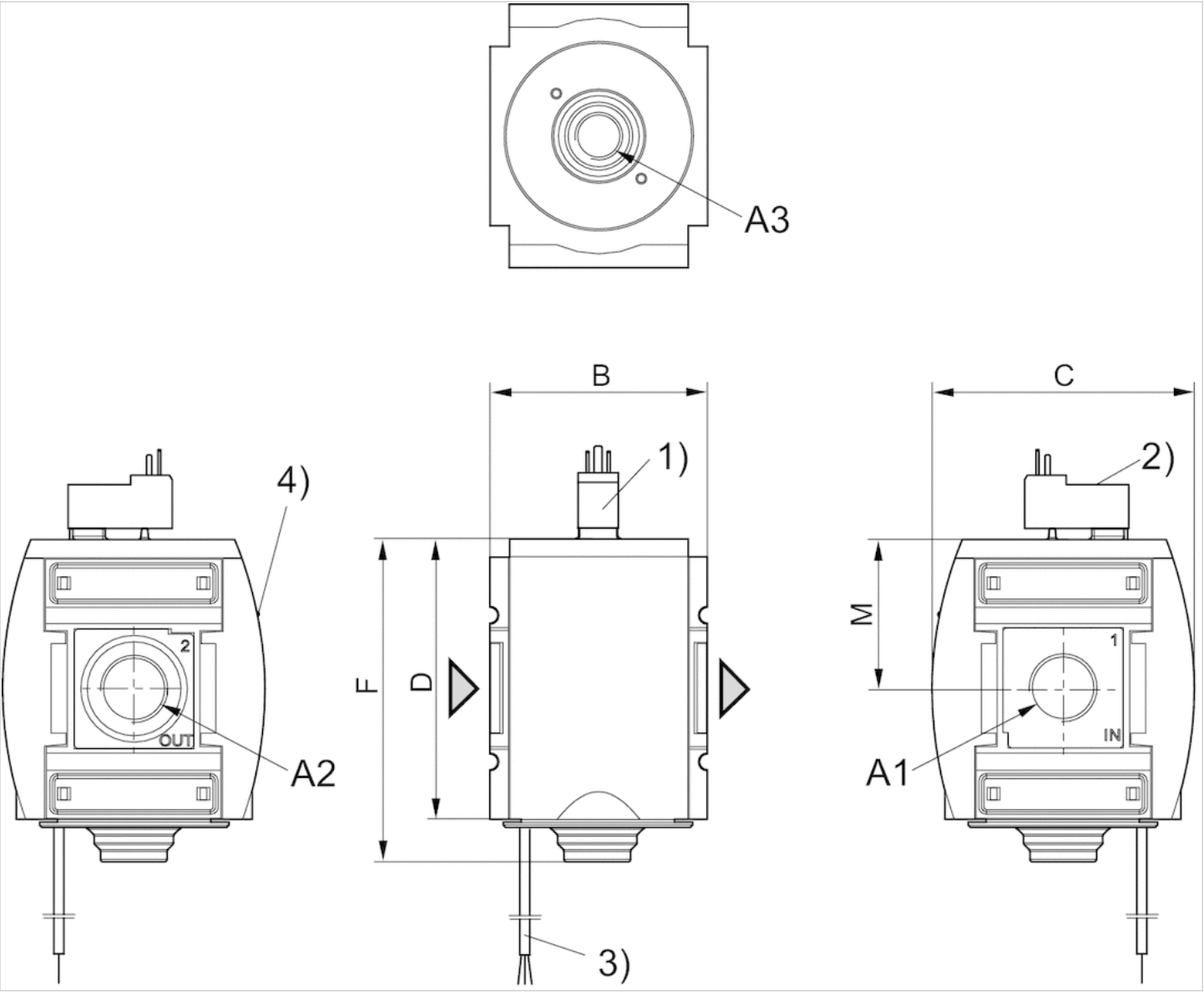
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
An ST6 sensor (contactless) is used to detect the switching position in the non-actuated state (position: exhaust).
The sensor signal is visible on the front of the cover
Electronic sensor R412003658 included in scope of delivery (assembled).
For sensor connection, see the selection table.
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

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



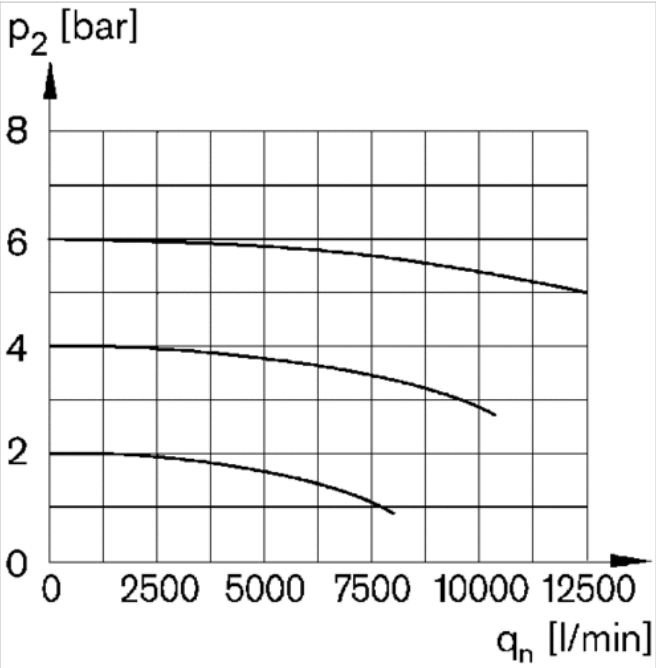
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) Electr. connection: valve plug connector form C, ISO 15217
- 2) Manual override
- 3) For version with sensor: cable length 3 m PUR.
- 4) Optical switch status indicator

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

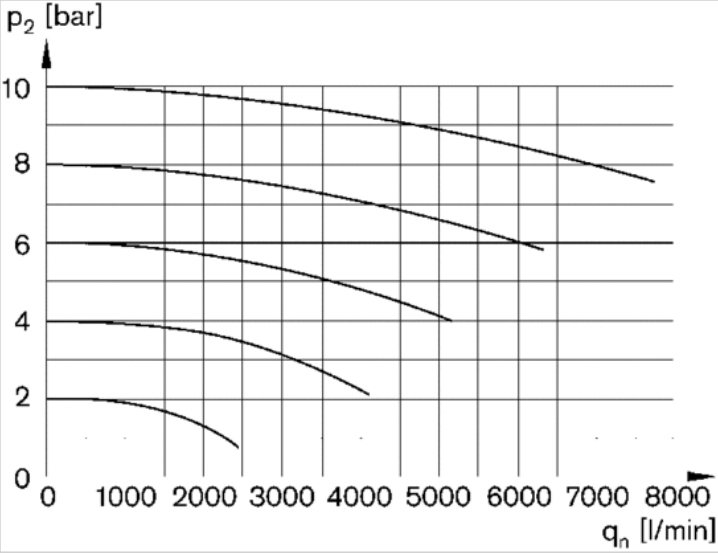
Diagrams

Flow rate characteristic 1 2



p2 = secondary pressure
qn = nominal flow

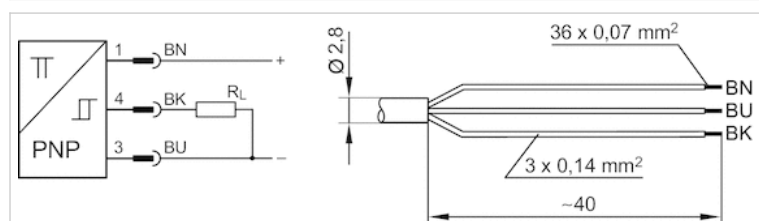
Rear exhaust 2 3



p2 = secondary pressure
qn = nominal flow

Pin assignments

Sensor pin assignment tin-plated wire ends



BN = brown

BK = black

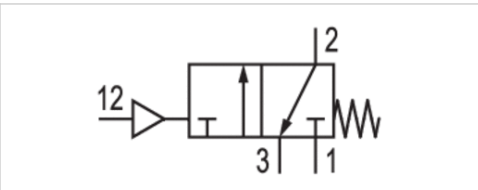
BU = blue

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

- Compressed air connection G 3/4, G 1
- Pipe connection
- suitable for ATEX



Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 232 psi
Control pressure min./max.	37 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Weight	1.01 lbs



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	12.7 Cv	12.7 Cv	3.76 Cv
R412009263	G 1	G 1/8	G 1/2	12.7 Cv	12.7 Cv	3.76 Cv

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

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.

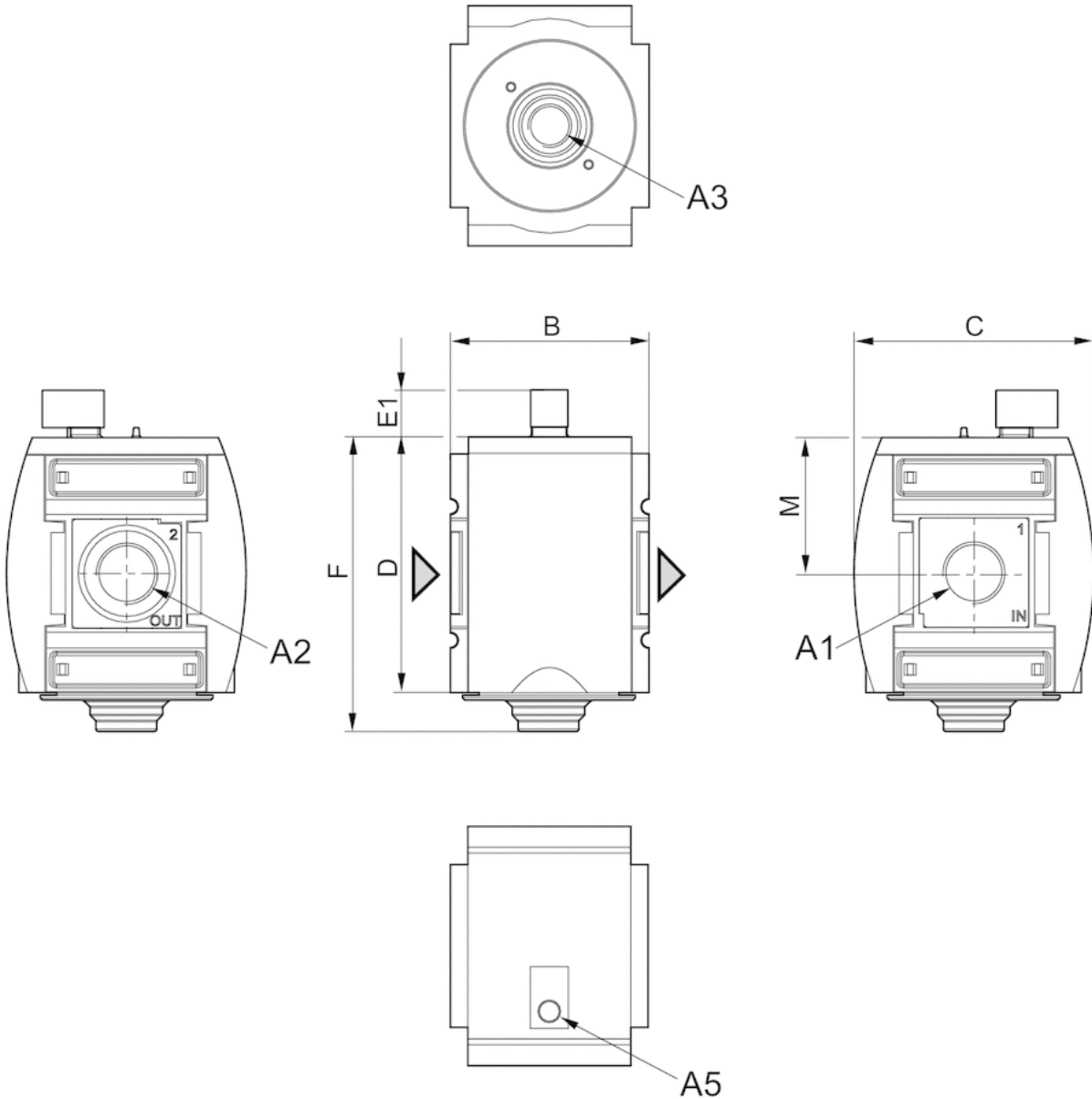
Technical information

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

Material	
Threaded bushing	Die cast zinc

Dimensions

Dimensions



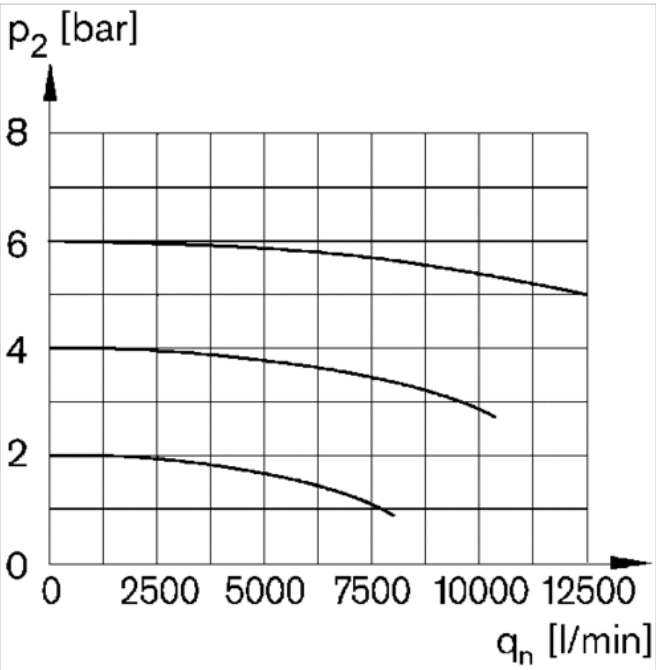
- A1 = input
- A2 = output
- A3 = ventilation port
- A5 = control pressure connection

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

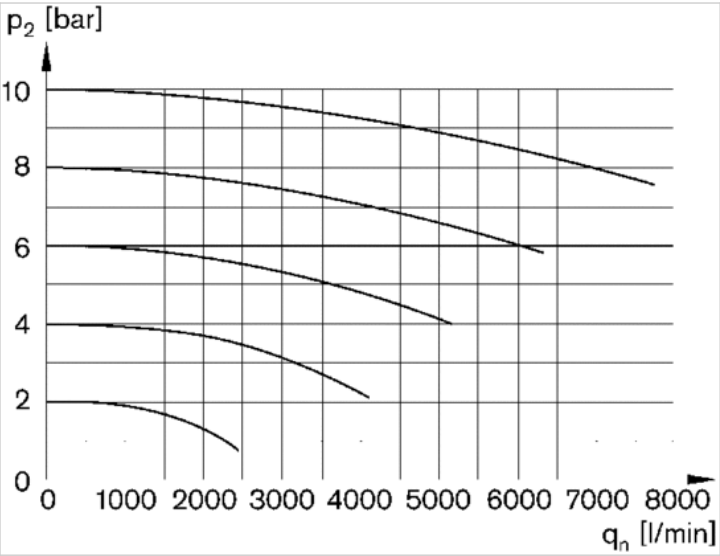
Diagrams

Flow rate characteristic 1 2



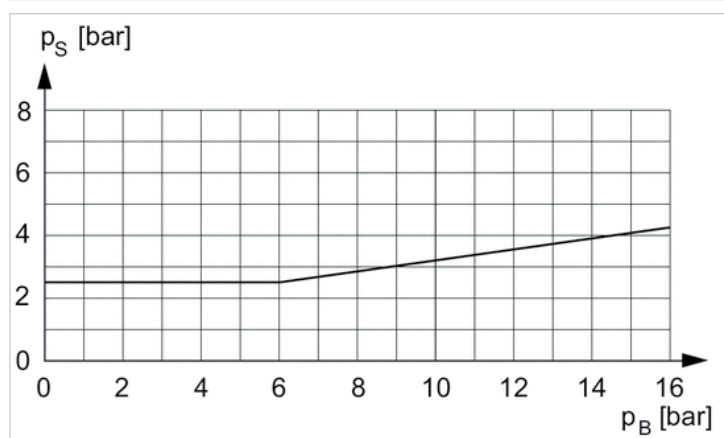
p_2 = secondary pressure
 q_n = nominal flow

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

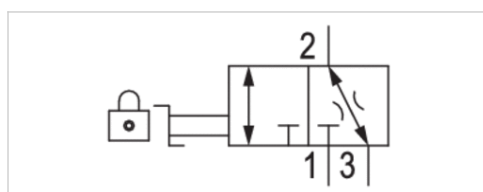
P= Working pressure

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

- G 3/4, G 1
- lockable
- for padlocks
- suitable for ATEX



Version	Ball valve
Activation	Mechanical
Lock type	lockable
Actuating element	rotary switch
Sealing principle	metal/metal sealing
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Max. particle size	25 µm
Weight	1.82 lbs



Technical data

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

Part No.	Compressed air connection	Flow	Flow	Lock type
	Exhaust	Qn 1 ► 2	Qn 2 ► 3	
R412009260	G 3/4	30.49 Cv	0.132 Cv	for padlocks
R412009261	G 3/4	30.49 Cv	0.132 Cv	for padlocks

Part No.	Locking base
R412009260	Steel, galvanized
R412009261	Steel, galvanized

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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

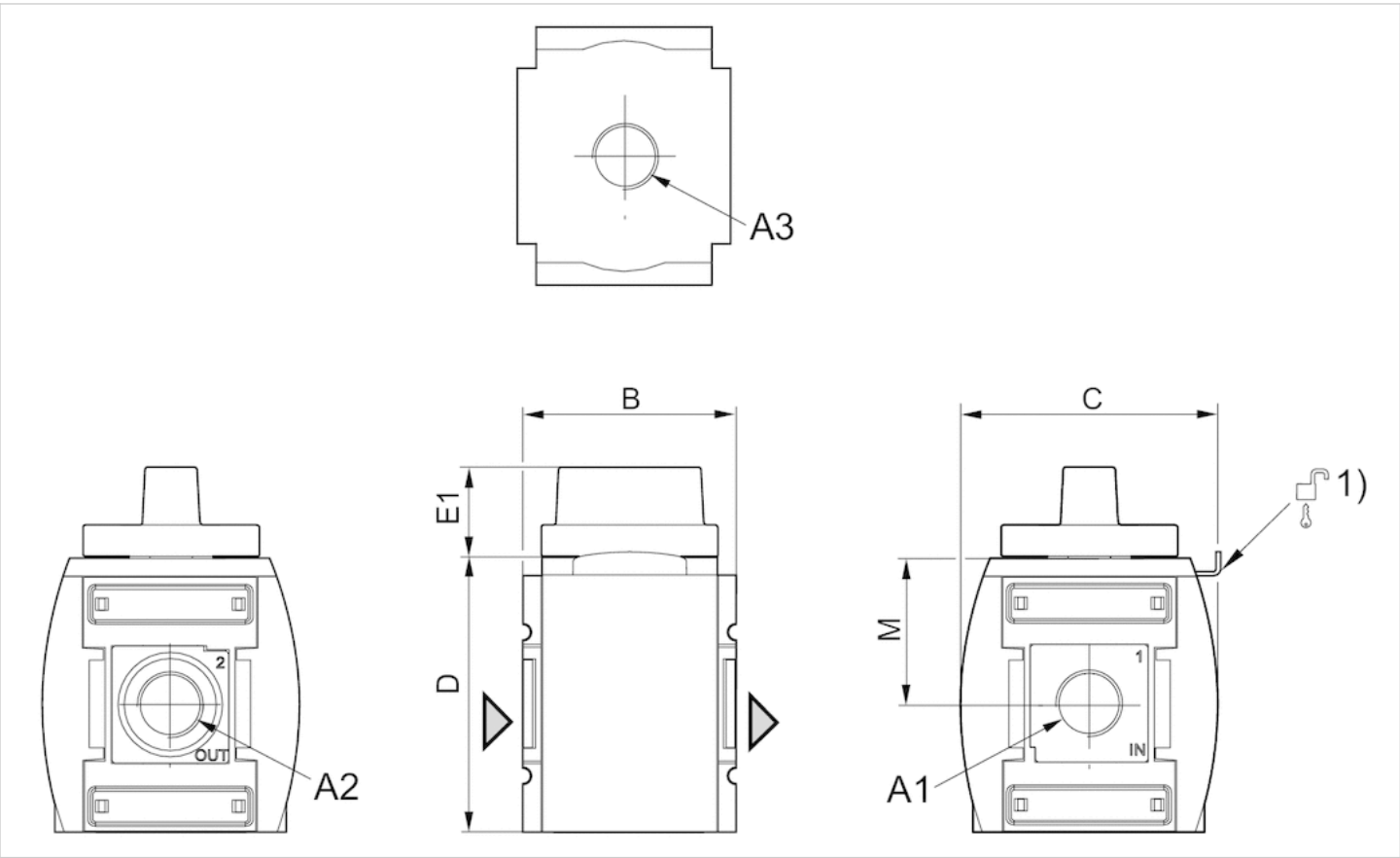
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

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

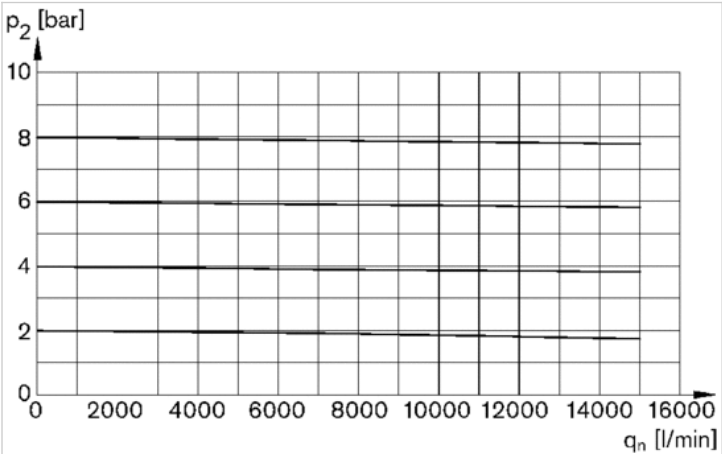
1) Mounting option for padlocks, max. shackle Ø 8

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

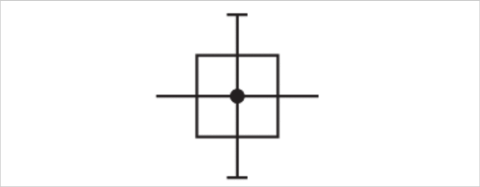
Flow rate characteristic



p_2 = secondary pressure
 q_n = nominal flow

Distributor, Series AS5-DIS

- G 3/4, G 1
- Distributor 2x
- Distributor
- suitable for ATEX



Version	Distributor, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Weight	1.43 lbs

Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow
		Qn 1►2	Qn 1►3	Qn 1►5
R412009250	G 3/4	18.29 Cv	8.64 Cv	12.2 Cv
R412009251	G 1	18.29 Cv	8.64 Cv	12.2 Cv

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

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

Technical information

Suitable for direct mounting of a PE1 and PM1 series pressure sensor (flange version)

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

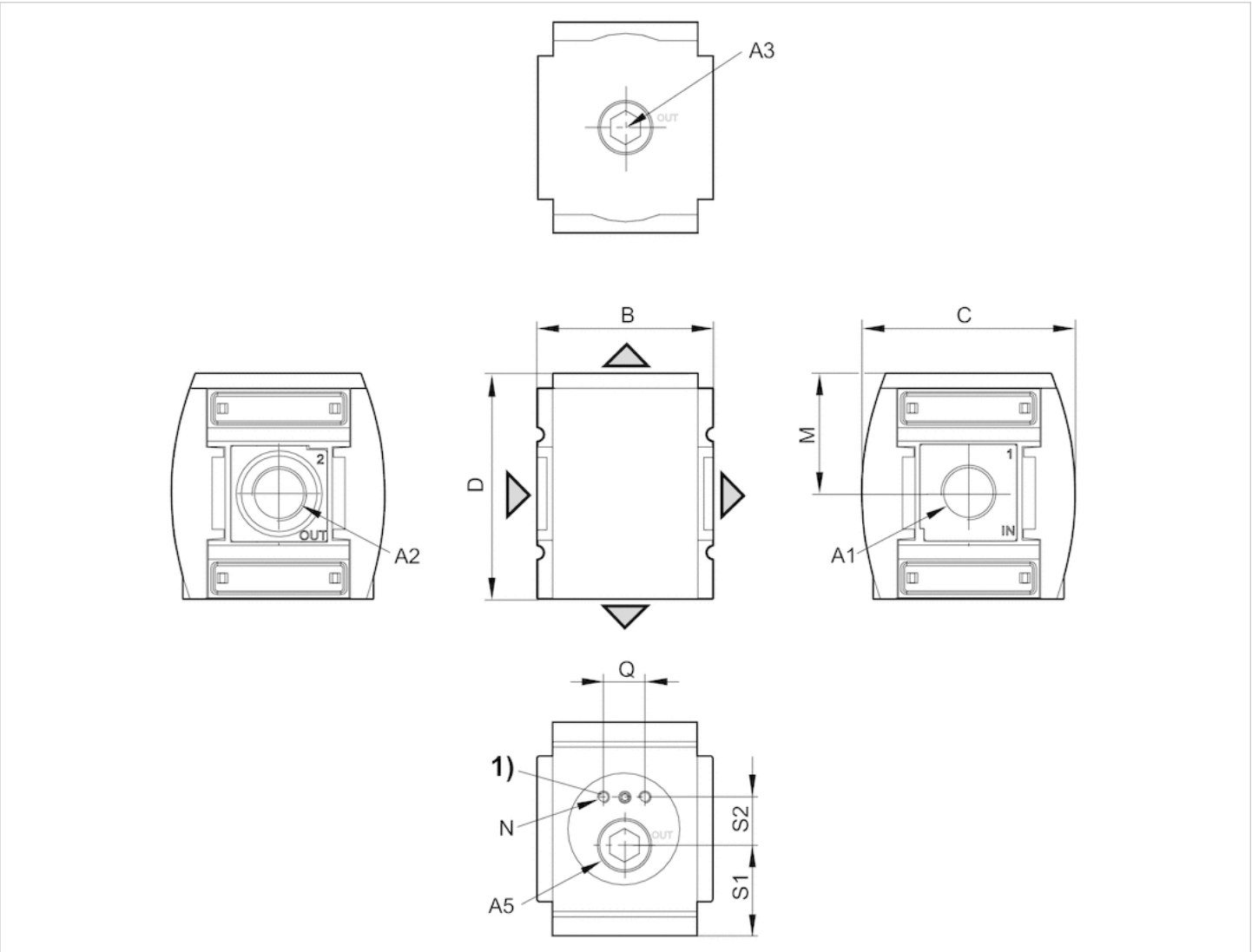
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

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 = 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

Distributor, Series AS5-DIN

- G 3/4, G 1
- Non-return valve
- suitable for ATEX



Version	Non-return valve, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	6 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases



Technical data

Part No.	Port	Nominal flow
		Qn 1→2
R412009252	G 3/4	16.26 Cv
R412009253	G 1	16.26 Cv

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

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

Technical information

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

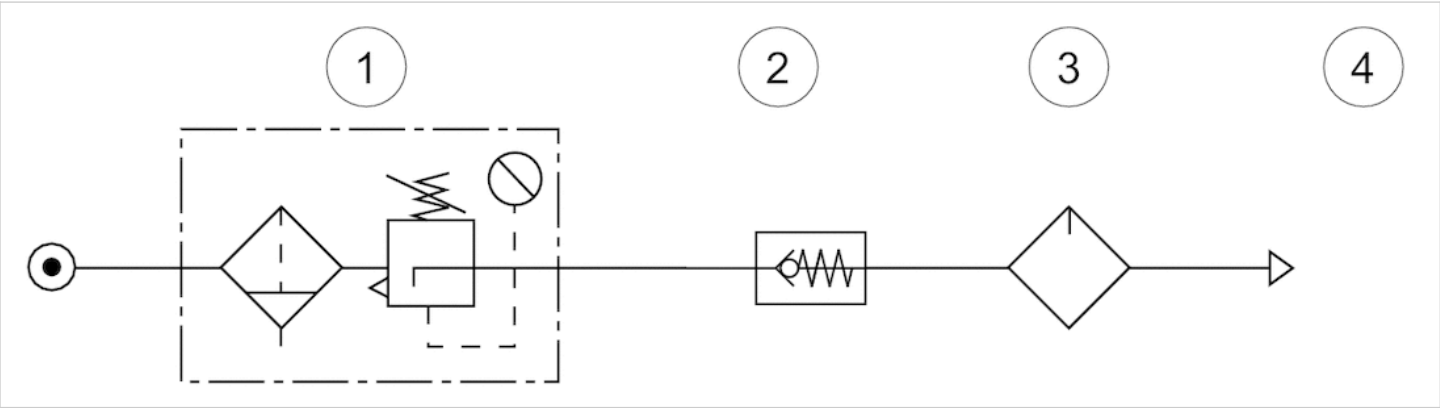
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

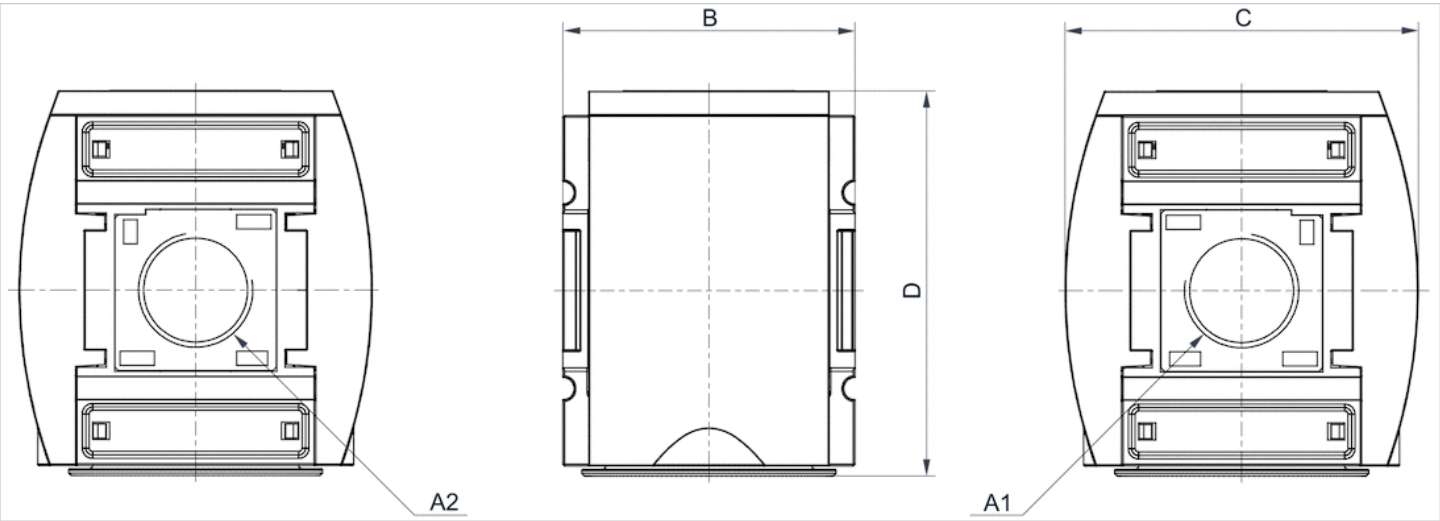
Dimensions

usage



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

Dimensions



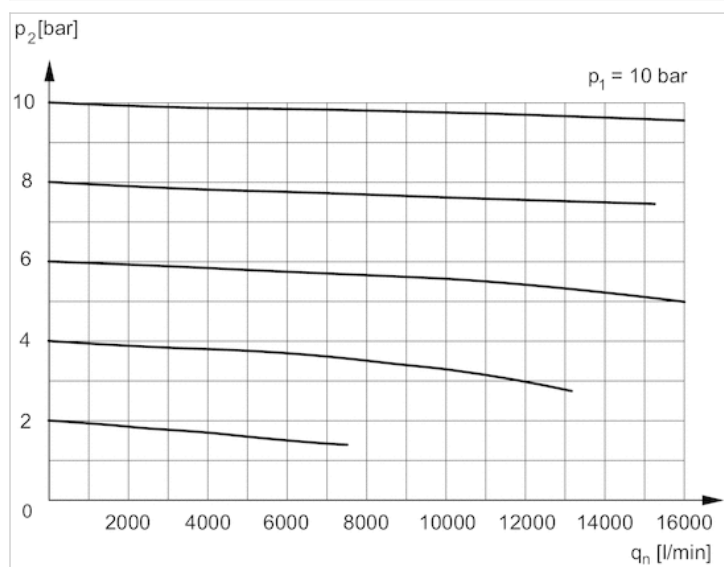
A1 = input
A2 = output

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

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

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



Version	Reservoir
Certificates	suitable for ATEX
Working pressure min./max.	232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air
Filter reservoir volume	2.94 fl.oz.
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	0.19 lbs	Fig. 1
R412009339	Polyamide	0.256 lbs	Fig. 2
R412009340	Polyamide	0.256 lbs	Fig. 2
R412009344	-	1.5 lbs	Fig. 1
R412009345	-	1.63 lbs	Fig. 2
R412009346	-	1.63 lbs	Fig. 2

