

Series NL2

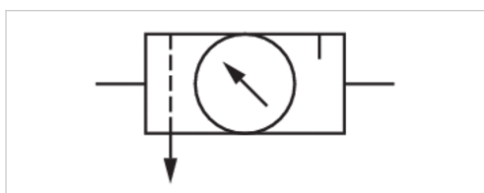


AVENTICS™ Series NL2



Air preparation unit, 2-part, Series NL2-ACD

- G 1/4 G 3/8
- filter porosity 5 µm
- with pressure gauge
- suitable for ATEX



Version	2-part, Can be assembled into blocks
Parts	Filter pressure regulator, Lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	2 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	1100 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Pressure supply	single
Filter reservoir volume	25 cm³
Filter element	exchangeable
Lubricator reservoir volume	50 cm³
Type of filling	Manual oil filling
Weight	See table below

Technical data

Part No.	Port	filter porosity	Flow	Condensate drain
			Qn	
0821300400	G 1/4	5 µm	1100 l/min	semi-automatic, open without pressure
0821300403	G 1/4	5 µm	1100 l/min	fully automatic, open without pressure
0821300401	G 1/4	5 µm	1100 l/min	semi-automatic, open without pressure
0821300404	G 1/4	5 µm	1100 l/min	fully automatic, open without pressure
0821300402	G 1/4	5 µm	1100 l/min	semi-automatic, open without pressure
0821300405	G 1/4	5 µm	1100 l/min	fully automatic, open without pressure
0821300430	G 3/8	5 µm	1100 l/min	semi-automatic, open without pressure
0821300433	G 3/8	5 µm	1100 l/min	fully automatic, open without pressure
0821300431	G 3/8	5 µm	1100 l/min	semi-automatic, open without pressure
0821300432	G 3/8	5 µm	1100 l/min	semi-automatic, open without pressure

Part No.	Pressure gauge	Reservoir	Protective guard	Weight
0821300400	with pressure gauge	Polycarbonate	-	0.85 kg
0821300403	with pressure gauge	Polycarbonate	-	0.89 kg
0821300401	with pressure gauge	Polycarbonate	Steel	0.932 kg
0821300404	with pressure gauge	Polycarbonate	Steel	0.972 kg
0821300402	with pressure gauge	Die cast zinc	-	1.2 kg
0821300405	with pressure gauge	Die cast zinc	-	1.24 kg

Part No.	Pressure gauge	Reservoir	Protective guard	Weight
0821300430	with pressure gauge	Polycarbonate	-	0.85 kg
0821300433	with pressure gauge	Polycarbonate	-	0.89 kg
0821300431	with pressure gauge	Polycarbonate	Steel	0.932 kg
0821300432	with pressure gauge	Die cast zinc	-	0.564 kg

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

Suitable for use in Ex zones 1, 2, 21, 22., Metal protective guard can be retrofitted for all polycarbonate reservoirs, Die-cast zinc reservoir with inspection glass

Technical information

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

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

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

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

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

Oil dosing at 1000 l/min 1-2 drops

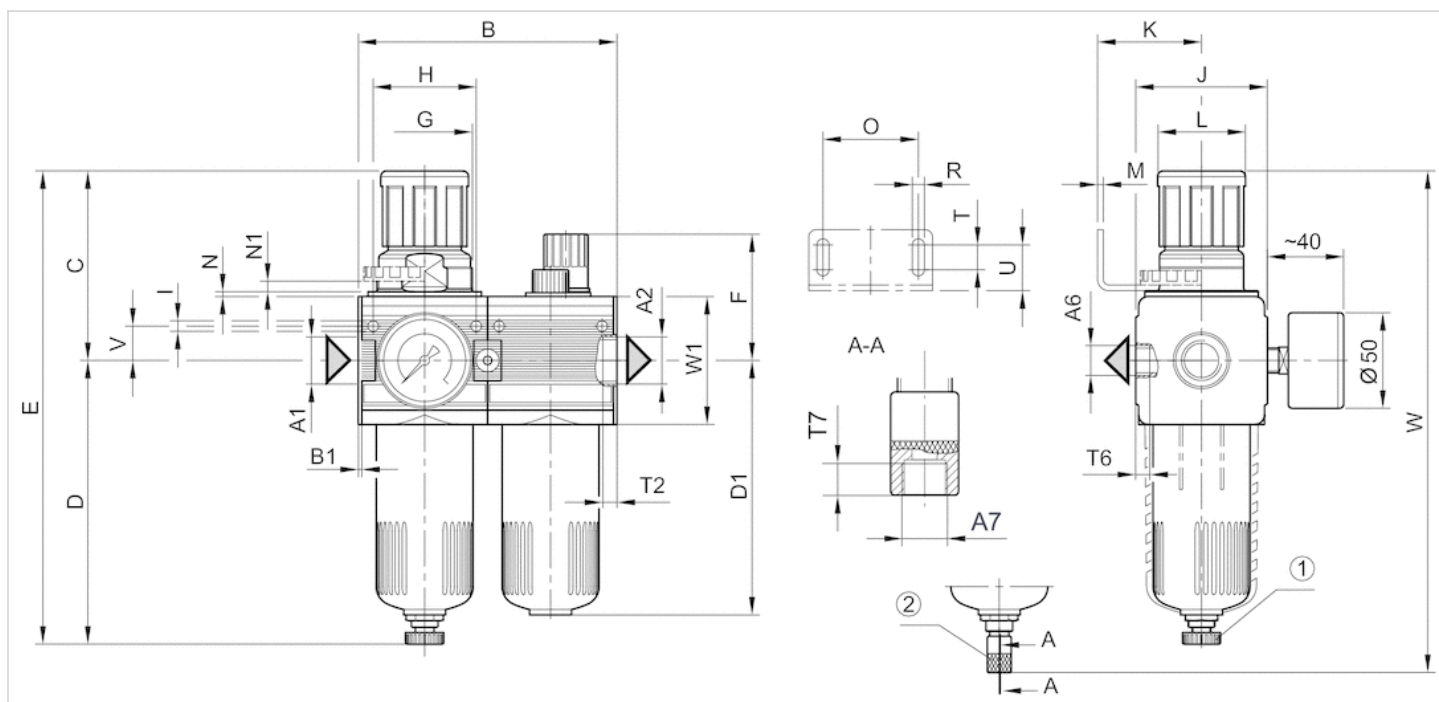
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

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

Dimensions

Dimensions



A1 = input

A2 = output

A6 = output

A7 = condensate drain

1) Semi-automatic condensate drain

2) fully automatic condensate drain

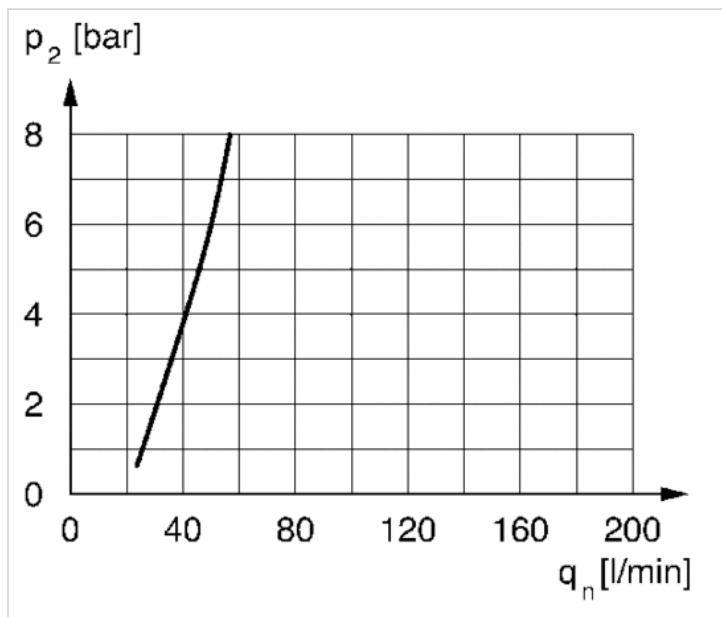
Dimensions in mm

A1	A2	A6	A7	B	B1	C	D	D1	E	F	G	H	I	J	K	L	M	N	N1	O	R
G 1/4	G 1/4	G 1/4	G 1/8	93	1.5	67.5	125	109	192.5	58	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38	5.4
G 3/8	G 3/8	G 1/4	G 1/8	93	1.5	67.5	125	109	192.5	58	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38	5.4

T	T2	T6	T7	U	V	W	W1
8	9.5	7	8.5	18.5	12.3	205.5	52
8	9.5	7	8.5	18.5	12.3	205.5	52

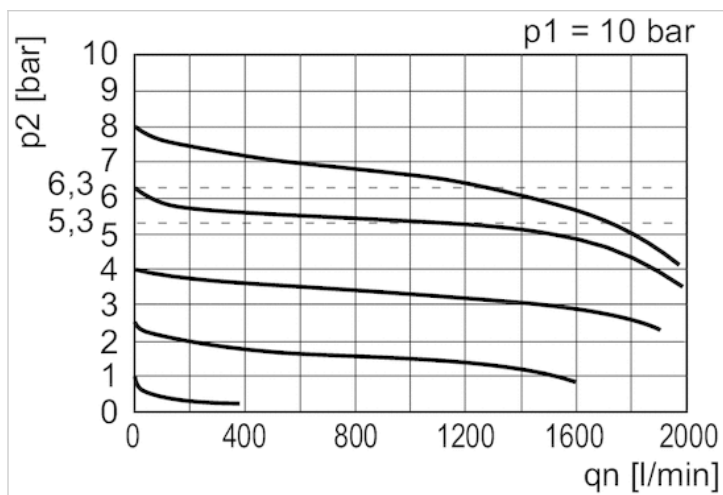
Diagrams

minimum flow rate curve (flow rate necessary for the correct functioning of the lubricator)



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

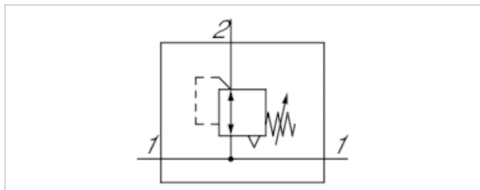
Flow rate characteristic



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

Pressure regulator, Series NL2-RGS-...-DS

- G 1/4
- Qn = 2000 l/min
- Standard pressure regulator
- Activation Mechanical
- with continuous pressure supply
- 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.

Pressure supply

Activation

Weight

Pressure regulator with continuous pressure supply

Any

suitable for ATEX

0.5 ... 16 bar

-10 ... 60 °C

-10 ... 60 °C

Compressed air Neutral gases

Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust

See table below

double

Mechanical

0.325 kg

Technical data

Part No.	Port	Flow	Adjustment range min./max.	Max. pressure gauge Ø in blocked state
		Qn		
0821302411	G 1/4	2000 l/min	0.1 ... 3 bar	40 mm
0821302409	G 1/4	2000 l/min	0.2 ... 6 bar	40 mm
0821302408	G 1/4	2000 l/min	0.5 ... 10 bar	40 mm

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

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

Technical information

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

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

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).

Relieving exhaust (≤ 0.3 bar over set pressure).

With rear exhaust (> 3 bar).

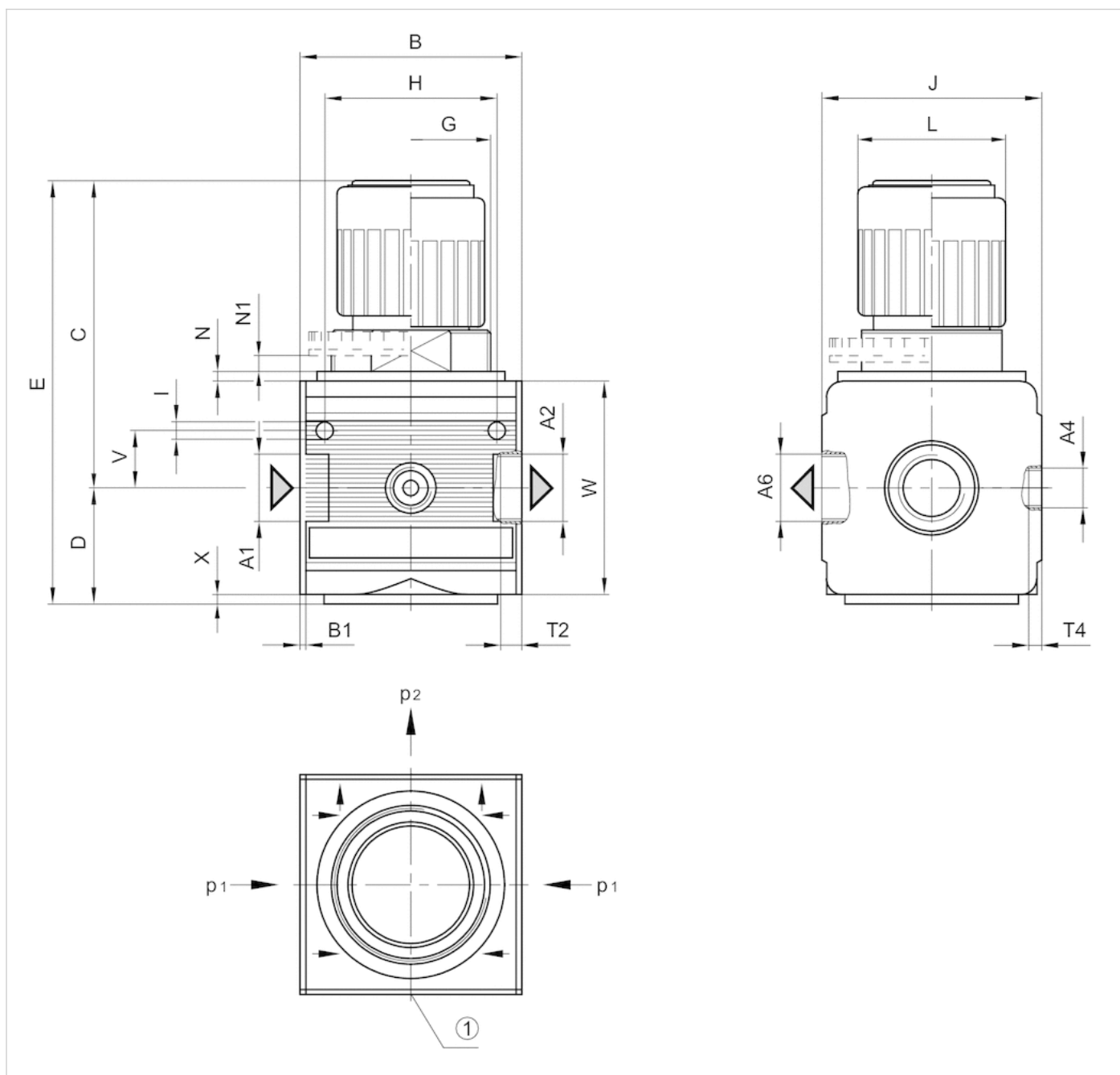
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



A1 = input
A2 = output
A4 = pressure gauge connection

A6 = ventilation port

1) pressure gauge connection

p1 = working pressure

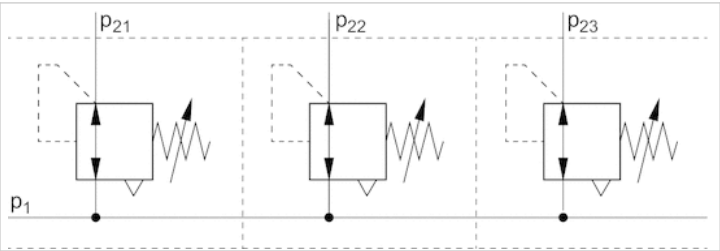
p2 = secondary pressure

Dimensions in mm

A1	A2	A4	A6	B	B1	C	D	E	G	H	I	J	L	N	N1	T2	T4	V	W	X
G 1/4	G 1/4	G 1/4	G 1/4	48	1.5	71	27	98	M30x1,5	36	4.4	47	28	3	3.5	9.5	7	12.3	52	1

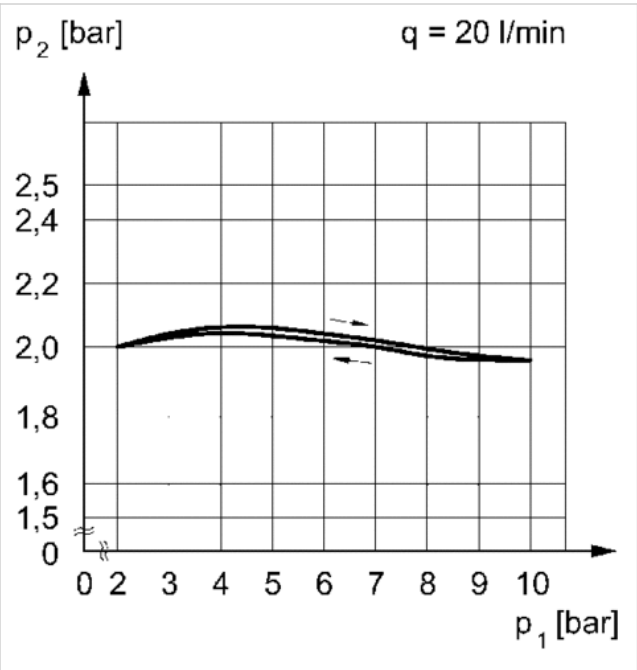
Diagrams

Application example



p1 = working pressure

Pressure characteristics curve

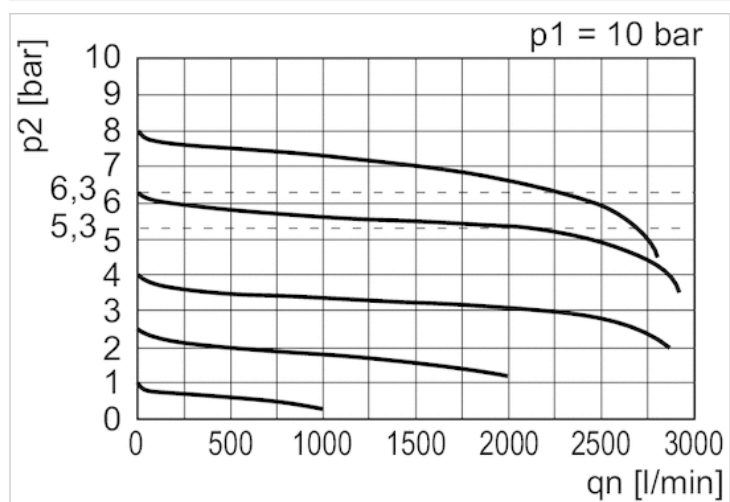


p1 = working pressure

p2 = secondary pressure

q = flow rate

Flow rate characteristic (setting range p2: 0.5 - 10 bar)



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

Pressure regulator, Series NL2-RGS

- G 1/4 G 3/8
- Qn = 2000 l/min
- Standard pressure regulator
- Activation Mechanical
- suitable for ATEX



Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Activation	Mechanical
Weight	See table below

Technical data

Part No.			Port	Flow	Adjustment range min./max.	Pressure gauge
				Qn		
0821302404			G 1/4	2000 l/min	0.1 ... 3 bar	with pressure gauge
0821302560			G 1/4	2000 l/min	0.2 ... 6 bar	with pressure gauge
0821302400			G 1/4	2000 l/min	0.5 ... 10 bar	with pressure gauge
0821302405		—	G 1/4	2000 l/min	0.1 ... 3 bar	-
0821302406		—	G 1/4	2000 l/min	0.2 ... 6 bar	-
0821302401		—	G 1/4	2000 l/min	0.5 ... 10 bar	-
0821302451			G 3/8	2000 l/min	0.1 ... 3 bar	with pressure gauge
0821302452			G 3/8	2000 l/min	0.2 ... 6 bar	with pressure gauge
0821302440			G 3/8	2000 l/min	0.5 ... 10 bar	with pressure gauge
0821302444		—	G 3/8	2000 l/min	0.1 ... 3 bar	-
0821302453		—	G 3/8	2000 l/min	0.2 ... 6 bar	-
0821302441		—	G 3/8	2000 l/min	0.5 ... 10 bar	-

Part No.	Weight
0821302404	0.41 kg
0821302560	0.41 kg
0821302400	0.41 kg
0821302405	0.325 kg
0821302406	0.325 kg
0821302401	0.325 kg
0821302451	0.41 kg
0821302452	0.41 kg
0821302440	0.41 kg

Part No.	Weight
0821302444	0.325 kg
0821302453	0.325 kg
0821302441	0.325 kg

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

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

Technical information

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

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.

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).

Relieving exhaust (≤ 0.3 bar over set pressure).

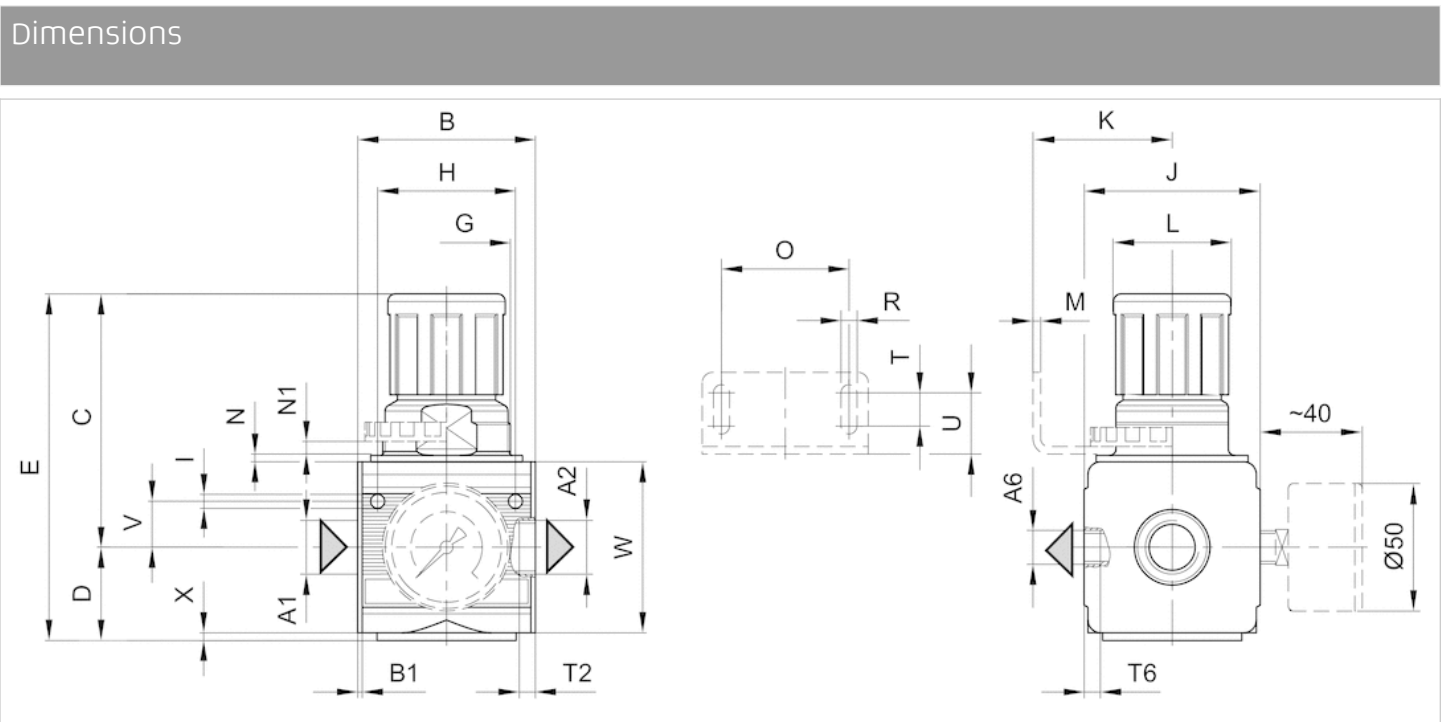
With rear exhaust (> 3 bar).

Recommended pre-filtering 5 μm

Technical information

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

Dimensions



A2 = output

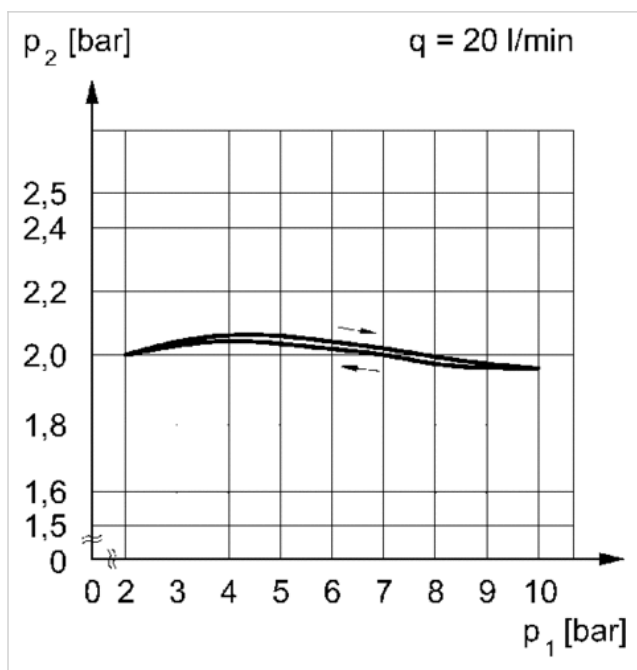
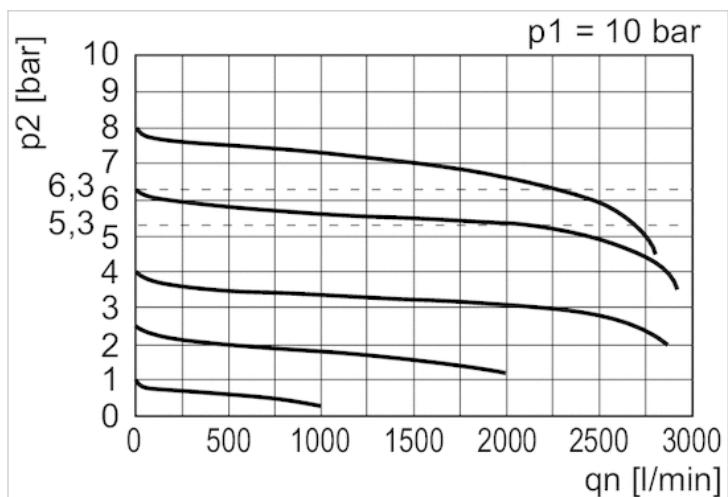
A6 = output

Dimensions in mm

A2	A6	B	B1	C	D	E	G	H	I	J	K	L	M	N	N1	O	R	T	T2	T6	U	V	W	X
G 1/4	G 1/4	48	1.5	67.5	27	94.5	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38	5.4	8	9.5	7	18.5	12.3	52	1
G 3/8	G 1/4	48	1.5	67.5	27	94.5	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38	5.4	8	9.5	7	18.5	12.3	52	1

Diagrams

Pressure characteristics curve

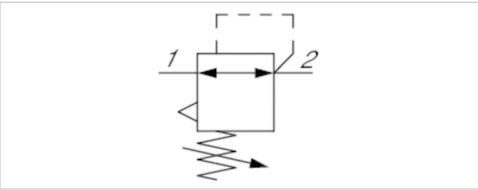
 p_1 = working pressure p_2 = secondary pressure q = flow rateFlow rate characteristic (setting range p_2 : 0.5 - 10 bar) p_1 = Working pressure

p2 = Secondary pressure

qn = Nominal flow

Pressure regulator, Series NL2-RGS

- G 1/4
- Qn = 2000 l/min
- Standard pressure regulator
- Activation Mechanical
- -30 °C cold-resistant



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-30 ... 60 °C
Medium temperature min./max.	-30 ... 60 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust
Regulator function	See table below
Adjustment range min./max.	single
Pressure supply	Mechanical
Activation	0.325 kg
Weight	

Technical data

Part No.	Port	Flow	Adjustment range min./max.
		Qn	
0821302107	G 1/4	2000 l/min	0.5 ... 10 bar
R412007613	G 1/4	2000 l/min	0.1 ... 3 bar

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

Order pressure gauge separately

Technical information

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

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

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).

Relieving exhaust (≤ 0.3 bar over set pressure).

With rear exhaust (> 3 bar).

Recommended pre-filtering 5 µm

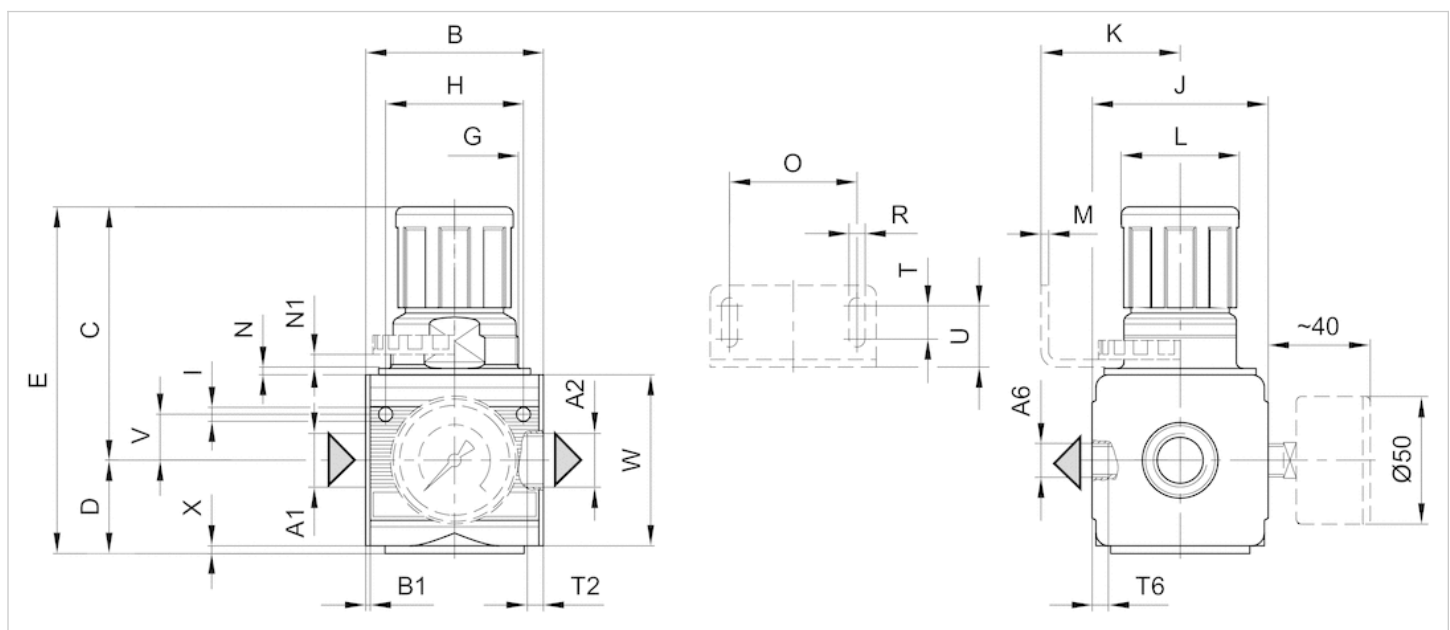
Technical information

Material

Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene
Seals	Chloroprene rubber

Dimensions

Dimensions



A1 = input
A2 = output
A6 = output

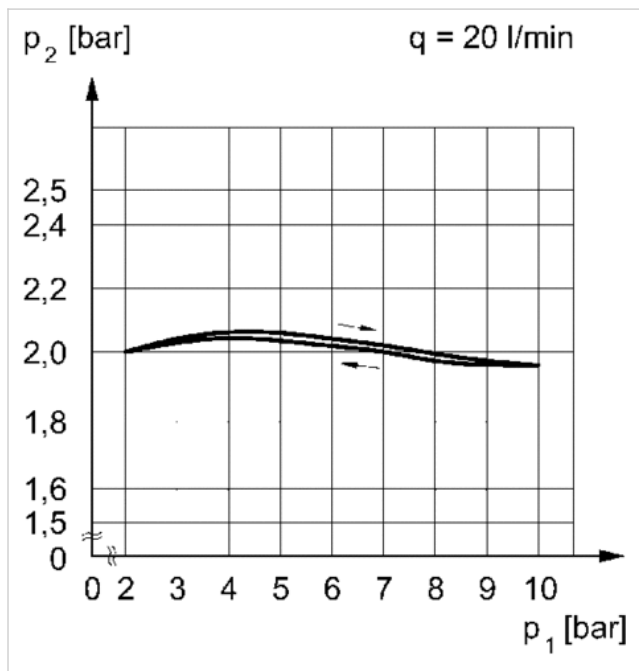
Dimensions in mm

A1	A2	A6	B	B1	C	D	E	G	H	I	J	K	L	M	N	N1	O	R	T	T2	T6	U
G 1/4	G 1/4	G 1/4	48	1.5	67.5	27	94.5	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38	5.4	8	9.5	7	18.5

V	W	X
12.3	52	1

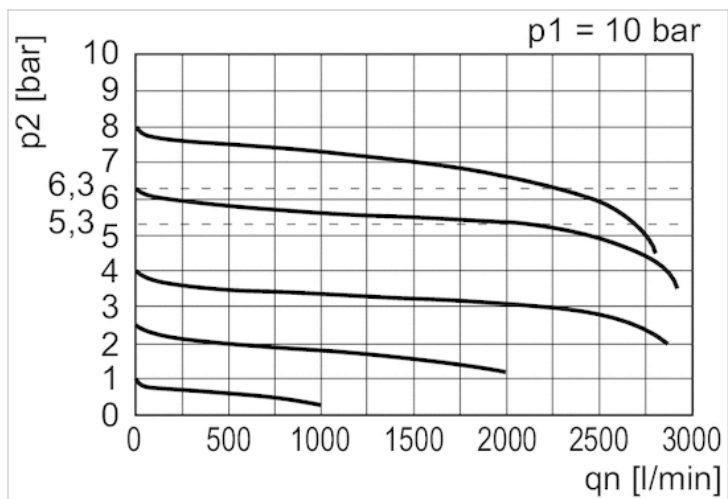
Diagrams

Pressure characteristics curve



p_1 = working pressure
 p_2 = secondary pressure
 q = flow rate

Flow rate characteristic (setting range p_2 : 0.5 - 10 bar)



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

Pressure regulator, Series NL2-RGS

- G 1/4 G 3/8
- Qn = 2000 l/min
- Standard pressure regulator
- Activation Mechanical
- lockable
- with key
- suitable for ATEX



Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Lock type	with key
Pressure supply	single
Activation	Mechanical
Weight	See table below

Technical data

Part No.			Port	Flow	Adjustment range min./max.	Pressure gauge
				Qn		
0821302410			G 1/4	2000 l/min	0.1 ... 3 bar	with pressure gauge
0821302561			G 1/4	2000 l/min	0.2 ... 6 bar	with pressure gauge
0821302402			G 1/4	2000 l/min	0.5 ... 10 bar	with pressure gauge
0821302562		—	G 1/4	2000 l/min	0.1 ... 3 bar	-
0821302407		—	G 1/4	2000 l/min	0.2 ... 6 bar	-
0821302403		—	G 1/4	2000 l/min	0.5 ... 10 bar	-
0821302454			G 3/8	2000 l/min	0.1 ... 3 bar	with pressure gauge
0821302455			G 3/8	2000 l/min	0.2 ... 6 bar	with pressure gauge
0821302442			G 3/8	2000 l/min	0.5 ... 10 bar	with pressure gauge
0821302456		—	G 3/8	2000 l/min	0.1 ... 3 bar	-
0821302457		—	G 3/8	2000 l/min	0.2 ... 6 bar	-
0821302443		—	G 3/8	2000 l/min	0.5 ... 10 bar	-

Part No.	Weight
0821302410	0.41 kg
0821302561	0.41 kg
0821302402	0.41 kg
0821302562	0.325 kg
0821302407	0.325 kg
0821302403	0.325 kg

Part No.	Weight
0821302454	0.41 kg
0821302455	0.41 kg
0821302442	0.41 kg
0821302456	0.325 kg
0821302457	0.325 kg
0821302443	0.325 kg

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

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

Technical information

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

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.

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).

Relieving exhaust (≤ 0.3 bar over set pressure).

With rear exhaust (> 3 bar).

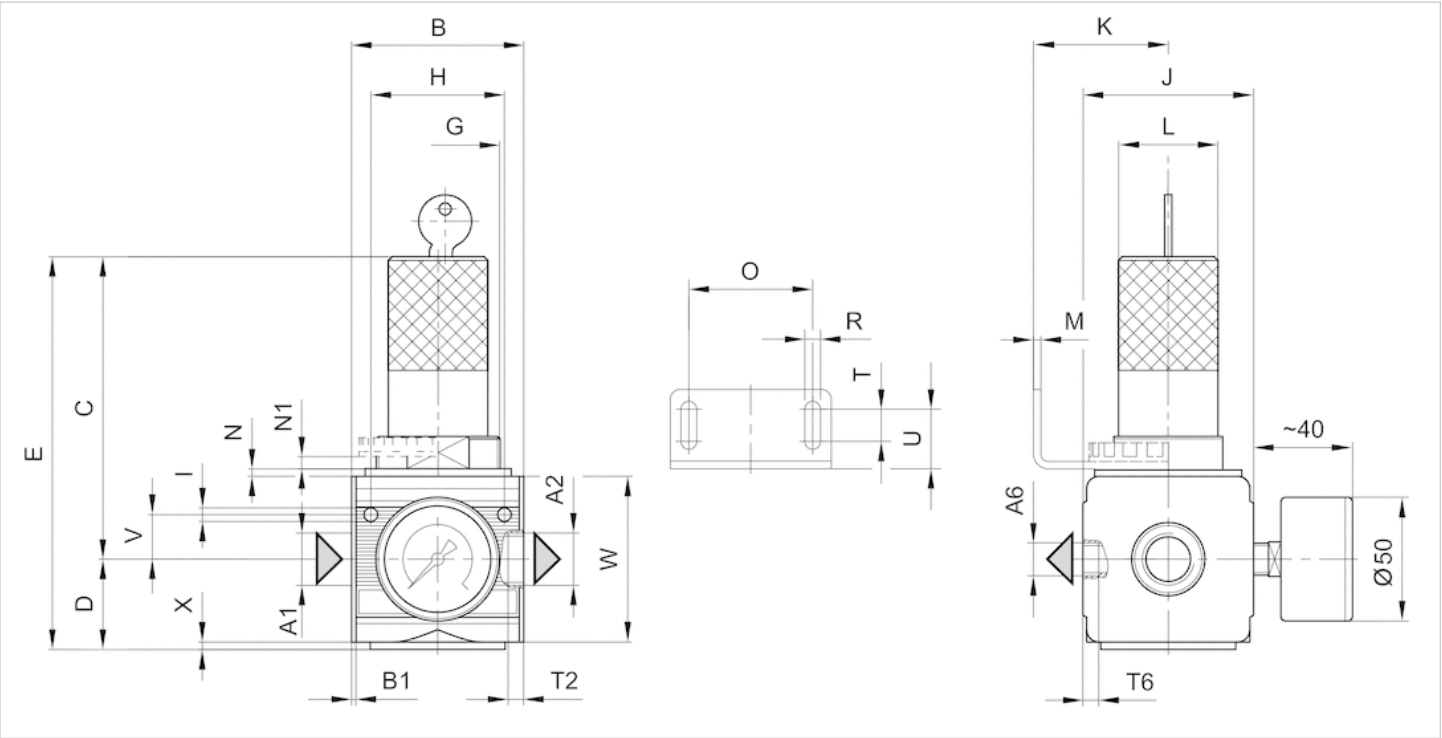
Recommended pre-filtering 5 μm

Technical information

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

Dimensions

Dimensions



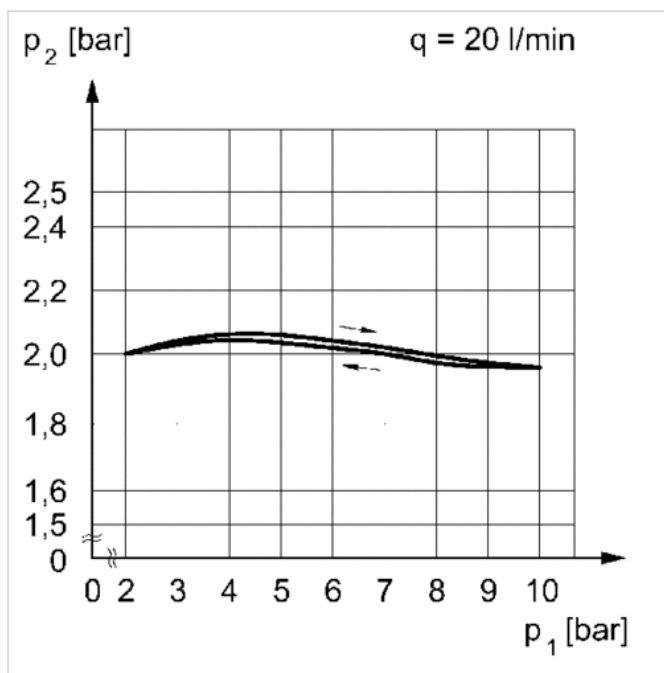
A1 = input
A2 = output
A6 = output

Dimensions in mm

A2	A6	B	B1	C	D	E	G	H	I	J	K	L	M	N	N1	O	R	T2	T6	U	V	W	X
G 1/4	G 1/4	48	1.5	96.5	27	123.5	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38	5.4	9.5	7	18.5	12.3	52	1
G 3/8	G 1/4	48	1.5	96.5	27	123.5	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38	5.4	9.5	7	18.5	12.3	52	1

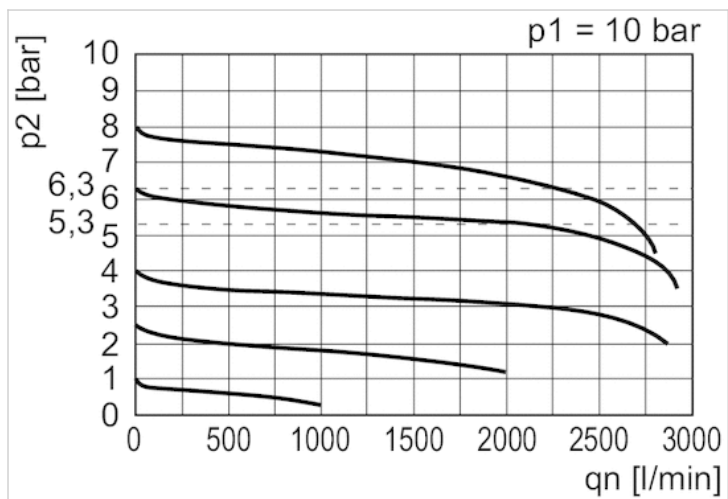
Diagrams

Pressure characteristics curve



p_1 = working pressure
 p_2 = secondary pressure
 q = flow rate

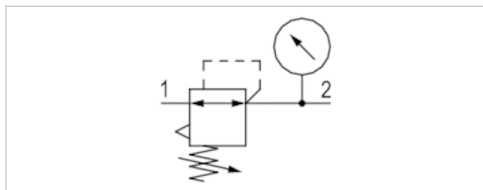
Flow rate characteristic (setting range p_2 : 0.5 - 10 bar)



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

Pressure regulator, Series NL2-RGS

- G 1/4
- $Q_n = 2000 \text{ l/min}$
- Standard pressure regulator
- Activation Mechanical
- with pressure gauge in hand wheel
- suitable for ATEX



Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Activation	Mechanical
Weight	0.4 kg

Technical data

Part No.		Port	Flow	Adjustment range min./max.
			Q_n	
0821302557		G 1/4	2000 l/min	0.1 ... 3 bar
0821302559		G 1/4	2000 l/min	0.2 ... 6 bar
0821302558		G 1/4	2000 l/min	0.5 ... 10 bar

Part No.	Pressure gauge
0821302557	with pressure gauge in hand wheel
0821302559	with pressure gauge in hand wheel
0821302558	with pressure gauge in hand wheel

Nominal flow Q_n with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 1 \text{ bar}$, Panel nut included in scope of delivery

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

Technical information

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

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 (≤ 0.3 bar over set pressure).

With rear exhaust (> 3 bar).

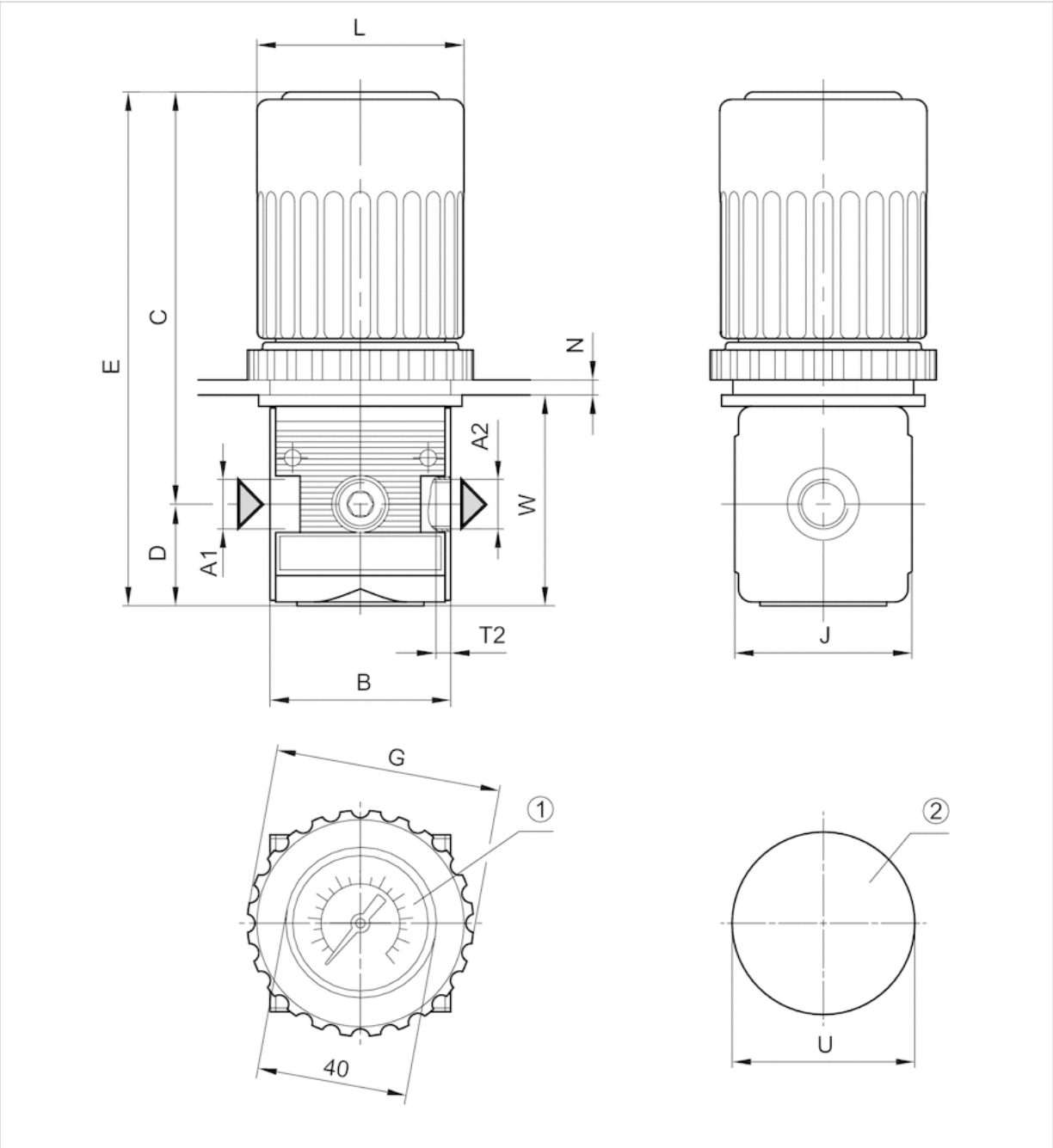
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



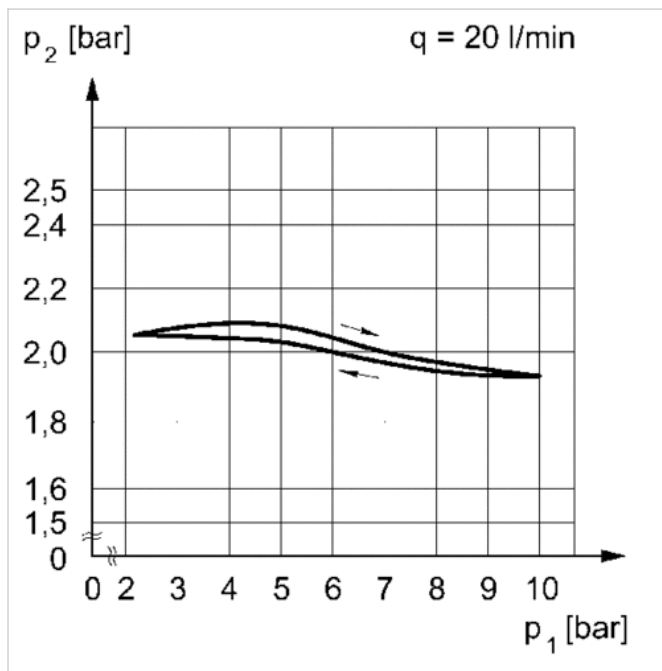
- A1 = input
A2 = output
1) pressure gauge Ø 40
2) opening for control panel assembly

Dimensions in mm

A1	A2	B	C	D	E	G	J	L	N	T2	U	W
G 1/4	G 1/4	48	107	27	133	60	47	54	4	9.5	48.5	55

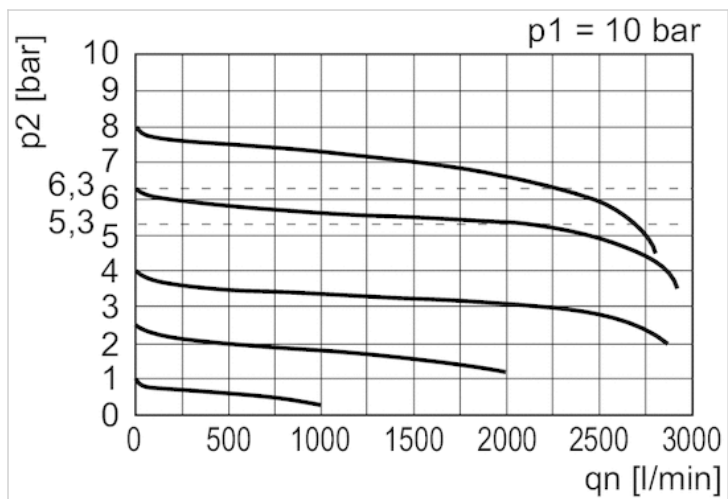
Diagrams

Pressure characteristics curve



p_1 = working pressure
 p_2 = secondary pressure
 q = flow rate

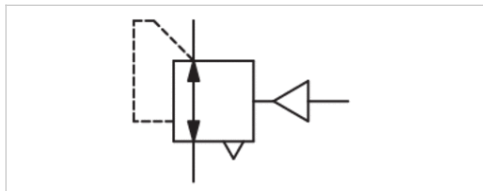
Flow rate characteristic (setting range p_2 : 0.5 - 10 bar)



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

Pressure regulator, Series NL2-RGS

- G 1/4 G 3/8
- $Q_n = 2000 \text{ l/min}$
- Standard pressure regulator
- Activation pneumatically
- suitable for ATEX



Parts

Mounting orientation

Certificates

Working pressure min./max.

Control pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Regulator type

Regulator function

Adjustment range min./max.

Pressure supply

Activation

Weight

Pressure regulator

Any

suitable for ATEX

0.5 ... 16 bar

10 bar

-10 ... 60 °C

-10 ... 60 °C

Compressed air Neutral gases

Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust

0.5 ... 10 bar

single

pneumatically

0.325 kg

Technical data

Part No.	Port	Flow
		Q_n
R412004950	G 1/4	2000 l/min
R412004951	G 3/8	2000 l/min

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

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

Technical information

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

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

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

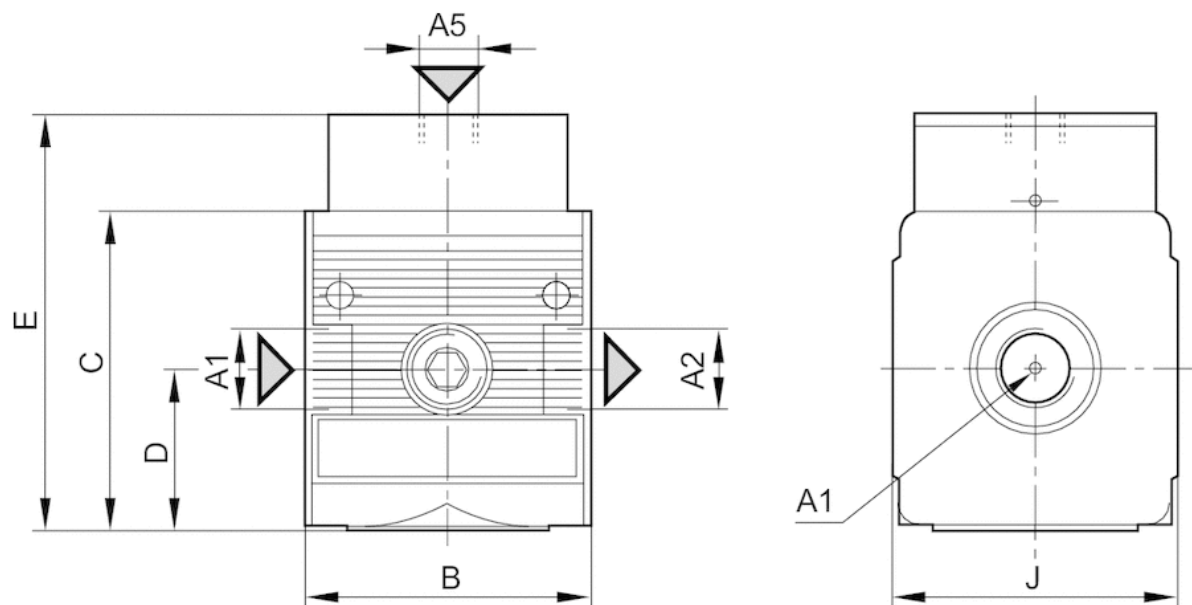
Recommended pre-filtering 5 μm

Technical information

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

Dimensions

Dimensions



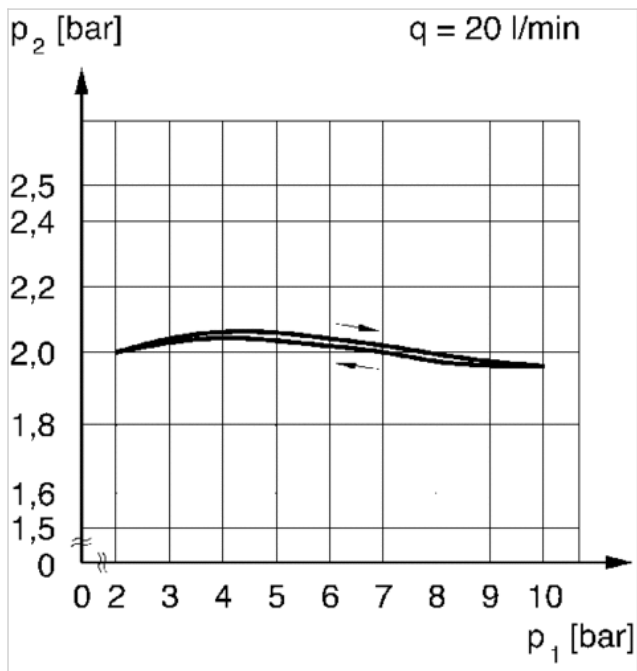
A1 = input
A2 = output
A5 = control pressure connection

Dimensions in mm

A1	A2	A5	B	C	D	E	J
G 1/4	G 1/4	G 1/8	48	52.8	26.8	68.8	47
G 3/8	G 3/8	G 1/8	48	52.8	26.8	68.8	47

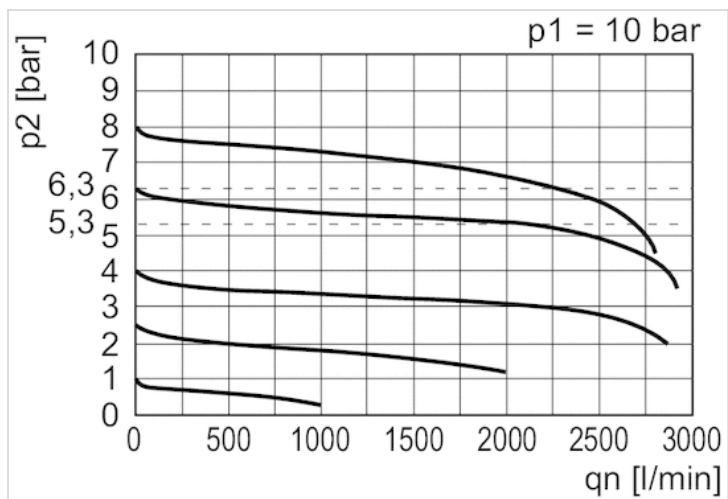
Diagrams

Pressure characteristics curve



p_1 = working pressure
 p_2 = secondary pressure
 q = flow rate

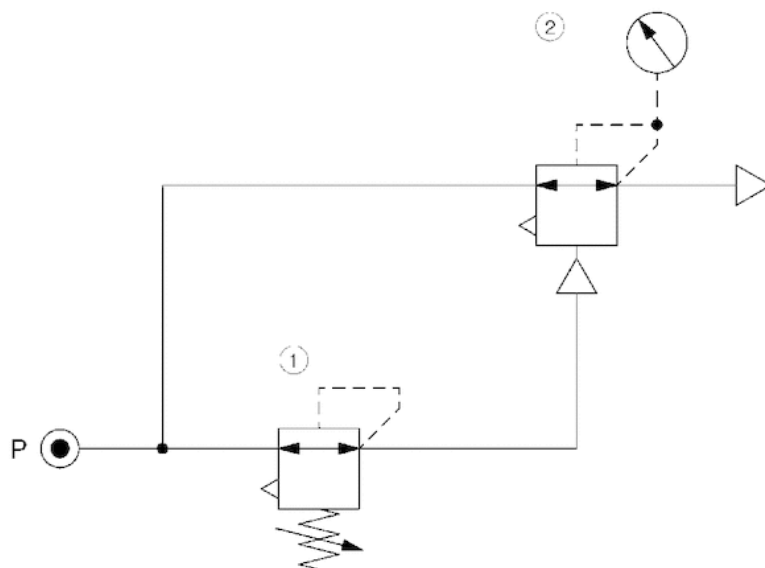
Flow rate characteristic (setting range p_2 : 0.5 - 10 bar)



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

Circuit diagram

Application example

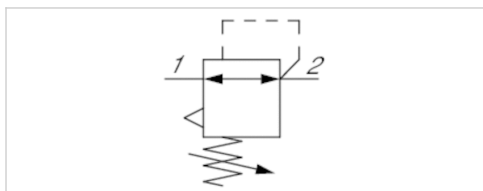


1) precision pressure regulator

2) pressure regulator valve, pneumatically operated

Precision pressure regulator, Series NL2-RGP

- G 1/4
- Qn = 1500 l/min
- Precision pressure regulator
- Activation Mechanical
- suitable for ATEX



Parts	Precision pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust
Regulator function	See table below
Adjustment range min./max.	single
Pressure supply	Mechanical
Activation	2.6 l/min
Internal air consumption qv max.	0.325 kg
Weight	

Technical data

Part No.	Port	Flow	Adjustment range min./max.
		Qn	
0821302515	G 1/4	1500 l/min	0.1 ... 3 bar
0821302516	G 1/4	1500 l/min	0.2 ... 6 bar
0821302517	G 1/4	1500 l/min	0.5 ... 10 bar

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

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

Technical information

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

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.

