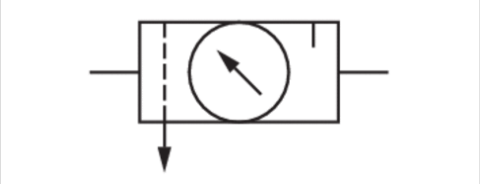
Maintenance unit, 2-part, Series NL1-ACD

- G 1/8, G 1/4
- with pressure gauge
- suitable for ATEX



Version	2-in-1, Can be assembled into blocks
Parts	Filter pressure regulator, Micro oil-mist lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	22 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	0.762 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	8 ... 145 psi
Pressure supply	single
Filter reservoir volume	0.54 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Lubricator reservoir volume	1.18 fl.oz.
Type of filling	Manual oil filling
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain	Reservoir	Weight
0821300727	G 1/8	0.762 Cv	semi-automatic, open without pressure	Polycarbonate	1.24 lbs
0821300728	G 1/8	0.762 Cv	semi-automatic, open without pressure	Die cast zinc	1.42 lbs
0821300729	G 1/8	0.762 Cv	fully automatic, open without pressure	Polycarbonate	1.36 lbs
0821300730	G 1/4	0.762 Cv	semi-automatic, open without pressure	Polycarbonate	1.24 lbs
0821300731	G 1/4	0.762 Cv	semi-automatic, open without pressure	Die cast zinc	1.42 lbs
0821300732	G 1/4	0.762 Cv	fully automatic, open without pressure	Polycarbonate	1.36 lbs

Metal protective guard can be retrofitted for all polycarbonate reservoirs, Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Suitable for use in Ex zones 1, 2, 21, 22
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.

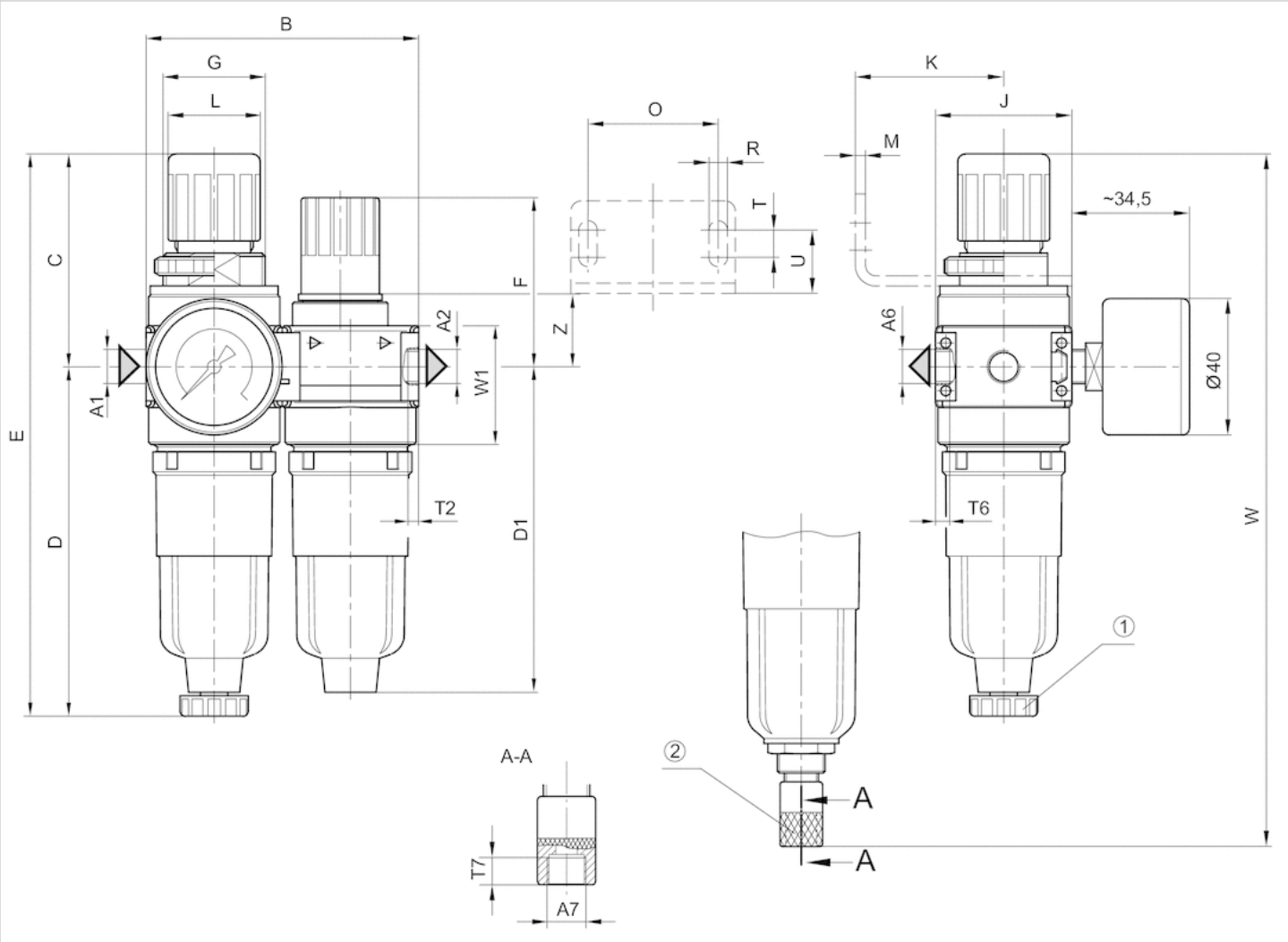
Compressed air class 6 : 7 : -

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
Protective guard	Polyamide
Filter insert	Polyethylene

Dimensions

Dimensions



A1 = input
A2 = output
A6 = ventilation port

A7 = condensate drain
1) Semi-automatic condensate drain
2) fully automatic condensate drain

Dimensions in mm

A1	A2	A6	A7	B	C	D	D1	E	F	G	J	K	L	M	O	R	T	T2	T6	T7
G 1/8	G 1/8	G 1/8	G 1/8	80	62.5	102.5	95.5	165	50	M30x1,5	40	43.5	27	3	38	5.4	8	8	6	8.5
G 1/4	G 1/4	G 1/8	G 1/8	80	62.5	102.5	95.5	165	50	M30x1,5	40	43.5	27	3	38	5.4	8	8	6	8.5

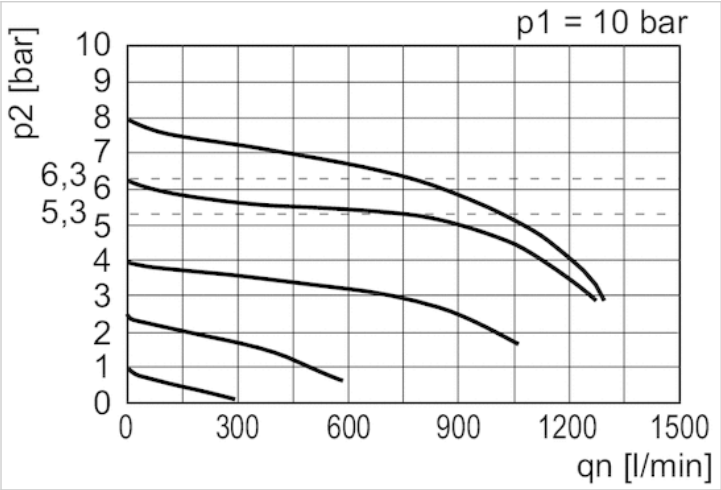
U	W	W1	Z
18.5	203	35	24.5
18.5	203	35	24.5

Diagrams

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

p2 = secondary pressure
qvmin. = min. nominal flow

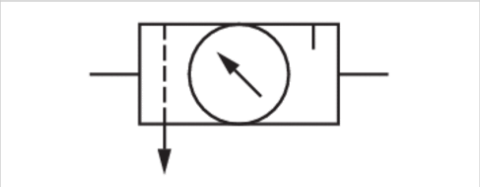
Flow rate characteristic



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

Maintenance unit, 3-part, Series NL1-ACT

- G 1/8, G 1/4
- with pressure gauge
- suitable for ATEX



Version	3-part, Can be assembled into blocks
Parts	Pressure regulator, Filter, Micro oil-mist lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	22 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	0.762 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	8 ... 145 psi
Pressure supply	single
Filter reservoir volume	0.54 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Lubricator reservoir volume	1.18 fl.oz.
Type of filling	Manual oil filling
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain	Reservoir	Weight
0821300721	G 1/8	0.762 Cv	semi-automatic, open without pressure	Polycarbonate	1.62 lbs
0821300722	G 1/8	0.762 Cv	semi-automatic, open without pressure	Die cast zinc	1.8 lbs
0821300723	G 1/8	0.762 Cv	fully automatic, open without pressure	Polycarbonate	1.74 lbs
0821300724	G 1/4	0.762 Cv	semi-automatic, open without pressure	Polycarbonate	1.62 lbs
0821300725	G 1/4	0.762 Cv	semi-automatic, open without pressure	Die cast zinc	1.8 lbs
0821300726	G 1/4	0.762 Cv	fully automatic, open without pressure	Polycarbonate	1.74 lbs

Metal protective guard can be retrofitted for all polycarbonate reservoirs, Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Suitable for use in Ex zones 1, 2, 21, 22
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.

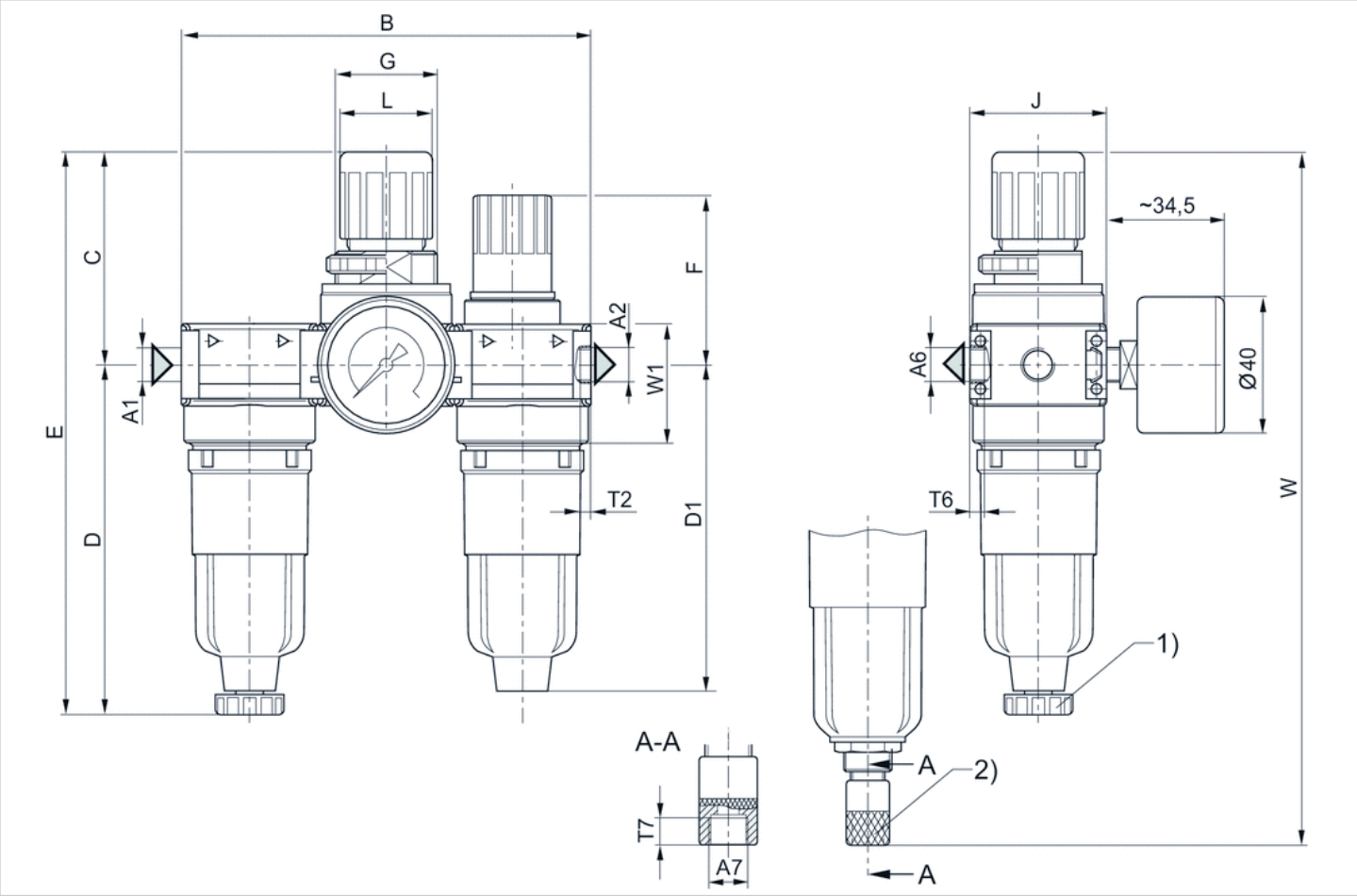
Compressed air class 6 : 7 : -

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene rubber
Reservoir	Polycarbonate, Die cast zinc
Filter insert	Polyethylene

Dimensions

Dimensions



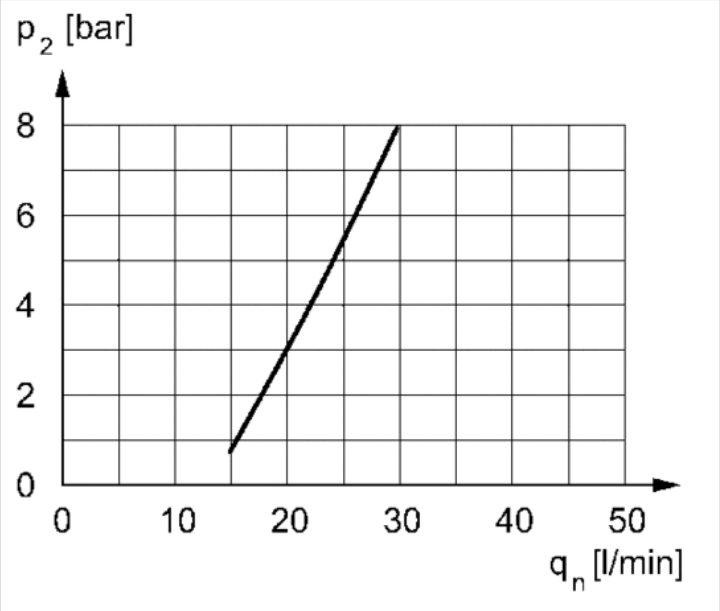
A1 = input
A2 = output
A6 = ventilation port
A7 = condensate drain
1) Semi-automatic condensate drain
2) fully automatic condensate drain