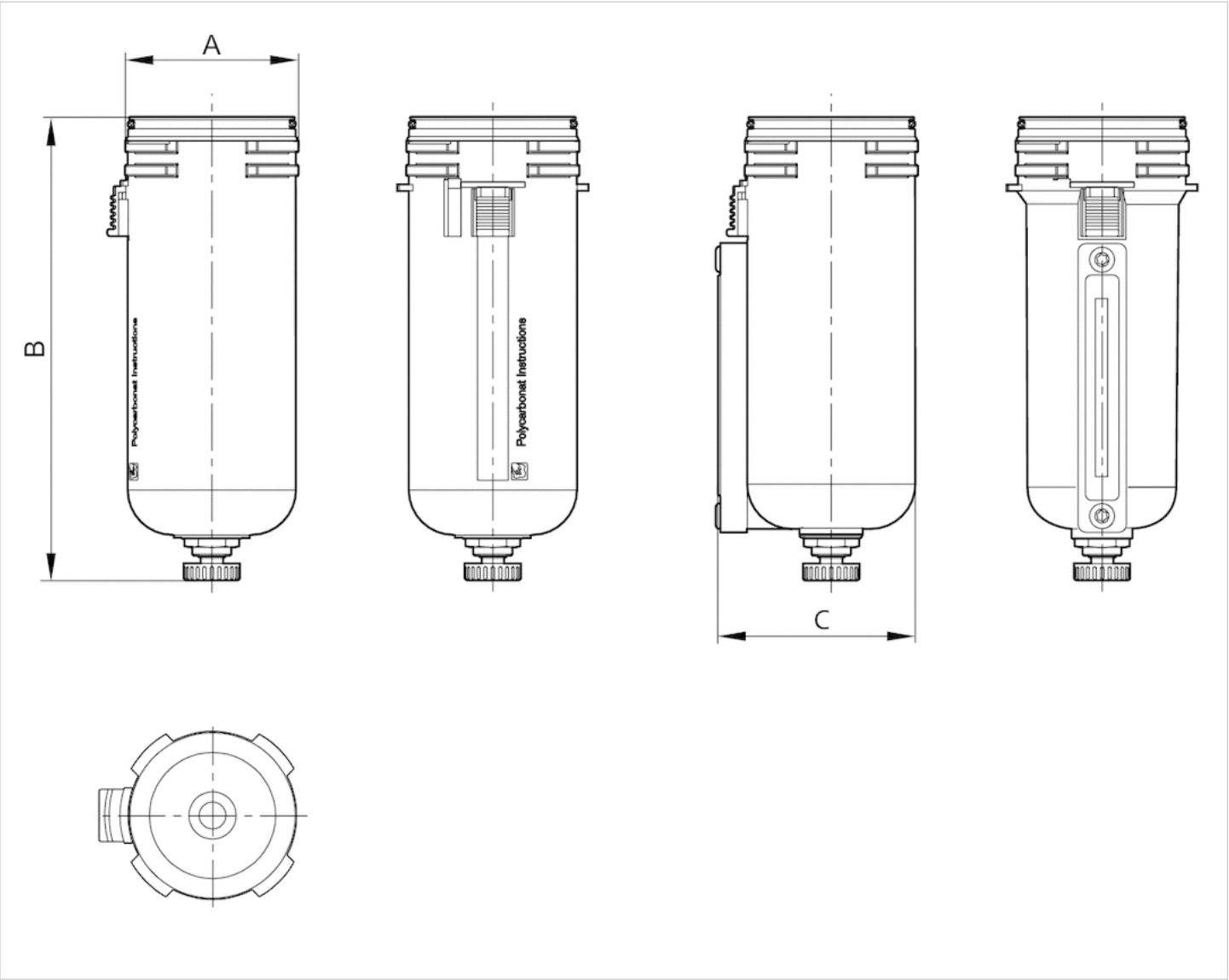
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

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

Dimensions

Fig. 1

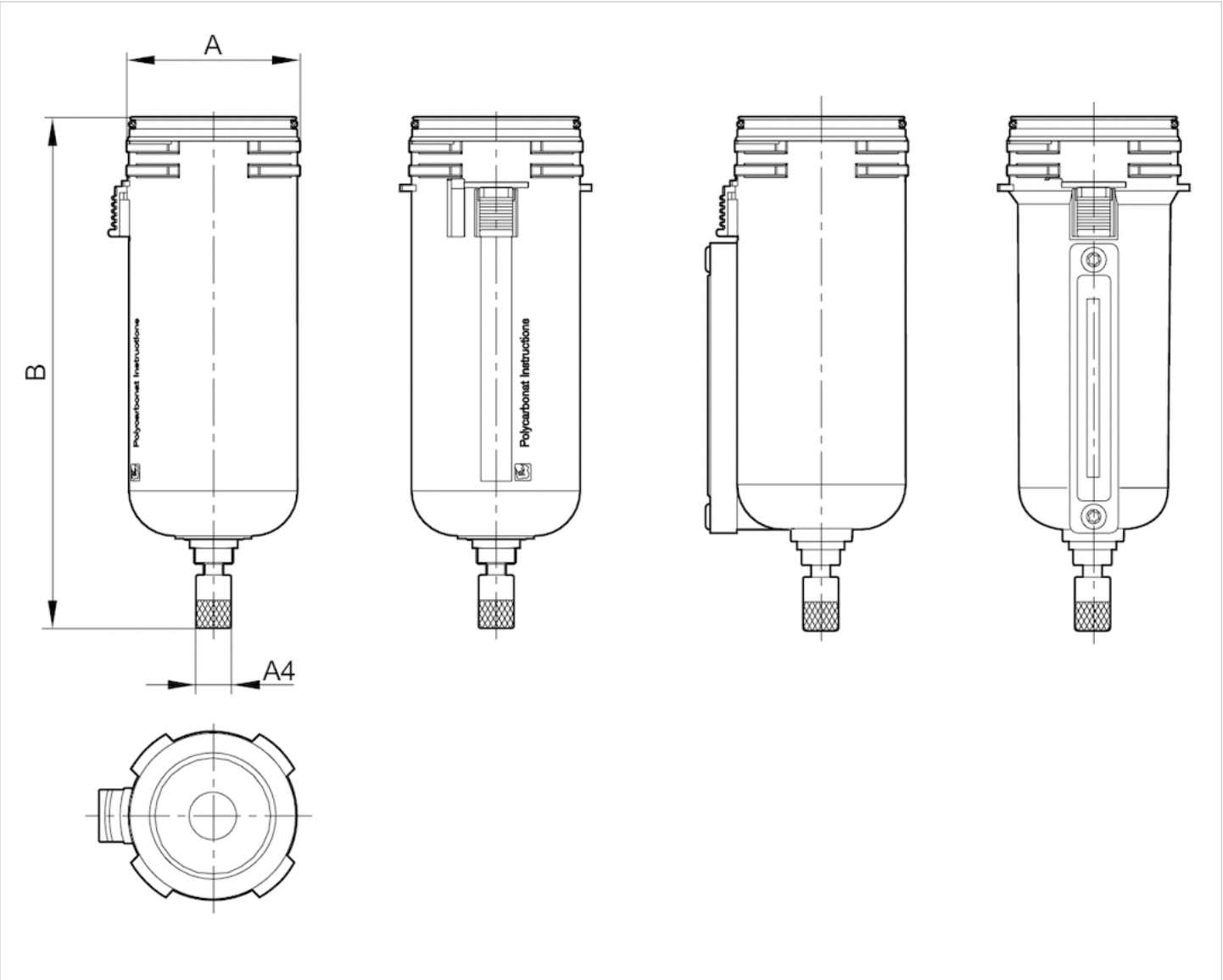


Dimensions

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
- suitable for ATEX



Version	Reservoir
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air
Filter reservoir volume	2.94 fl.oz.
Weight	See table below

Technical data

Part No.	Reservoir	Protective guard	Weight
R412009347	Polycarbonate	Polyamide	0.19 lbs
R412009349	Die cast zinc, with window	-	1.7 lbs

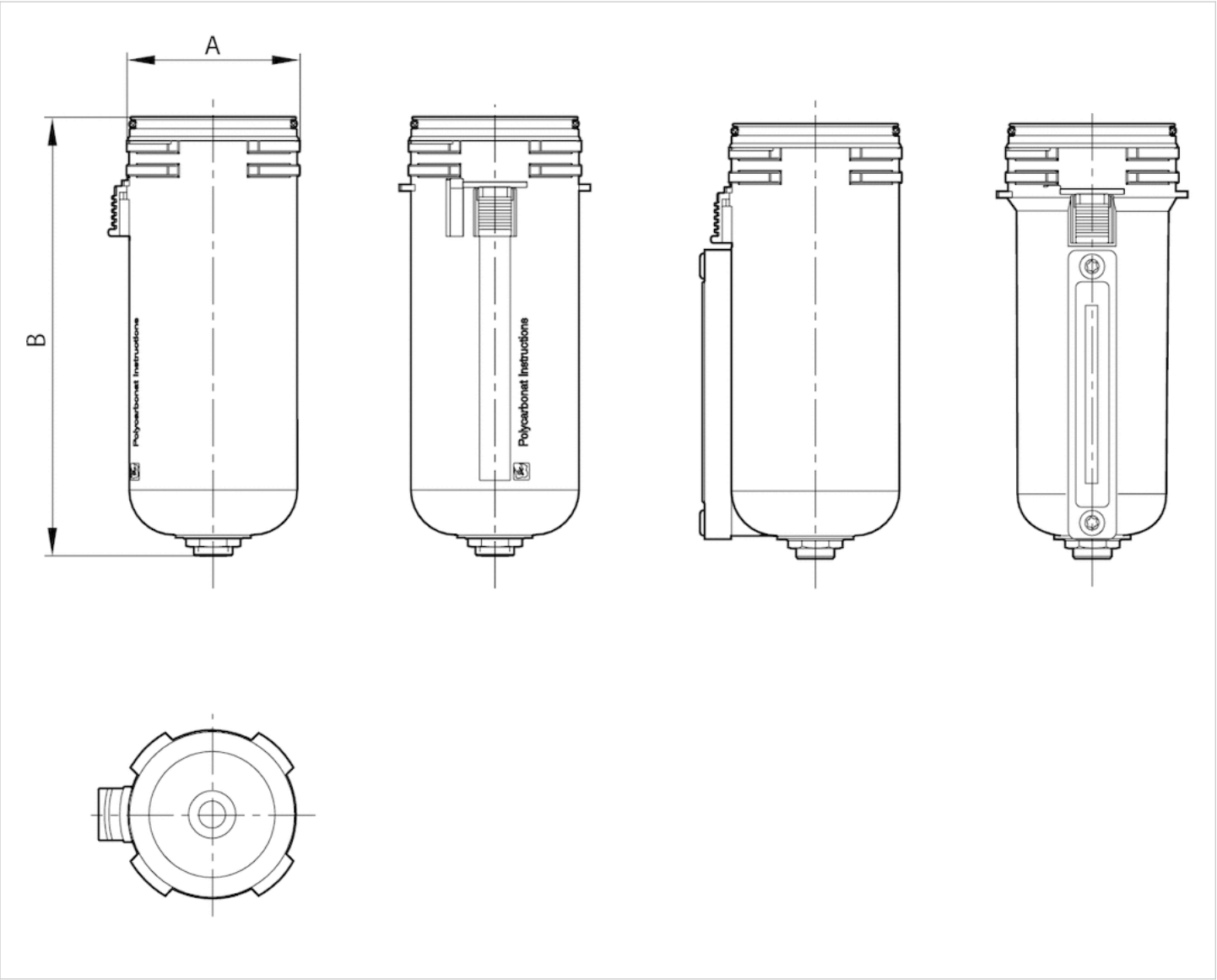
Suitable for use in Ex zones 1, 2, 21, 22

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
- suitable for ATEX



Version	Reservoir
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Oil
Lubricator reservoir volume	6.12 fl.oz.
Weight	See table below

Technical data

Part No.	Electrical level indicator	Reservoir	Protective guard	Weight
R412009351	with external query	Polycarbonate	Polyamide	0.19 lbs
R412009352	-	Polycarbonate	Polyamide	0.738 lbs
R412009358	-	Die cast zinc, with window	-	1.5 lbs

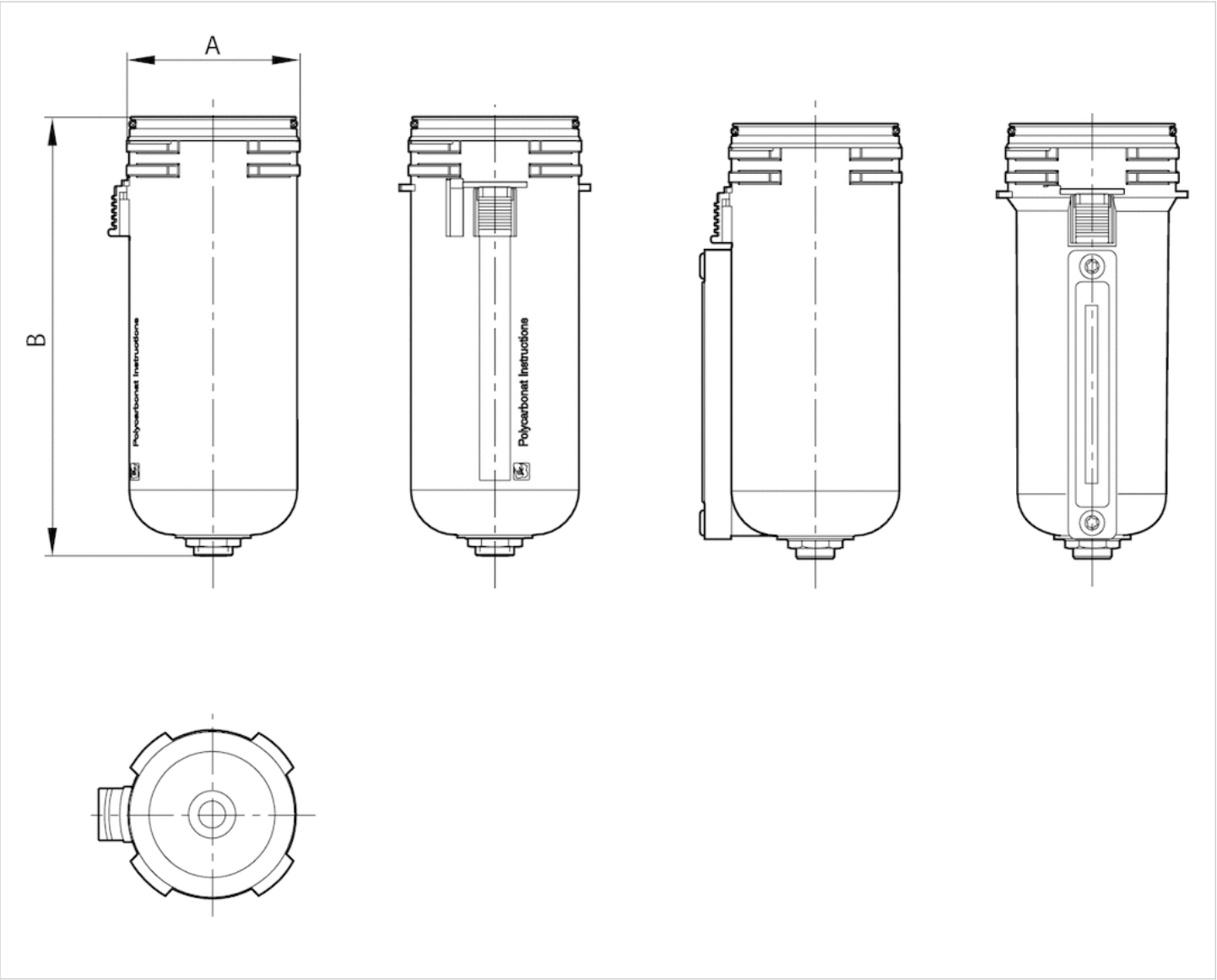
Suitable for use in Ex zones 1, 2, 21, 22

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

14 ... 122 °F

0.869 lbs

Technical data

Part No.
R412009368

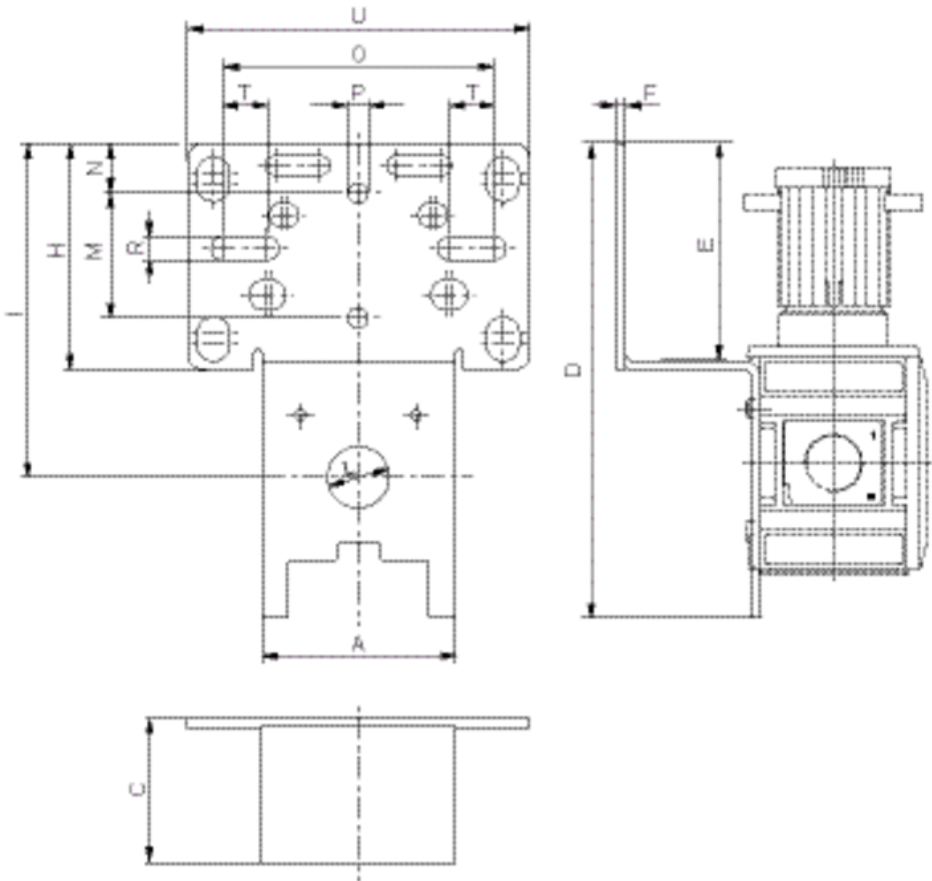
Scope of delivery incl. 2 mounting screws 3x10 (Torx 10 IP) DIN EN ISO 10664

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

14 ... 122 °F
0.264 lbs

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

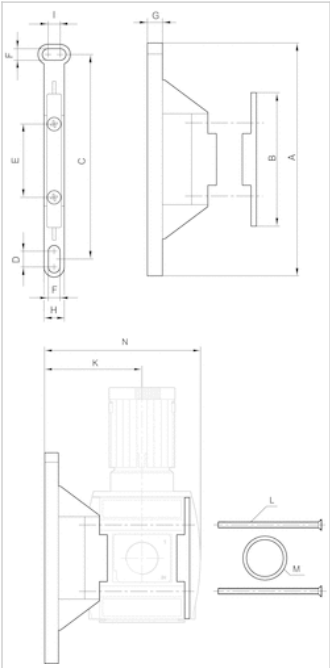
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



L = Mounting screw
M = O-ring

Dimensions

Part No.	A	B	C	D	E	F	G	H	I	K	L	M	N
R412009370	162	102	140	10	57	8.5	10	17.5	10	87	M6x90	37x2,3	138.5

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



Ambient temperature min./max.

14 ... 122 °F

Weight

0.165 lbs

Technical data

Part No.
R412009371

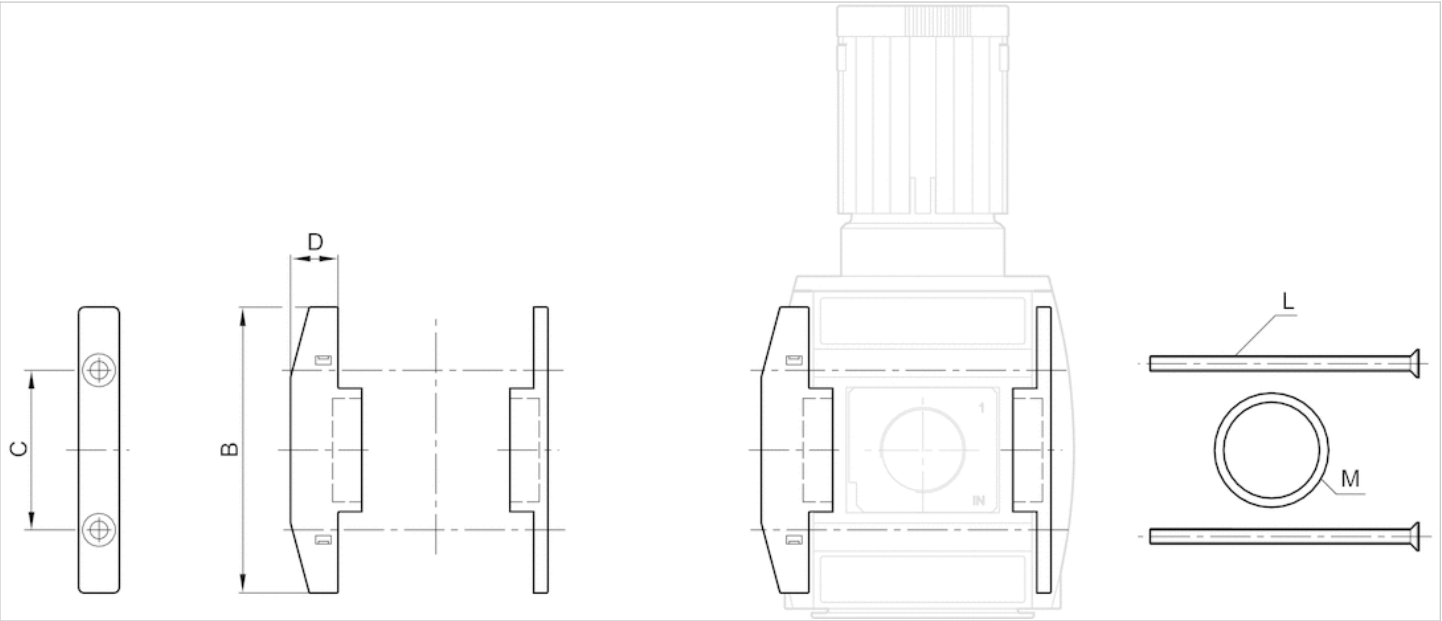
Scope of delivery incl. 2 mounting screws M6x90-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 1x O-ring
 Suitable for use in Ex zones 1, 2, 21, 22

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.
Weight

14 ... 122 °F
1.5 lbs

Technical data

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

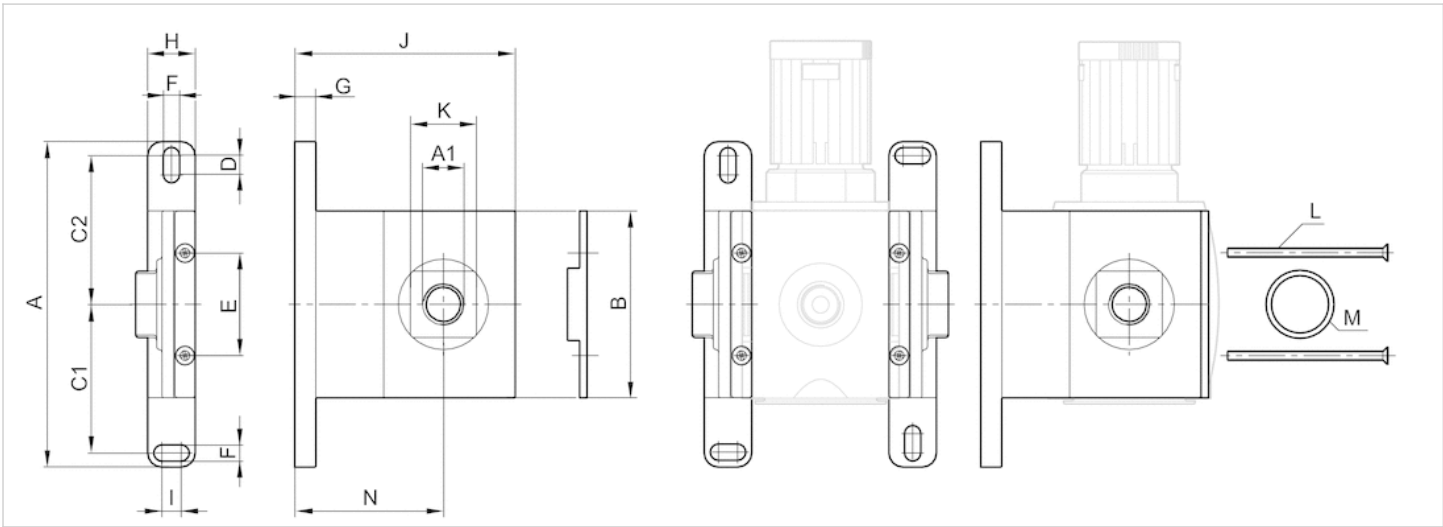
Scope of delivery incl. 4 mounting screws M6x90-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 2x O-ring

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. 14 ... 122 °F

Technical data

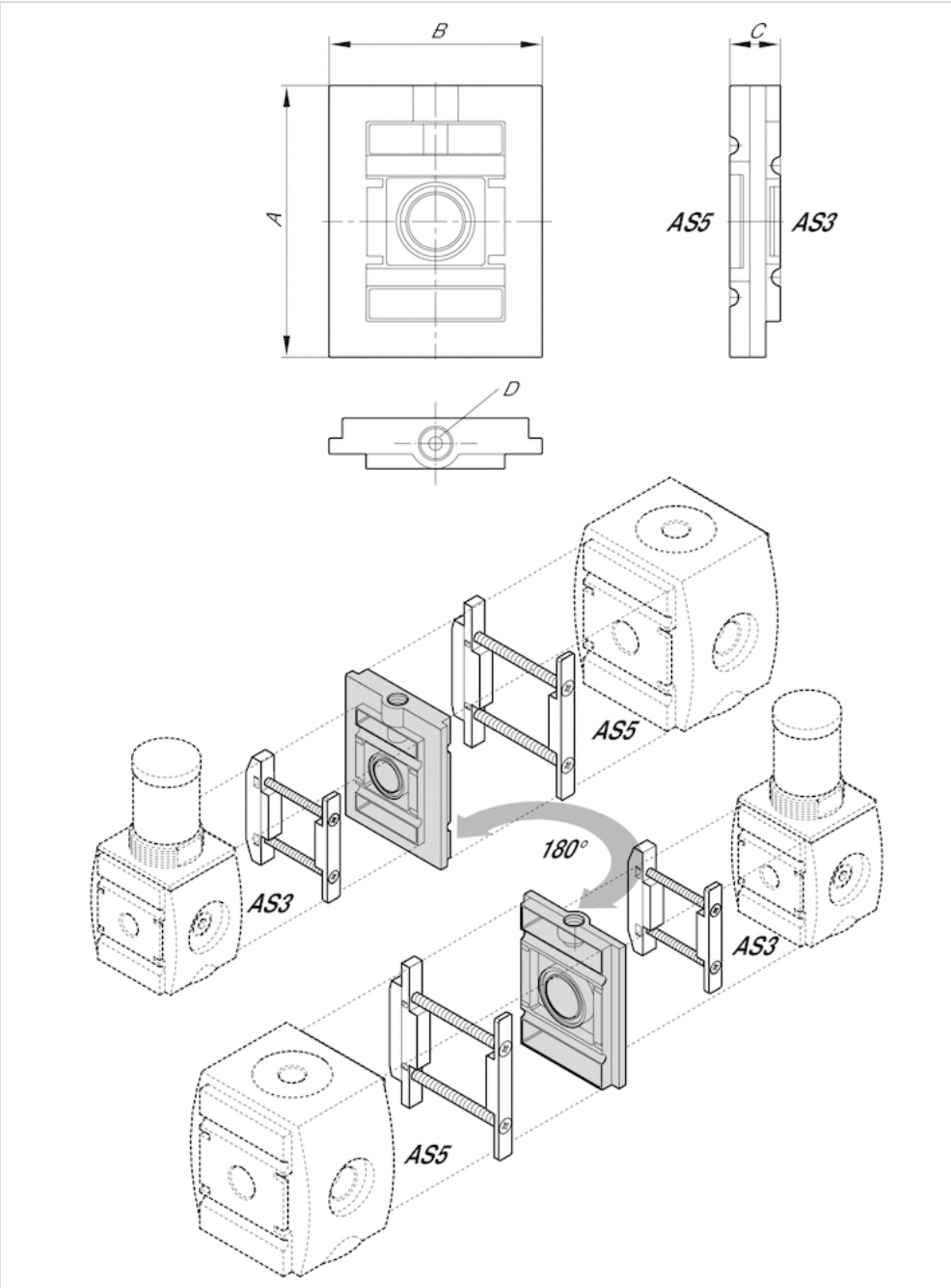
Part No.	Port
R412010122	G 1/4

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

- for AS5, NL4



Weight

0.02 lbs
The delivered product may vary from that in the illustration.

Technical data

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

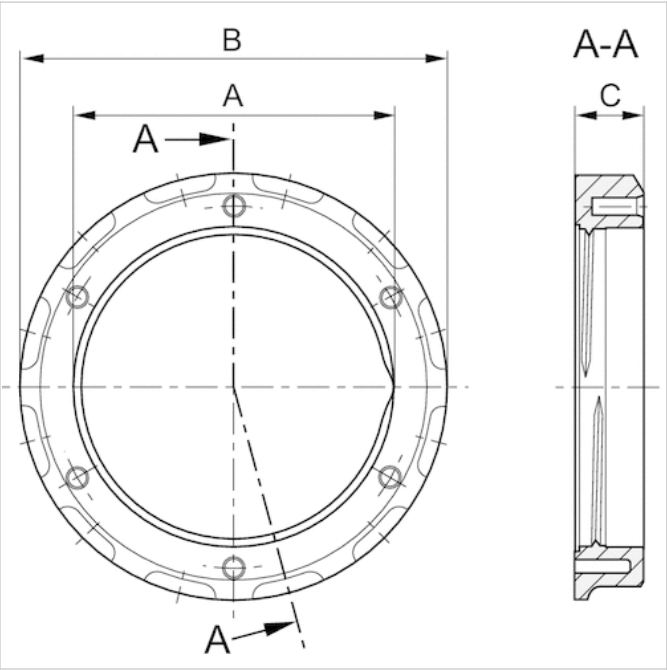
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

Material	
Housing	Plastic

Dimensions

Dimensions



Dimensions

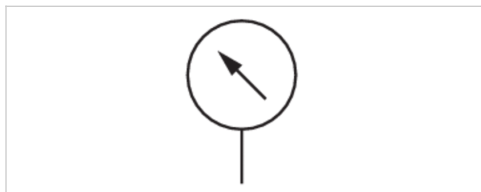
Part No.	For series	A	B	C
1829234071	AS5, NL4	M50x1,5	64	7.5

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 ... 140 °F
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	1.57 inch	0 ... 1.2 bar	0 ... 1.6 bar	0 ... 23 psi	0.05
R412004408	G 1/4	1.57 inch	0 ... 2 bar	0 ... 2.5 bar	0 ... 36 psi	0.1
R412004409	G 1/4	1.57 inch	0 ... 3.2 bar	0 ... 4 bar	0 ... 58 psi	0.1
R412004410	G 1/4	1.57 inch	0 ... 4 bar	0 ... 6 bar	0 ... 87 psi	0.2
R412004411	G 1/4	1.57 inch	0 ... 8 bar	0 ... 10 bar	0 ... 145 psi	0.2
R412004412	G 1/4	1.57 inch	0 ... 12 bar	0 ... 16 bar	0 ... 232 psi	0.5
R412004413	G 1/4	1.97 inch	0 ... 1.2 bar	0 ... 1.6 bar	0 ... 23 psi	0.05
R412004414	G 1/4	1.97 inch	0 ... 2 bar	0 ... 2.5 bar	0 ... 36 psi	0.1
R412004415	G 1/4	1.97 inch	0 ... 3.2 bar	0 ... 4 bar	0 ... 58 psi	0.1
R412004416	G 1/4	1.97 inch	0 ... 4 bar	0 ... 6 bar	0 ... 87 psi	0.2
R412004417	G 1/4	1.97 inch	0 ... 8 bar	0 ... 10 bar	0 ... 145 psi	0.2
R412004418	G 1/4	1.97 inch	0 ... 12 bar	0 ... 16 bar	0 ... 232 psi	0.5
R412007898	G 1/4	1.97 inch	0 ... 20 bar	0 ... 25 bar	0 ... 362 psi	1
R412004419	G 1/4	2.48 inch	0 ... 1.2 bar	0 ... 1.6 bar	0 ... 23 psi	0.05
R412004420	G 1/4	2.48 inch	0 ... 2 bar	0 ... 2.5 bar	0 ... 36 psi	0.1
R412004421	G 1/4	2.48 inch	0 ... 3.2 bar	0 ... 4 bar	0 ... 58 psi	0.1
R412004422	G 1/4	2.48 inch	0 ... 4 bar	0 ... 6 bar	0 ... 87 psi	0.2
R412004423	G 1/4	2.48 inch	0 ... 8 bar	0 ... 10 bar	0 ... 145 psi	0.2
R412004424	G 1/4	2.48 inch	0 ... 12 bar	0 ... 16 bar	0 ... 232 psi	0.5

Part No.	Weight	
R412004407	0.176 lbs	-
R412004408	0.176 lbs	-
R412004409	0.176 lbs	-
R412004410	0.176 lbs	-
R412004411	0.176 lbs	-
R412004412	0.176 lbs	-
R412004413	0.198 lbs	-
R412004414	0.198 lbs	-
R412004415	0.198 lbs	-
R412004416	0.198 lbs	-
R412004417	0.198 lbs	1)
R412004418	0.198 lbs	1)
R412007898	0.198 lbs	-
R412004419	0.22 lbs	-
R412004420	0.22 lbs	-
R412004421	0.22 lbs	-
R412004422	0.22 lbs	-
R412004423	0.22 lbs	-
R412004424	0.22 lbs	-

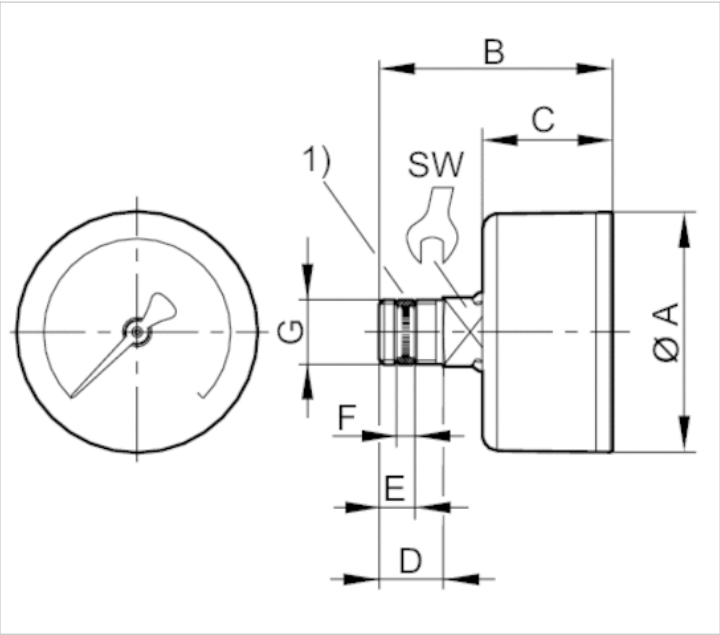
1) Suitable for use in Ex zones 1, 2, 21, 22

Technical information

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

Dimensions

Dimensions



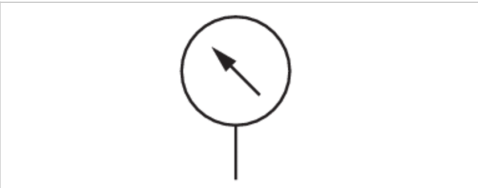
1) Gasket thread

Dimensions in mm

Compressed air connection	Nominal diameter	Ø A	B	C	D	E	F 1)	SW
G 1/4	1.57 inch	39	47.5	26.5	13	7.2	3.7	14
G 1/4	1.97 inch	49	47.5	26.5	13	7.2	3.7	14
G 1/4	2.48 inch	62	47	29	13	7.2	3.7	14

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 ... 140 °F
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	0.22 lbs

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
R412007867	G 1/4	1.97 inch	0 bar ... 1.2	0 bar ... 1.6	0 ... 23 psi	0.05
R412007868	G 1/4	1.97 inch	0 bar ... 2	0 bar ... 2.5	0 ... 36 psi	0.1
R412007869	G 1/4	1.97 inch	0 bar ... 3.2	0 bar ... 4	0 ... 58 psi	0.1
R412007870	G 1/4	1.97 inch	0 bar ... 4	0 bar ... 6	0 ... 87 psi	0.2
R412007871	G 1/4	1.97 inch	0 bar ... 8	0 bar ... 10	0 ... 145 psi	0.2
R412007872	G 1/4	1.97 inch	0 bar ... 12	0 bar ... 16	0 ... 232 psi	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.