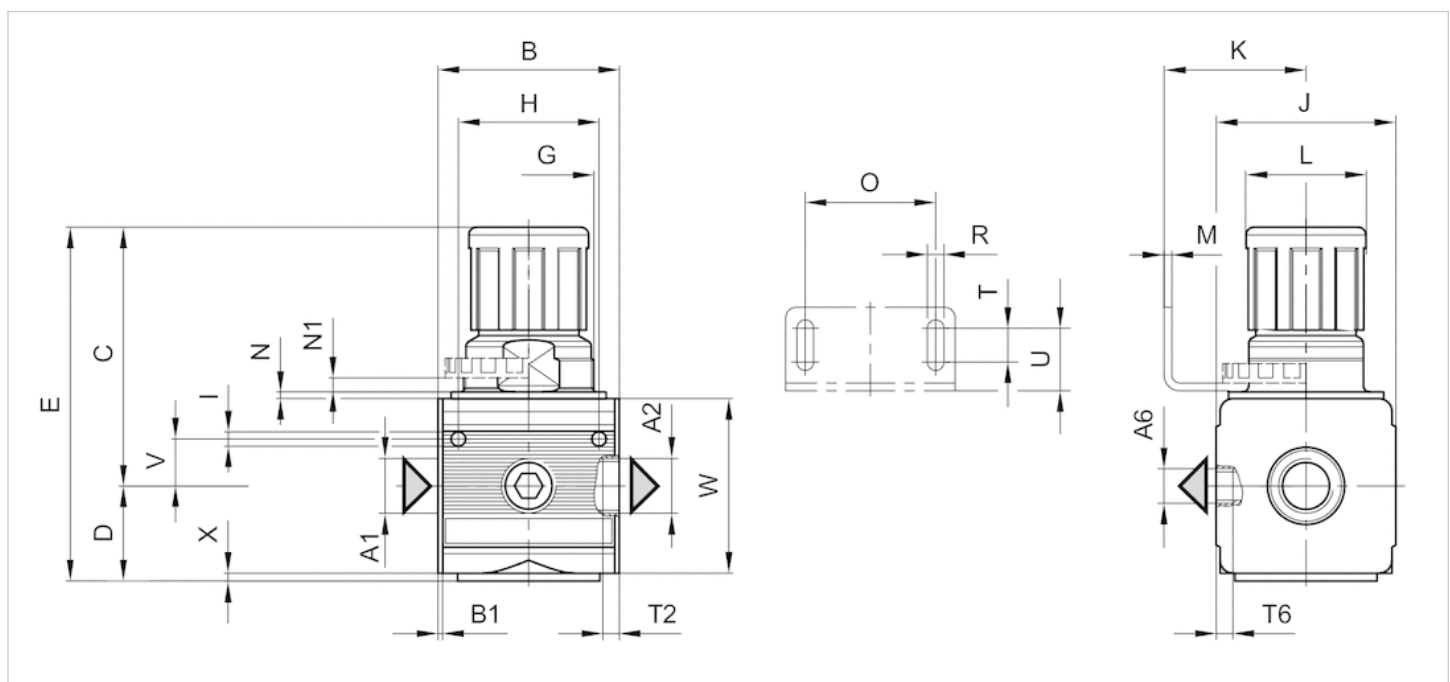
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



A1 = input

A2 = output

A6 = output

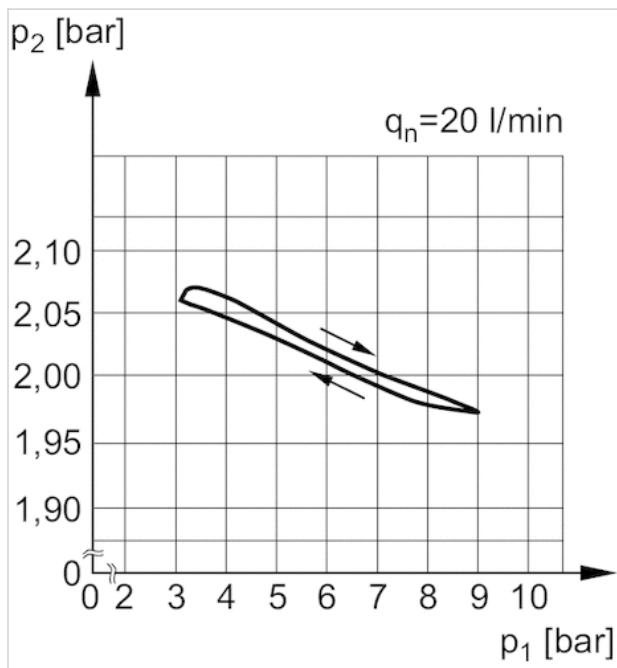
Dimensions in mm

A1	A2	A6	B	B1	C	D	E	G	H	I	J	K	L	M	N	N1	O	R	T	T2	T6	U
G 1/4	G 1/4	G 1/4	48	1.5	67.5	27	94.5	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38	5.4	8	9.5	7	18.5

V	W	X
12.3	52	1

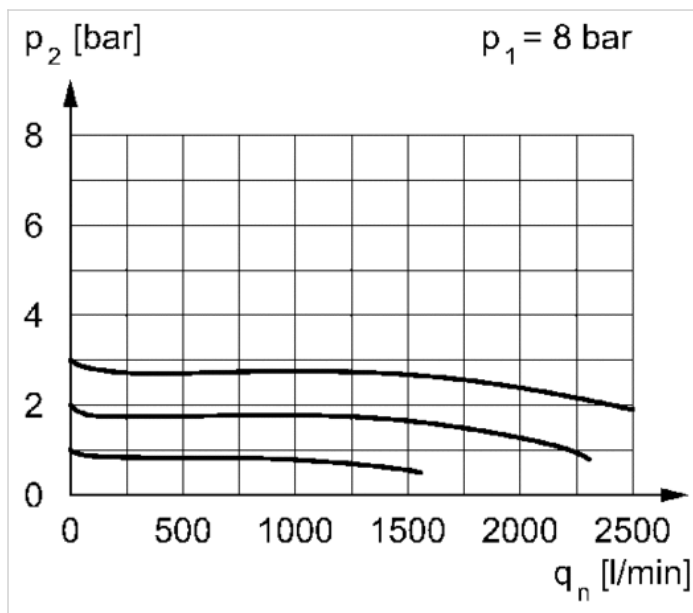
Diagrams

Pressure characteristics curve



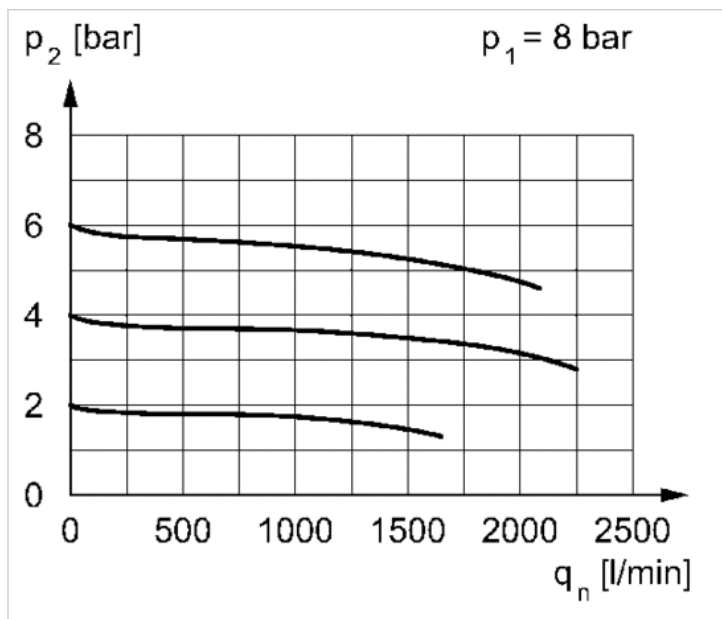
p_1 = working pressure
 p_2 = secondary pressure
 q = flow rate

Flow rate characteristic



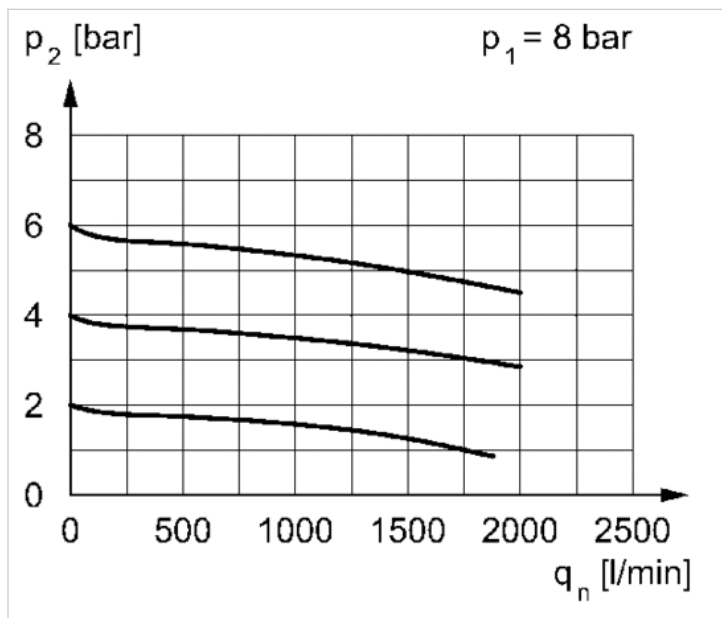
p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow
 $p_2 = 0,1 - 3 \text{ bar}$

Flow rate characteristic



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow
 $p_2 = 0.2 - 6 \text{ bar}$

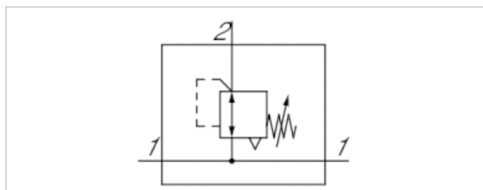
Flow rate characteristic



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow
 $p_2 = 0.5 - 10 \text{ bar}$

Precision pressure regulator, Series NL2-RGP-...-DS

- G 1/4
- Qn = 1500 l/min
- Precision pressure regulator
- Activation Mechanical
- with continuous pressure supply
- 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.

Pressure supply

Activation

Internal air consumption qv max.

Weight

Precision pressure regulator with continuous pressure supply

Any

suitable for ATEX

0.5 ... 16 bar

-10 ... 60 °C

-10 ... 60 °C

Compressed air Neutral gases

Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust

See table below

double

Mechanical

2.6 l/min

0.325 kg

Technical data

Part No.	Port	Flow	Adjustment range min./max.	Max. pressure gauge Ø in blocked state
		Qn		
0821302527	G 1/4	1500 l/min	0.1 ... 3 bar	50 mm
0821302528	G 1/4	1500 l/min	0.2 ... 6 bar	50 mm
0821302529	G 1/4	1500 l/min	0.5 ... 10 bar	50 mm

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

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

Technical information

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

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

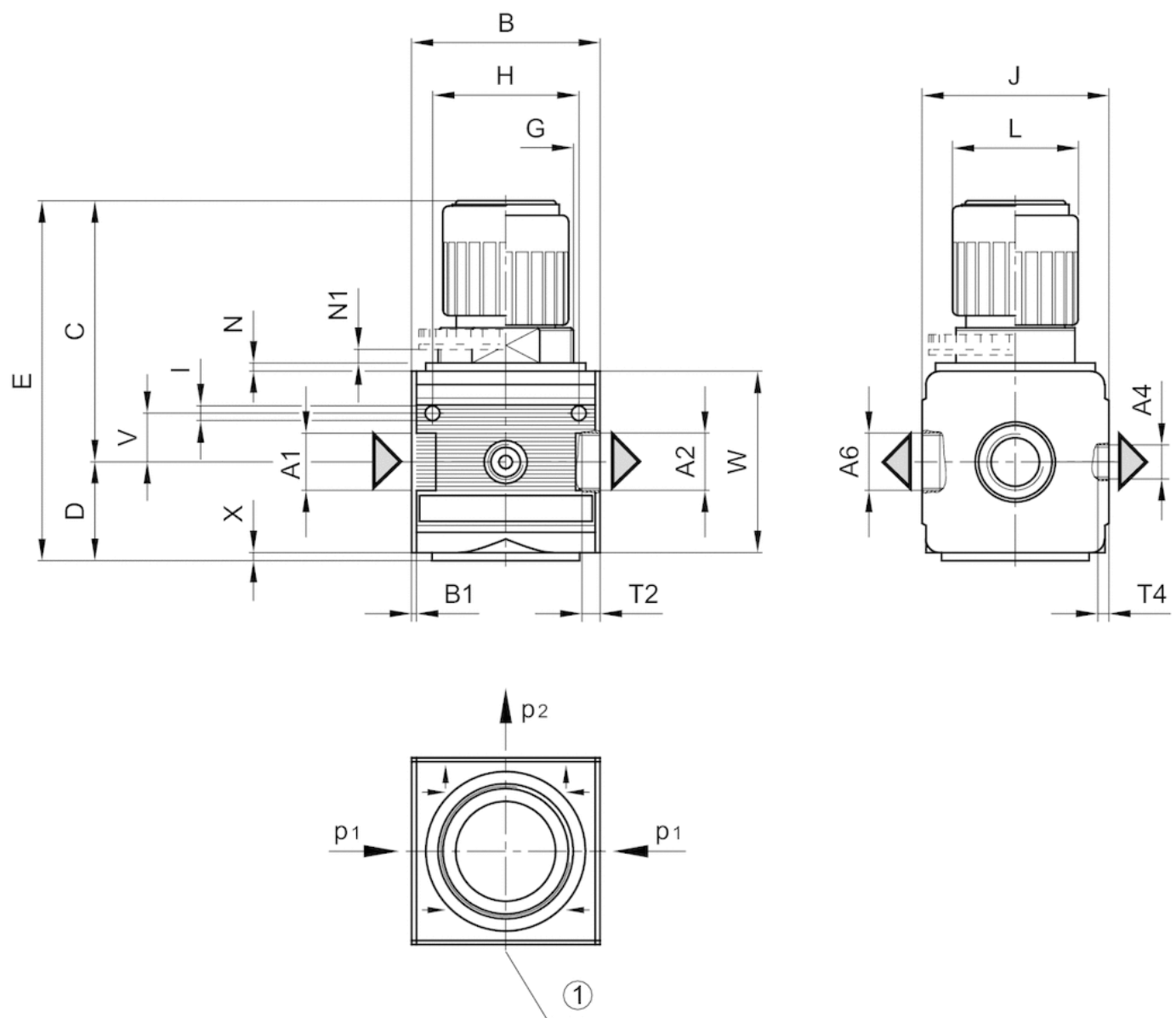
Recommended pre-filtering 5 μm

Technical information

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

Dimensions

Dimensions



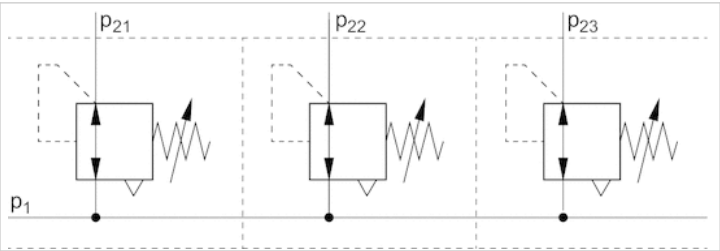
A1 = input
 A2 = output
 A6 = output
 1) pressure gauge connection
 p1 = working pressure
 p2 = secondary pressure

Dimensions in mm

A1	A2	A4	A6	B	B1	C	D	E	G	H	I	J	L	N	N1	T2	T4	V	W	X
G 1/4	G 1/4	G 1/4	G 1/4	48	1.5	67.5	27	94.5	M30x1,5	36	4.4	47	28	3	3.5	9.5	7	12.3	52	1

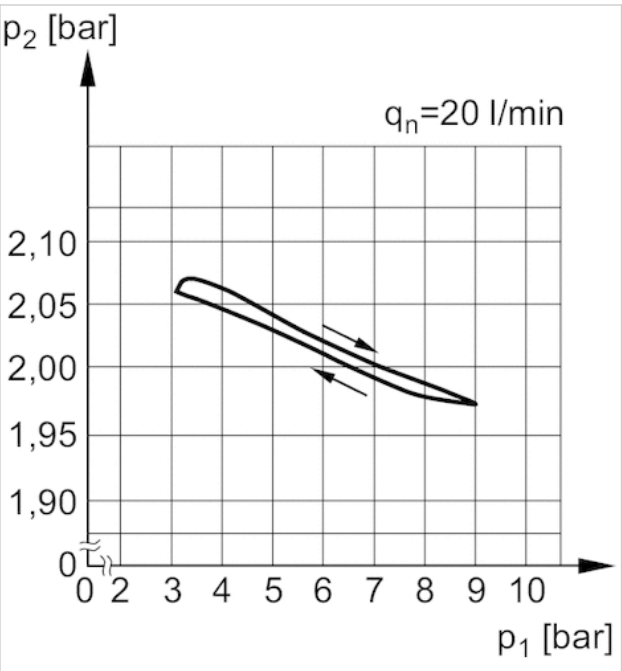
Diagrams

Application example



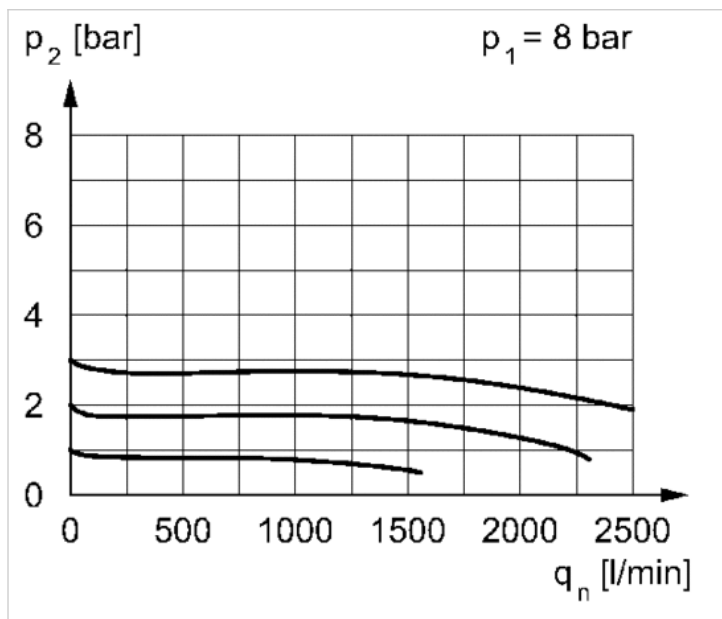
p1 = working pressure

Pressure characteristics curve



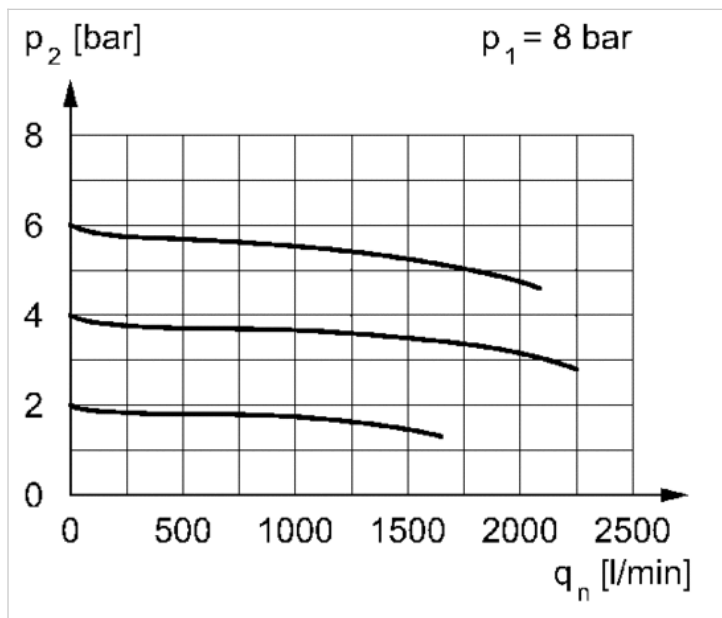
p1 = Working pressure
 p2 = Secondary pressure
 qn = Nominal flow

Flow rate characteristic



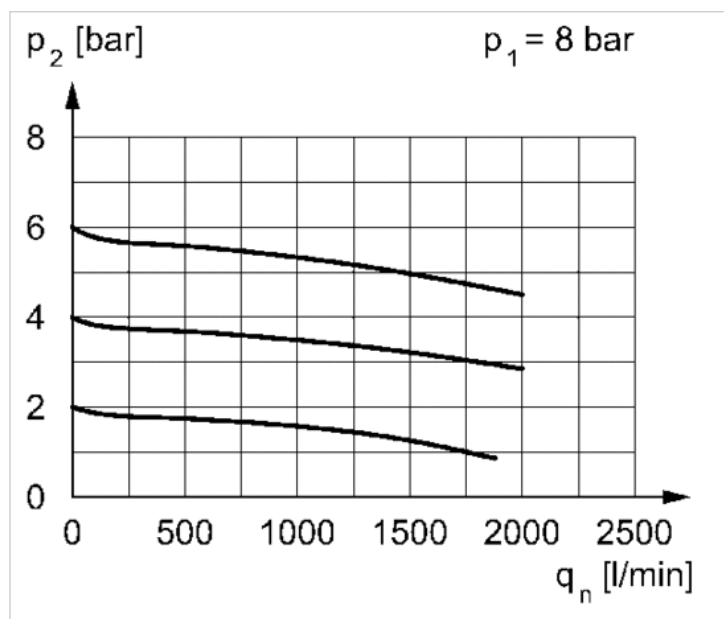
p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow
 $p_2 = 0,1 - 3 \text{ bar}$

Flow rate characteristic



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow
 $p_2 = 0,2 - 6 \text{ bar}$

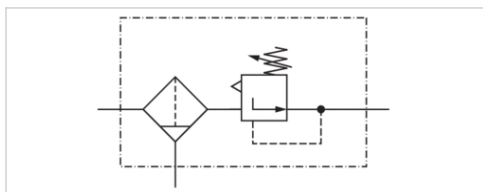
Flow rate characteristic



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow
 p_2 = 0,5 - 10 bar

Filter pressure regulator, Series NL2-FRE

- G 1/4 G 3/8
- filter porosity 5 µm
- suitable for ATEX



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	2 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	1650 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Pressure supply	single
Filter reservoir volume	25 cm³
Filter element	exchangeable
Weight	See table below

Technical data

Part No.	Port	filter porosity	Flow	Condensate drain
			Qn	
0821300316	G 1/4	5 µm	1650 l/min	semi-automatic, open without pressure
0821300275	G 1/4	5 µm	1650 l/min	semi-automatic, open without pressure
0821300347	G 1/4	5 µm	1650 l/min	fully automatic, open without pressure
0821300343	G 3/8	5 µm	1650 l/min	semi-automatic, open without pressure

Part No.	Reservoir	Weight
0821300316	Polycarbonate	0.542 kg
0821300275	Die cast zinc	0.717 kg
0821300347	Polycarbonate	0.57 kg
0821300343	Polycarbonate	0.542 kg

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

Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22., Metal protective guard can be retrofitted for all polycarbonate reservoirs

Technical information

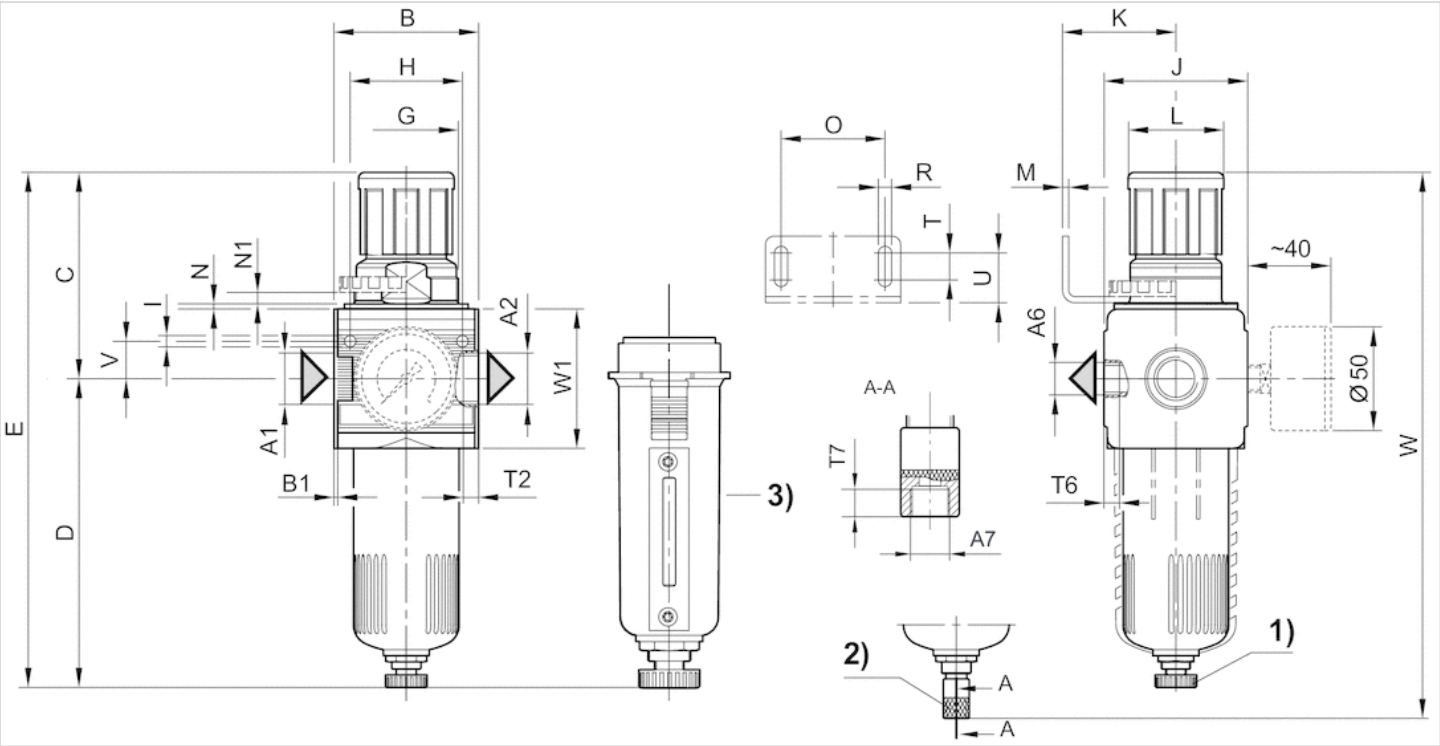
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 Suitable for use in Ex zones 1, 2, 21, 22.
 Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".
 A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
 Also suitable for separation of fluid oil or water due to the design.
 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).
 Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

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

Dimensions

Dimensions



- A1 = input
- A2 = output
- A6 = output
- A7 = condensate drain
- 1) Semi-automatic condensate drain
- 2) fully automatic condensate drain

3) Metal reservoir with level indicator

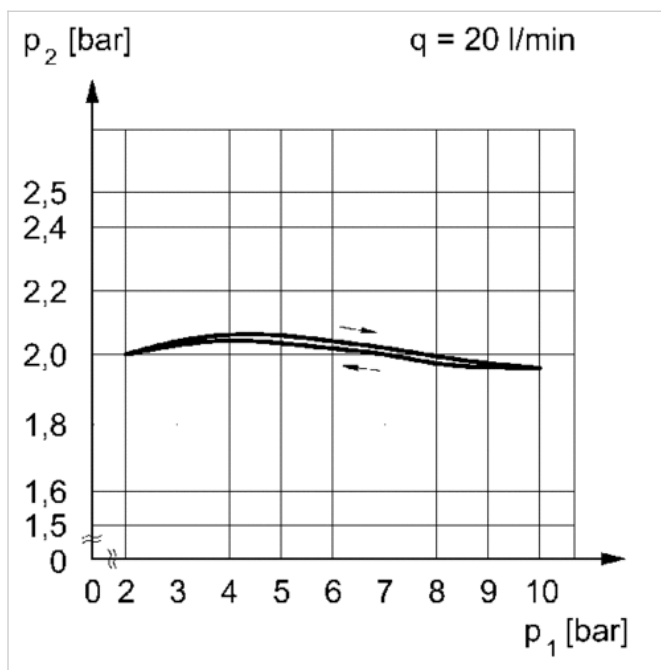
Dimensions in mm

A1	A2	A6	A7	B	B1	C	D	E	G	H	I	J	K	L	M	N	N1	O	R	T	T2
G 1/4	G 1/4	G 1/4	G 1/8	48	1.5	66.5	124.5	191	M30x1,5	36	4.4	47	43.5	28	3	3.5	3	38	5.4	8	9.5
G 3/8	G 3/8	G 1/4	G 1/8	48	1.5	66.5	124.5	191	M30x1,5	36	4.4	47	43.5	28	3	3.5	3	38	5.4	8	9.5

T6	T7	U	V	W	W1
7	8.5	18.5	12.3	207	52
7	8.5	18.5	12.3	207	52

Diagrams

Pressure characteristics curve

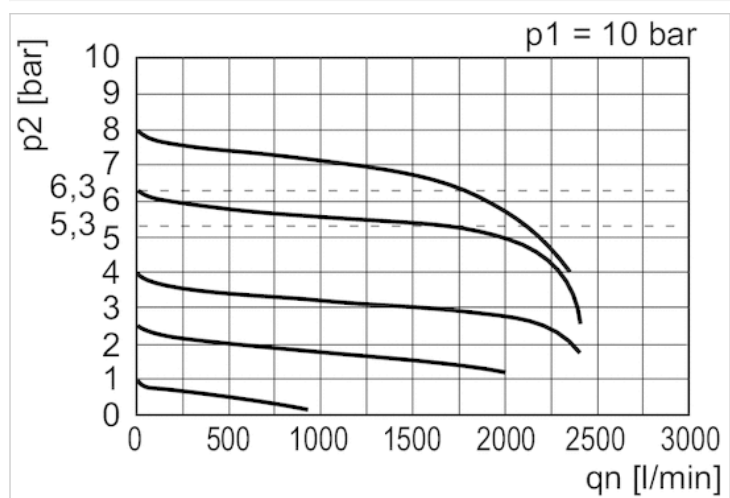


p1 = working pressure

p2 = secondary pressure

q = flow rate

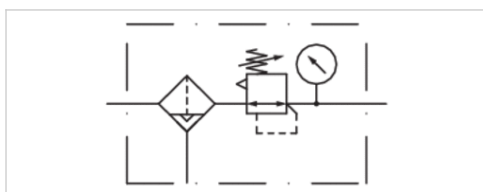
Flow rate characteristic



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

Filter pressure regulator, Series NL2-FRE

- G 1/4 G 3/8
- filter porosity 5 µm
- with pressure gauge
- suitable for ATEX



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	2 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	1650 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Filter reservoir volume	25 cm³
Filter element	exchangeable
Weight	See table below

Technical data

Part No.		Port	filter porosity	Flow	Adjustment range min./max.
				Qn	
0821300300		G 1/4	5 µm	1650 l/min	0.5 ... 10 bar
0821300301		G 1/4	5 µm	1650 l/min	0.5 ... 10 bar
0821300302		G 1/4	5 µm	1650 l/min	0.5 ... 10 bar
0821300303		G 1/4	5 µm	1650 l/min	0.5 ... 10 bar
0821300304		G 1/4	5 µm	1650 l/min	0.5 ... 10 bar
0821300305		G 1/4	5 µm	1650 l/min	0.5 ... 10 bar
0821300307		G 1/4	5 µm	1650 l/min	0.1 ... 3 bar
0821300308		G 1/4	5 µm	1650 l/min	0.2 ... 6 bar
0821300330		G 3/8	5 µm	1650 l/min	0.5 ... 10 bar
0821300331		G 3/8	5 µm	1650 l/min	0.5 ... 10 bar
0821300332		G 3/8	5 µm	1650 l/min	0.5 ... 10 bar
0821300333		G 3/8	5 µm	1650 l/min	0.5 ... 10 bar
0821300334		G 3/8	5 µm	1650 l/min	0.5 ... 10 bar
0821300335		G 3/8	5 µm	1650 l/min	0.5 ... 10 bar

Part No.	Condensate drain	Pressure gauge	Reservoir
0821300300	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
0821300301	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
0821300302	semi-automatic, open without pressure	with pressure gauge	Die cast zinc

Part No.	Condensate drain	Pressure gauge	Reservoir
0821300303	fully automatic, open without pressure	with pressure gauge	Polycarbonate
0821300304	fully automatic, open without pressure	with pressure gauge	Polycarbonate
0821300305	fully automatic, open without pressure	with pressure gauge	Die cast zinc
0821300307	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
0821300308	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
0821300330	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
0821300331	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
0821300332	semi-automatic, open without pressure	with pressure gauge	Die cast zinc
0821300333	fully automatic, open without pressure	with pressure gauge	Polycarbonate
0821300334	fully automatic, open without pressure	with pressure gauge	Polycarbonate
0821300335	fully automatic, open without pressure	with pressure gauge	Die cast zinc

Part No.	Protective guard	Weight
0821300300	-	0.542 kg
0821300301	Steel	0.542 kg
0821300302	-	0.717 kg
0821300303	-	0.57 kg
0821300304	Steel	0.612 kg
0821300305	-	0.749 kg
0821300307	-	0.542 kg
0821300308	-	0.542 kg
0821300330	-	0.542 kg
0821300331	Steel	0.583 kg
0821300332	-	0.717 kg
0821300333	-	0.57 kg
0821300334	Steel	0.612 kg
0821300335	-	0.749 kg

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

Pressure gauge enclosed separately, Suitable for use in Ex zones 1, 2, 21, 22., Metal protective guard can be retrofitted for all polycarbonate reservoirs

Technical information

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

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

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

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

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

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).

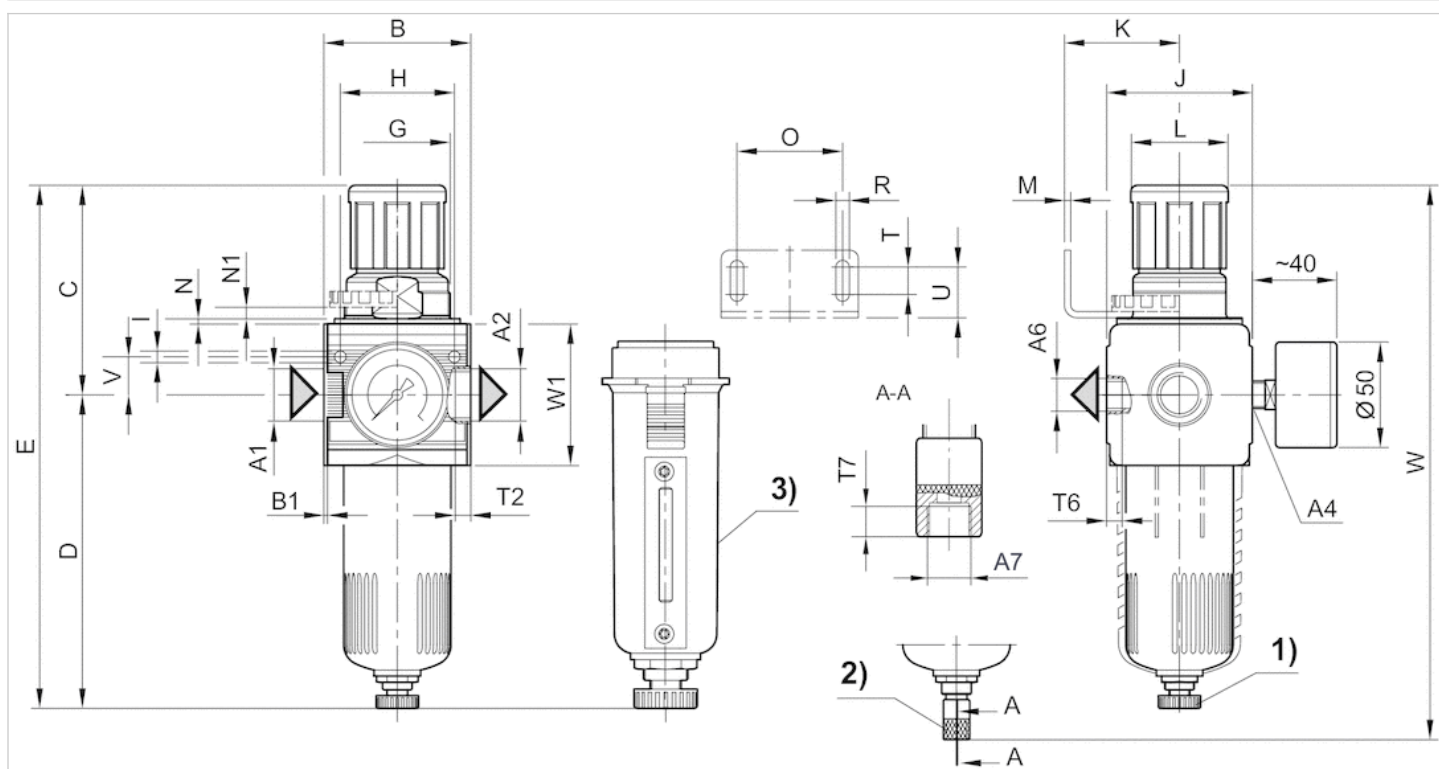
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

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

Dimensions

Dimensions



A1 = input

A2 = output

A6 = output

A7 = condensate drain

1) Semi-automatic condensate drain

2) fully automatic condensate drain

3) Metal reservoir

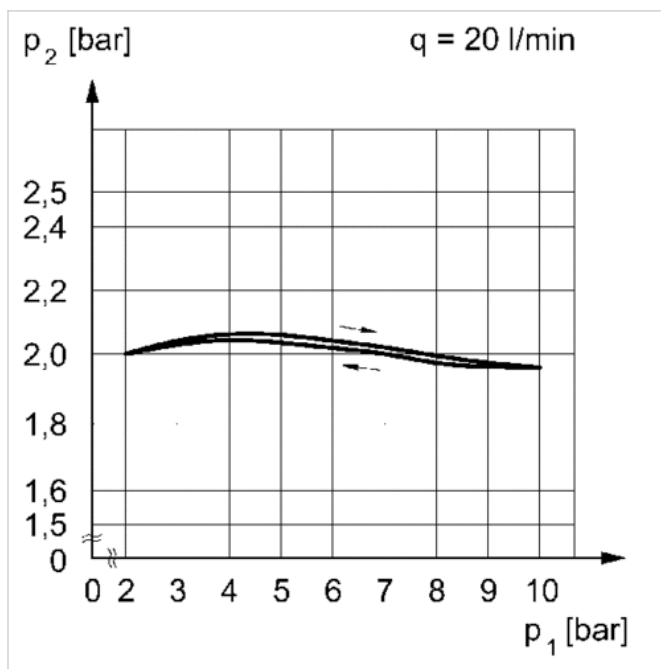
Dimensions in mm

A1	A2	A4	A6	A7	B	B1	C	D	E	G	H	I	J	K	L	M	N	N1	O	R
G 1/4	G 1/4	G 1/4	G 1/4	G 1/8	48	1.5	71	124.5	191	M30x1,5	36	4.4	47	43.5	28	3	3.5	3	38	5.4
G 3/8	G 3/8	G 1/4	G 1/4	G 1/8	48	1.5	71	124.5	191	M30x1,5	36	4.4	47	43.5	28	3	3.5	3	38	5.4

T	T2	T6	T7	U	V	W	W1
8	9.5	7	8.5	18.5	12.3	217.5	52
8	9.5	7	8.5	18.5	12.3	217.5	52

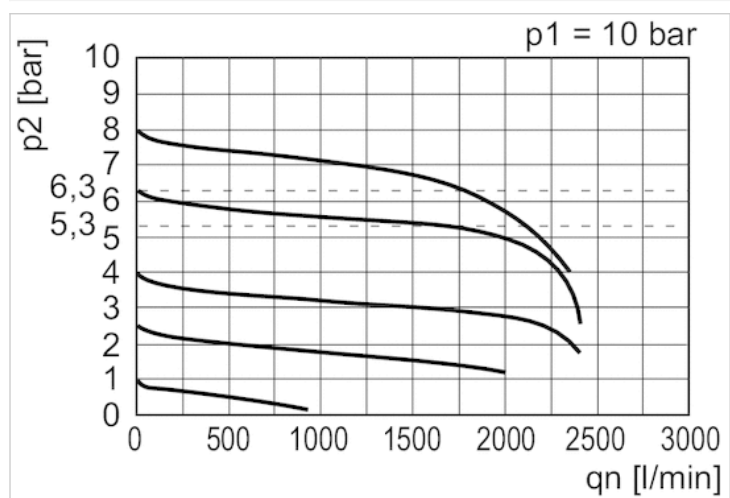
Diagrams

Pressure characteristics curve



p_1 = working pressure
 p_2 = secondary pressure
 q = flow rate

Flow rate characteristic



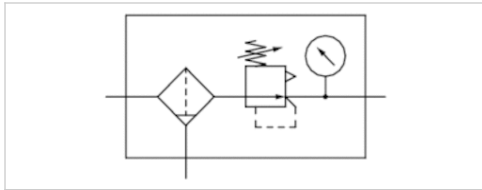
p_1 = Working pressure

p_2 = Secondary pressure

q_n = Nominal flow

Filter pressure regulator, Series NL2-FRE

- G 1/4 G 3/8
- filter porosity 5 µm
- lockable
- with key
- with pressure gauge
- suitable for ATEX



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	2 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	1650 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Pressure supply	single
Filter reservoir volume	25 cm ³
Filter element	exchangeable
Weight	See table below

Technical data

Part No.		Port	filter porosity	Flow	Condensate drain
				Qn	
0821300306		G 1/4	5 µm	1650 l/min	semi-automatic, open without pressure
0821300220		G 1/4	5 µm	1650 l/min	semi-automatic, open without pressure
0821300221		G 1/4	5 µm	1650 l/min	semi-automatic, open without pressure
0821300312		G 1/4	5 µm	1650 l/min	fully automatic, open without pressure
0821300222		G 1/4	5 µm	1650 l/min	fully automatic, open without pressure
0821300336		G 3/8	5 µm	1650 l/min	semi-automatic, open without pressure
0821300226		G 3/8	5 µm	1650 l/min	fully automatic, open without pressure

Part No.	Pressure gauge	Reservoir	Protective guard	Weight
0821300306	with pressure gauge	Polycarbonate	-	0.6 kg
0821300220	with pressure gauge	Polycarbonate	Steel	0.641 kg
0821300221	with pressure gauge	Die cast zinc	-	0.775 kg
0821300312	with pressure gauge	Polycarbonate	-	0.628 kg
0821300222	with pressure gauge	Polycarbonate	Steel	0.67 kg
0821300336	with pressure gauge	Polycarbonate	-	0.6 kg
0821300226	with pressure gauge	Polycarbonate	-	0.628 kg

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

Metal protective guard can be retrofitted for all polycarbonate reservoirs, Suitable for use in Ex zones 1, 2, 21, 22., Pressure gauge enclosed separately

Technical information

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

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

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

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

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

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).

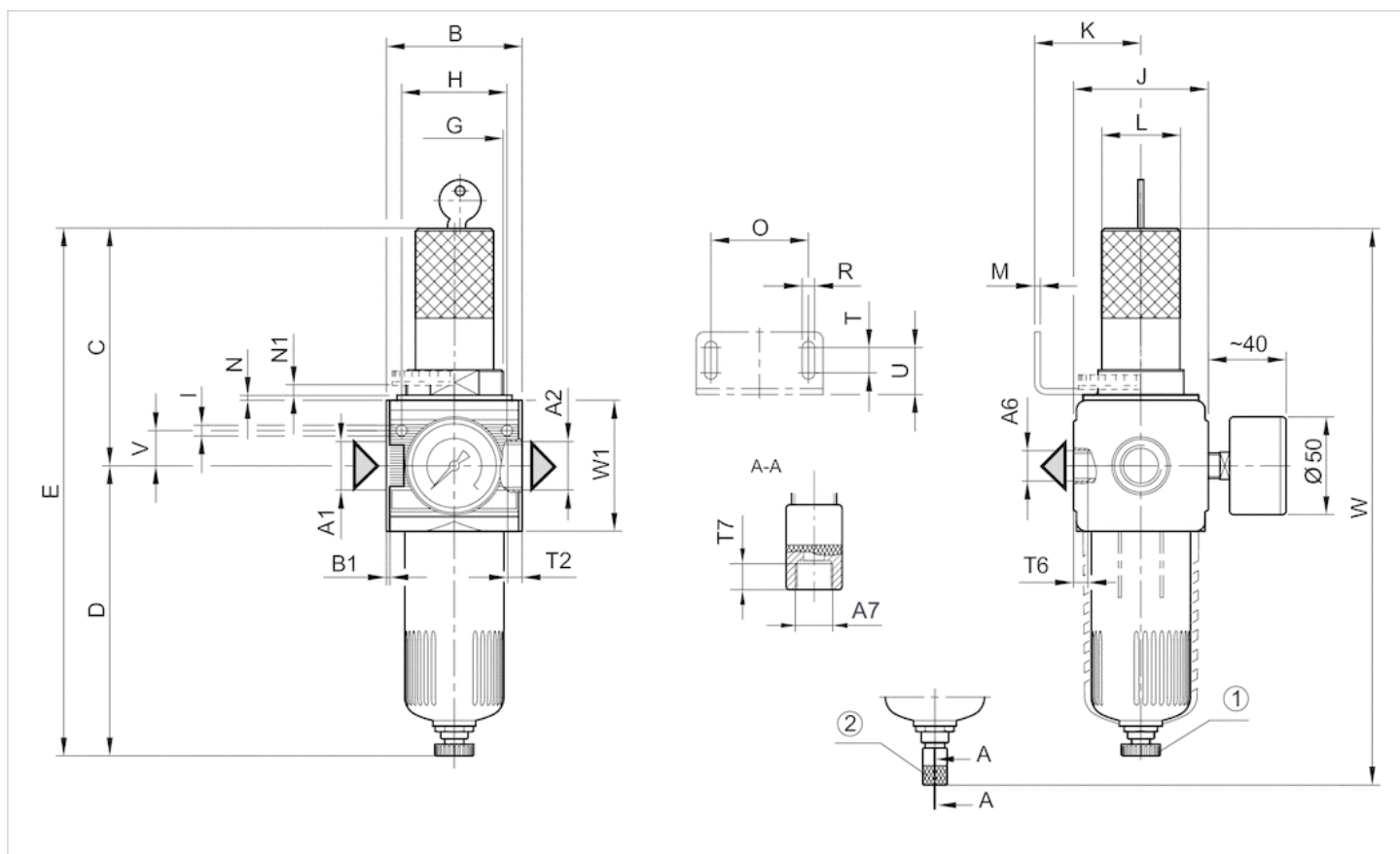
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

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

Dimensions

Dimensions



A1 = input

A2 = output

A6 = output

A7 = condensate drain

1) Semi-automatic condensate drain

2) fully automatic condensate drain

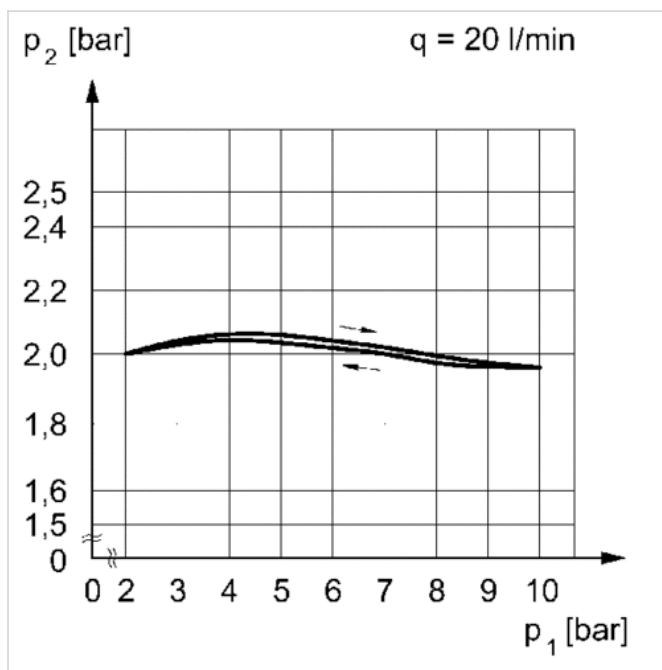
Dimensions in mm

A1	A2	A6	A7	B	B1	C	D	E	G	H	I	J	K	L	M	N	N1	O	R	T	T2
G 1/4	G 1/4	G 1/4	G 1/8	48	1.5	96.5	124.5	221	M30x1,5	36	4.4	47	43.5	28	3	3.5	3	38	5.4	8	9.5
G 3/8	G 3/8	G 1/4	G 1/8	48	1.5	96.5	124.5	221	M30x1,5	36	4.4	47	43.5	28	3	3.5	3	38	5.4	8	9.5

T6	T7	U	V	W	W1
7	8.5	18.5	12.3	243	52
7	8.5	18.5	12.3	243	52

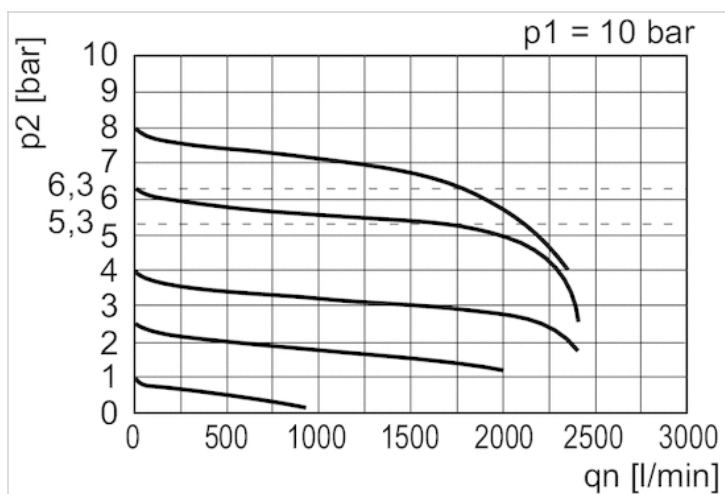
Diagrams

Pressure characteristics curve



p_1 = working pressure
 p_2 = secondary pressure
 q = flow rate

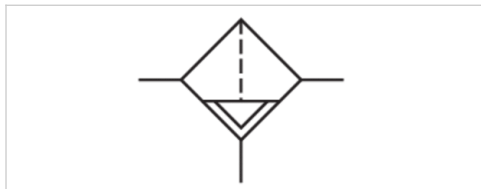
Flow rate characteristic



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

Filter, Series NL2-FLS

- G 1/4 G 3/8
- filter porosity 5 µm
- suitable for ATEX



Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	2 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	25 cm ³
Filter element	exchangeable
filter porosity	5 µm
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain
0821303400	G 1/4	2100 l/min	semi-automatic, open without pressure
0821303401	G 1/4	2100 l/min	semi-automatic, open without pressure
0821303402	G 1/4	2100 l/min	semi-automatic, open without pressure
0821303403	G 1/4	2100 l/min	fully automatic, open without pressure
0821303404	G 1/4	2100 l/min	fully automatic, open without pressure
0821303405	G 1/4	2100 l/min	fully automatic, open without pressure
0821303440	G 3/8	2100 l/min	semi-automatic, open without pressure
0821303441	G 3/8	2100 l/min	semi-automatic, open without pressure
0821303442	G 3/8	2100 l/min	semi-automatic, open without pressure
0821303443	G 3/8	2100 l/min	fully automatic, open without pressure
0821303444	G 3/8	2100 l/min	fully automatic, open without pressure
0821303445	G 3/8	2100 l/min	fully automatic, open without pressure

Part No.	Version	Weight
0821303400	reservoir, polycarbonate, without protective guard	0.275 kg
0821303401	reservoir, polycarbonate, with metal protective guard	0.316 kg
0821303402	reservoir, metal, with inspection glass	0.45 kg
0821303403	reservoir, polycarbonate, without protective guard	0.307 kg
0821303404	reservoir, polycarbonate, with metal protective guard	0.348 kg
0821303405	reservoir, metal, with inspection glass	0.482 kg
0821303440	reservoir, polycarbonate, without protective guard	0.275 kg

Part No.	Version	Weight
0821303441	reservoir, polycarbonate, with metal protective guard	0.316 kg
0821303442	reservoir, metal, with inspection glass	0.45 kg
0821303443	reservoir, polycarbonate, without protective guard	0.307 kg
0821303444	reservoir, polycarbonate, with metal protective guard	0.348 kg
0821303445	reservoir, metal, with inspection glass	0.482 kg

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

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

Technical information

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

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.