Dimensions in mm

A1	A2	A5	A6	A7	B	C	D	D1	E	F	G	J	L	M	T2	T6	T7	W	W1
G 1/8	G 1/8	G 1/8	G 1/8	G 1/8	120	65.5	102.5	95.5	168	50	M30x1,5	40	27	3	8	6	8.5	206	35
G 1/4	G 1/4	G 1/8	G 1/8	G 1/8	120	65.5	102.5	95.5	168	50	M30x1,5	40	27	3	8	6	8.5	206	35

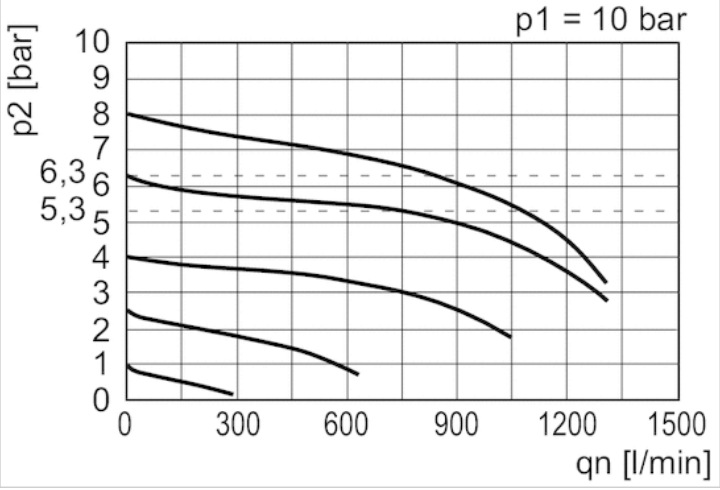
Diagrams

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



p2 = secondary pressure
qn = nominal flow

Flow rate characteristic



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

Pressure regulator, Series NL1-RGS

- G 1/8, G 1/4
- Qn = 1.02 Cv
- Standard pressure regulator
- Activation Mechanical
- suitable for ATEX

Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Regulator type	Diaphragm-type pressure regulator, Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Activation	Mechanical
Weight	See table below

Technical data

Part No.			Port	Flow Qn	Adjustment range min./max.	Pressure gauge
0821302728			G 1/8	1.02 Cv	2 ... 43 psi	with pressure gauge
0821302729			G 1/8	1.02 Cv	3 ... 87 psi	with pressure gauge
0821302730			G 1/8	1.02 Cv	8 ... 145 psi	with pressure gauge
0821302725		–	G 1/8	1.02 Cv	2 ... 43 psi	-
0821302726		–	G 1/8	1.02 Cv	3 ... 87 psi	-
0821302727		–	G 1/8	1.02 Cv	8 ... 145 psi	-
0821302734			G 1/4	1.02 Cv	2 ... 43 psi	with pressure gauge
0821302735			G 1/4	1.02 Cv	3 ... 87 psi	with pressure gauge
0821302736			G 1/4	1.02 Cv	8 ... 145 psi	with pressure gauge
0821302731		–	G 1/4	1.02 Cv	2 ... 43 psi	-
0821302732		–	G 1/4	1.02 Cv	3 ... 87 psi	-
0821302733		–	G 1/4	1.02 Cv	8 ... 145 psi	-

Part No.	Weight
0821302728	0.648 lbs
0821302729	0.648 lbs
0821302730	0.648 lbs
0821302725	0.529 lbs
0821302726	0.529 lbs
0821302727	0.529 lbs
0821302734	0.648 lbs
0821302735	0.648 lbs
0821302736	0.648 lbs

Part No.	Weight
0821302731	0.529 lbs
0821302732	0.529 lbs
0821302733	0.529 lbs

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

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
lockable regulator head
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
Relieving exhaust (≤ 4.35 psi over set pressure)
With rear exhaust (> 43.5 psi)

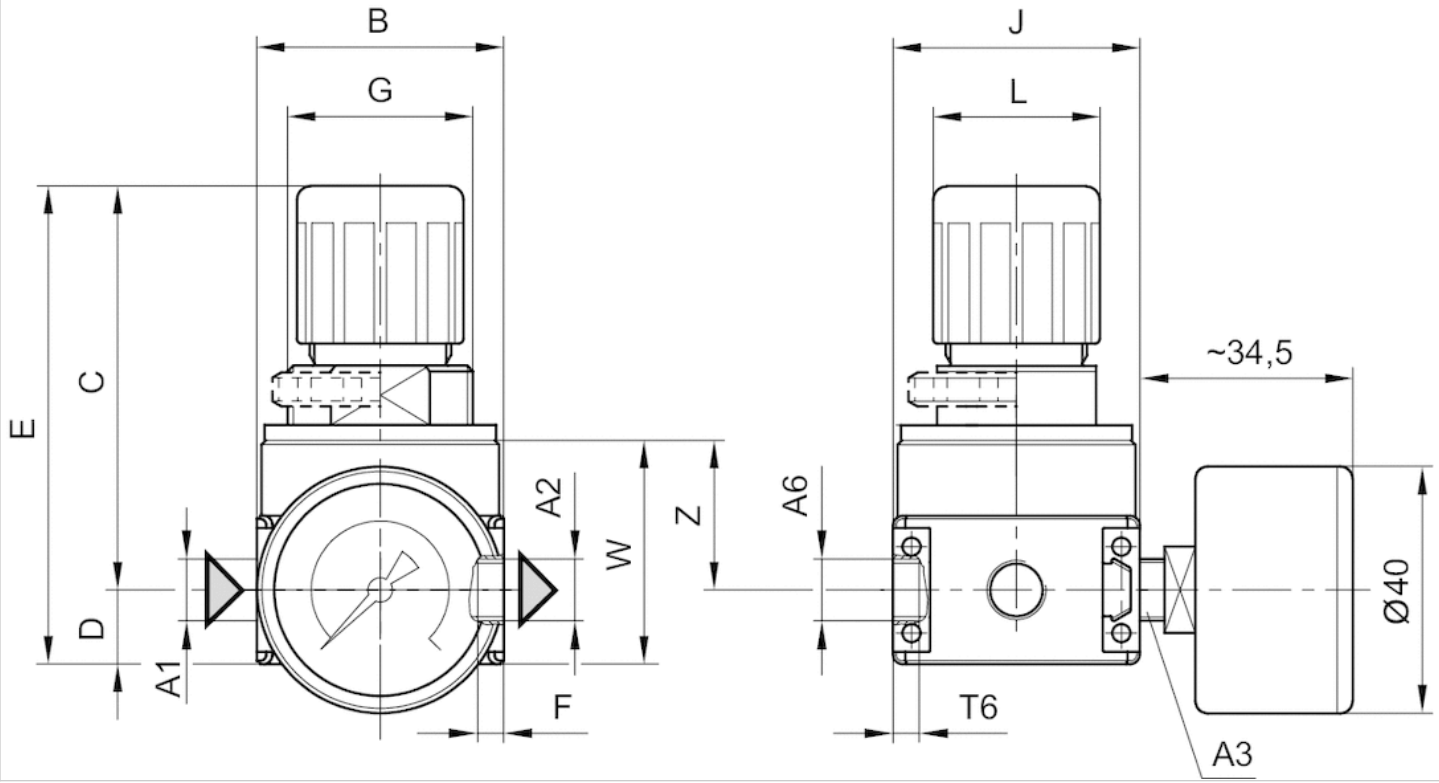
Recommended pre-filtering 5 µm

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



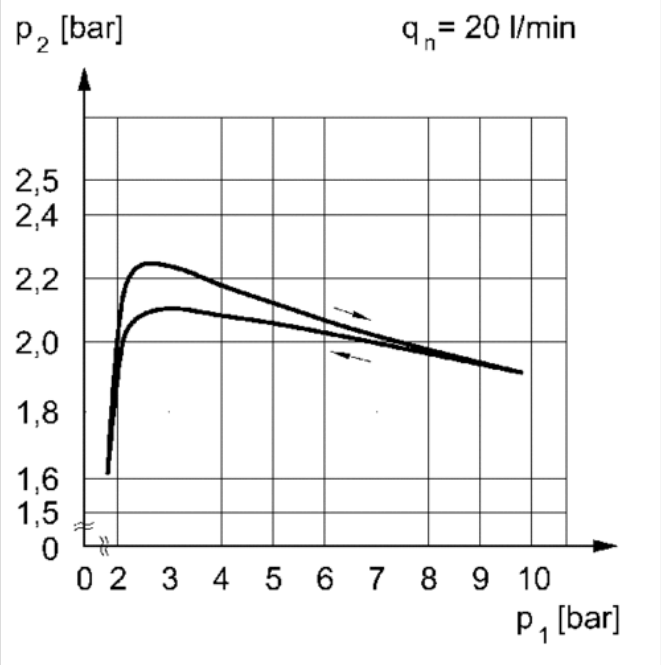
A1 = input
A2 = output
A3 = pressure gauge connection
A6 = ventilation port

Dimensions in mm

A1	A2	A3	A6	B	C	D	E	G	J	L	T2	T6	W	Z
G 1/8	G 1/8	G 1/8	G 1/8	40	65.5	12	77.5	M30x1,5	40	27	8	6	36.2	24.2
G 1/8	G 1/8	G 1/8	G 1/8	40	65.5	12	77.5	M30x1,5	40	27	8	6	36.2	36.2
G 1/8	G 1/8	G 1/8	G 1/8	40	65.5	12	77.5	M30x1,5	40	27	8	6	36.2	24.2
G 1/4	G 1/4	G 1/8	G 1/8	40	65.5	12	77.5	M30x1,5	40	27	8	6	36.2	24.2

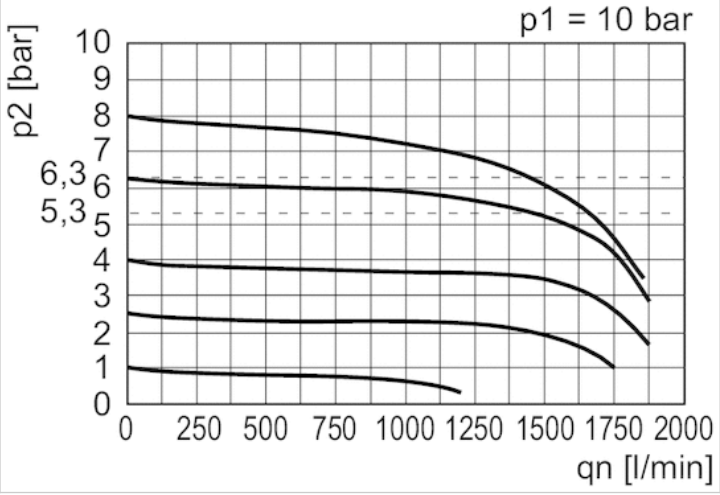
Diagrams

Pressure characteristics curve



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

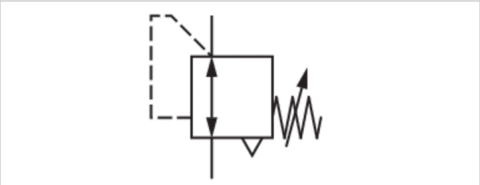
Flow rate characteristic (setting range p2: 0.5 - 10 bar)



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

Pressure regulator, Series NL1-RGS-...-DS

- G 1/4
- Qn = 1.37 Cv
- with continuous pressure supply
- suitable for ATEX



Parts	Pressure regulator with continuous pressure supply
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Regulator type	Diaphragm-type pressure regulator, Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	double
Weight	0.573 lbs

Technical data

Part No.	Port	Flow	Adjustment range min./max.
		Qn	
0821300711	G 1/4	1.37 Cv	2 ... 43 psi
0821300712	G 1/4	1.37 Cv	3 ... 87 psi
0821300713	G 1/4	1.37 Cv	8 ... 145 psi

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).
Suitable for use in Ex zones 1, 2, 21, 22
Relieving exhaust (≤ 4.35 psi over set pressure)
With rear exhaust (> 43.5 psi)

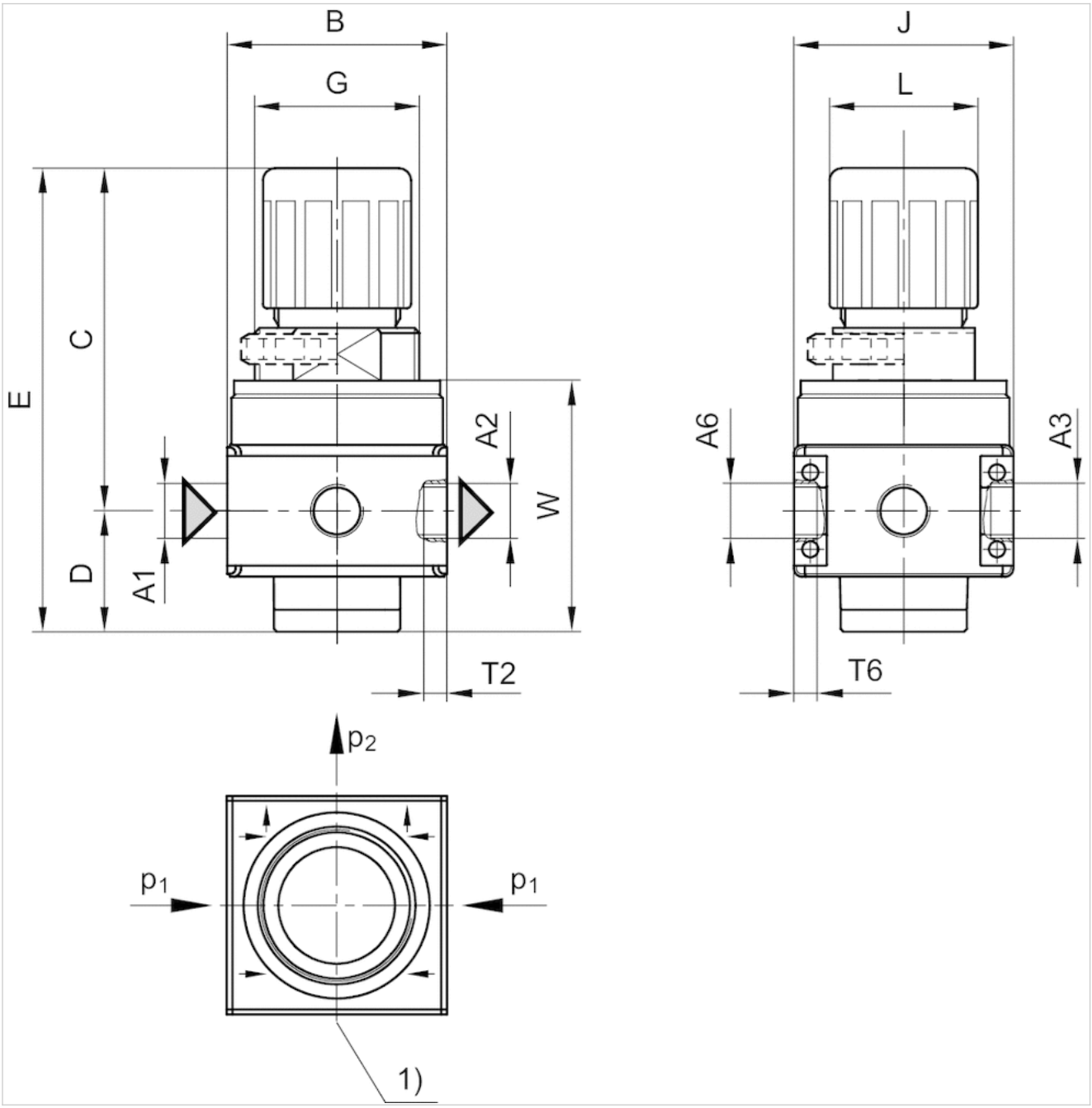
Recommended pre-filtering 5 µm

Technical information

Material	
Housing	Die cast zinc

Dimensions

Dimensions



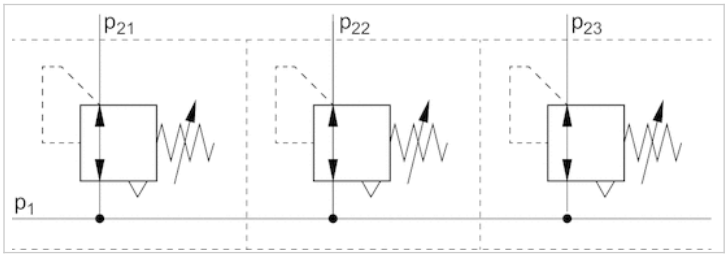
A1 = input
A2 = output
1) pressure gauge connection
p1 = working pressure
p2 = secondary pressure