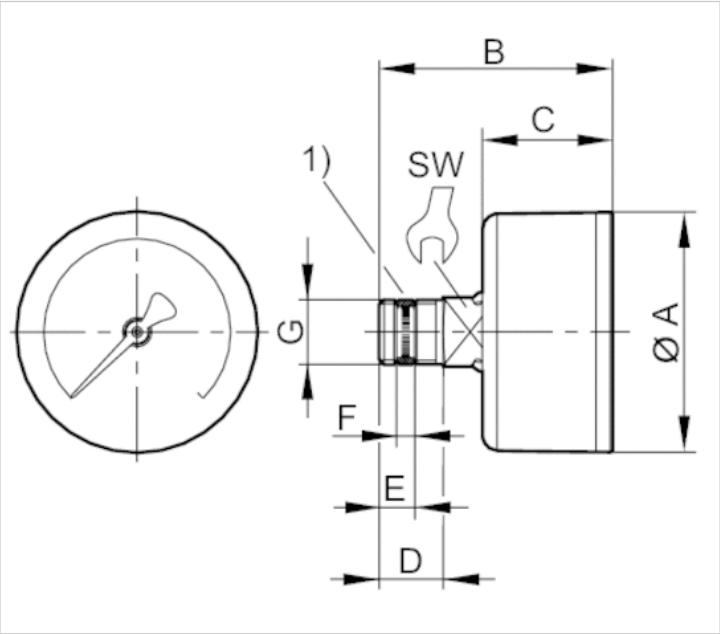
Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass

Material	
Viewing window	Polystyrene
Seal	Polytetrafluorethylene

Dimensions

Dimensions



1) Gasket thread

Dimensions in mm

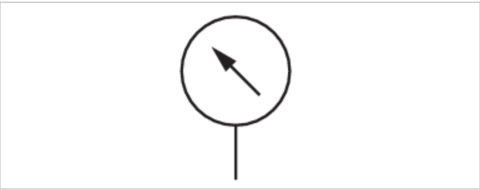
Compressed air connection	Nominal diameter	Ø A	B	C	D	E	F	SW
G 1/4	1.97 inch	49	47.5	26.5	13	7.2	3.7	14

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.	32 ... 140 °F
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	0.28 lbs



Technical data

Part No.	Range of application	Display range	Operating pressure	Scale value
1827231072	0 ... 0.5 bar	0 ... 0.5 bar	0 ... 232 psi	0.1

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

Technical information

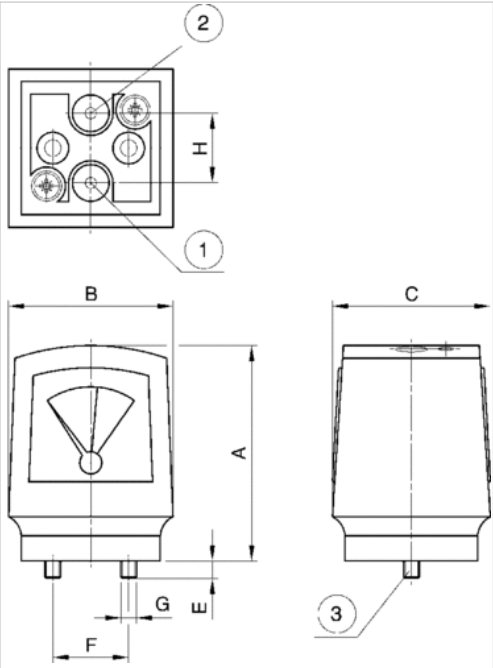
Suitable for use in Ex zones 1, 2, 21, 22

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

0.055 lbs

Technical data

Part No.
R412006363

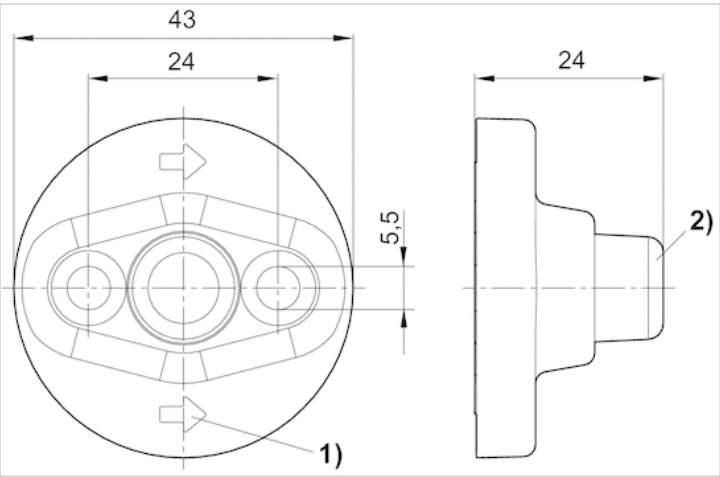
2 mounting screws and 2 O-rings supplied loose, Suitable for use in Ex zones 1, 2, 21, 22

Technical information

Material	
Material	Polyamide

Dimensions

Dimensions



- 1) Flow direction
- 2) Display in initial state: green (= Δp 0.35 bar)
Display turns red on contamination of the filter element (= $\Delta p \geq 0.35$ bar).

Dimensions in mm

Part No.	A	B	C	D
R412006363	43	24	5.5	24

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.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
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, Electrically	Class I
Protection class, with connection	IP65
Duty cycle	100 %
Mounting on manifold strip	PRS strip
mounting screws	M3
Weight	0.077 lbs

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	Voltage tolerance	Voltage tolerance
	AC 60 Hz	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	-	0.025 Cv	0.036 Cv	0 ... 145 psi
0820048004	-	0.025 Cv	0.036 Cv	0 ... 145 psi
0820048005	2 VA	0.025 Cv	0.036 Cv	0 ... 145 psi
0820048001	-	0.025 Cv	0.036 Cv	0 ... 145 psi
0820048026	-	0.025 Cv	0.036 Cv	0 ... 145 psi
0820048028	-	0.025 Cv	0.036 Cv	0 ... 145 psi
0820048101	-	0.016 Cv	0.019 Cv	0 ... 87 psi
0820048029	2 VA	0.025 Cv	0.036 Cv	0 ... 145 psi
0820048025	-	0.025 Cv	0.036 Cv	0 ... 145 psi
0820048102	-	0.02 Cv	0.026 Cv	0 ... 116 psi
0820048126	-	0.02 Cv	0.026 Cv	0 ... 116 psi

Nominal flow Q_n at 87 psi and Δp = 14.5 psi, 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 27 °F under ambient and medium temperature and may not exceed 5.4 °F.

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

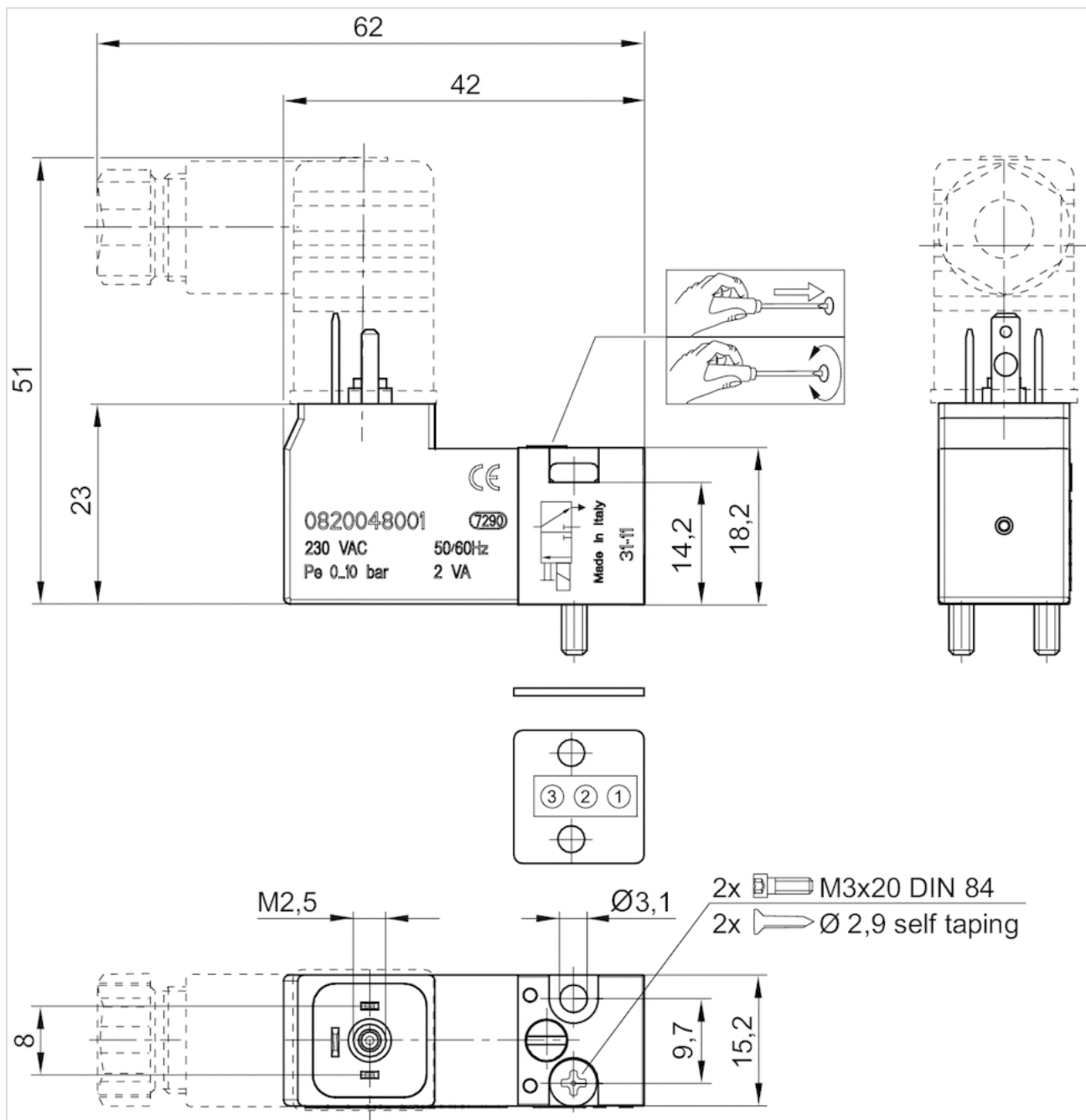
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

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

Dimensions

Dimensions



3/2-directional valve, Series 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 ... 145 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
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	0.132 lbs

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	0.069 Cv	0.091 Cv
0820019980	M5	0.066 Cv	0.081 Cv

Part No.	basic valve with electrical connector	ATEX
0820019985	Basic valve without coil	suitable for ATEX
0820019980	Basic valve without coil	suitable for ATEX

Nominal flow Q_n at 87 psi and Δp = 14.5 psi, 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 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

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).

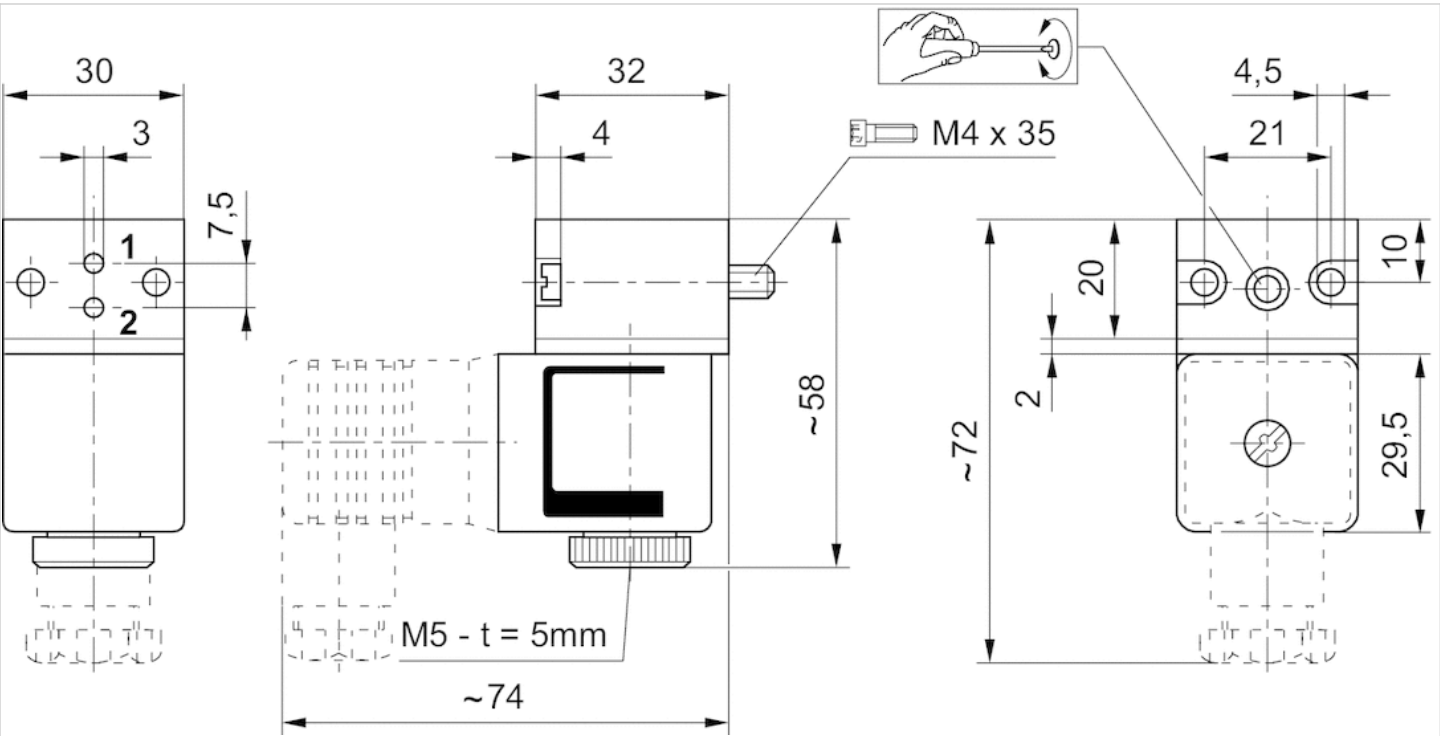
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Material	
Housing	Plastic
Seals	Fluorocaoutchouc

Dimensions

Dimensions



t = depth

Coil, Series CO1

- Cable with valve plug connector
- 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

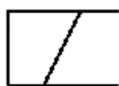
-4 ... 122 °F

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	-	-

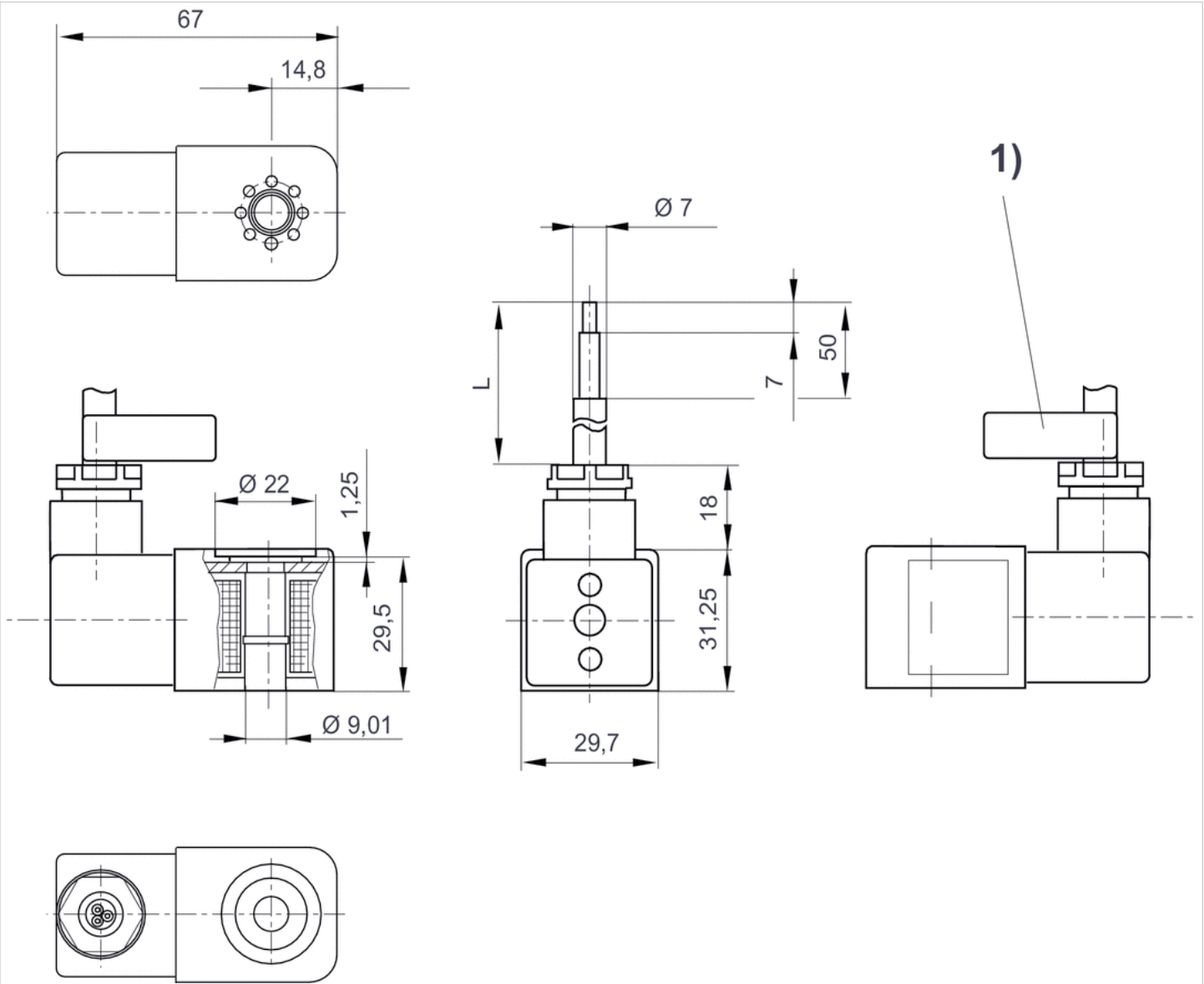
Part No.	Voltage tolerance	Voltage tolerance	Power consumption	Holding power
	DC	AC 50 Hz	DC	AC 50 Hz
1827414297	-	-10% / +10%	-	3 VA
1827414298	-	-10% / +10%	-	3 VA
1827414299	-	-10% / +10%	-	2.9 VA
1827414303	-10% / +10%	-	3.25 W	-
1827414304	-10% / +10%	-	3.25 W	-

Part No.	Switch-on power	Weight
	AC 50 Hz	
1827414297	3.1 VA	0.838 lbs
1827414298	3.1 VA	2.01 lbs
1827414299	3 VA	0.838 lbs
1827414303	-	0.838 lbs

Part No.	Switch-on power	Weight
	AC 50 Hz	
1827414304	-	2.01 lbs

Dimensions

Dimensions



L = cable length

1) Cable ID band with serial number

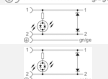
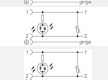
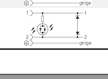
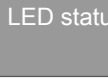
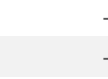
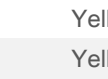
Valve plug connector, series CON-VP

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



Ambient temperature min./max.	-4 ... 176 °F
Operational voltage	See table below
Protection class	IP67
Mounting screw tightening torque	0.3 ft./lbs.
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 length	Weight	Fig.	
1834484213	-	3	9.84 ft.	0.403 lbs	Fig. 2	-
1834484215	-	3	16.4 ft.	0.679 lbs	Fig. 2	-
1834484205	Yellow	3	9.84 ft.	0.408 lbs	Fig. 2	1)
1834484207	Yellow	3	16.4 ft.	0.657 lbs	Fig. 2	1)
1834484209	Yellow	3	9.84 ft.	0.428 lbs	Fig. 2	1)
1834484211	Yellow	3	16.4 ft.	0.628 lbs	Fig. 2	1)
1834484236	Yellow	3	32.81 ft.	1.26 lbs	Fig. 2	1)

1) Scope of delivery incl. flat gasket

Technical information

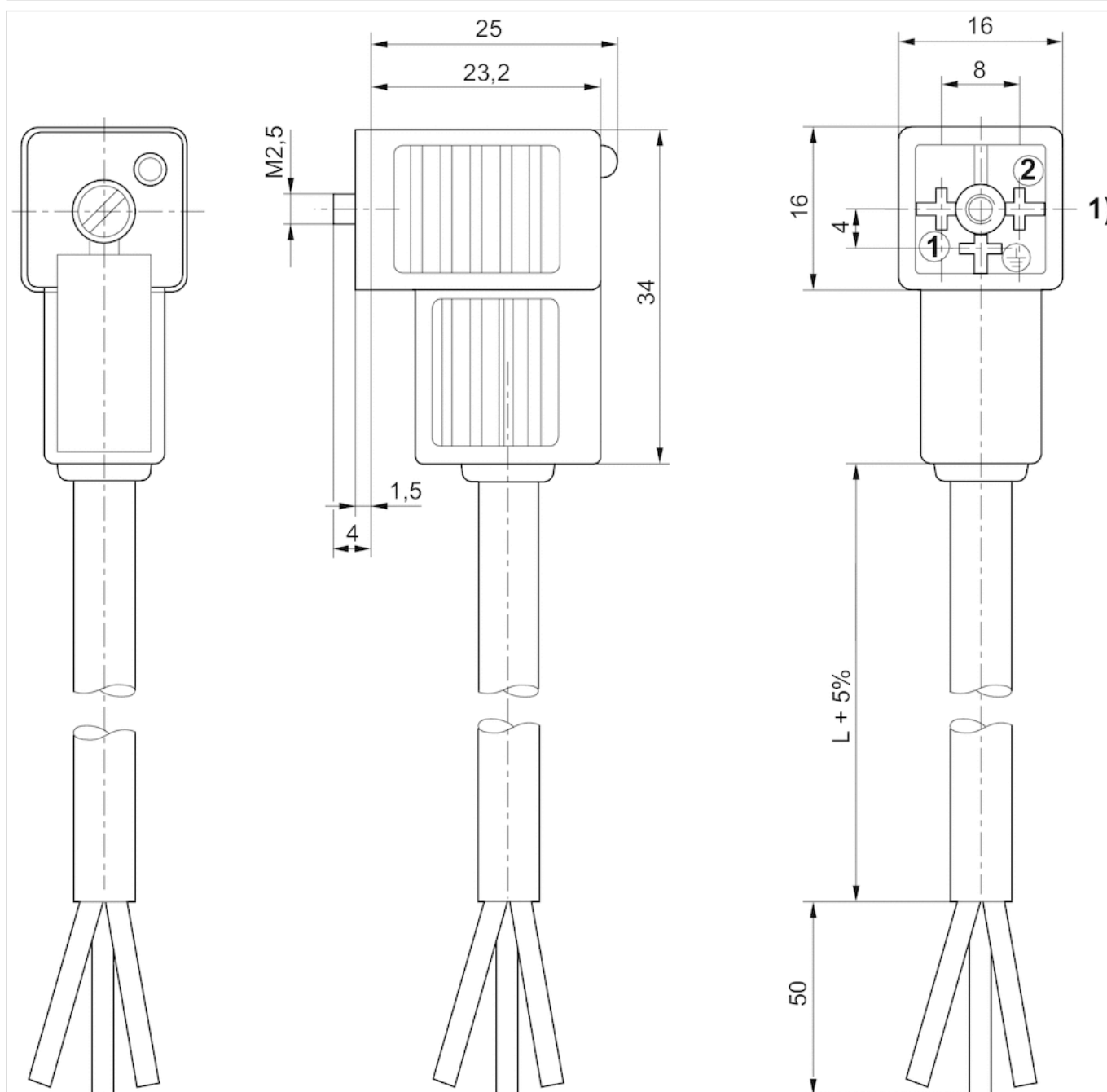
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc
Cable sheath	Polyvinyl chloride

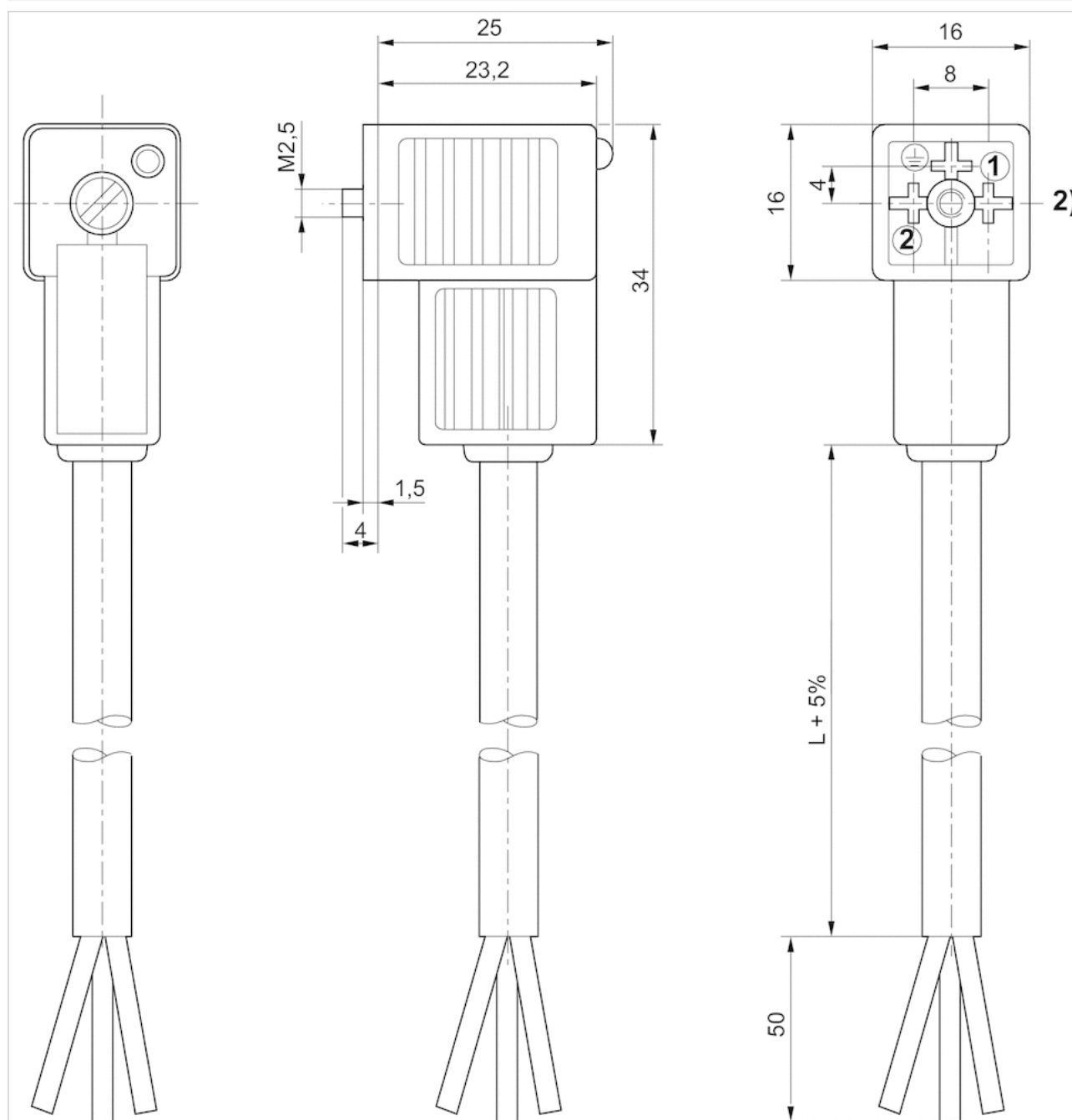
Dimensions

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 ... 185 °F
Operational voltage	48 V, AC/DC
Protection class	IP65
Wire cross-section	0 in²
Weight	See table below

1	BN
2	WH
3	BU
4	BK
5	

Technical data

Part No.	Max. current	Number of wires	Cable length	Weight
1834484259	4 A	4	9.84 ft.	0.286 lbs
1834484260	4 A	4	16.4 ft.	0.445 lbs
1834484261	4 A	4	32.81 ft.	0.853 lbs

Technical information

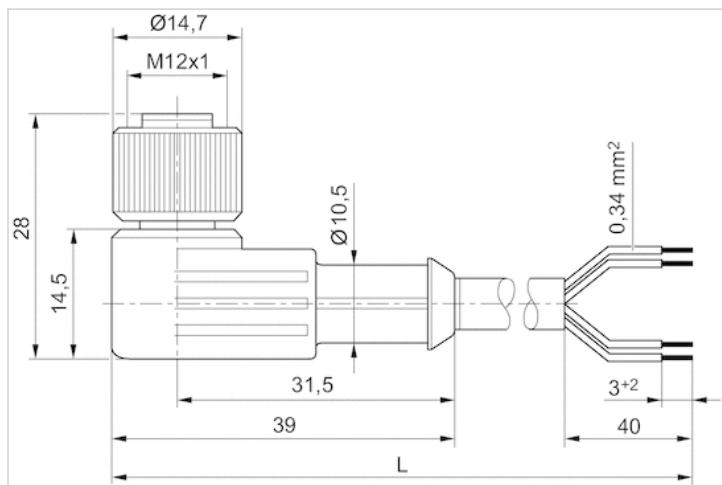
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

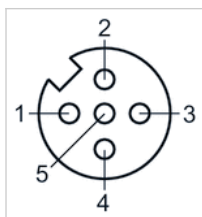
Dimensions



L = length

Pin assignments

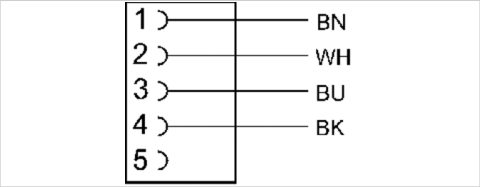
Pin assignment socket



- (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.	-13 ... 158 °F
Operational voltage	48 V, AC/DC
Protection class	IP67
Wire cross-section	0 in²
Weight	See table below

Technical data

Part No.	Max. current	Number of wires	Cable length	Weight
1834484256	4 A	4	9.84 ft.	0.289 lbs
1834484257	4 A	4	16.4 ft.	0.443 lbs
1834484258	4 A	4	32.81 ft.	0.877 lbs