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

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

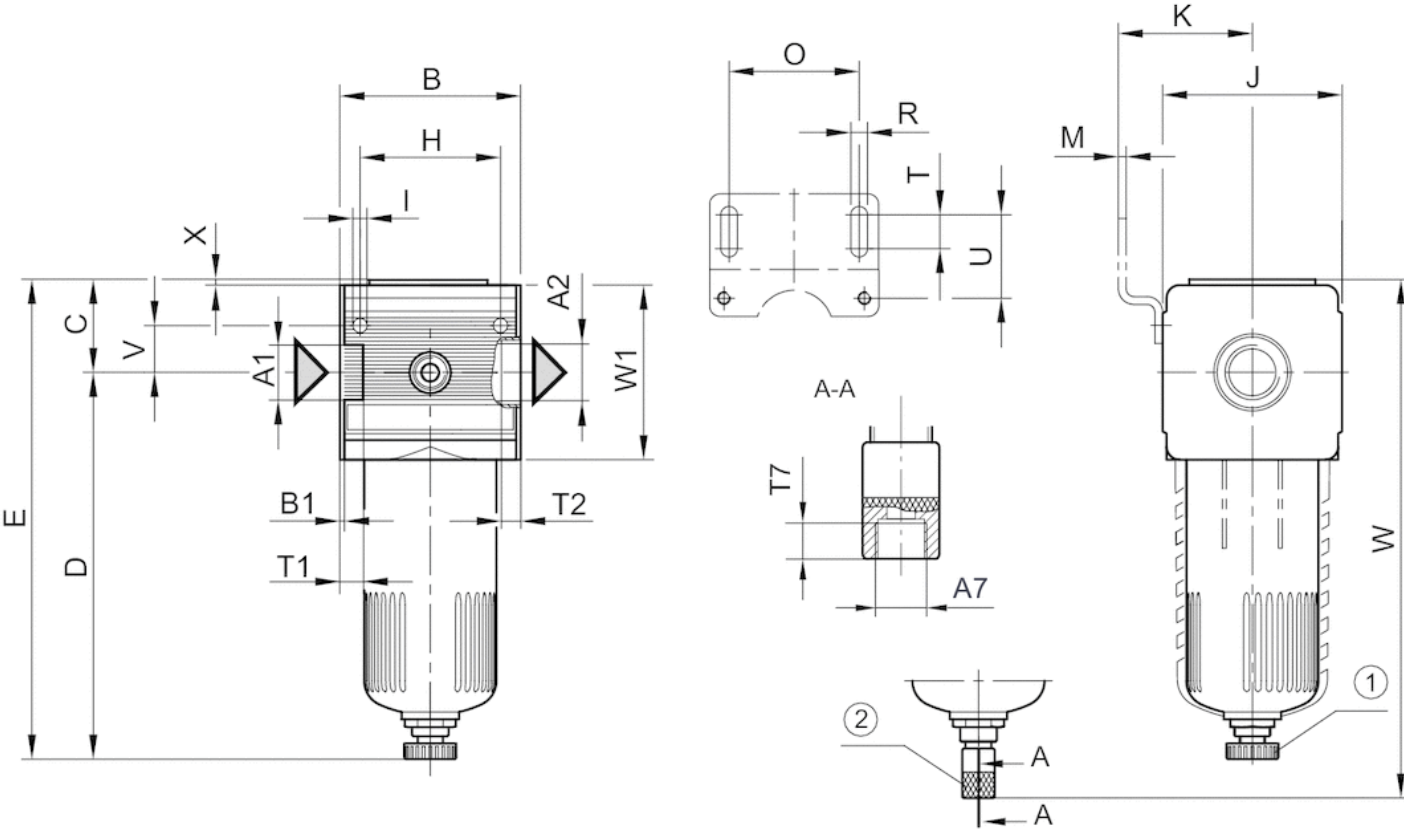
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Reservoir	Polycarbonate Die cast zinc
Protective guard	Steel
Filter insert	Cellpor

Dimensions

Dimensions



- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Semi-automatic condensate drain
- 2) fully automatic condensate drain

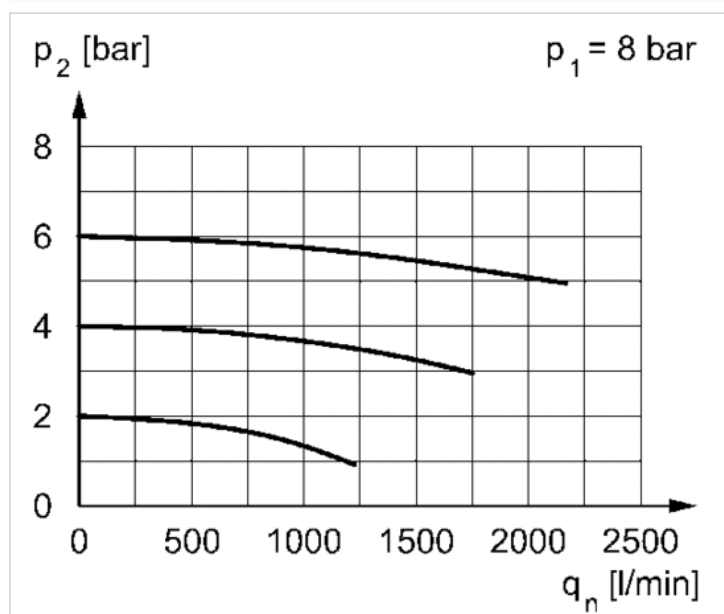
Dimensions in mm

A1	A2	A7	B	B1	C	D	E	H	I	J	K	M	O	R	T	T1	T2	T7	U	V	W	W1
G 1/4	G 1/4	G 1/8	48	1.5	27.5	124.5	152	36	4.4	47	43.5	3	38	5.4	8	9.5	9.5	8.5	27.5	12.3	165	156
G 3/8	G 3/8	G 1/8	48	1.5	27.5	124.5	152	36	4.4	47	43.5	3	38	5.4	8	9.5	9.5	8.5	27.5	12.3	165	156

X																					
1.5																					
1.5																					

Diagrams

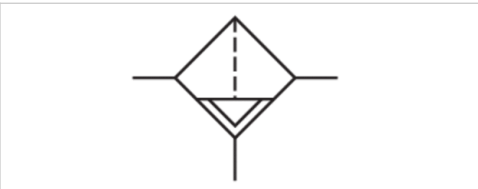
Flow rate characteristic



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

Pre-filter, Series NL2-FLP

- G 1/4
- filter porosity 0.3 µm
- 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.	2 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	10 cm³
Filter element	exchangeable
filter porosity	0.3 µm
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain	Weight
0821303308	G 1/4	380 l/min	semi-automatic, open without pressure	0.45 kg
0821303309	G 1/4	380 l/min	fully automatic, open without pressure	0.45 kg
R412010785	G 1/4	380 l/min	fully automatic, open without pressure	0.48 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 0.1 bar, Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

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

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.

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

Recommended pre-filtering 5 µm

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

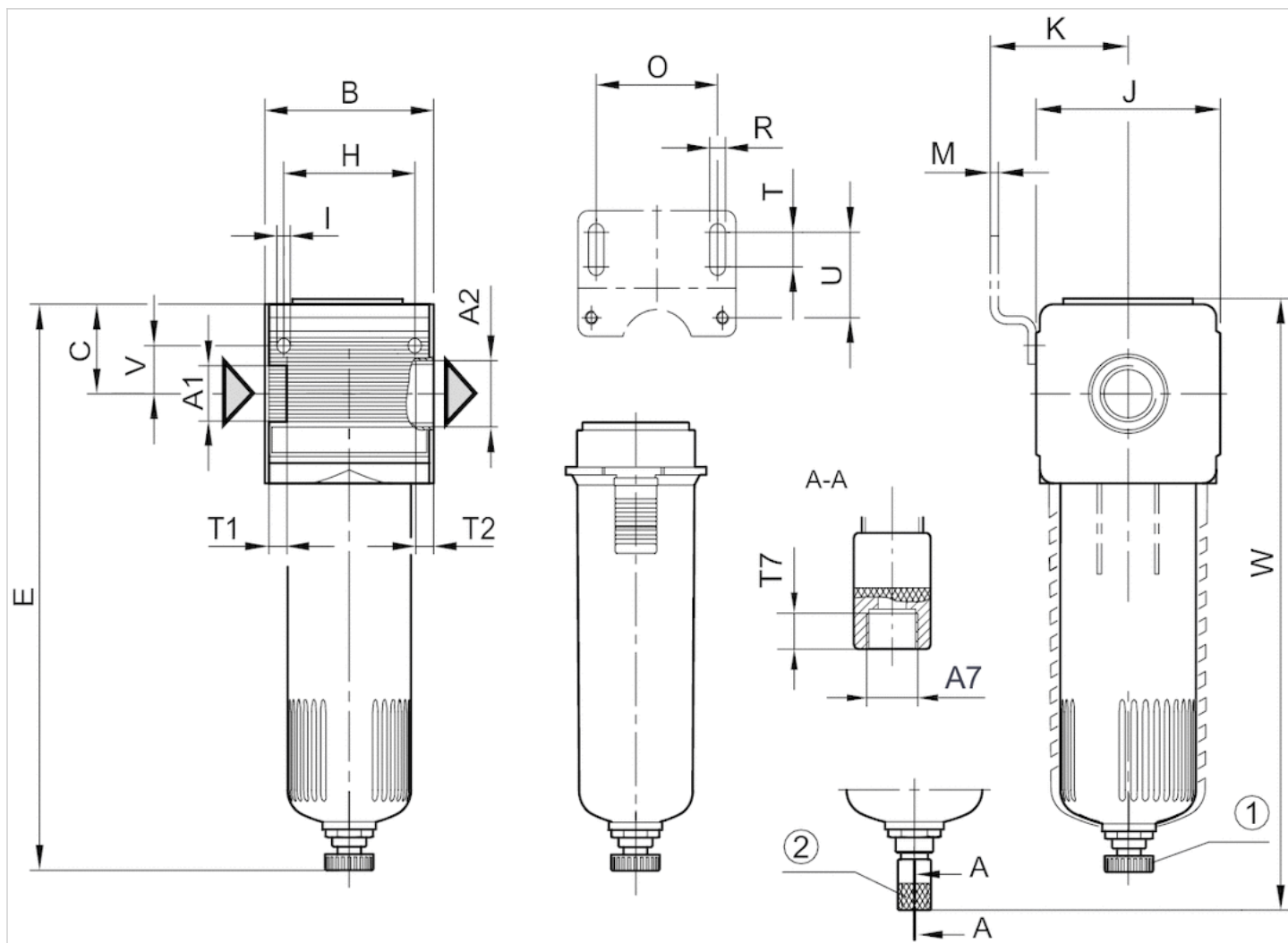
Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Reservoir	Polycarbonate Die cast zinc
Filter insert	Impregnated paper

Dimensions

Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Semi-automatic condensate drain

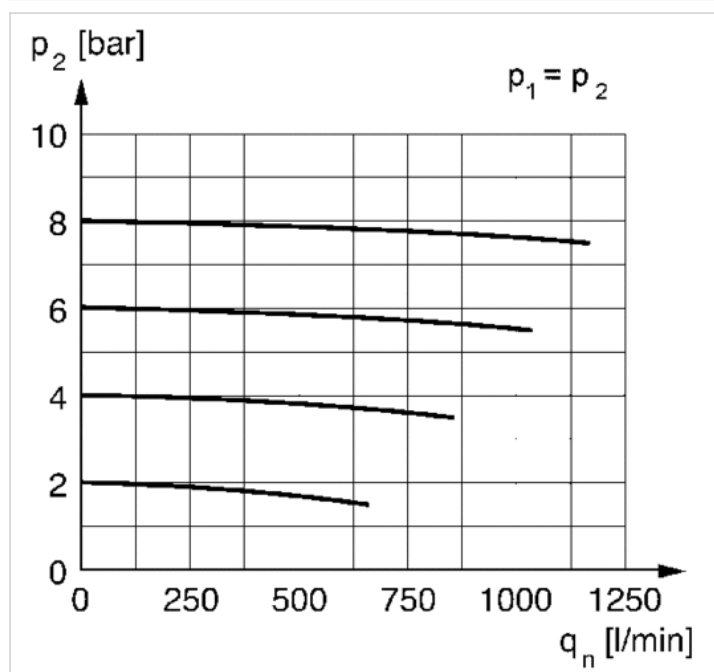
2) fully automatic condensate drain

Dimensions in mm

A1	A2	A7	B	C	E	H	I	J	K	M	O	R	T	T1	T2	T7	U	V	W
G 1/4	G 1/4	G 1/8	48	27.5	152	36	4.4	47	43.5	3	38	5.4	8	9.5	9.5	8.5	27.5	12.3	—
G 1/4	G 1/4	G 1/8	48	27.5	—	36	4.4	47	43.5	3	38	5.4	8	9.5	9.5	8.5	27.5	12.3	168

Diagrams

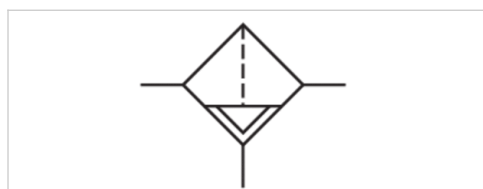
Flow rate characteristic



p_2 = secondary pressure
 q_n = nominal flow

Microfilter, Series NL2-FLC

- G 1/4
- filter porosity 0.01 µm
- suitable for ATEX



Version	Microfilter, Can be assembled into blocks
Parts	Microfilter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	10 cm ³
Filter element	exchangeable
filter porosity	0.01 µm
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain
0821303449	G 1/4	280 l/min	semi-automatic, open without pressure
R412010787	G 1/4	280 l/min	semi-automatic, open without pressure
R412010788	G 1/4	280 l/min	semi-automatic, open without pressure
R412010786	G 1/4	280 l/min	fully automatic, open without pressure
0821303305	G 1/4	280 l/min	fully automatic, open without pressure
R412010789	G 1/4	280 l/min	fully automatic, open without pressure
R412010790	G 1/4	280 l/min	fully automatic, open without pressure

Part No.	Version	Weight
0821303449	-	0.45 kg
R412010787	reservoir, polycarbonate, with metal protective guard	0.45 kg
R412010788	reservoir, metal, with inspection glass	0.45 kg
R412010786	Metal reservoir without window	0.482 kg
0821303305	-	0.482 kg
R412010789	reservoir, polycarbonate, with metal protective guard	0.482 kg
R412010790	reservoir, metal, with inspection glass	0.482 kg

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

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

Technical information

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

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.

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

Recommended pre-filtering 0.3 µm

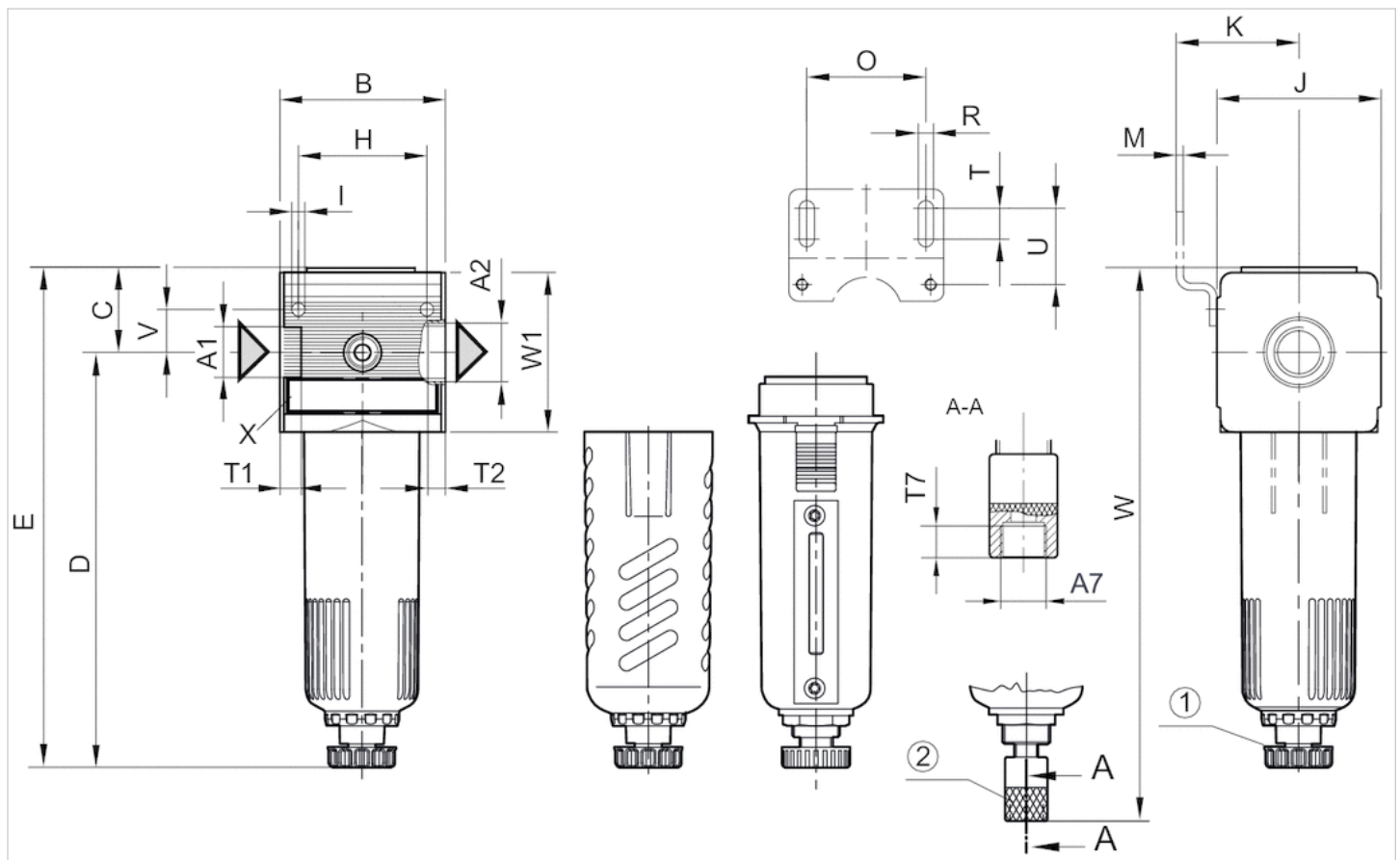
Max. achievable compressed air class acc. to ISO 8573-1:2010 1 : - : 2

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Steel
Filter insert	Borosilicate glass fiber

Dimensions

Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Semi-automatic condensate drain

2) fully automatic condensate drain

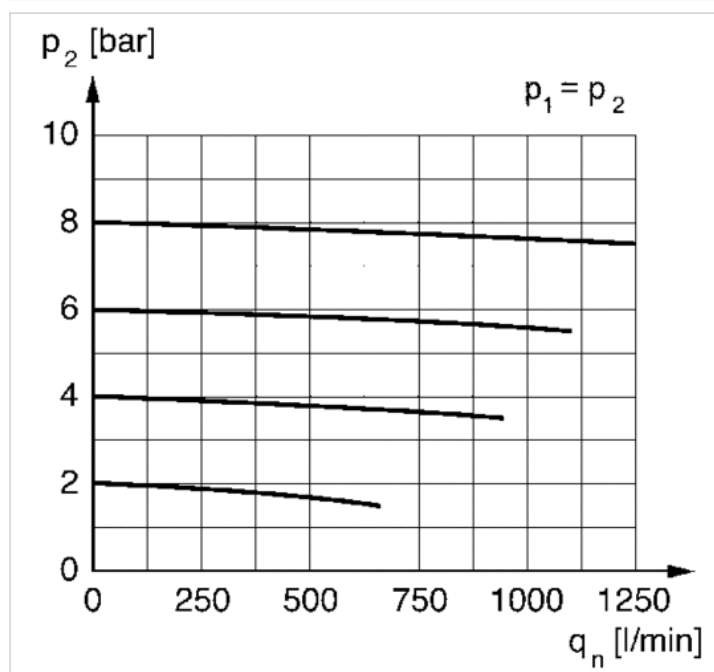
Dimensions in mm

Condensate drain	A1	A2	A7	B	C	D	E	H	I	J	K	M
semi-automatic, open without pressure	G 1/4	G 1/4	G 1/8	48	27.5	125	152	36	4.4	47	43.5	3
fully automatic, open without pressure	G 1/4	G 1/4	G 1/8	48	27.5	—	—	36	4.4	47	43.5	3

O	R	T	T1	T2	T7	U	V	W	W1
38	5.4	8	9.5	9.5	8.5	27.5	12.3	—	52
38	5.4	8	9.5	9.5	8.5	27.5	12.3	168	52

Diagrams

Flow rate characteristic

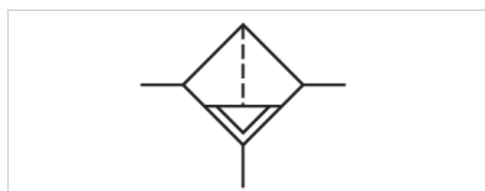


p_2 = secondary pressure
 q_n = nominal flow

Active carbon filter, Series NL2-FLA

- G 1/4

- 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.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	10 cm ³
Filter element	exchangeable
Weight	0.432 kg

Technical data

Part No.	Port	Flow Qn
R412010792	G 1/4	380 l/min

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

Suitable for use in Ex zones 1, 2, 21, 22., Metal protective guard can be retrofitted for all polycarbonate reservoirs

Technical information

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

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 μm

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

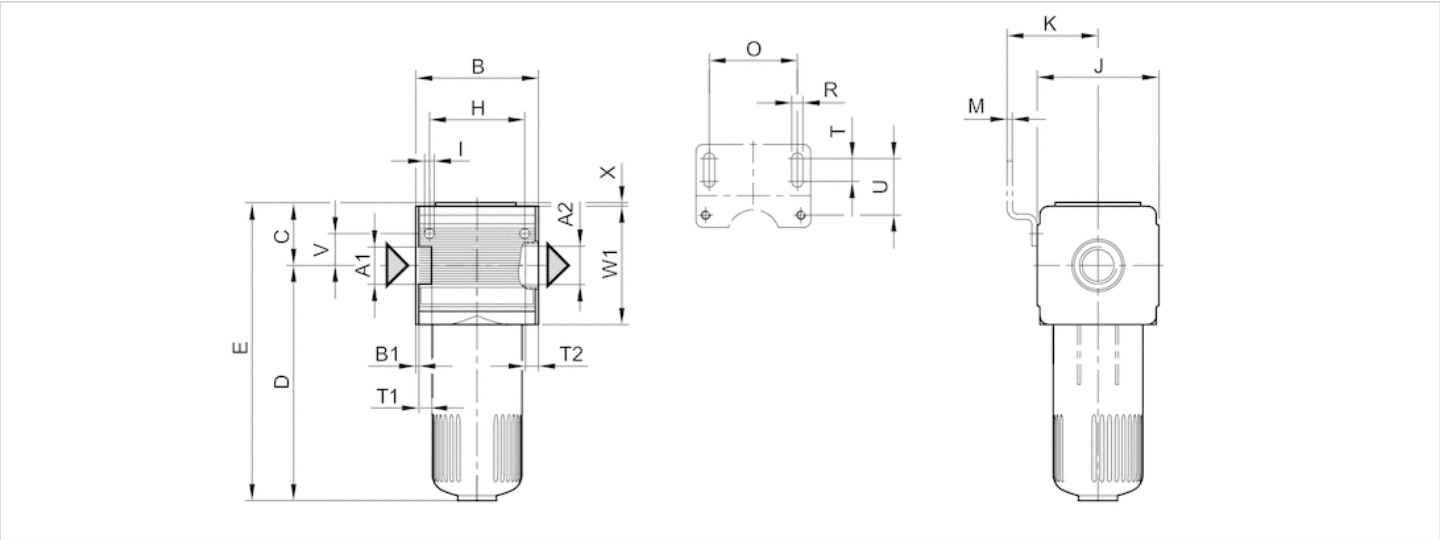
Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Reservoir	Die cast zinc

Material	
Filter insert	Active carbon

Dimensions

Dimensions



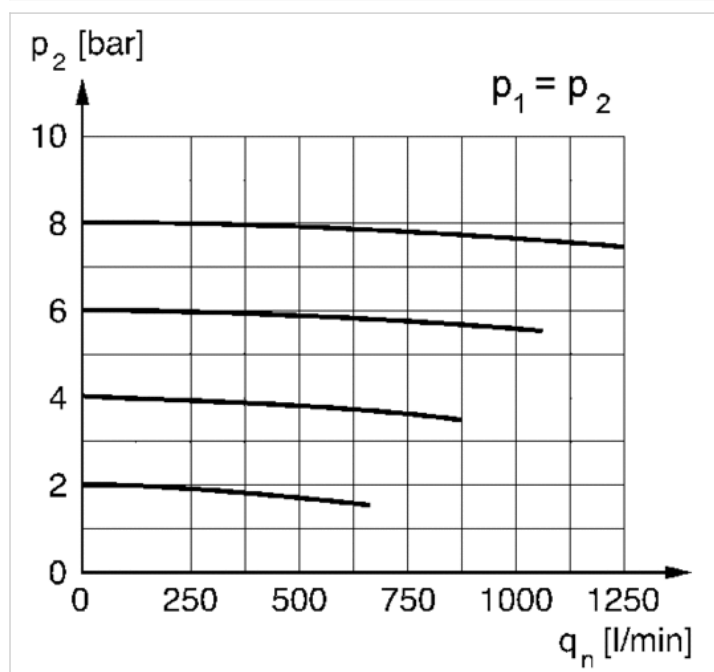
A1 = input
A2 = output

Dimensions in mm

A1	A2	B	B1	C	D	E	H	I	J	K	M	O	R	T	T1	T2	U	V	W1	X
G 1/4	G 1/4	48	1.5	27.5	109	136.5	36	4.4	47	43.5	3	38	5.4	8	9.5	9.5	27.5	12.3	52	1.5

Diagrams

Flow rate characteristic



p_2 = secondary pressure
 q_n = nominal flow

Diaphragm-type dryer, Series NL2-ADD

- G 1/4

- suitable for ATEX



Version

Parts

Mounting orientation

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Filter element

Lowering pressure dew point

Weight

Diaphragm-type dryer

Diaphragm-type dryer

vertical

suitable for ATEX

4 ... 12.5 bar

2 ... 60 °C

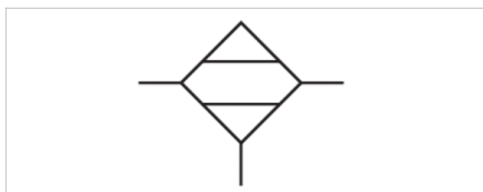
2 ... 60 °C

Compressed air Neutral gases

not exchangeable

20 °C

See table below



Technical data

Part No.	Port	Flow	Reservoir	Weight	
		Qn			
R412004170	G 1/4	50 l/min	Aluminum	0.57 kg	1)
R412004243	G 1/4	100 l/min	Aluminum	0.63 kg	1)
R412004245	G 1/4	200 l/min	Aluminum	0.81 kg	1)
R412007648	G 1/4	300 l/min	Aluminum	2.5 kg	2)
R412007649	G 1/4	400 l/min	Aluminum	2.5 kg	2)

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

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

Technical information

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

Notice: air may not contain condensate

purge air approx. 12% of nominal flow Qn

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 µm 5

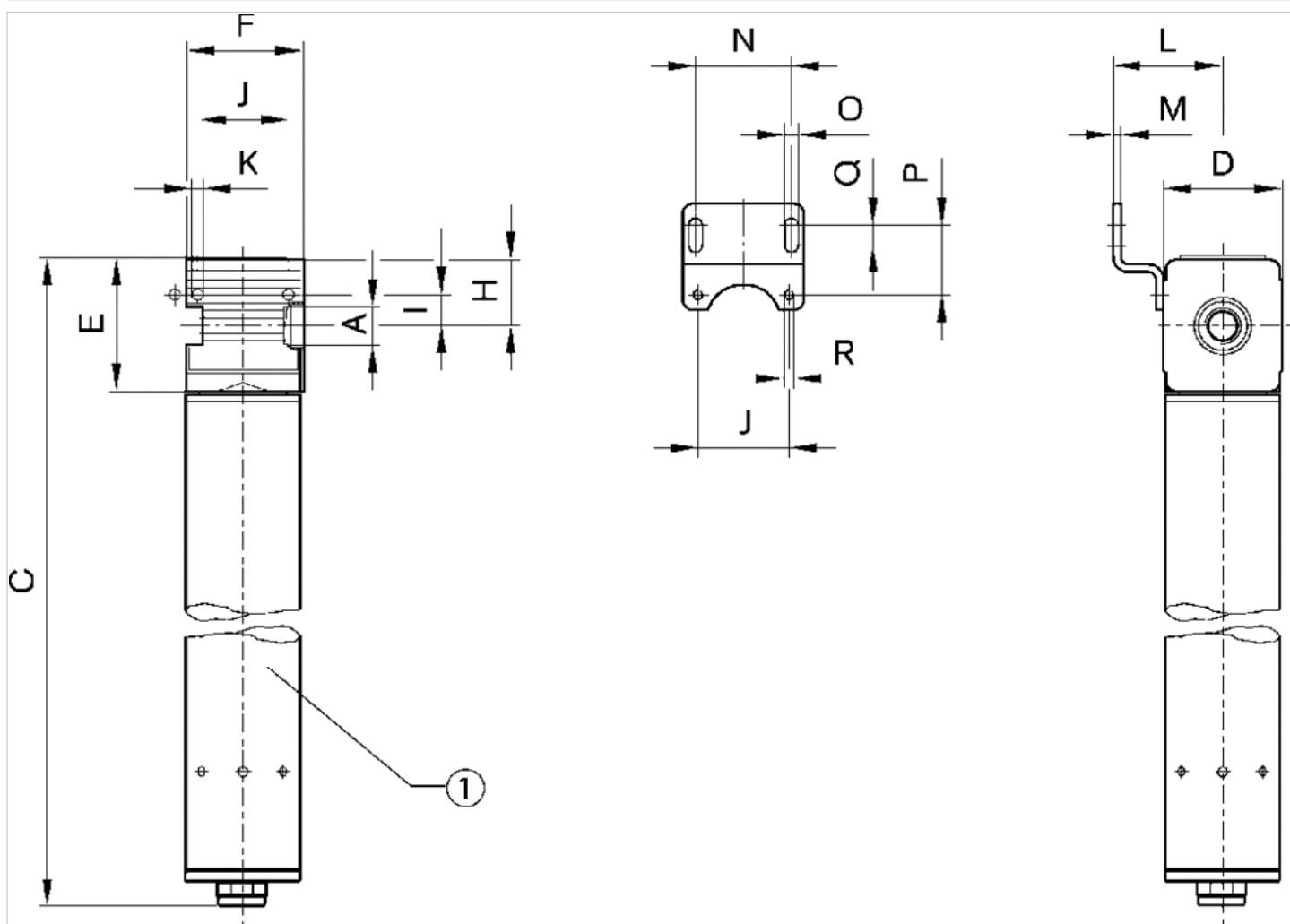
0.01 µm

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene
Seal	Acrylonitrile butadiene rubber
Reservoir	Aluminum

Dimensions

Fig. 1



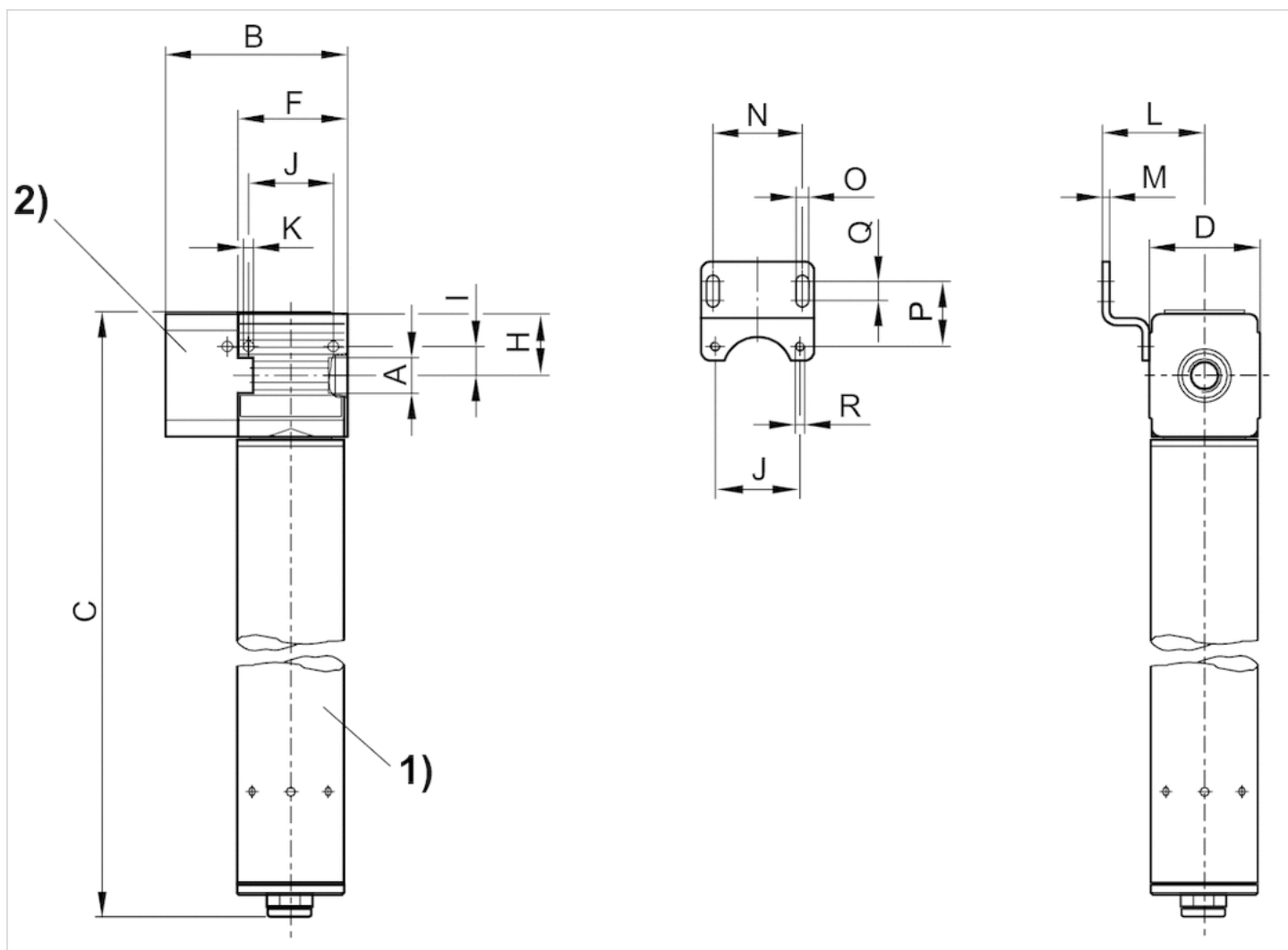
1) diaphragm-type dryer

Dimensions in mm

Part No.	A	C	D	E	F	H	I	J	ØK	L	M	N	O	P	Q	R
R412004170	G 1/4	190.2	47	52	48	27	12.3	36	4	43.5	3	38	5.4	27.5	8	M4
R412004243	G 1/4	240.2	47	52	48	27	12.3	36	4	43.5	3	38	5.4	27.5	8	M4
R412004245	G 1/4	340.2	47	52	48	27	12.3	36	4	43.5	3	38	5.4	27.5	8	M4

Dimensions

Fig. 2



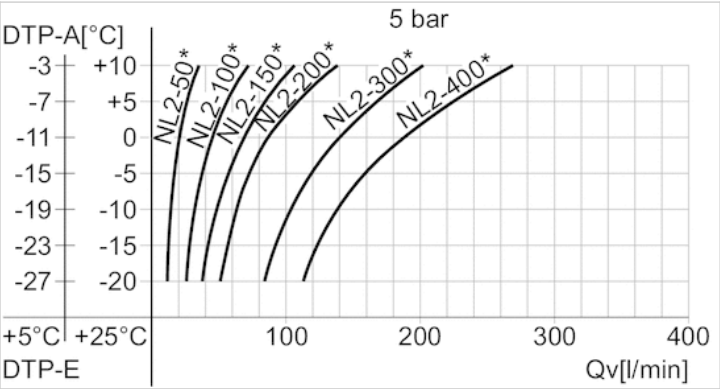
- 1) diaphragm-type dryer
2) Incl. second distributor

Dimensions in mm

Part No.	A	B	C	D	F	H	I	J	ØK	L	M	N	O	P	Q	R
R412007648	G 1/4	83	425	47	48	27	12.3	36	4	43.5	3	38	5.4	27.5	8	M4
R412007649	G 1/4	83	485	47	48	27	12.3	36	4	43.5	3	38	5.4	27.5	8	M4

Diagrams

performance charts



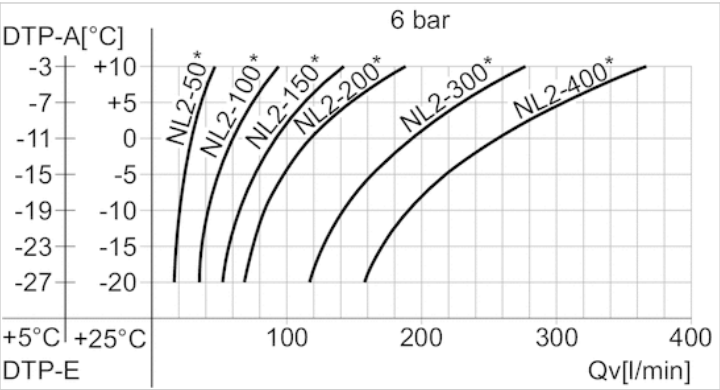
DTP-E: pressure dew point input

DTP-A: pressure dew point output

Qv: input flow rate (nominal flow rate Qn + purge air)

* Nominal flow Qn

performance charts



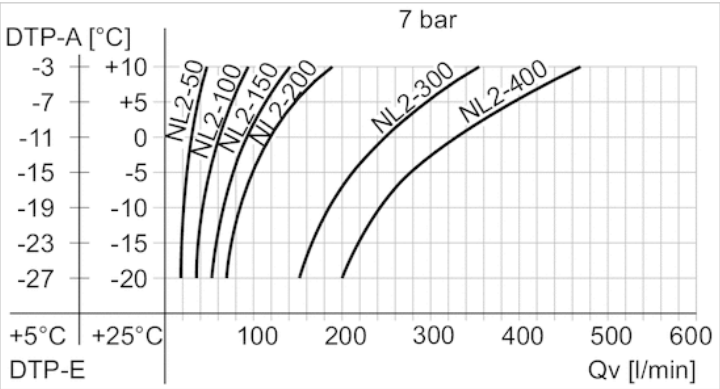
DTP-E: pressure dew point input

DTP-A: pressure dew point output

Qv: input flow rate (nominal flow rate Qn + purge air)

* Nominal flow Qn

performance charts



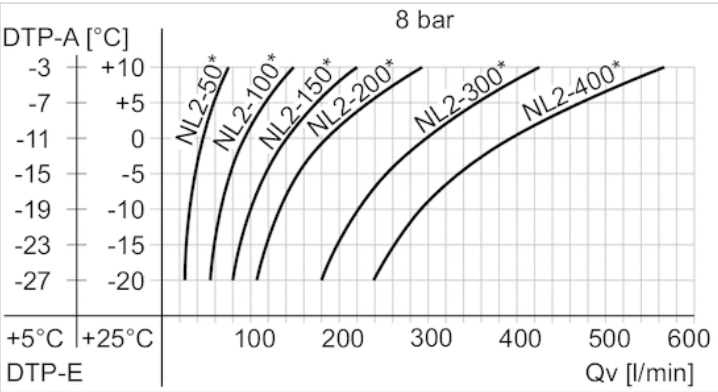
DTP-E: pressure dew point input

DTP-A: pressure dew point output

Qv: input flow rate (nominal flow rate Qn + purge air)

* Nominal flow Qn

performance charts



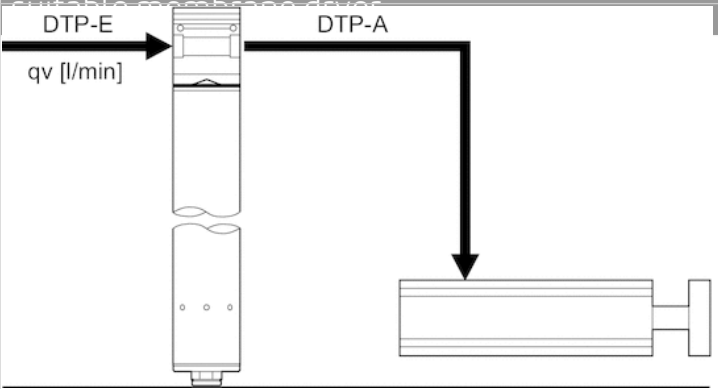
DTP-E: pressure dew point input

DTP-A: pressure dew point output

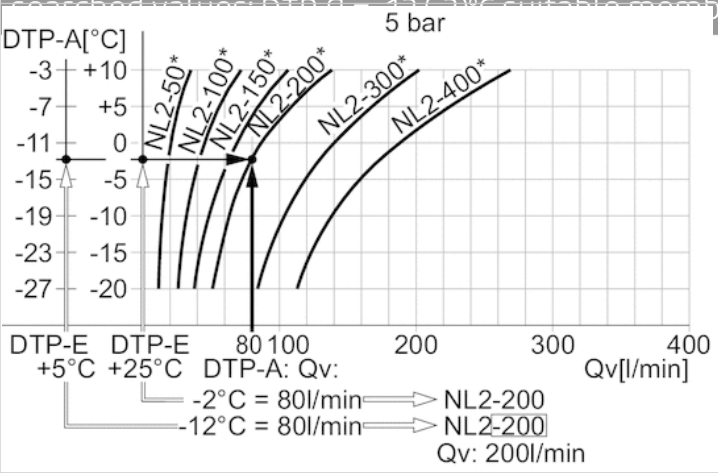
Qv: input flow rate (nominal flow rate Qn + purge air)

* Nominal flow Qn

Example wanted:



Example
 give values: Qn = 80 l/min, DTP-E = +5 (+25)°C
 searched values: DTP-A = -12 (-2)°C suitable membrane dryer



Result: membrane dryer series NL2-200

(with a Qn of 200 l/min), part no. R412004245

* Nominal flow Qn

Standard oil-mist lubricator, Series NL2-LBS

- G 1/4 G 3/8

- suitable for ATEX



Version

Oil-mist lubricator, Can be assembled into blocks

Parts

Standard oil-mist lubricator

Mounting orientation

vertical

Working pressure min./max.

0.5 ... 16 bar

Ambient temperature min./max.

-10 ... 60 °C

Medium temperature min./max.

-10 ... 60 °C

Medium

Compressed air Neutral gases

Lubricator reservoir volume

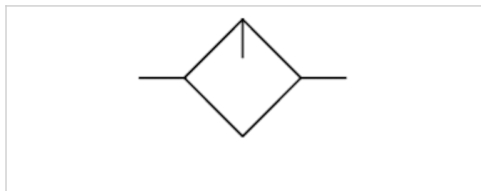
50 cm³

Type of filling

Manual oil filling

Weight

See table below



Technical data

Part No.	Port	Nominal flow Qn	Material Reservoir	Protective guard
0821301408	G 1/4	1800 l/min	Polycarbonate	-
0821301400	G 1/4	1800 l/min	Polycarbonate	-
0821301401	G 1/4	1800 l/min	Polycarbonate	Steel
0821301402	G 1/4	1800 l/min	Die cast zinc with window	-
0821301440	G 3/8	1800 l/min	Polycarbonate	-
0821301441	G 3/8	1800 l/min	Polycarbonate	Steel
0821301442	G 3/8	1800 l/min	Die cast zinc with window	-

Part No.	Reservoir	Electrical level indicator
0821301408	reservoir, polycarbonate, without protective guard	with internal query
0821301400	reservoir, polycarbonate, without protective guard	-
0821301401	reservoir, polycarbonate, with metal protective guard	-
0821301402	reservoir, metal, with inspection glass	-
0821301440	reservoir, polycarbonate, without protective guard	-
0821301441	reservoir, polycarbonate, with metal protective guard	-
0821301442	reservoir, metal, with inspection glass	-

Part No.	Weight	Fig.	
0821301408	0.37 kg	Fig. 2	-
0821301400	0.327 kg	Fig. 1	1)

Part No.	Weight	Fig.	
0821301401	0.368 kg	Fig. 1	1)
0821301402	0.502 kg	Fig. 1	1)
0821301440	0.327 kg	Fig. 1	1)
0821301441	0.368 kg	Fig. 1	1)
0821301442	0.502 kg	Fig. 1	1)

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

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

Technical information

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

The entire preset drip quantity enters the pressure system.

Manual oil filling possible during operation.

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

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

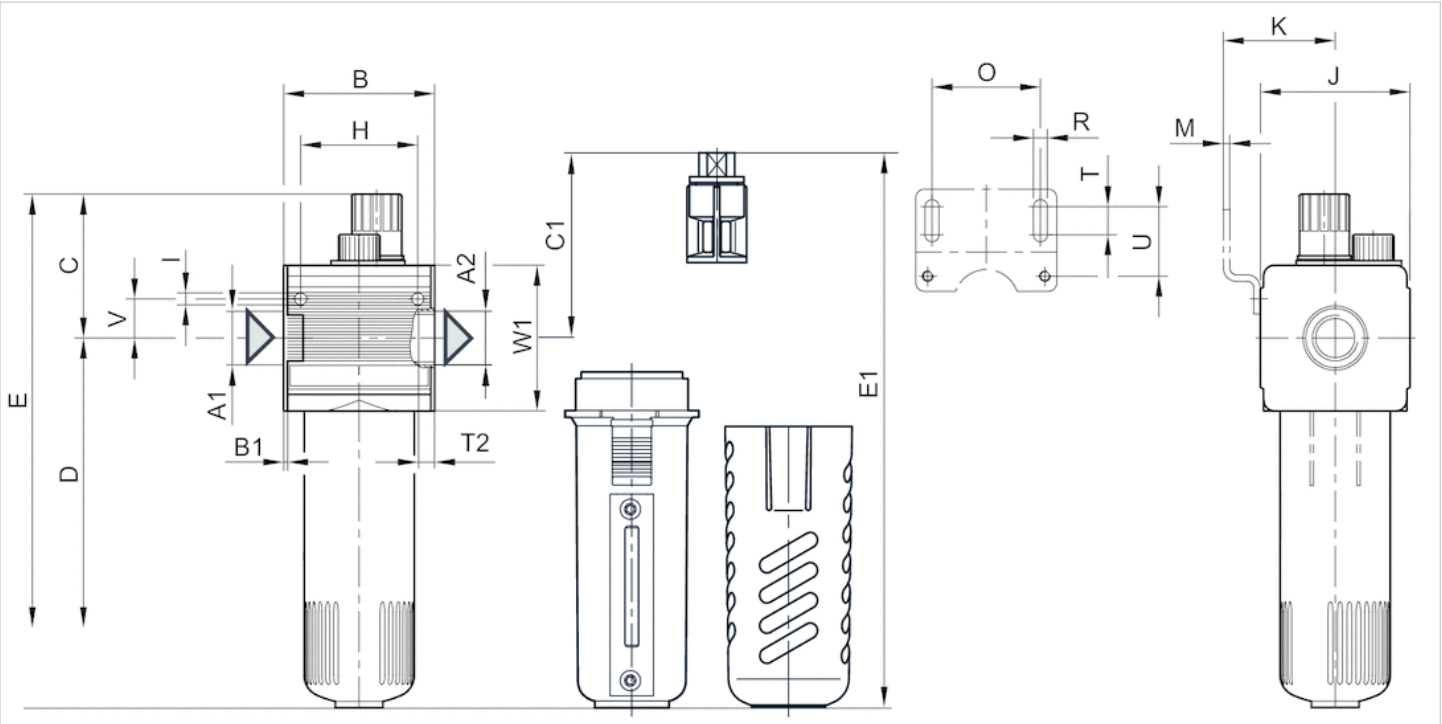
Oil dosing at 1000 l/min 1-2 drops

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Reservoir	Polycarbonate Die cast zinc
Protective guard	Steel

Dimensions

Fig. 1



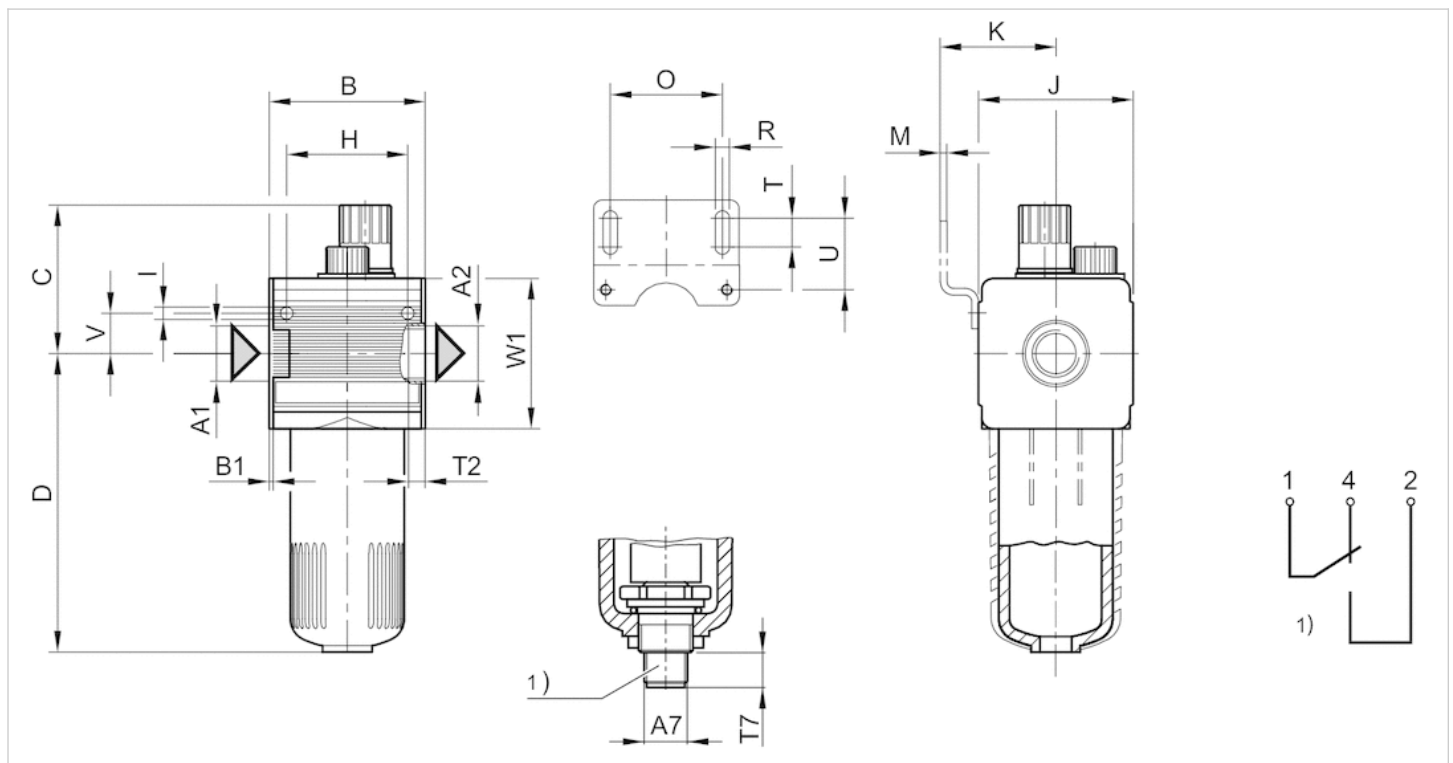
A1 = input
A2 = output

Dimensions in mm

A1	A2	B	B1	C	C1	D	E	E1	H	I	J	K	M	O	R	T	T2	U	V	W1
G 1/4	G 1/4	48	1.5	58	-	109	167	-	36	4.4	47	43.5	3	38	5.4	8	9.5	27.5	12.3	52
G 1/4	G 1/4	48	1.5	73.5	73,5	109	182	182	36	4.4	47	43.5	3	38	5.4	8	9.5	27.5	12.3	52
G 3/8	G 3/8	48	1.5	58	-	109	167	-	36	4.4	47	43.5	3	38	5.4	8	6	27.5	12.3	52
G 3/8	G 3/8	48	1.5	73.5	73,5	109	182	182	36	4.4	47	43.5	3	38	5.4	8	6	27.5	12.3	52

Dimensions

Fig. 2



A1 = input

A2 = output

1) electrical level indicator

– connection: 4-pin, M12x1

– contact load: 50 V AC/0.5 A/5 W

– type: 1 change-over contact (make contact/break contact) for min. fluid level

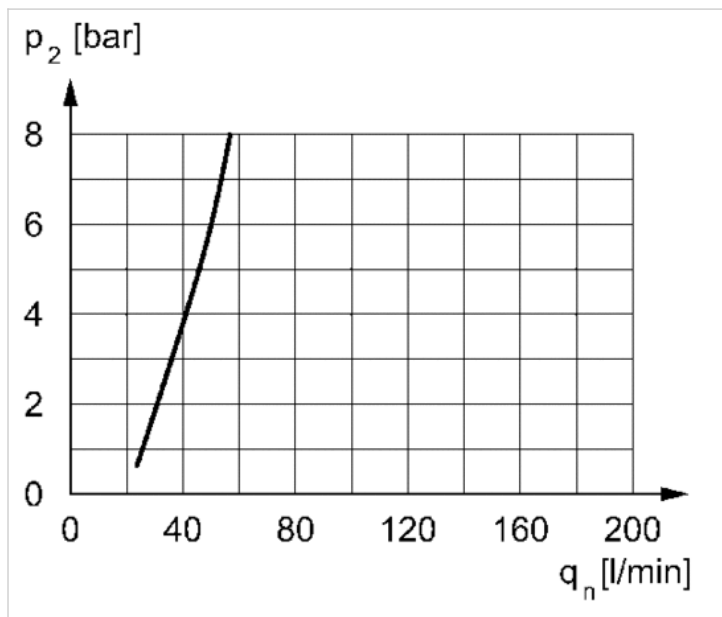
Order valve plug connector (M12x1) separately

Dimensions in mm

A1	A2	A7	B	B1	C	D	H	I	J	K	M	O	R	T	T2	T7	U	V	W1
G 1/4	G 1/4	M12x1	48	1.5	58	109	36	4.4	47	43.5	3	38	5.4	8	9.5	12	27.5	12.3	52

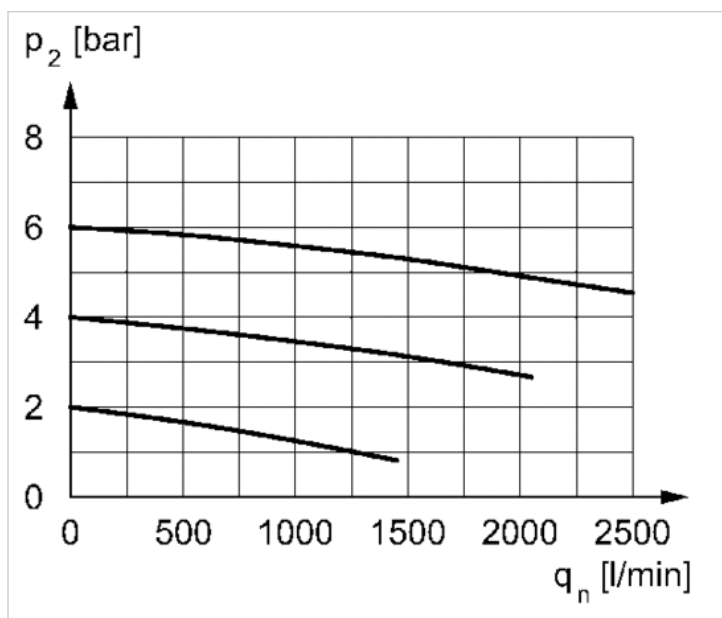
Diagrams

minimum flow rate curve (flow rate necessary for the correct functioning of the lubricator)



p_2 = secondary pressure
 $q_{nmin.}$ = min. nominal flow

Flow rate characteristic



p_2 = secondary pressure
 q_n = nominal flow

Micro oil-mist lubricator, Series NL2-LBM

- G 1/4



Version

Micro oil-mist lubricator, Can be assembled into blocks

Parts

Micro oil-mist lubricator

Mounting orientation

vertical

Compressed air connection

G 1/4

Working pressure min./max.

0.5 ... 16 bar

Ambient temperature min./max.

-10 ... 60 °C

Medium temperature min./max.