Dimensions in mm

A1	A2	A3	A6	B	C	D	E	G	J	K	L	M	T2	T6	W
G 1/4	G 1/4	G 1/8	G 1/4	40	62.5	22	84.5	M30x1,5	40	43.5	27	3	8	6	43.5

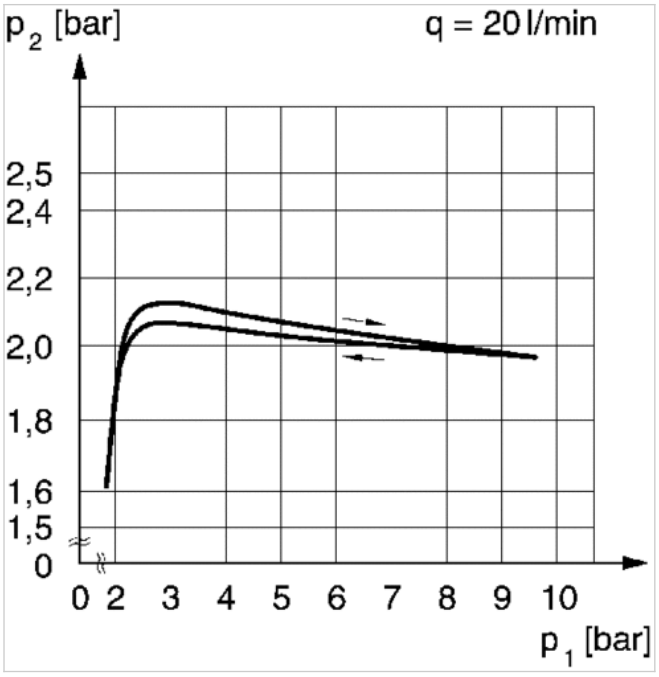
Diagrams

Application example



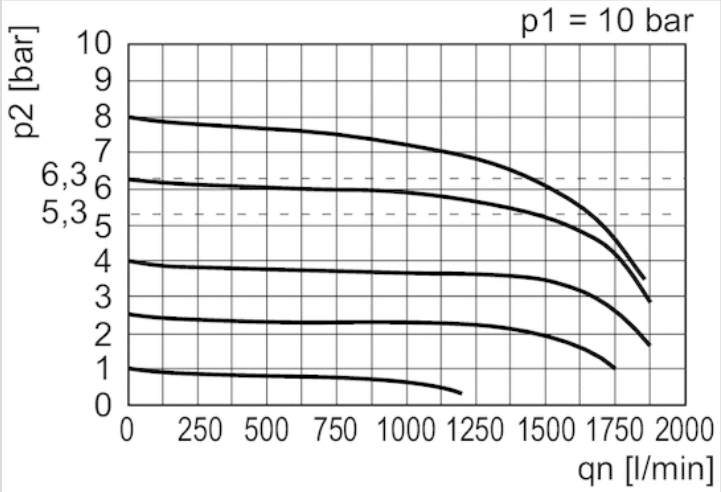
p1 = working pressure

Pressure characteristics curve



p1 = working pressure
p2 = secondary pressure
q = flow rate

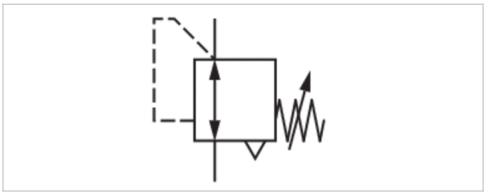
Flow rate characteristic (setting range p2: 0.5 - 10 bar)



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

Pressure regulator, Series NL1-RGS

- G 1/4
- Qn = 1.37 Cv
- Standard pressure regulator
- Activation Mechanical
- - 86 °F cold-resistant
- suitable for ATEX



Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	-22 ... 122 °F
Medium temperature min./max.	-22 ... 122 °F
Medium	Compressed air, Neutral gases
Regulator type	Diaphragm-type pressure regulator, Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	8 ... 145 psi
Pressure supply	single
Activation	Mechanical
Weight	0.573 lbs

Technical data

Part No.	Port	Flow
		Qn
R412007620	G 1/4	1.37 Cv

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

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
Relieving exhaust (≤ 4.35 psi over set pressure)
With rear exhaust (> 43.5 psi)

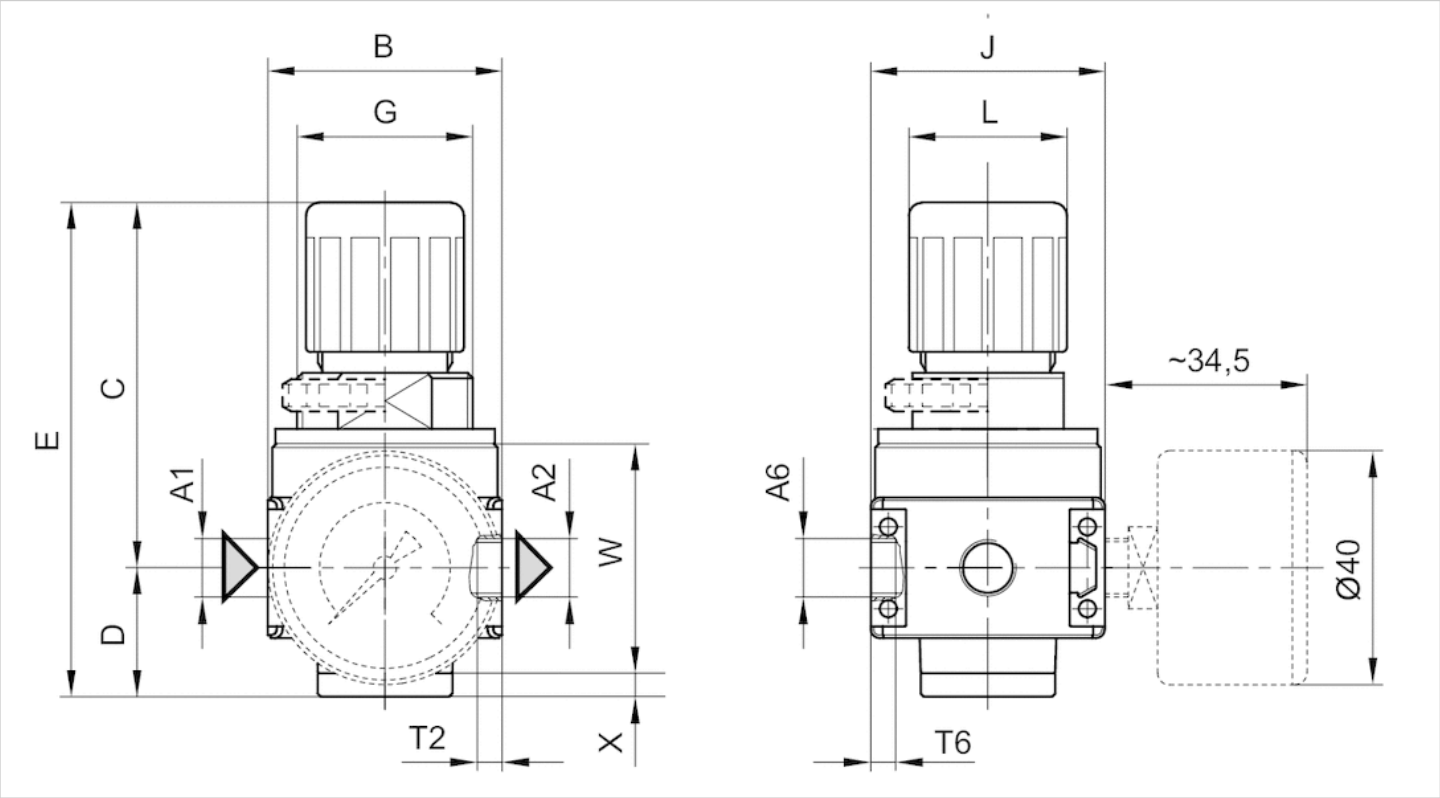
Recommended pre-filtering 5 µm

Technical information

Material	
Housing	Die cast zinc
Seals	Chloroprene rubber

Dimensions

Dimensions



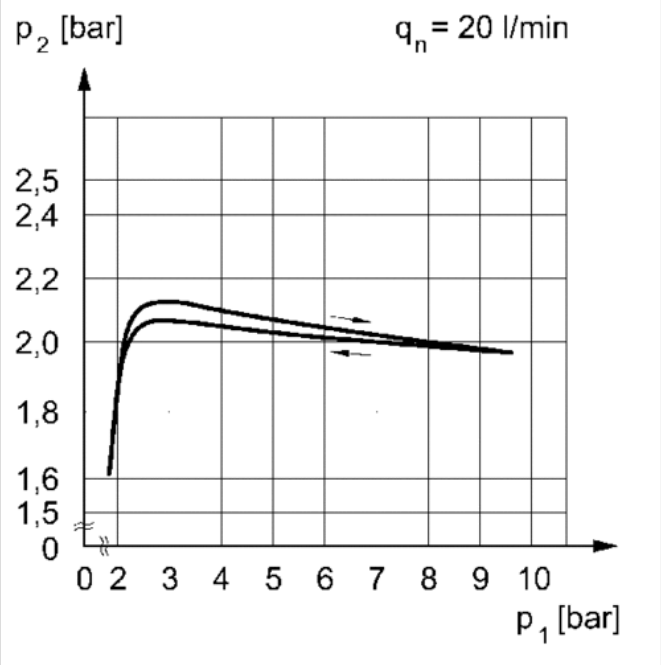
A1 = input
A2 = output
A6 = output

Dimensions in mm

A1	A2	A6	B	C	D	E	G	J	K	L	M	O	R	T	T2	T6	U	W	X
G 1/4	G 1/4	G 1/8	40	62.5	22	84.5	M30x1,5	40	43.5	27	3	38	5.4	8	8	6	18.5	39.5	4

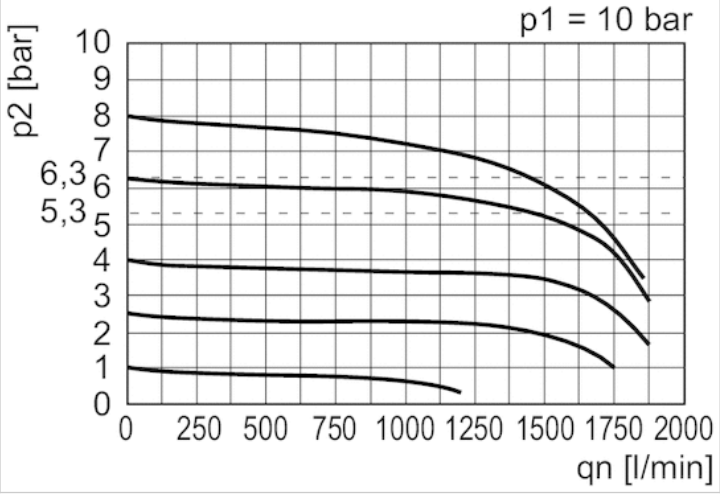
Diagrams

Pressure characteristics curve



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

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



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

Pressure regulator, Series NL1-RGS

- G 1/8, G 1/4
- Qn = 1.37 Cv
- Pressure regulator, high flow rate
- Activation Mechanical
- suitable for ATEX

Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Regulator type	Diaphragm-type pressure regulator, Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Activation	Mechanical
Weight	See table below

Technical data

Part No.			Port	Flow Qn	Adjustment range min./max.	Pressure gauge
0821302708			G 1/8	1.37 Cv	2 ... 43 psi	with pressure gauge
0821302709			G 1/8	1.37 Cv	3 ... 87 psi	with pressure gauge
0821302710			G 1/8	1.37 Cv	8 ... 145 psi	with pressure gauge
0821302705		–	G 1/8	1.37 Cv	2 ... 43 psi	-
0821302706		–	G 1/8	1.37 Cv	3 ... 87 psi	-
0821302707		–	G 1/8	1.37 Cv	8 ... 145 psi	-
0821302714			G 1/4	1.37 Cv	2 ... 43 psi	with pressure gauge
0821302715			G 1/4	1.37 Cv	3 ... 87 psi	with pressure gauge
0821302716			G 1/4	1.37 Cv	8 ... 145 psi	with pressure gauge
0821302711		–	G 1/4	1.37 Cv	2 ... 43 psi	-
0821302712		–	G 1/4	1.37 Cv	3 ... 87 psi	-
0821302713		–	G 1/4	1.37 Cv	8 ... 145 psi	-

Part No.	Weight
0821302708	0.692 lbs
0821302709	0.692 lbs
0821302710	0.692 lbs
0821302705	0.573 lbs
0821302706	0.573 lbs
0821302707	0.573 lbs
0821302714	0.692 lbs
0821302715	0.692 lbs
0821302716	0.692 lbs

Part No.	Weight
0821302711	0.573 lbs
0821302712	0.573 lbs
0821302713	0.573 lbs

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

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
Relieving exhaust (≤ 4.35 psi over set pressure)
With rear exhaust (> 43.5 psi)