Technical information

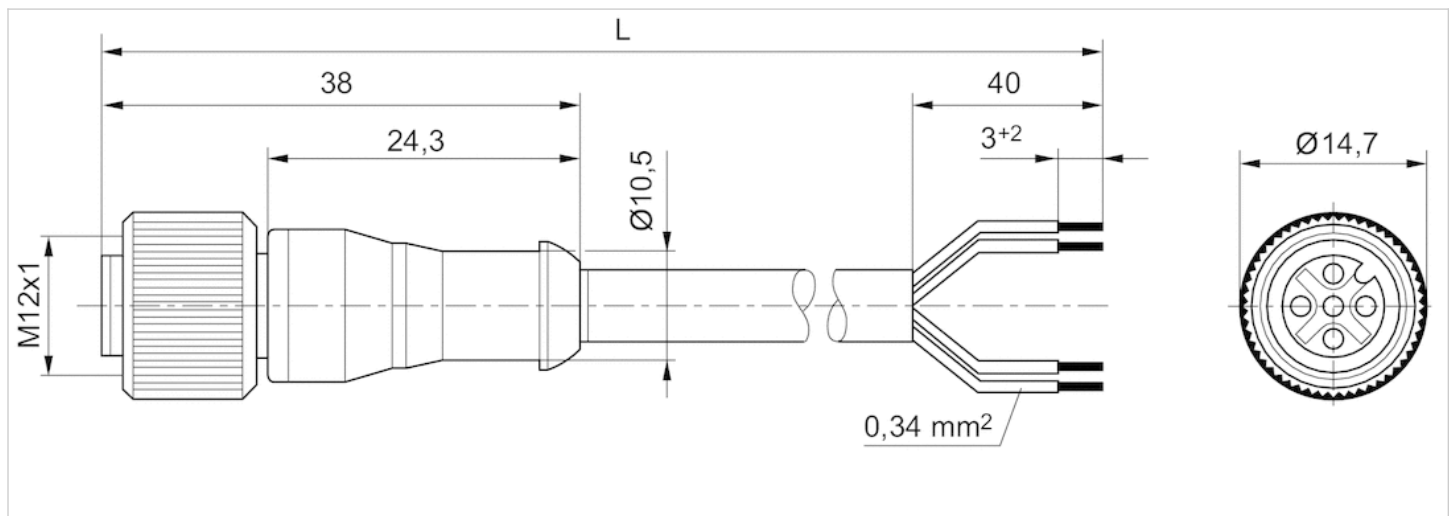
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

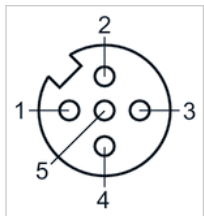
Dimensions



L = length

Pin assignments

Pin assignment socket



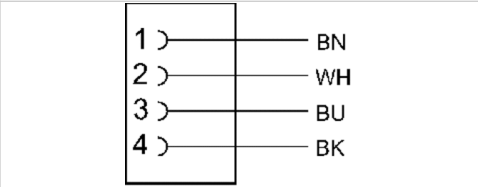
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) not assigned

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 ... 185 °F
Operational voltage	48 V, AC/DC
Protection class	IP67
Weight	0.029 lbs



Technical data

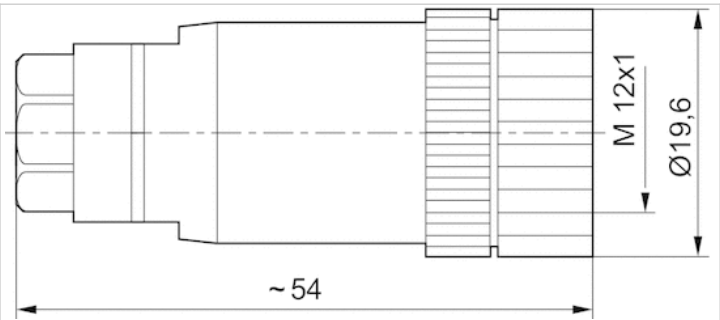
Part No.	Max. current
1834484177	4 A

Technical information

Material	
Housing	Polyamide

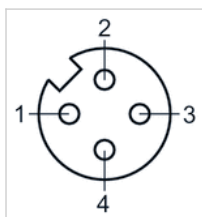
Dimensions

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 ... 185 °F
Operational voltage	48 V, AC/DC
Protection class	IP67
Weight	0.035 lbs

Technical data

Part No.	Max. current	suitable cable-Ø min./max
1834484178	4 A	0.16 inch

Technical information

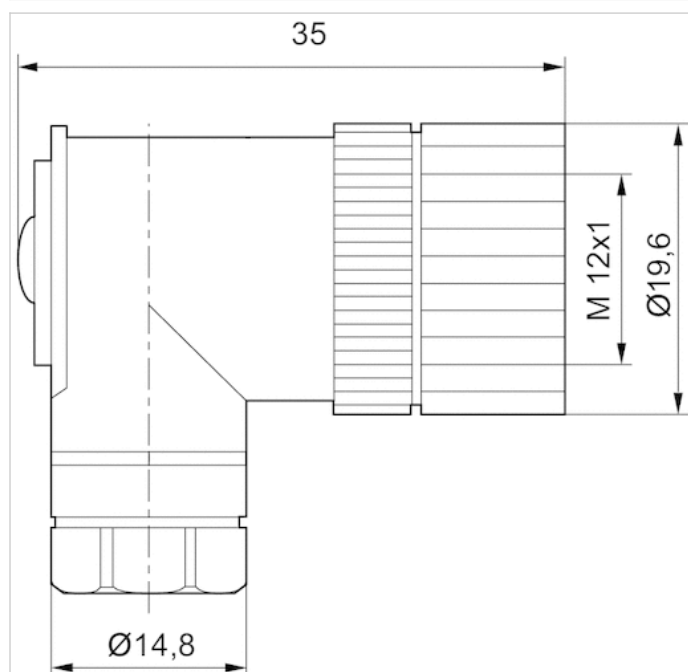
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyamide

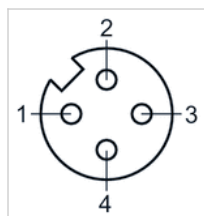
Dimensions

Dimensions



Pin assignments

Pin assignment socket

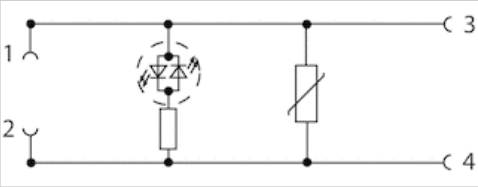


Adapter, Series CON-VP

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



Ambient temperature min./max.	14 ... 212 °F
Operational voltage	24 V, DC
Protection class	IP65
Protective circuit	Varistor
Mounting screw tightening torque	0.44 ft./lbs.



Technical data

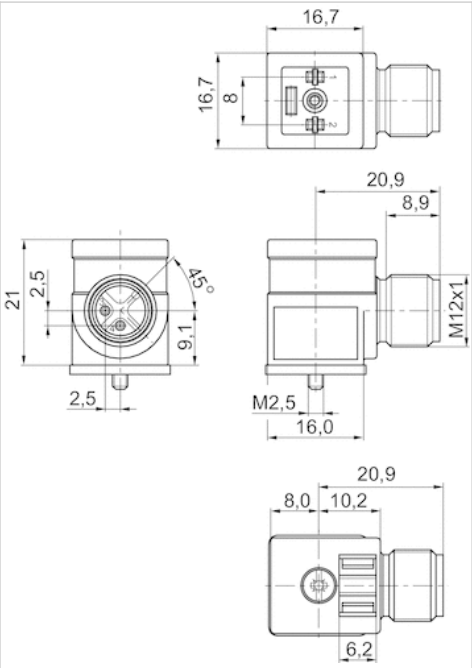
Part No.	Max. current	Protective circuit	Contact assignment	LED status display
R412009553	1 A	Varistor	2+E	Yellow

Technical information

Material	
Housing	Polyurethane

Dimensions

Dimensions



Transition plate, Series AS1, AS2, AS3, AS5



Weight

0.055 lbs

Technical data

Part No.
R412006360

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

Technical information

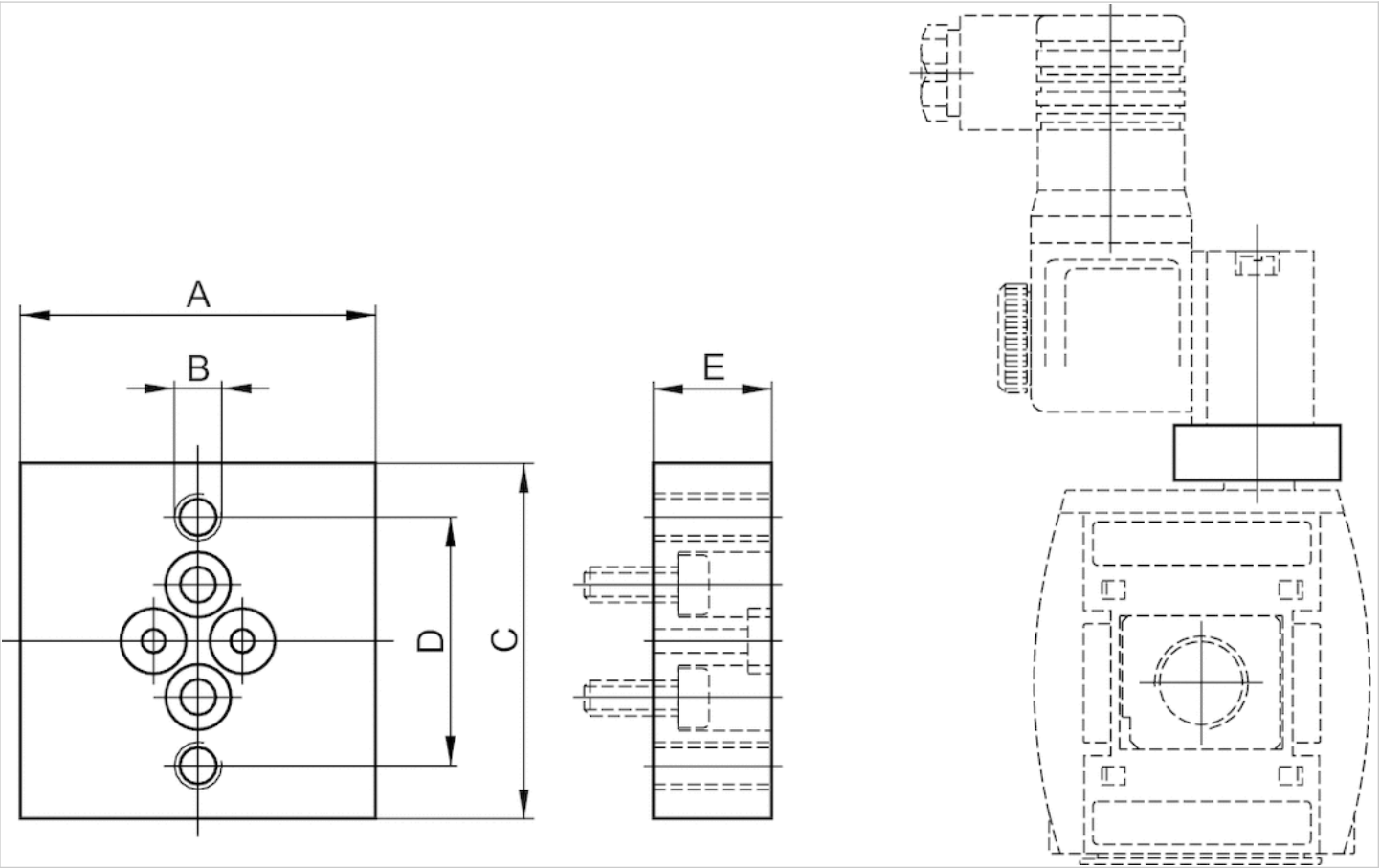
Adapter plate for assembling a series DO30 pilot valve with CNOMO porting configuration on a 3/2-way shut-off valve without pilot

Technical information

Material	
Material	Aluminum

Dimensions

Dimensions



Dimensions

Part No.	A	B	C	D	E
R412006360	30	M4	30	21	10

Adapter

- For connection of pneumatic actuation, G 1/8
- G 1/8
- AS1, AS2, AS3, AS5



Weight

0.042 lbs

Technical data

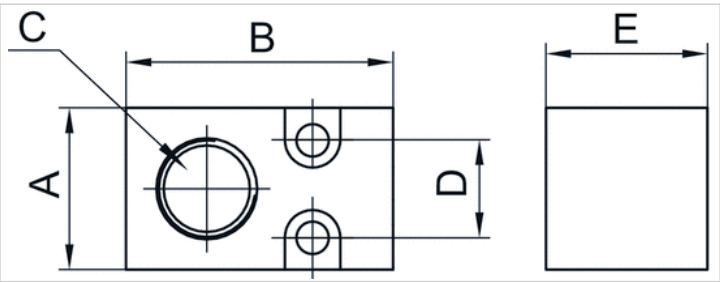
Part No.	Port G
R412006359	G 1/8

Delivery incl. 2 mounting screws M3x20, Flat gasket

Technical information

Material	
Material	Aluminum

Dimensions



Dimensions

Part No.	A	B	C	D	E
R412006359	16	26,5	G 1/8	9.7	16

Adapter for external pilot air



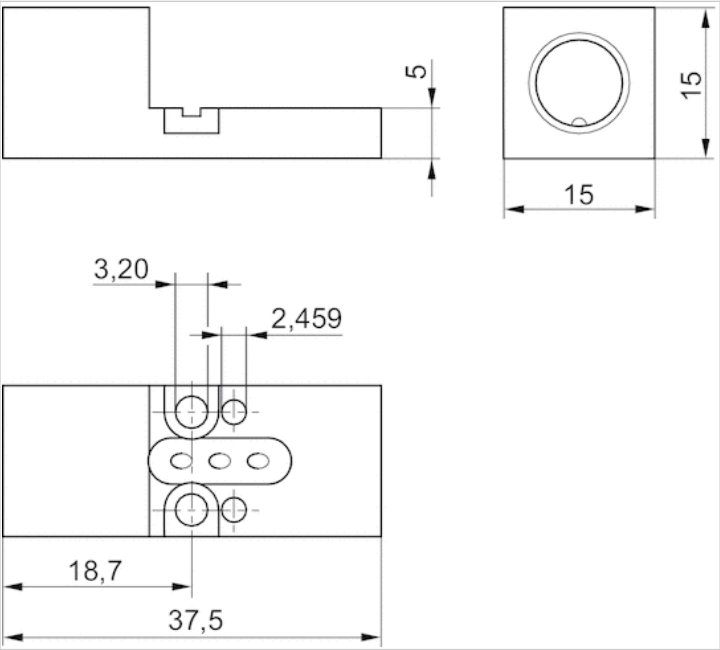
Technical data

Part No.
R412025904

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

Dimensions

Dimensions



Mounting aid

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



Technical data

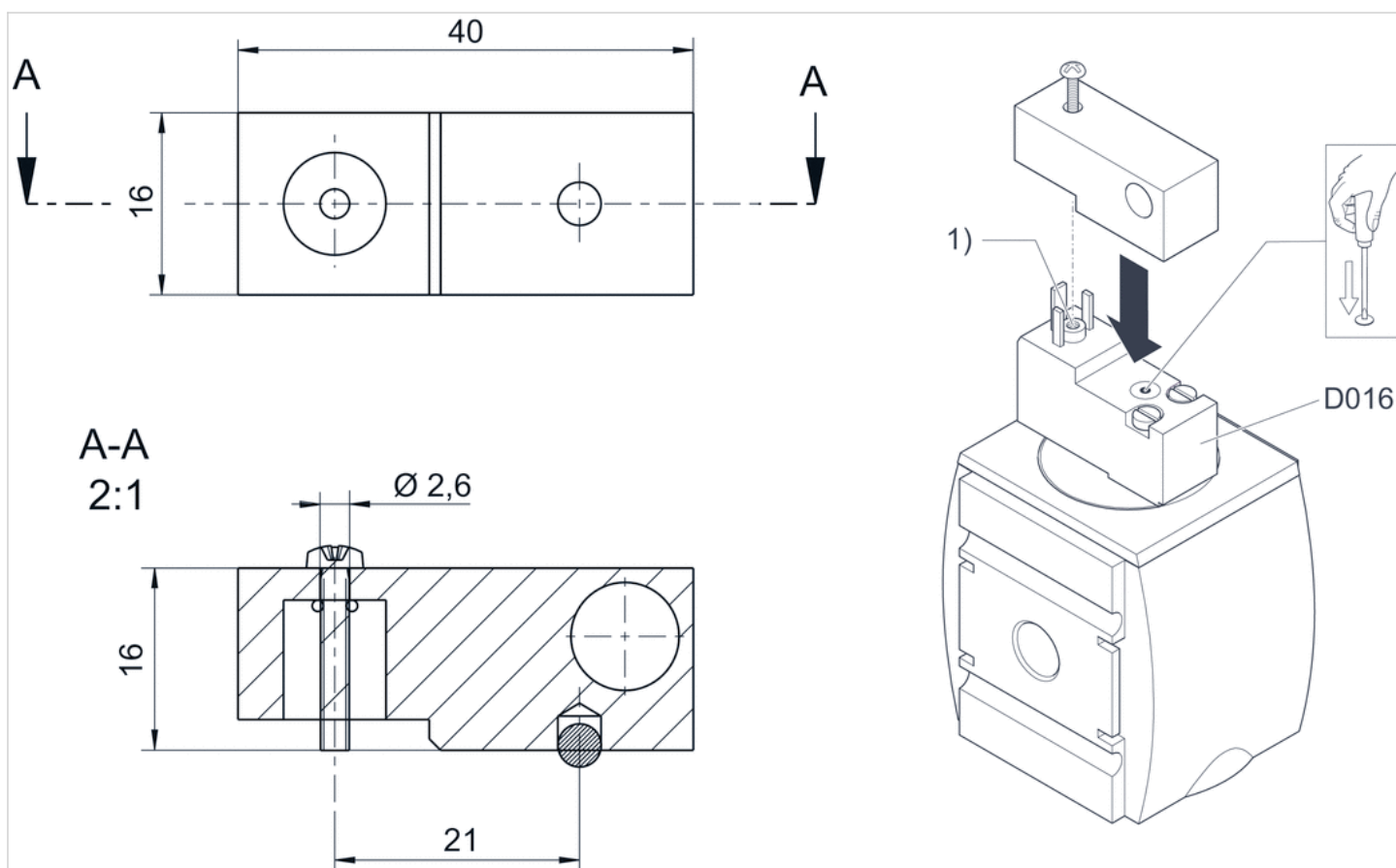
Part No.
R412019278

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

Technical information

Material	
Housing	Aluminum

Dimensions



1) ISO 15217, form C

Mounting aid

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



Weight0.051 lbs

Technical data

Part No.
R412015193

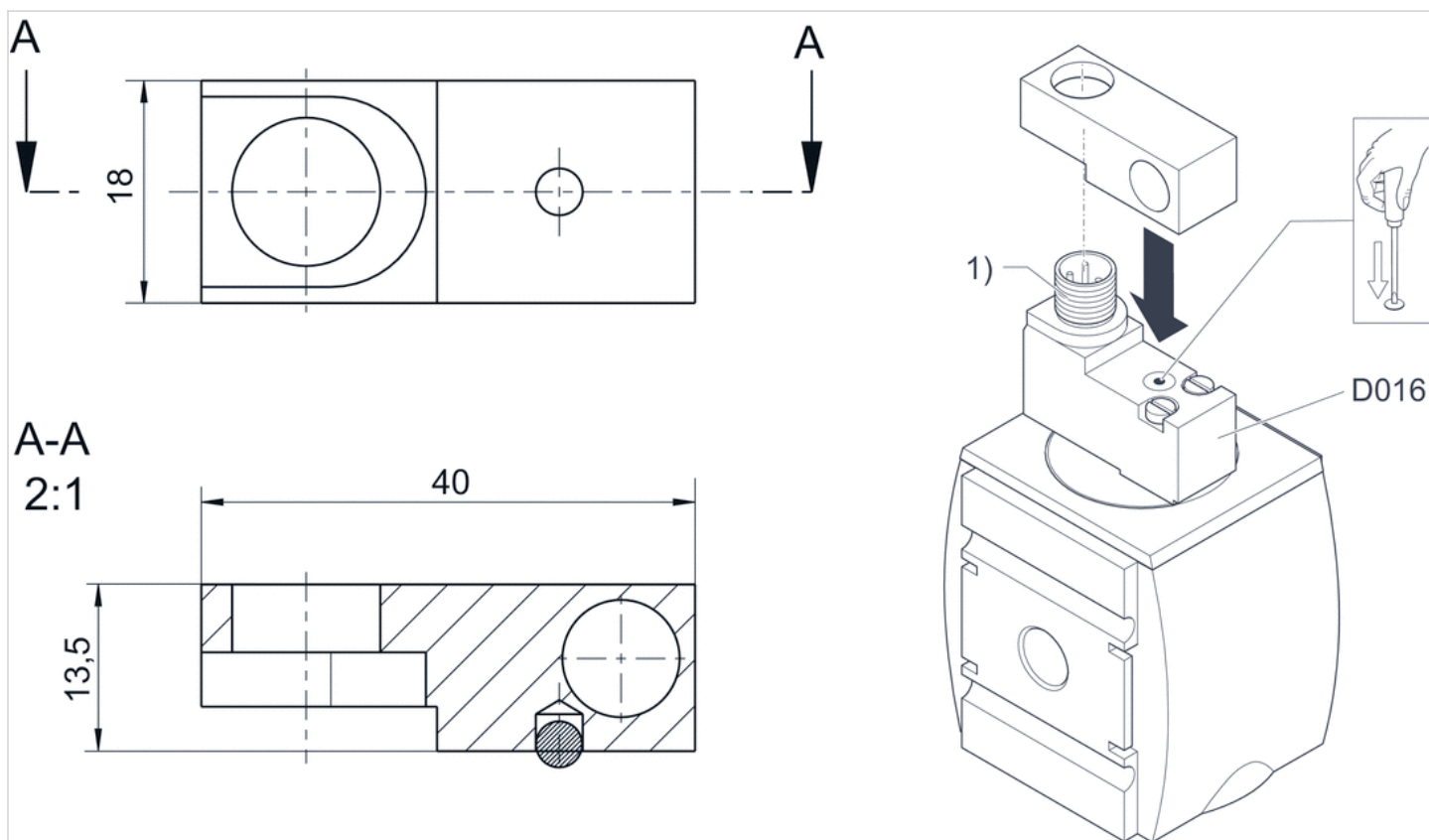
Technical information

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

Technical information

Material	
Housing	Aluminum

Dimensions



1) M12x1

mortise lock

- for AS2, AS3, AS5



Technical data

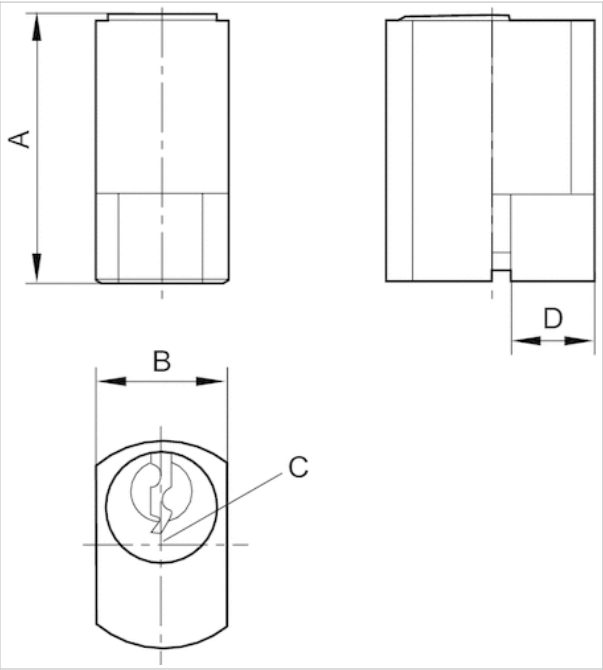
Part No.	Type
R412007959	Standard locking, with key
R412006374	E11 locking, without key

Technical information

Material	
Housing	Steel

Dimensions

Dimensions

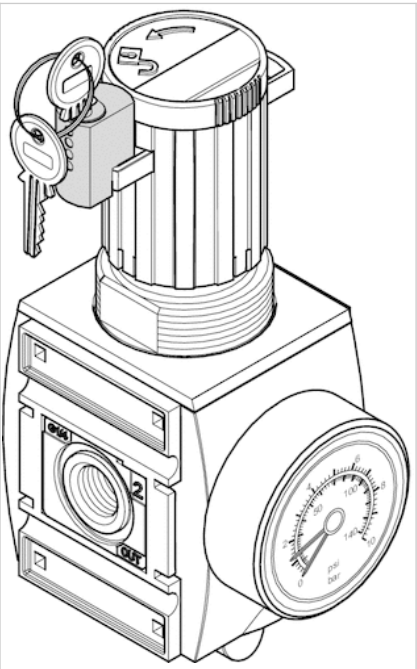


Dimensions

Part No.	A	B	C	D	E
R412007959	25	13	R10	Ø8	20
R412006374	25	13	R10	Ø8	20

Dimensions

Application example



Key for E11 locking

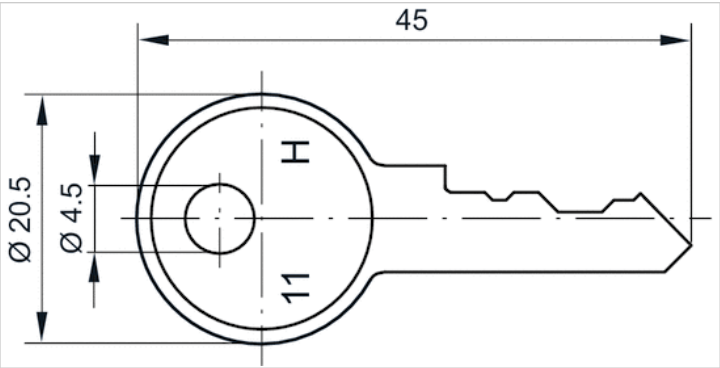


Technical data

Part No.	Delivery unit
R961403407	1 piece

Dimensions

Dimensions



Pressure sensor, Series PE5

- Operating pressure -14.5 ... 0, -14.5 ... 14, 0 ... 87, 0 ... 145, 0 ... 174 psi
- electronic
- Output signal analog 4 ... 20 mA
- Output signal digital 2 outputs, 1 output
- 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.	32 ... 140 °F
Medium temperature min./max.	32 ... 140 °F
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	0.088 lbs

Technical data

Part No.		Operating pressure range	Protection against overpressure
		min./max.	
R412010761		-14.5 ... 0 psi	72.5 psi
R412010769		-14.5 ... 0 psi	72.5 psi
R412010775		-14.5 ... 0 psi	72.5 psi
R412010763		-14.5 ... 14 psi	72.5 psi
R412010771		0 ... 87 psi	217.5 psi
R412010765		0 ... 87 psi	217.5 psi
R412010777		0 ... 87 psi	217.5 psi
R412010773		0 ... 145 psi	217.5 psi
R412010767		0 ... 145 psi	217.5 psi
R412010779		0 ... 145 psi	217.5 psi
R412010782		0 ... 174 psi	232 psi
R412010806		0 ... 174 psi	232 psi

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

Part No.	Fig.
R412010761	Fig. 1
R412010769	Fig. 1
R412010775	Fig. 1
R412010763	Fig. 1
R412010771	Fig. 1
R412010765	Fig. 1
R412010777	Fig. 1
R412010773	Fig. 1
R412010767	Fig. 1
R412010779	Fig. 1
R412010782	Fig. 1
R412010806	Fig. 1

Technical information

Alternative pressure connection (G1/4) on the rear side (closed with plug)

Display color selectable, red or green

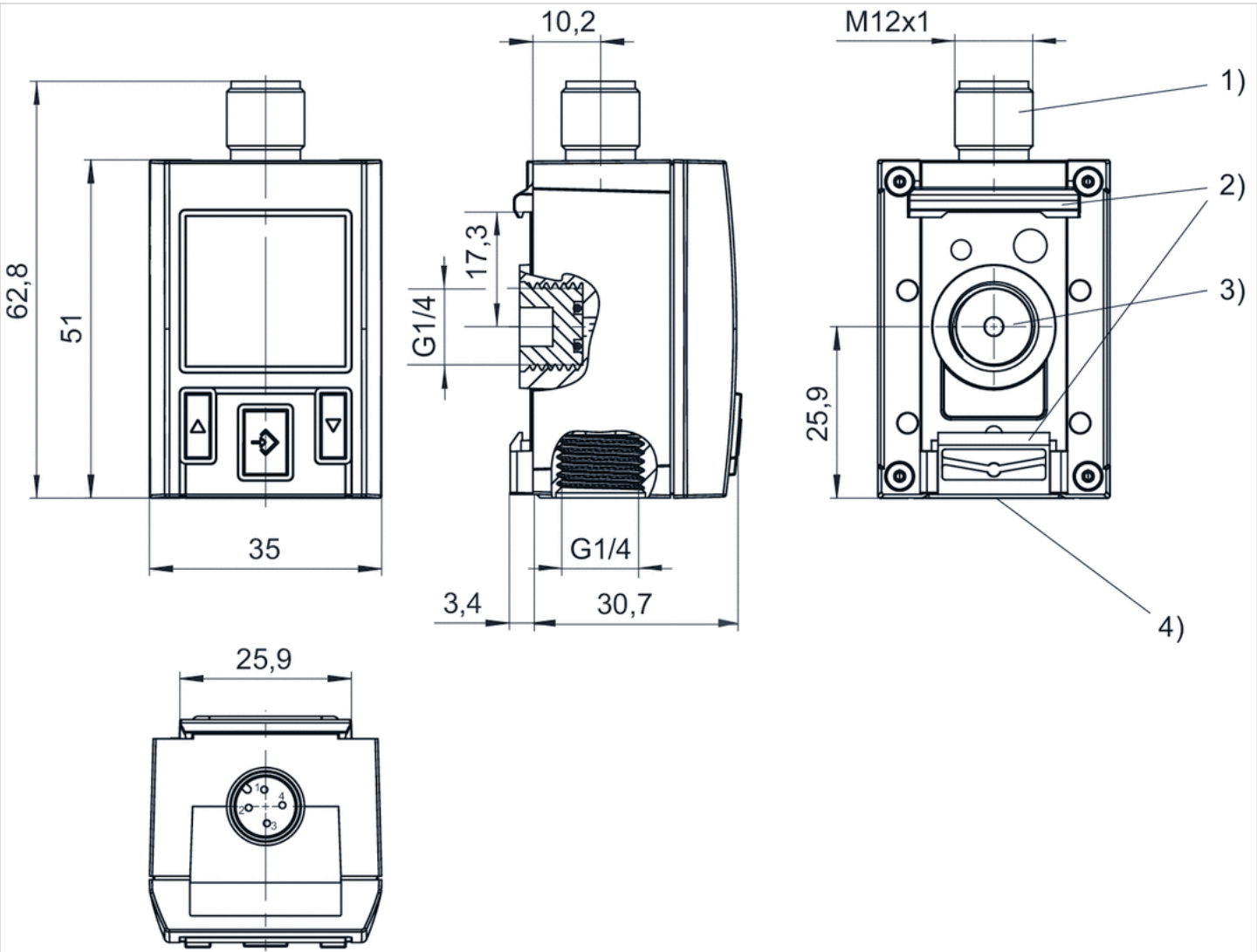
The IO-Link device description (IODD) for the PE5 pressure sensor is available for download in the Media Centre.