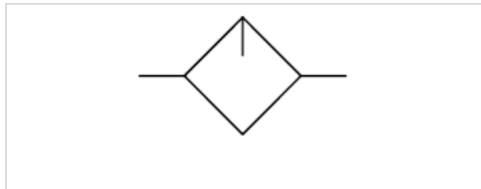
-10 ... 60 °C

Medium

Compressed air Neutral gases

Type of filling

Manual oil filling



Technical data

Part No.	Port	Nominal flow Q _n	Lubricator reservoir volume	Material Reservoir	Protective guard
0821301411	G 1/4	1300 l/min	50 cm ³	Polycarbonate	-
0821301415	G 1/4	1300 l/min	50 cm ³	Polycarbonate	Steel
R412007651	G 1/4	1300 l/min	50 cm ³	Die cast zinc with window	-
0821301412	G 1/4	1300 l/min	50 cm ³	Polycarbonate	-
0821301413	G 1/4	1300 l/min	1000 cm ³	Die cast zinc with window	-

Part No.	Reservoir	Electrical level indicator
0821301411	reservoir, polycarbonate, without protective guard	-
0821301415	reservoir, polycarbonate, with metal protective guard	-
R412007651	reservoir, metal, with inspection glass	-
0821301412	reservoir, polycarbonate, without protective guard	with internal query
0821301413	1.0 l metal reservoir with window	with internal query

Part No.	ATEX	Fig.	
0821301411	suitable for ATEX	Fig. 1	1)
0821301415	suitable for ATEX	Fig. 1	1)
R412007651	suitable for ATEX	Fig. 2	1)
0821301412	-	Fig. 1	-
0821301413	-	Fig. 3	-

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

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

Technical information

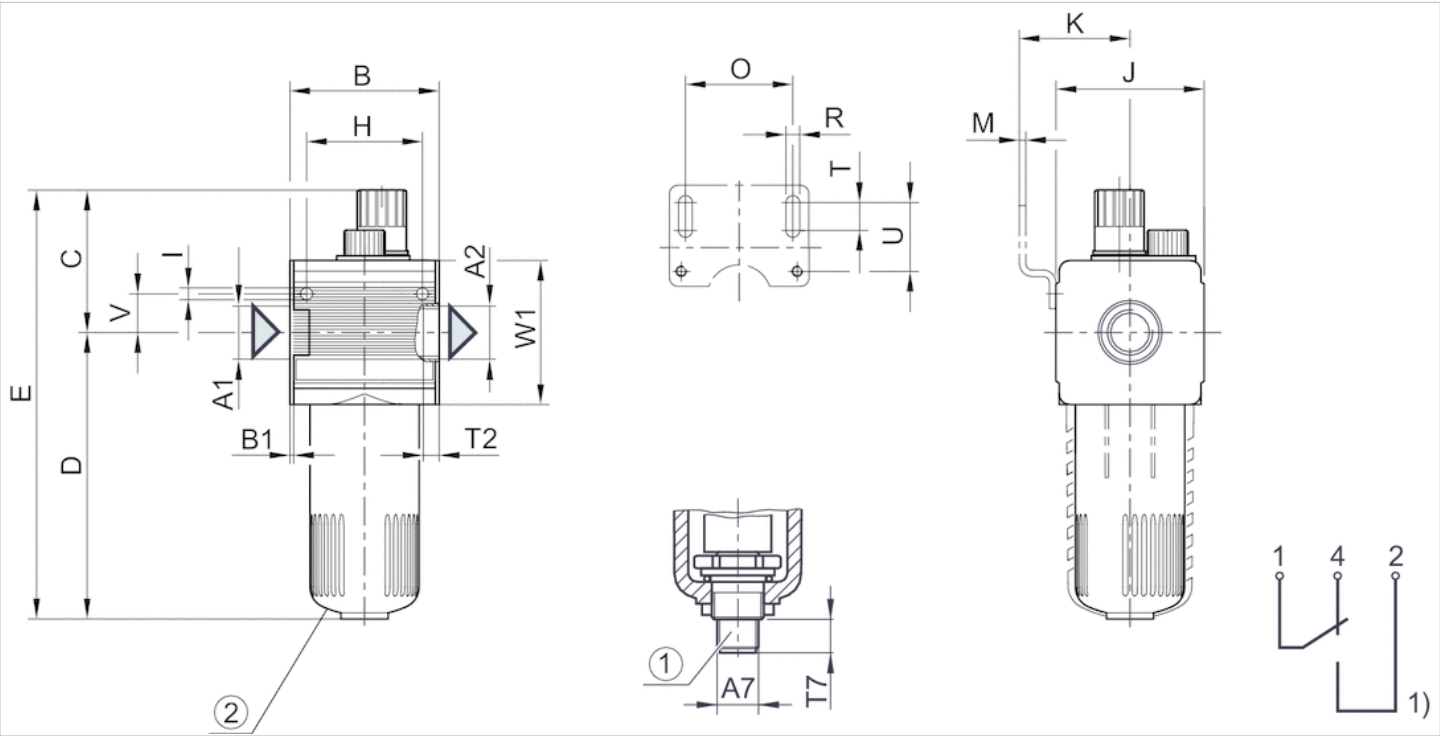
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 Only approx. 10% of the preset drip quantity enters the compressed air system.
 oil filling not possible during operation.
 Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".
 A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
 Oil dosing at 1000 l/min 10-20 drops

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Reservoir	Polycarbonate Die cast zinc
Protective guard	Steel

Dimensions

Fig. 1, PC reservoir



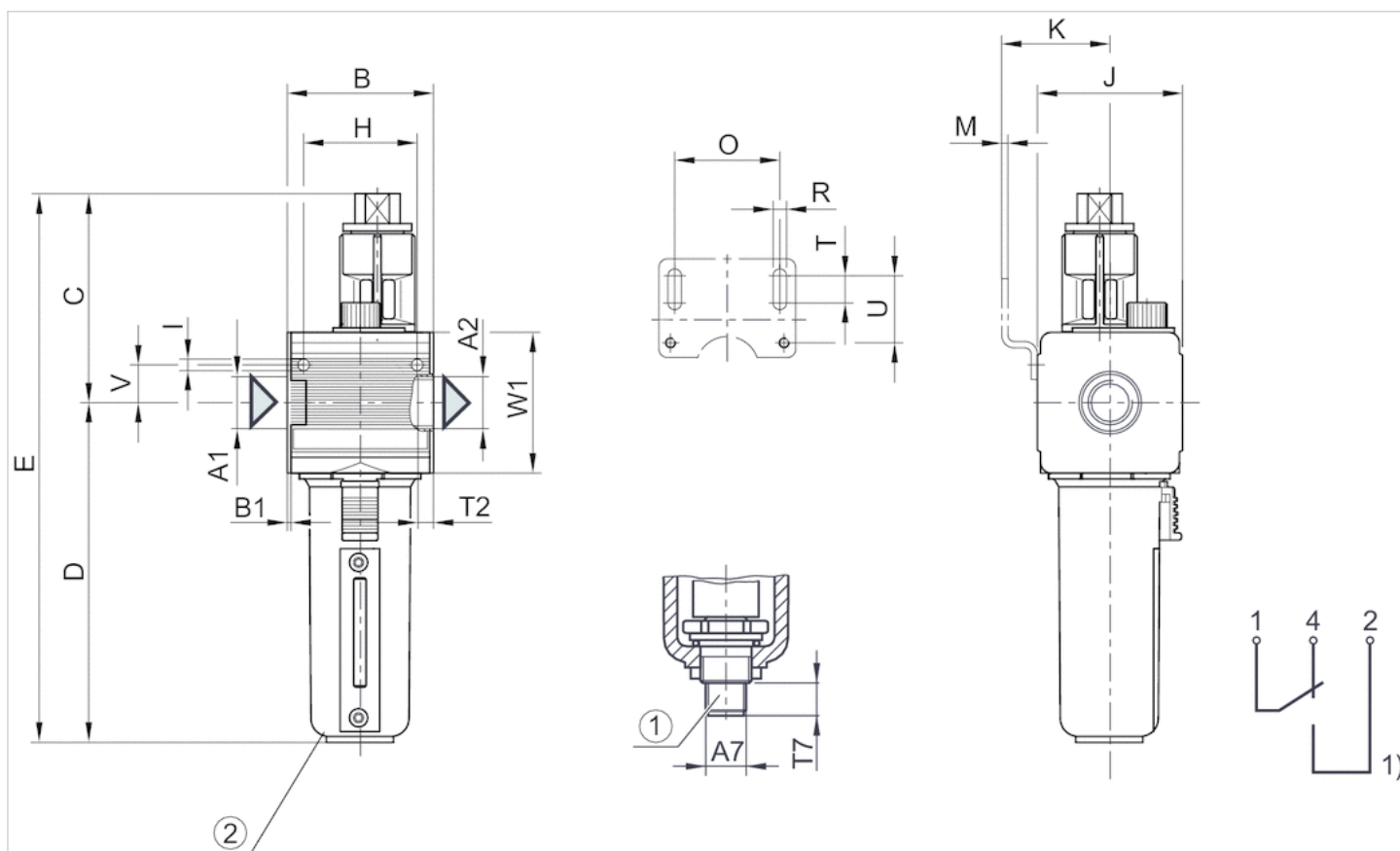
- 1) electrical level indicator
 - connection: 4-pin, M12x1
 - contact load: 50 V AC/0.5 A/5 W
 - type: 1 change-over contact (make contact/break contact) for min. fluid level
Order valve plug connector (M12x1) separately
- 2) PC reservoir

Dimensions in mm

A1	A2	A7	B	B1	C	D	E	H	I	J	K	M	O	R	T	T2	T7	U	V	W1
G 1/4	G 1/4	M12x1	48	1.5	58	109	167	36	4.4	47	43.5	3	38	5.4	8	9.5	12	27.5	12.3	52

Dimensions

Fig. 2, Metal reservoir with level indicator



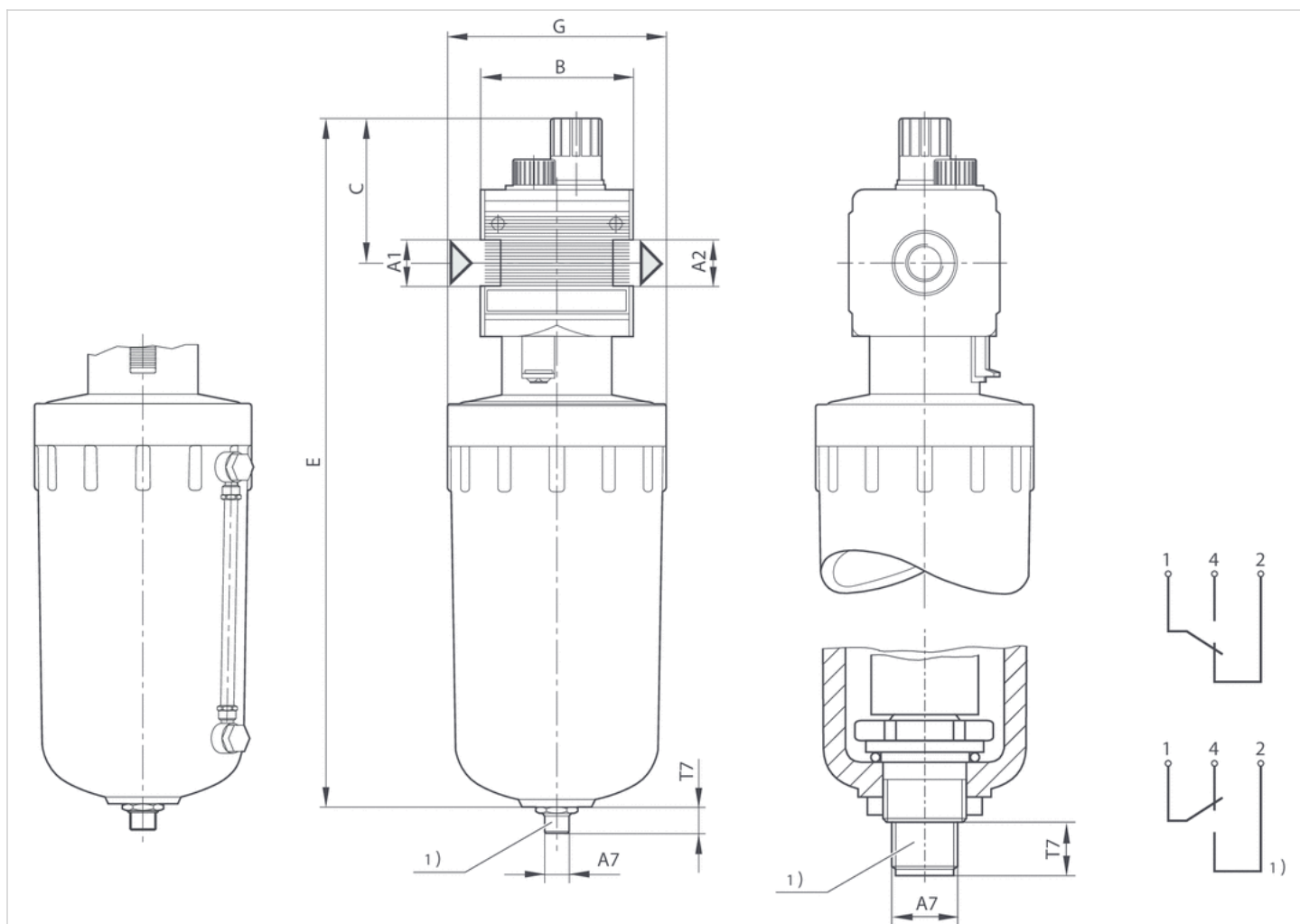
- 1) electrical level indicator
- connection: 4-pin, M12x1
 - contact load: 50 V AC/0.5 A/5 W
 - type: 1 change-over contact (make contact/break contact) for min. fluid level
- Order valve plug connector (M12x1) separately
- 2) Metal reservoir with level indicator

Dimensions in mm

Part No.	A2	A7	B	B1	C	D	E	H	I	J	K	M	O	R	T	T2	T7	U	V	W1
R412007651	G 1/4	M12x1	48	1.5	58	109	182	36	4.4	47	43.5	3	38	5.4	8	9.5	12	27.5	12.3	52

Dimensions

Fig. 3, Dimensions, Metal reservoir



A1 = input

A2 = output

1) electrical level indicator

– connection: 4-pin, M12x1

– contact load: 50 V AC/0.5 A/5 W

– type: 1 change-over contact (make contact/break contact) for min. fluid level

Order valve plug connector (M12x1) separately

Dimensions in mm

Lubricator reservoir volume	A2	A7	B ±5	C ±5	E	G ±5	T7
1000 cm ³	G 1/4	M12x1	48	58	299	Ø 100	12 ±2,5

Filling unit, pneumatically operated, Series NL2-SSU

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



Version	Poppet valve, Can be assembled into blocks
Pilot	Internal
Sealing principle	Soft sealing
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 16 bar
Control pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Max. particle size	5 µm
Oil content of compressed air	0 ... 1 mg/m³
Weight	0.58 kg

Technical data

Part No.		Port	Exhaust	Flow	Flow	
				Qn 1→2	Qn 2→3	
0821300940		G 1/4	G 1/4	900 l/min	450 l/min	1)
0821300945		G 1/4	G 1/4	900 l/min	450 l/min	2)

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

- 1) Suitable for use in Ex zones 1, 2, 21, 22., adjustable filling
2) Suitable for use in Ex zones 1, 2, 21, 22., Filling with fixed diaphragm

Technical information

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

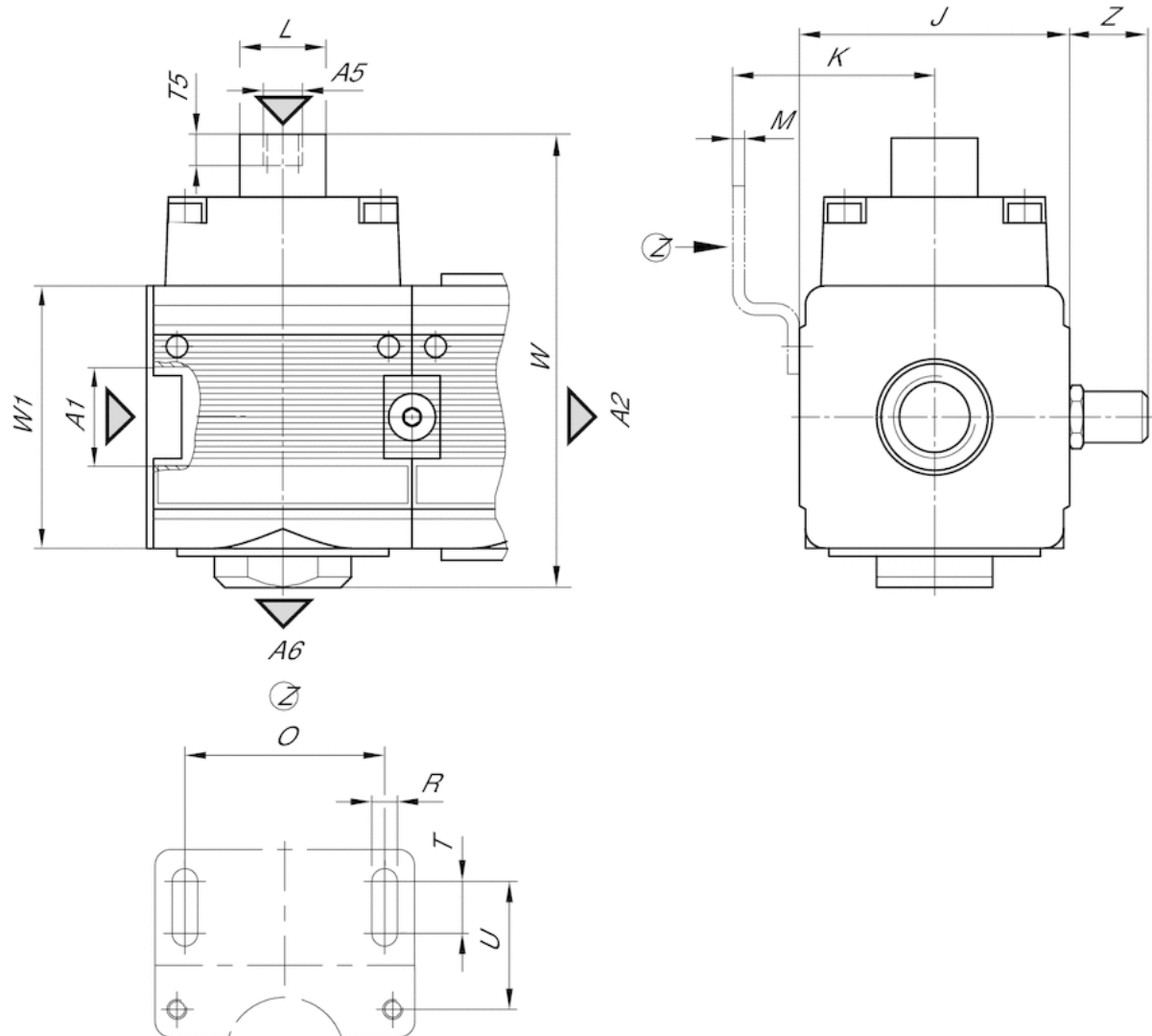
The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Technical information

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

Dimensions

Dimensions



A1 = input
 A2 = output
 A5 = control pressure connection
 A6 = ventilation port

Dimensions in mm

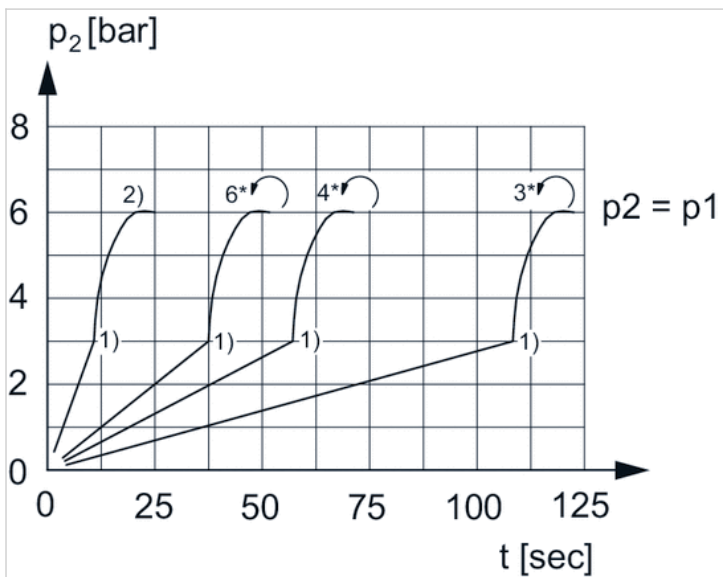
A1	A2	A5	A6		J	K	L	M	O	R	T	T5	U	W	W1	Z
G 1/4	G 1/4	G 1/8	G 1/4	2)	47	43.5	22	3	38	5.4	8	9.5	27.5	96	52	–
G 1/4	G 1/4	G 1/8	G 1/4	1)	47	43.5	22	3	38	5.4	8	9.5	27.5	96	52	20

1) adjustable filling

2) Filling with fixed diaphragm

Diagrams

Secondary pressure while filling



p_1 = working pressure

p_2 = secondary pressure

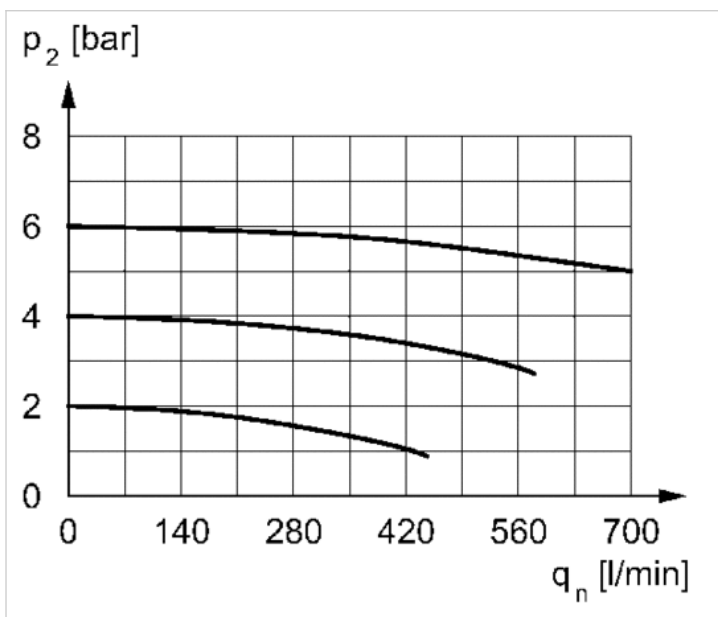
t = filling time, adjustable via adjustment screw (throttle)

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

2) Throttle fully opened

* Adjustment screw rotations

Flow rate characteristic

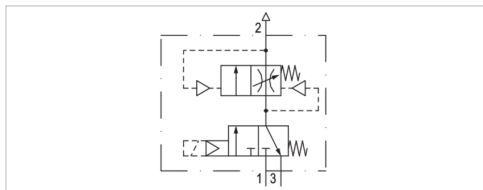


p_2 = secondary pressure

q_n = nominal flow

Filling unit, electrically operated, Series NL2-SSU

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



Version	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow 1 ► 2	900 l/min
Nominal flow 2 ► 3	450 l/min
Working pressure min./max.	3 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 60 °C
Ambient temperature min./max.	-10 ... 60 °C
Pilot	Internal
Sealing principle	Soft sealing
Max. particle size	5 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	See table below

Technical data

Part No.	Compressed air connection input	Compressed air connection output	Exhaust	Operational voltage
				DC
0821300941	G 1/4	G 1/4	G 1/4	24 V
0821300943	G 1/4	G 1/4	G 1/4	-
0821300944	G 1/4	G 1/4	G 1/4	-
0821300946	G 1/4	G 1/4	G 1/4	24 V

Part No.	Power consumption	Manual override	Electrical connection	Connector standard
	DC		Pilot valve	
0821300941	4.8 W	-	Plug, ISO 6952, form B	ISO 6952
0821300943	-	-	-	-
0821300944	-	with detent	-	-
0821300946	4.8 W	-	Plug, ISO 6952, form B	ISO 6952

Part No.	basic valve with electrical connector	Reverse polarity protection	Weight	
0821300941	-	Protected against polarity reversal	0.63 kg	1)
0821300943	pilot valve without coil	Protected against polarity reversal	0.59 kg	1)
0821300944	pilot valve without coil	Protected against polarity reversal	0.81 kg	2)
0821300946	-	Protected against polarity reversal	0.63 kg	3)

Nominal flow Q_n with secondary pressure p₂ = 6 bar at Δp = 0.1 bar, MO = Manual override

1) adjustable filling

- 2) adjustable filling, With manual override
- 3) Filling with fixed diaphragm

Technical information

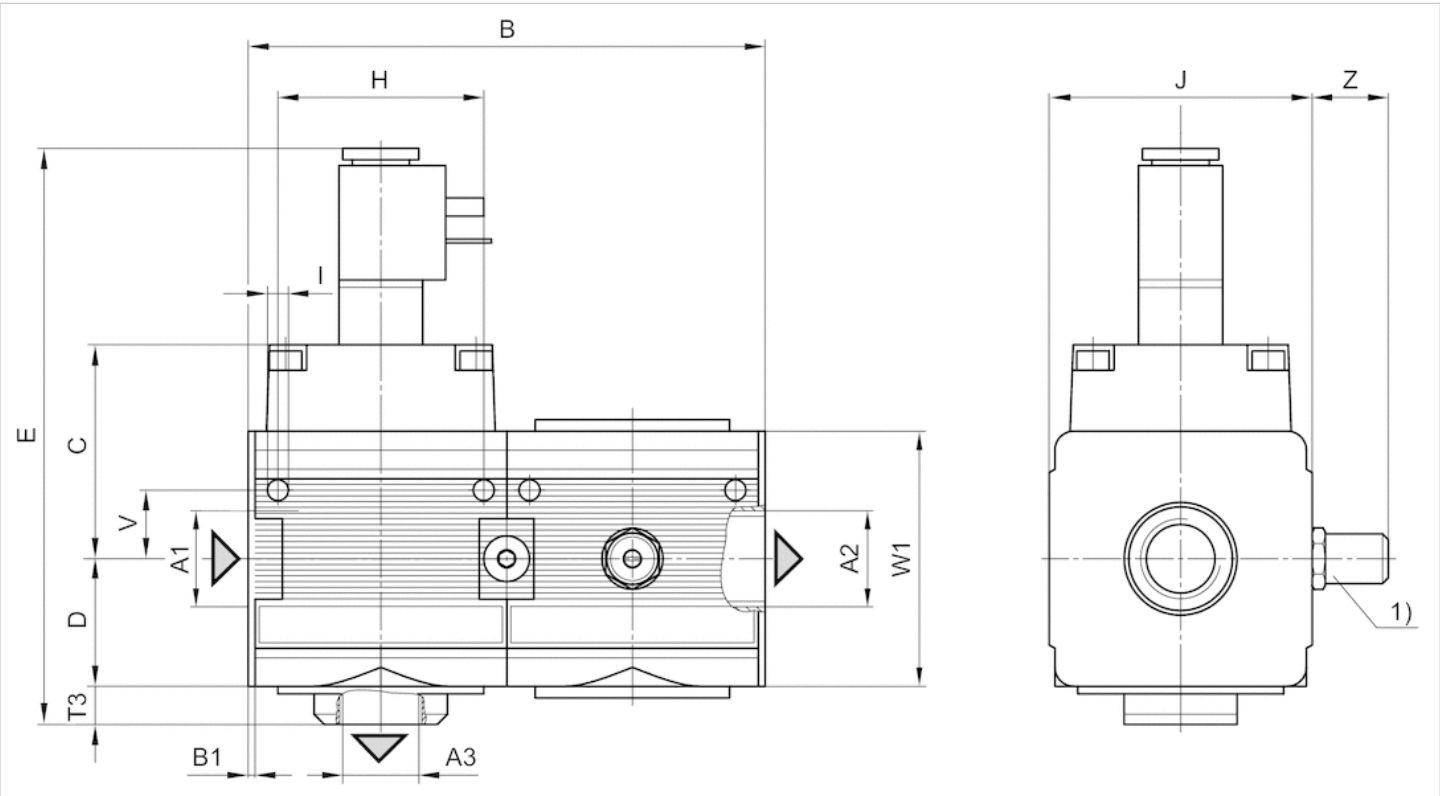
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
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.
The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Technical information

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

Dimensions

Dimensions



A1 = input

A2 = output

A3 = output

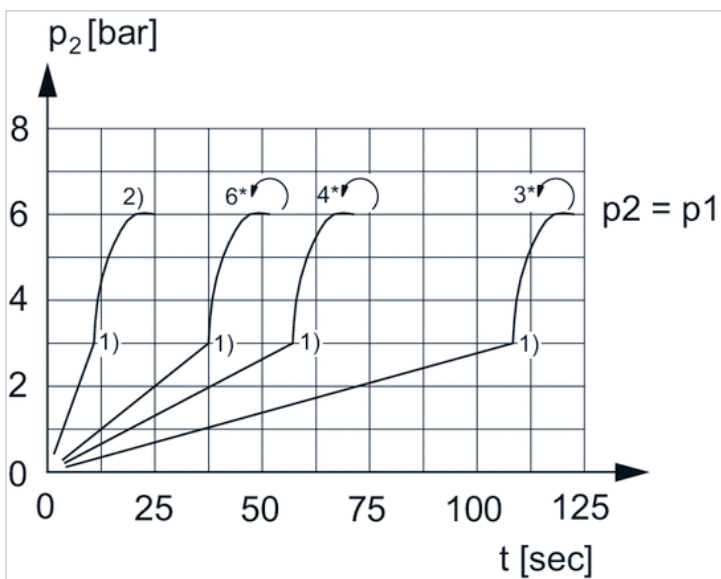
1) Adjustment screw for filling time

Dimensions in mm

A1	A2	A3	B	B1	C	D	E	H	I	J	K	M	O	R	T	T3	V	Z	U	V	W1
G 1/4	G 1/4	G 1/4	93	1.5	44	26	131	36	4.4	47	43.5	3	38	5.4	8	10	12.3	–	27.5	12.3	52
G 1/4	G 1/4	G 1/4	93	1.5	44	26	131	36	4.4	47	43.5	3	38	5.4	8	10	12.3	20	27.5	12.3	52

Diagrams

Secondary pressure while filling



p1 = working pressure

p2 = secondary pressure

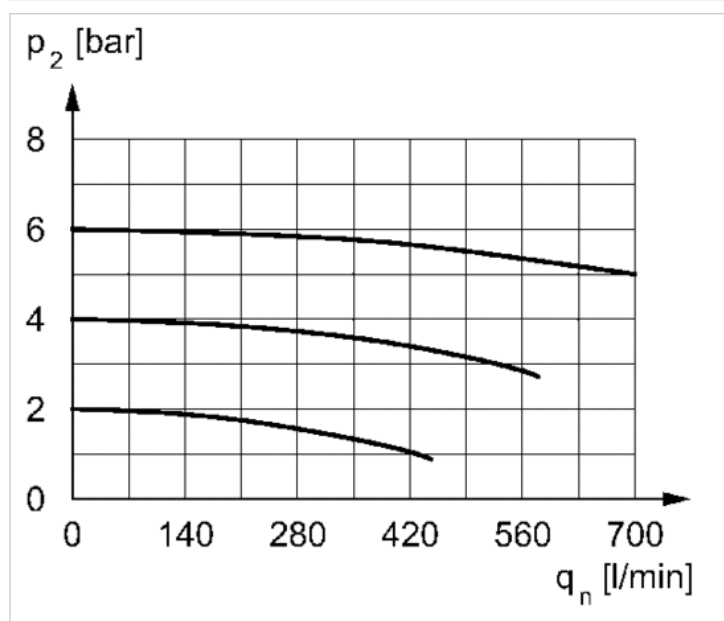
t = filling time, adjustable via adjustment screw (throttle)

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

2) Throttle fully opened

* Adjustment screw rotations

Flow rate characteristic



p_2 = secondary pressure

q_n = nominal flow

Filling valve, pneumatically operated, Series NL2-SSV

- Compressed air connection G 1/4
- 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 ... 16 bar
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Max. particle size	5 µm
Weight	See table below

Technical data

Part No.		Port	Flow	Weight	
			Qn		
0821300926		G 1/4	1000 l/min	0.325 kg	1)
0821300925		G 1/4	1000 l/min	0.31 kg	2)

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

- 1) Suitable for use in Ex zones 1, 2, 21, 22., adjustable filling
 2) Suitable for use in Ex zones 1, 2, 21, 22., Filling with fixed diaphragm

Technical information

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

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.

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

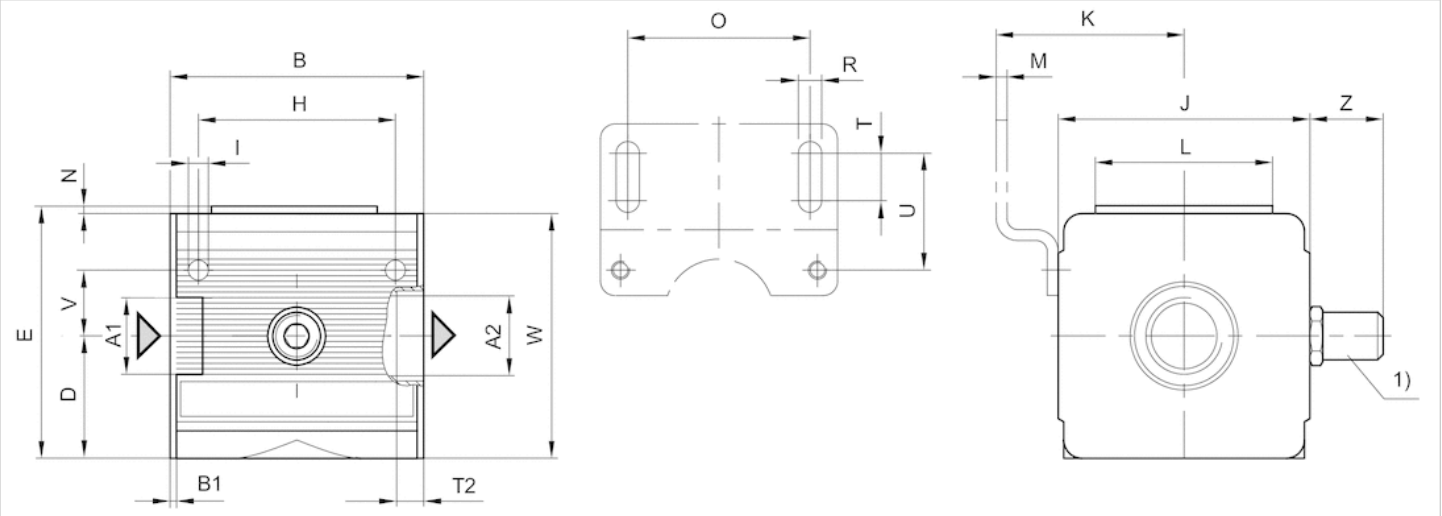
The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Technical information

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

Dimensions

Dimensions



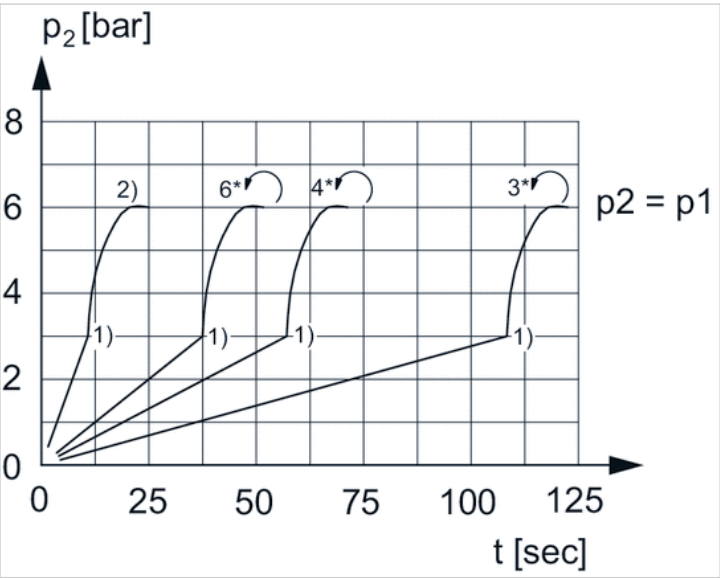
- A1 = input
- A2 = output
- 1) Adjustment screw for filling time

Dimensions in mm

A1	A2	B	B1	D	E	H	I	J	K	L	M	N	O	R	T	T1	T2	U	V	W	Z
G 1/4	G 1/4	48	1.5	28	56	36	4.4	47	43.5	33.5	3	2	38	5.4	8	1.5	9.5	27.5	12.3	52	20
G 1/4	G 1/4	48	1.5	28	56	36	4.4	47	43.5	33.5	3	2	38	5.4	8	1.5	9.5	27.5	12.3	52	–

Diagrams

Secondary pressure while filling



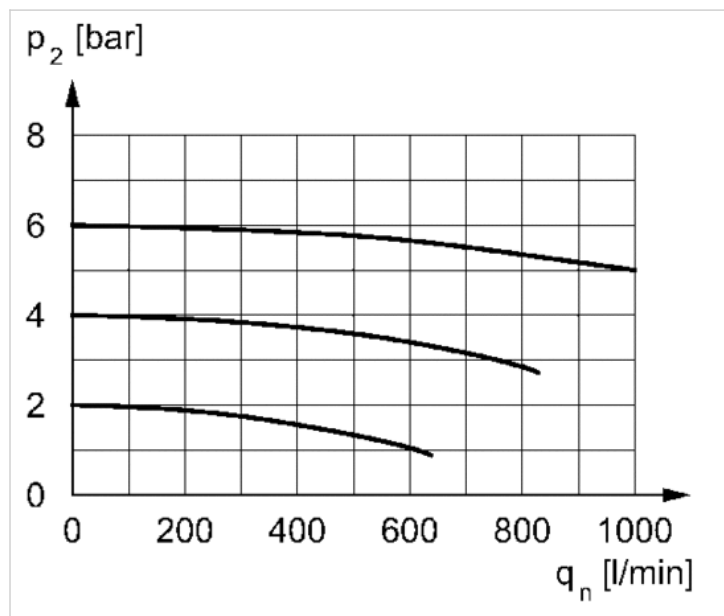
- p_1 = working pressure
- p_2 = secondary pressure
- t = filling time, adjustable via adjustment screw (throttle)

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

2) Throttle fully opened

* Adjustment screw rotations

Flow rate characteristic



p_2 = secondary pressure

q_n = nominal flow

3/2-directional valve, electrically operated, Series NL2-SOV

- ATEX optional
- Compressed air connection G 1/4
- Pipe connection
- Electrical connection: Plug, ISO 6952, form B



Version	Poppet valve, Can be assembled into blocks
Parts	3/2-directional valve, electrically operated
Nominal flow 1 ► 2	1100 l/min
Nominal flow 2 ► 3	450 l/min
Working pressure min./max.	2.5 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 60 °C
Ambient temperature min./max.	-10 ... 60 °C
Pilot	Internal
Sealing principle	Soft sealing
Max. particle size	5 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	See table below

Technical data

Part No.			Compressed air connection input	Compressed air connection output	Exhaust
0821300922		—	G 1/4	G 1/4	G 1/4
0821300923		—	G 1/4	G 1/4	G 1/4
0821300924		—	G 1/4	G 1/4	G 1/4
0821300929			G 1/4	G 1/4	G 1/4

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
0821300922	24 V	-	-
0821300923	-	230 V	230 V
0821300924	-	-	-
0821300929	-	-	-

Part No.	Power consumption	Holding power	Switch-on power	Manual override
	DC	AC 50 Hz	AC 50 Hz	
0821300922	4.8 W	-	-	-
0821300923	-	8.5 VA	11.8 VA	-
0821300924	-	-	-	-
0821300929	-	-	-	with detent

Part No.	Electrical connection	Connector standard	basic valve with electrical connector
	Pilot valve		
0821300922	Plug, ISO 6952, form B	ISO 6952	-

Part No.	Electrical connection	Connector standard	basic valve with electrical connector
	Pilot valve		
0821300923	Plug, ISO 6952, form B	ISO 6952	-
0821300924	Plug, ISO 6952, form B	-	pilot valve without coil
0821300929	Plug, ISO 6952, form B	-	pilot valve without coil

Part No.	Reverse polarity protection	Weight
0821300922	Protected against polarity reversal	0.45 kg
0821300923	Protected against polarity reversal	0.45 kg
0821300924	Protected against polarity reversal	0.49 kg
0821300929	Protected against polarity reversal	0.45 kg

Nominal flow Q_n with secondary pressure $p_2 = 6 \text{ bar}$ at $\Delta p = 0.1 \text{ bar}$

Technical information

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

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.

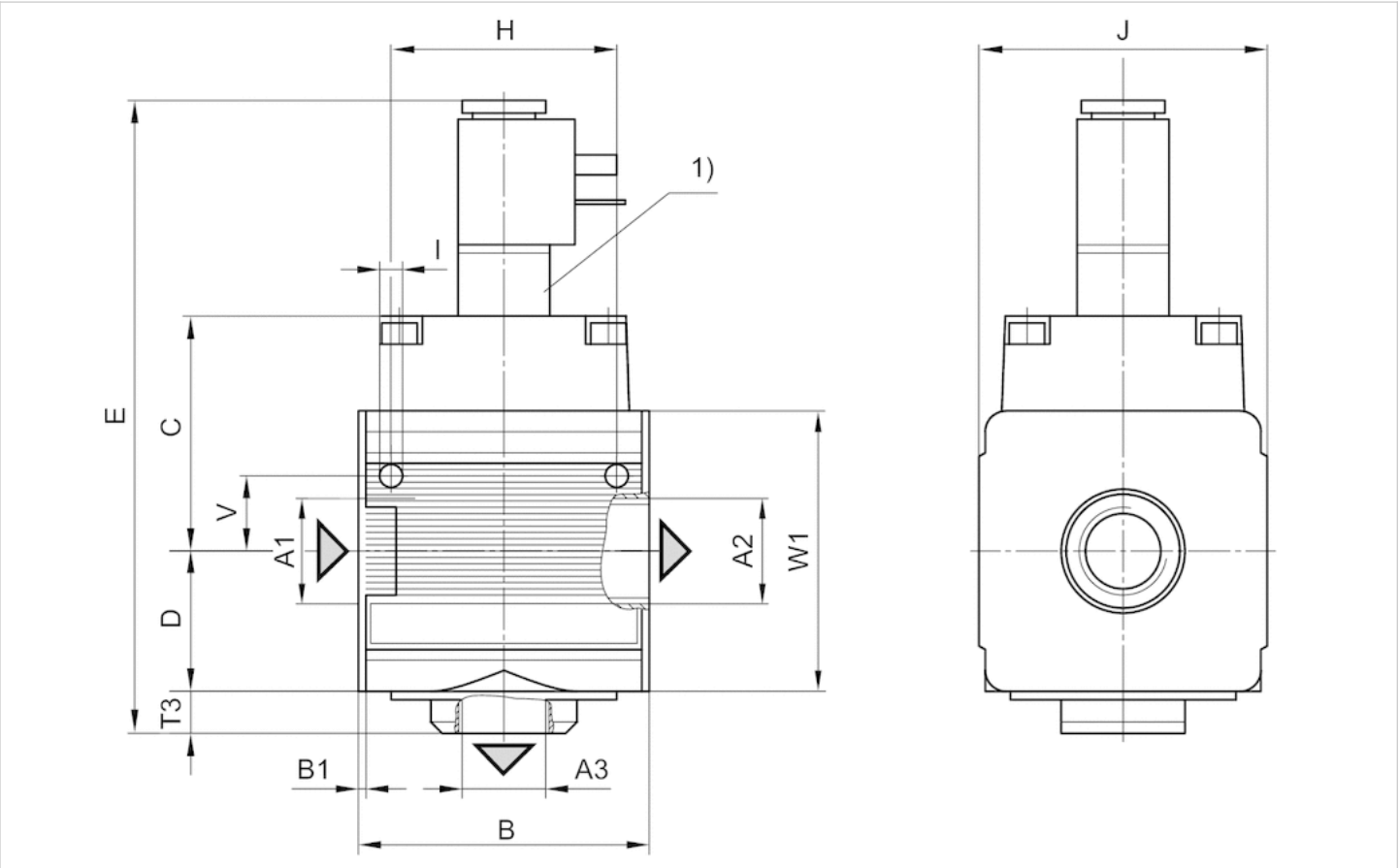
ATEX optional: The ATEX ID depends on the selected pilot valve.

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene styrene

Dimensions

Dimensions



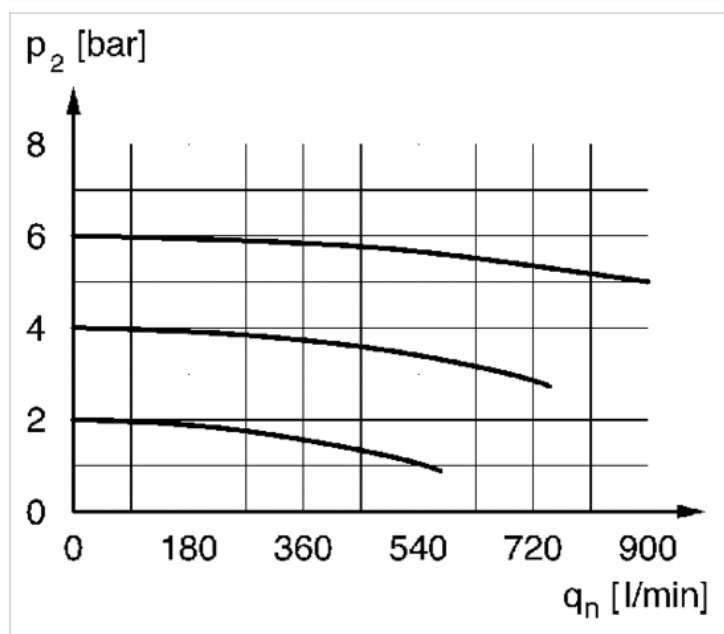
A1 = input
A2 = output
A3 = output
1) electrically operated

Dimensions in mm

A1	A2	A3	B	B1	C	D	E	H	I	J	T3	V	W1
G 1/4	G 1/4	G 1/4	48	1.5	44	26	131	36	4.4	47	10	12.3	52

Diagrams

Flow rate characteristic



p_2 = secondary pressure

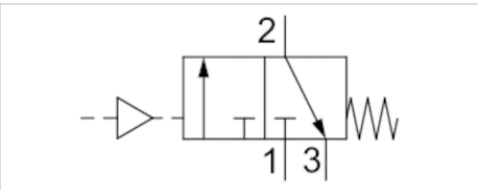
q_n = nominal flow

3/2-directional valve, pneumatically operated, Series NL2-SOV

- Compressed air connection G 1/4
- 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 ... 16 bar
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Max. particle size	5 µm
Weight	0.4 kg



Technical data

Part No.	Port	Exhaust	Flow	Flow
			Qn 1→2	Qn 2→3
0821300921	G 1/4	G 1/4	1100 l/min	450 l/min

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

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

Technical information

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

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

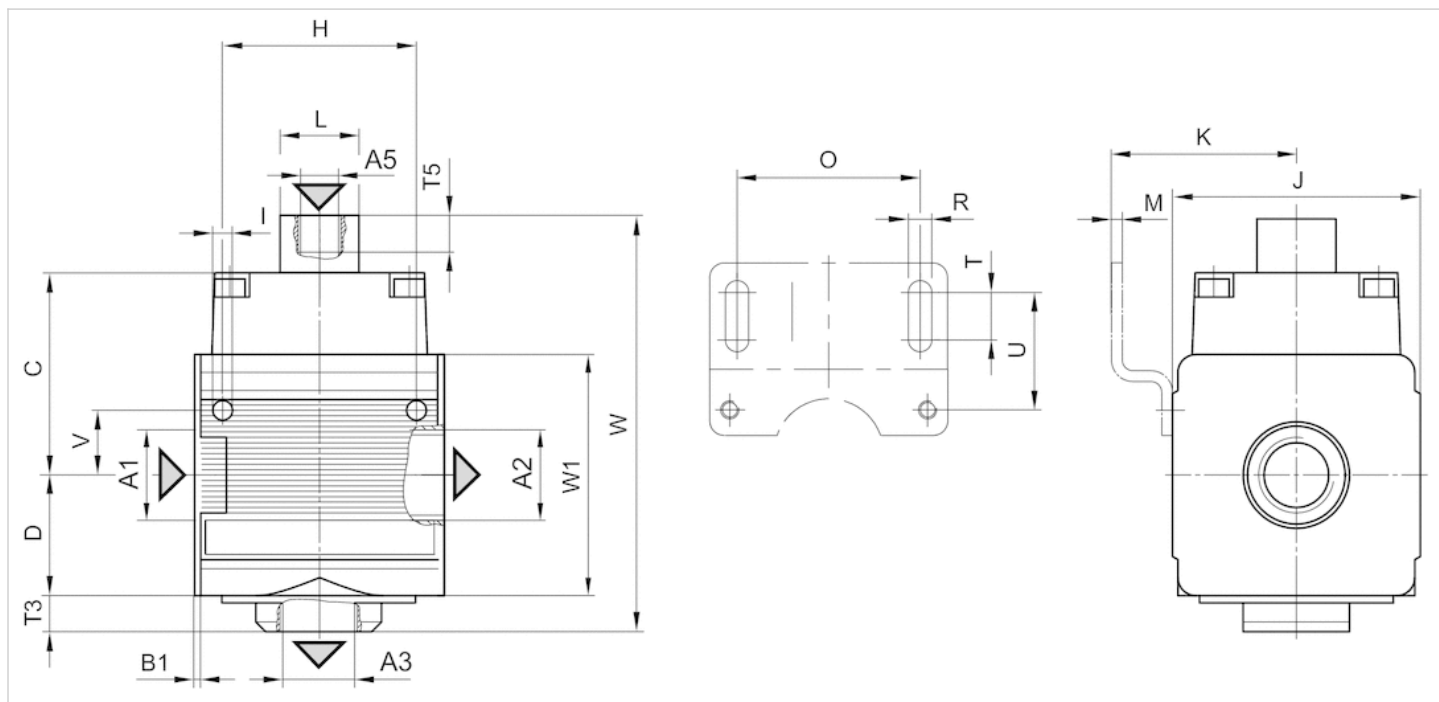
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

Dimensions

Dimensions



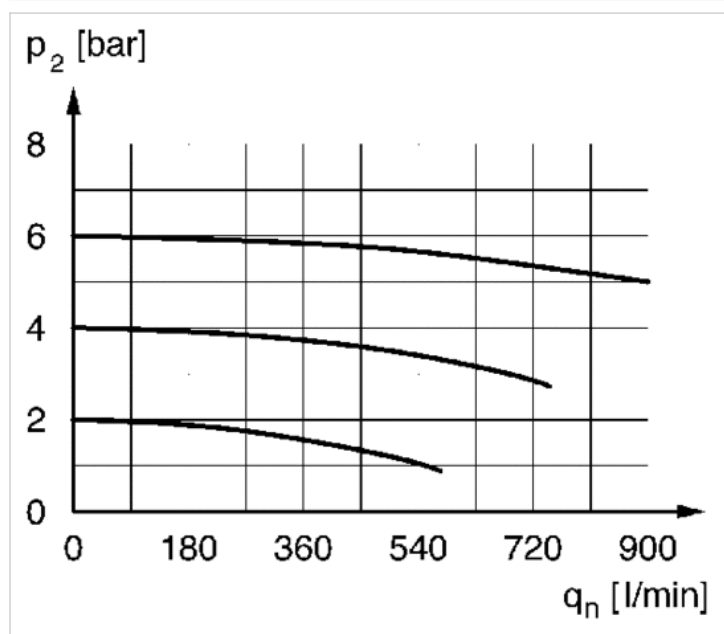
A1 = input
 A2 = output
 A3 = ventilation port
 A5 = control pressure connection

Dimensions in mm

A1	A2	A3	A5	B1	C	D	F	H	I	J	K	M	O	R	T	T5	U	V	W
G 1/4	G 1/4	G 1/4	G 1/8	1.5	44	26	10	36	4.4	47	43.5	3	38	5.4	8	13	27.5	12.3	96

Diagrams

Flow rate characteristic



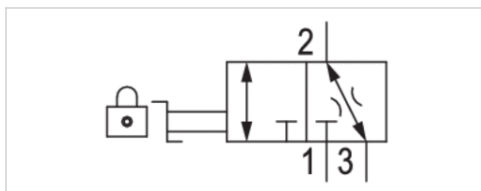
p_2 = secondary pressure, q_n = nominal flow

3/2-shut-off valve, mechanically operated, Series NL2-BAV

- Qn = 3000 l/min
- Qn 1→2 = 2800 l/min
- Qn 2→3 = 70 l/min
- Compressed air connection output G 1/4 G 3/8
- suitable for ATEX



Version	Ball valve
Activation	Mechanical
Lock type	lockable
Actuating element	rotary switch
Sealing principle	metal/metal sealing
Certificates	suitable for ATEX
Nominal flow Qn	3000 l/min
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Weight	0.36 kg



Technical data

Part No.	Version	Compressed air connection type	Compressed air connection Input	Compressed air connection Output
0821300901	3/2	Internal thread	G 1/4	G 1/4
0821300903	3/2	Internal thread	G 3/8	G 3/8

Part No.	Compressed air connection Exhaust	Flow		Lock type
		Qn 1 → 2	Qn 2 → 3	
0821300901	G 1/4	2800 l/min	70 l/min	for padlocks
0821300903	G 1/4	2800 l/min	70 l/min	for padlocks

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

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

Technical information

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

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

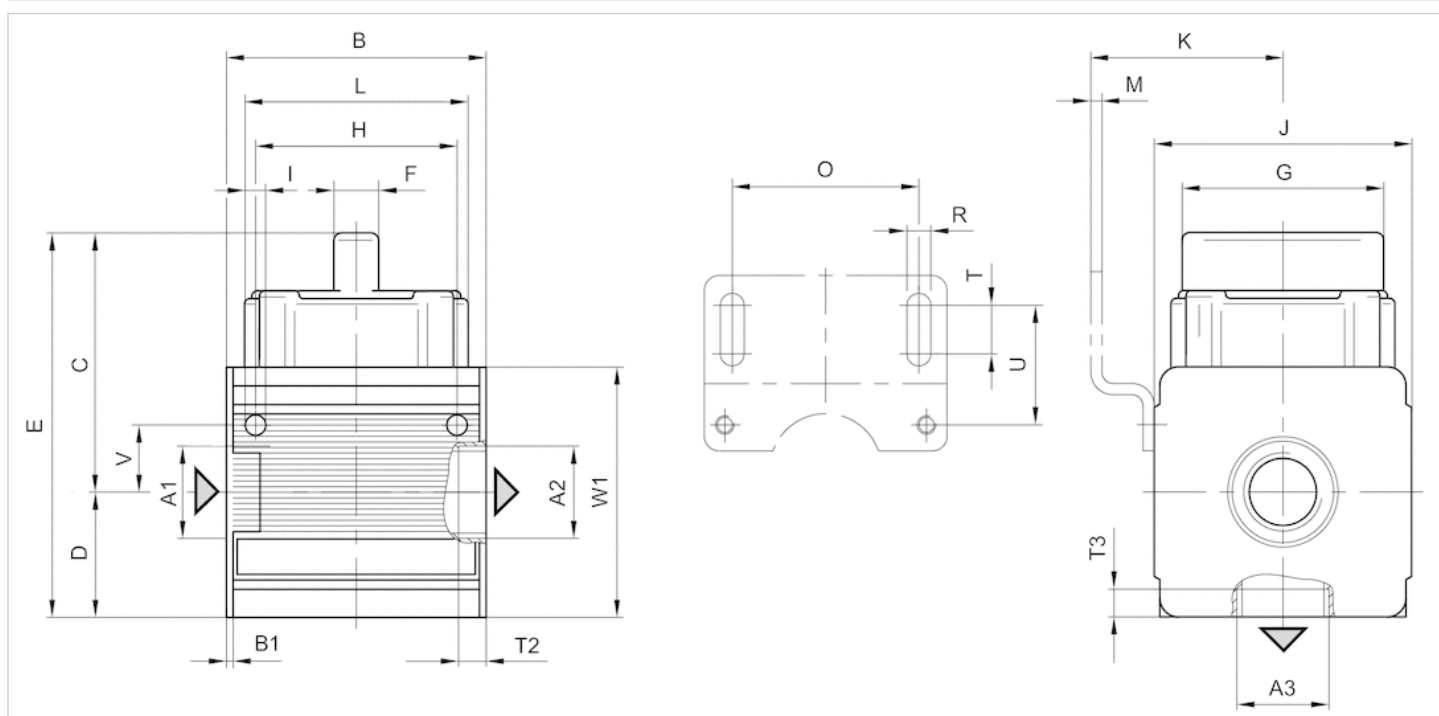
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Actuating element	Polyoxymethylene

Dimensions

Dimensions



A1 = input

A2 = output

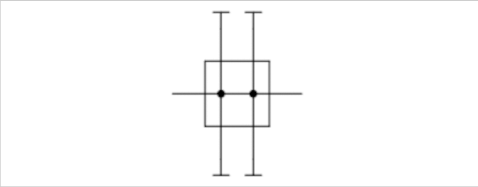
A3 = ventilation port

Dimensions in mm

A2	A3	B	B1	C	D	E	F	G	H	I	J	K	L	M	O	R	T	T2	T3	U	V	W1
G 1/4	G 1/4	48	1.5	54.5	26	80.5	8	33.5	36	4.4	47	43	40.5	3	38	5.4	8	8	8	27.5	12.3	52
G 3/8	G 1/4	48	1.5	54.5	26	80.5	8	33.5	36	4.4	47	43	40.5	3	38	5.4	8	7.5	8	27.5	12.3	52

Distributor, Series NL2-DIL

- G 1/4
- Distributor 4x
- Narrow distributor
- suitable for ATEX



Version	Narrow distributor, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Weight	0.25 kg

Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow	Nominal flow	Nominal flow
		Qn 1►2	Qn 1►3	Qn 1►4	Qn 1►5	Qn 1►6
0821300920	G 1/4	2700 l/min	2700 l/min	900 l/min	2000 l/min	900 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar, Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

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

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.