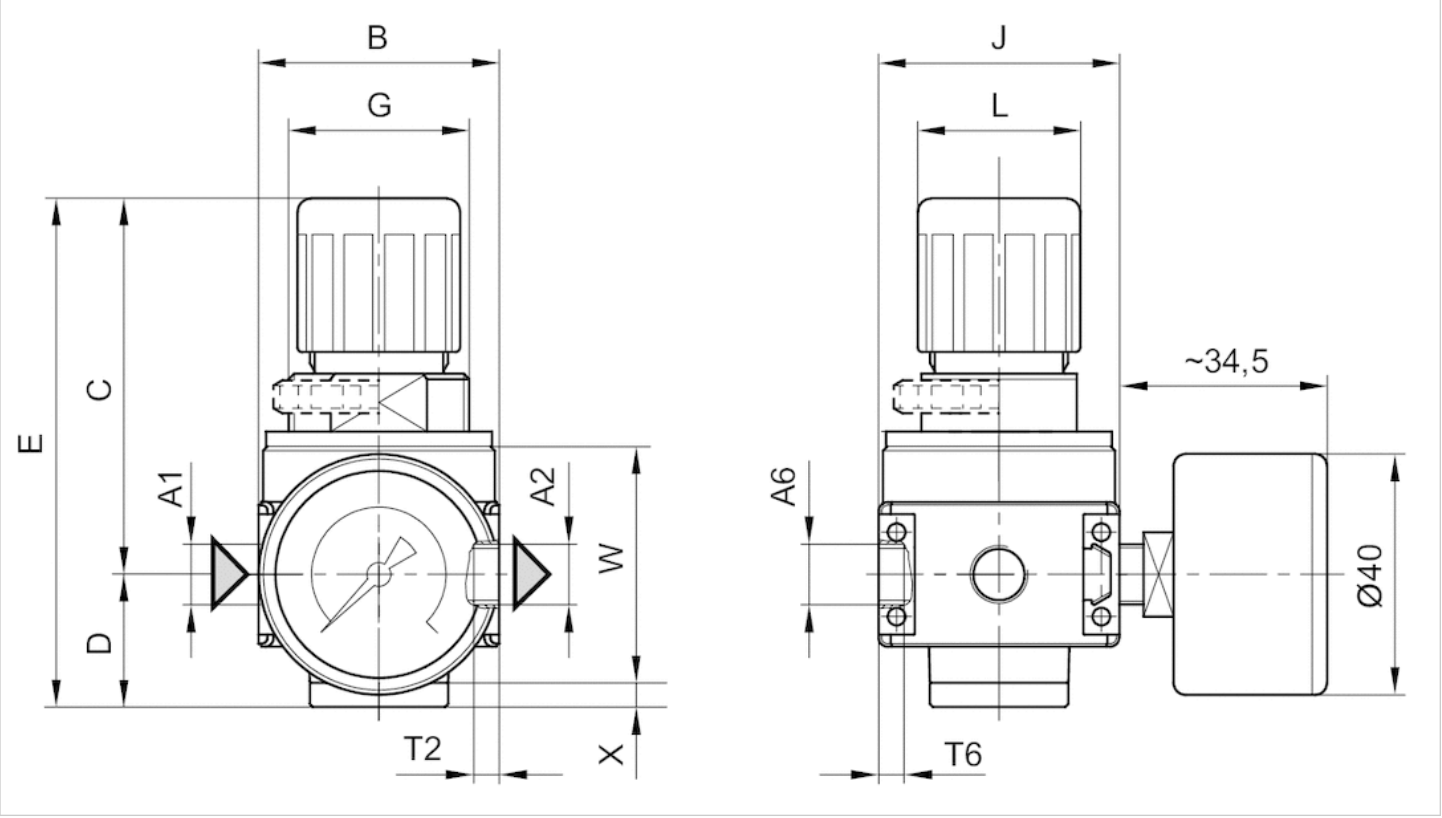
Recommended pre-filtering 5 µm

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



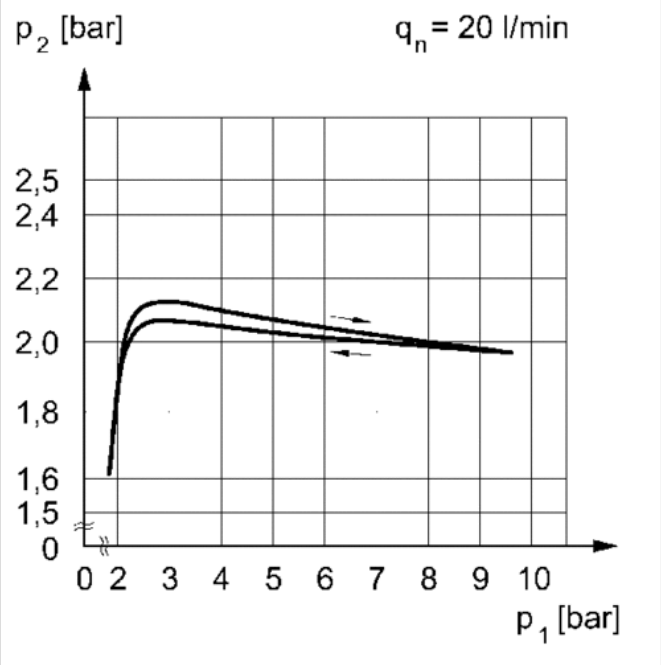
A1 = input
A2 = output
A6 = output

Dimensions in mm

A1	A2	A6	B	C	D	E	G	J	L	T2	T6	W	X
G 1/8	G 1/8	G 1/8	40	62.5	22	84.5	M30x1,5	40	27	8	6	39.5	4
G 1/4	G 1/4	G 1/8	40	62.5	22	84.5	M30x1,5	40	27	8	6	39.5	4

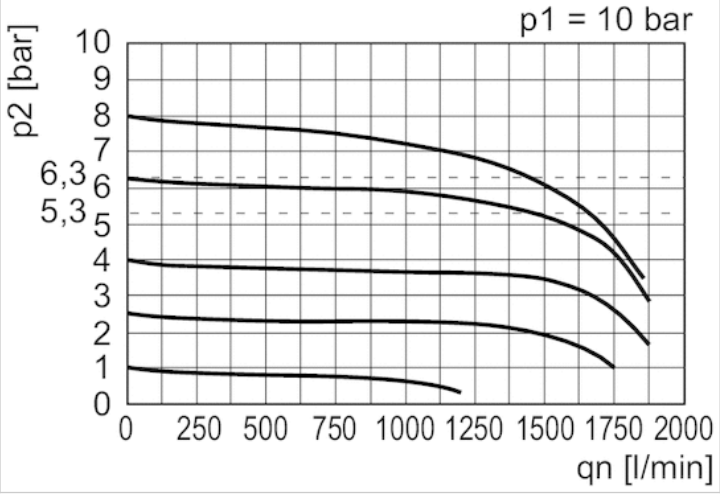
Diagrams

Pressure characteristics curve



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

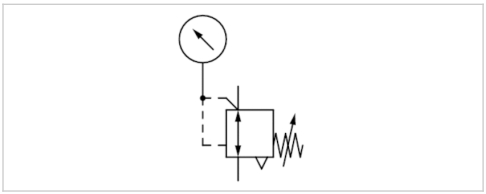
Flow rate characteristic (setting range p2: 0.5 - 10 bar)



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

Pressure regulator, Series NL1-RGS

- G 1/8, G 1/4
- Qn = 1.37 Cv
- Pressure regulator, high flow rate
- 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.	8 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Regulator type	Diaphragm-type pressure regulator, Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Activation	Mechanical
Weight	0.772 lbs

Technical data

Part No.	Port	Flow	Adjustment range min./max.	Pressure gauge
		Qn		
0821300663	G 1/8	1.37 Cv	2 ... 43 psi	with pressure gauge in hand wheel
0821300664	G 1/8	1.37 Cv	3 ... 87 psi	with pressure gauge in hand wheel
0821300665	G 1/8	1.37 Cv	8 ... 145 psi	with pressure gauge in hand wheel
0821300666	G 1/4	1.37 Cv	2 ... 43 psi	with pressure gauge in hand wheel
0821300667	G 1/4	1.37 Cv	3 ... 87 psi	with pressure gauge in hand wheel
0821300668	G 1/4	1.37 Cv	8 ... 145 psi	with pressure gauge in hand wheel

Panel nut included in scope of delivery

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
Relieving exhaust (≤ 4.35 psi over set pressure)
With rear exhaust (> 43.5 psi)

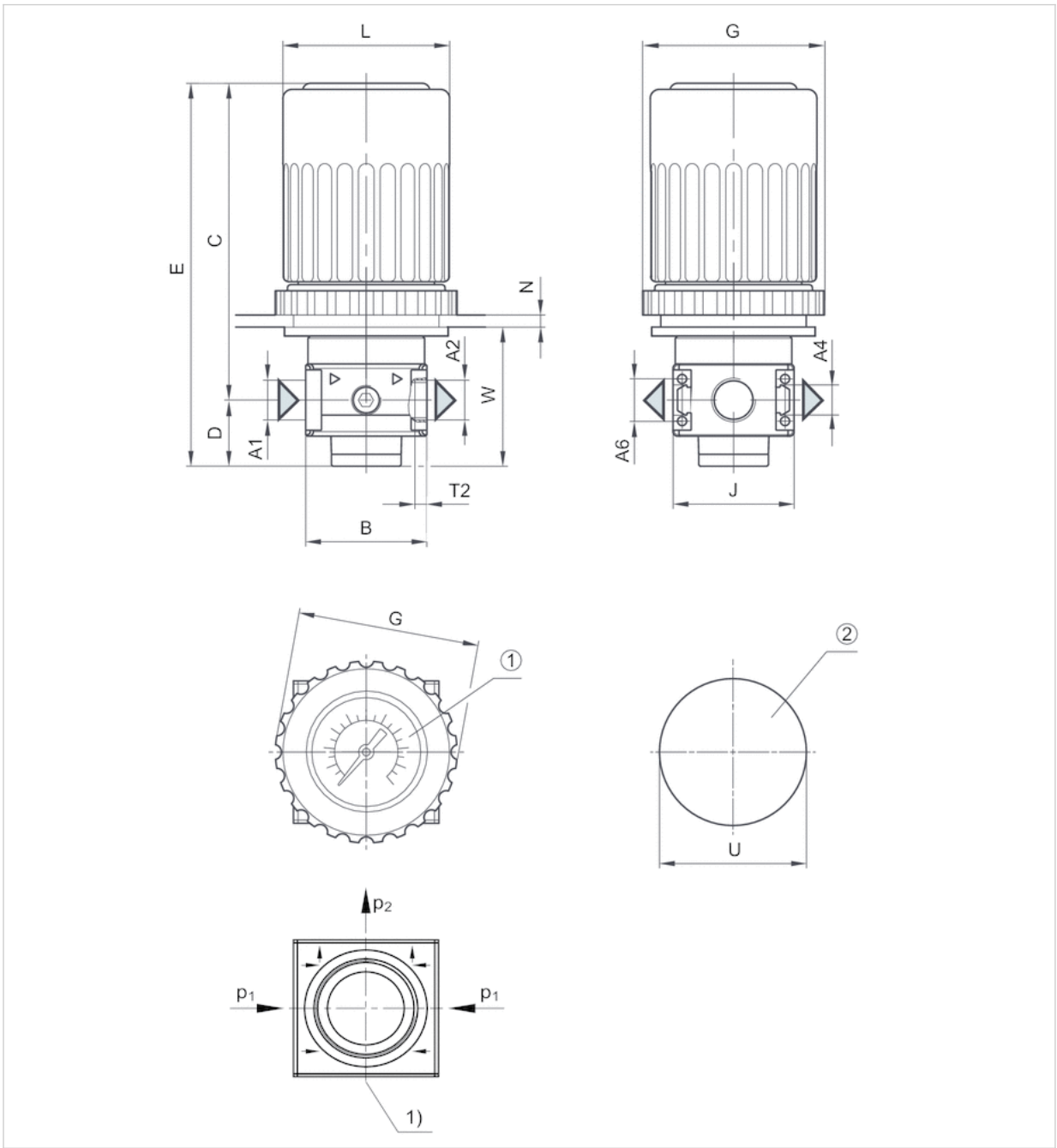
Recommended pre-filtering 5 µm

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



A1 = input
A2 = output
A4 = output
A6 = output
1) pressure gauge Ø 40

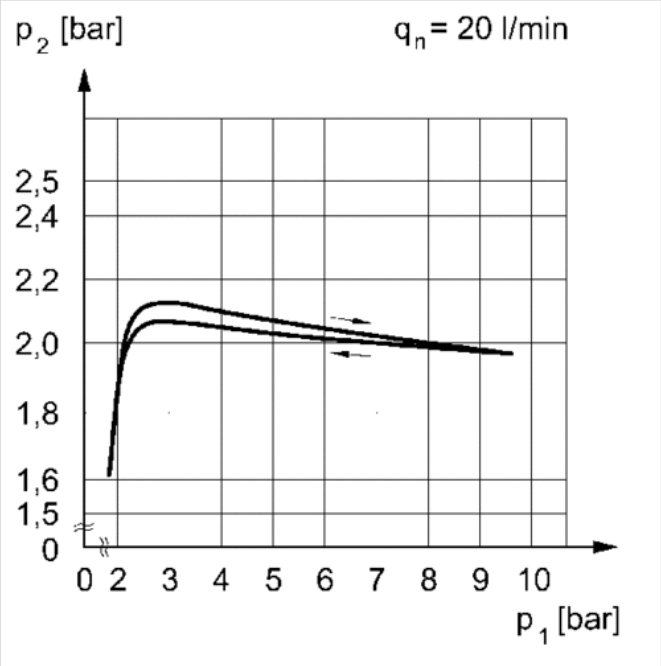
2) opening for control panel assembly

Dimensions in mm

A1	A2	A4	A6	B	C	D	E	G	J	L	N	T2	U	W
G 1/8	G 1/8	G 1/8	G 1/8	40	102	22	124	60	40	54	4	8	48.5	43
G 1/4	G 1/4	G 1/8	G 1/8	40	102	22	124	60	40	54	4	8	48.5	43

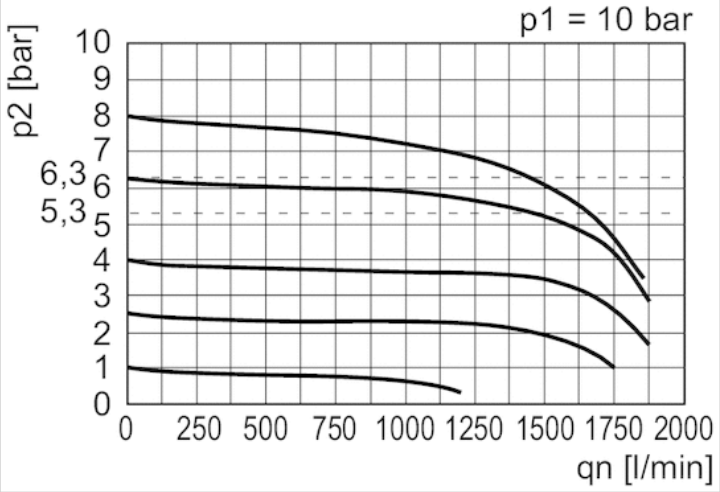
Diagrams

Pressure characteristics curve



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

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

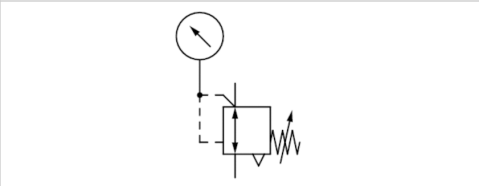


p1 = Working pressure
p2 = Secondary pressure

qn = Nominal flow

Pressure regulator, Series NL1-RGS-...-DS

- G 1/4
- Qn = 1.37 Cv
- Pressure regulator, high flow rate
- Activation Mechanical
- with continuous pressure supply
- with pressure gauge in hand wheel
- suitable for ATEX