Technical information

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

Dimensions

Fig. 1

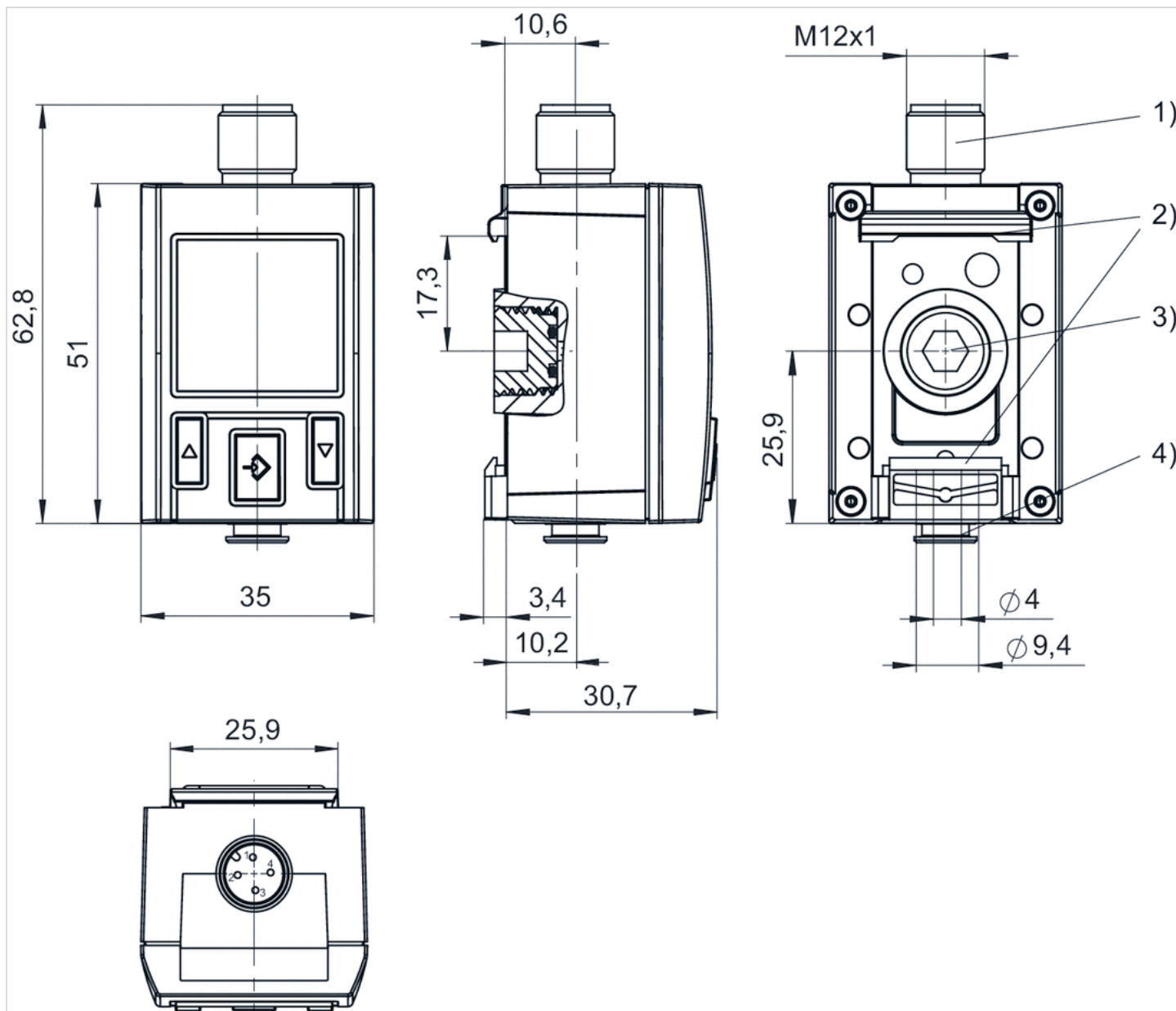


1) M12x1 electrical connection

2) Mounting for hat rail and wall mounting

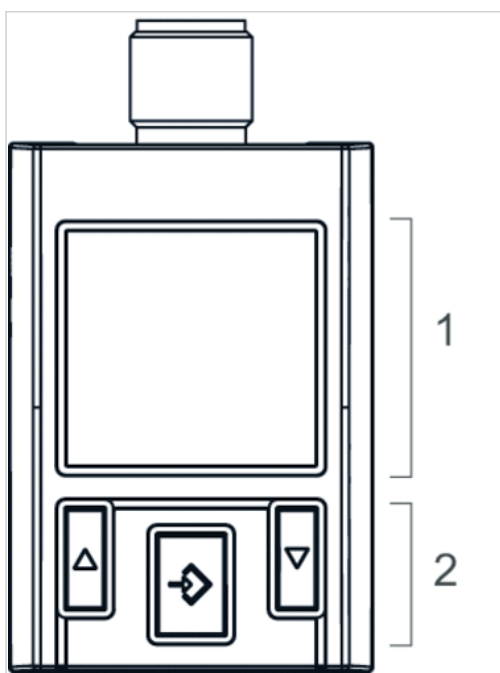
- 3) Alternative pressure connection (G1/4) closed with plug
4) Pressure connection G1/4

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 Ø 4 mm

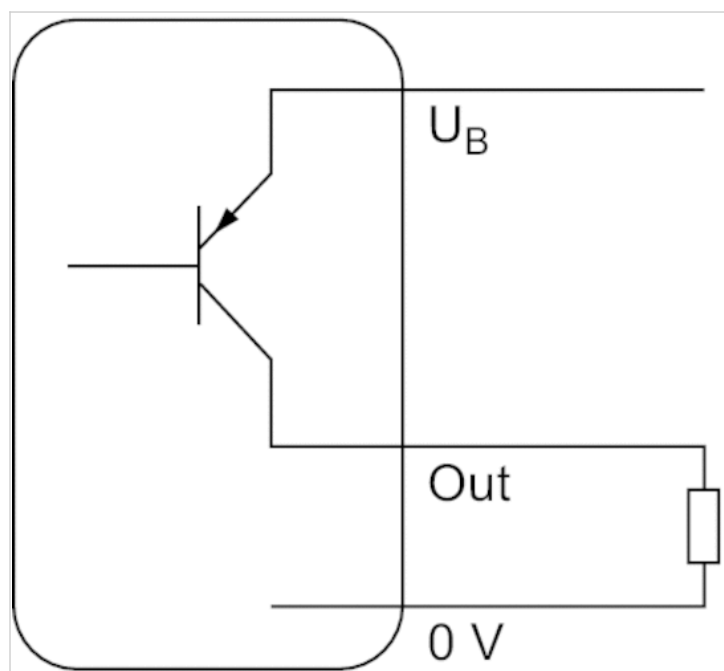
Display and operation area



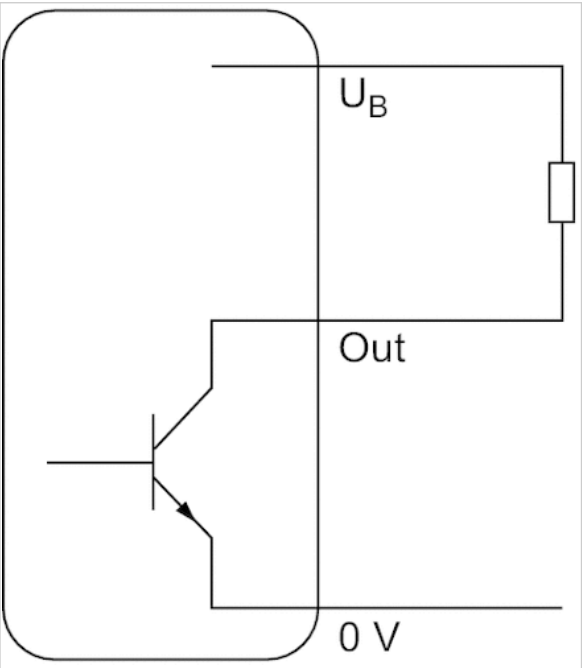
- 1) LCD display
- 2) Control panel with 3 buttons

Diagrams

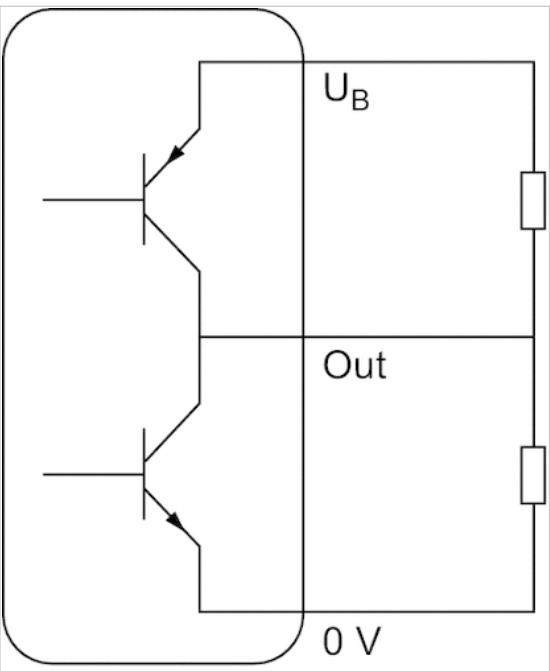
Operating mode PNP



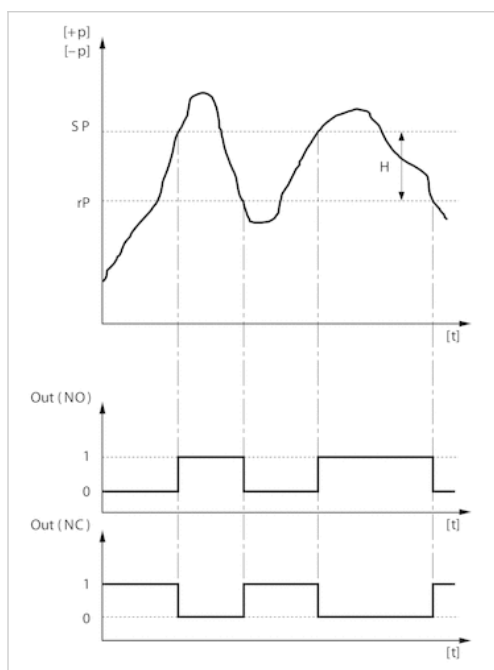
Operating mode NPN



Operating mode Push-pull



Hysteresis function: switching and resetting behavior dependent on pressure p and time t In case



H: Hysteresis

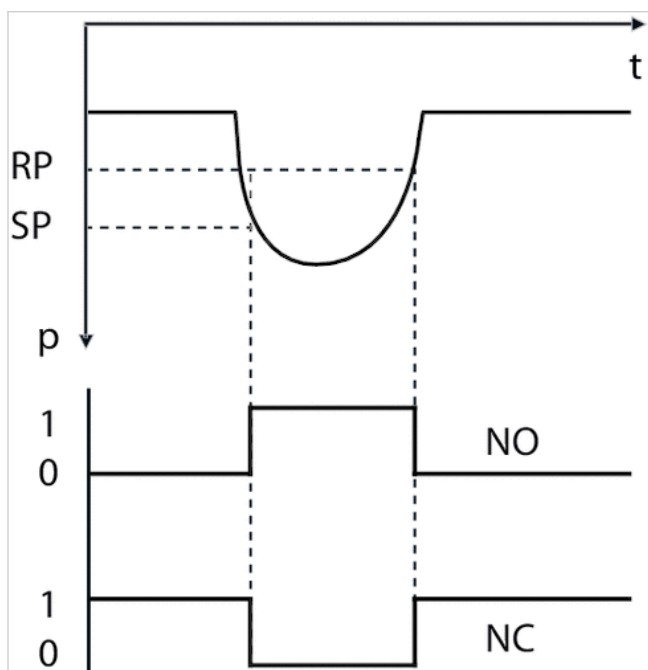
SP = switching point

RP = resetting point

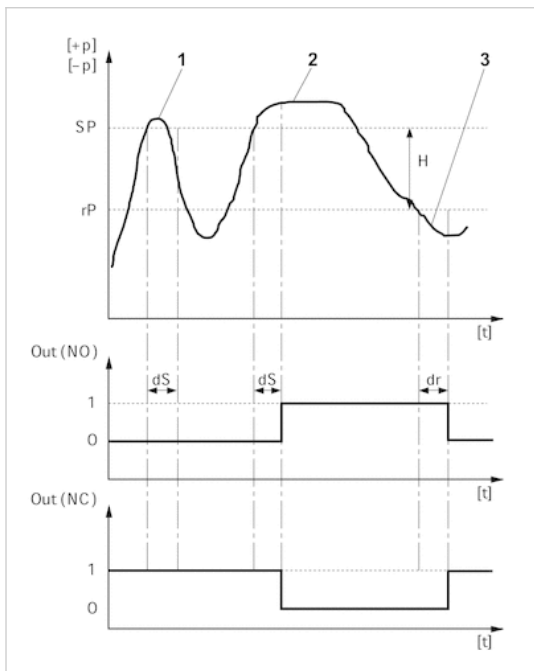
Out (NC): switch output, break contact

Out (NO): switch output, make contact

Hysteresis function: switching and resetting behavior dependent on pressure p and time t In case



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



H: Hysteresis

SP = switching point

RP = resetting point

Out (NC): switch output, break contact

Out (NO): switch output, make contact

dS: switching delay

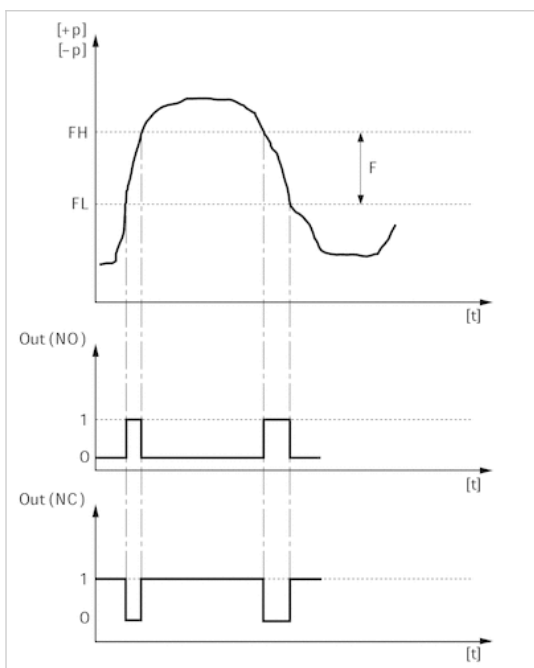
dR = reset delay

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

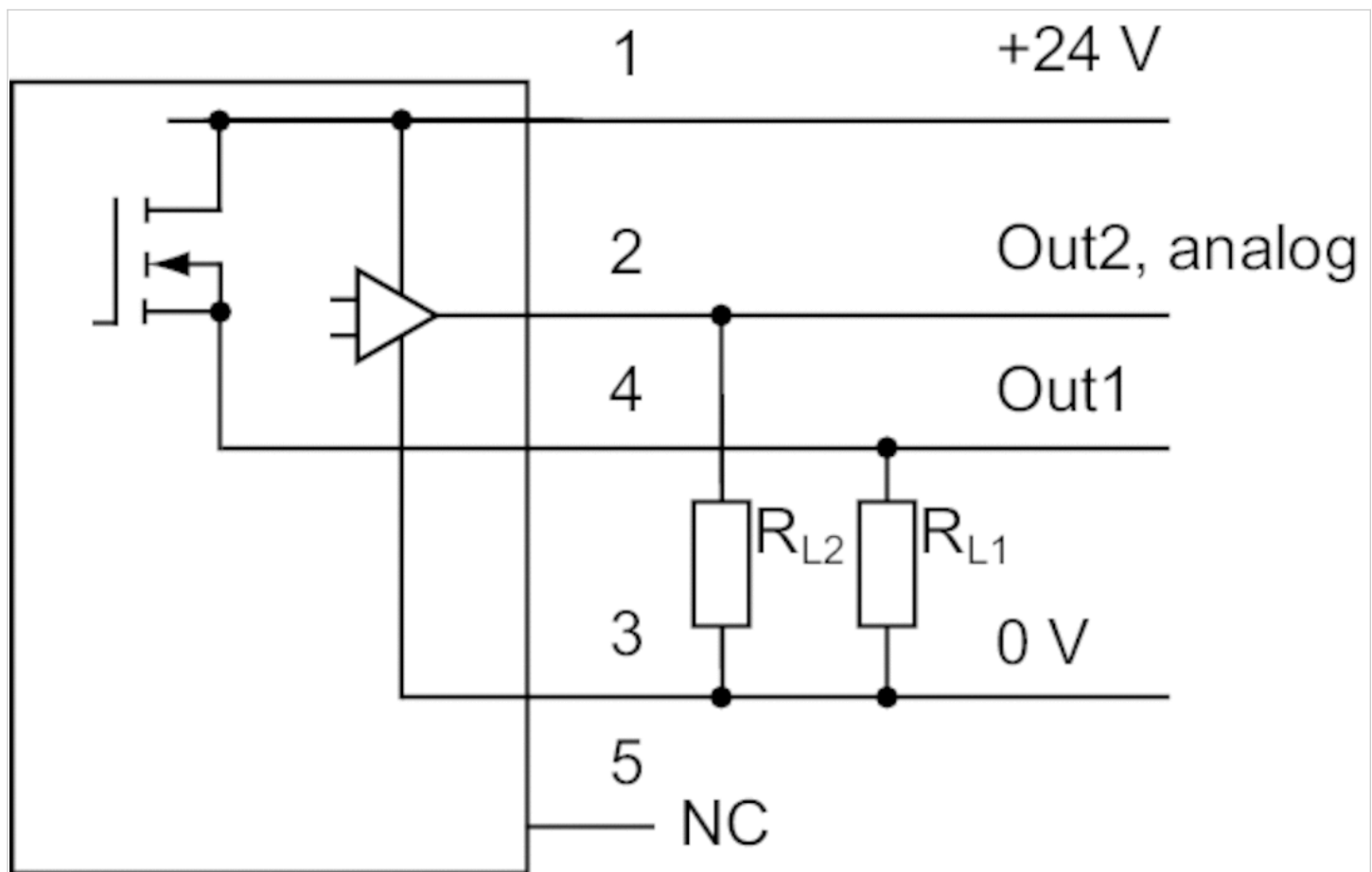
FL: pressure band, lower value

Out (NC): switch output, break contact

Out (NO): switch output, make contact

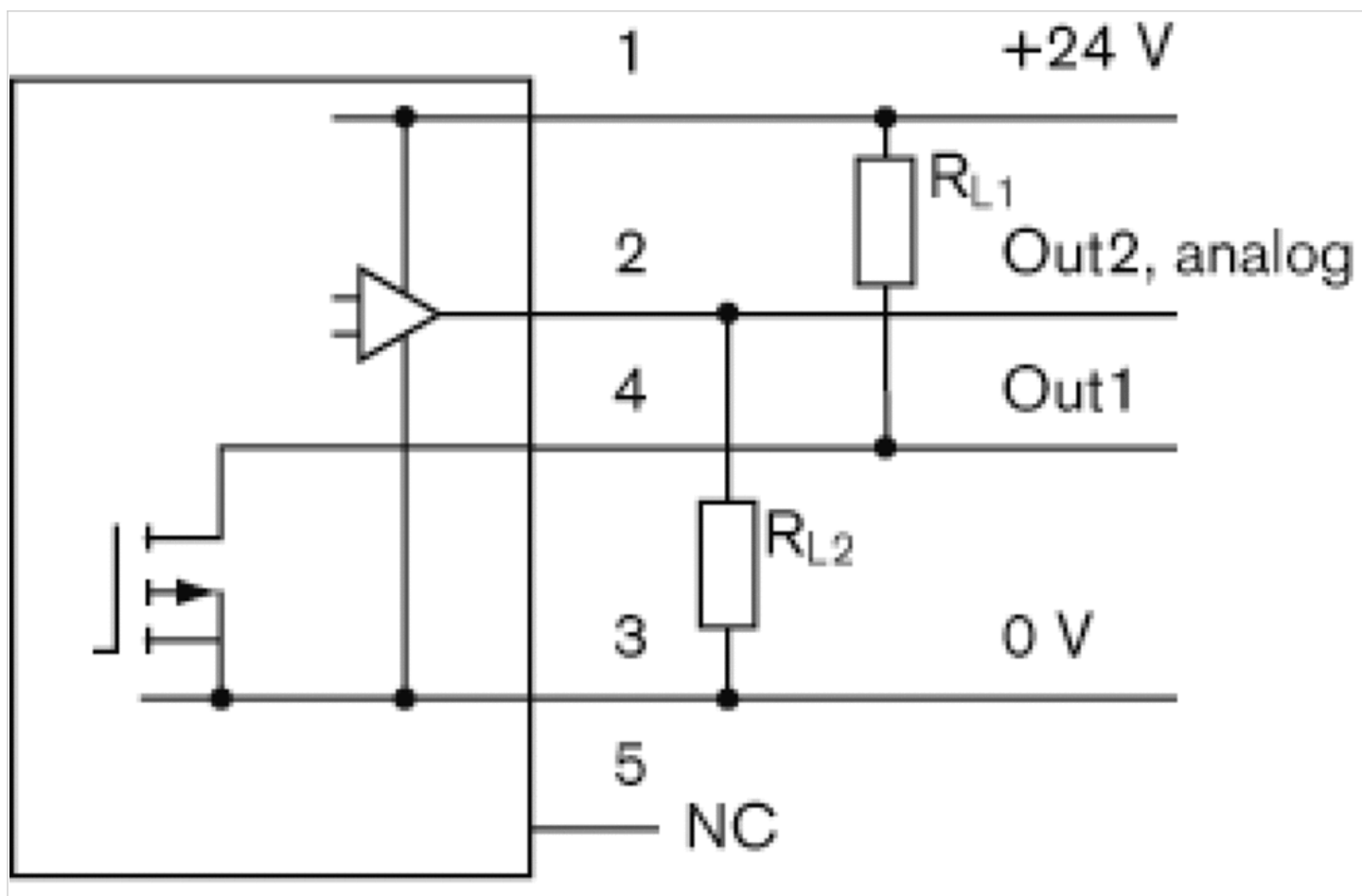
Circuit diagram

Block diagram 1x PNP and 1x analog



RL = storable position

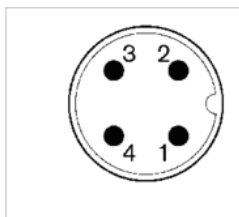
Block diagram 1x NPN and 1x analog



R_L = storable position

Pin assignments

Pin assignments M12x1



operational voltage + UB

Pin 2: switch output Out2, analog: A or V, digital: PNP, NPN, push-pull

Pin 3: 0 V

Pin 4: switch output Out1, digital: PNP, NPN, push-pull

Pressure sensor, Series PE2

- Operating pressure 0 ... 14, 0 ... 232 psi
- electronic
- Output signal analog 4 ... 20 mA
- Output signal digital 1 x PNP, 2 x PNP
- 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.	14 ... 167 °F
Medium temperature min./max.	14 ... 167 °F
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	0.661 lbs

Technical data

Part No.		Type	Operating pressure range
			min./max.
R412010848		PE2-P1-G014-V10-010-M012	0 ... 14 psi
R412010849		PE2-P1-F001-V10-010-M012	0 ... 14 psi
R412010853		PE2-P2-G014-V10-010-M012	0 ... 14 psi
R412010856		PE2-PA-G014-V10-010-M012	0 ... 14 psi
R412010850		PE2-P1-G014-000-160-M012	0 ... 232 psi
R412010851		PE2-P1-F001-000-160-M012	0 ... 232 psi
R412010854		PE2-P2-G014-000-160-M012	0 ... 232 psi
R412010855		PE2-P2-F001-000-160-M012	0 ... 232 psi
R412010857		PE2-PA-G014-000-160-M012	0 ... 232 psi
R412010858		PE2-PA-F001-000-160-M012	0 ... 232 psi

Part No.	Protection against overpressure	Output signal	Output signal	Compressed air connection
		Analog	digital	
R412010848	145 psi	-	1 x PNP	Internal thread, G 1/4
R412010849	145 psi	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010853	145 psi	-	2 x PNP	Internal thread, G 1/4
R412010856	145 psi	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010850	580 psi	-	1 x PNP	Internal thread, G 1/4
R412010851	580 psi	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010854	580 psi	-	2 x PNP	Internal thread, G 1/4
R412010855	580 psi	-	2 x PNP	Flange with O-ring, Ø 5x1,5
R412010857	580 psi	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010858	580 psi	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	Fluorocaoutchouc
Electr. connection	Aluminum with polymer insert
	At the flange connection: Nitrile butadiene rubber and fluororubber

Dimensions

Fig. 1

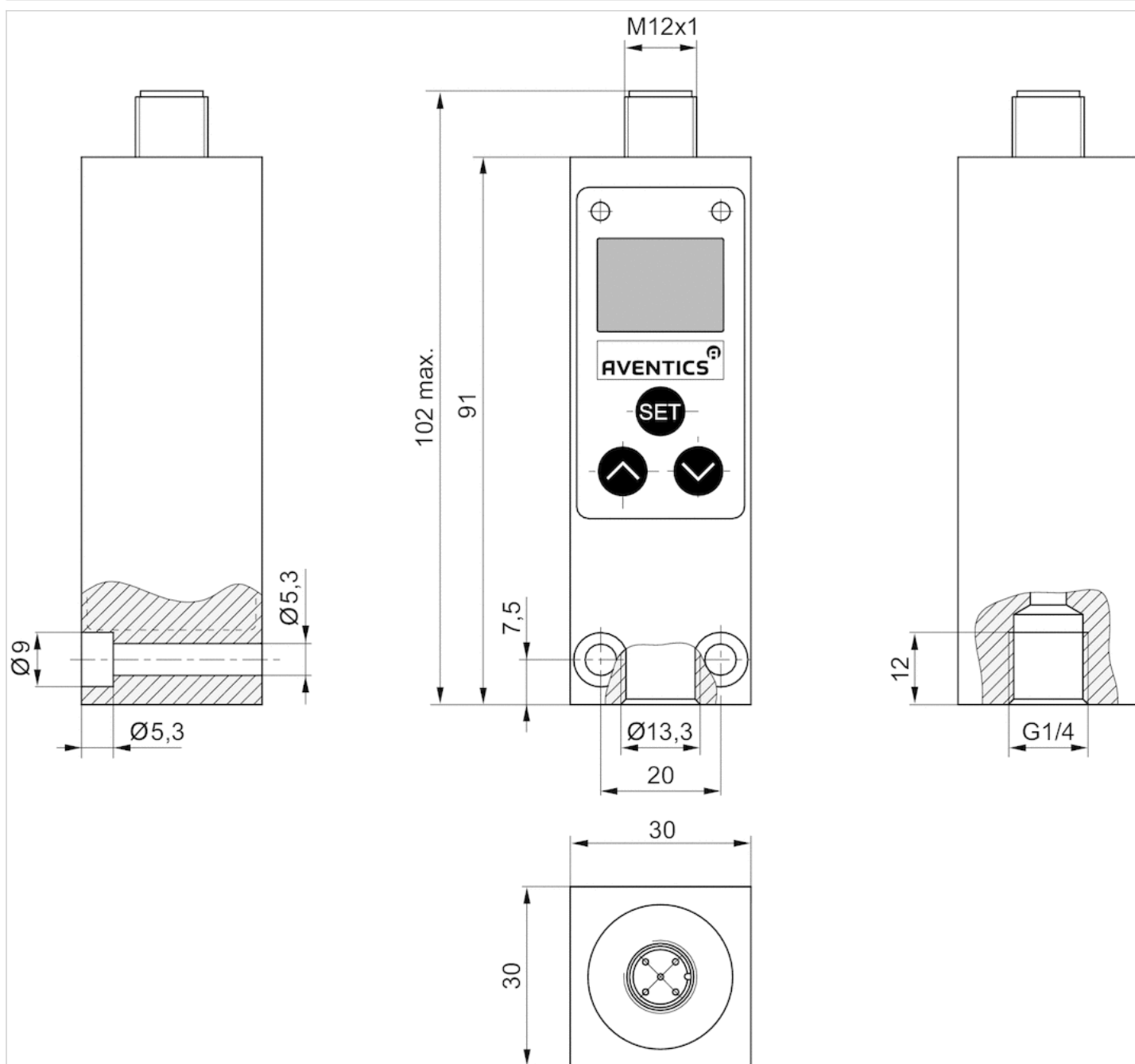
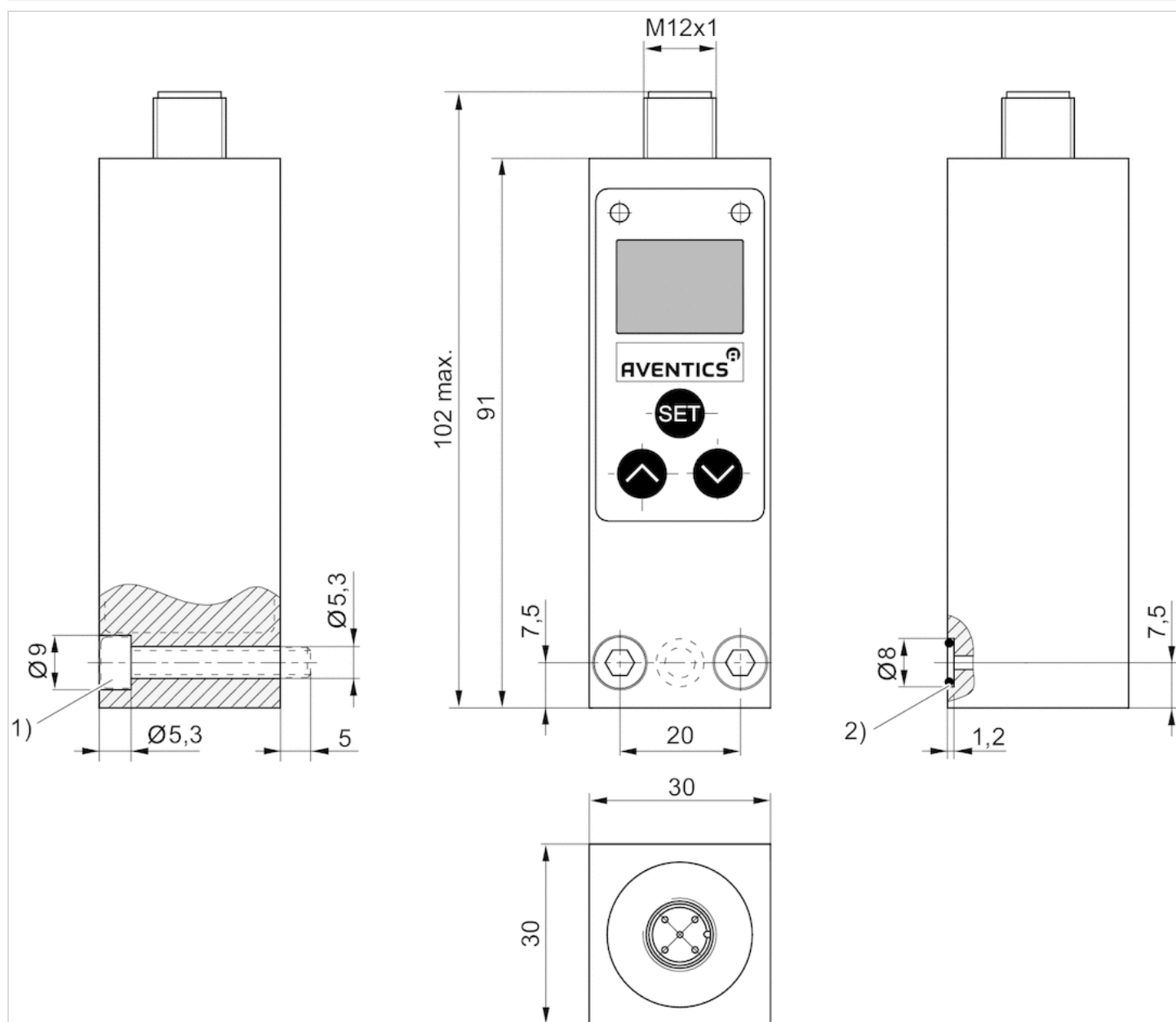


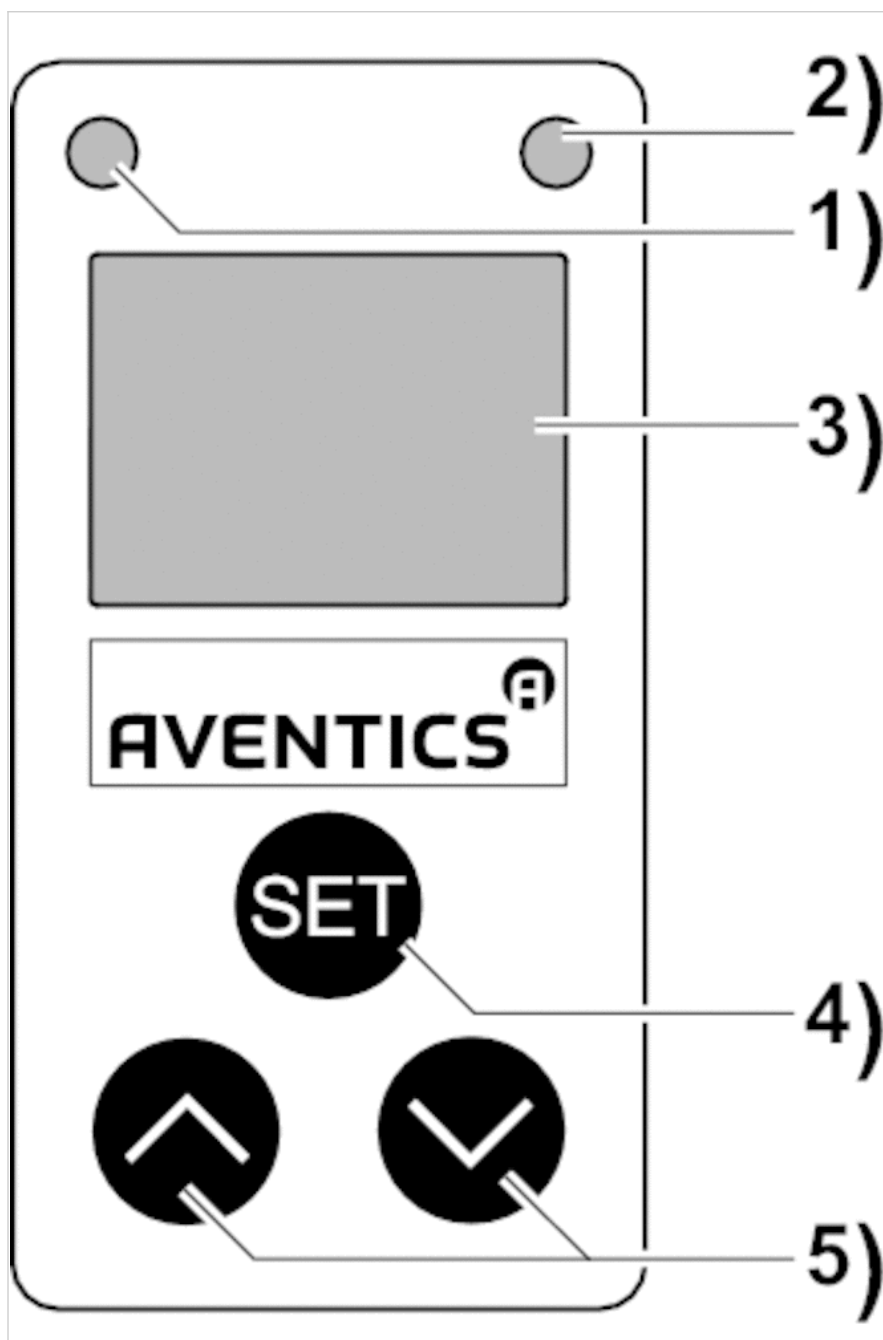
Fig. 2



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

2) O-ring Ø5x1,5 (included)