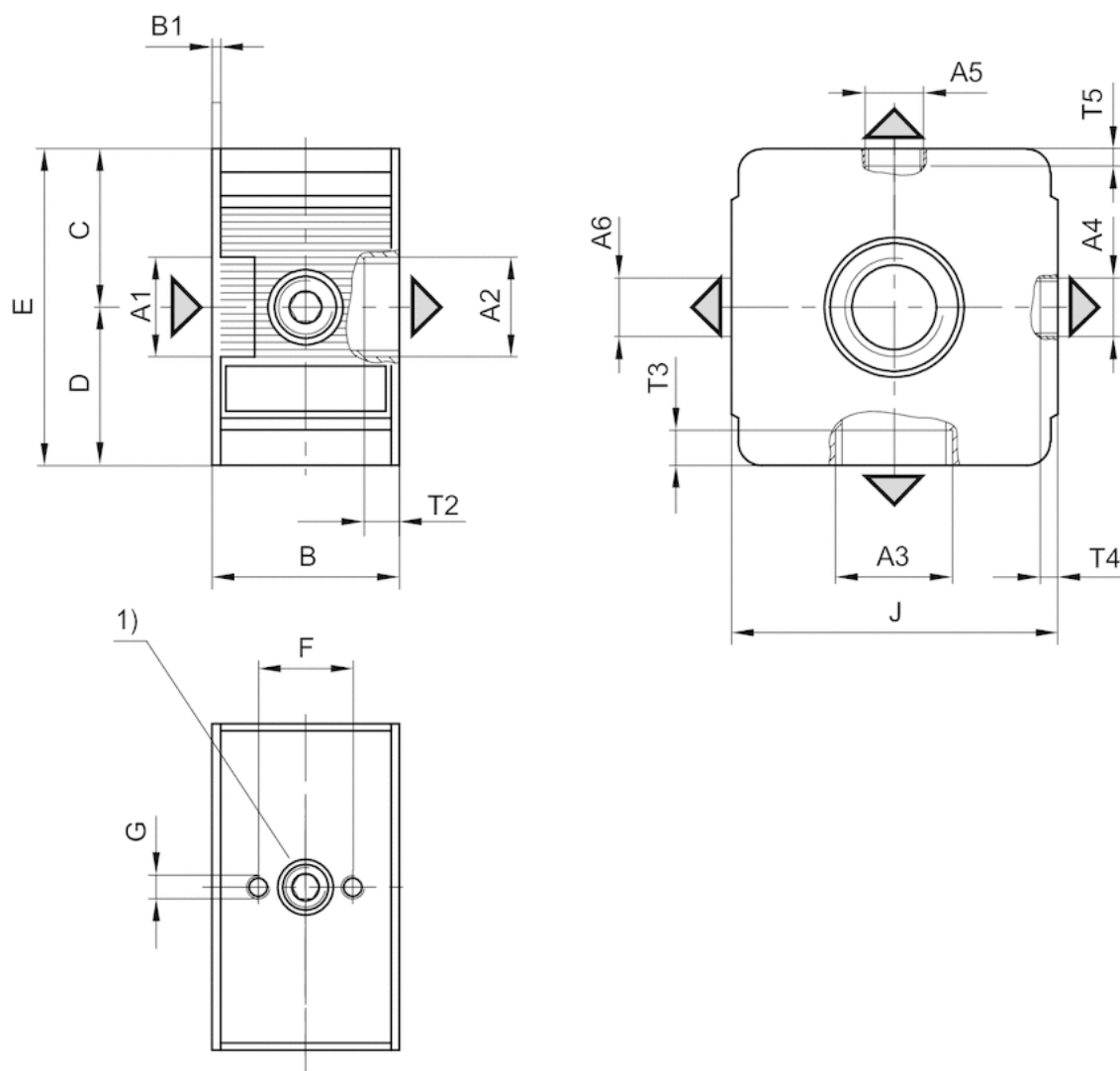
Suitable for direct mounting of a PE2 and PM1 series pressure sensor (flange version).

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene

Dimensions

Dimensions



A1 = input

A2 = output

A3 = output

A4 = output

A5 = output

A6 = output

1) hole pattern for mechanical vacuum/pressure switch

Dimensions in mm

A1	A2	A3	A4	A5	A6	B	B1	C	D	E	F	G	J	T2	T3	T4	T5
G 1/4	G 1/4	G 1/4	G 1/4	G 1/8	G 1/4	35	1.5	26	26	52	20	M5	47	12	8.5	7	8

Distributor, Series NL2-DIS

- G 1/4 G 3/8
- Distributor 4x
- Distributor
- suitable for ATEX



Version

Parts

Mounting orientation

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Weight

Distributor, Can be assembled into blocks

Distributor

Any

suitable for ATEX

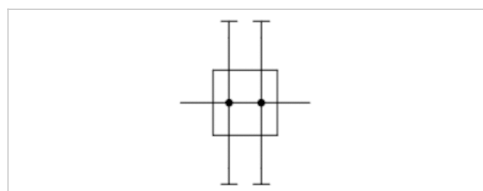
0 ... 16 bar

-10 ... 60 °C

-10 ... 60 °C

Compressed air Neutral gases

0.33 kg



Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow	Nominal flow	Nominal flow
		Qn 1►2	Qn 1►3	Qn 1►4	Qn 1►5	Qn 1►6
0821300907	G 1/4	2500 l/min	2000 l/min	900 l/min	2000 l/min	900 l/min
0821300909	G 3/8	2500 l/min	2000 l/min	900 l/min	2000 l/min	900 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar, Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

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

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

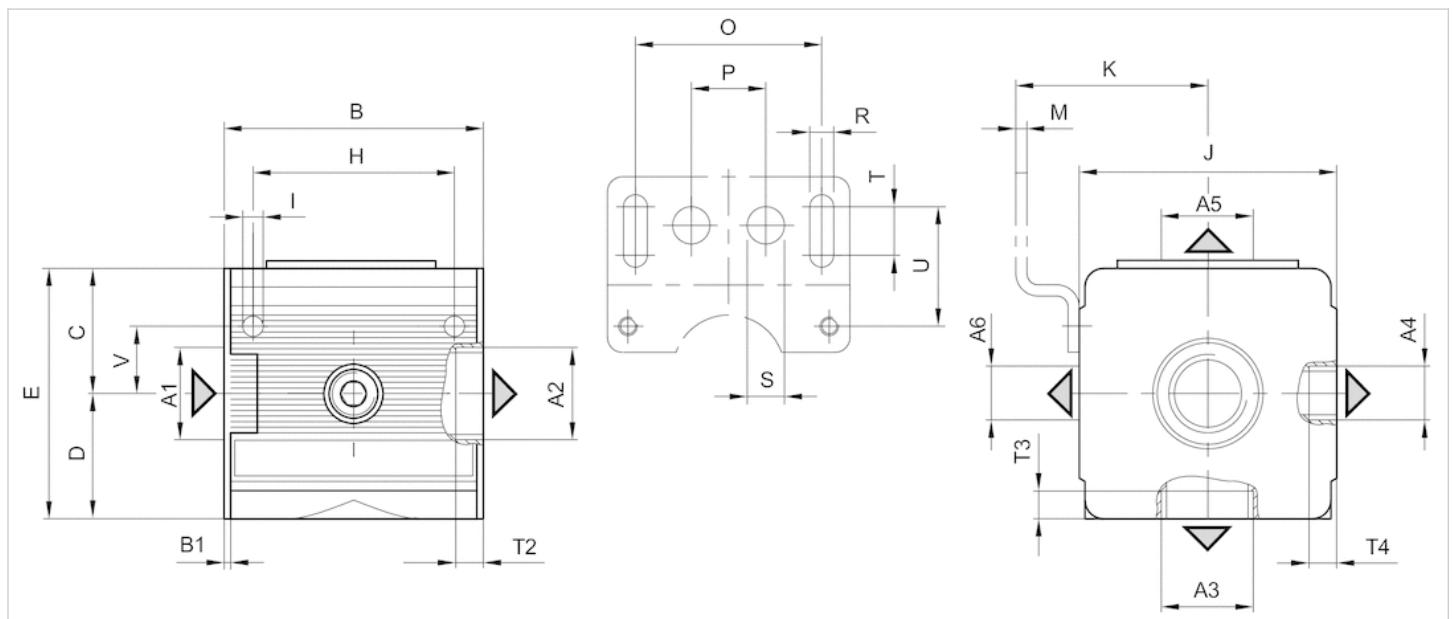
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene

Dimensions

Dimensions



A1 = input
 A2 = output
 A3 = output
 A4 = output
 A5 = output
 A6 = output

Dimensions in mm

A1	A2	A3	A4	A5	A6	B	B1	C	D	E	H	I	J	K	M	O	R	S	T	T2	T3	T4
G 1/4	G 1/4	G 1/4	G 1/4	G 1/4	G 1/4	48	1.5	26	26	52	36	4.4	47	43.5	3	38	5.4	10	8	8	8	7
G 3/8	G 3/8	G 1/4	G 1/4	G 1/4	G 1/4	48	1.5	26	26	52	36	4.4	47	43.5	3	38	5.4	10	8	7.5	8	7

U										V												
27.5										12.3												
27.5										12.3												

Distributor, Series NL2-DIN

- G 1/4 G 3/8
- Distributor 4x
- 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.

0.1 ... 16 bar

Ambient temperature min./max.

-10 ... 60 °C

Medium temperature min./max.

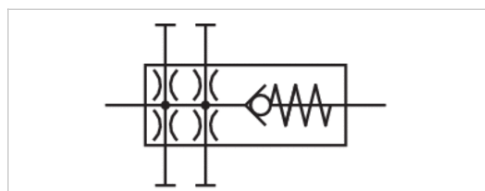
-10 ... 60 °C

Medium

Compressed air Neutral gases

Weight

0.33 kg



Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow	Nominal flow	Nominal flow
		Qn 1►2	Qn 1►3	Qn 1►4	Qn 1►5	Qn 1►6
0821300904	G 1/4	700 l/min	675 l/min	450 l/min	675 l/min	450 l/min
0821300906	G 3/8	700 l/min	675 l/min	450 l/min	675 l/min	450 l/min

Suitable for use in Ex zones 1, 2, 21, 22., Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Technical information

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

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

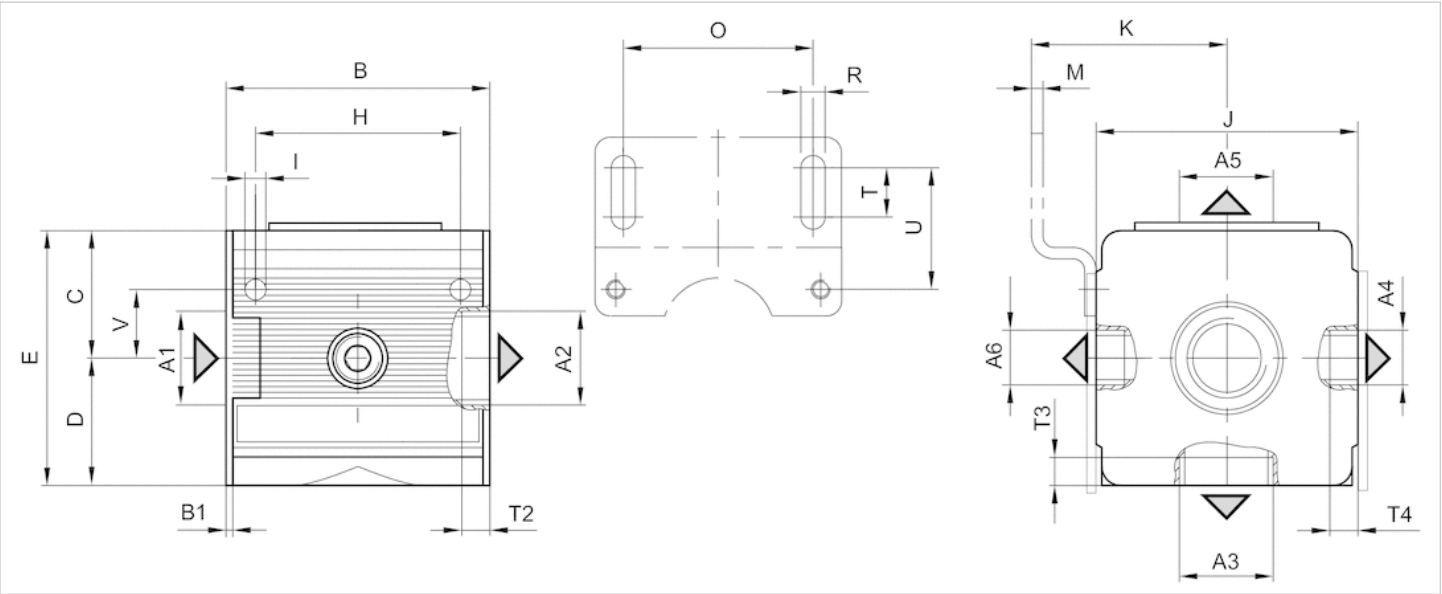
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

Dimensions

Dimensions



- A1 = input
- A2 = output
- A3 = output
- A4 = output
- A5 = output
- A6 = output

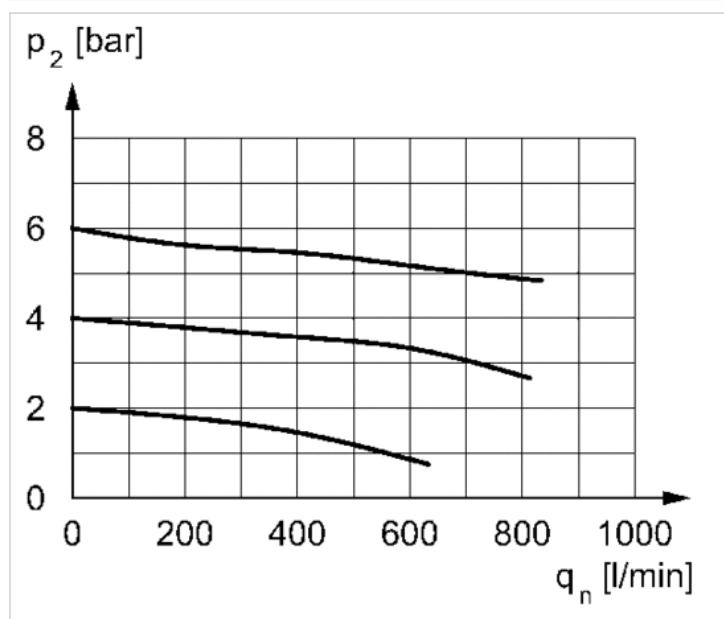
Dimensions in mm

A1	A2	A3	A4	A5	A6	B	B1	C	D	E	H	I	J	K	M	O	R	T	T2	T3	T4	U
G 1/4	G 1/4	G 1/4	G 1/4	G 1/4	G 1/4	48	1.5	26	26	52	36	4.4	47	43.5	3	38	5.4	8	8	7	5.5	27.5
G 3/8	G 3/8	G 1/4	G 1/4	G 1/4	G 1/4	48	1.5	26	26	52	36	4.4	47	43.5	3	38	5.4	8	7.5	13	9	27.5

V																					
12.3																					
12.3																					

Diagrams

Flow rate characteristic



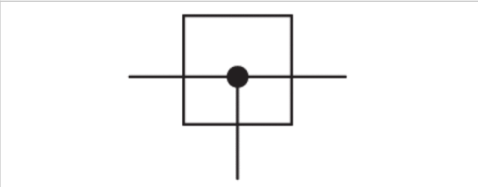
p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

Distributor, Series NL2-DIC

- G 1/4
- Distributor 1x
- Center infeed



Version	Center infeed, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Weight	0.593 kg



Technical data

Part No.	Port	Nominal flow	Nominal flow
		Qn 1►2	Qn 1►3
0821300264	G 1/4	2700 l/min	2700 l/min

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

Technical information

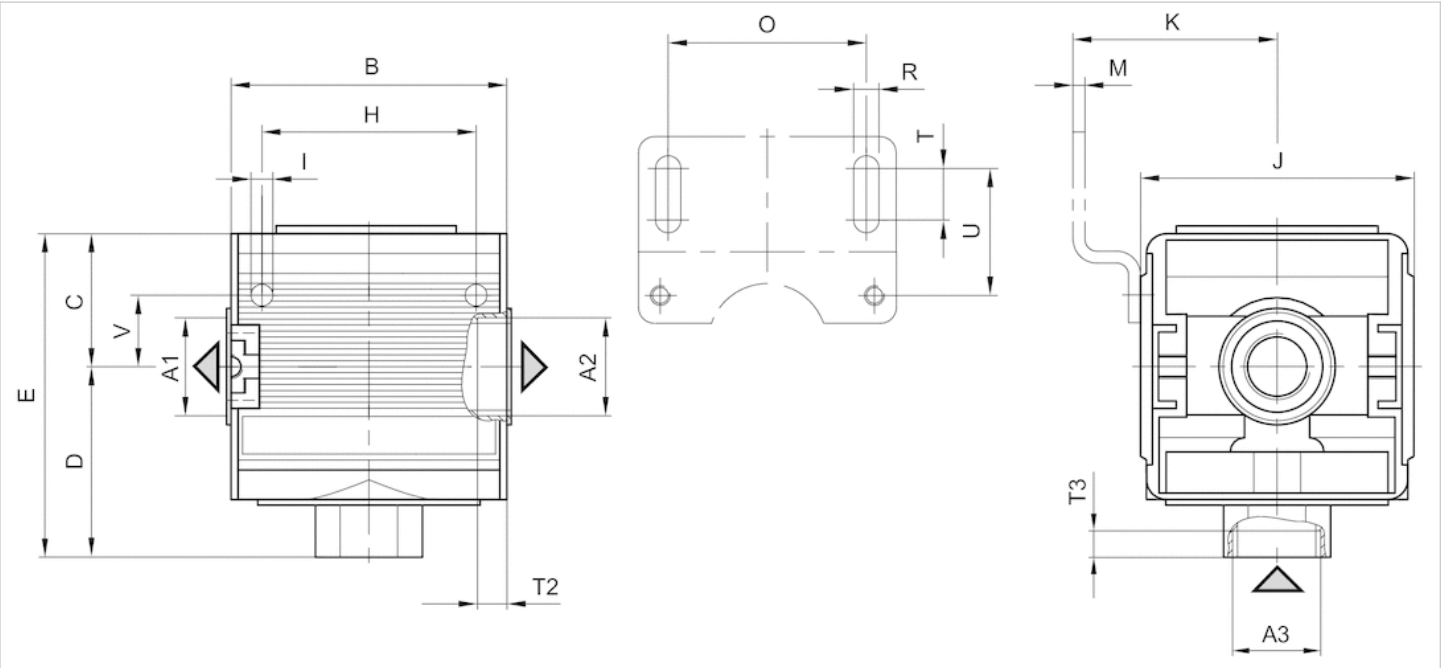
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene

Dimensions

Dimensions



A1 = output
A2 = output
A3 = input

Dimensions in mm

A1	A2	A3	B	C	D	E	H	I	J	K	M	O	R	T	T2	T3	U	V
G 1/4	G 1/4	G 1/4	45	27	35.5	62.5	36	4.4	47	43.5	3	38	5.4	8	8	8.5	27.5	12.3

Reservoir, Series NL2-CLS

- For filter - filter pressure regulator
- Material Polycarbonate Die cast zinc



Version	Reservoir
Certificates	suitable for ATEX
Working pressure min./max.	2 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Filter reservoir volume	25 cm ³
Weight	See table below

Technical data

Part No.	Condensate drain	Reservoir	Weight
1827009334	semi-automatic, open without pressure	Polycarbonate	0.09 kg
1827009340	semi-automatic, open without pressure	Die cast zinc, with window	0.27 kg
1827009335	fully automatic, open without pressure	Polycarbonate	0.115 kg
1827009341	fully automatic, open without pressure	Die cast zinc, with window	0.31 kg

Part No.	Fig.
1827009334	Fig. 1
1827009340	Fig. 2
1827009335	Fig. 3
1827009341	Fig. 4

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

Technical information

Material	
Reservoir	Polycarbonate Die cast zinc
Seal	Acrylonitrile butadiene rubber

Dimensions

Fig. 3

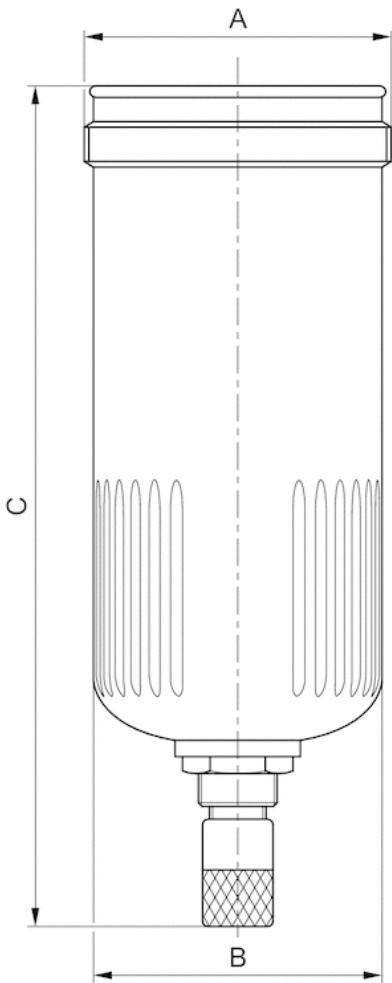


Fig. 1

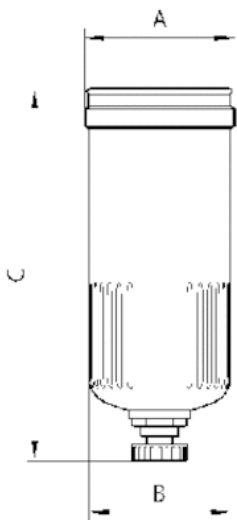


Fig. 2

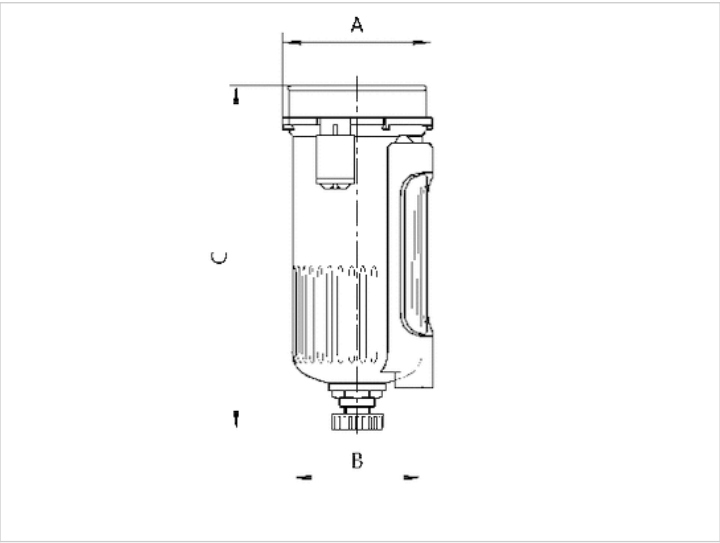
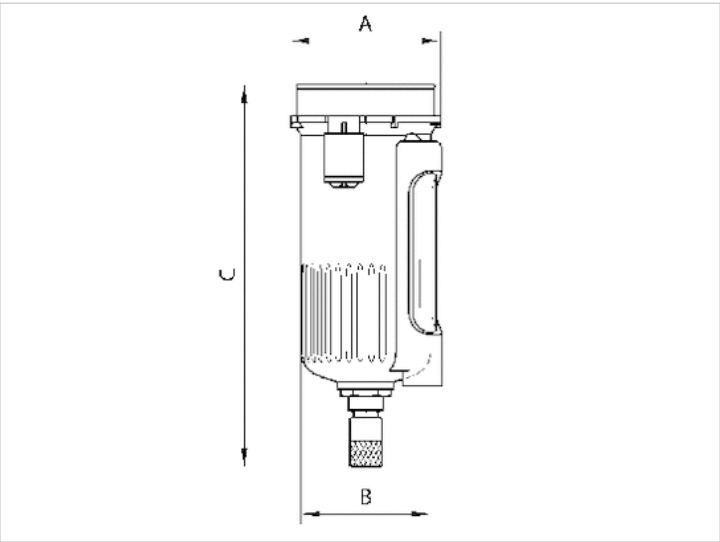


Fig. 4



Dimensions

Part No.	A	B	C
1827009334	M36x1,5	33.2	116
1827009340	42.5	33.2	116
1827009335	M36x1,5	33.2	129
1827009341	42.5	33.2	129

Reservoir, Series NL2-CLC

- for prefilters and microfilters
- Material Die cast zinc



Version	Reservoir
Version	Metal reservoir without window
Certificates	suitable for ATEX
Working pressure min./max.	2 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Filter reservoir volume	25 cm ³
Weight	0.27 kg

Technical data

Part No.	Condensate drain
1827009600	fully automatic, open without pressure

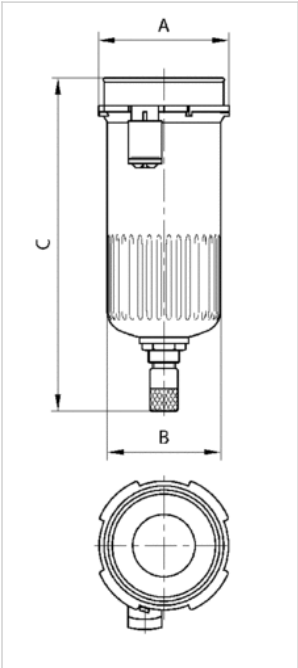
Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

Material	
Reservoir	Die cast zinc
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C
1827009600	42.5	33.2	137

Reservoir, Series NL2-CLA

- for active carbon filter
- Material Die cast zinc



Version	Reservoir
Version	Metal reservoir without window
Certificates	suitable for ATEX
Working pressure min./max.	16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Filter reservoir volume	130 cm³
Weight	0.15 kg

Technical data

Part No.
1827009606

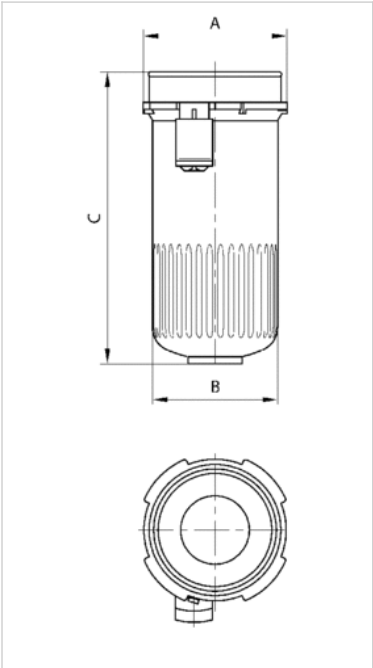
Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

Material	
Reservoir	Die cast zinc
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C
1827009606	42.5	33.2	100

Reservoir, Series NL1/AS1-CBM/-CLA/-CBM

- for active carbon filter and lubricator
- Material Polycarbonate



Version	Reservoir
Version	reservoir, polycarbonate, without protective guard
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Oil
Lubricator reservoir volume	35 cm³
Filter reservoir volume	16 cm³
Weight	0.07 kg

Technical data

Part No.	Fig.
1827009333	Fig. 1

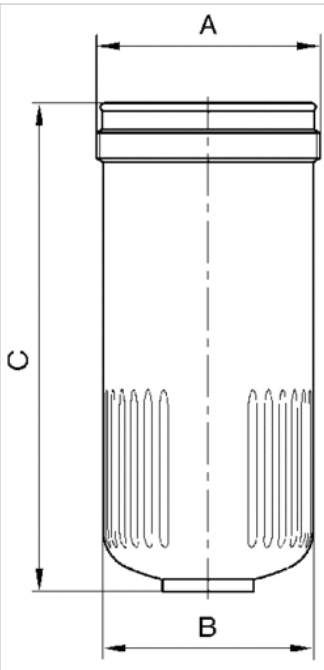
Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

Material	
Reservoir	Polycarbonate
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C
1827009333	M36x1.5	30	100

Protective guard, Series NL2

- NL2
- Filter, Lubricator



Weight

0.066 kg

Technical data

Part No.	Type
1820507000	NL2

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

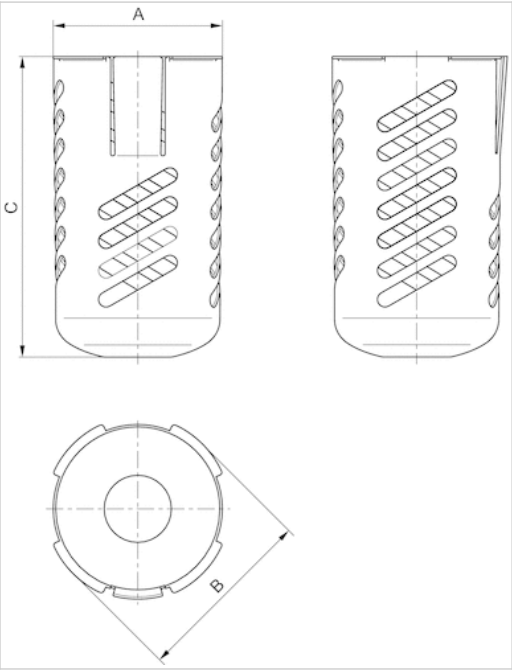
Technical information

Can be retrofitted for PC reservoir

Technical information

Material	
Material	Steel black oxidized

Dimensions



Dimensions

Part No.	Type	A	B	C
1820507000	NL2	39	43	86

Mounting plate, Series NL2-MBR-...-W01



Weight

0.065 kg

Technical data

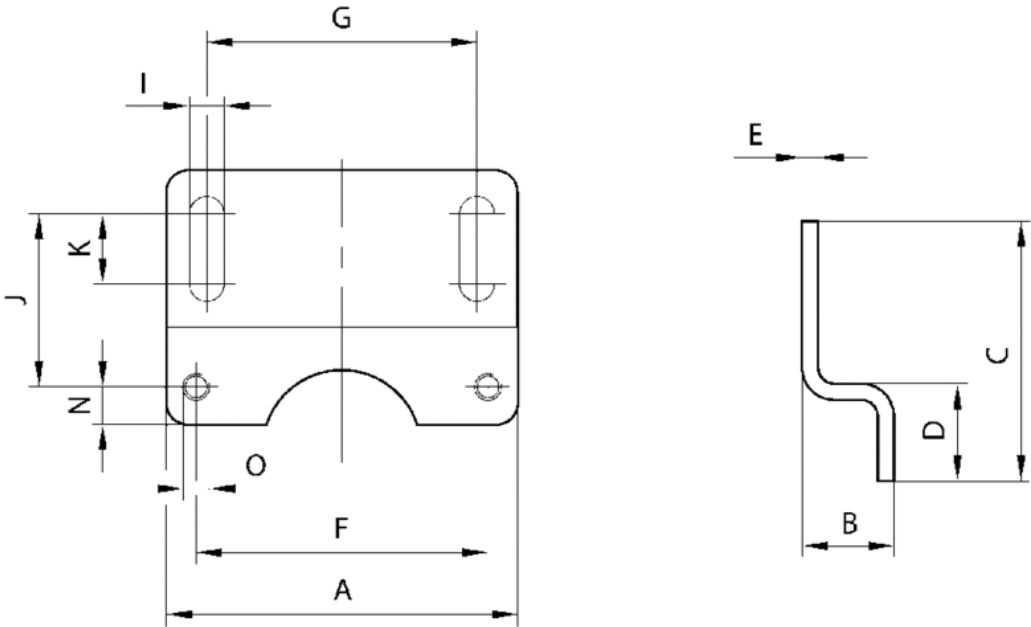
Part No.
1821336006

Scope of delivery incl. mounting screws

Technical information

Material	
Housing	Steel, galvanized

Dimensions



Dimensions

Part No.	A	B	C	D	E	F	G	I	J	K	N	O
1821336006	48	20	42	18	3	36	38	5.4	27.5	8	6	M4

Mounting bracket, Series NL1/NL2-MBR-...-W02



Ambient temperature min./max.

-40 ... 60 °C

Weight

0.065 kg

Technical data

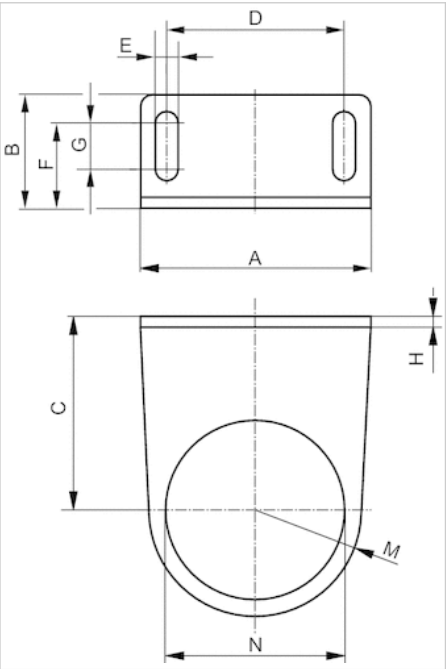
Part No.
1821331013

Technical information

Material	
Housing	Steel, galvanized

Dimensions

Dimensions



Dimensions

Part No.	A	B	C	D	E	F	G	H	M	N
1821331013	48	27	43.5	38	5.4	18.5	8	3	20	30.5

Block assembly kit, Series NL2-MBR-...-W04



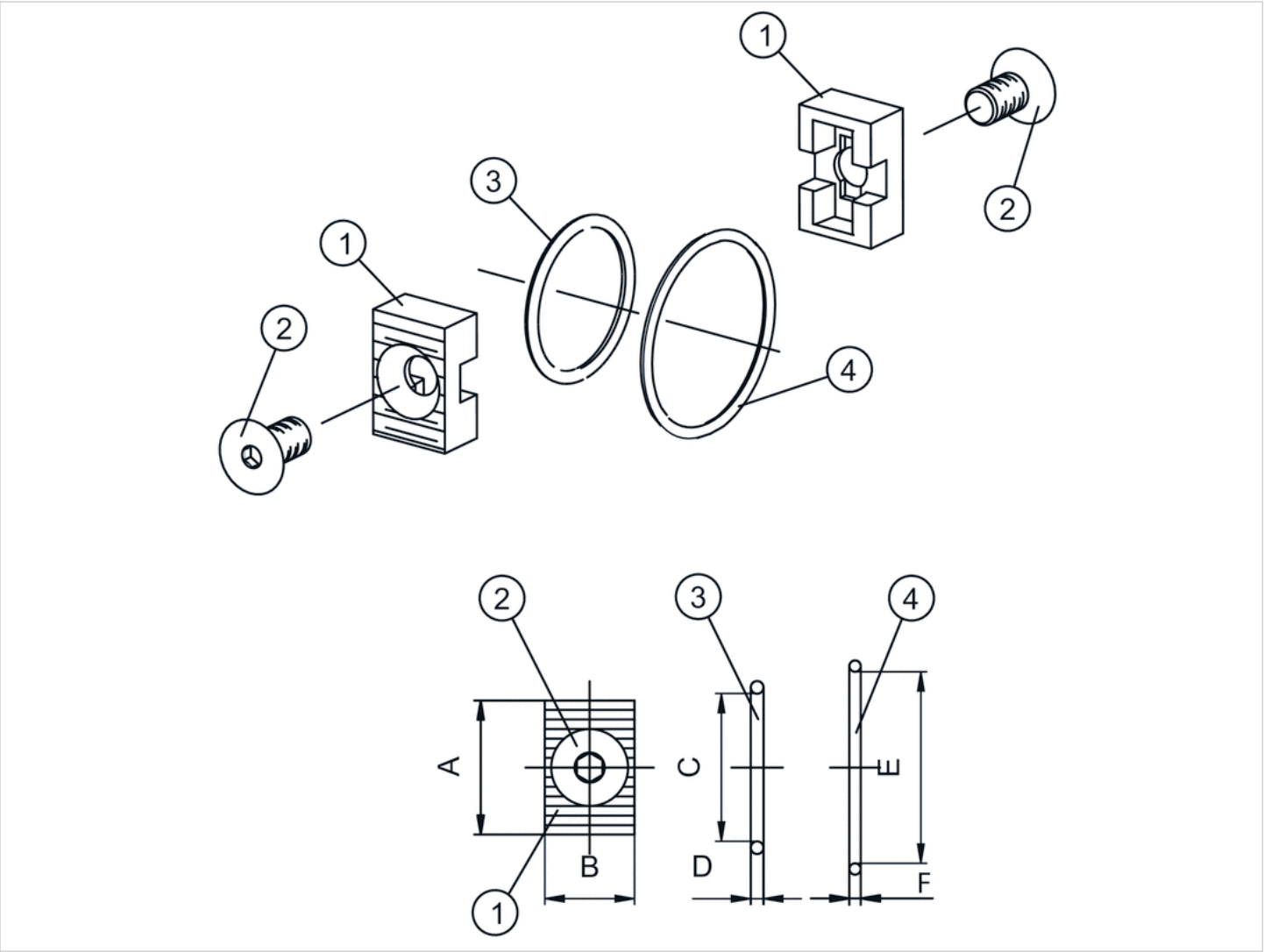
Weight0.02 kg

Technical data

Part No.
1827009359

Scope of delivery: 2 clamp mountings, 2 screws ISO 10642 M6x10-8.8, 2 O-rings
Suitable for use in Ex zones 1, 2, 21, 22.

Dimensions



1) clamp mounting 2) screw 3) O-ring 4) O-ring

Dimensions

Part No.	A	B	C	D	E	F
1827009359	14.8	12.7	15.6	1.78	19.22	1.78

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

- M30x1,5
- for AS1, NL1, NL2, MU1, PR2



Weight

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

Technical data

Part No.	Port	for	Scope of delivery
1829234070	M30x1,5	AS1, NL1, NL2, MU1, PR2	5 piece

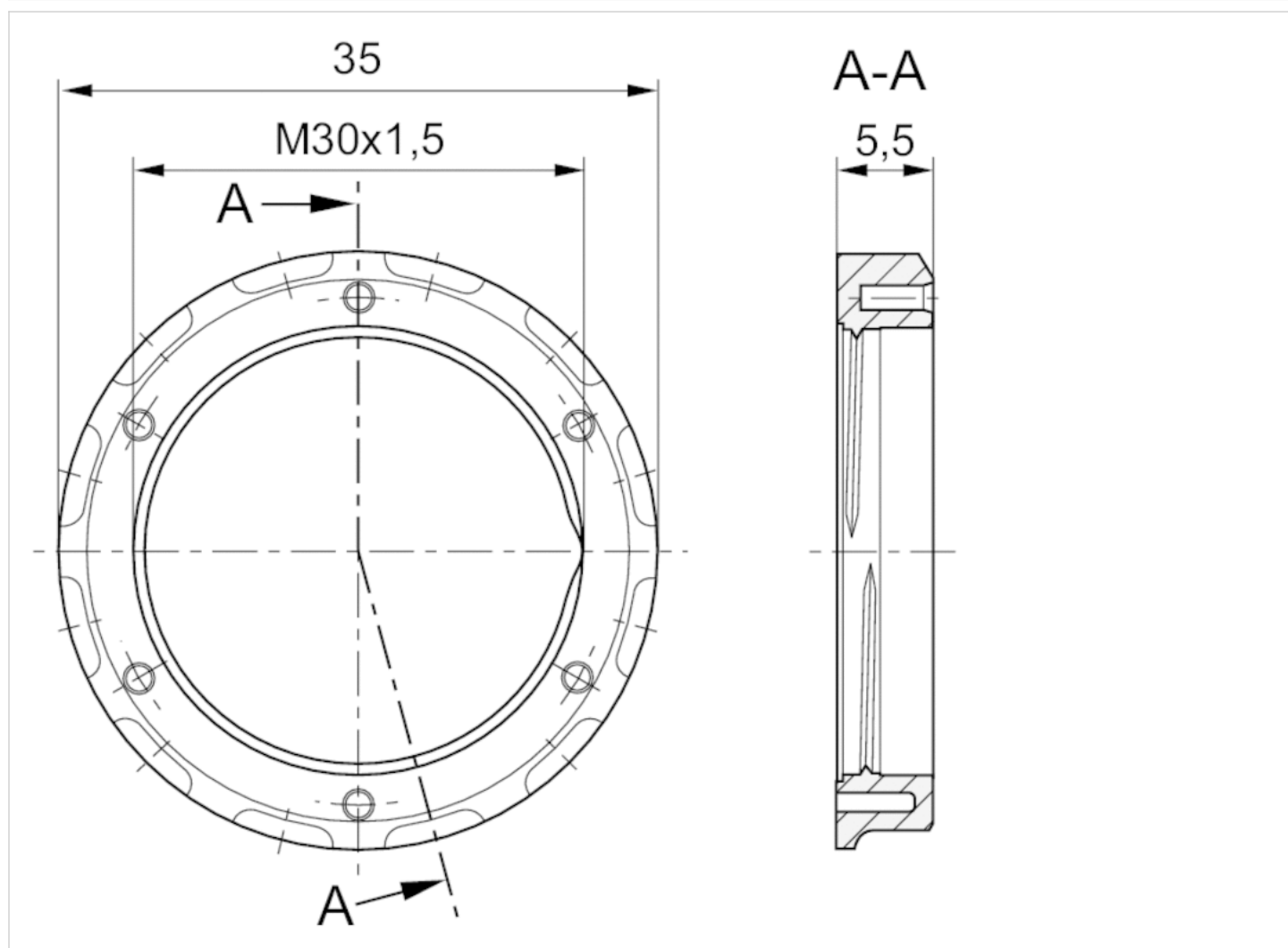
Suitable for use in Ex zones 1, 2, 21, 22.

Technical information

Material	
Housing	Brass

Dimensions

Dimensions in mm



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

- M30x1,5
- for AS1, NL1, NL2, PR2



Weight

0.006 kg

The delivered product may vary from that in the illustration.

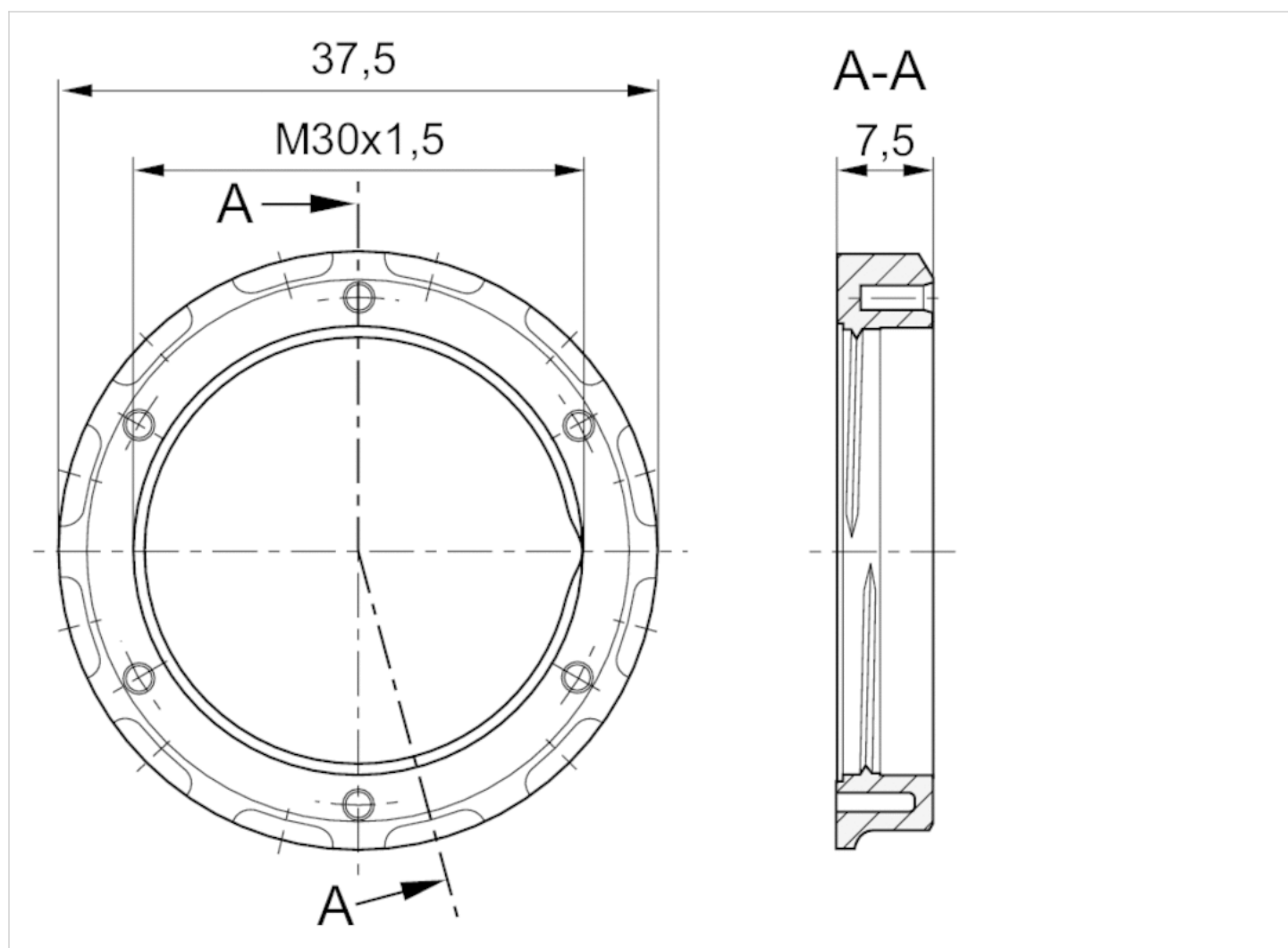
Technical data

Part No.	Port	for	Scope of delivery
1829234073	M30x1,5	AS1, NL1, NL2, PR2	5 piece

Technical information

Material	
Housing	Plastic

Dimensions



Mounting screws for wall mounting, Series NL2, NL4



Weight

See table below

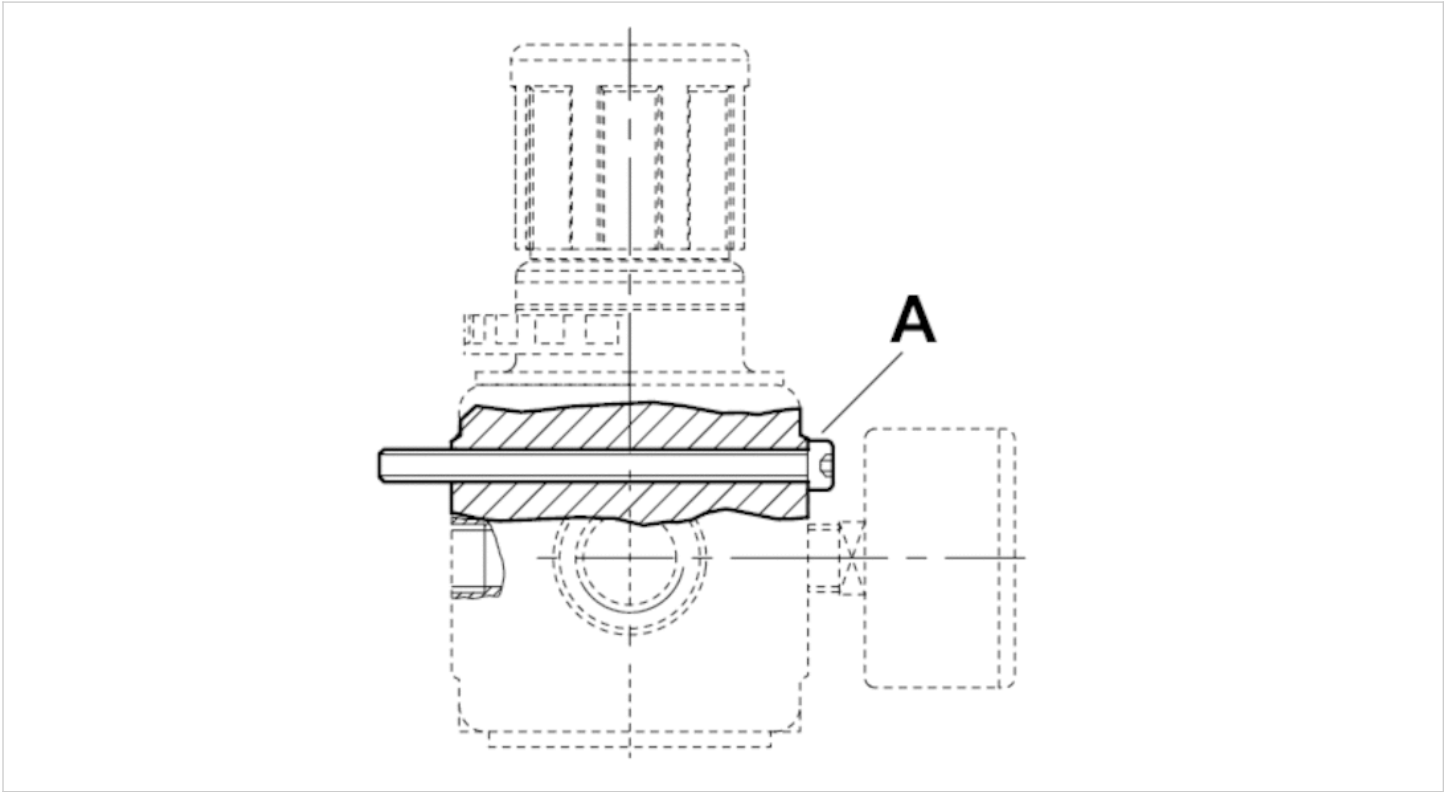
Technical data

Part No.	Type	Type	Delivery unit	Weight
1823414009	DIN 912 - M4x60	NL2	10 piece	0.006 kg
1823414014	DIN 912 - M5x85	NL4	10 piece	0.007 kg

Technical information

Material	
Material	Steel galvanized

Dimensions

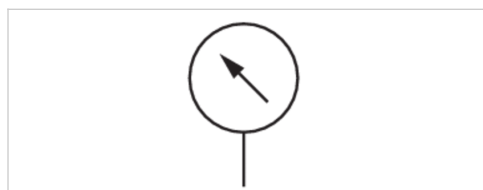


Dimensions

Part No.	usage Series	A
1823414009	NL2	M4x60
1823414014	NL4	M5x85

Pressure gauge, Series PG1-SNL

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



Version	Bourdon tube pressure gauge
Seal	Axial
Standardization	EN 837-1
Class	1,6
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Main scale unit (outside)	bar
Main scale color (outside)	Green
Secondary scale unit (inside)	psi
Secondary scale color (inside)	White
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	Weight	
1827231057	G 1/4	40 mm	-0.8 ... 0	-1 ... 0	-1 ... 0 bar	0.1	0.06 kg	-
1827231047	G 1/4	40 mm	0 ... 10	0 ... 16	0 ... 16 bar	0.5	0.06 kg	1)
1827231059	G 1/4	40 mm	0 ... 4	0 ... 6	0 ... 6 bar	0.2	0.06 kg	-
1827231060	G 1/4	40 mm	0 ... 8	0 ... 10	0 ... 10 bar	0.5	0.06 kg	1)
1827231054	G 1/4	50 mm	-0.8 ... 0	-1 ... 0	-1 ... 0 bar	0.1	0.09 kg	-
1827231012	G 1/4	50 mm	0 ... 2	0 ... 2.5	0 ... 2.5 bar	0.1	0.09 kg	-
1827231016	G 1/4	50 mm	0 ... 4	0 ... 6	0 ... 6 bar	0.2	0.09 kg	1)
1827231015	G 1/4	50 mm	0 ... 8	0 ... 10	0 ... 10 bar	0.5	0.09 kg	1)
1827231010	G 1/4	50 mm	0 ... 12	0 ... 16	0 ... 16 bar	0.5	0.09 kg	1)
1827231055	G 1/4	63 mm	-0.8 ... 0	-1 ... 0	-1 ... 0 bar	0.1	0.1 kg	-
1827231011	G 1/4	63 mm	0 ... 12	0 ... 16	0 ... 16 bar	0.5	0.1 kg	1)

Order seal 1829202004 separately

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

Technical information

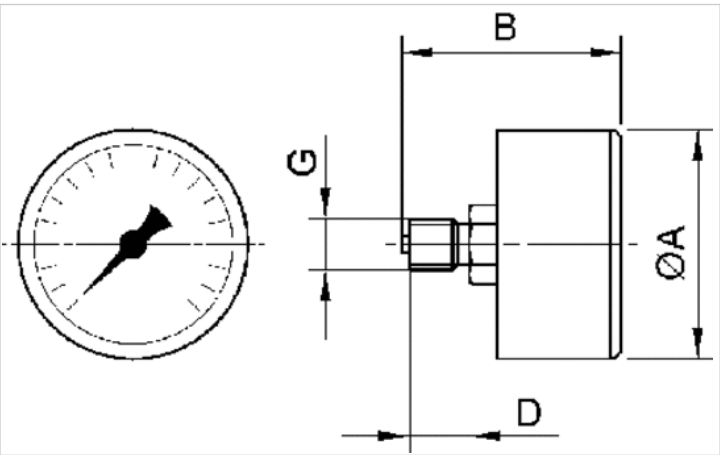
Order axial seal separately

Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Polystyrene

Dimensions

Dimensions

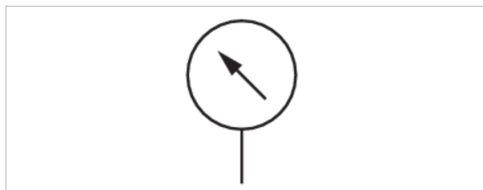


Dimensions in mm

G	Nominal diameter	Ø A	B	D
G 1/4	40 mm	41	41.5	10
G 1/4	50 mm	49	47.5	13
G 1/4	63 mm	63	48.3	13

Pressure gauge, Series PG1-SNL-ADJ

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



Version	Bourdon tube pressure gauge
Version	with adjustable work area display
Seal	Axial
Standardization	EN 837-1
Class	2,5
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Work area	adjustable work area display
Work Area Display, Color	Red Green
Main scale unit (outside)	bar
Main scale color (outside)	Black
Background color	White
Pointer color	Black
Weight	0.09 kg