Parts	Pressure regulator with continuous pressure supply
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Neutral gases
Regulator type	Diaphragm-type pressure regulator, Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	3 ... 87 psi
Pressure supply	single
Activation	Mechanical
Weight	0.772 lbs

Technical data

Part No.	Port	Flow	Pressure gauge
		Qn	
0821302743	G 1/4	1.37 Cv	with pressure gauge in hand wheel

Panel nut included in scope of delivery

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).
Suitable for use in Ex zones 1, 2, 21, 22
Relieving exhaust (≤ 4.35 psi over set pressure)
With rear exhaust (> 43.5 psi)

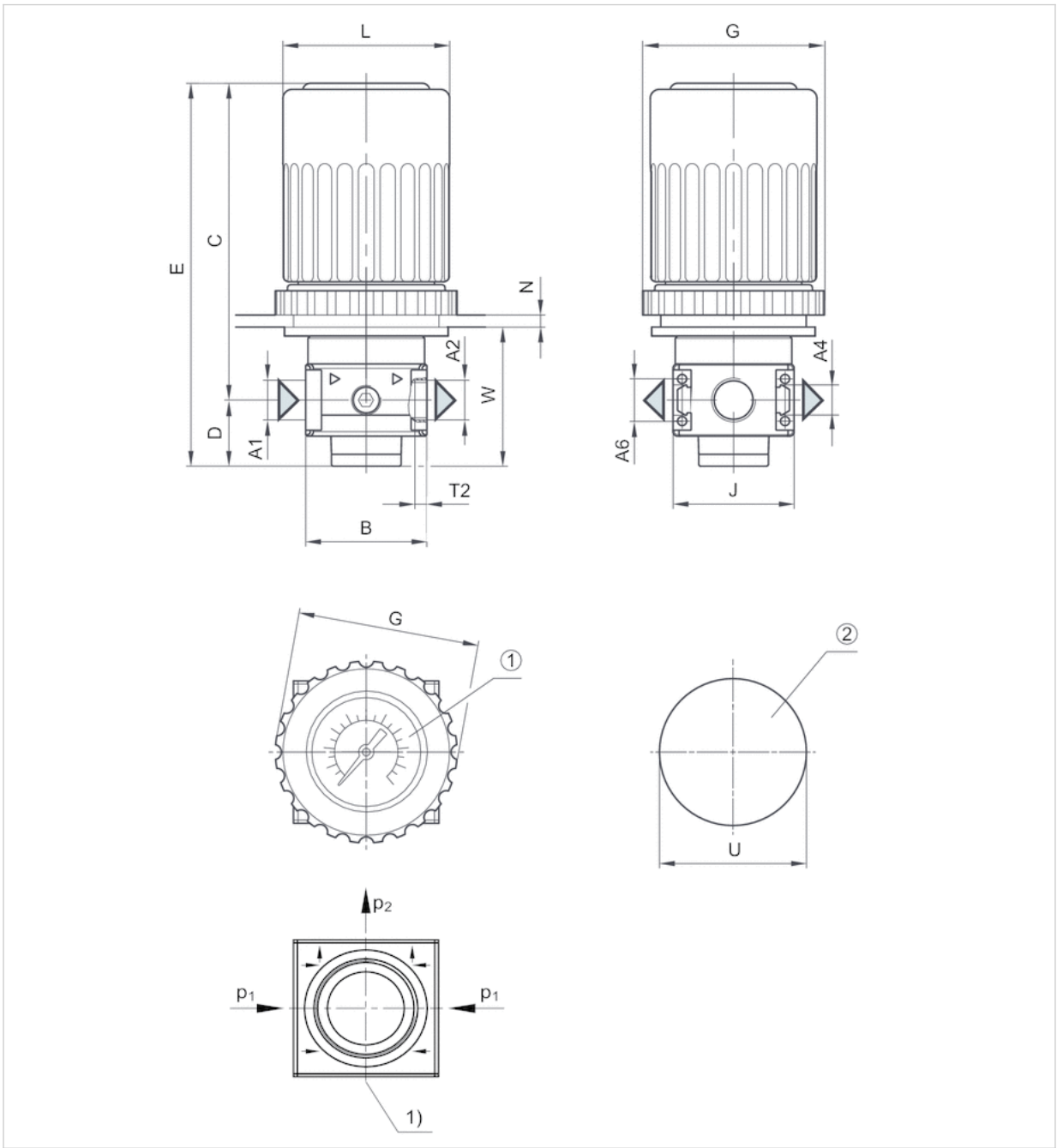
Recommended pre-filtering 5 µm

Technical information

Material	
Housing	Die cast zinc
Seals	Nitrile rubber

Dimensions

Dimensions



A1 = input
A2 = output
A4 = output
A6 = output
1) pressure gauge Ø 40

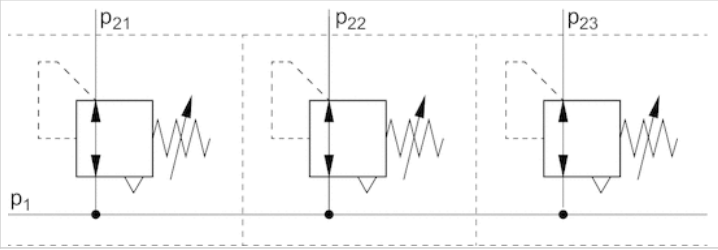
2) opening for control panel assembly

Dimensions

A1	A2	A4	A6	B	C	D	E	G	J	L	N	T2	U	W
G 1/4	G 1/4	G 1/8	G 1/4	40	90	22	112	40	40	33.6	4	8	31.5	43

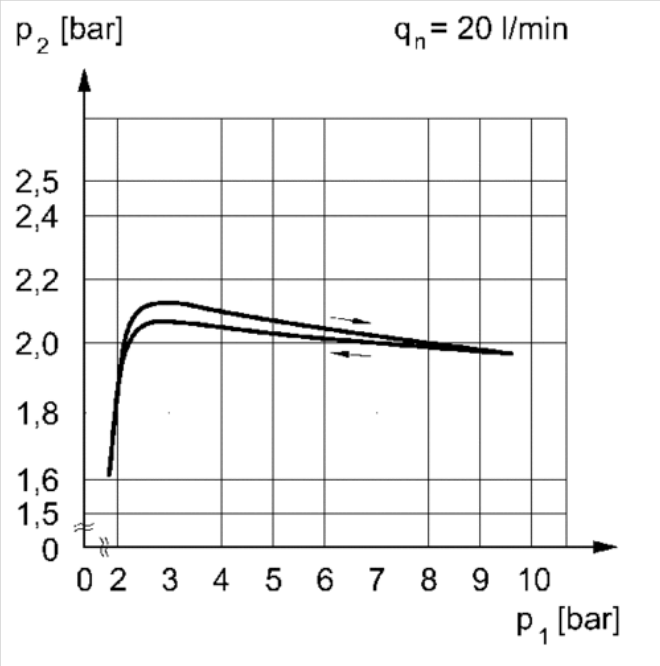
Diagrams

Application example



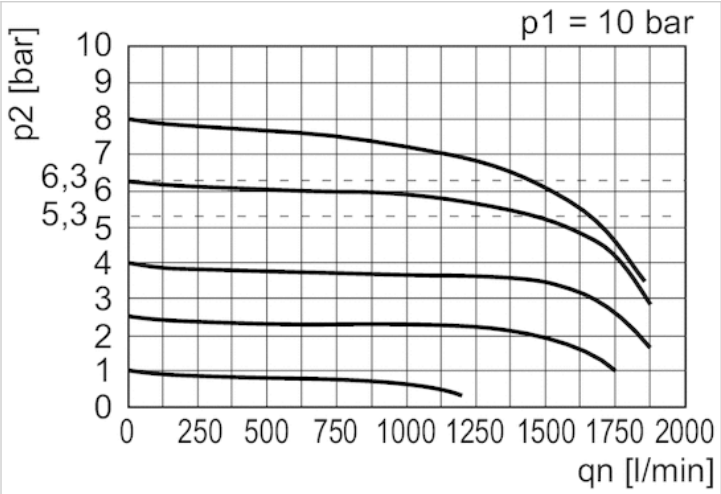
p1 = working pressure

Pressure characteristics curve



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

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



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

Filter pressure regulator, Series NL1-FRE

- G 1/8, G 1/4
- suitable for ATEX

Version	1-in-1, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	22 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	1.37 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	8 ... 145 psi
Pressure supply	single
Filter reservoir volume	0.54 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below

Technical data

Part No.			Port	Flow Qn	Condensate drain
0821300750			G 1/8	1.37 Cv	semi-automatic, open without pressure
0821300751			G 1/8	1.37 Cv	semi-automatic, open without pressure
0821300752			G 1/8	1.37 Cv	fully automatic, open without pressure
0821300753		–	G 1/8	1.37 Cv	semi-automatic, open without pressure
0821300754		–	G 1/8	1.37 Cv	semi-automatic, open without pressure
0821300755		–	G 1/8	1.37 Cv	fully automatic, open without pressure
0821300756			G 1/4	1.37 Cv	semi-automatic, open without pressure
0821300757			G 1/4	1.37 Cv	semi-automatic, open without pressure
0821300758			G 1/4	1.37 Cv	fully automatic, open without pressure
0821300759		–	G 1/4	1.37 Cv	semi-automatic, open without pressure
0821300760		–	G 1/4	1.37 Cv	semi-automatic, open without pressure
0821300761		–	G 1/4	1.37 Cv	fully automatic, open without pressure

Part No.	Reservoir	Weight	
0821300750	Polycarbonate	0.736 lbs	1)
0821300751	Die cast zinc	0.844 lbs	1)
0821300752	Polycarbonate	0.853 lbs	1)
0821300753	Polycarbonate	0.736 lbs	2)
0821300754	Die cast zinc	0.844 lbs	2)
0821300755	Polycarbonate	0.853 lbs	2)
0821300756	Polycarbonate	0.736 lbs	1)

Part No.	Reservoir	Weight	
0821300757	Die cast zinc	0.844 lbs	1)
0821300758	Polycarbonate	0.853 lbs	1)
0821300759	Polycarbonate	0.736 lbs	2)
0821300760	Die cast zinc	0.844 lbs	2)
0821300761	Polycarbonate	0.853 lbs	2)

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

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

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
lockable regulator head
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).
Suitable for use in Ex zones 1, 2, 21, 22
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.

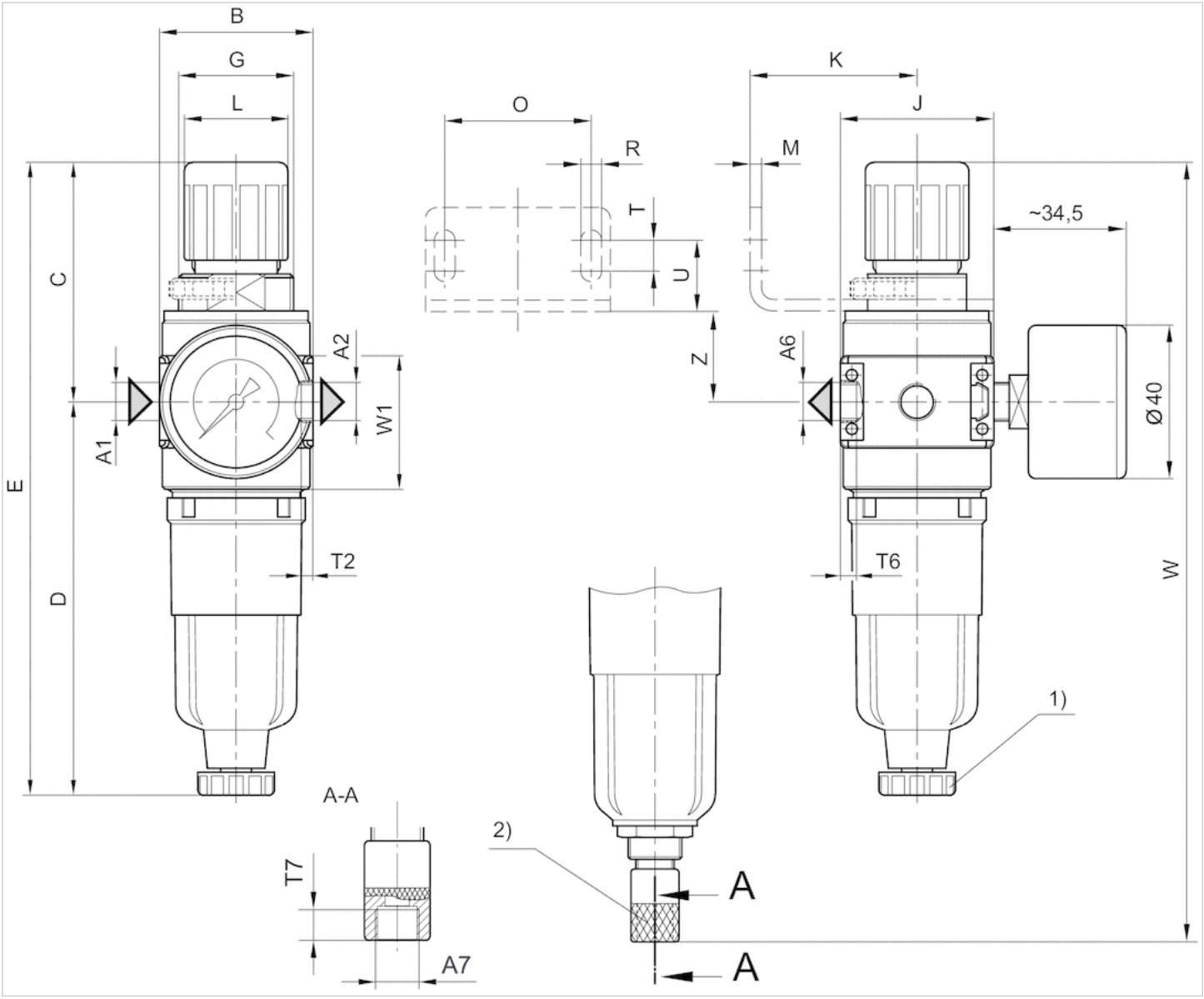
Compressed air class 6 : 7 : -

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
A4 = output
A6 = output
1) Semi-automatic condensate drain
2) fully automatic condensate drain