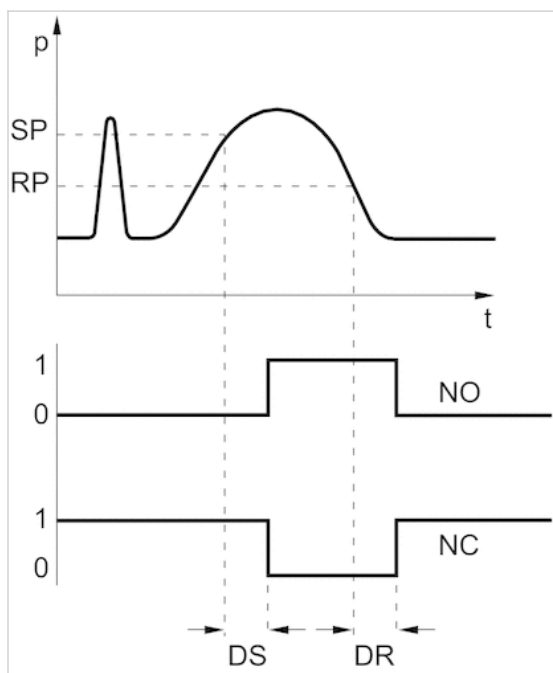
Display and operation area



- 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

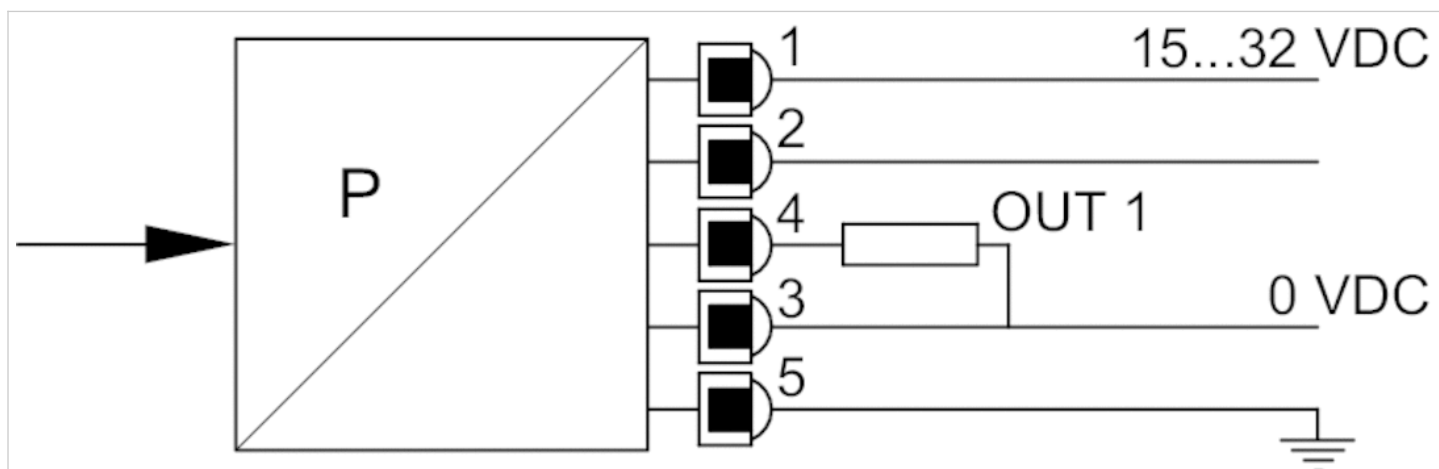
NC = Switching function closed without current

DS = Delay for the switching point

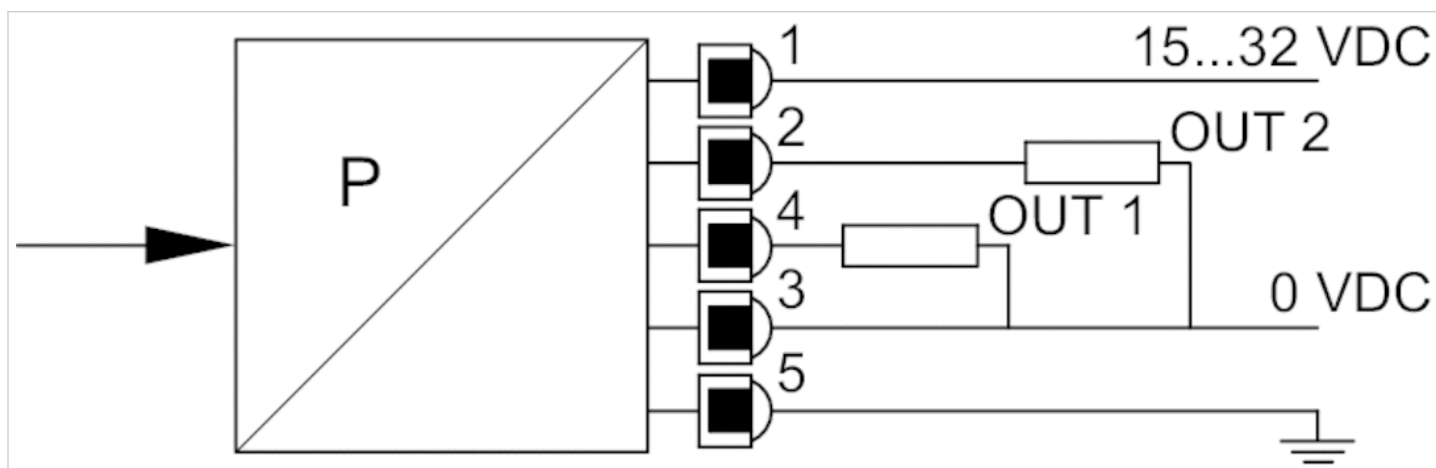
DR = Delay for the resetting point

Circuit diagram

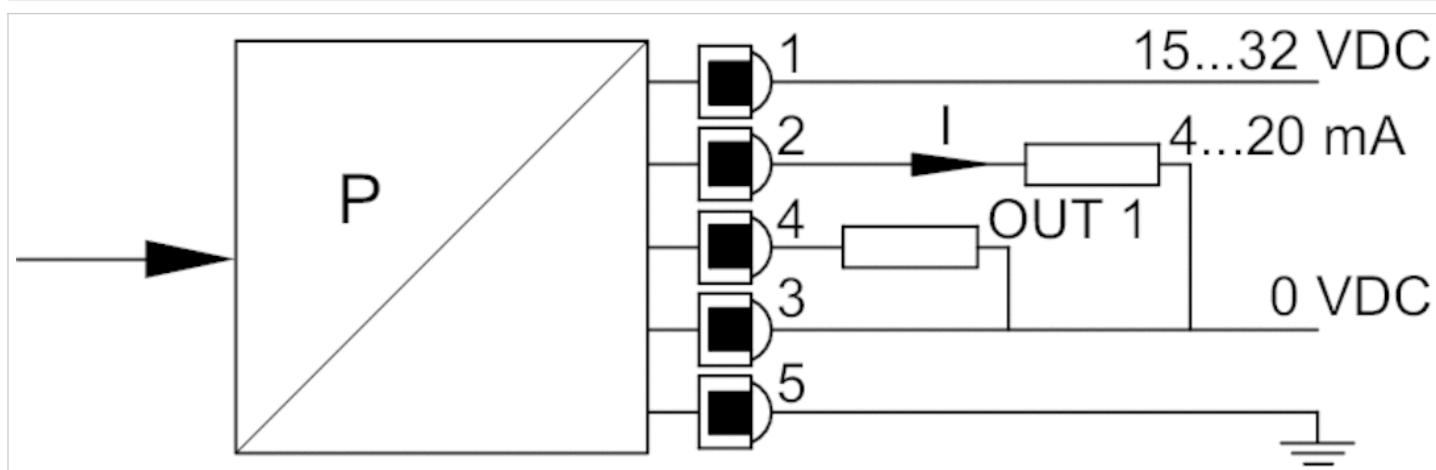
Block diagram 1 x PNP



Block diagram 2 x PNP

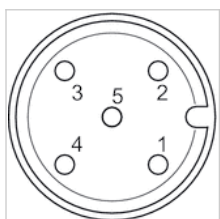


Block diagram 1x PNP and 1x analog



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 -13.05 ... 0, -13.05 ... 43, 2.9 ... 232 psi
- 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.	-4 ... 176 °F
Medium temperature min./max.	14 ... 176 °F
Medium	Compressed air
Measurement	Relative pressure
Switching element	microswitch (input/output)
Protection against overpressure	1160 psi
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	0.353 lbs

Technical data

Part No.		Type	Operating pressure range	Compressed air connection
			min./max.	
R412010711		PM1-M3-G014	-13.05 ... 0 psi	Internal thread, G 1/4
R412022752		PM1-M3-G014	-13.05 ... 43 psi	Internal thread, G 1/4
R412010712		PM1-M3-G014	2.9 ... 232 psi	Internal thread, G 1/4
R412010713		PM1-M3-G014	2.9 ... 232 psi	Internal thread, G 1/4
R412010714		PM1-M3-F001	-13.05 ... 0 psi	Flange with O-ring, Ø 5x1,5
R412010715		PM1-M3-F001	2.9 ... 232 psi	Flange with O-ring, Ø 5x1,5
R412010718		PM1-M3-F001	2.9 ... 232 psi	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.

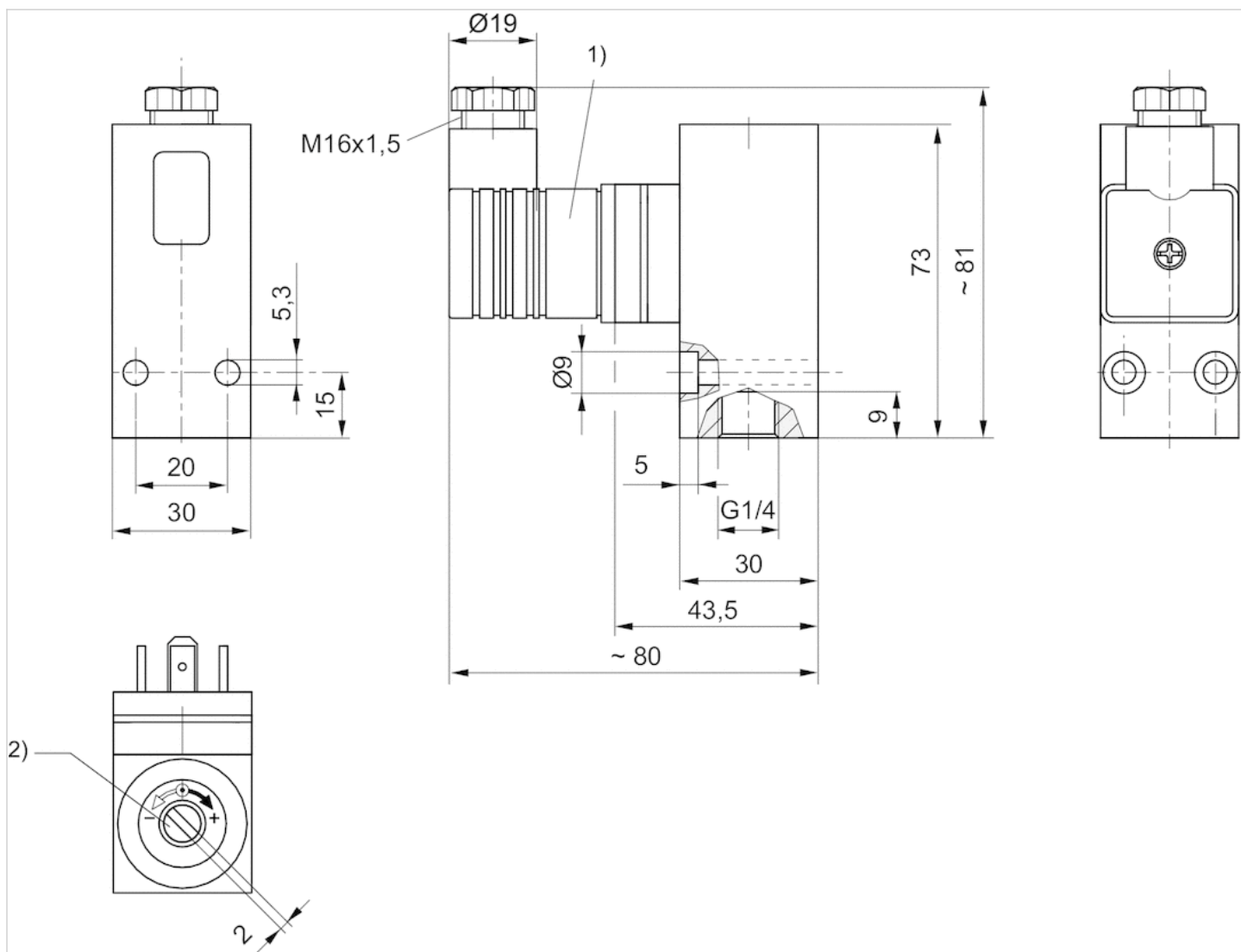
Please observe the pin assignment when selecting plug connectors.

Technical information

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

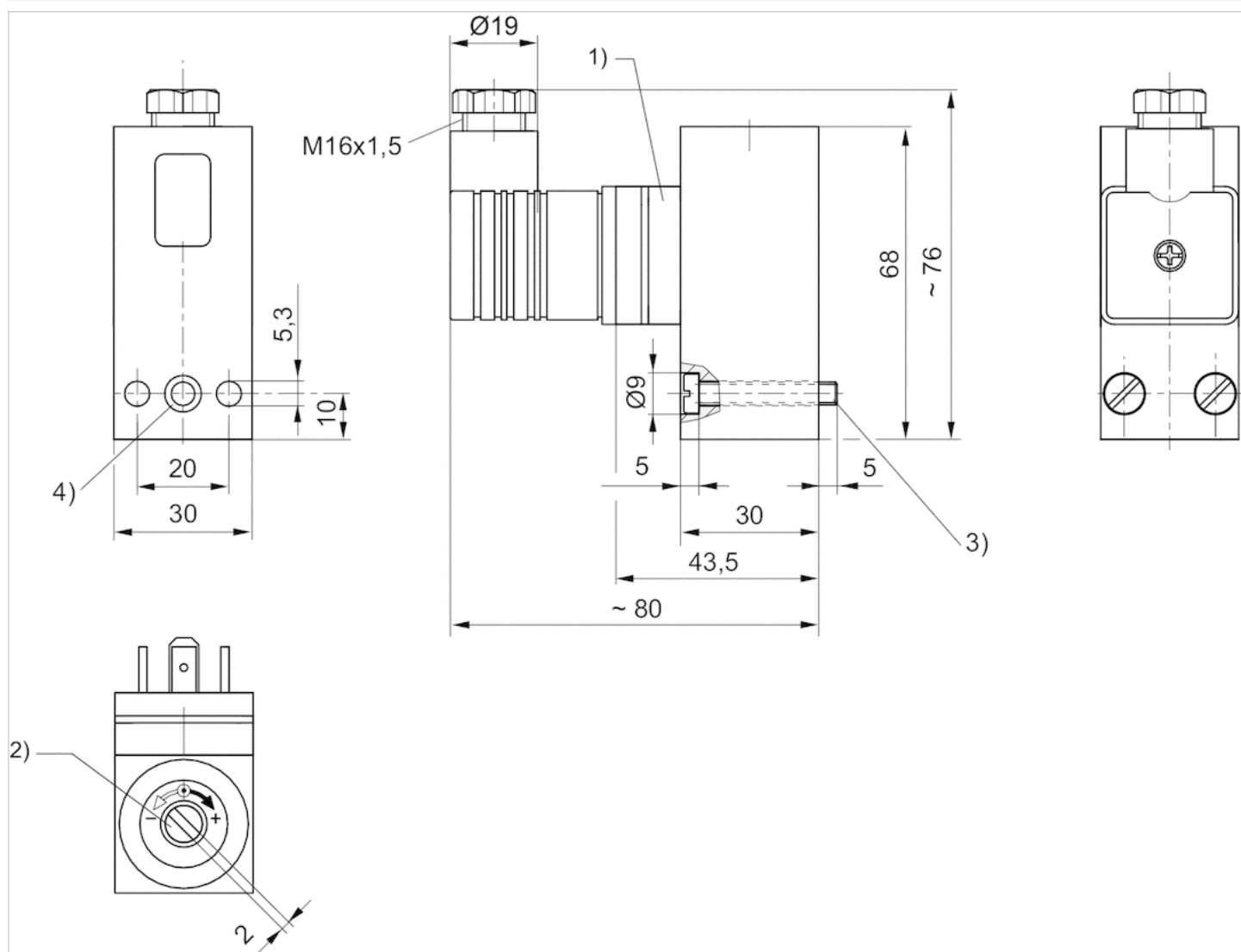
Dimensions

Fig. 1



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

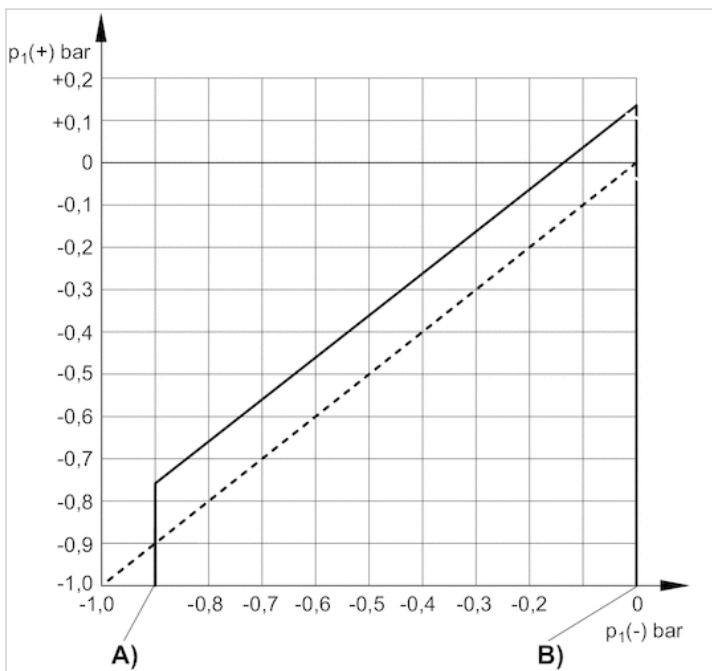
Fig. 2



- 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 (-09 - 0 bar)



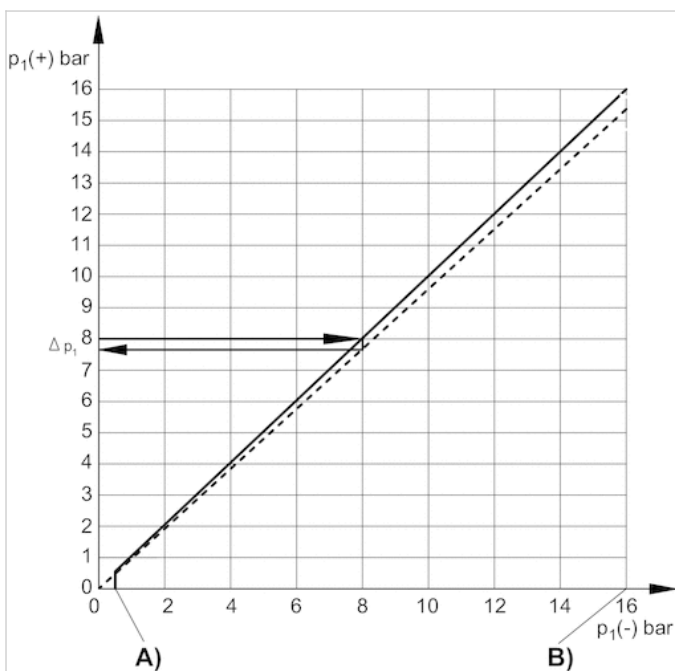
A) $p_1(-)$, min.

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 (02 - 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:

$p1 (+) = 8 \text{ bar} > p1(-) = 7.6 \text{ bar}$
 $\Delta p1 = 0.4 \text{ bar}$

max. permissible continuous current I 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 max. [A] with inductive load

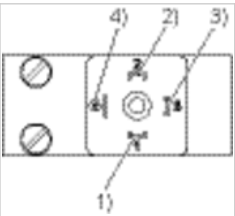
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	–

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 -13.05 ... 0, 2.9 ... 232 psi
- Mechanical
- Spring-loaded bellows, 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.	-4 ... 176 °F
Medium temperature min./max.	14 ... 176 °F
Medium	Compressed air
Measurement	Relative pressure
Switching element	microswitch (input/output)
Protection against overpressure	1160 psi
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	0.331 lbs

Technical data

Part No.		Type	Operating pressure range	Compressed air connection
			min./max.	
R412010716		PM1-M3-G014	-13.05 ... 0 psi	Internal thread, G 1/4
R412010717		PM1-M3-G014	2.9 ... 232 psi	Internal thread, G 1/4
R412010719		PM1-M3-F001	-13.05 ... 0 psi	Flange with O-ring, Ø 5x1,5
R412010720		PM1-M3-F001	2.9 ... 232 psi	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

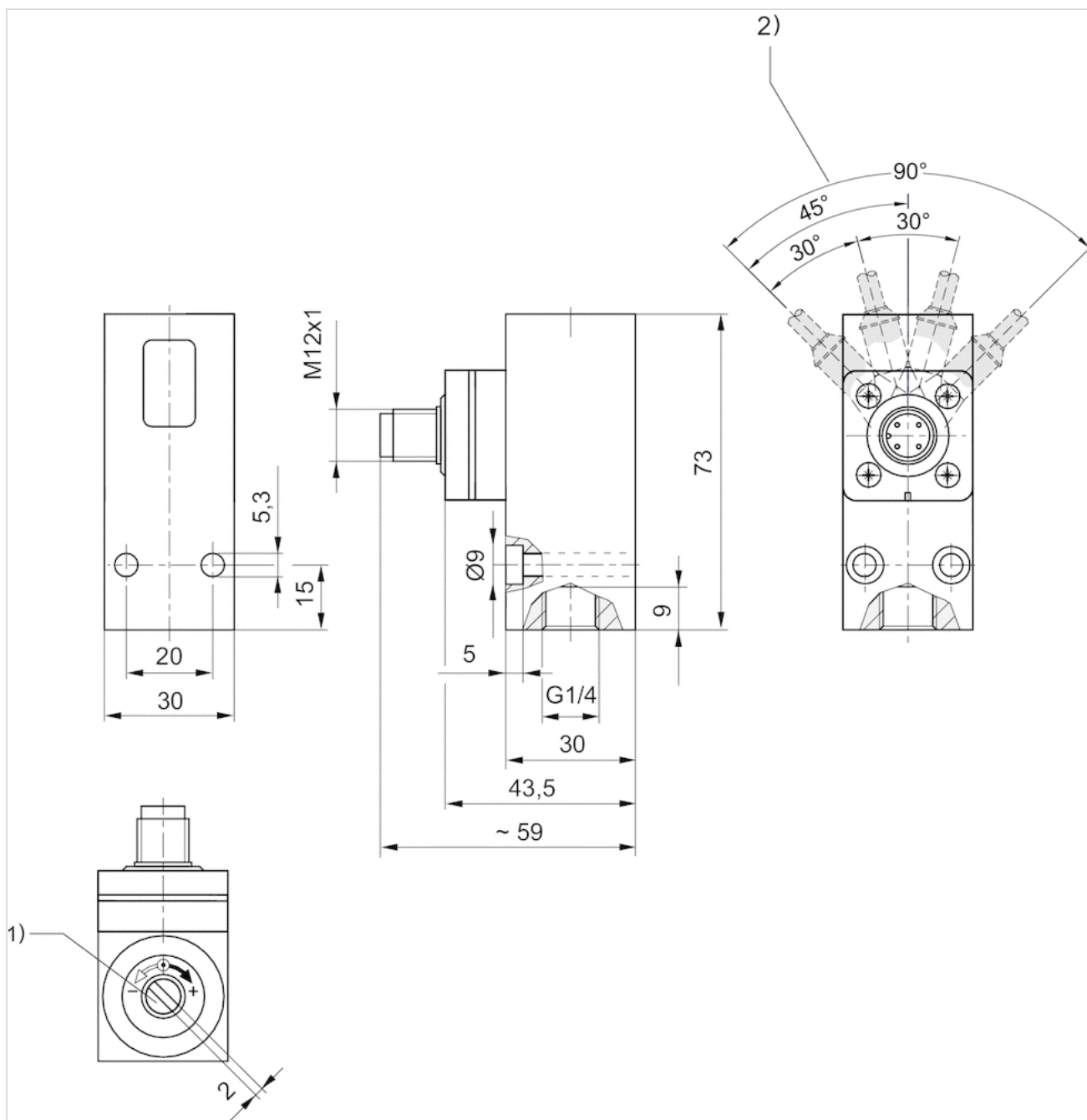
Switching function increasing pressure: contact switches from 1-2 to 1-3.
Switching function decreasing pressure: contact switches from 1-3 to 1-2.
Notice: Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!
The microswitch has silver-plated contacts.

Technical information

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

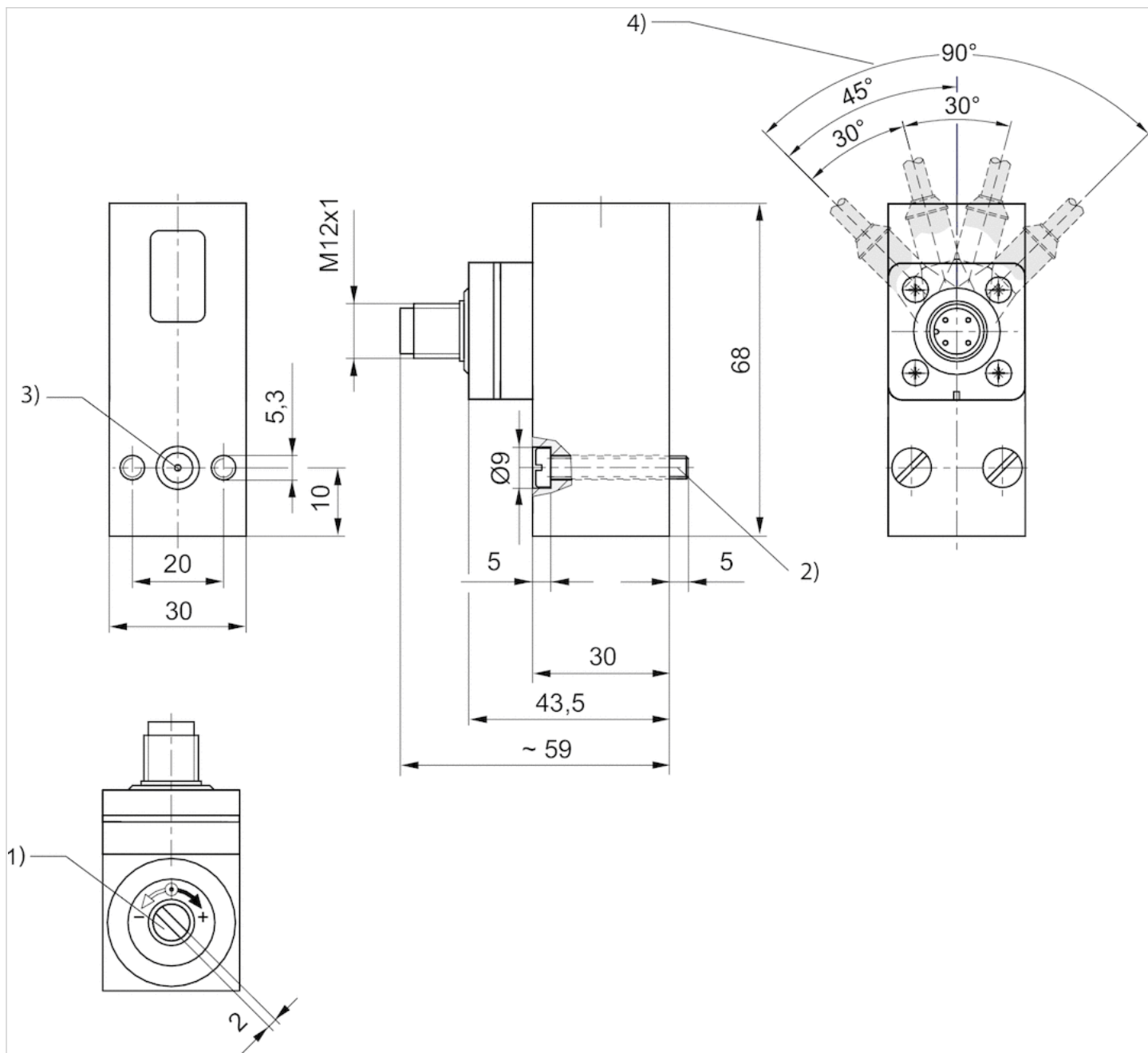
Dimensions

Fig. 1



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

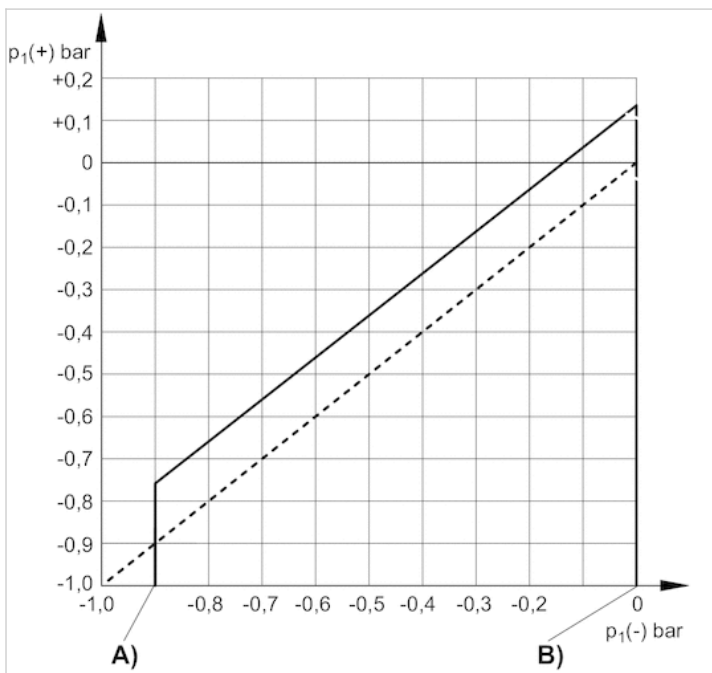
Fig. 2



- 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 (-09 - 0 bar)



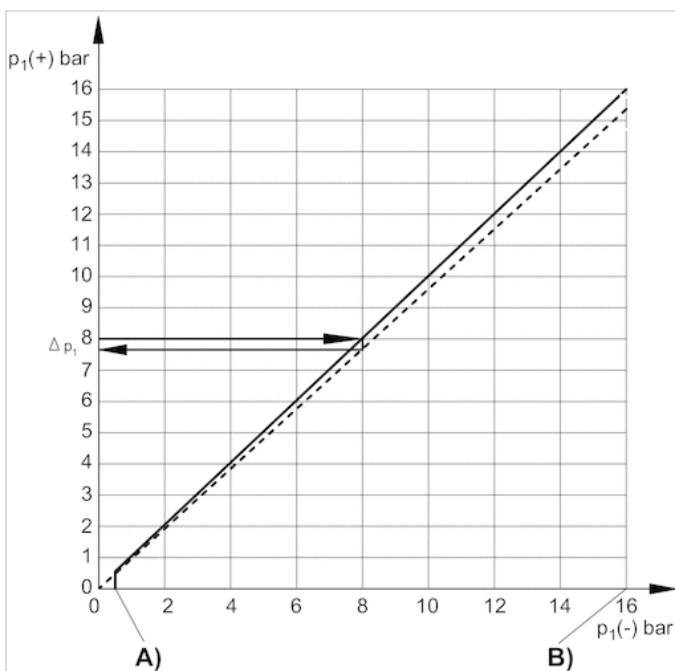
A) $p_1(-)$, min.

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 (02 - 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 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 max. [A] with inductive load

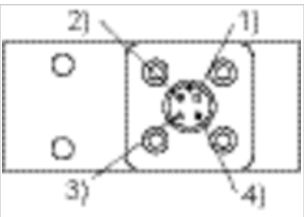
U [V]	I [A] 1) 3)	I [A] 2) 4)
30-250	3A	
30 / 48 / 60 / 125		2 / 0,55 / 0,4 / 0,2

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

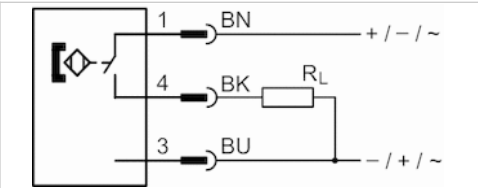
Pin assignments



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, ICM, KHZ, TRR



Certificates	CE declaration of conformity, cULus, RoHS
Ambient temperature min./max.	-22 ... 176 °F
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

Technical data

Part No.	for	Type of contact	Cable length L
R412022876	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed	0.984 ft.