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
R412003474	G 1/4	50 mm	0 bar ... 1.2	0 bar ... 1.6	0 ... 1.6 bar	0.05
R412003475	G 1/4	50 mm	0 bar ... 2	0 bar ... 2.5	0 ... 2.5 bar	0.1
R412003476	G 1/4	50 mm	0 bar ... 3.2	0 bar ... 4	0 ... 4 bar	0.2
R412003477	G 1/4	50 mm	0 bar ... 4	0 bar ... 6	0 ... 6 bar	0.2
R412003478	G 1/4	50 mm	0 bar ... 8	0 bar ... 10	0 ... 10 bar	0.5
R412003479	G 1/4	50 mm	0 bar ... 12	0 bar ... 16	0 ... 16 bar	0.5

Technical information

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

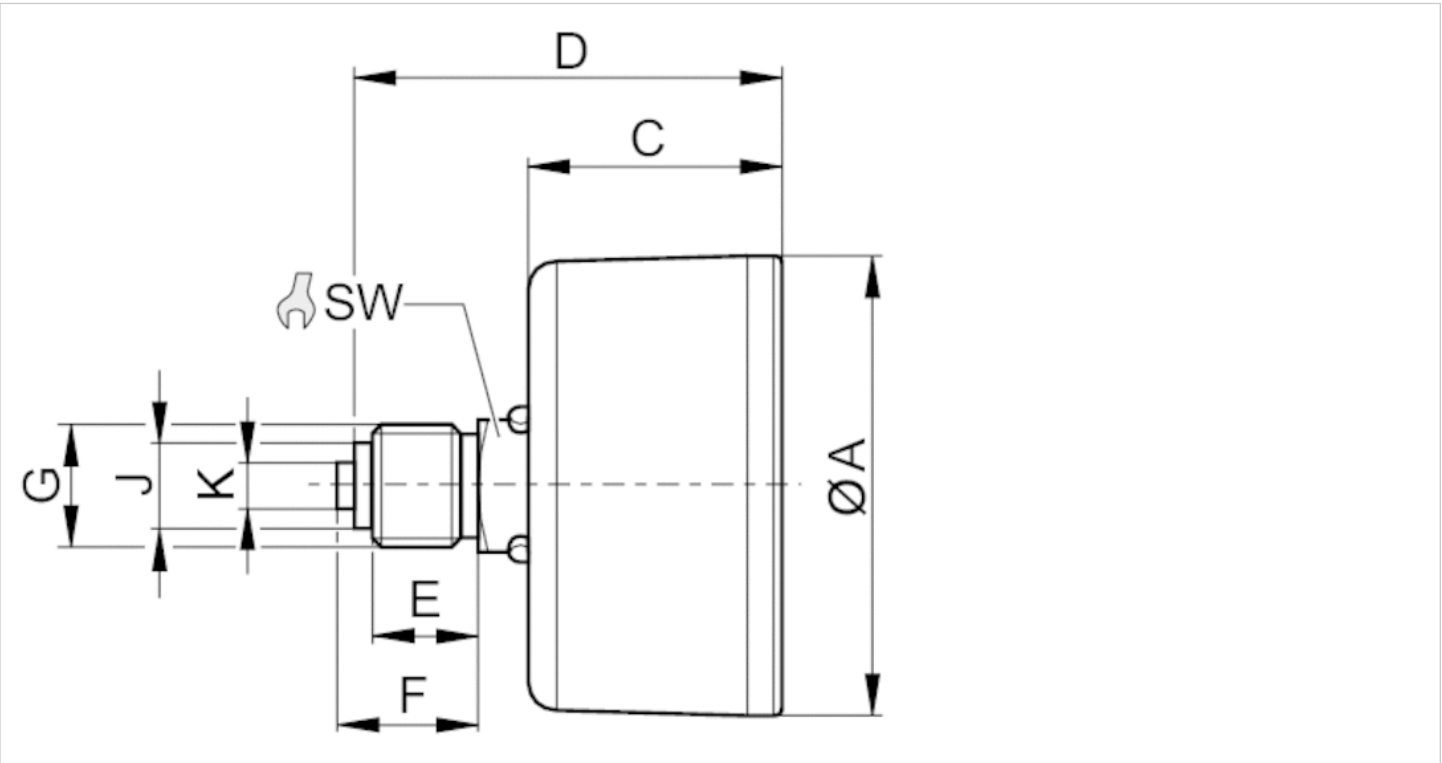
Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass

Material	
Viewing window	Polystyrene

Dimensions

Dimensions

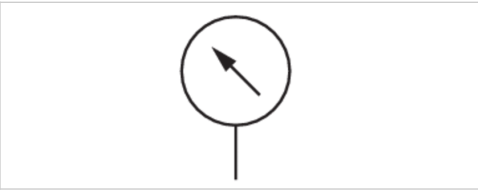


Dimensions

Compressed air connection	Nominal diameter	Ø A	C	D	E	F	J	K	SW
G 1/4	50 mm	49	26.5	44.5	11	15	9.5	5	14

Pressure gauge, Series PG1-SNL

- Back port
- Background color Black
- Scale color Green, White
- Viewing window Mineral glass
- Units bar
- Units psi



Version	Bourdon tube pressure gauge
Seal	Axial
Standardization	EN 837-1
Class	1,6
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Main scale unit (outside)	bar
Main scale color (outside)	Green
Secondary scale unit (inside)	psi
Secondary scale color (inside)	White
Background color	Black
Pointer color	White
Weight	0.09 kg

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
R412004987	G 1/4	50 mm	0 ... 12 bar	0 ... 16 bar	0 ... 16 bar	0.5

Technical information

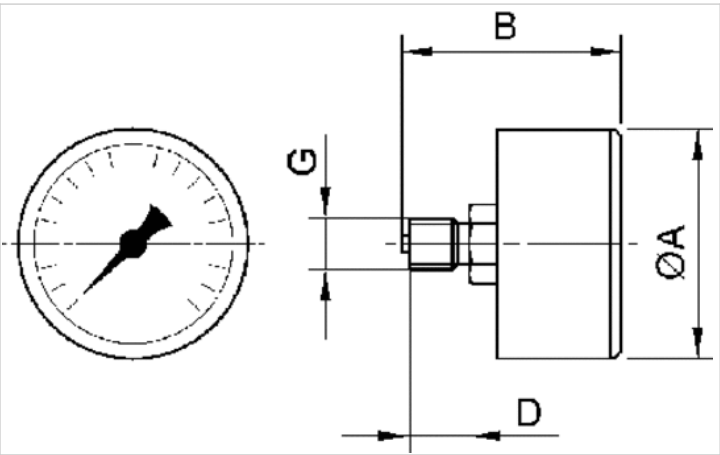
Suitable for use in Ex zones 1, 2, 21, 22.
Order axial seal separately

Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Mineral glass

Dimensions

Dimensions

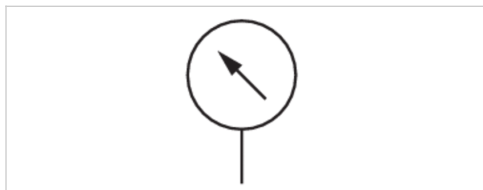


Dimensions in mm

G	Nominal diameter	Ø A	B	D
G 1/4	50 mm	49	47.5	13

Pressure gauge, Series PG1-SNL

- For panel installation
- Background color Black
- Scale color Green, White
- Viewing window Polystyrene
- Units bar
- Units psi



Version	Bourdon tube pressure gauge
Mounting	with U-clip
Seal	Axial
Standardization	EN 837-1
Class	1,6
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Main scale unit (outside)	bar
Main scale color (outside)	Green
Secondary scale unit (inside)	psi
Secondary scale color (inside)	White
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	Weight
1827231032	G 1/4	50 mm	0 ... 2	0 ... 2.5	0 ... 2.5 bar	0.1	0.148 kg
1827231036	G 1/4	63 mm	0 ... 2	0 ... 2.5	0 ... 2.5 bar	0.1	0.19 kg
1827231033	G 1/4	50 mm	0 ... 4	0 ... 6	0 ... 6 bar	0.2	0.148 kg
1827231037	G 1/4	63 mm	0 ... 4	0 ... 6	0 ... 6 bar	0.2	0.19 kg
1827231034	G 1/4	50 mm	0 ... 8	0 ... 10	0 ... 10 bar	0.5	0.148 kg
1827231038	G 1/4	63 mm	0 ... 8	0 ... 10	0 ... 10 bar	0.5	0.19 kg
1827231035	G 1/4	50 mm	0 ... 12	0 ... 16	0 ... 16 bar	0.5	0.148 kg
1827231039	G 1/4	63 mm	0 ... 12	0 ... 16	0 ... 16 bar	0.5	0.19 kg

Technical information

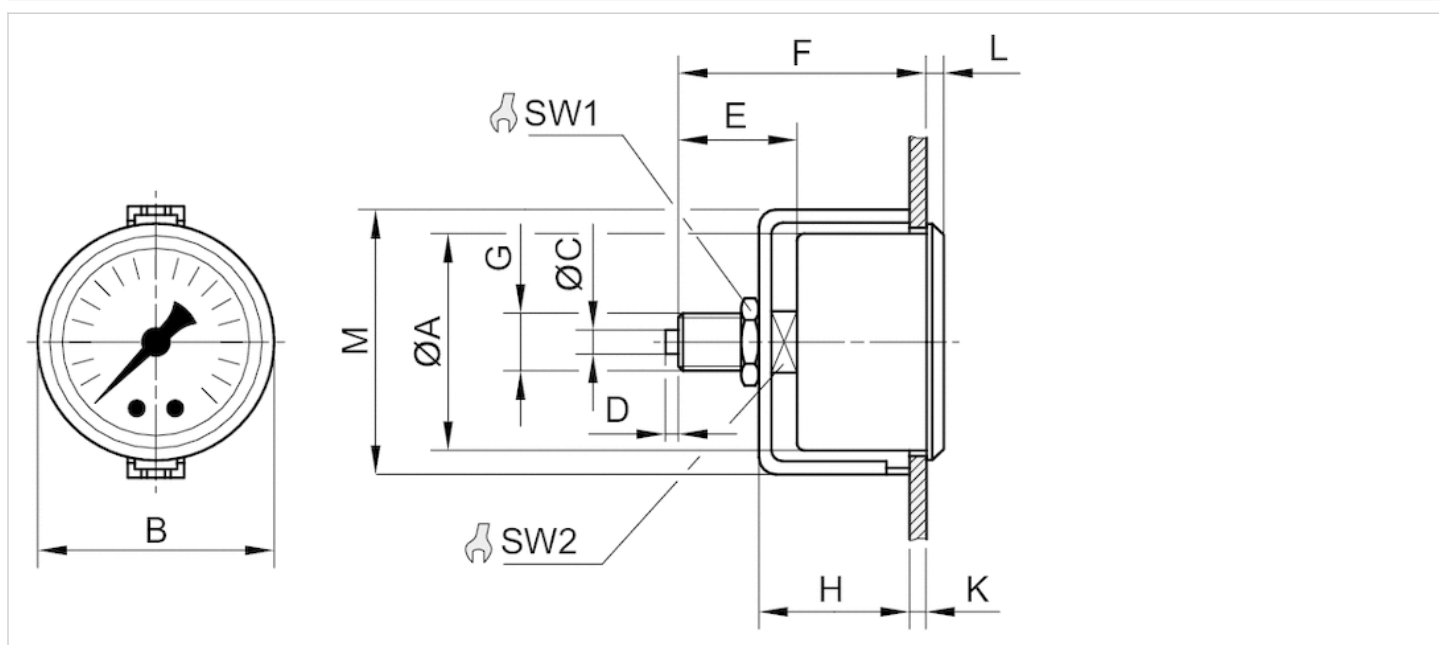
Order axial seal separately

Technical information

Material	
Housing	Steel
Thread	Brass
Front ring	Steel, chrome-plated
Viewing window	Polystyrene

Dimensions

Dimensions



Dimensions in mm

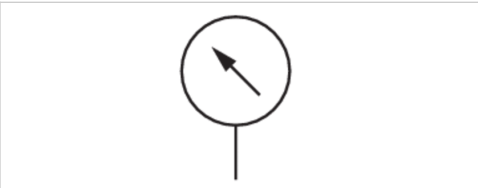
Compressed air connection	Nominal diameter	Ø A	B	C	D	E	F	H	K	L	M	SW1
G 1/4	50 mm	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	63 mm	62	67	5	3	27	53	36.3	4.2	5.5	75	17
G 1/4	50 mm	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	63 mm	62	67	5	3	27	53	36.3	4.2	5.5	75	17
G 1/4	50 mm	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	63 mm	62	67	5	3	27	53	36.3	4.2	5.5	75	17
G 1/4	50 mm	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	63 mm	62	67	5	3	27	53	36.3	4.2	5.5	75	17

SW2	
	14
	14
	14
	14
	14

SW2	
	14
	14
	14

Pressure gauge, Series PG1-SNL

- Back port
- Background color Black
- Scale color Green, White
- Viewing window Polystyrene
- Units bar
- Units psi
- suitable for ATEX



Version	Bourdon tube pressure gauge
Seal	Axial
Standardization	EN 837-1
Class	1,6
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Main scale unit (outside)	bar
Main scale color (outside)	Green
Secondary scale unit (inside)	psi
Secondary scale color (inside)	White
Background color	Black
Pointer color	White
Weight	0.09 kg

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
1827231023	G 1/4	50 mm	0 ... 1.2	0 ... 1.6	0 ... 1.6 bar	0.05

Order seal 1829202004 separately

Technical information

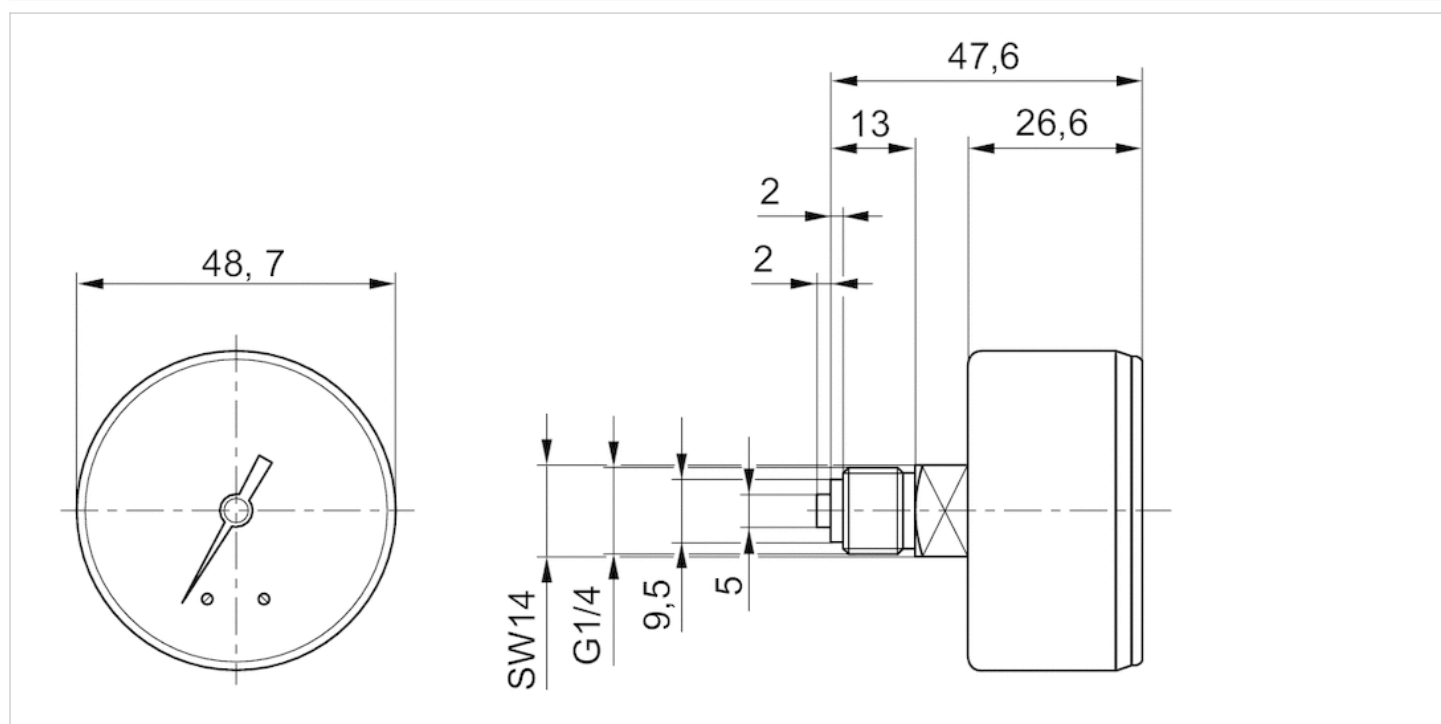
Order axial seal separately

Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Front ring	Steel, chrome-plated
Viewing window	Polystyrene

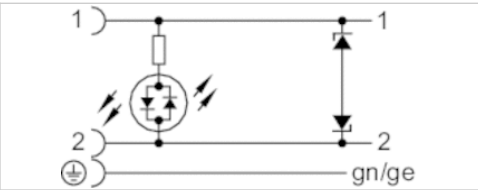
Dimensions

Dimensions in mm



Valve plug connector, series CON-VP

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



Ambient temperature min./max.	-20 ... 80 °C
Operational voltage	24 V AC/DC
Protection class	IP67
Protective circuit	Z-diode
Wire cross-section	0.75 mm²
Mounting screw tightening torque	0.4 Nm
Weight	See table below

Technical data

Part No.	Max. current	Contact assignment	LED status display	Number of wires	Cable-Ø	Cable length	Weight	Fig.
1834484153	10 A	2+E	Yellow	3	5.9 mm	3 m	0.2 kg	Fig. 2
1834484155	10 A	2+E	Yellow	3	5.9 mm	5 m	0.31 kg	Fig. 2

Scope of delivery incl. flat gasket

Technical information

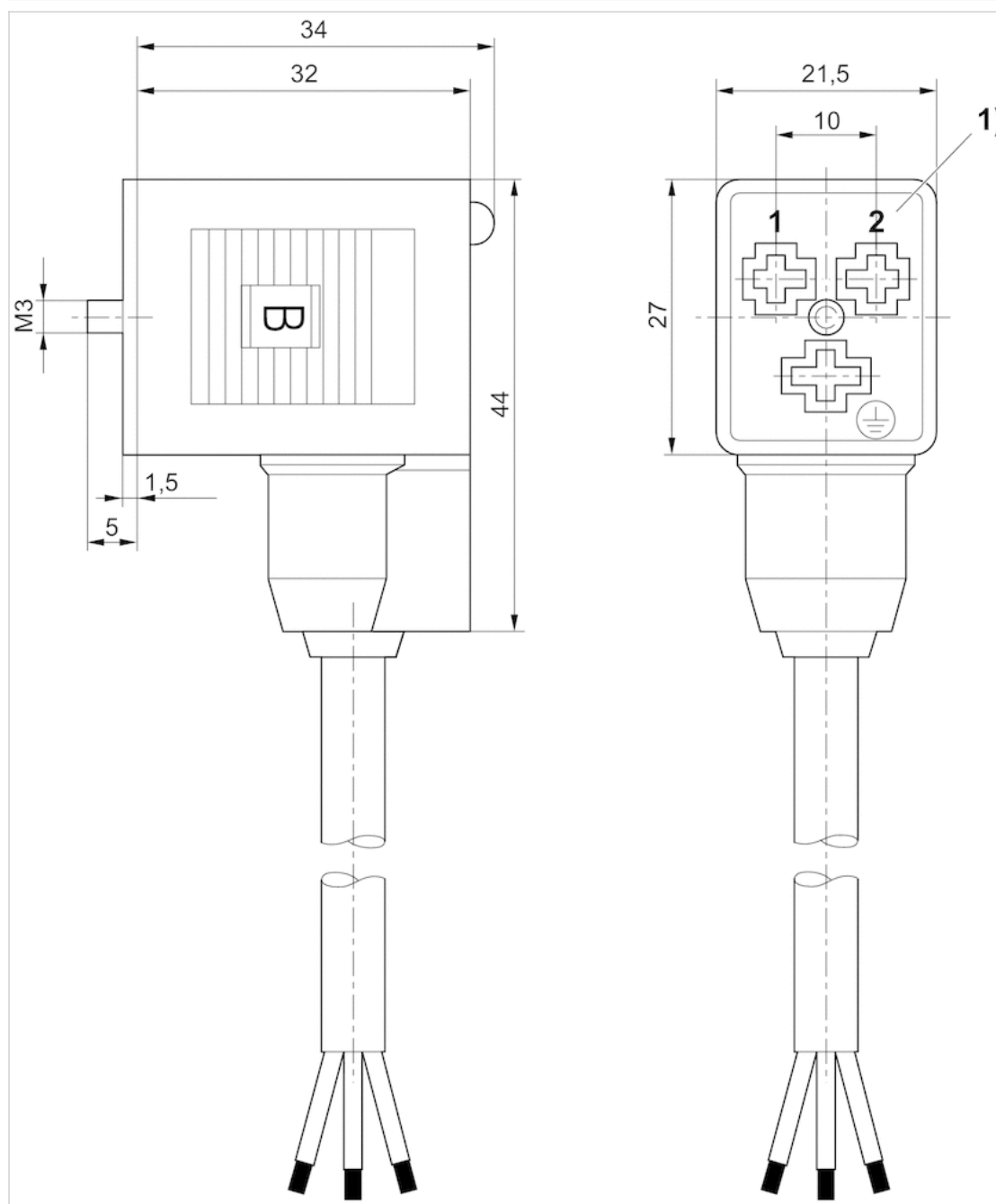
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc
Cable sheath	Polyvinyl chloride

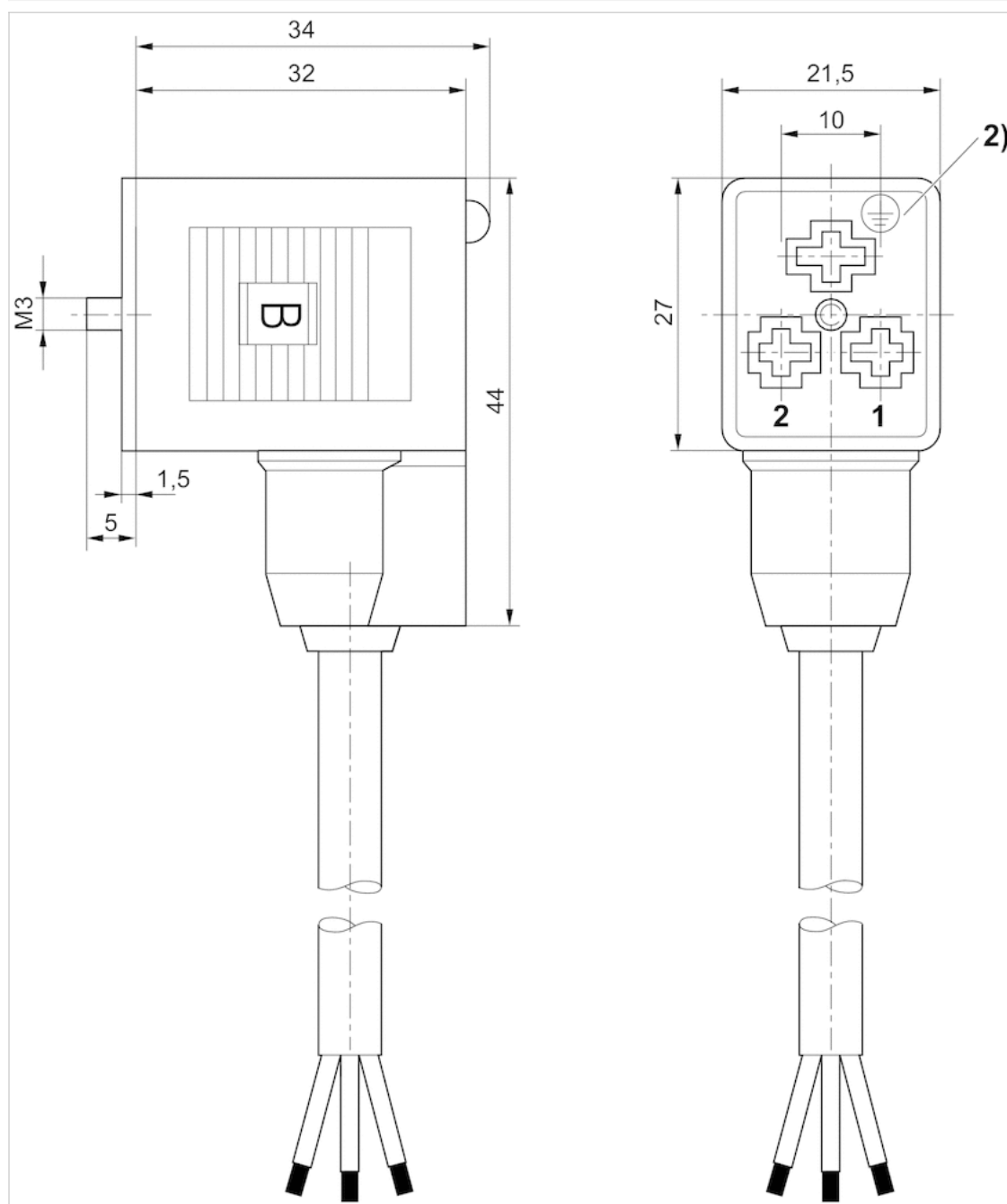
Dimensions

Fig. 1



1) 0° female insert

Fig. 2



2) 180° female insert

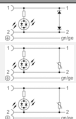
Valve plug connector, series CON-VP

- Socket, form B, 2+E, angled, 90°
- ISO 6952
- unshielded
- with LED Yellow Red Red



Connection type	Screws
Ambient temperature min./max.	-25 ... 50 °C
Operational voltage	See table below
Protection class	IP65
Mounting screw tightening torque	0.4 Nm
Weight	0.02 kg

Technical data

Part No.		Operational voltage	Protective circuit	Contact assignment
1834484104		24 V AC/DC	Z-diode	2+E
1834484105		110 V AC	Varistor	2+E
1834484106		230 V AC	Varistor	2+E

Part No.	LED status display	suitable cable-Ø min./max	Fig.
1834484104	Yellow	6 / 8 mm	Fig. 2
1834484105	Red Red	6 / 8 mm	Fig. 2
1834484106	Red Red	6 / 8 mm	Fig. 2

Profile seal, Flat gasket

Technical information

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

Technical information

Material	
Seals	Silicone caoutchouc

Dimensions

Fig. 1

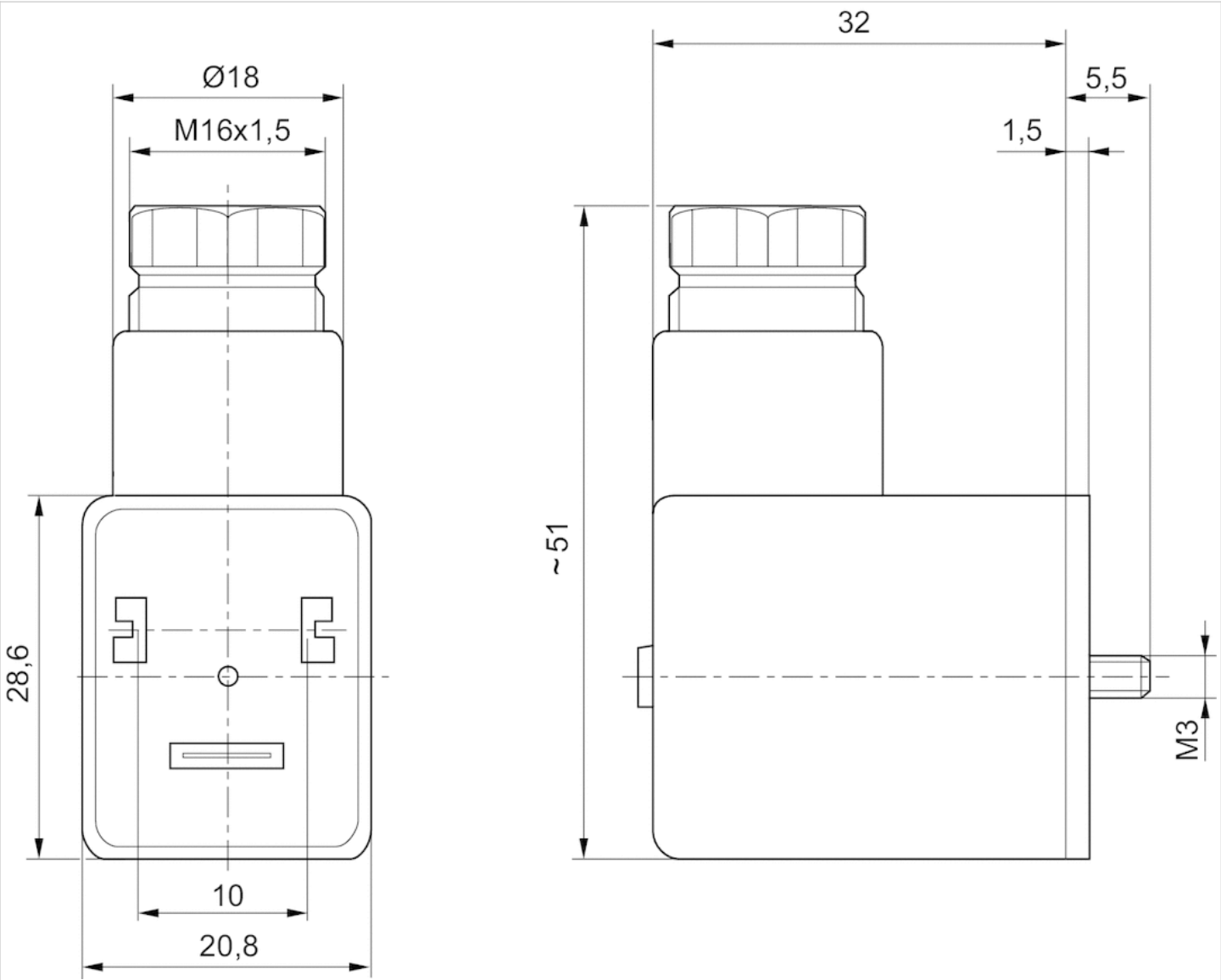
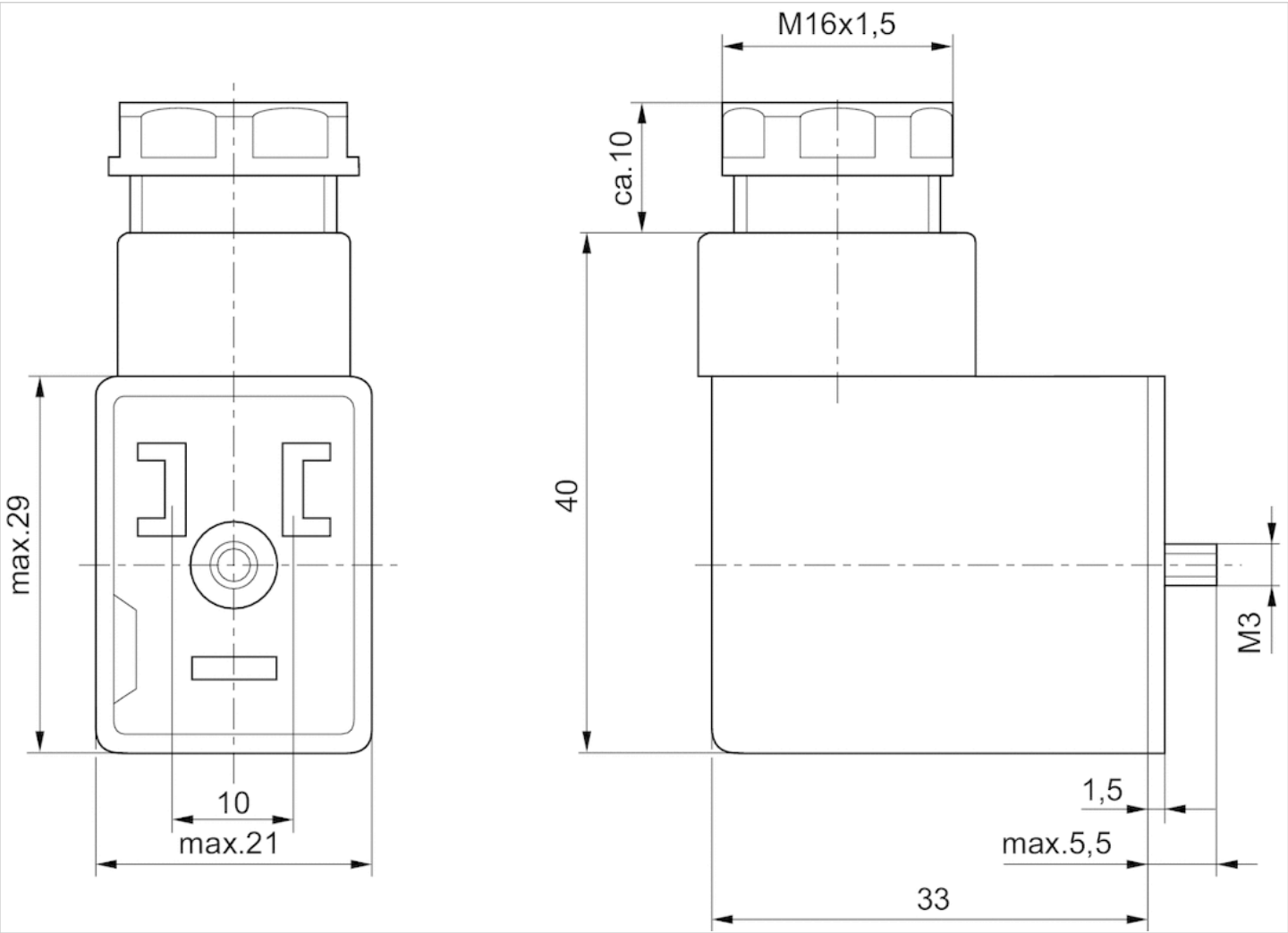


Fig. 2

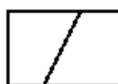


Coil, Series CO1

- form B
- Coil width 22 mm
- Power consumption DC 4.8-5.9 W
- Holding power AC 7.7-9.7 VA
- Switch-on power AC 10.5-12.6 VA



Connector standard	EN 175301-803, form B
electrical connections	Plug, 3-pin
Ambient temperature min./max.	50 °C
Protection class With valve plug connector/plug	IP65
Duty cycle ED	100 %
Compatibility index	14
Weight	0.07 kg



Technical data

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
1824210239	12 V	24 V	24 V
1824210243	24 V	48 V	48 V
1824210241	48 V	-	-
1824210237	60 V	110 V	110 V
1824210235	110 V	220 V	230 V

Part No.	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
1824210239	-10% / +10%	-10% / +10%	-10% / +10%	5.5 W
1824210243	-10% / +10%	-10% / +10%	-10% / +10%	4.8 W
1824210241	-10% / +10%	-10% / +10%	-10% / +10%	5 W
1824210237	-10% / +10%	-10% / +10%	-10% / +10%	5.9 W
1824210235	-10% / +10%	-10% / +10%	-10% / +10%	4.9 W

Part No.	Holding power	Holding power	Switch-on power	Switch-on power
	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz
1824210239	8.9 VA	7.3 VA	12 VA	9.9 VA
1824210243	7.7 VA	6.2 VA	10.5 VA	9.4 VA
1824210241	-	-	-	-
1824210237	8.4 VA	6.8 VA	11 VA	9.4 VA

Part No.	Holding power	Holding power	Switch-on power	Switch-on power
	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz
1824210235	9.7 VA	7.9 VA	12.6 VA	10.2 VA

Technical information

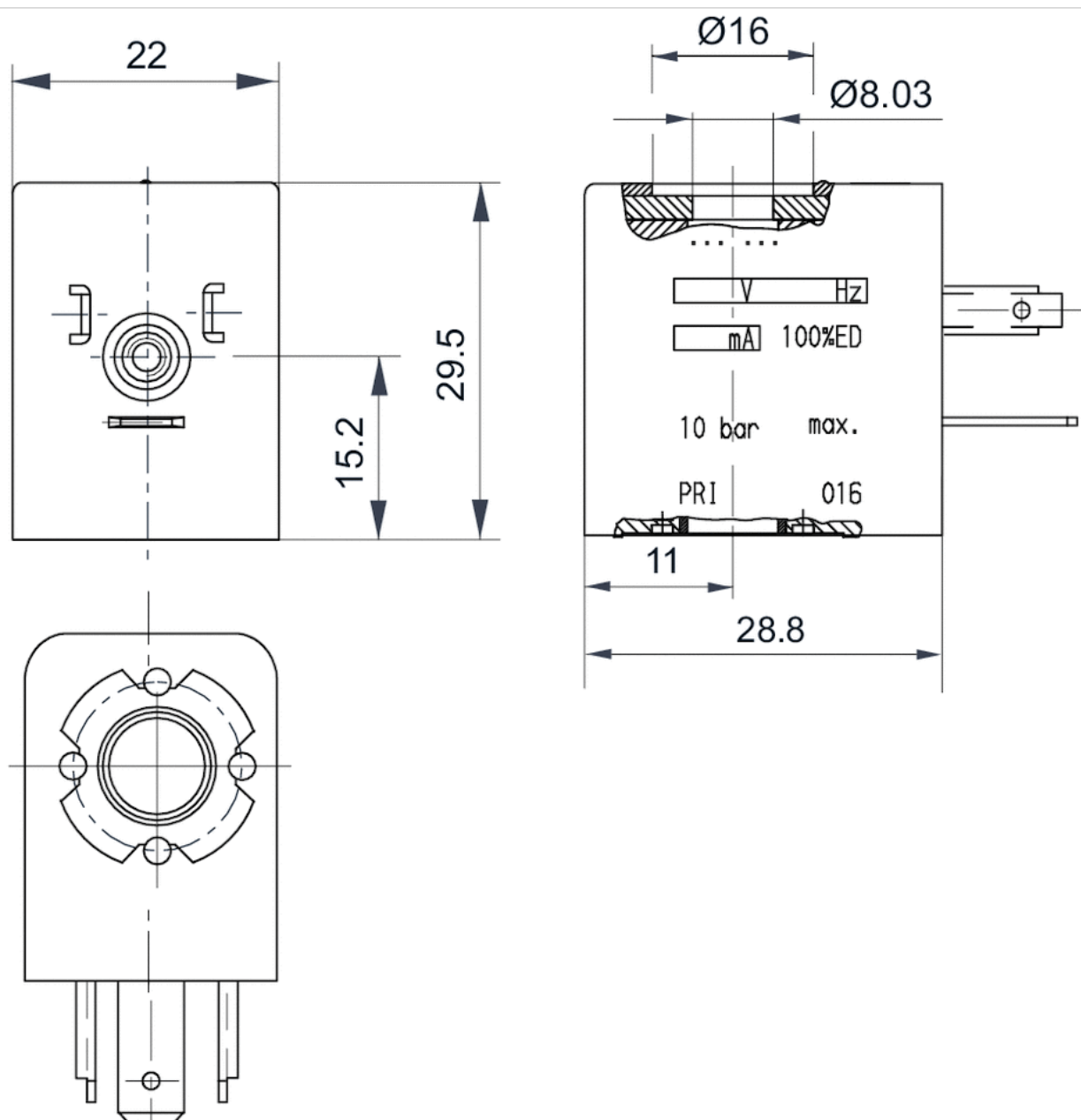
Material

Housing

Thermoplastic elastomer

Dimensions

Dimensions



Pressure sensor, Series PE5

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



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

Technical data

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

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

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

Technical information

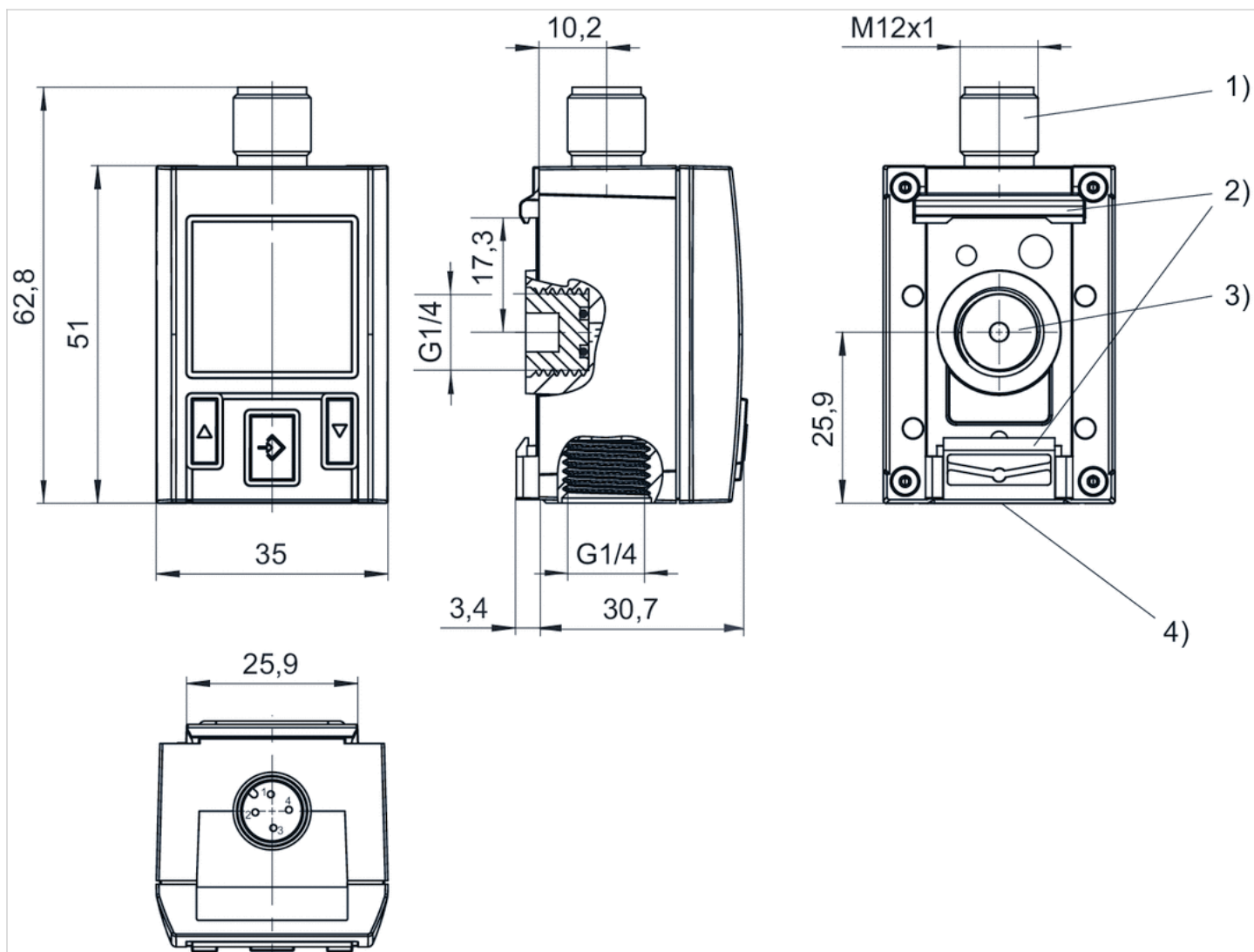
Alternative pressure connection (G1/4) on the rear side (closed with plug)
Display color selectable, red or green

Technical information

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

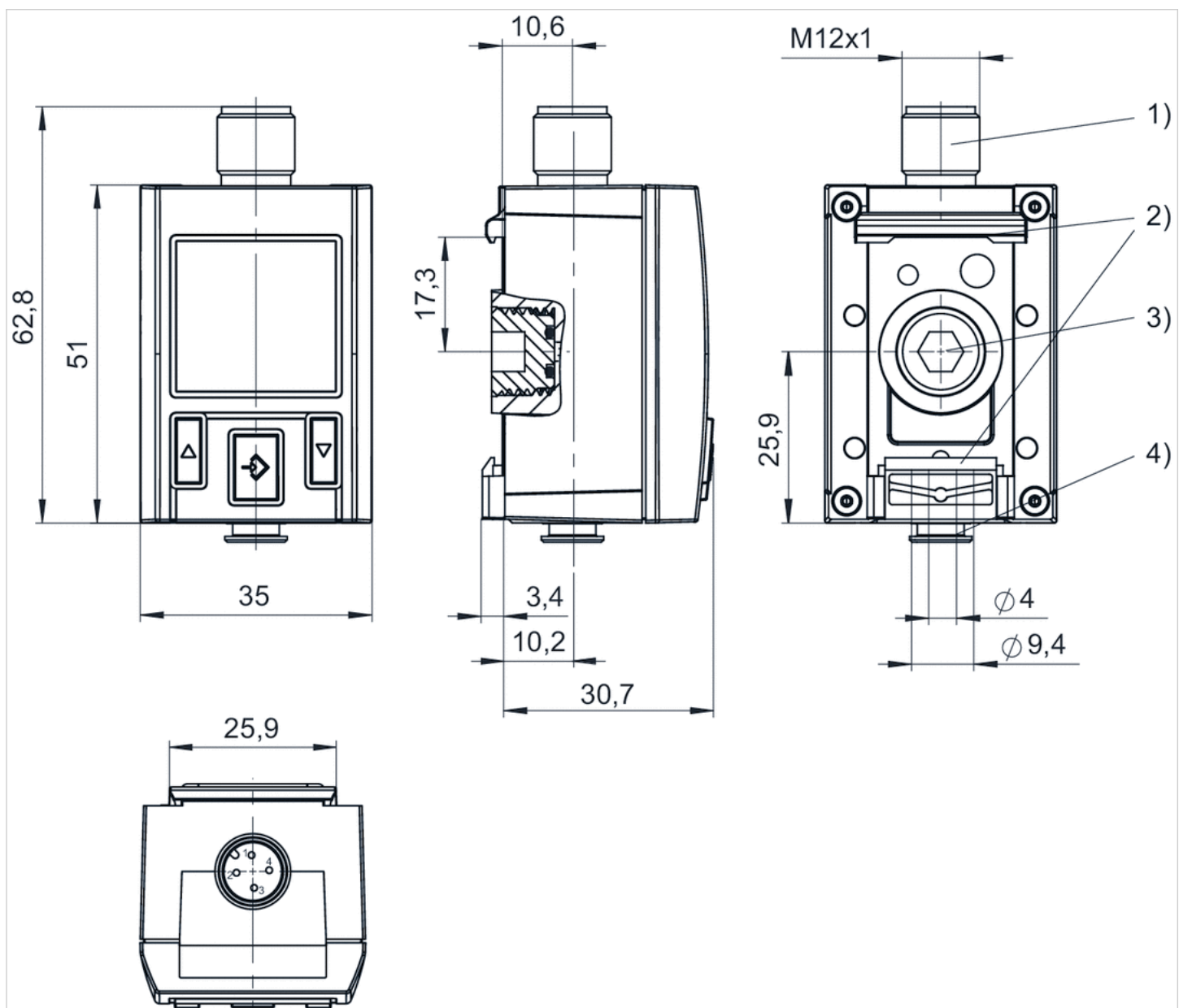
Dimensions

Fig. 1



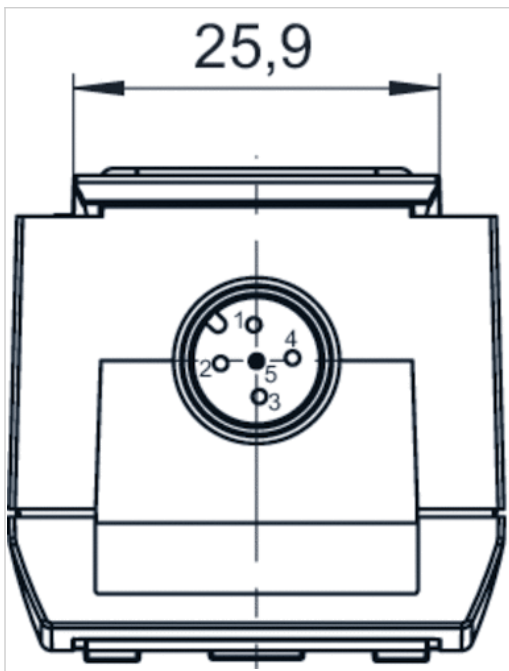
- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection G1/4

Fig. 2

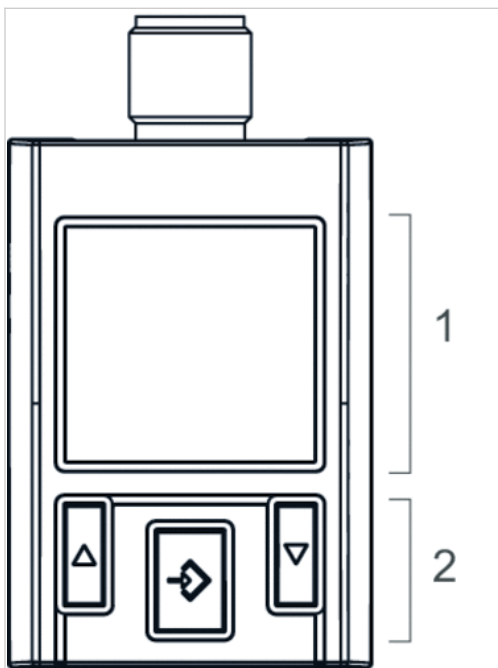


- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection, tubing $\phi 4$ mm

Fig. 3, Electr. connection for leak test



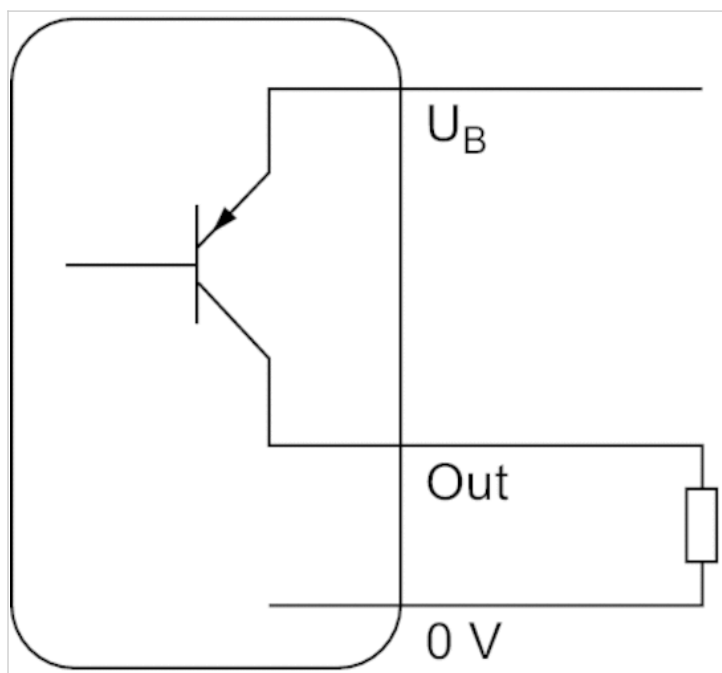
Display and operation area



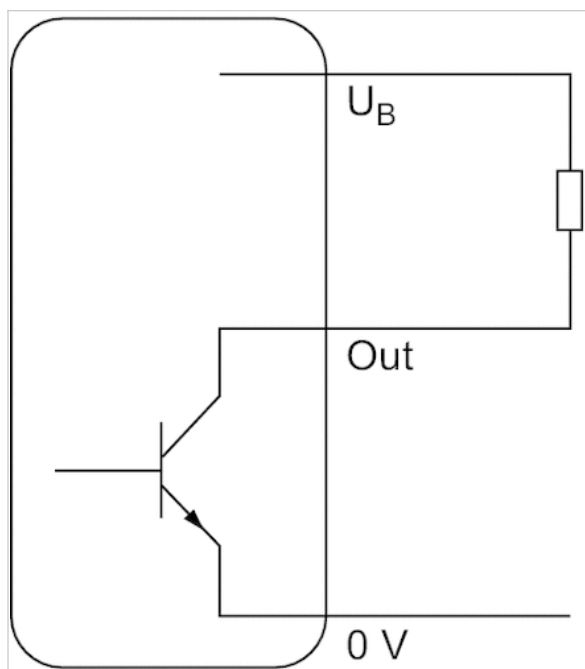
- 1) LCD display
- 2) Control panel with 3 buttons