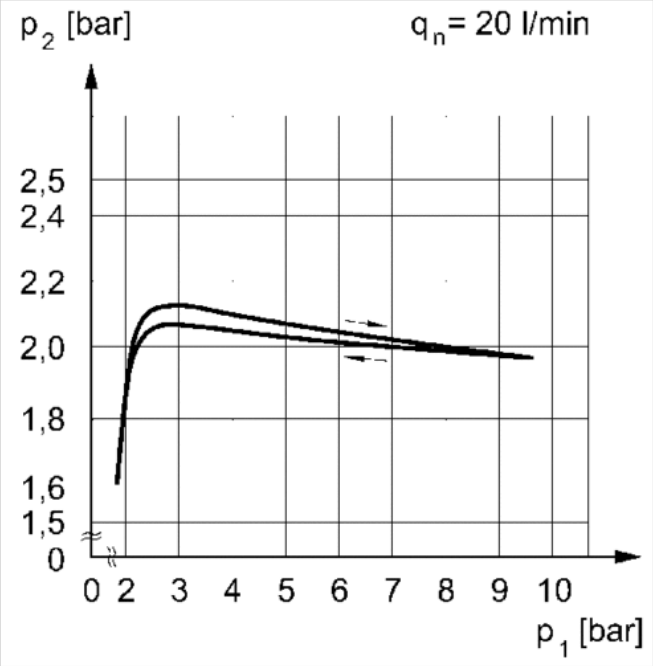
Dimensions in mm

A1	A2	A3	A6	A7	B	C	D	E	G	J	K	L	M	O	R	T	T2	T6	T7	U
G 1/8	G 1/8	G 1/8	G 1/8	G 1/8	40	62.5	102.5	165	M30x1,5	40	43.5	27	3	38	5.4	8	8	6	8.5	18.5
G 1/4	G 1/4	G 1/8	G 1/8	G 1/8	40	62.5	102.5	165	M30x1,5	40	43.5	27	3	38	5.4	8	8	6	8.5	18.5

W	W1	Z
203	44	24.5
203	44	24.5

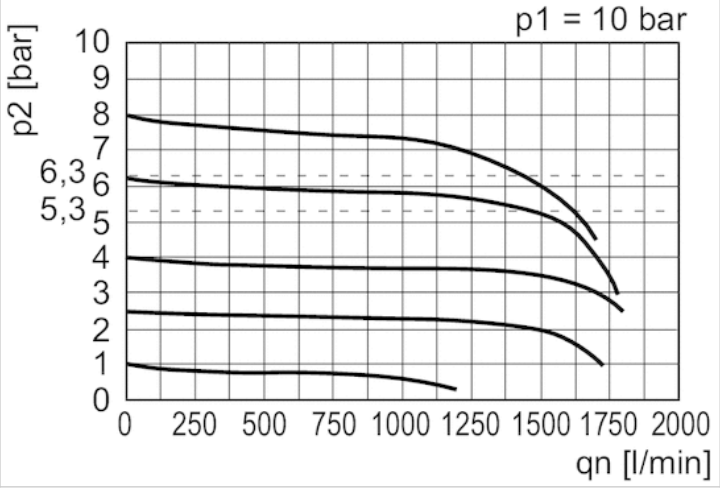
Diagrams

Pressure characteristics curve



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

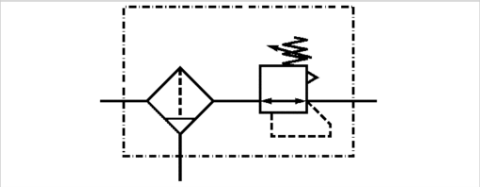
Flow rate characteristic



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

Filter pressure regulator, Series NL1-FRE

- G 1/8, G 1/4
- - 86 °F cold-resistant



Version	1-in-1, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Working pressure min./max.	22 ... 232 psi
Ambient temperature min./max.	-22 ... 122 °F
Medium temperature min./max.	-22 ... 122 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	1.37 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	8 ... 145 psi
Pressure supply	single
Filter reservoir volume	0.54 fl.oz.
Filter element	exchangeable
Condensate drain	semi-automatic, open without pressure
Weight	0.736 lbs

Technical data

Part No.	Port	Flow Qn	Condensate drain
R412007618	G 1/8	1.37 Cv	semi-automatic, open without pressure
R412007619	G 1/4	1.37 Cv	semi-automatic, open without pressure

Metal protective guard can be retrofitted for all polycarbonate reservoirs, Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

Order pressure gauge separately

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).
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.

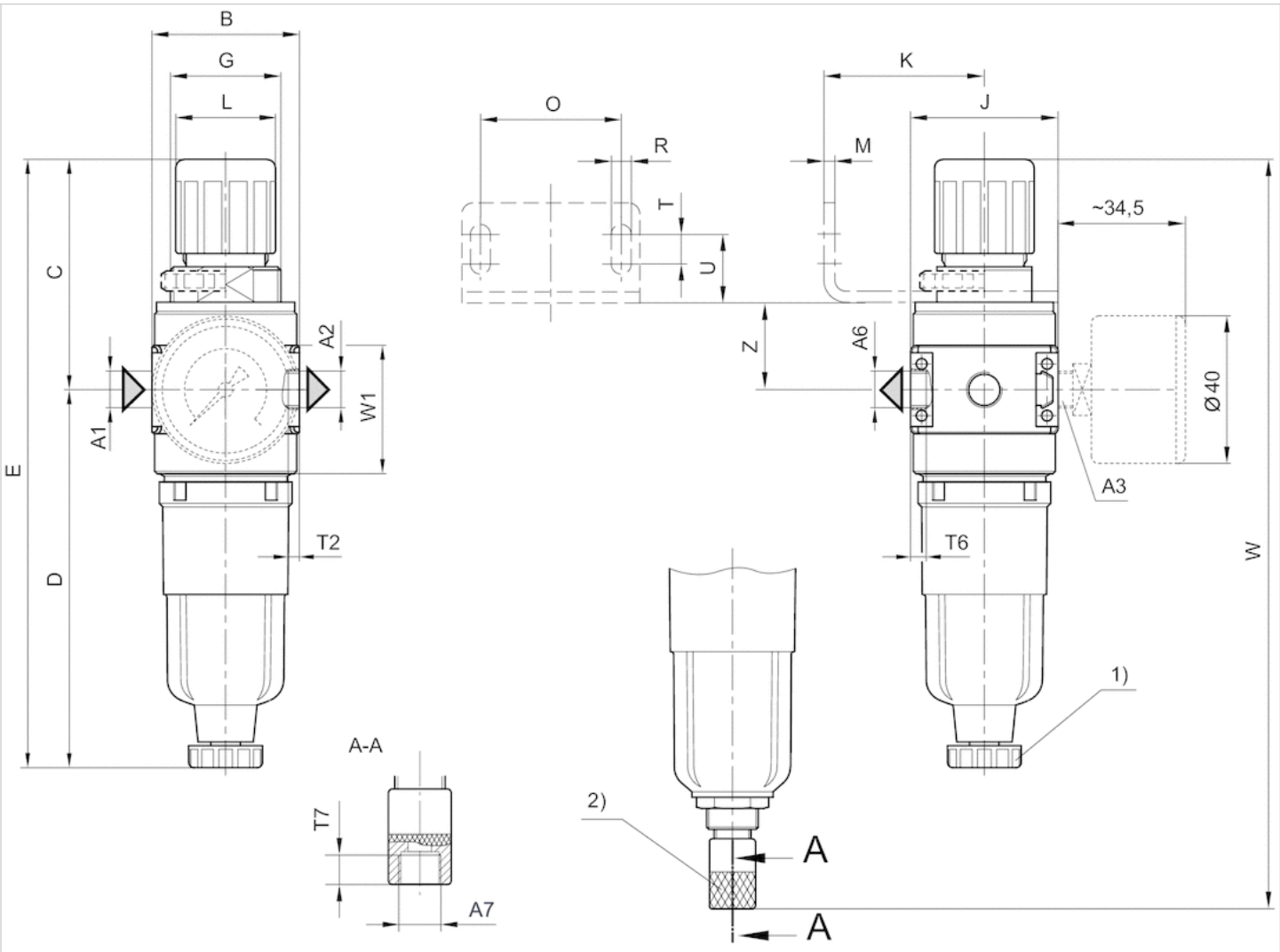
Compressed air class 6 : 7 : -

Technical information

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

Dimensions

Dimensions



A1 = input
A2 = output
A3 = output
A6 = output
A7 = condensate drain
1) Semi-automatic condensate drain
2) fully automatic condensate drain

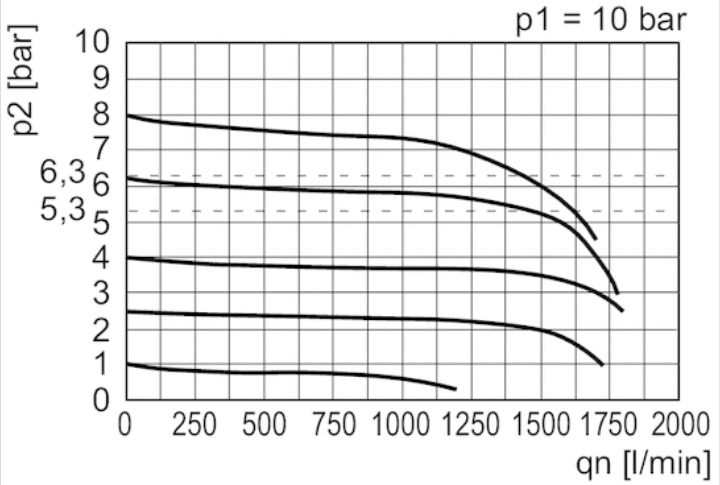
Dimensions in mm

A1	A2	A3	A6	A7	B	C	D	E	G	J	K	L	M	O	R	T	T2	T6	T7	U
G 1/8	G 1/8	G 1/8	G 1/8	G 1/8	40	62.5	102.5	165	M30x1,5	40	43.5	27	3	38	5.4	8	8	6	8.5	18.5
G 1/4	G 1/4	G 1/8	G 1/8	G 1/8	40	62.5	102.5	165	M30x1,5	40	43.5	27	3	38	5.4	8	8	6	8.5	18.5

W	W1	Z
203	44	24.5
203	44	24.5

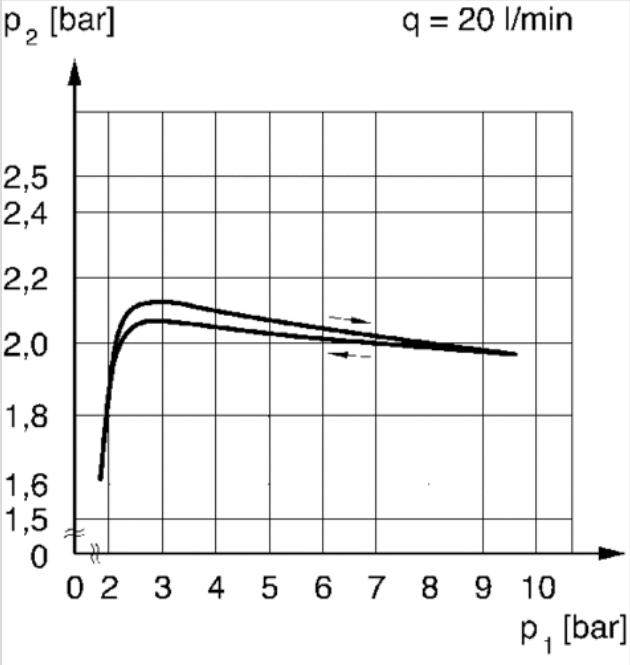
Diagrams

Flow rate characteristic



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

Pressure characteristics curve



p1 = working pressure
p2 = secondary pressure
q = flow rate

Filter, Series NL1-FLS

- G 1/8, G 1/4
- suitable for ATEX

Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	22 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Filter reservoir volume	0.54 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Qn	Condensate drain	Reservoir	Weight
0821303710	G 1/8	1.02 Cv	semi-automatic, open without pressure	Polycarbonate	0.736 lbs
0821303711	G 1/8	1.02 Cv	semi-automatic, open without pressure	Die cast zinc	0.571 lbs
0821303712	G 1/8	1.02 Cv	fully automatic, open without pressure	Polycarbonate	0.58 lbs
0821303713	G 1/4	1.02 Cv	semi-automatic, open without pressure	Polycarbonate	0.463 lbs
0821303714	G 1/4	1.02 Cv	semi-automatic, open without pressure	Die cast zinc	0.571 lbs
0821303715	G 1/4	1.02 Cv	fully automatic, open without pressure	Polycarbonate	0.58 lbs

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

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Suitable for use in Ex zones 1, 2, 21, 22
Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
Also suitable for separation of fluid oil or water due to the design.