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

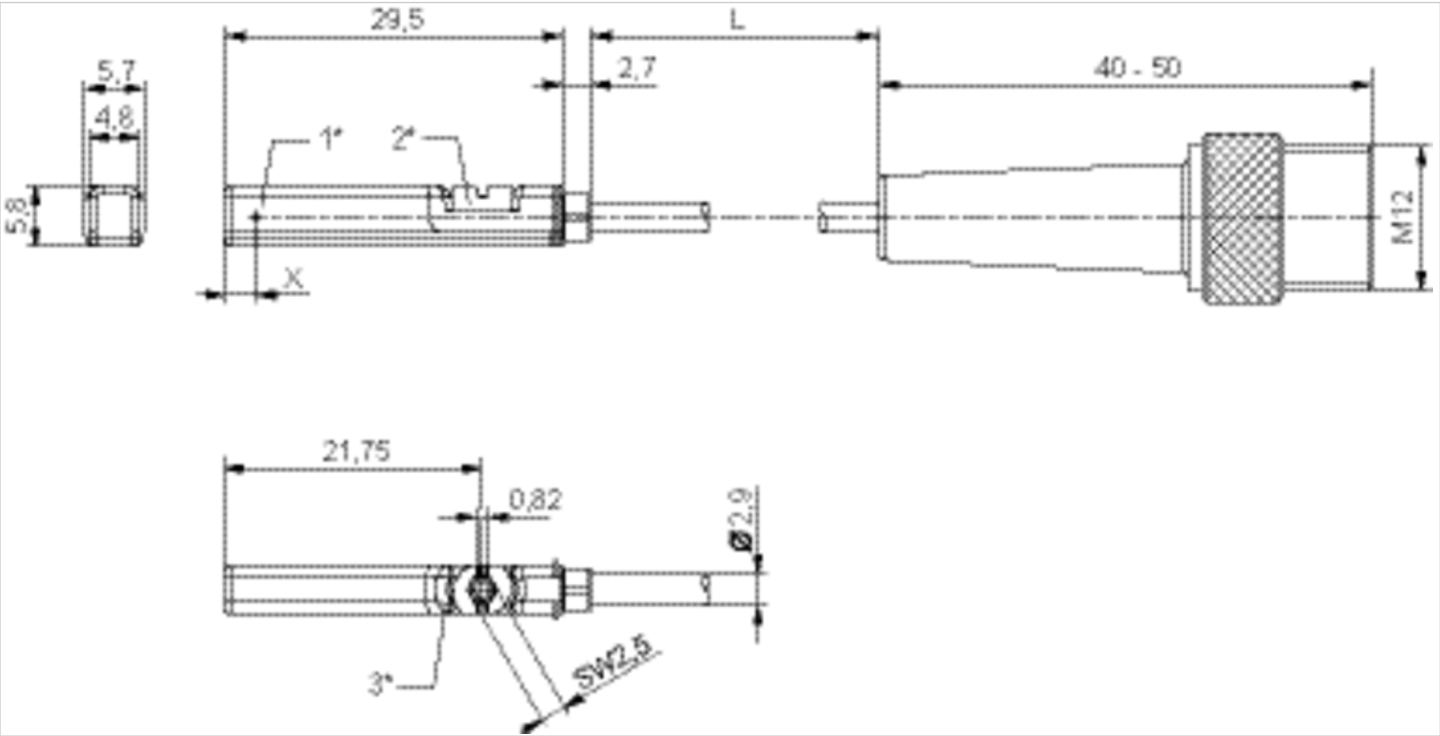
Part No.	Version
R412022876	Protected against polarity reversal

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

Pin assignments

Pin assignments



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

Sensor, Series ST6

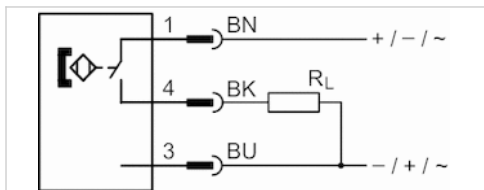
- 6 mm T-slot
- with cable
- Plug, M8, 3-pin, with knurled screw
- UL certification
- Reed
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates

Ambient temperature min./max.	-22 ... 176 °F
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

CE declaration of conformity, cULus, RoHS



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	0.984 ft.	I*Rs	0.3 A
R412022875	0.984 ft.	I*Rs	0.3 A
R412022874	1.64 ft.	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

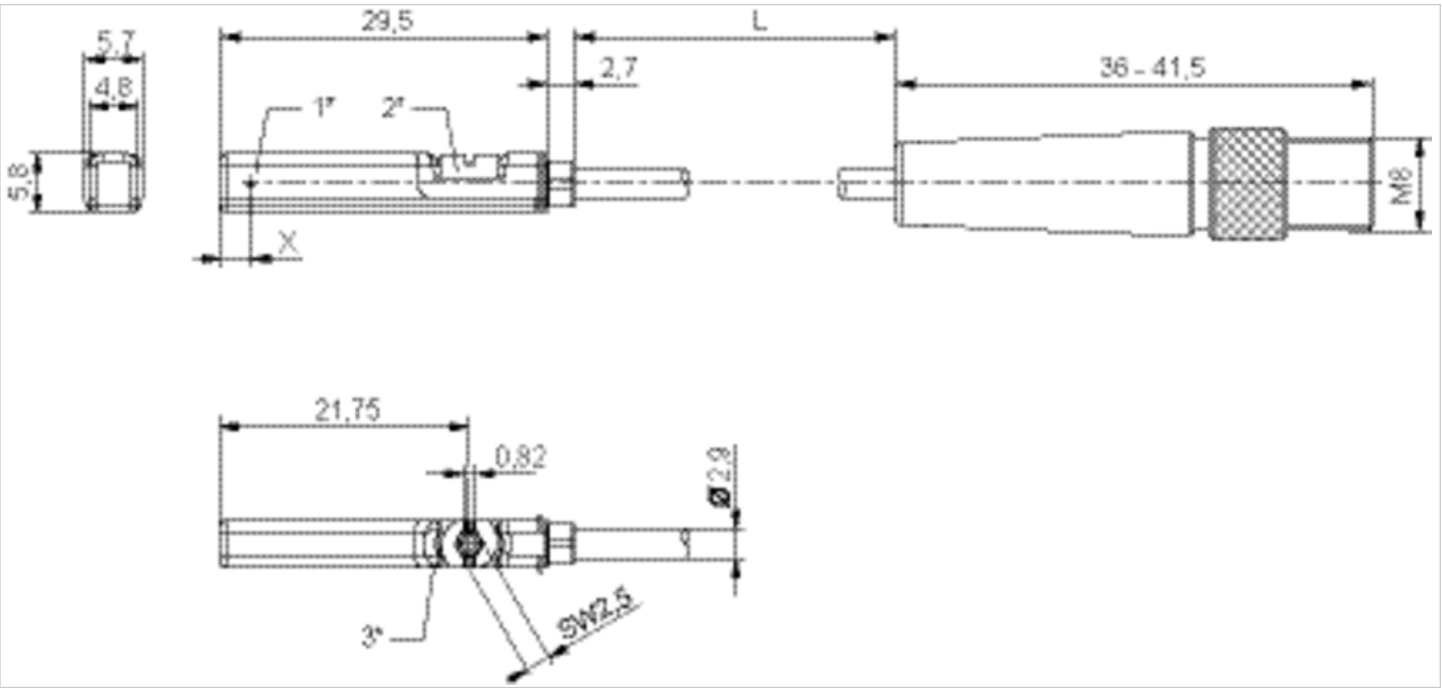
Part No.	Version
R412022873	Protected against polarity reversal
R412022875	Protected against polarity reversal
R412022874	Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane, Polyvinyl chloride
Locking screw	Stainless steel

Dimensions

Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent
 L = cable length
 X = electronic: 11,6 mm, Reed: 8,3 mm

Pin assignments

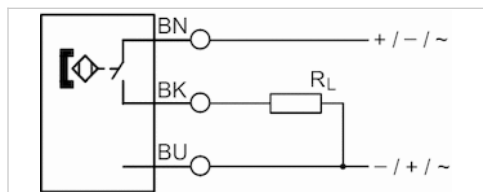
Pin assignments



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, ICM, KHZ, TRR



Certificates

Ambient temperature min./max.

Protection class

Switching point precision

Min./max. DC operating voltage

Min./max. AC operating voltage

Hysteresis

Switching logic

Switching capacity

LED status display

Vibration resistance

Shock resistance

CE declaration of conformity, cULus, RoHS

-22 ... 176 °F

IP65, IP67, IP69K

±0,1 mT

10 ... 30 V DC

10 ... 30 V AC

≥ 0,2 mT

NO (make contact)

Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W

Yellow

10 - 55 Hz, 1 mm

30 g / 11 ms

Technical data

Part No.	for	Type of contact	Cable length L
R412022869	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed	9.84 ft.
R412022870	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed	16.4 ft.
R412022871	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed	32.81 ft.

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

Technical information

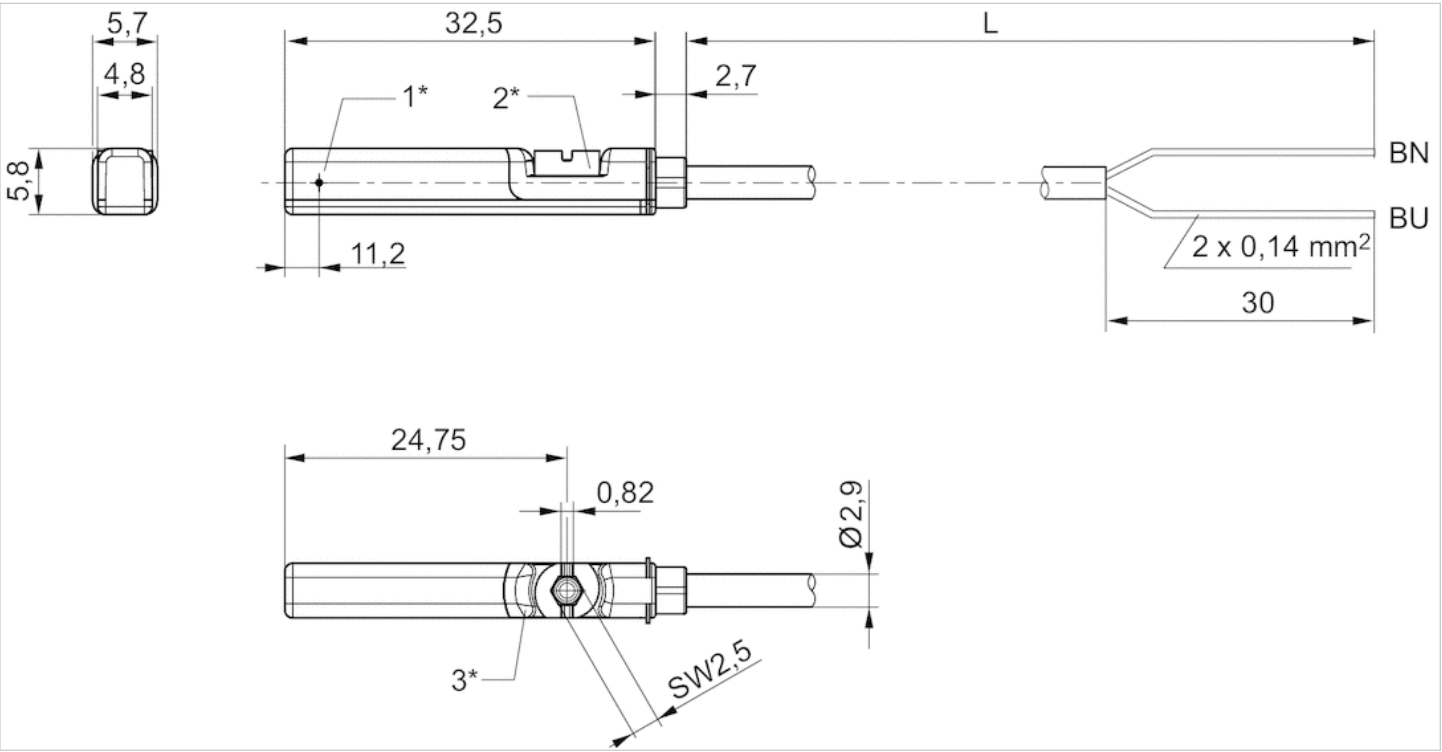
No cULus certification for 230 V variant.

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

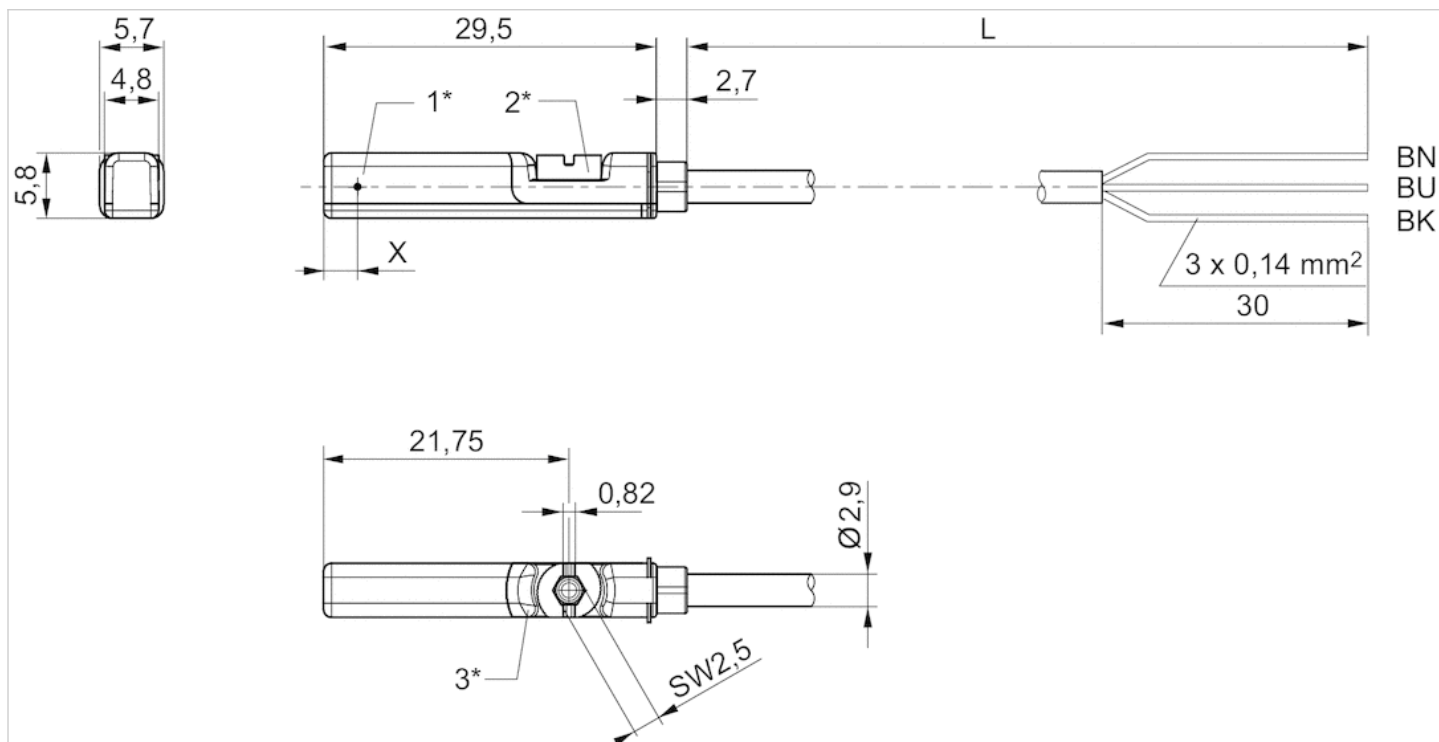
Dimensions

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 standard series

- Straight fitting
- External thread
- G 1/2
- push-in fitting
- Ø 8, Ø 10, Ø 12, Ø16, Ø 14
- QR1-S-RPN



Working pressure min./max.

-13 ... 145 psi

Ambient temperature min./max.

32 ... 140 °F

Weight

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight
R412005001	G 1/2	Ø 8	10 piece	0.114 lbs
2121010120	G 1/2	Ø 10	10 piece	0.128 lbs
2121012120	G 1/2	Ø 12	10 piece	0.125 lbs
R412005006	G 1/2	Ø16	10 piece	0.147 lbs
2121014120	G 1/2	Ø 14	10 piece	0.141 lbs

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).

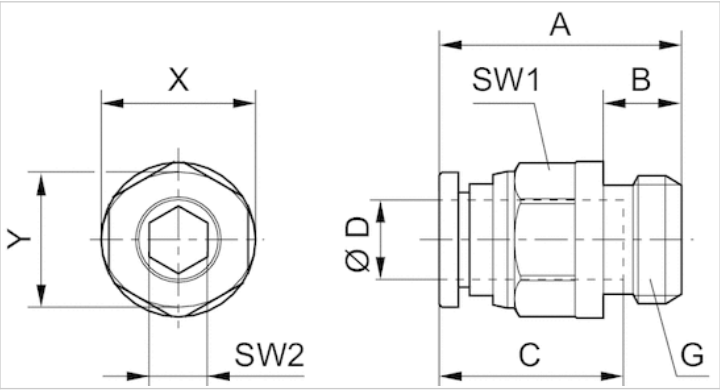
Technical information

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
R412005006	Ø16	G 1/2	36.3	8.5	25.5	24	10	27	24
2121014120	Ø 14	G 1/2	25.6	8.5	24.6	24	11	25	23

QR1-S standard series

- Elbow fitting
- External thread
- G 1/2
- push-in fitting
- Ø 8, Ø 10, Ø 12, Ø 14, Ø16
- QR1-S-RVT



Working pressure min./max.

-13 ... 145 psi

Ambient temperature min./max.

32 ... 140 °F

Weight

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight
R412005093	G 1/2	Ø 8	10 piece	0.108 lbs
2122010120	G 1/2	Ø 10	10 piece	0.111 lbs
2122012120	G 1/2	Ø 12	10 piece	0.124 lbs
2122014120	G 1/2	Ø 14	5 piece	0.146 lbs
R412005098	G 1/2	Ø16	5 piece	0.168 lbs

Weight per piece

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).

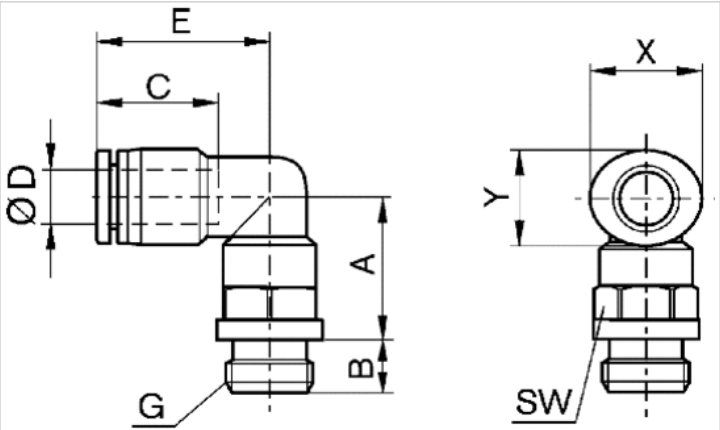
Technical information

Material	
Material	nickel-plated
Housing	Polybutyleneterephthalate
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Polyoxymethylene

Material	
Release ring holder	Die cast zinc, Brass, nickel-plated
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, standard

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



Working pressure min./max.

-13 ... 232 psi

Ambient temperature min./max.

-4 ... 176 °F

Weight

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight	Fig.
1823373054	G 1/2	Ø 12	5 piece	0.106 lbs	Fig. 1
1823373055	G 1/2	Ø 14	5 piece	0.141 lbs	Fig. 1
R412007955	G 1/2	Ø 16	1 piece	0.159 lbs	Fig. 1

Weight per piece

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

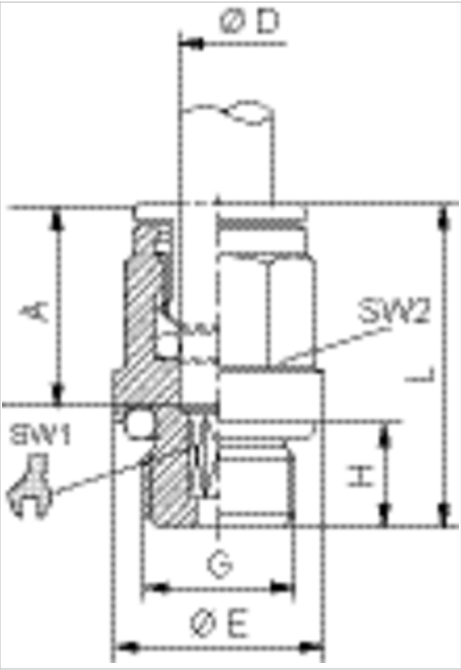
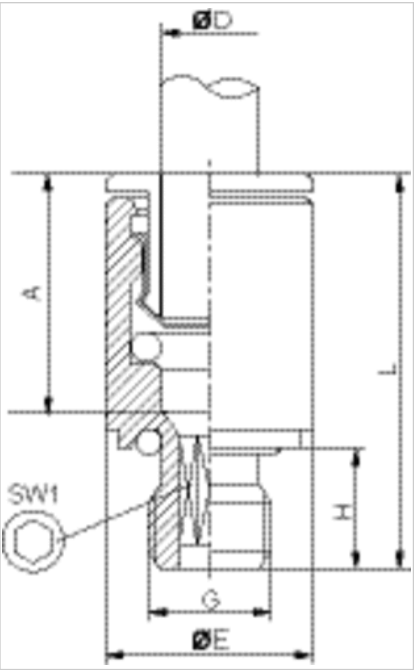


Fig. 2



Dimensions

Part No.	Port D	Port G	Ø E	H	L	A*	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

* Insertion depth

Series QR2-S, 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.

-13 ... 232 psi

Ambient temperature min./max.

-4 ... 176 °F

Weight

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight
R412007589	G 1/2	Ø 10	5 piece	0.101 lbs
1823391840	G 1/2	Ø 12	5 piece	0.143 lbs
1823391841	G 1/2	Ø 14	5 piece	0.154 lbs
R412007956	G 1/2	Ø 16	1 piece	0.185 lbs

Weight per piece

Technical information

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

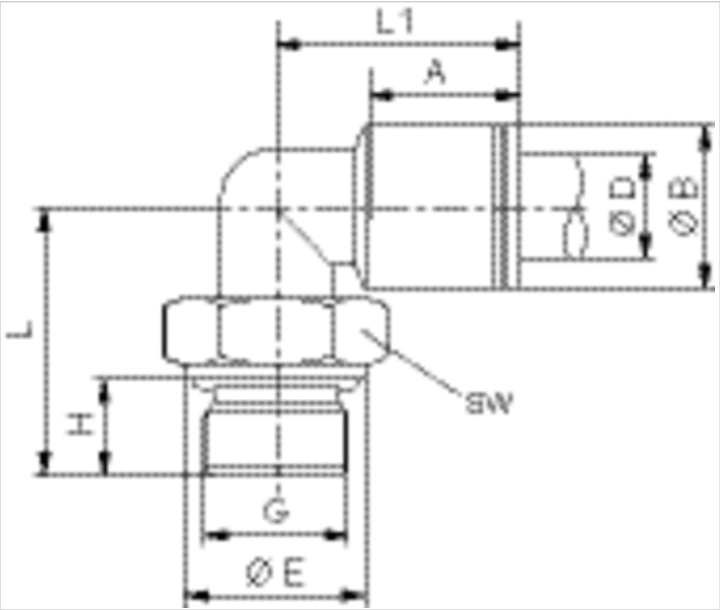
Thread seal with captive O-ring

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*	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

* Insertion depth

Series NU2

- Swivel banjo connection 1-fold
- External thread
- G 3/8, G 1/2
- plug-in with tube nut
- Ø 8, Ø 13
- NU2-S-RW1



Working pressure min./max.

-13 ... 145 psi

Ambient temperature min./max.

14 ... 140 °F

Weight

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight
1823391296	G 3/8	Ø 8	2 piece	0.123 lbs
R412007839	G 3/8	Ø 13	2 piece	0.174 lbs
R412007838	G 1/2	Ø 13	2 piece	0.216 lbs

Weight per piece

Technical information

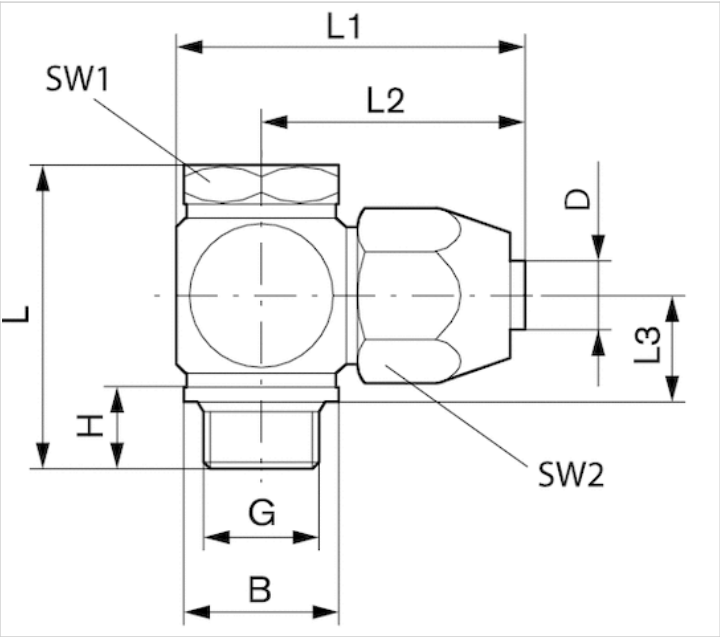
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

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
1823391296	Ø 8	G 3/8	21	12.5	43	47	35	15.5	22	22
R412007839	Ø 13	G 3/8	22.9	12.5	47	49	37	18.5	22	30
R412007838	Ø 13	G 1/2	22.9	14	49.5	55	40	18.5	27	30

Connection D = inside diameter of the tubing to be used

Double nipple, Series PE5

- External thread



Weight

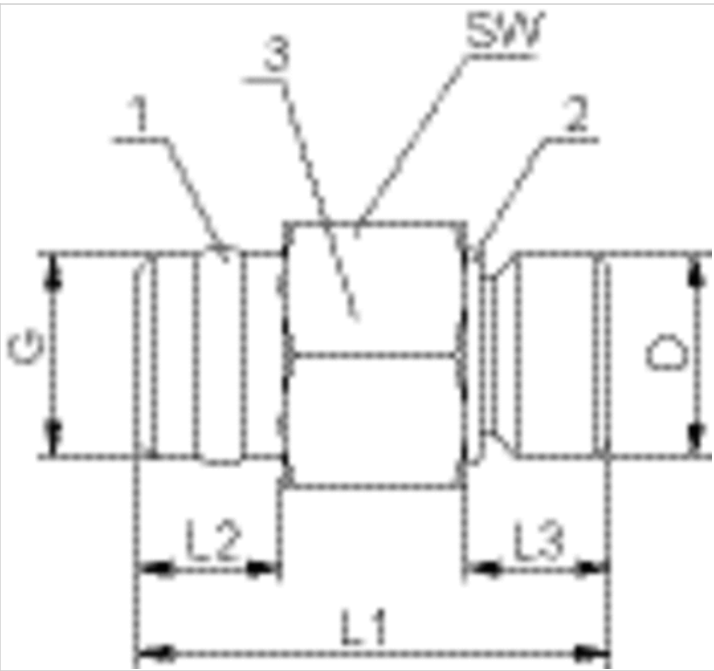
0.088 lbs

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 ... 232 psi

Ambient temperature min./max.
-4 ... 176 °F

Technical data

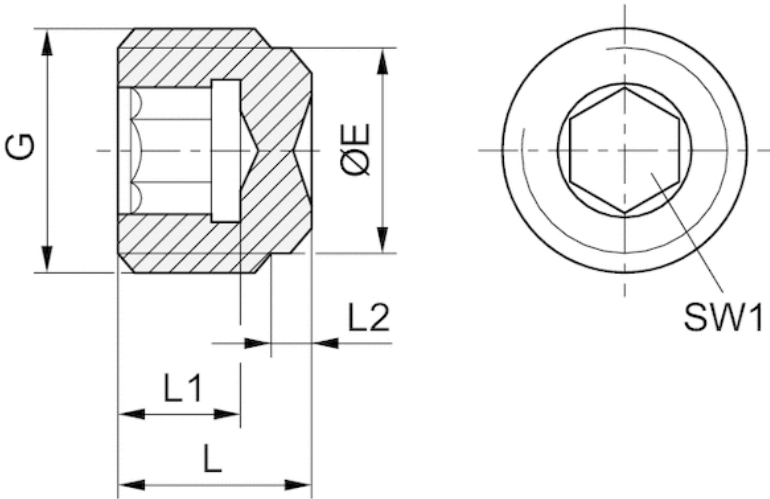
Part No.	Port G	Delivery unit
1823462004	G 1/8	10 piece
1823462003	G 1/4	10 piece

Technical information

Material	
Material	Brass

Dimensions

Dimensions



Dimensions

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



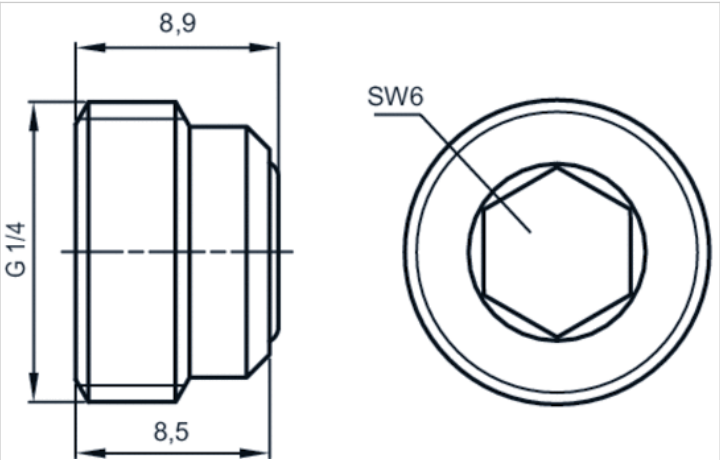
Technical data

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 ... 870 psi

Ambient temperature min./max.
-4 ... 158 °F

Technical data

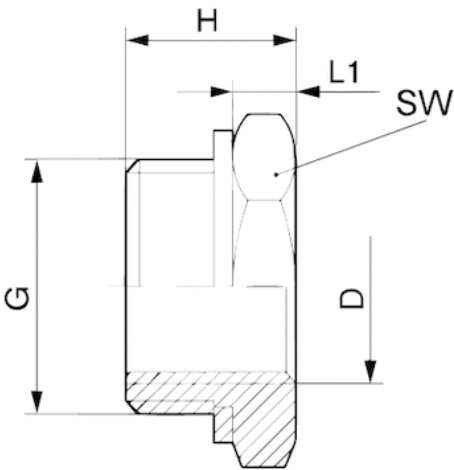
Part No.	Port G	Port D	Delivery unit
1823391301	G 3/4	G 1/4	5 piece

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.

-13 ... 232 psi

Ambient temperature min./max.

14 ... 140 °F

Technical data

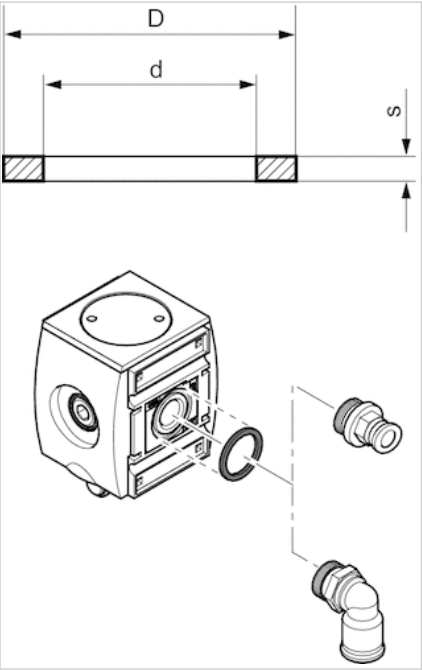
Part No.	Delivery unit
R412010148	10 piece
R412010149	10 piece
R412010150	10 piece

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	17.9	22.5	1.5
R412010149	AS3	For compressed air connection G 1/2	22.4	26.4	1.5
R412010150	AS5	For compressed air connection G 1	36.9	41.9	1.8

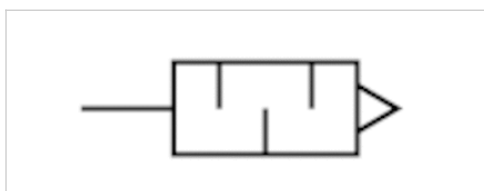
Silencers, series SI1

- Sintered bronze



Working pressure min./max.
Ambient temperature min./max.
Medium
Sound pressure level
Weight
Comment

0 ... 145 psi
-13 ... 176 °F
Compressed air
85 dB
0.077 lbs
Flow characteristic curves can be found under "Diagrams".