Diagrams

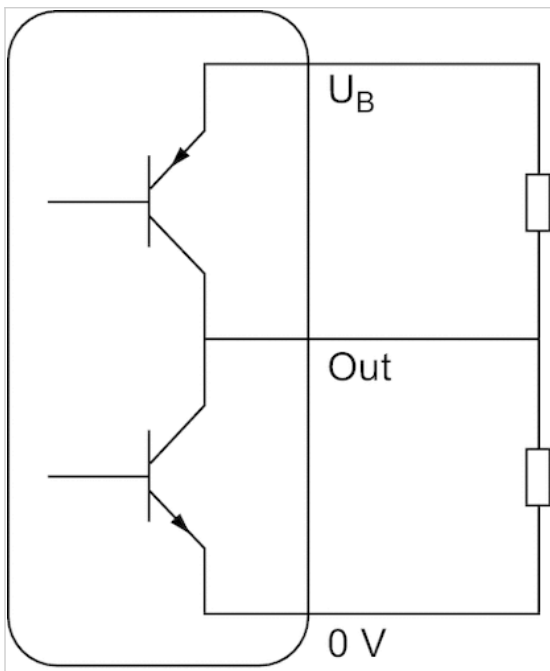
Operating mode, PNP



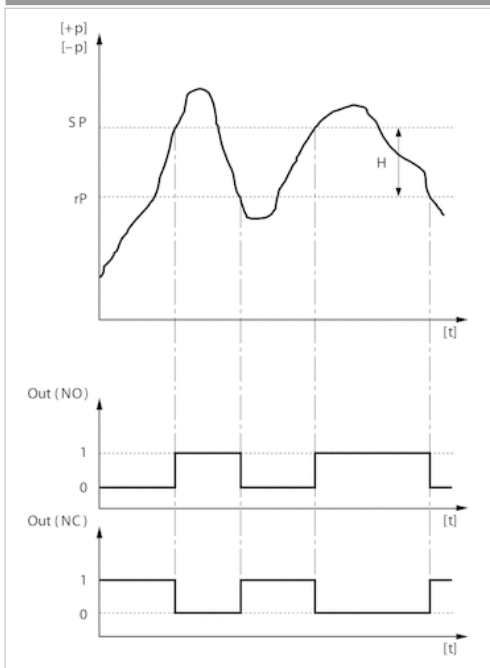
Operating mode, NPN



Operating mode, Push-pull



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



H: Hysteresis

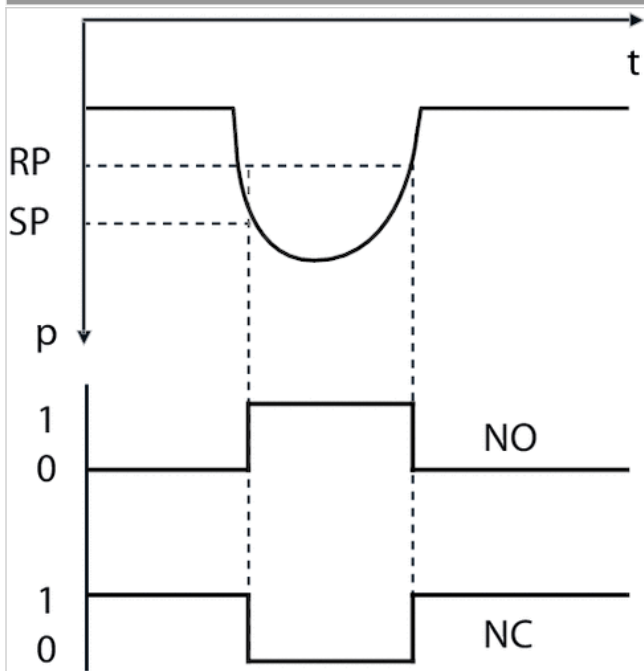
SP = switching point

RP = resetting point

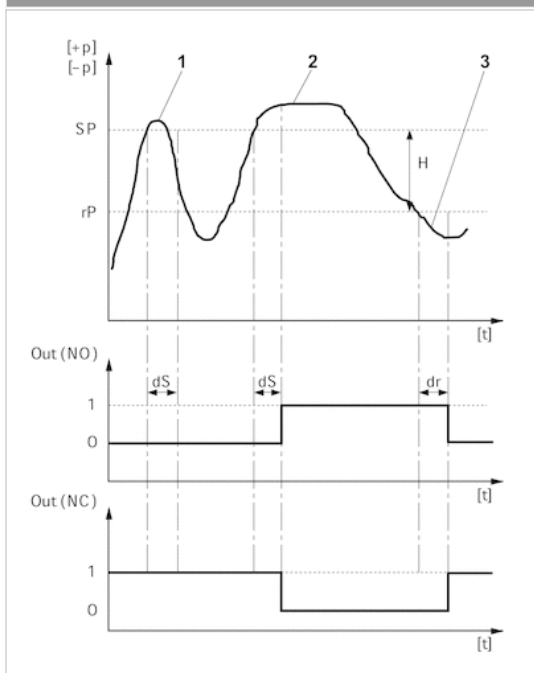
Out (NC): switch output, break contact

Out (NO): switch output, make contact

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



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



H: Hysteresis

SP = switching point

RP = resetting point

Out (NC): switch output, break contact

Out (NO): switch output, make contact

dS: switching delay

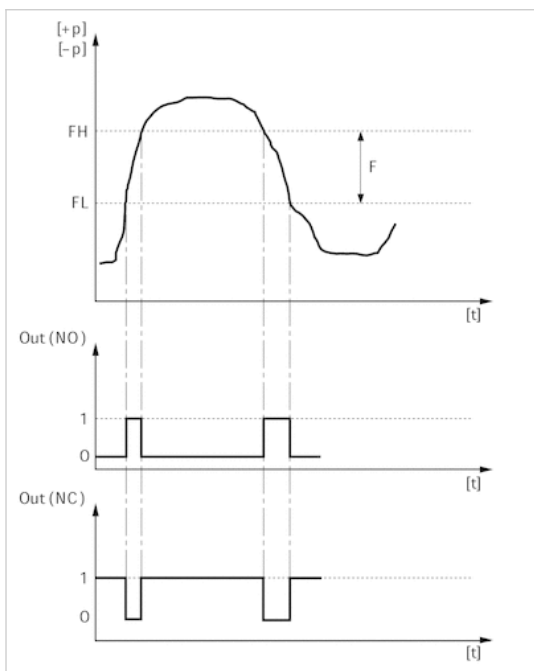
dR = reset delay

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

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

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

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



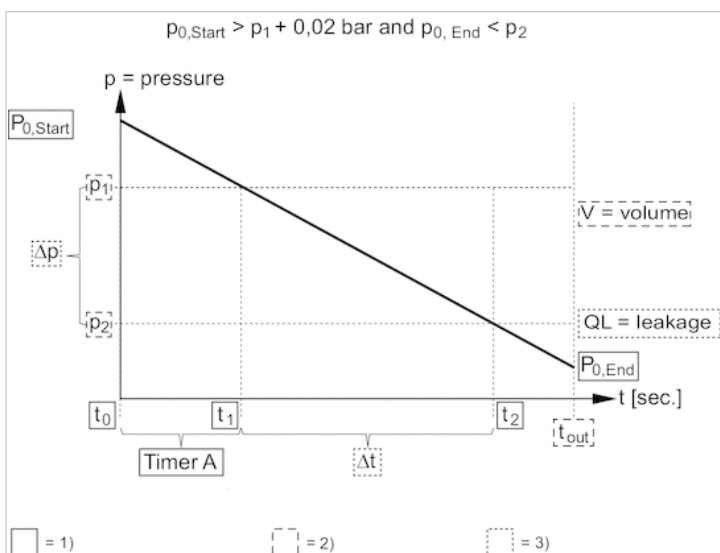
FH: pressure band, upper value

FL: pressure band, lower value

Out (NC): switch output, break contact

Out (NO): switch output, make contact

Leakage characteristic



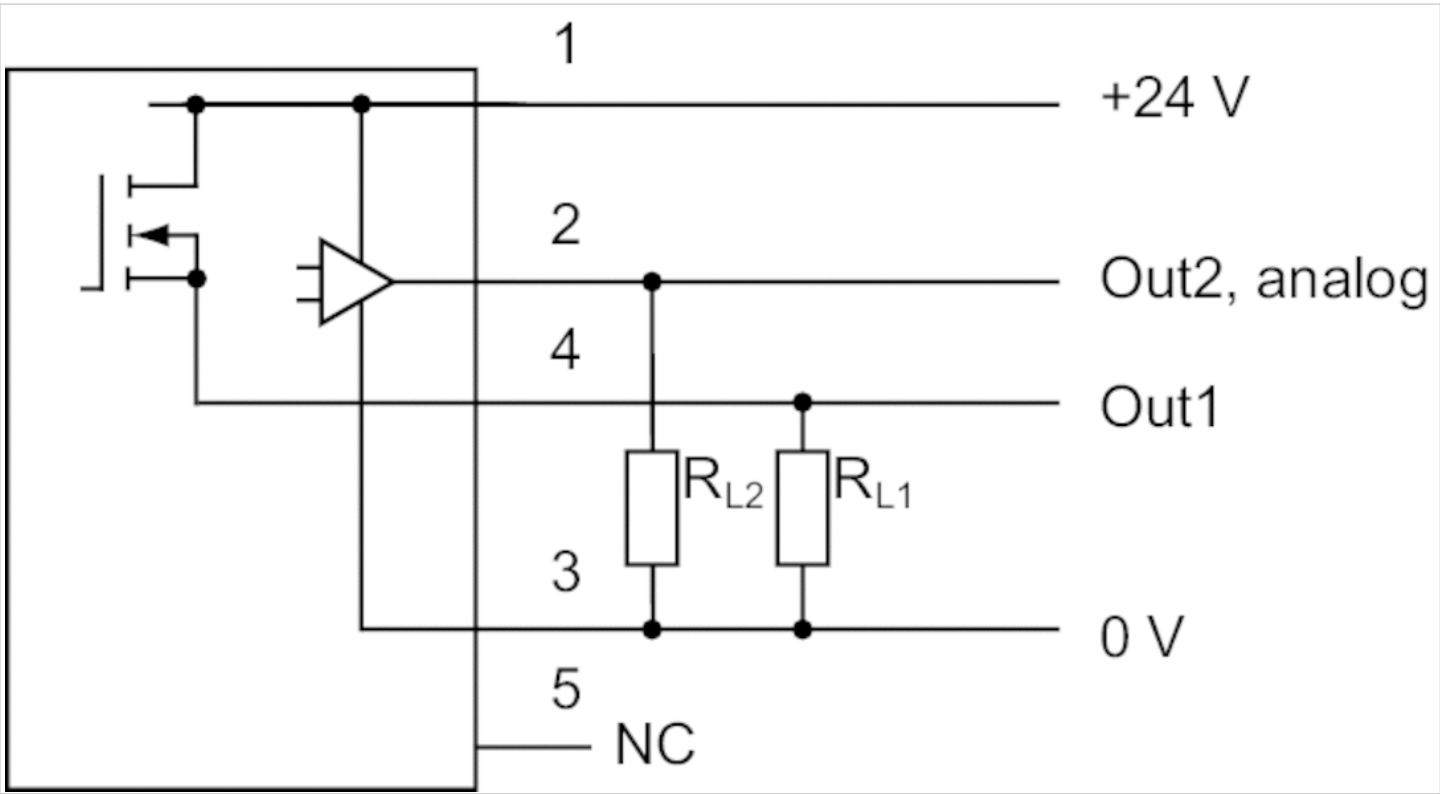
1) Internally stored parameter

2) Adjustable parameter

3) Output value

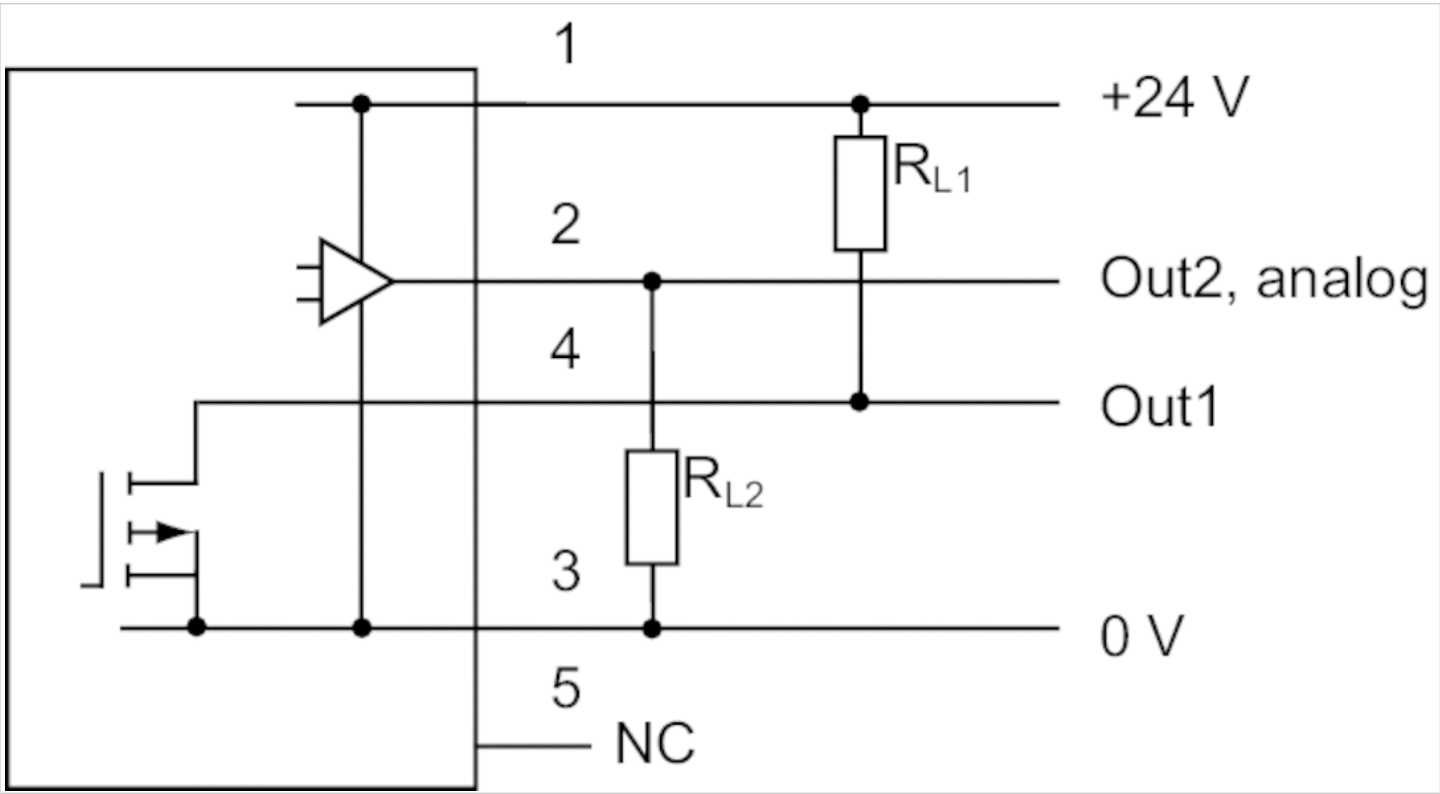
Circuit diagram

Block diagram, 1x PNP and 1x analog



RL = storable position

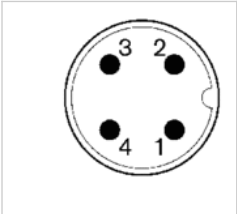
Block diagram, 1x NPN and 1x analog



RL = storable position

Pin assignments

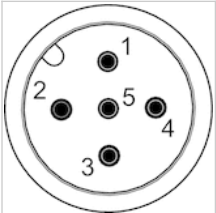
Pin assignments, M12x1, 4-pin



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

Pin assignments

Pin assignments, M12x1, 5-pin



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

Pressure sensor, Series PE2

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



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

Technical data

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

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

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

Technical information

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

Technical information

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

Dimensions

Fig. 1

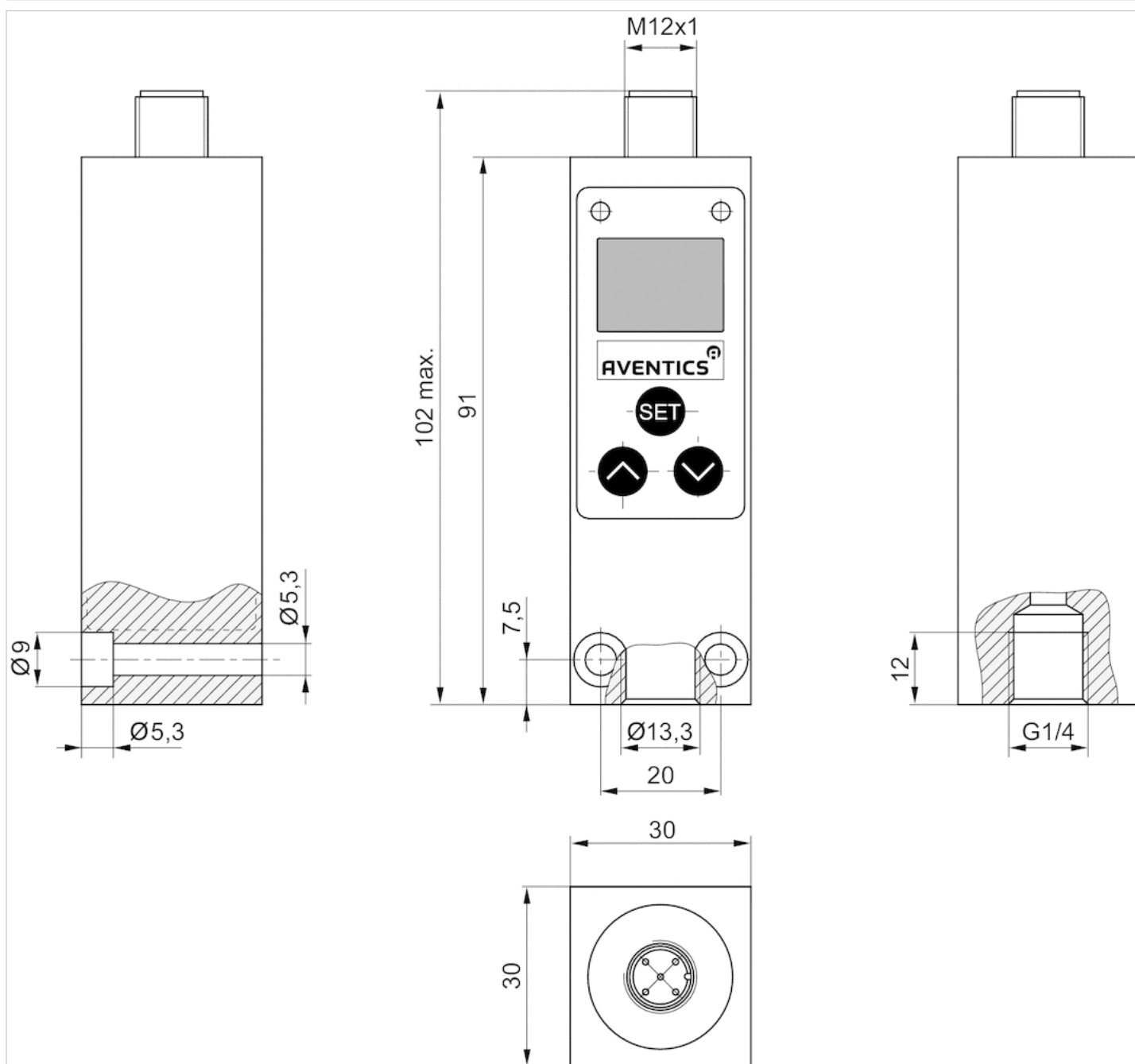
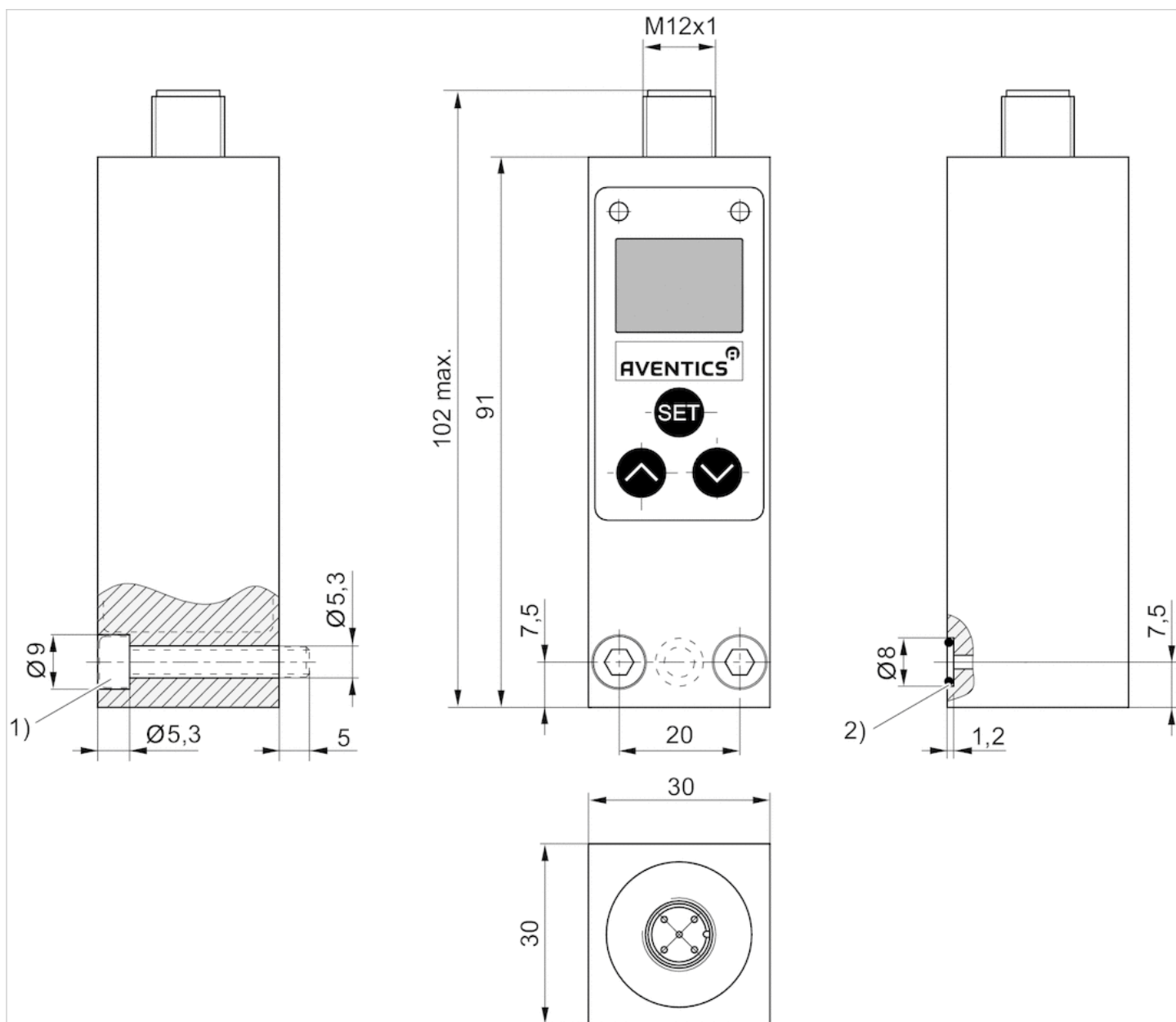
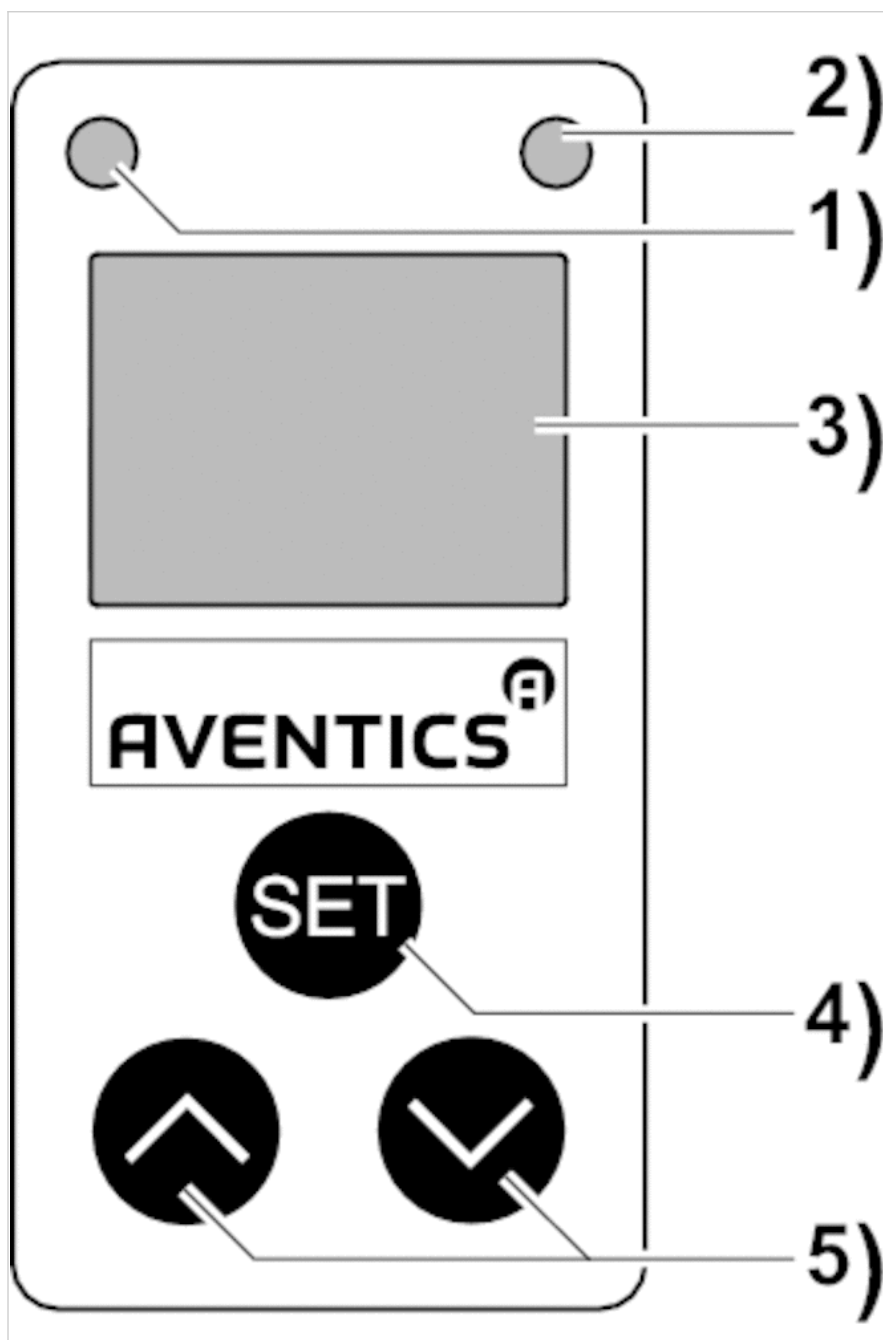


Fig. 2



- 1) cylinder screw M5x35 (included in scope of delivery)
2) O-ring Ø5x1,5 (included)

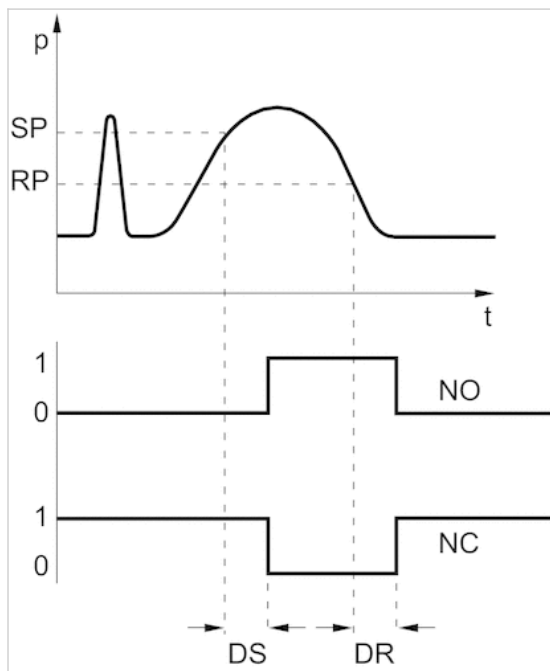
Display and operation area



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

Diagrams

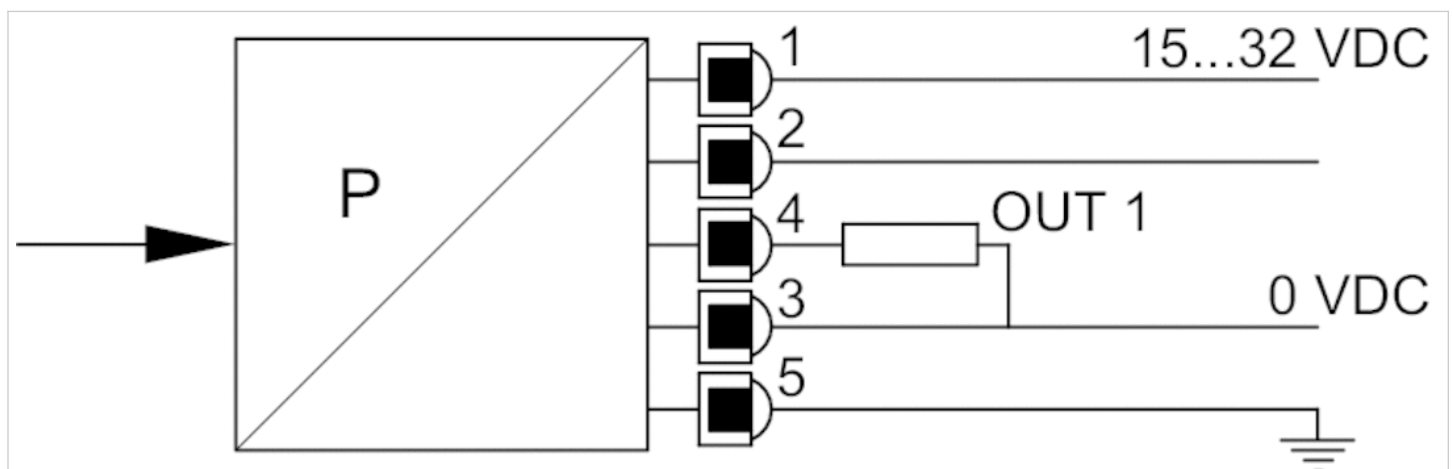
Pressure-voltage characteristics curve



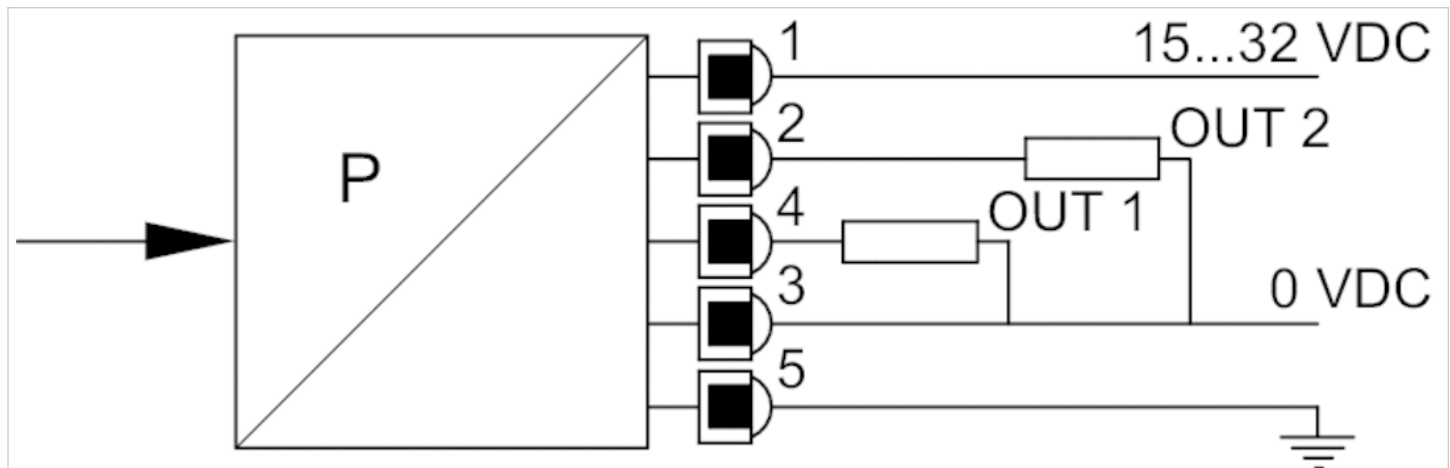
SP = switching point
 RP = resetting point
 NO = Switching function open
 NC = Switching function closed without current
 DS = Delay for the switching point
 DR = Delay for the resetting point

Circuit diagram

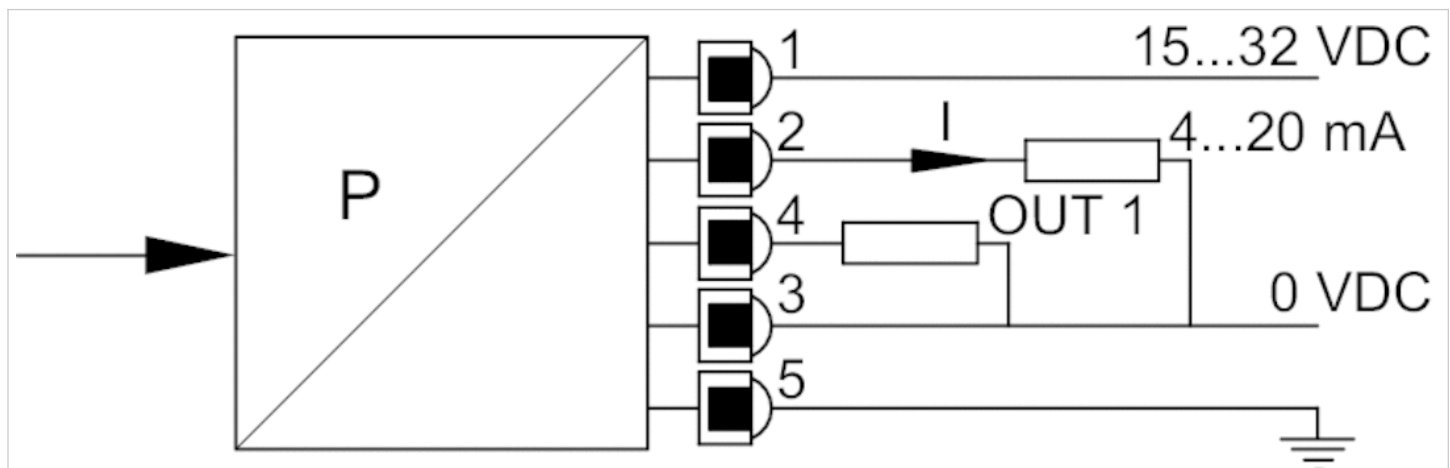
Block diagram, 1 x PNP



Block diagram, 2 x PNP

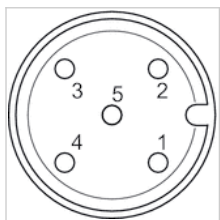


Block diagram, 1x PNP and 1x analog



Pin assignments

Pin assignments



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

Pressure Switches, Series PM1

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



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

Technical data

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

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

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

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

Technical information

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

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

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

The microswitch has silver-plated contacts.

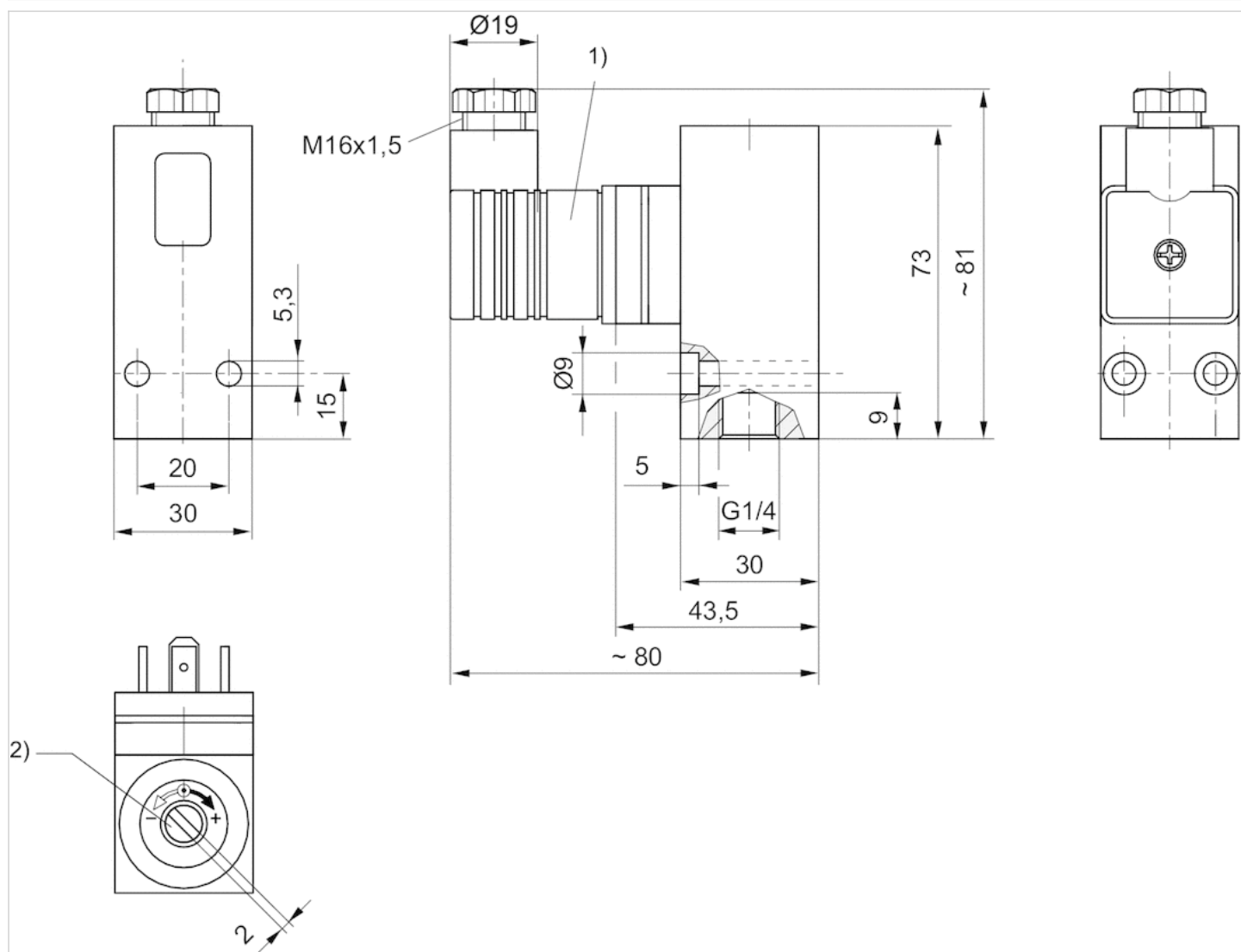
Please observe the pin assignment when selecting plug connectors.

Technical information

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

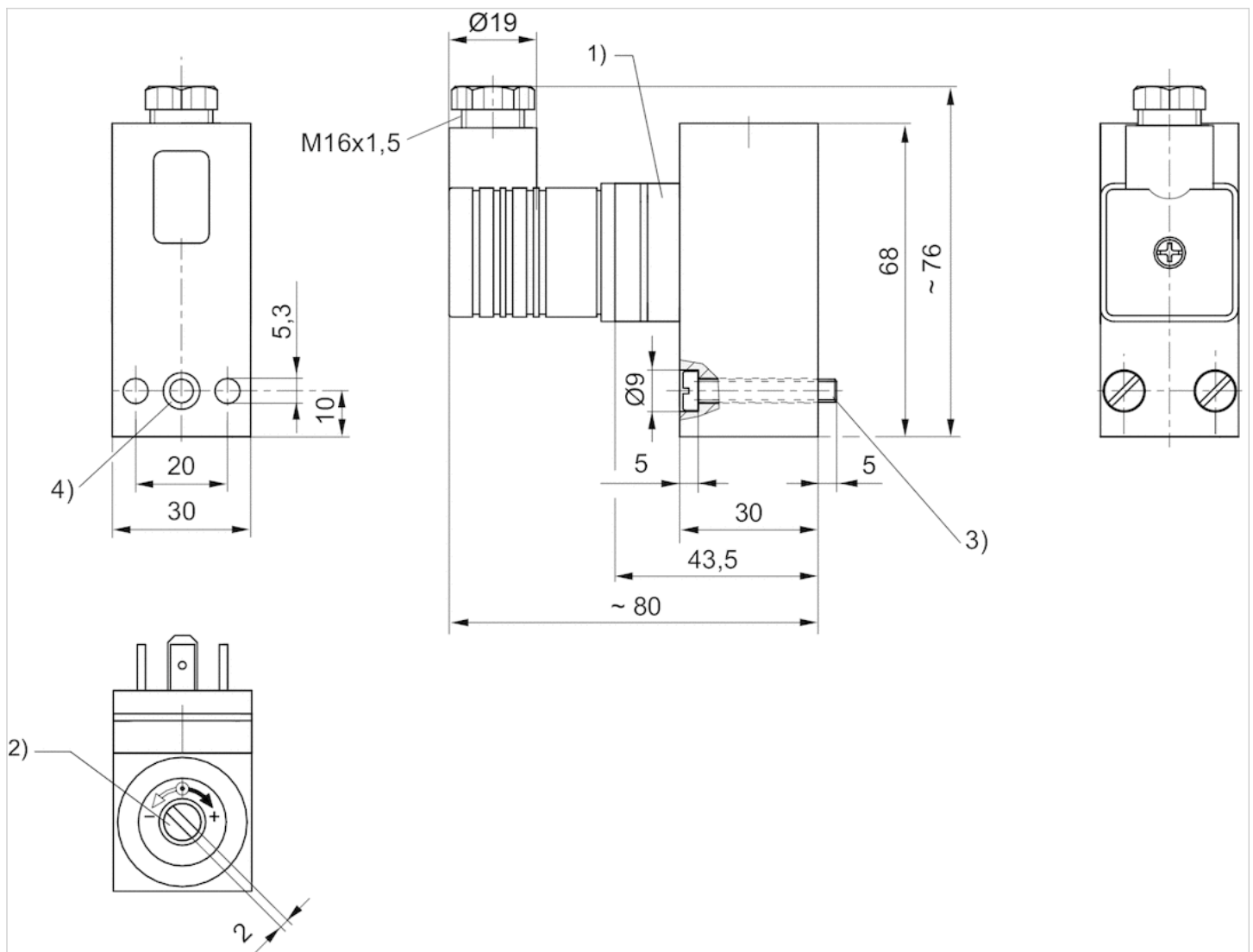
Dimensions

Fig. 1



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

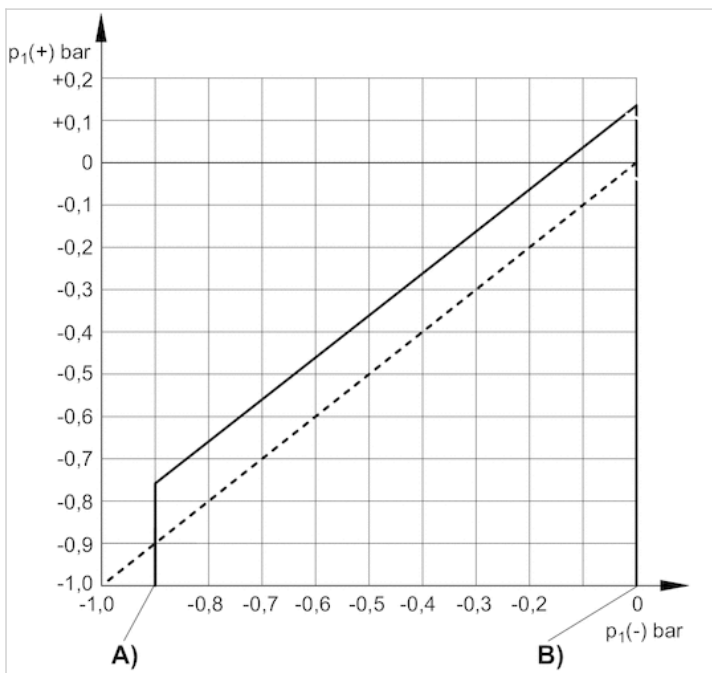
Fig. 2



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

Diagrams

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



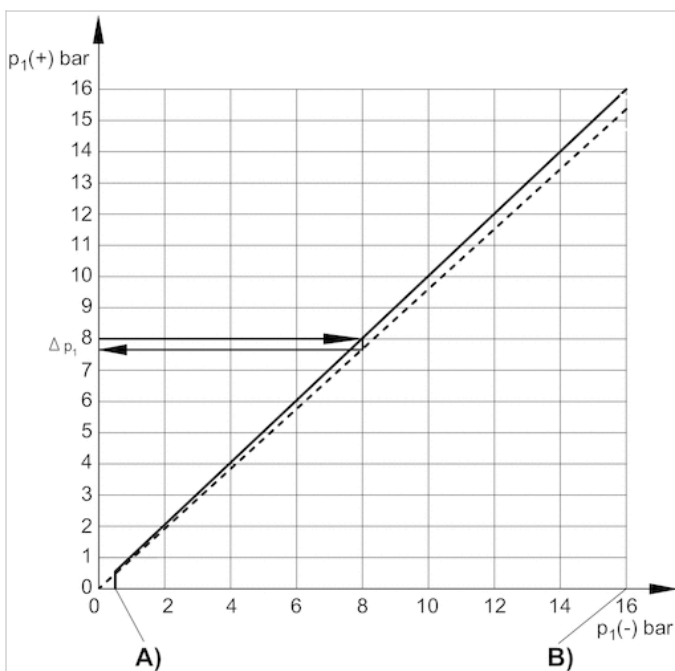
A) $p_1(-)$, min.

B) $p_1(-)$, max.

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

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

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



A) $p_1(-)$, min.

B) $p_1(-)$, max.

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

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

Δp_1 = max. operating pressure difference or hysteresis

Example:

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

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

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

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

1) AC

2) DC

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

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

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

1) AC

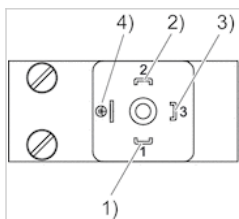
2) DC

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

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

Pin assignments

PIN assignment for valve plug connectors



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

Pressure Switches, Series PM1

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



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

Technical data

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

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

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

Technical information

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

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

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

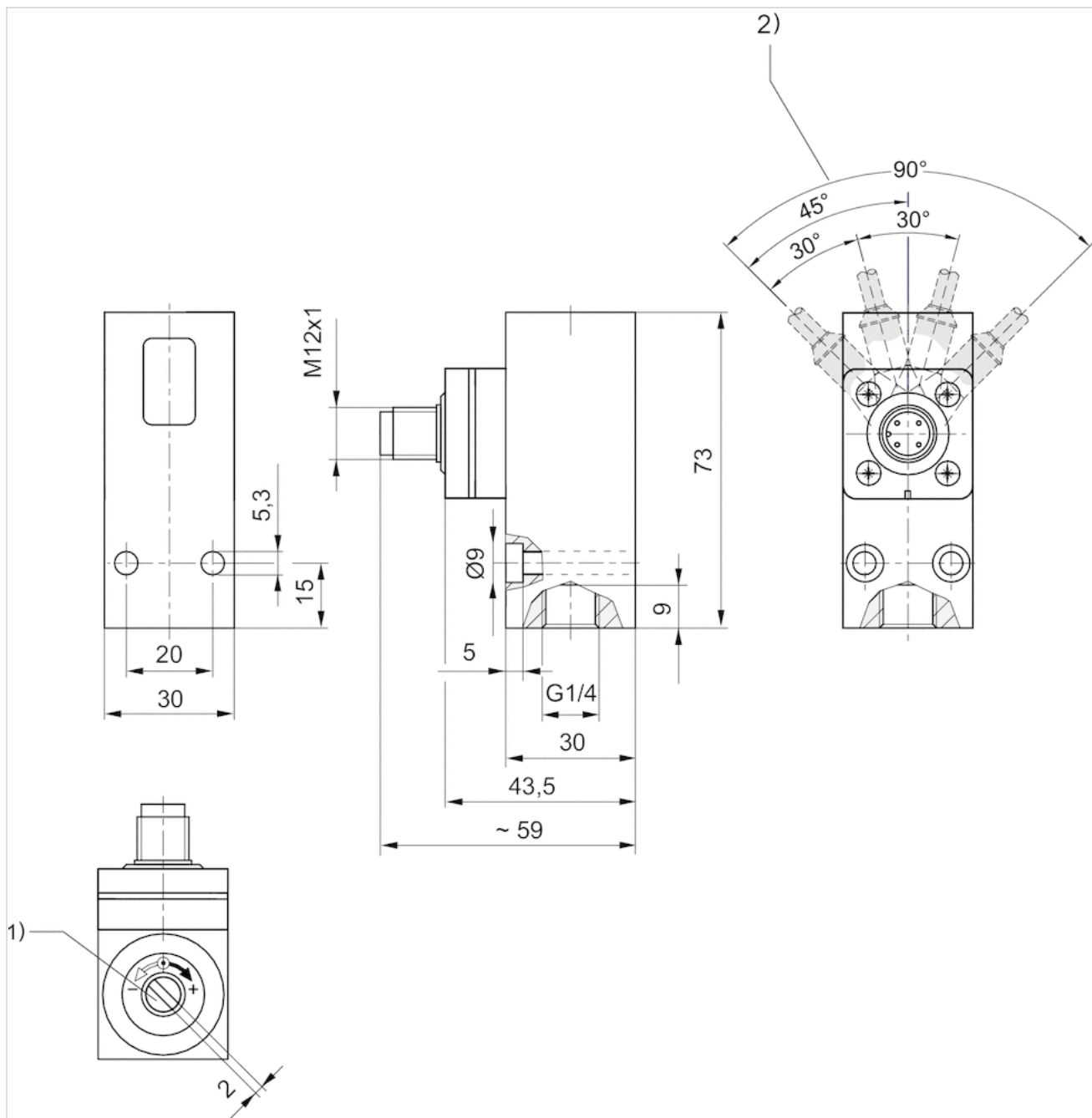
The microswitch has silver-plated contacts.

Technical information

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

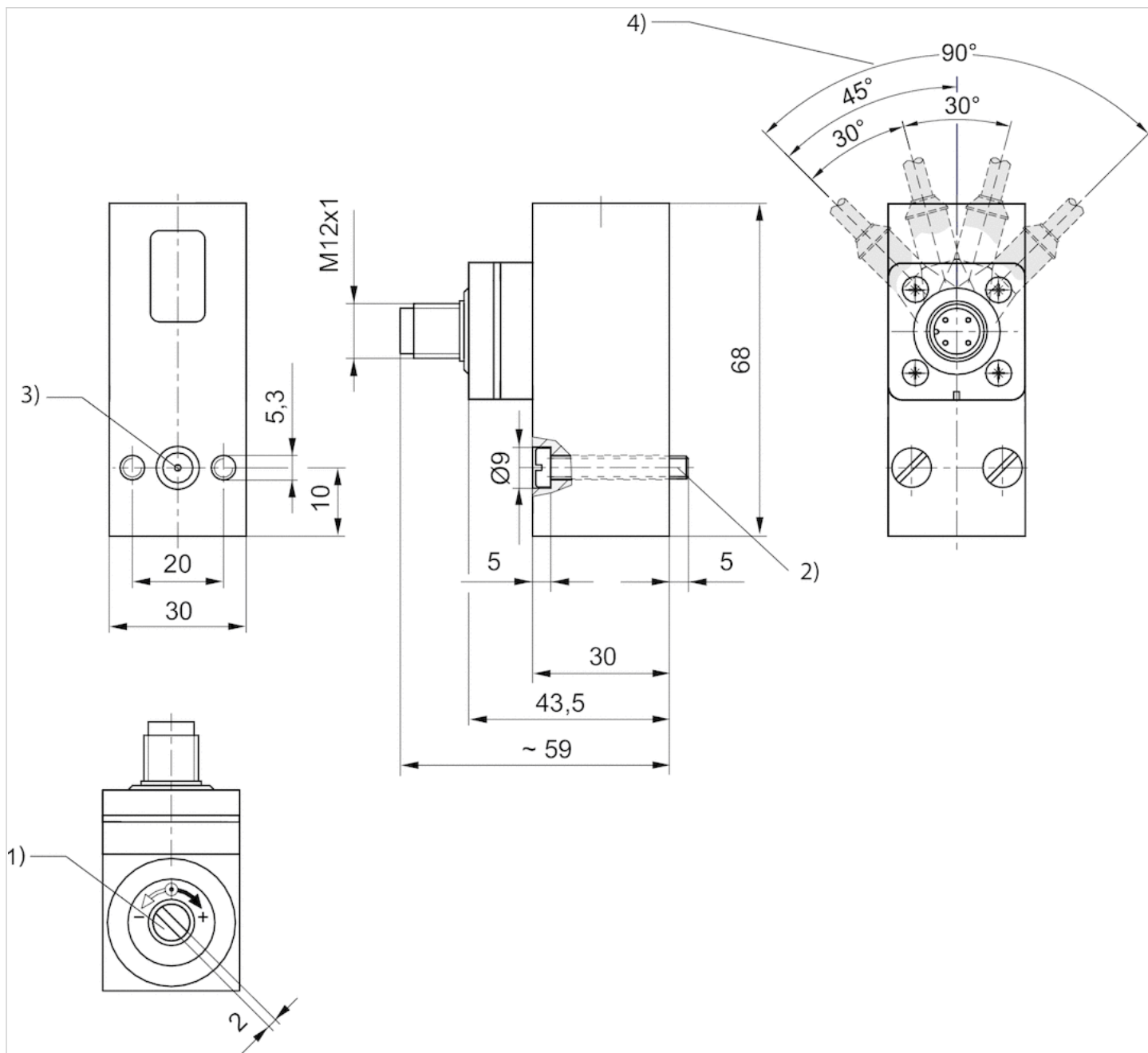
Dimensions

Fig. 1



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

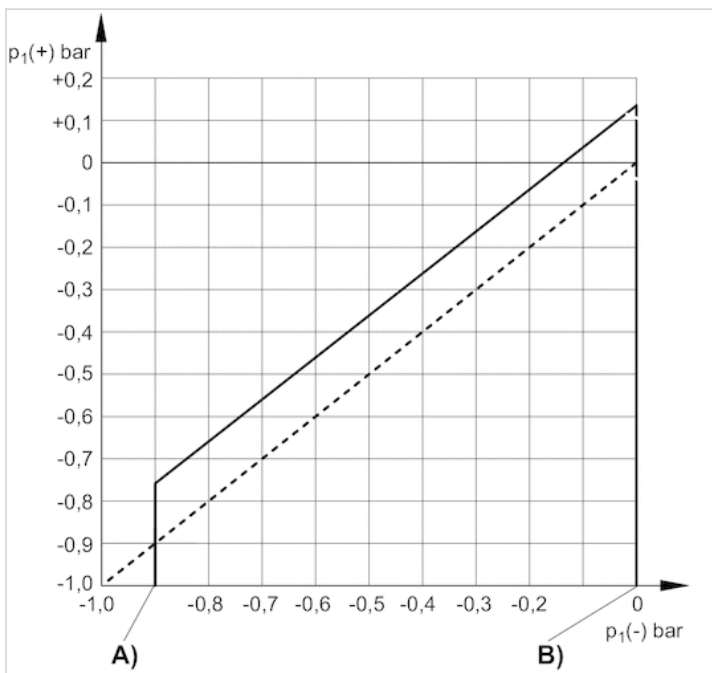
Fig. 2



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

Diagrams

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



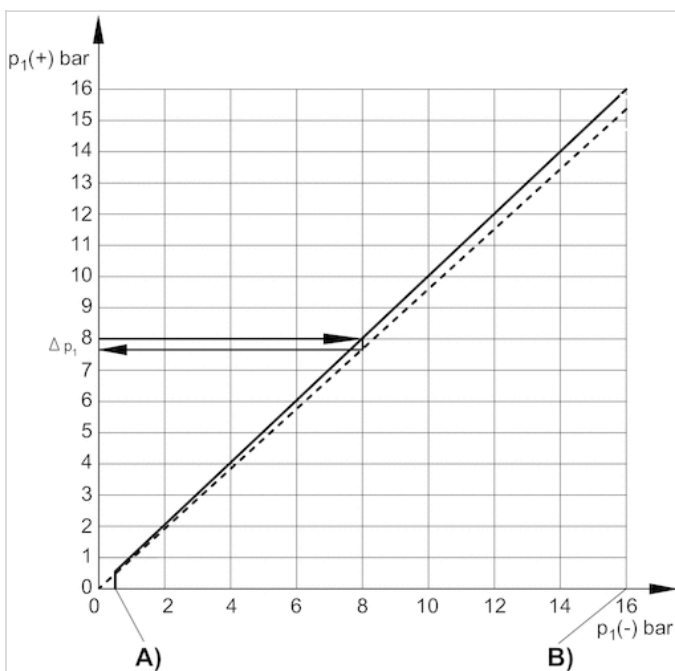
A) $p_1(-)$, min.

B) $p_1(-)$, max.

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

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

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



A) $p_1(-)$, min.

B) $p_1(-)$, max.

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

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

Δp_1 = max. operating pressure difference or hysteresis

Example:

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

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

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

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

1) AC

2) DC

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

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

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

1) AC

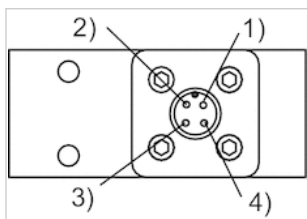
2) DC

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

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

Pin assignments

Pin assignments



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

QR1-S-RPN standard series

- Straight fitting
- External thread
- G 1/4 G 3/8
- push-in fitting
- Ø 4 Ø 6 Ø 8 Ø 10 Ø 12 Ø 14 Ø 16
- QR1-S-RPN



Working pressure min./max.

-0.95 ... 10 bar

Ambient temperature min./max.

0 ... 60 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
2121004140	G 1/4	Ø 4	10 piece	0.02 kg
2121006140	G 1/4	Ø 6	10 piece	0.021 kg
2121008140	G 1/4	Ø 8	10 piece	0.024 kg
2121010140	G 1/4	Ø 10	10 piece	0.026 kg
2121012140	G 1/4	Ø 12	10 piece	0.039 kg
R412005000	G 3/8	Ø 6	10 piece	0.032 kg
2121008380	G 3/8	Ø 8	10 piece	0.035 kg
2121010380	G 3/8	Ø 10	10 piece	0.042 kg
2121012380	G 3/8	Ø 12	10 piece	0.045 kg
2121014380	G 3/8	Ø 14	10 piece	0.046 kg
R412005005	G 3/8	Ø 16	10 piece	0.058 kg

Technical information

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

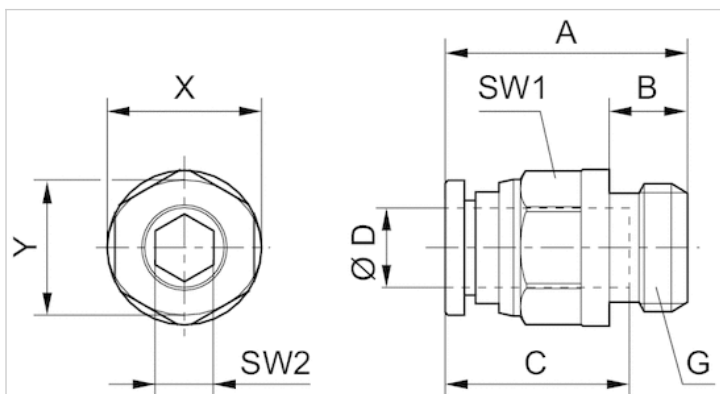
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

Technical information

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

Dimensions

Dimensions



Dimensions

Part No.	Port D	Port G	A	B	C	SW1	SW2	X	Y
2121004140	Ø 4	G 1/4	19.1	6	16	10	3	12	10
2121006140	Ø 6	G 1/4	21.6	6	17	12	4	14	12
2121008140	Ø 8	G 1/4	22.4	6	18.5	14	6	16	14
2121010140	Ø 10	G 1/4	29.9	6	21	17	7	19	17
2121012140	Ø 12	G 1/4	33.4	6	22.5	21	7	23	21
R412005000	Ø 6	G 3/8	21.6	7	17	12	4	14	12
2121008380	Ø 8	G 3/8	23.2	7	18.5	14	6	16	14
2121010380	Ø 10	G 3/8	25.9	7	21	17	8	19	17
2121012380	Ø 12	G 3/8	33.5	7	23	21	9	23	21
2121014380	Ø 14	G 3/8	30.1	7	24.6	22	9	25	23
R412005005	Ø16	G 3/8	35.3	7	25.5	24	8	27	24

QR1-S-RVT standard series

- Elbow fitting
- External thread
- G 1/4 G 3/8
- push-in fitting
- Ø 4 Ø 6 Ø 8 Ø 10 Ø 12 Ø 14 Ø 16
- QR1-S-RVT



Working pressure min./max.