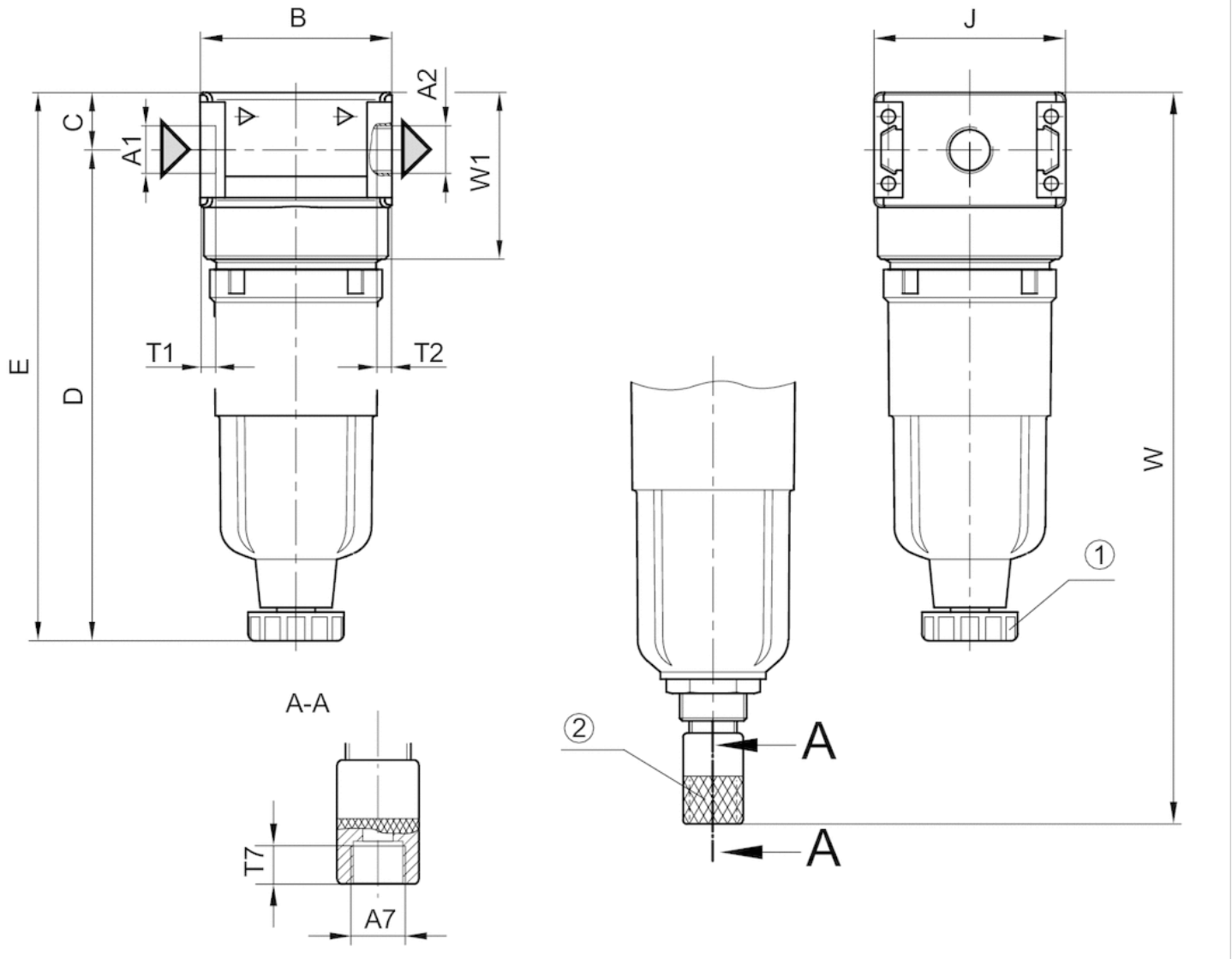
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene rubber
Reservoir	Polycarbonate, Die cast zinc
Filter insert	Cellpor

Dimensions

Dimensions



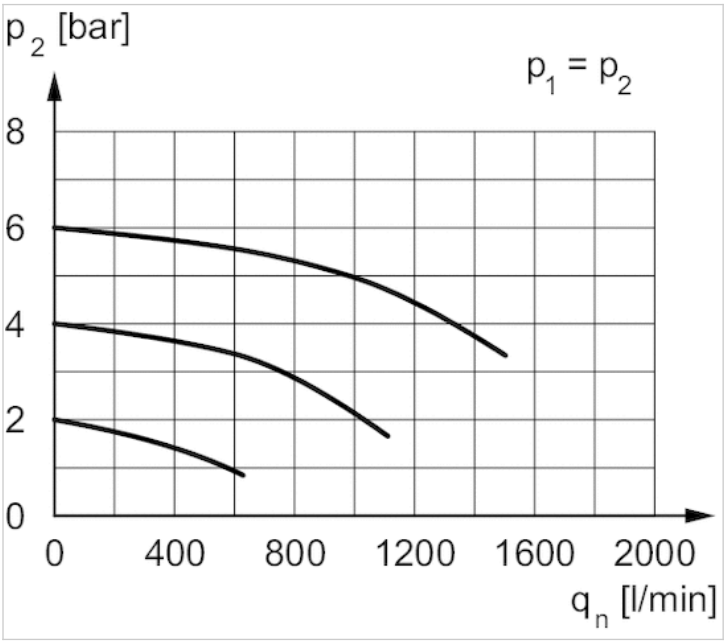
A1 = input
A2 = output
1) Semi-automatic condensate drain
2) fully automatic condensate drain

Dimensions in mm

A1	A2	A7	B	C	D	E	J	T1	T2	T7	W	W1
G 1/8	G 1/8	G 1/8	40	12.3	102.5	114.8	40	8	8	8.5	-	35.1
G 1/8	G 1/8	G 1/8	40	12.3	-	114	40	8	8	8.5	-	35.1
G 1/8	G 1/8	G 1/8	40	12.3	-	-	40	8	8	8.5	154	35.1
G 1/4	G 1/4	G 1/8	40	12.3	102.5	114.8	40	8	8	8.5	-	35.1
G 1/4	G 1/4	G 1/8	40	12.3	-	114	40	8	8	8.5	-	35.1
G 1/4	G 1/4	G 1/8	40	12.3	-	-	40	8	8	8.5	154	35.1

Diagrams

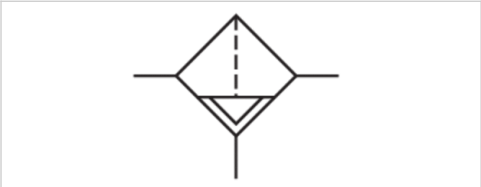
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

Microfilter, Series NL1-FLC

- G 1/8, G 1/4
- suitable for ATEX



Version	Microfilter, Can be assembled into blocks
Parts	Microfilter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	22 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Filter reservoir volume	0.54 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Qn	Condensate drain	Weight
0821303716	G 1/8	0.173 Cv	semi-automatic, open without pressure	0.463 lbs
0821303717	G 1/8	0.173 Cv	fully automatic, open without pressure	0.58 lbs
0821303718	G 1/4	0.457 Cv	semi-automatic, open without pressure	0.507 lbs

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

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

Technical information

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

Recommended pre-filtering 0.3 µm

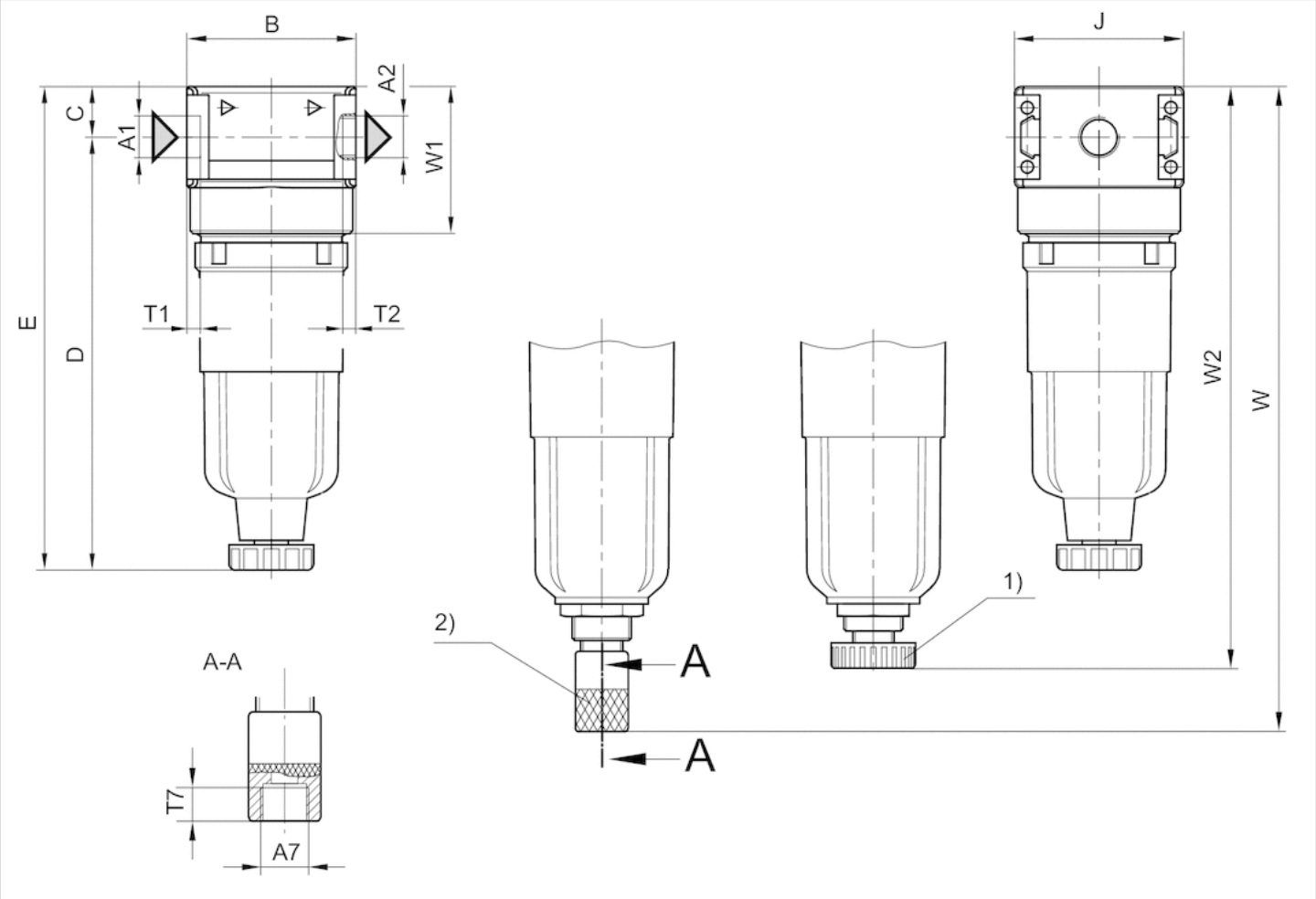
Max. achievable compressed air class acc. to ISO 8573-1:2010 1 : - : 2

Technical information

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

Dimensions

Dimensions



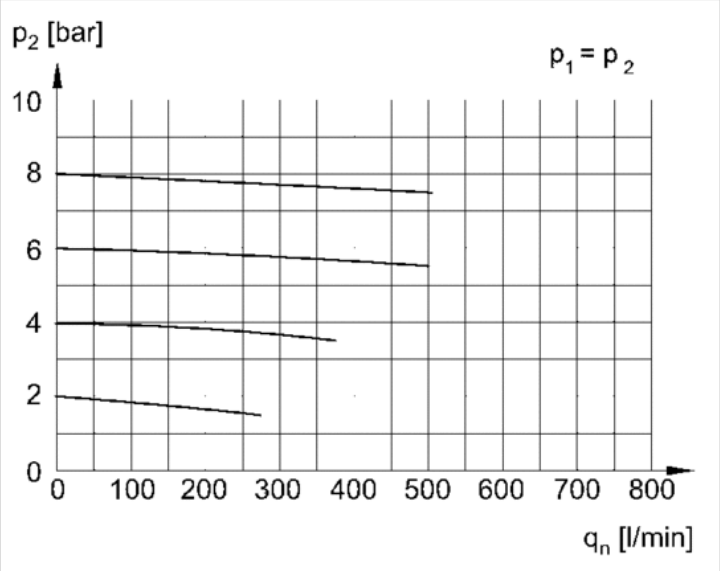
A1 = input
A2 = output
1) Semi-automatic condensate drain
2) fully automatic condensate drain

Dimensions in mm

A1	A2	A7	B	C	D	E	J	T1	T2	T7	W	W1	W2
G 1/8	G 1/8	G 1/8	40	12.3	102.5	114.8	40	8	8	8.5	153	35.1	–
G 1/4	G 1/4	G 1/8	40	12.3	–	–	40	8	8	8.5	–	35.1	138

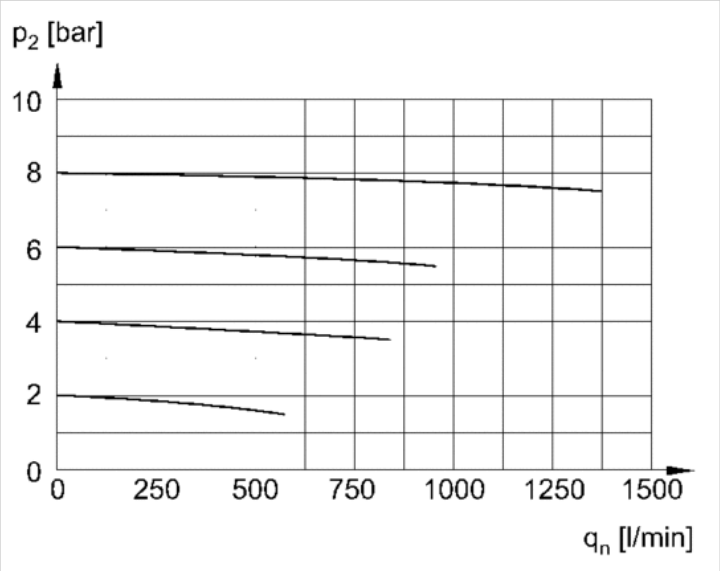
Diagrams

Flow rate characteristic G1/8



p2 = secondary pressure
qn = nominal flow

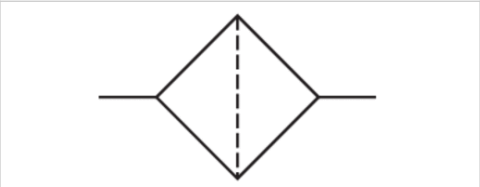
Flow rate characteristic G1/4



p2 = secondary pressure
qn = nominal flow

Active carbon filter, Series NL1-FLA

- G 1/8, 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.	8 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Filter reservoir volume	0.54 fl.oz.
Filter element	exchangeable
Weight	See table below

Technical data

Part No.	Port	Qn	Weight
0821303720	G 1/8	0.315 Cv	0.419 lbs
0821303721	G 1/4	0.386 Cv	0.463 lbs

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

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Suitable for use in Ex zones 1, 2, 21, 22
Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Recommended pre-filtering 0.01 µm