Technical data

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

Weight per piece

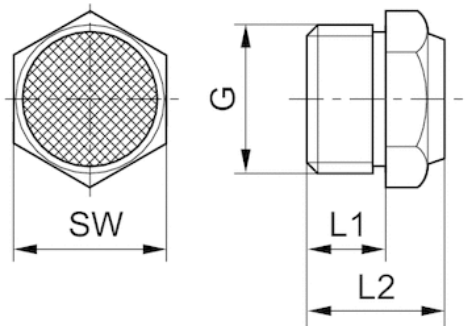
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

Dimensions

Dimensions



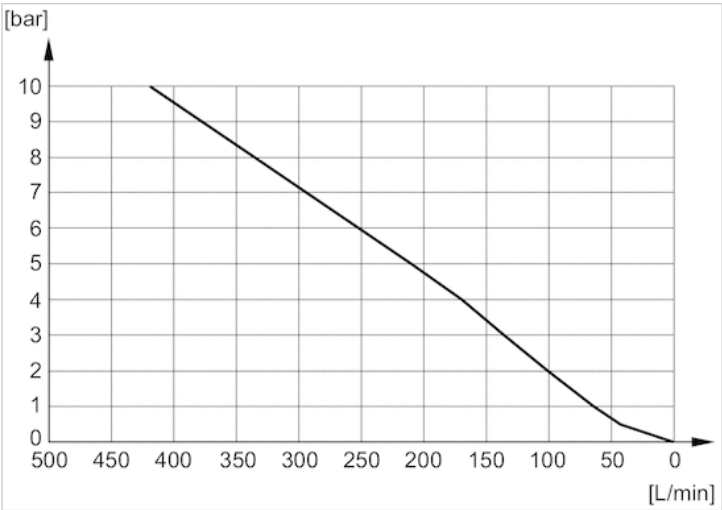
Dimensions

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

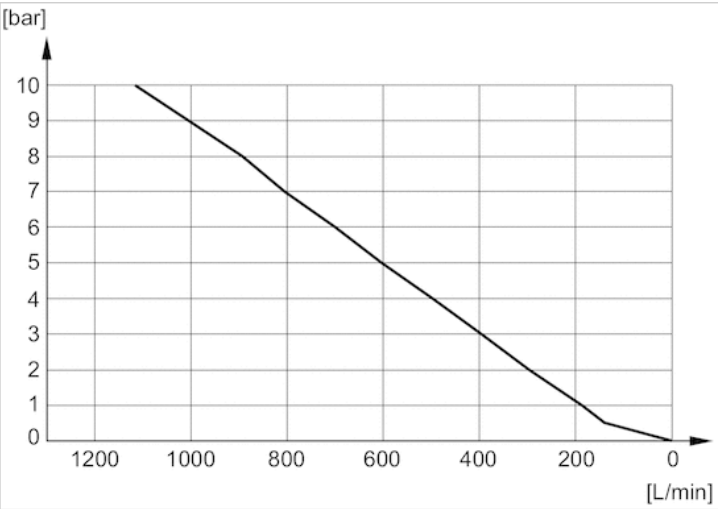
Sound pressure level measured at 6 bar at 1 m distance

Diagrams

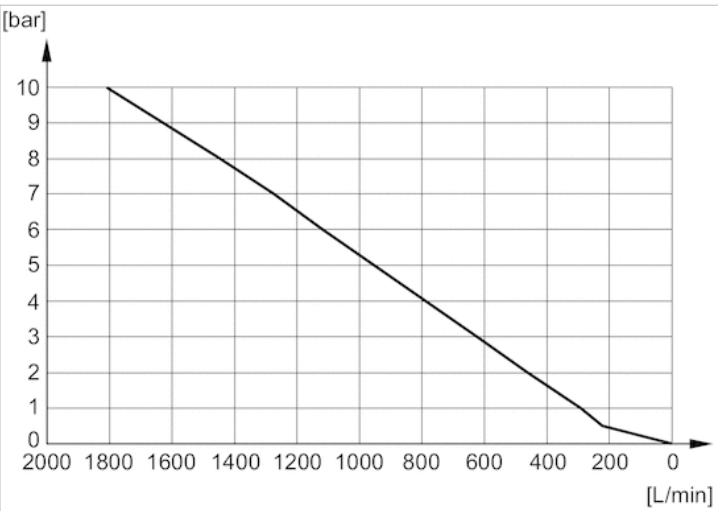
Flow diagram 1827000032



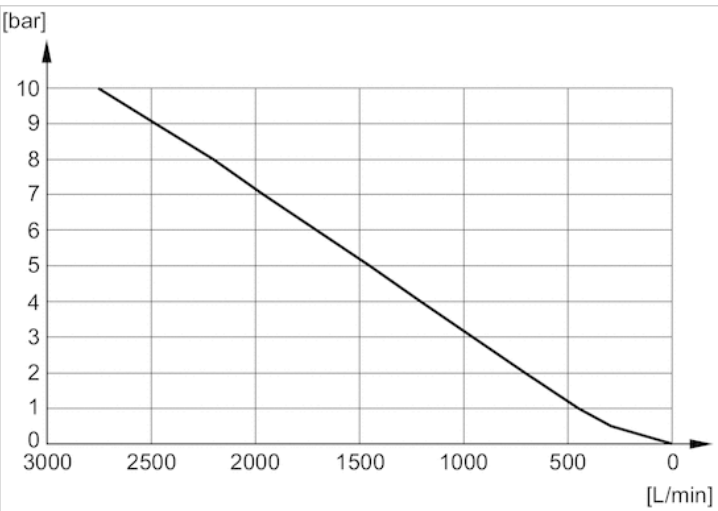
Flow diagram 1827000031



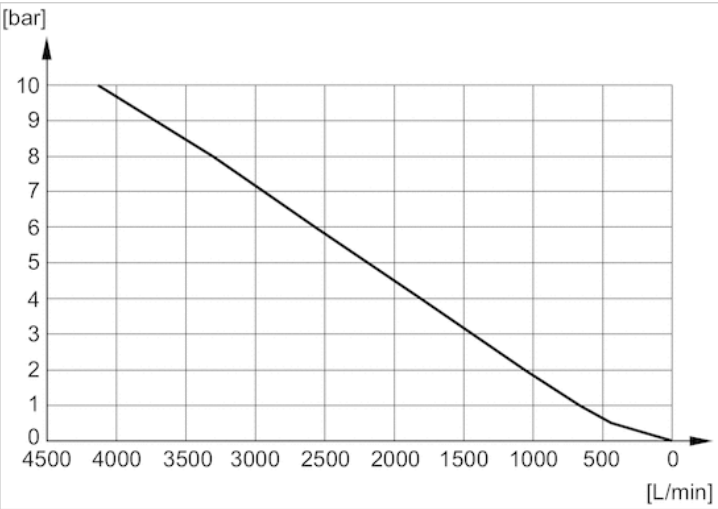
Flow diagram 1827000033



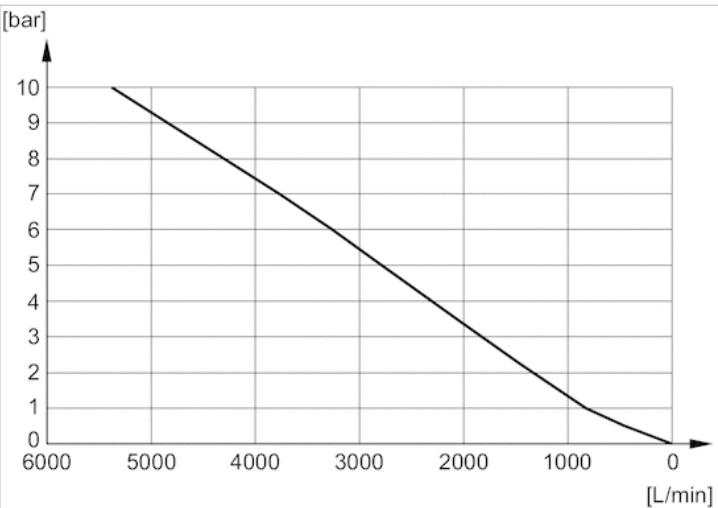
Flow diagram 1827000034



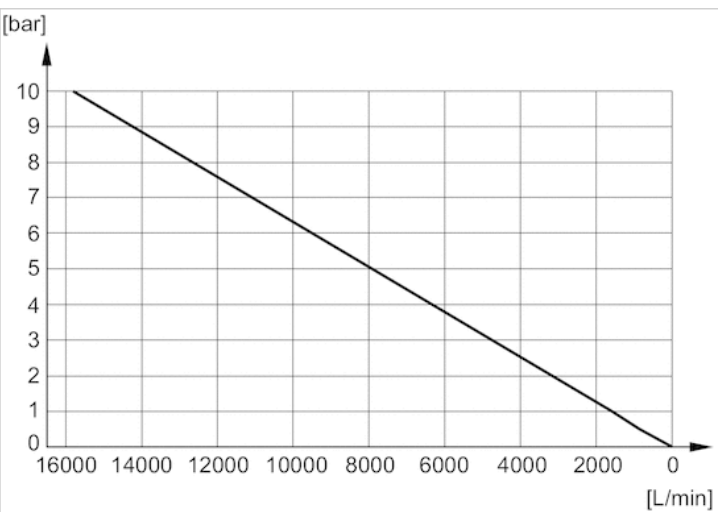
Flow diagram 1827000035



Flow diagram 8145003400



Flow diagram 8145001000



Silencers, series SI1

- Polyethylene



Working pressure min./max.

0 ... 145 psi

Ambient temperature min./max.

-13 ... 176 °F

Medium

Compressed air

Sound pressure level

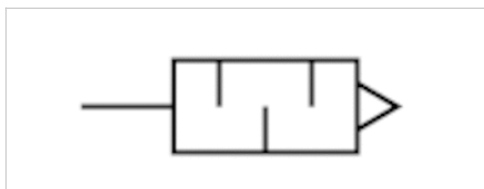
88 dB

Weight

0.029 lbs

Comment

Flow characteristic curves can be found under "Diagrams".



Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000022	G 1/2	7 Cv	1 piece

Weight per piece

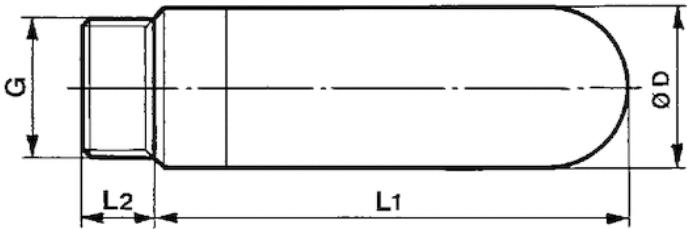
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Polyethylene
Thread	Polyethylene

Dimensions

Dimensions

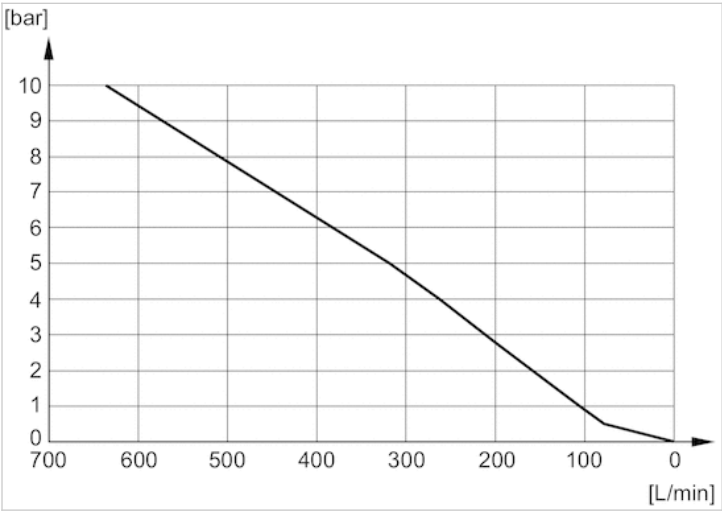


Dimensions

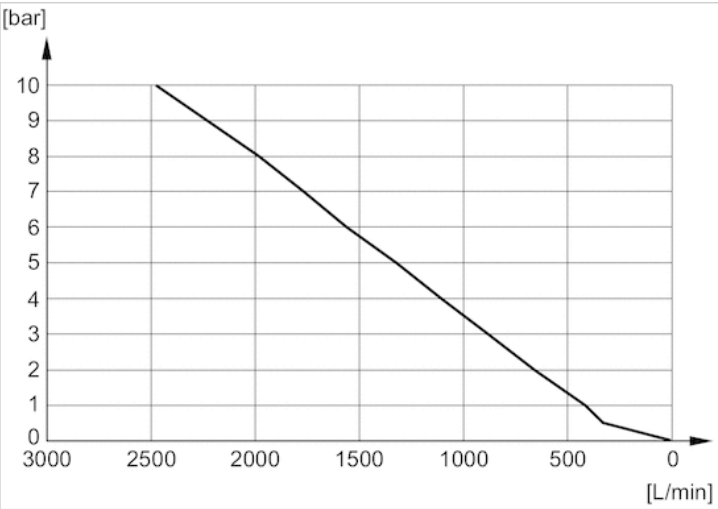
Part No.	Port G	Ø D	L1	L2
1827000022	G 1/2	23.3	66.5	11

Diagrams

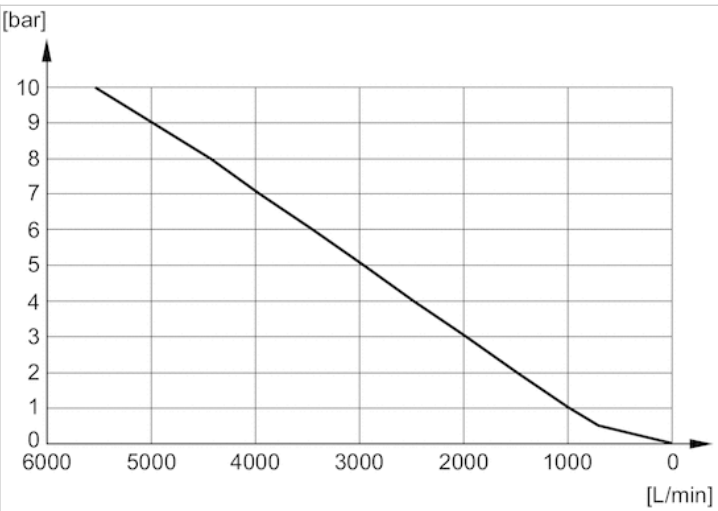
Flow diagram 1827000018



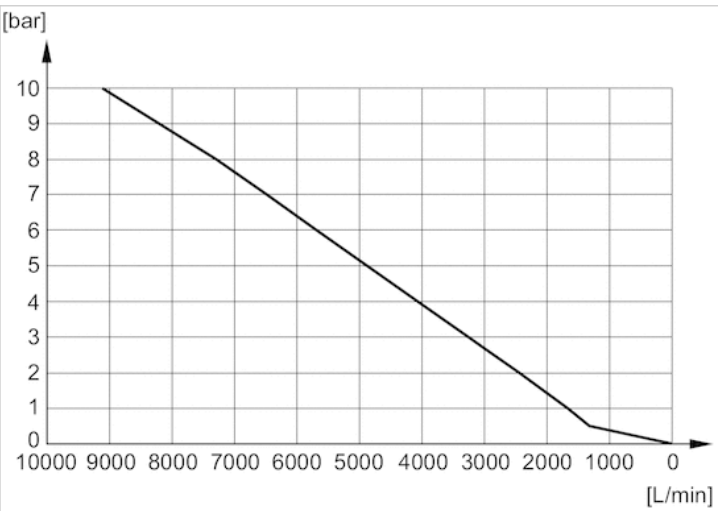
Flow diagram 1827000019



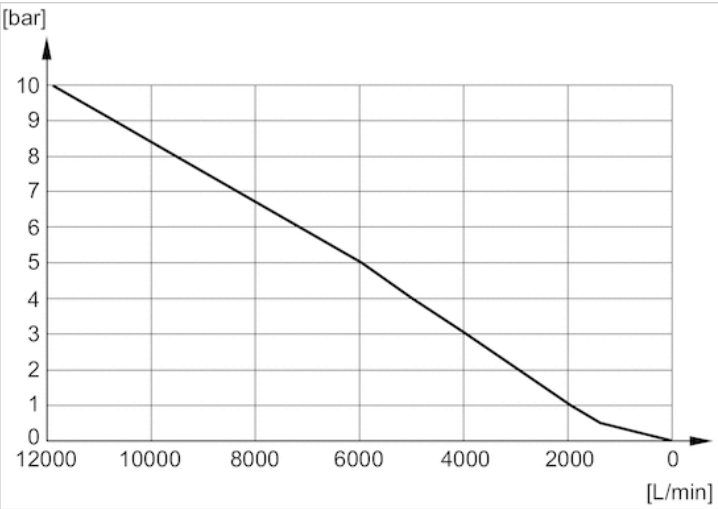
Flow diagram 1827000020



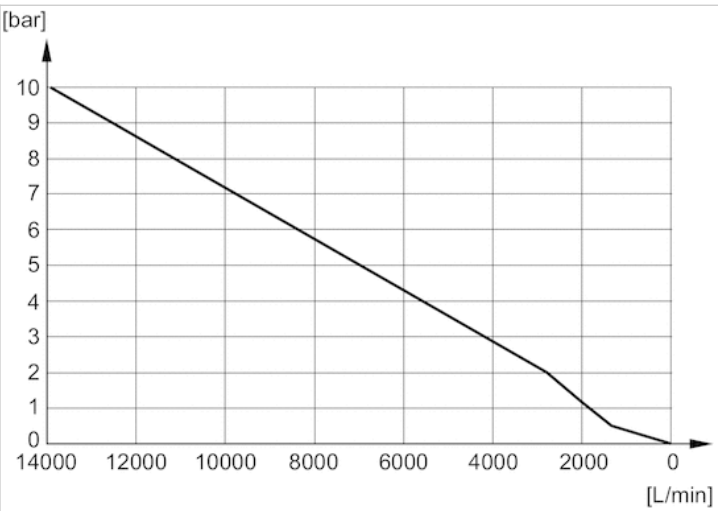
Flow diagram 1827000021



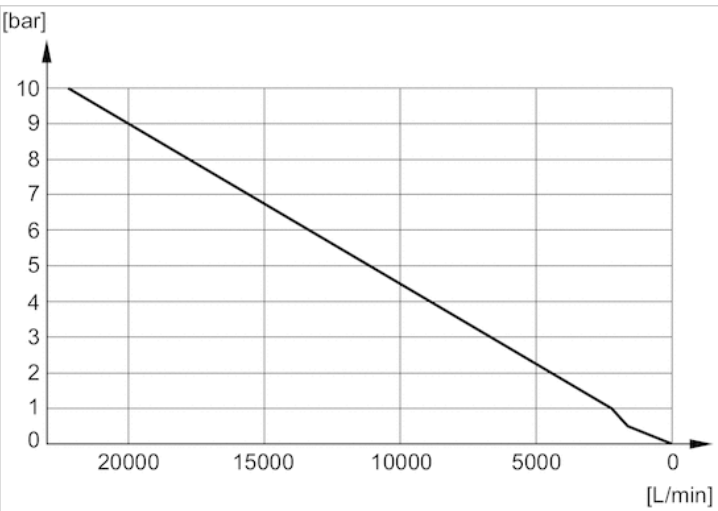
Flow diagram 1827000022



Flow diagram 1827000023



Flow diagram 1827000024



Silencers, series SI1

- Sintered bronze



Working pressure min./max.

0 ... 145 psi

Ambient temperature min./max.

-13 ... 176 °F

Medium

Compressed air

Sound pressure level

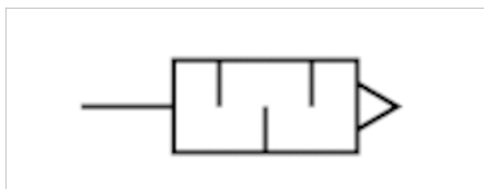
90 dB

Weight

0.176 lbs

Comment

Flow characteristic curves can be found under "Diagrams".



Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000003	G 1/2	7.1 Cv	2 piece

Weight per piece

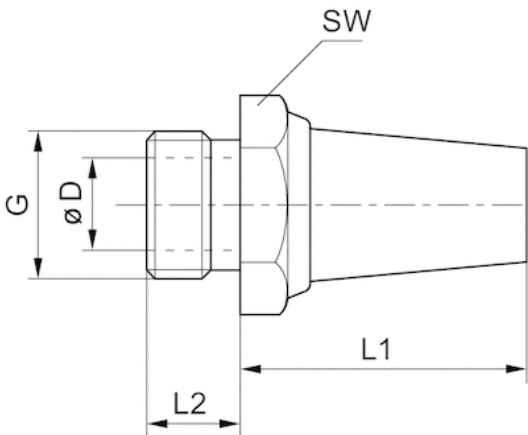
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

Dimensions

Dimensions

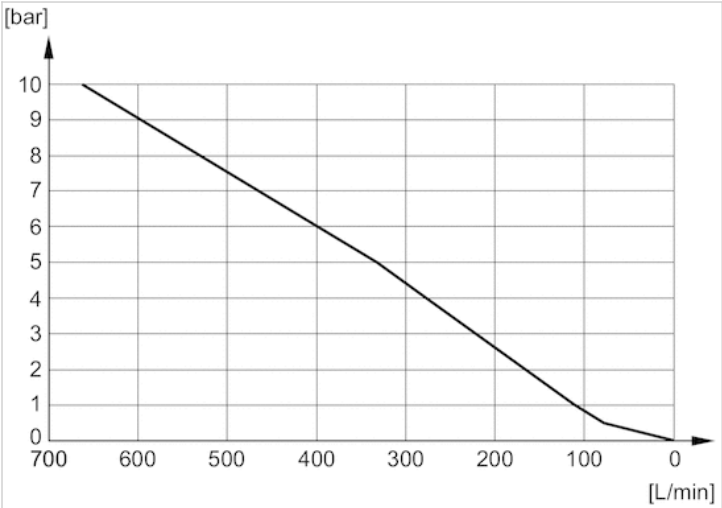


Dimensions

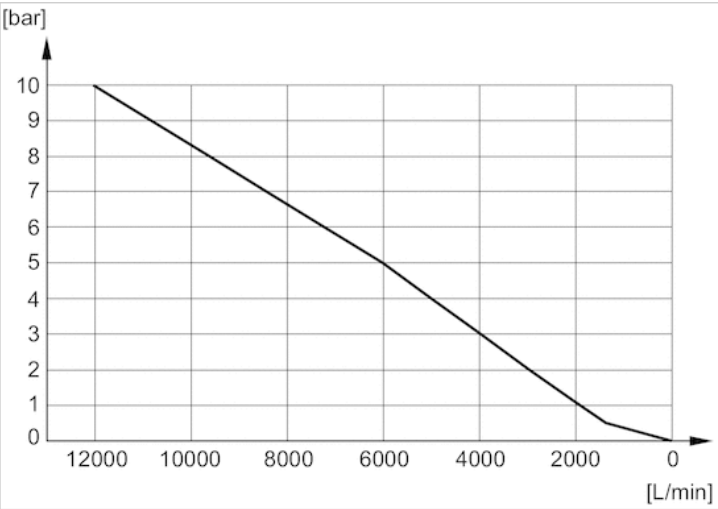
Part No.	Port G	SW	Ø D	L1	L2
1827000003	G 1/2	27	14.5	44	12

Diagrams

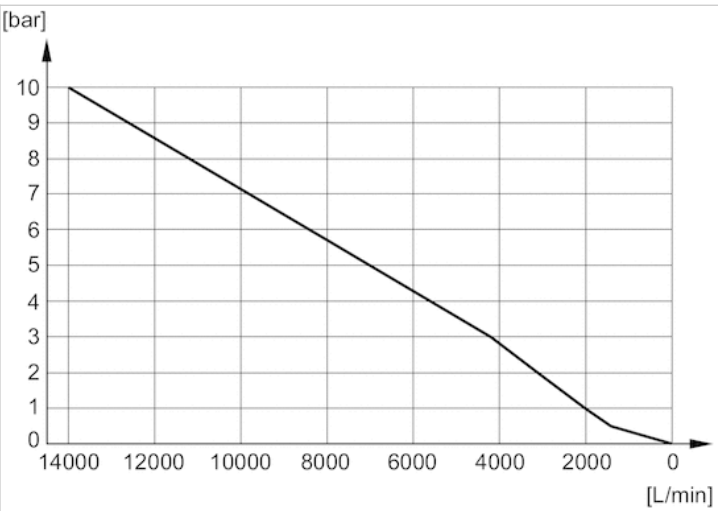
Flow diagram 1827000006



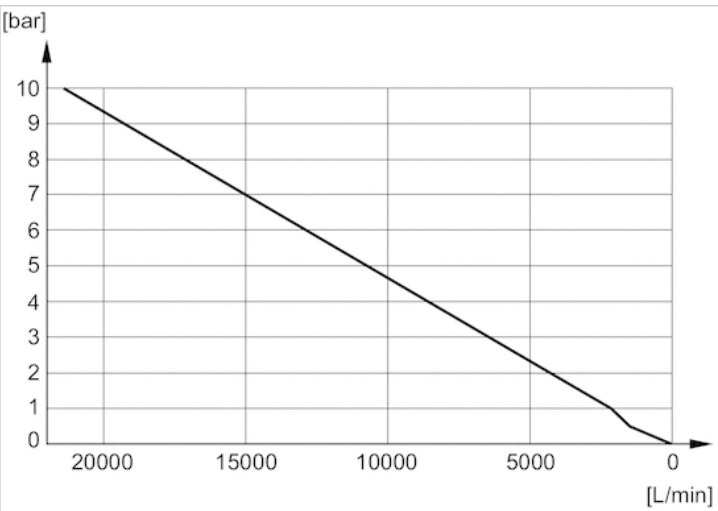
Flow diagram 1827000003



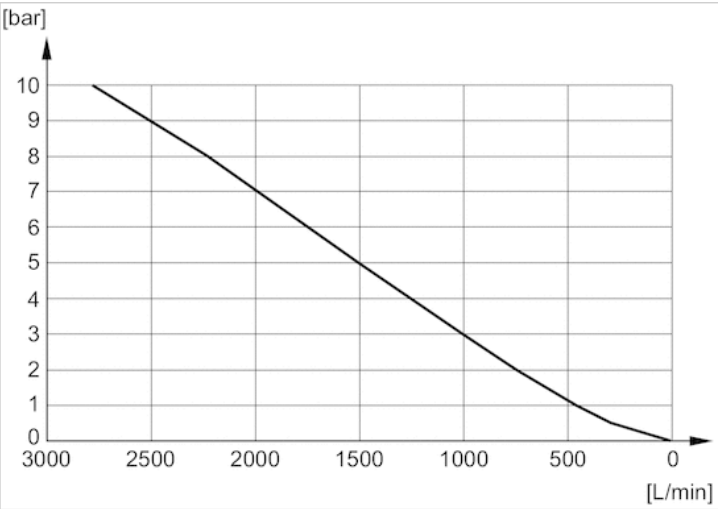
Flow diagram 1827000004



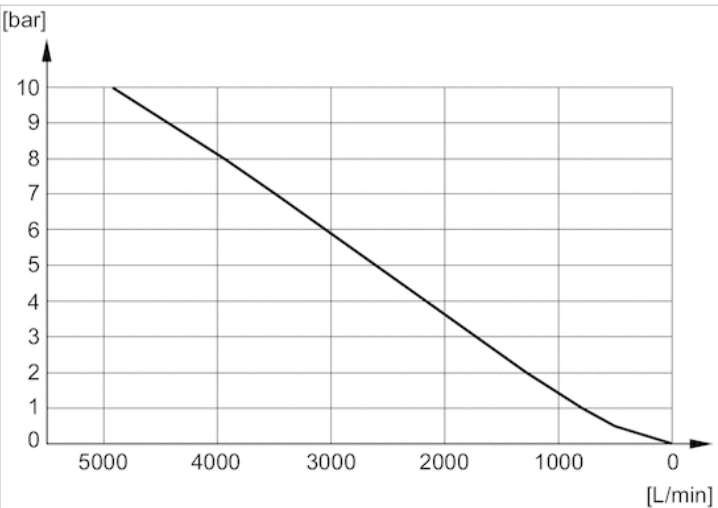
Flow diagram 1827000005



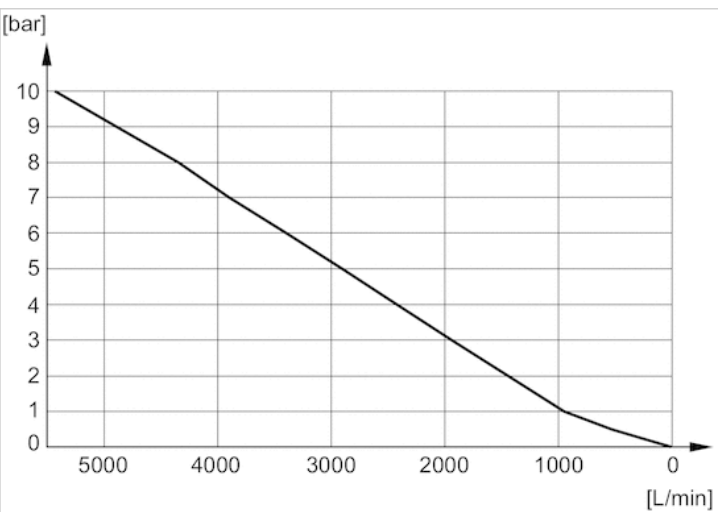
Flow diagram 5324001110



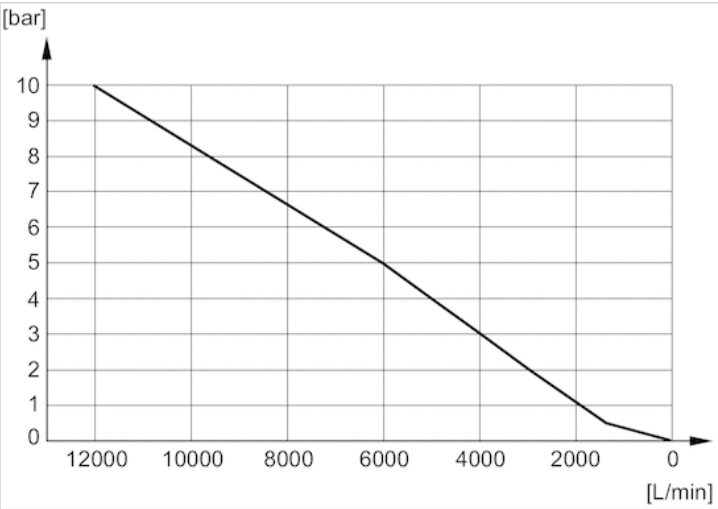
Flow diagram 5324001170



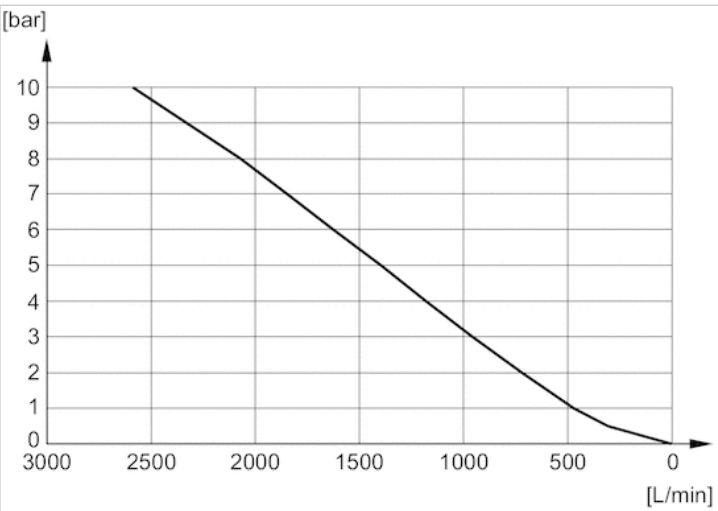
Flow diagram 5324001120



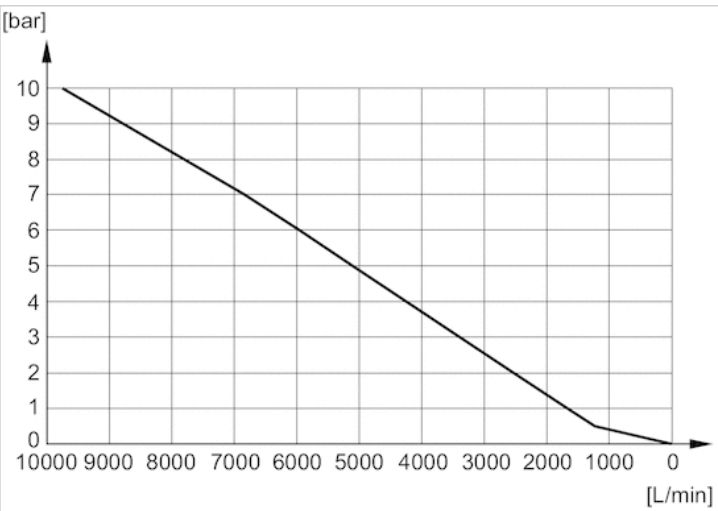
Flow diagram 5324001140



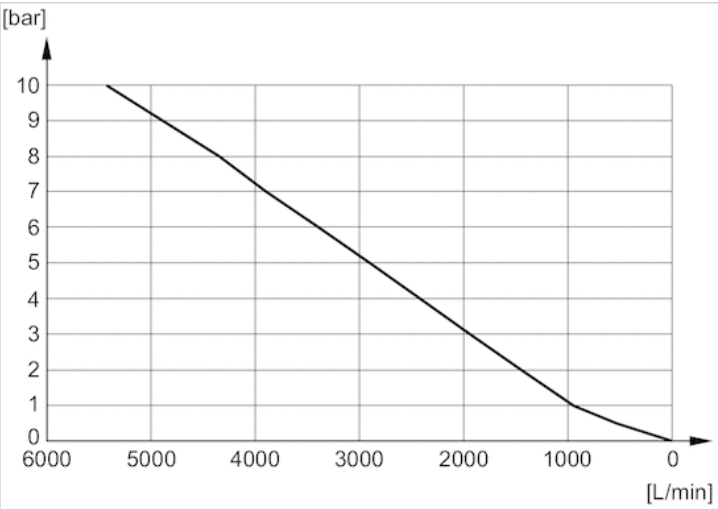
Flow diagram 1827000000



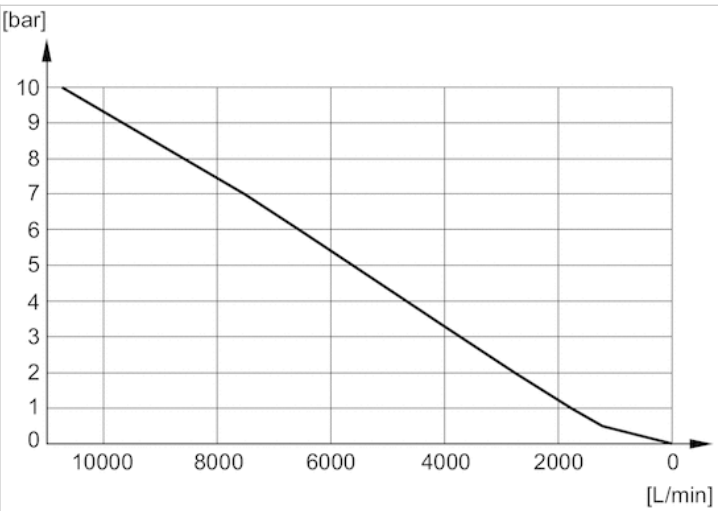
Flow diagram R412004817



Flow diagram 1827000001



Flow diagram 1827000002



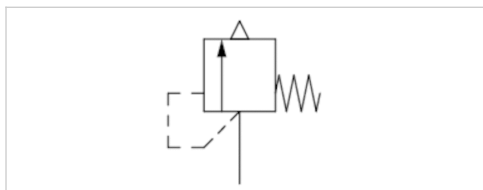
Series RV1

- Qn 1►2 = 2.67-34.05 Cv
- 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 ... 290 psi
 See table below
 -4 ... 212 °F
 Compressed air



Technical data

Part No.	Port 1	Opening pressure of valve	Flow
			Qn 1►2
R412007544	G 3/4	0.5 bar	2.67 Cv
R412007684	G 3/4	1 bar	3.84 Cv
R412007545	G 3/4	3.5 bar	8.88 Cv
R412007546	G 3/4	6 bar	13.91 Cv
R412007547	G 3/4	6.5 bar	14.99 Cv
R412007548	G 3/4	8 bar	17.94 Cv
R412007549	G 3/4	10 bar	21.97 Cv
R412007550	G 3/4	11 bar	23.98 Cv
R412007551	G 3/4	12.5 bar	27 Cv
R412007552	G 3/4	16 bar	34.05 Cv

Technical information

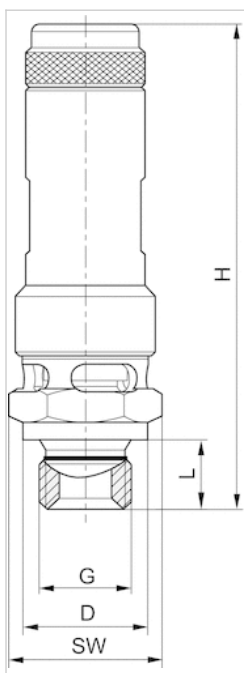
The specified performance values are achieved at a 10% (PE 14.5 psi , 1.45 psi) pressure increase, measured with compressed air at 68 °F .

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