-0.95 ... 10 bar

Ambient temperature min./max.

0 ... 60 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
2122004140	G 1/4	Ø 4	10 piece	0.017 kg
2122006140	G 1/4	Ø 6	10 piece	0.019 kg
2122008140	G 1/4	Ø 8	10 piece	0.023 kg
2122010140	G 1/4	Ø 10	10 piece	0.029 kg
2122012140	G 1/4	Ø 12	10 piece	0.042 kg
R412005092	G 3/8	Ø 6	10 piece	0.031 kg
2122008380	G 3/8	Ø 8	10 piece	0.033 kg
2122010380	G 3/8	Ø 10	10 piece	0.04 kg
2122012380	G 3/8	Ø 12	10 piece	0.044 kg
2122014380	G 3/8	Ø 14	5 piece	0.048 kg
R412005097	G 3/8	Ø 16	5 piece	0.061 kg

Technical information

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

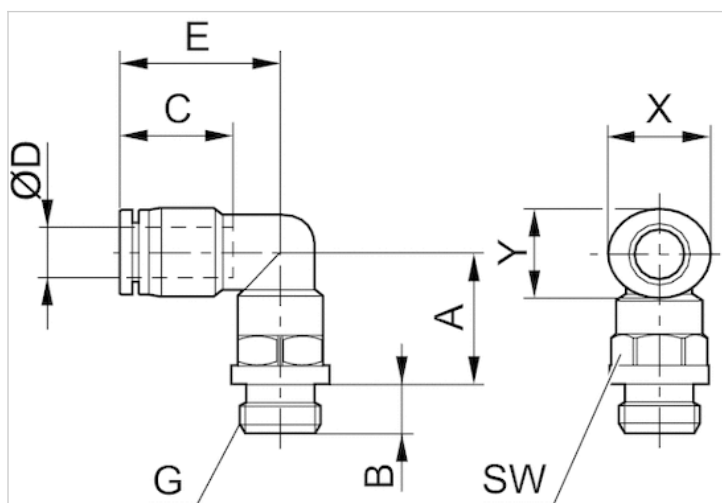
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

Technical information

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

Dimensions

Dimensions



Dimensions

Part No.	Port D	Port G	A	B	C	E	SW	X	Y
2122004140	Ø 4	G 1/4	9.5	6	16	18.5	16	12	10
2122006140	Ø 6	G 1/4	10.7	6	17	20.3	16	14	12
2122008140	Ø 8	G 1/4	11.5	6	18.5	22.6	16	16	14
2122010140	Ø 10	G 1/4	16.5	6	21	27	16	19	17
2122012140	Ø 12	G 1/4	18.3	6	22.5	29.2	16	23	21
R412005092	Ø 6	G 3/8	11.2	7	17	20.3	20	14	12
2122008380	Ø 8	G 3/8	11.5	7	18.5	22.6	20	16	14
2122010380	Ø 10	G 3/8	13.6	7	21	27	20	19	16
2122012380	Ø 12	G 3/8	15.3	7	22.5	29.2	20	23	21
2122014380	Ø 14	G 3/8	23.1	7	24.6	32.1	20	25	23
R412005097	Ø16	G 3/8	24.2	7	24.8	33.3	20	27	24

Series QR2-S-RPN standard

- Straight fitting
- External thread
- G 1/4 G 3/8
- push-in fitting
- Ø 4 Ø 5 Ø 6 Ø 8 Ø 10 Ø 12 Ø 14
- QR2-S-RPN



Working pressure min./max.

-0.95 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece	Fig.
1823373045	G 1/4	Ø 4	25 piece	0.012 kg	Fig. 1
1823373046	G 1/4	Ø 5	10 piece	0.013 kg	Fig. 1
1823373047	G 1/4	Ø 6	25 piece	0.015 kg	Fig. 1
1823373048	G 1/4	Ø 8	10 piece	0.016 kg	Fig. 1
1823373049	G 1/4	Ø 10	10 piece	0.026 kg	Fig. 1
1823391809	G 1/4	Ø 12	10 piece	0.031 kg	Fig. 1
R412004708	G 1/4	Ø 12	10 piece	0.022 kg	Fig. 2
1823373050	G 3/8	Ø 8	10 piece	0.021 kg	Fig. 1
1823373051	G 3/8	Ø 10	10 piece	0.028 kg	Fig. 1
1823373052	G 3/8	Ø 12	5 piece	0.038 kg	Fig. 1
1823373053	G 3/8	Ø 14	5 piece	0.059 kg	Fig. 1

Technical information

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

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

Technical information

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

Dimensions

Fig. 1

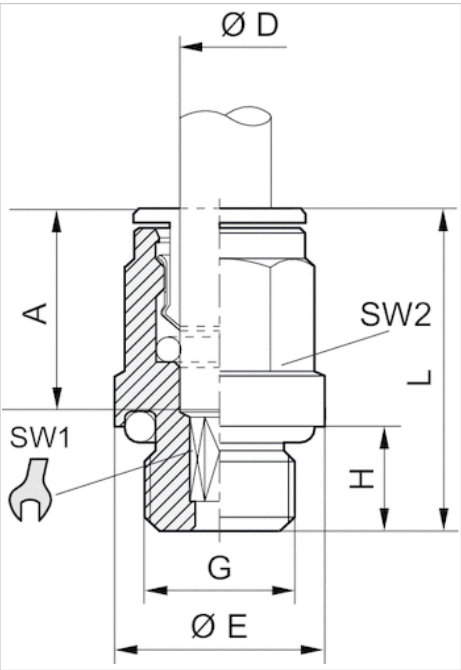
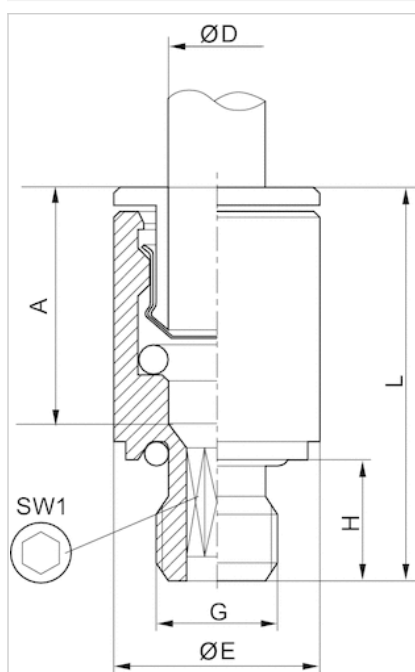


Fig. 2



Dimensions

Part No.	Port D	Port G	Ø E	H	L	A Insertion depth	SW 1	SW 2	Fig.
1823373045	Ø 4	G 1/4	17	8	21	15	2.5	9	Fig. 1
1823373046	Ø 5	G 1/4	17	8	22	16	4	10	Fig. 1
1823373047	Ø 6	G 1/4	17	6.5	22.5	16	4	11	Fig. 1
1823373048	Ø 8	G 1/4	17	8	25	18	6	13	Fig. 1
1823373049	Ø 10	G 1/4	16	8	29.5	19	7	16	Fig. 1
1823391809	Ø 12	G 1/4	16	6.5	30	20	7	18	Fig. 1
R412004708	Ø 12	G 1/4	17	8.3	31	7	–	–	Fig. 2
1823373050	Ø 8	G 3/8	20	9	25	18	6	13	Fig. 1
1823373051	Ø 10	G 3/8	21	9	29.5	19	8	16	Fig. 1
1823373052	Ø 12	G 3/8	21	9	31	20	10	18	Fig. 1
1823373053	Ø 14	G 3/8	21	9	34	22	10	21	Fig. 1

Series QR2-S-RVT standard

- Elbow fitting, rotatable
- External thread
- G 1/4 G 3/8
- push-in fitting
- Ø 4 Ø 6 Ø 8 Ø 10 Ø 12 Ø 14 Ø 16
- QR2-S-RVT



Working pressure min./max.

-0.95 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
1823391713	G 1/4	Ø 4	10 piece	0.024 kg
1823391714	G 1/4	Ø 6	10 piece	0.025 kg
1823391715	G 1/4	Ø 8	10 piece	0.027 kg
1823391718	G 1/4	Ø 10	5 piece	0.031 kg
1823391843	G 1/4	Ø 12	5 piece	0.042 kg
1823391716	G 3/8	Ø 8	5 piece	0.042 kg
1823391717	G 3/8	Ø 10	5 piece	0.042 kg
1823391838	G 3/8	Ø 12	5 piece	0.045 kg
1823391839	G 3/8	Ø 14	5 piece	0.062 kg
R412010182	G 3/8	Ø 16	1 piece	0.072 kg

Technical information

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

Thread seal with captive O-ring

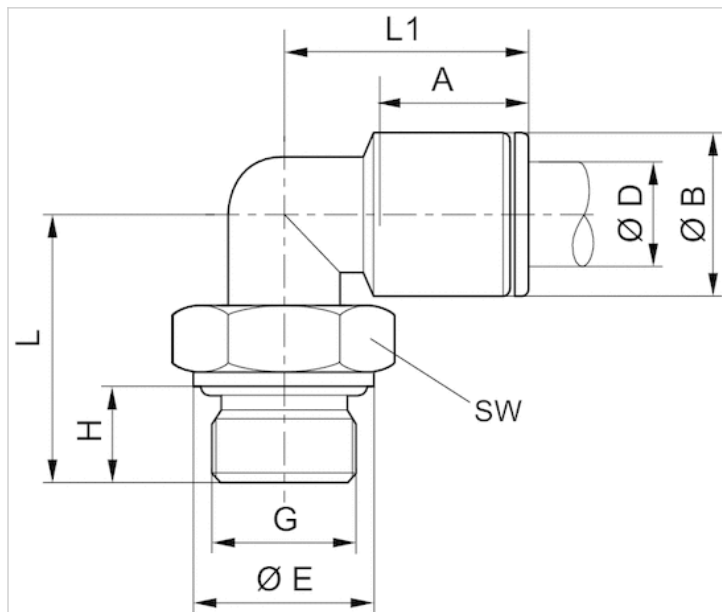
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Brass, nickel-plated
Seal	Acrylonitrile butadiene rubber

Material	
Tooth lock washer	Stainless steel
Release ring	Brass, nickel-plated
Thread	Brass, nickel-plated

Dimensions



Dimensions

Part No.	Port D	Port G	ØB	ØE	H	L	L1	A Insertion depth	SW
1823391713	Ø 4	G 1/4	9	16	8	24	19	15	13
1823391714	Ø 6	G 1/4	11	16	8	24	21	16	13
1823391715	Ø 8	G 1/4	13	16	8	24	24	18	13
1823391718	Ø 10	G 1/4	15	16	8	24	27	19	16
1823391843	Ø 12	G 1/4	17	16	8	30.5	29	20	16
1823391716	Ø 8	G 3/8	13	20	9	25.5	24	18	13
1823391717	Ø 10	G 3/8	15	20	9	28	27	19	16
1823391838	Ø 12	G 3/8	17	20	9	28.5	28	20	20
1823391839	Ø 14	G 3/8	20	20	9	28.5	31	22	20
R412010182	Ø16	G 3/8	23	20	9	33.5	33	23.5	20

Series NU2

- Swivel banjo connection 1-fold
- External thread
- G 1/4 G 3/8
- plug-in with tube nut
- Ø 6 Ø 8 Ø 9 Ø 13
- NU2-S-RW1



Working pressure min./max.

-0.95 ... 10 bar

Ambient temperature min./max.

-10 ... 60 °C

Weight per piece

See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
1823391294	G 1/4	Ø 6	2 piece	0.034 kg
1823391295	G 1/4	Ø 8	2 piece	0.044 kg
R412010658	G 1/4	Ø 9	2 piece	0.276 kg
1823391296	G 3/8	Ø 8	2 piece	0.056 kg
R412007839	G 3/8	Ø 13	2 piece	0.079 kg

Technical information

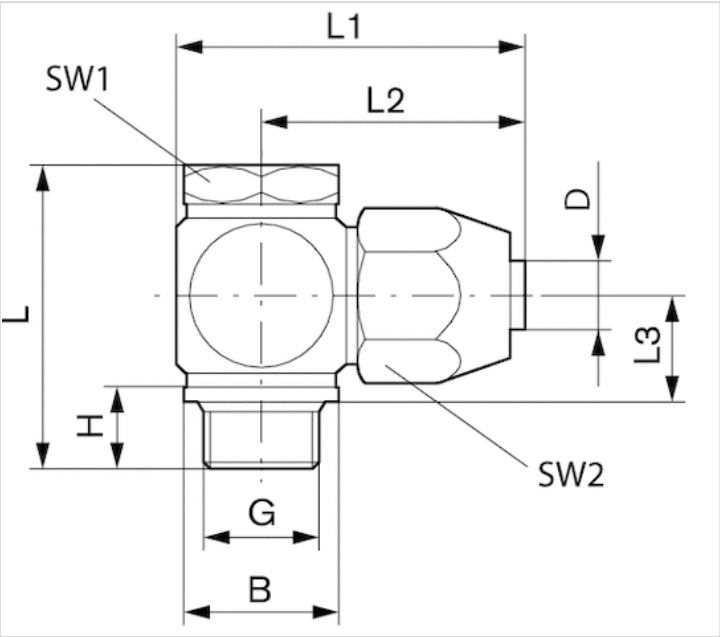
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Aluminum, anodized
Seal	Polyvinyl chloride

Dimensions

Dimensions



for fabric-reinforced plastic tubing

Dimensions

Part No.	Port D	Port G	B	H	L	L1	L2	L3	SW1	SW2
1823391294	Ø 6	G 1/4	18	12.5	39	39.5	30	14.5	17	19
1823391295	Ø 8	G 1/4	18	12.5	42	42	32.5	16	17	22
R412010658	Ø 9	G 1/4	18.9	7.9	40	42	32.5	15.6	17	24
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

Connection D = inside diameter of the tubing to be used

Double nipple, Series PE5

- External thread



Weight per piece

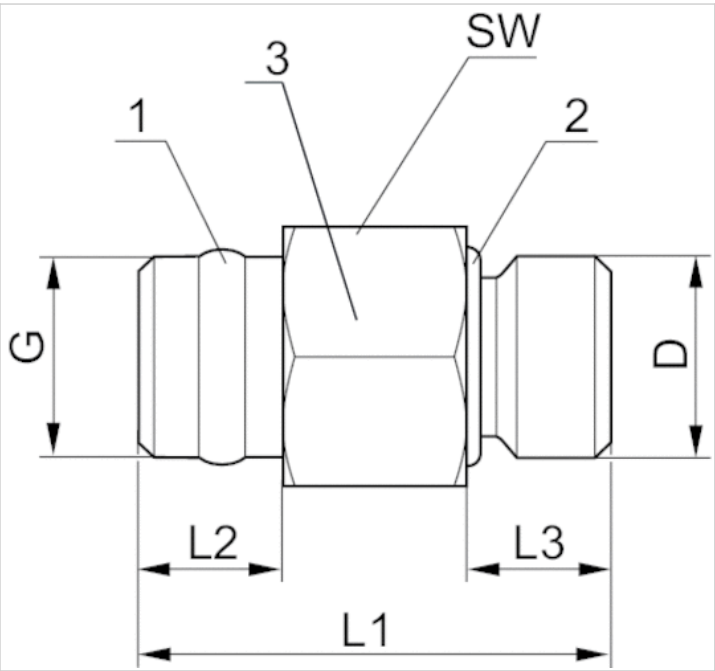
0.04 kg

Technical data

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

Dimensions

Dimensions



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

Dimensions

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

Blanking screw

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



Working pressure min./max.

0 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

Technical data

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

Technical information

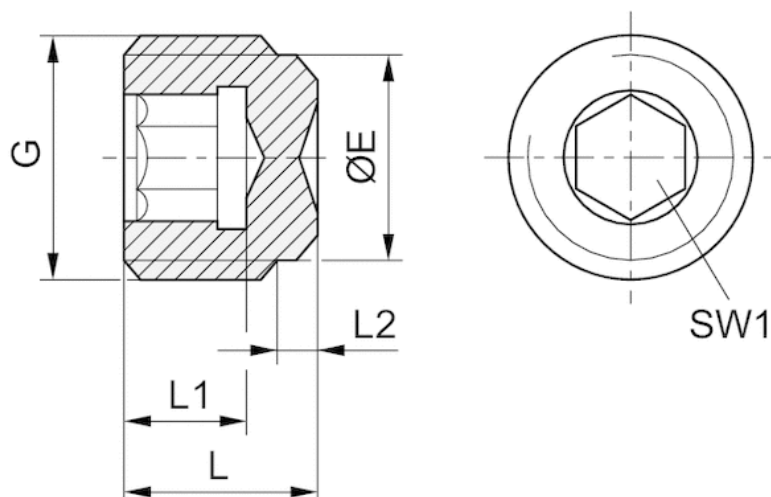
Material

Material

Brass

Dimensions

Dimensions



Dimensions in mm

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

plugs



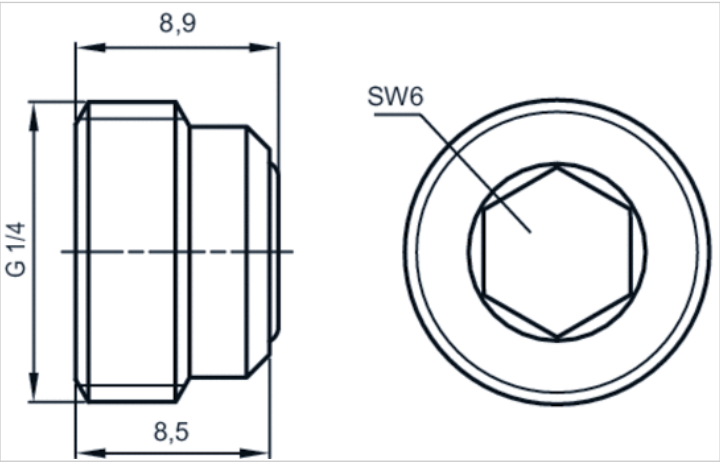
Technical data

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

Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions

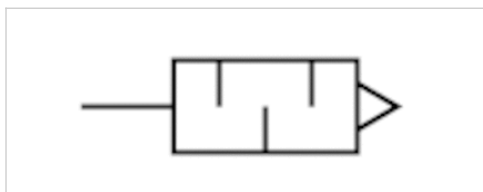


Silencers, series SI1

- G 1/4
- Sintered bronze



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



Technical data

Part No.	Compressed air connection	Sound pressure level	Flow	Delivery unit	Weight
			Qn		
R412004817	G 1/4	-	5950 l/min	10 piece	0.013 kg
1827000001	G 1/4	79 dB	3390 l/min	10 piece	0.02 kg

Weight per piece

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

Technical information

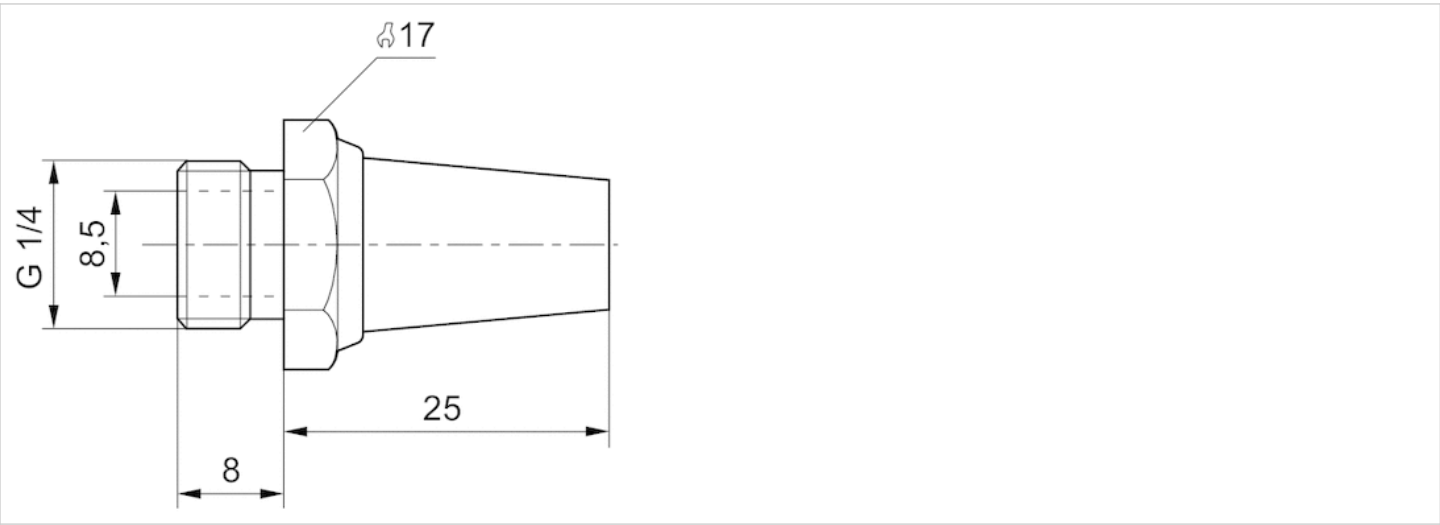
Material	
Silencer	Sintered bronze
Thread	Brass

Dimensions

Dimensions in mm



Dimensions in mm

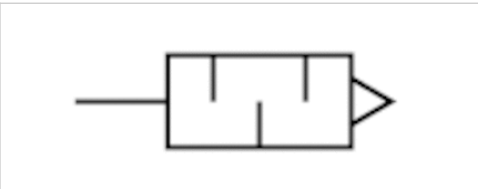


Silencers, series SI1

- G 1/4
- Stainless steel



Working pressure min./max.	0 ... 12 bar
Ambient temperature min./max.	-20 ... 150 °C
Medium	Compressed air
Sound pressure level	93 dB
Weight	0.021 kg
Comment	Flow characteristic curves can be found under "Diagrams".



Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
R412010082	G 1/4	1852 l/min	1 piece

Weight per piece

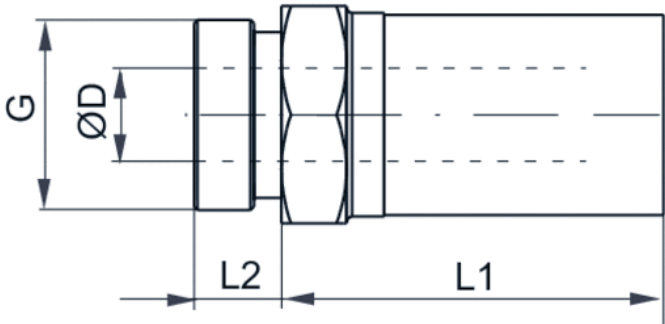
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

Technical information

Material	
Silencer	Stainless steel
Thread	Stainless steel

Dimensions

Dimensions

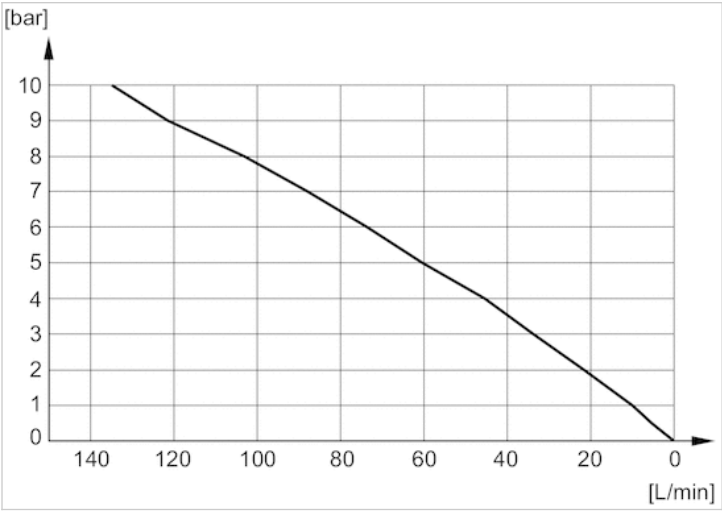


Dimensions

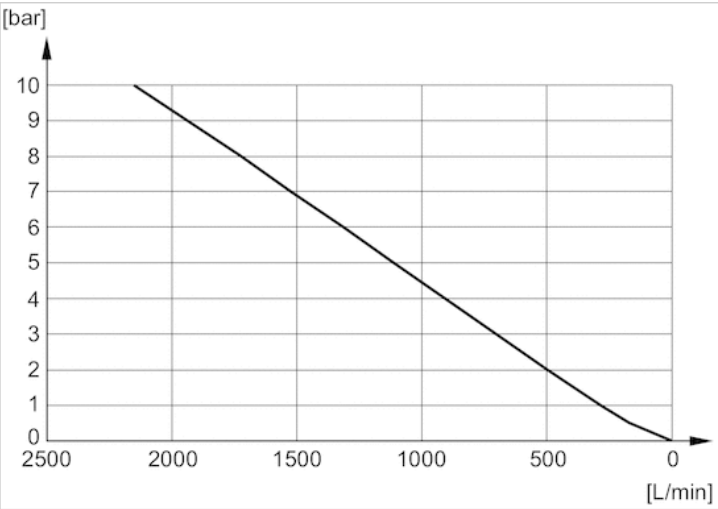
Part No.	Port G	SW	Ø D	L1	L2
R412010082	G 1/4	16	8.6	29.5	7.5

Diagrams

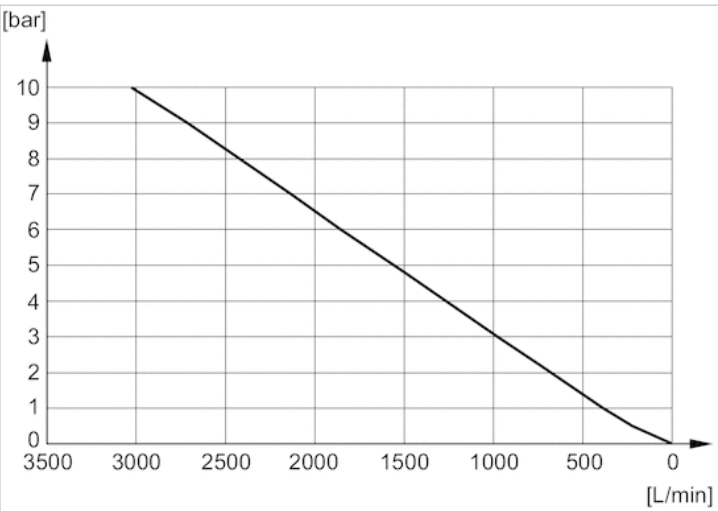
Flow diagram, R412010090



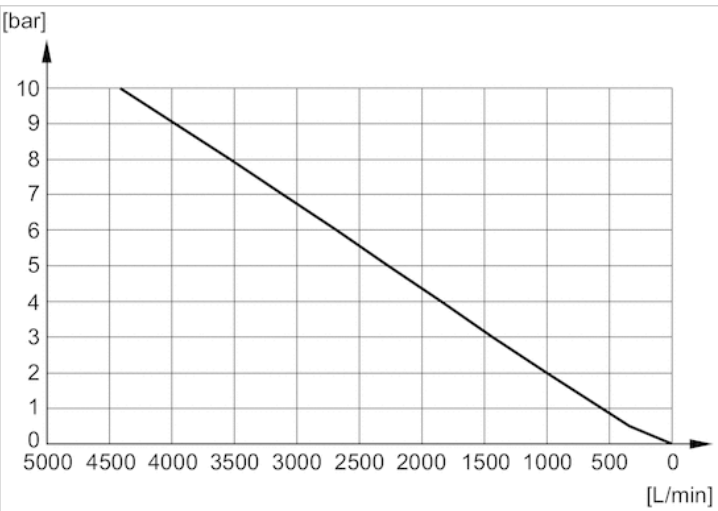
Flow diagram, R412010081



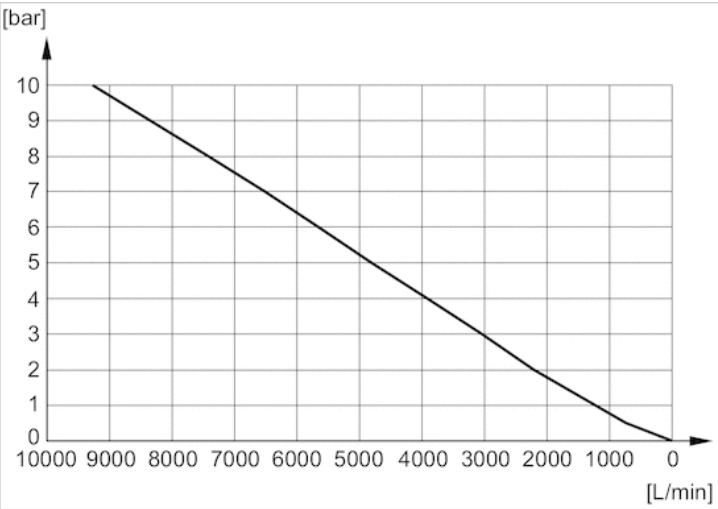
Flow diagram, R412010082



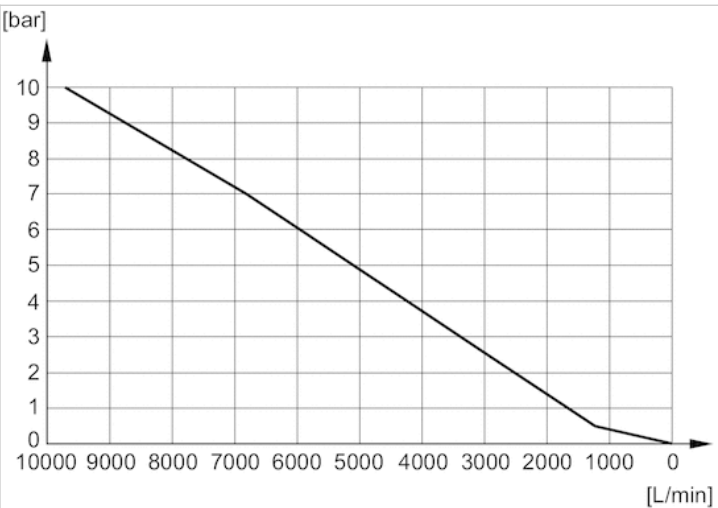
Flow diagram, R412010083



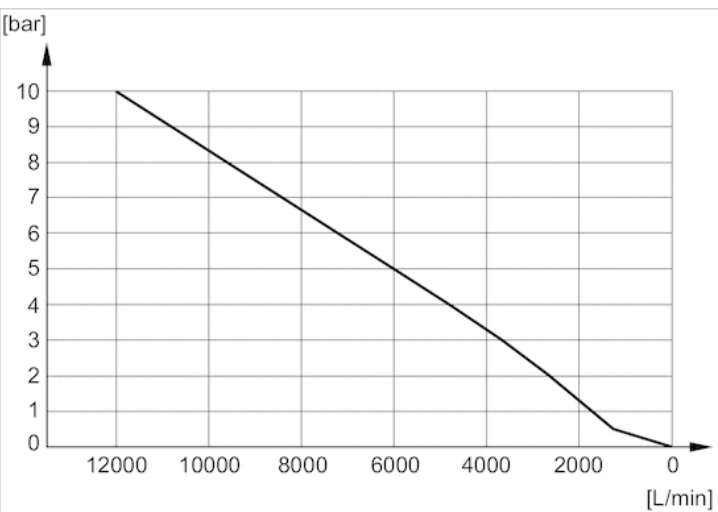
Flow diagram, R412010084



Flow diagram, R412010085



Flow diagram, R412010086

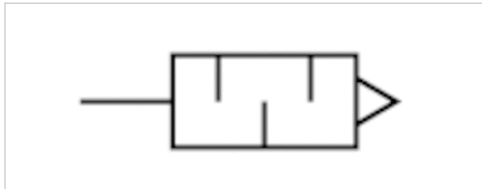


Silencers, series SI1

- G 1/4
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	88 dB
Weight	0.01 kg
Comment	Flow characteristic curves can be found under "Diagrams".



Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000033	G 1/4	1116 l/min	10 piece

Weight per piece

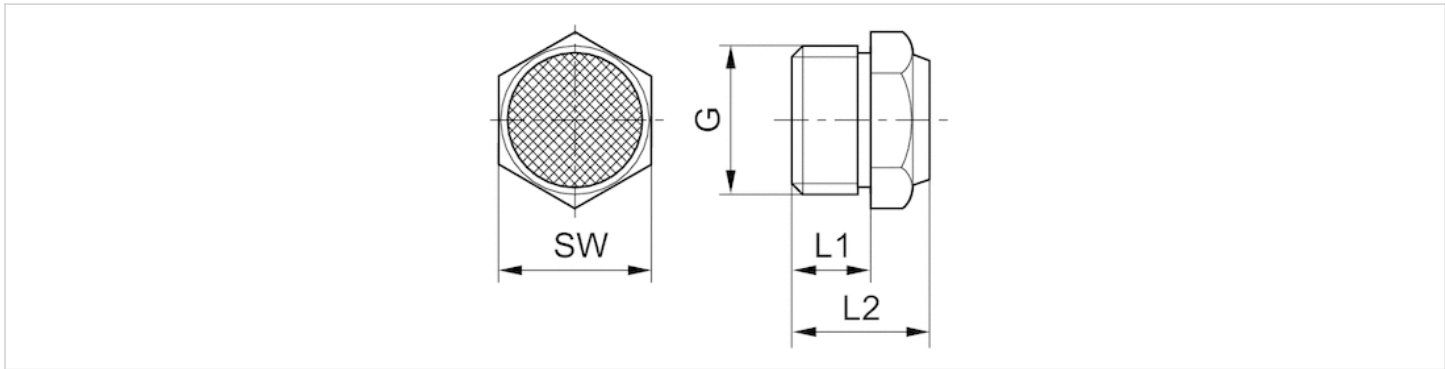
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

Dimensions

Dimensions



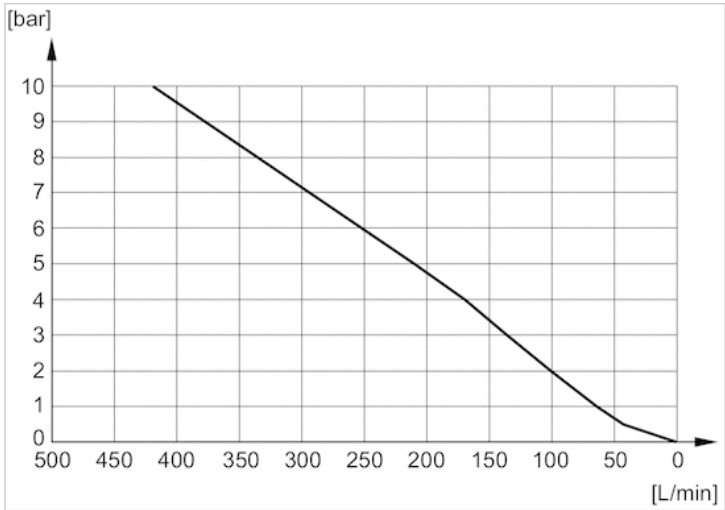
Dimensions

Part No.	Port G	L1	L2	SW
1827000033	G 1/4	8	13.5	17

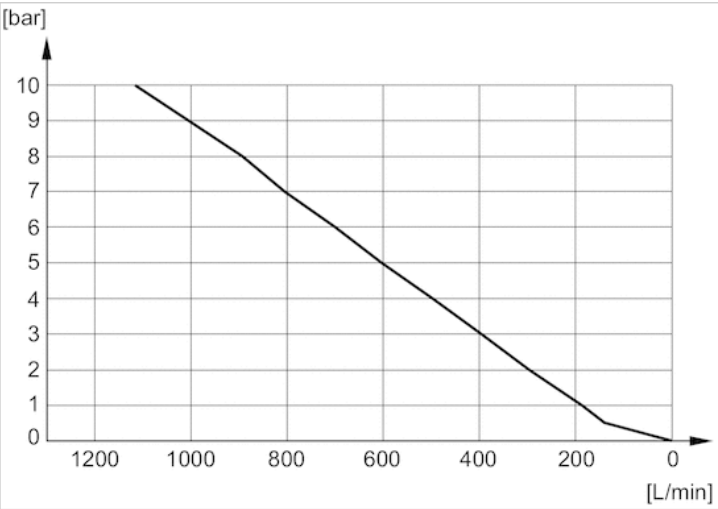
Sound pressure level measured at 6 bar at 1 m distance

Diagrams

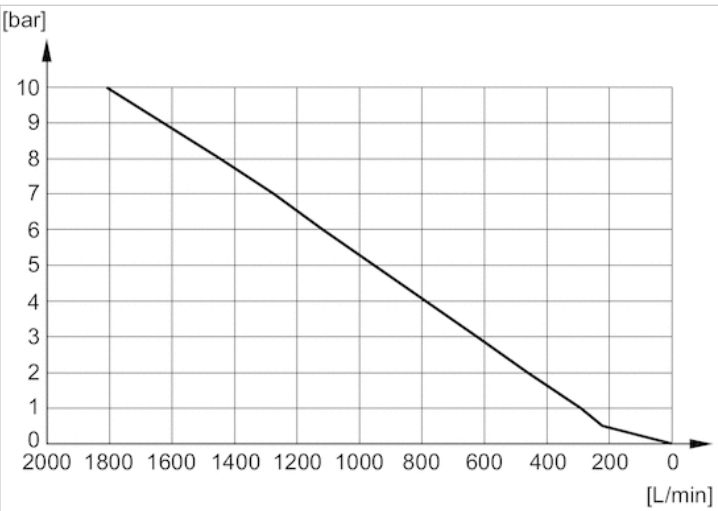
Flow diagram, 1827000032



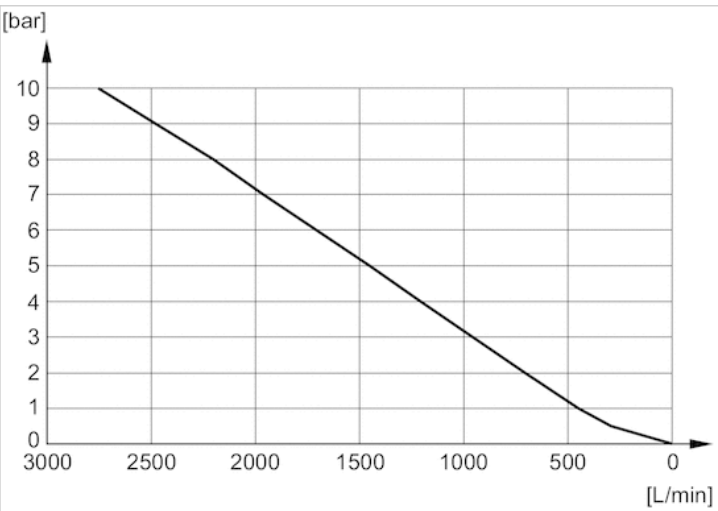
Flow diagram, 1827000031



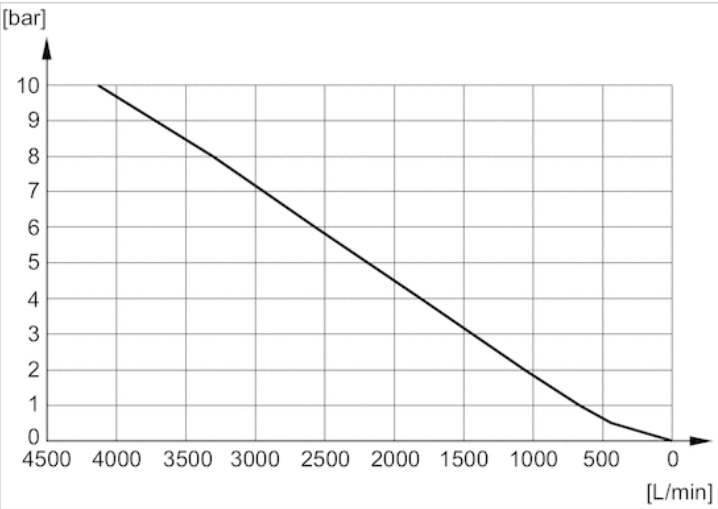
Flow diagram, 1827000033



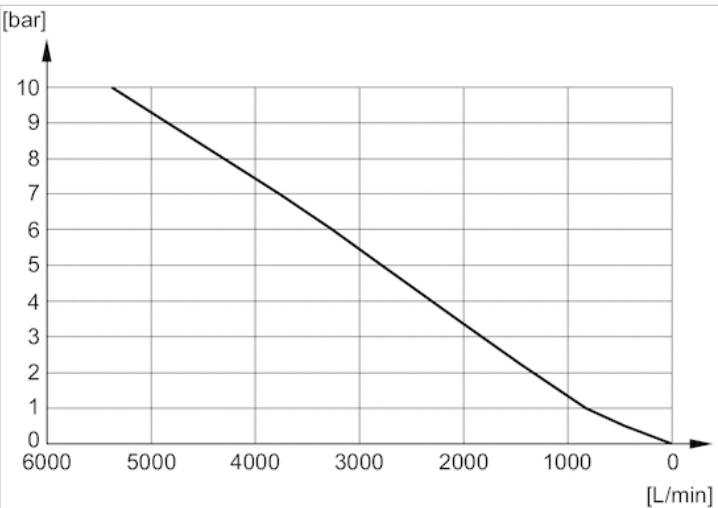
Flow diagram, 1827000034



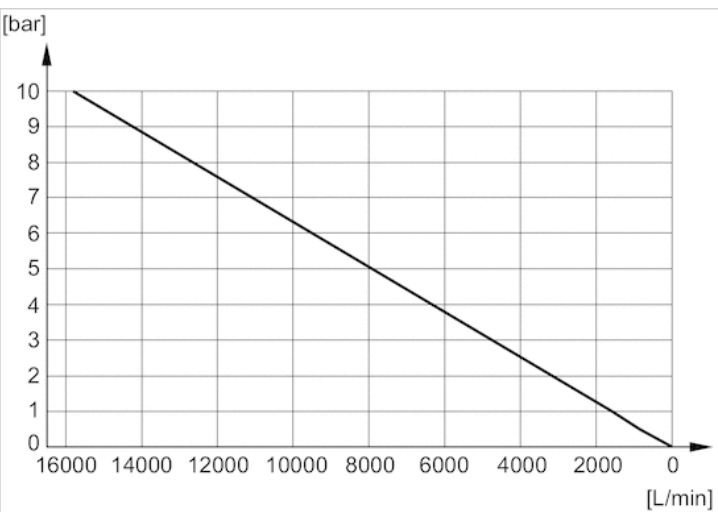
Flow diagram, 1827000035



Flow diagram, 8145003400



Flow diagram, 8145001000

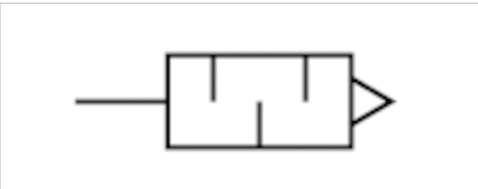


Silencers, series SI1

- G 1/4
- Polyethylene



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	80 dB
Weight	0.003 kg



Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000020	G 1/4	3447 l/min	5 piece

Weight per piece

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

Technical information

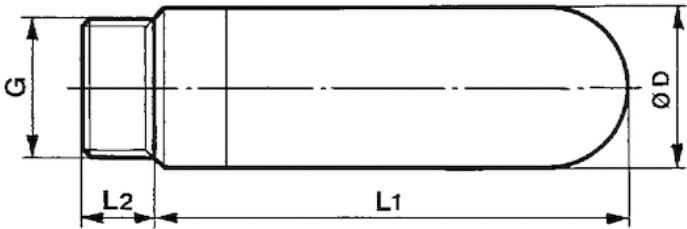
Flow characteristic curves can be found under "Diagrams".

Technical information

Material	
Silencer	Polyethylene
Thread	Polyethylene

Dimensions

Dimensions

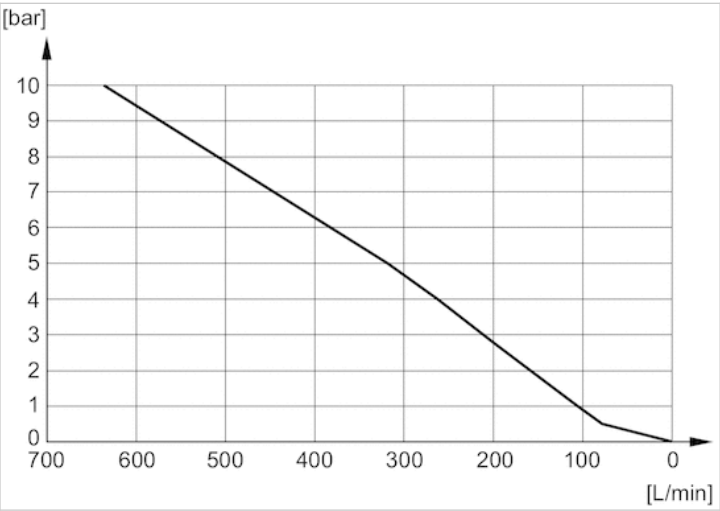


Dimensions

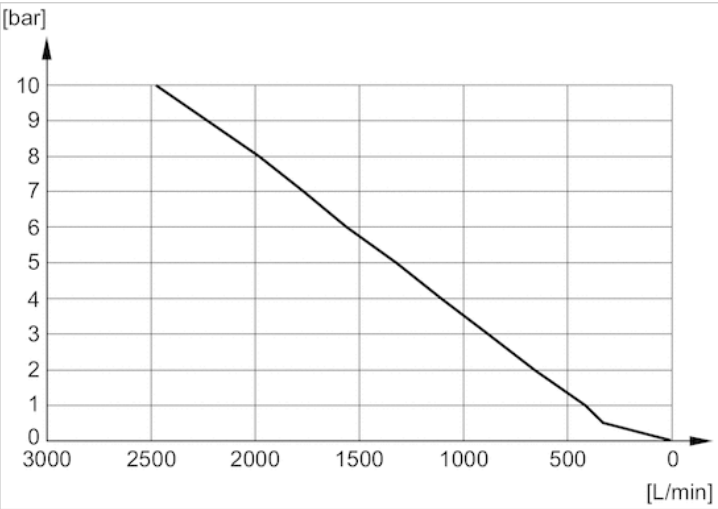
Part No.	Port G	Ø D	L1	L2
1827000020	G 1/4	15.5	34.5	8

Diagrams

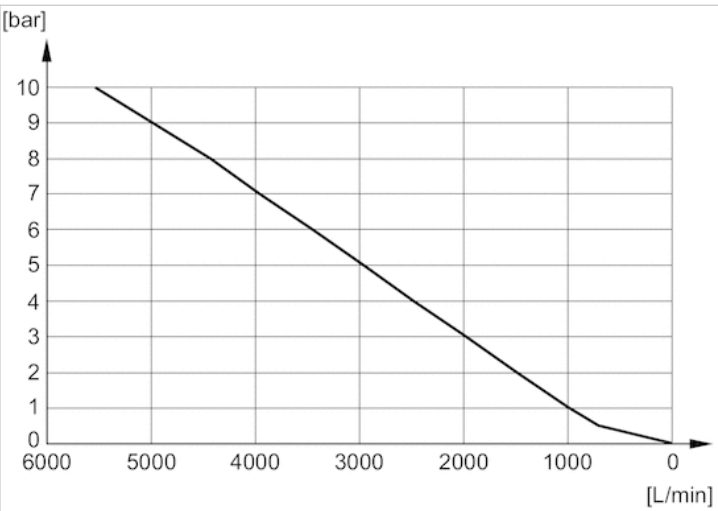
Flow diagram, 1827000018



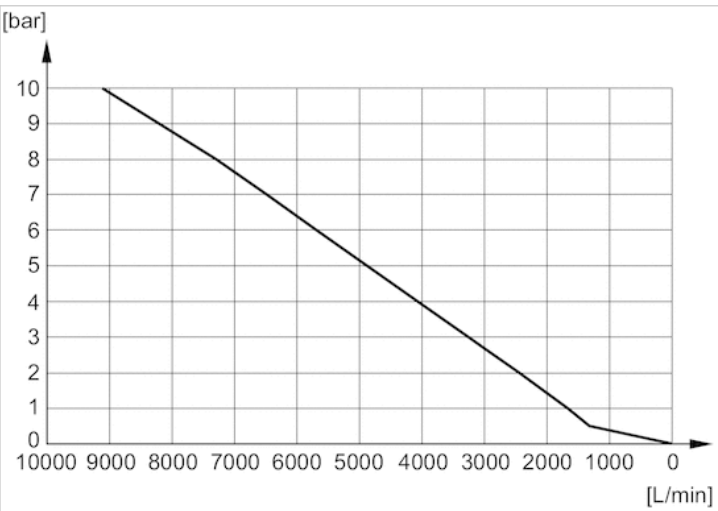
Flow diagram, 1827000019



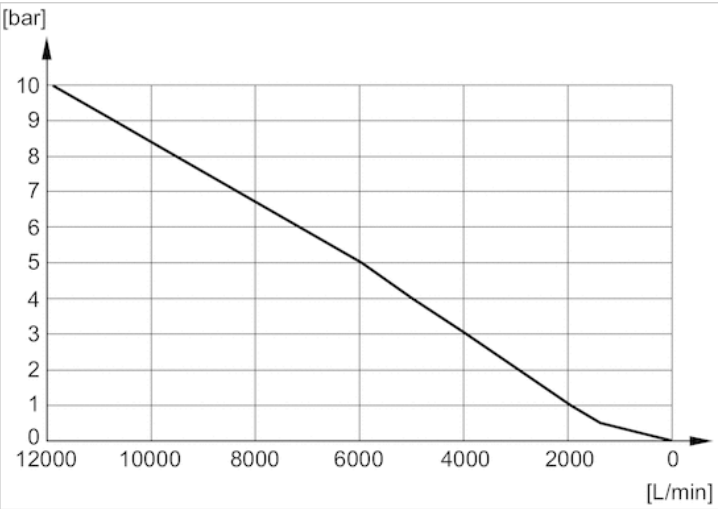
Flow diagram, 1827000020



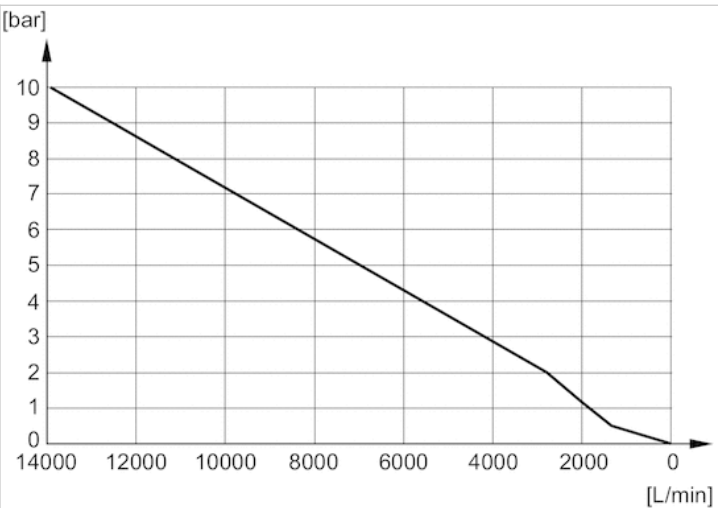
Flow diagram, 1827000021



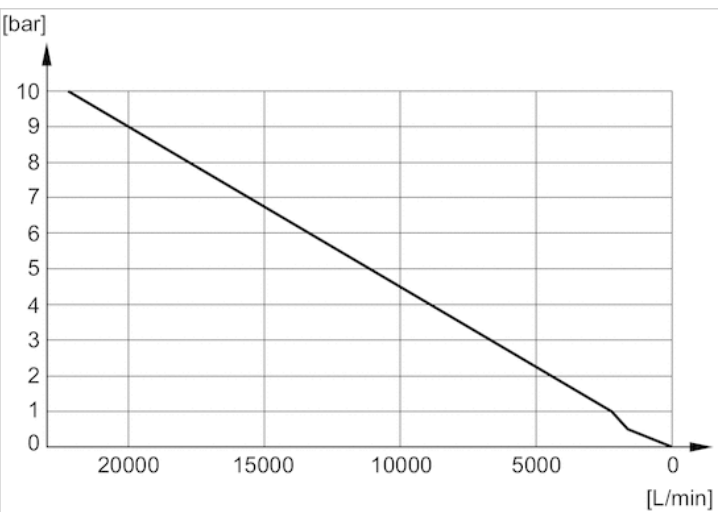
Flow diagram, 1827000022



Flow diagram, 1827000023



Flow diagram, 1827000024



Series RV1

- Qn 1►2 = 676-7179 l/min
- thread-in
- External thread
- G 1/4
- Uncollected



Version

Certificates

Working pressure min./max.

Opening pressure of valve

Ambient temperature min./max.

Medium

Poppet valve

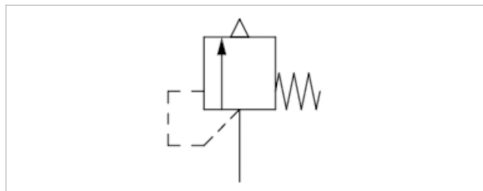
CE declaration of conformity

0 ... 20 bar

See table below

-20 ... 100 °C

Compressed air



Technical data

Part No.	Port 1	Opening pressure of valve	Flow
			Qn 1►2
R412007521	G 1/4	0.8 bar	676 l/min
R412007522	G 1/4	1.5 bar	996 l/min
R412007523	G 1/4	2 bar	1219 l/min
R412007524	G 1/4	3.5 bar	1872 l/min
R412007525	G 1/4	4 bar	2084 l/min
R412007526	G 1/4	4.8 bar	2424 l/min
R412007527	G 1/4	6 bar	2933 l/min
R412007528	G 1/4	8 bar	3783 l/min
R412007529	G 1/4	10 bar	4632 l/min
R412007530	G 1/4	11 bar	5056 l/min
R412007531	G 1/4	15 bar	6755 l/min
R412007532	G 1/4	16 bar	7179 l/min

Technical information

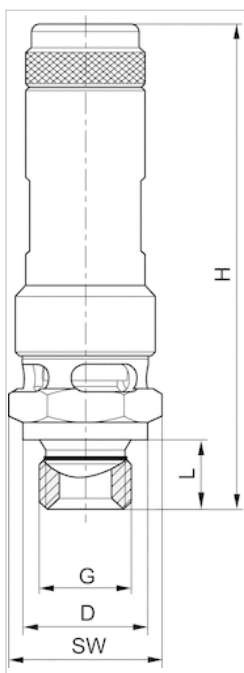
The specified performance values are achieved at a 10% (PE 1 bar , 0.1 bar) pressure increase, measured with compressed air at 20 °C .

Technical information

Material	
Housing	Brass
Seals	Fluorocaoutchouc

Dimensions

Dimensions



G = connection 1

Dimensions

Part No.	Port G	Ø D	H	L	SW	T [Nm]	NW
R412007521	G 1/4	18	69	10	19	30	8
R412007522	G 1/4	18	69	10	19	30	8
R412007523	G 1/4	18	69	10	19	30	8
R412007524	G 1/4	18	69	10	19	30	8
R412007525	G 1/4	18	69	10	19	30	8
R412007526	G 1/4	18	69	10	19	30	8
R412007527	G 1/4	18	69	10	19	30	8
R412007528	G 1/4	18	69	10	19	30	8
R412007529	G 1/4	18	69	10	19	30	8
R412007530	G 1/4	18	69	10	19	30	8
R412007531	G 1/4	18	69	10	19	30	8
R412007532	G 1/4	18	69	10	19	30	8

T = maximum torque

NW = nominal width

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