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

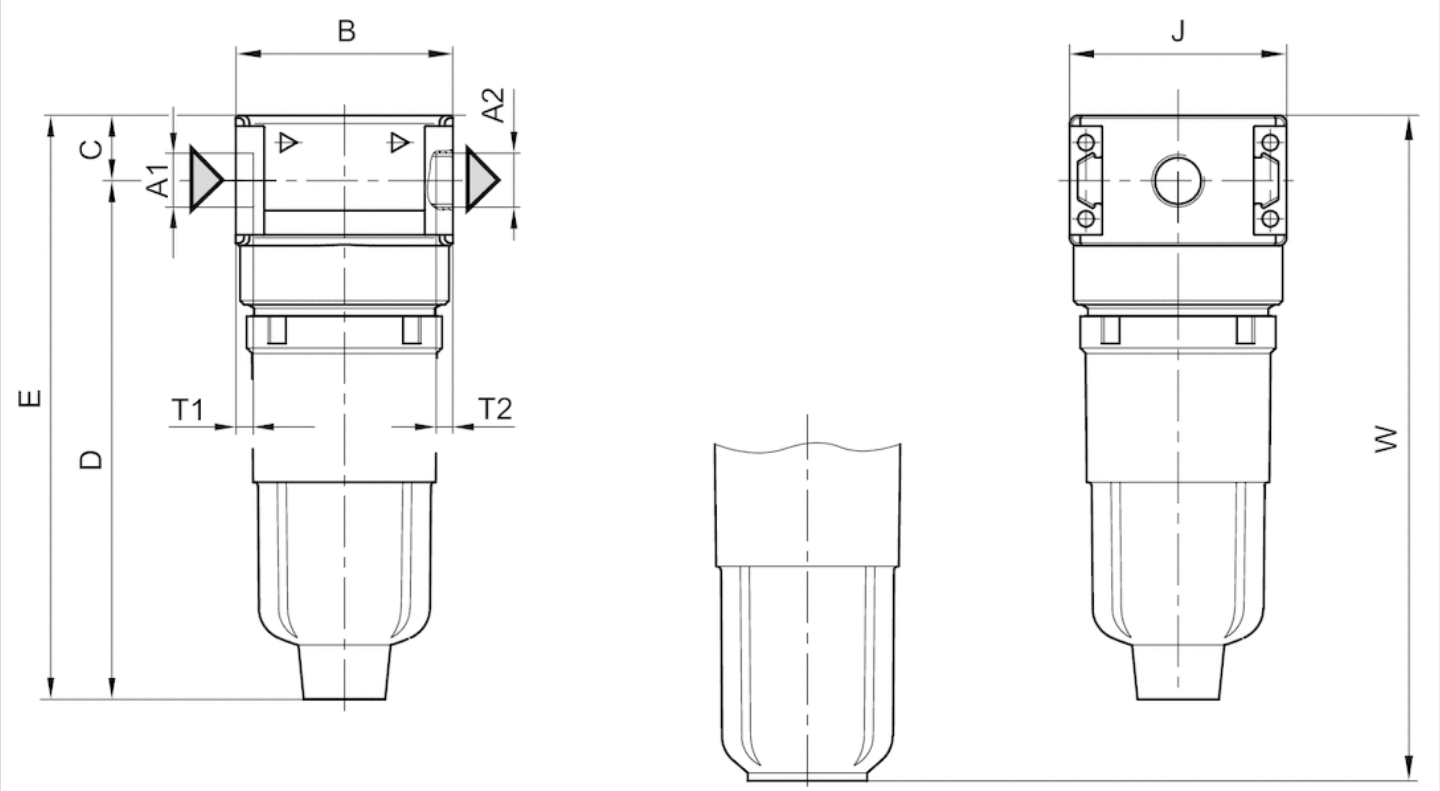
Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene rubber
Reservoir	Polycarbonate

Material	
Filter insert	Active carbon

Dimensions

Dimensions



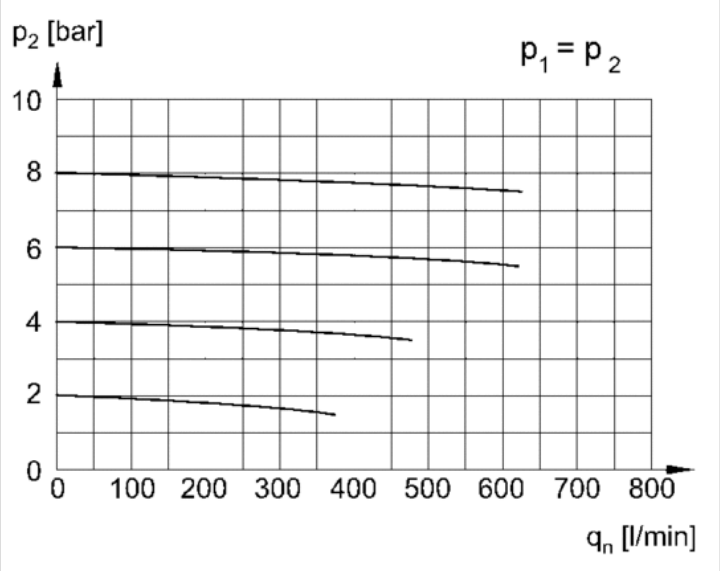
A1 = input
A2 = output

Dimensions in mm

A1	A2	B	C	D	E	J	T1	T2	W
G 1/8	G 1/8	40	12.3	95.5	108	40	8	8	–
G 1/4	G 1/4	40	12.3	–	–	40	8	8	123

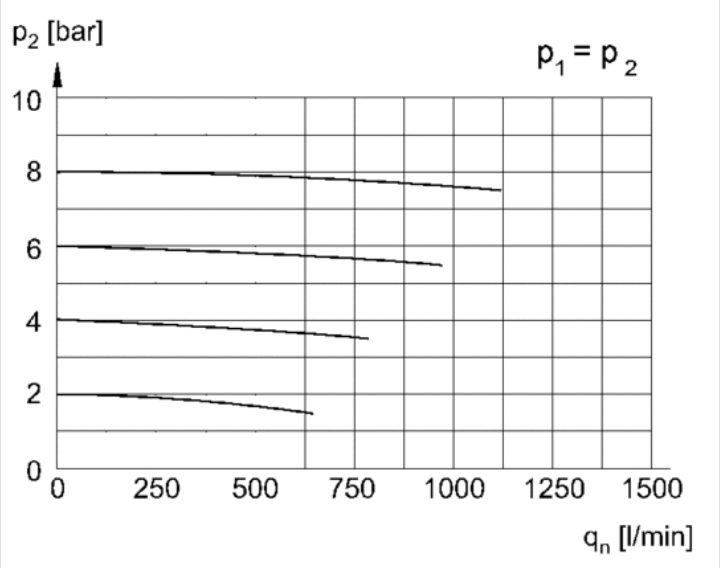
Diagrams

Flow rate characteristic G1/8



p2 = secondary pressure
qn = nominal flow

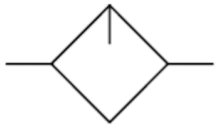
Flow rate characteristic G1/4



p2 = secondary pressure
qn = nominal flow

Micro oil-mist lubricator, Series NL1-LBM

- G 1/8, G 1/4
- suitable for ATEX



Version	Micro oil-mist lubricator, Can be assembled into blocks
Parts	Micro oil-mist lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Lubricator reservoir volume	1.18 fl.oz.
Type of filling	Manual oil filling
Weight	See table below

Technical data

Part No.	Port	Nominal flow Qn	Reservoir	Weight
0821301702	G 1/8	1.02 Cv	Polycarbonate	0.507 lbs
0821301703	G 1/8	1.02 Cv	Die cast zinc	0.578 lbs
0821301704	G 1/4	1.02 Cv	Polycarbonate	0.507 lbs
0821301705	G 1/4	1.02 Cv	Die cast zinc	0.578 lbs

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

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
only approx. 10% of the preset drip quantity enters the compressed air system
oil filling not possible during operation
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.

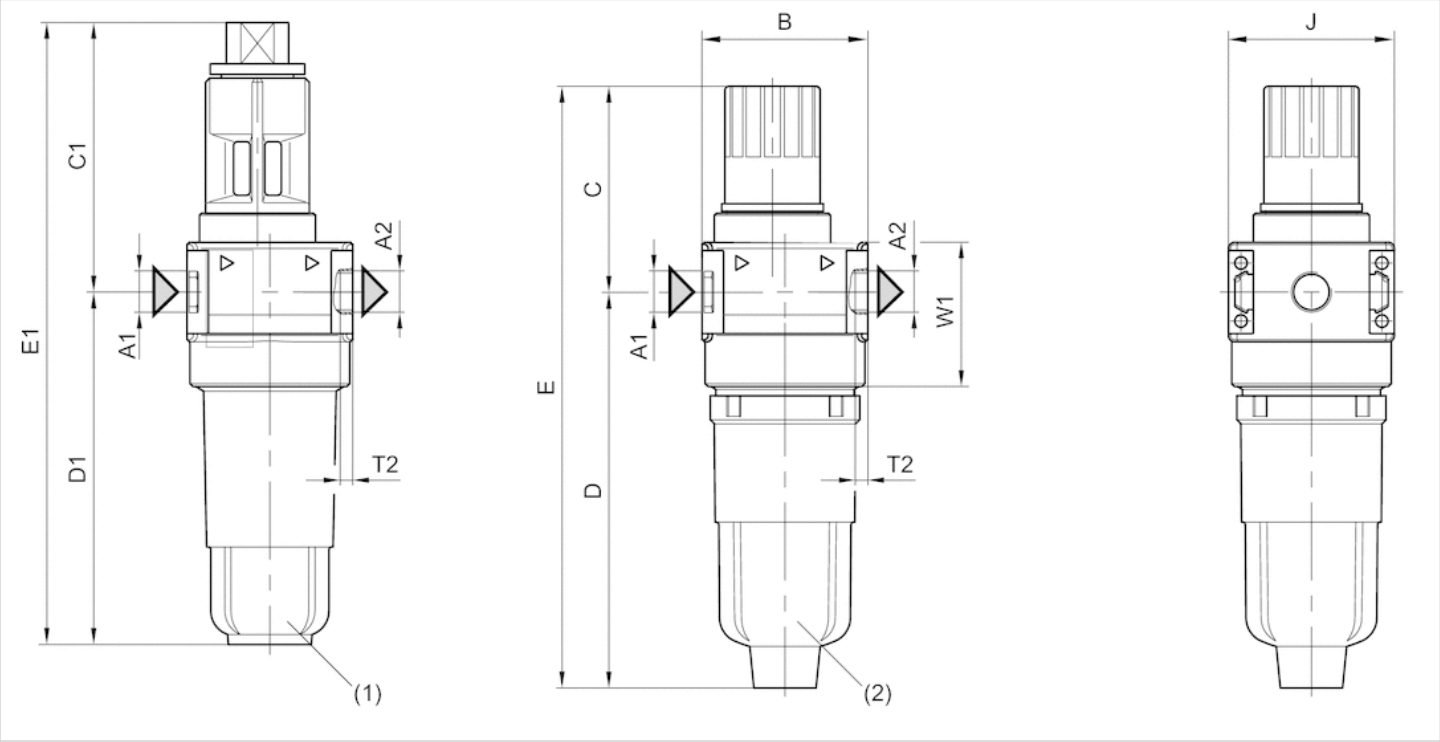
Oil dosing at 1 Cv 10-20 drops

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene rubber
Reservoir	Polycarbonate, Die cast zinc

Dimensions

Dimensions



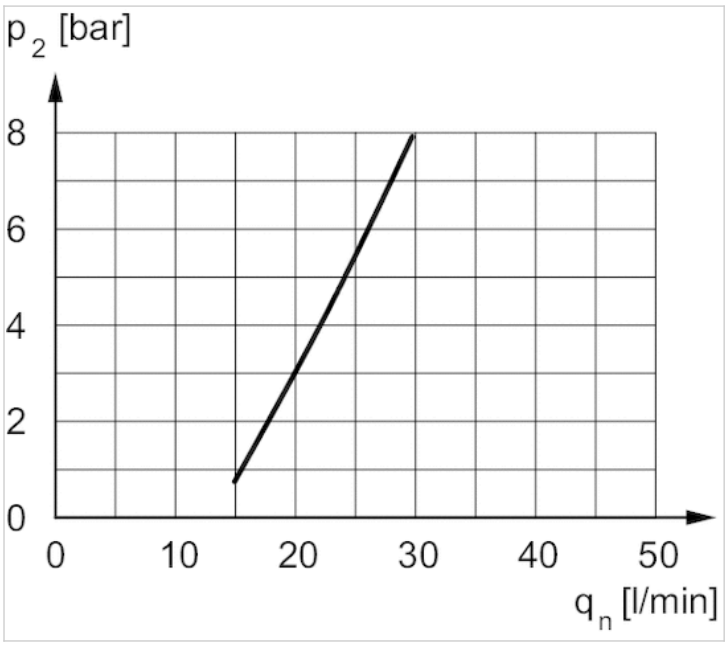
A1 = input
A2 = output
1) Metal reservoir
2) PC reservoir

Dimensions in mm

A1	A2	B	C	C1	D	D1	E	E1	J	T2	W1
G 1/8	G 1/8	40	50	65	95.5	85	145.5	150	40	8	35
G 1/4	G 1/4	40	50	65	95.5	85	145.5	150	40	8	35

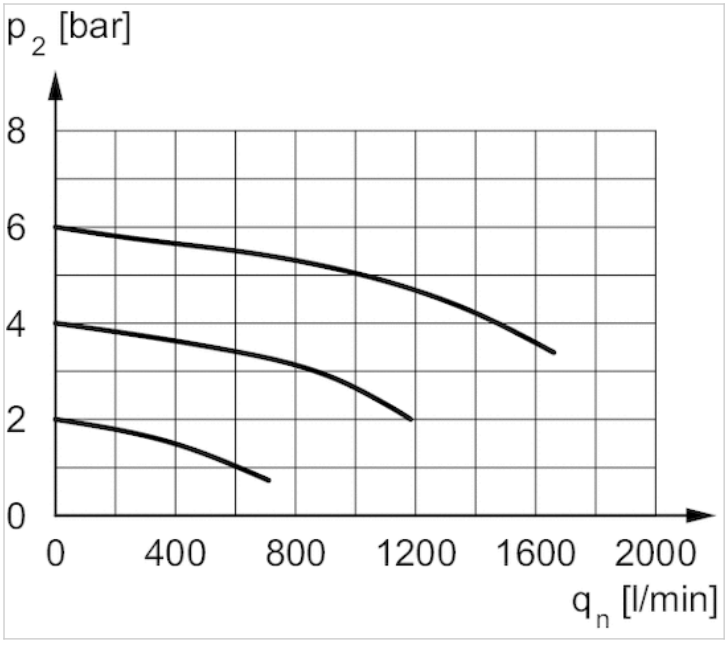
Diagrams

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



p2 = secondary pressure
qnmin. = min. nominal flow

Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

Filling unit, electrically operated, Series NL1-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	2.03 Cv
Nominal flow 2 ▸ 3	0.813 Cv
Working pressure min./max.	37 ... 145 psi
Medium	Compressed air, Neutral gases
Medium temperature min./max.	14 ... 140 °F
Ambient temperature min./max.	14 ... 140 °F
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
0821300796		–	G 1/4	G 1/4	G 1/4
0821300797		–	G 1/4	G 1/4	G 1/4
0821300798		–	G 1/4	G 1/4	G 1/4
0821300799			G 1/4	G 1/4	G 1/4

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
0821300796	24 V	-	-
0821300797	-	230 V	230 V
0821300798	-	-	-
0821300799	-	-	-

Part No.	Power consumption	Holding power	Switch-on power	Manual override
	DC	AC 50 Hz	AC 50 Hz	
0821300796	4.8 W	-	-	-
0821300797	-	8.5 VA	11.8 VA	-
0821300798	-	-	-	with detent
0821300799	-	-	-	-

Part No.	Electrical connection	Connector standard	basic valve with electrical connector
	Pilot valve		
0821300796	Plug, ISO 6952, form B	ISO 6952	-

Part No.	Electrical connection	Connector standard	basic valve with electrical connector
	Pilot valve		
0821300797	Plug, ISO 6952, form B	ISO 6952	-
0821300798	-	-	pilot valve without coil
0821300799	-	-	pilot valve without coil

Part No.	Reverse polarity protection	Weight
0821300796	Protected against polarity reversal	1.94 lbs
0821300797	Protected against polarity reversal	1.94 lbs
0821300798	-	1.87 lbs
0821300799	-	1.87 lbs

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

adjustable filling

Technical information

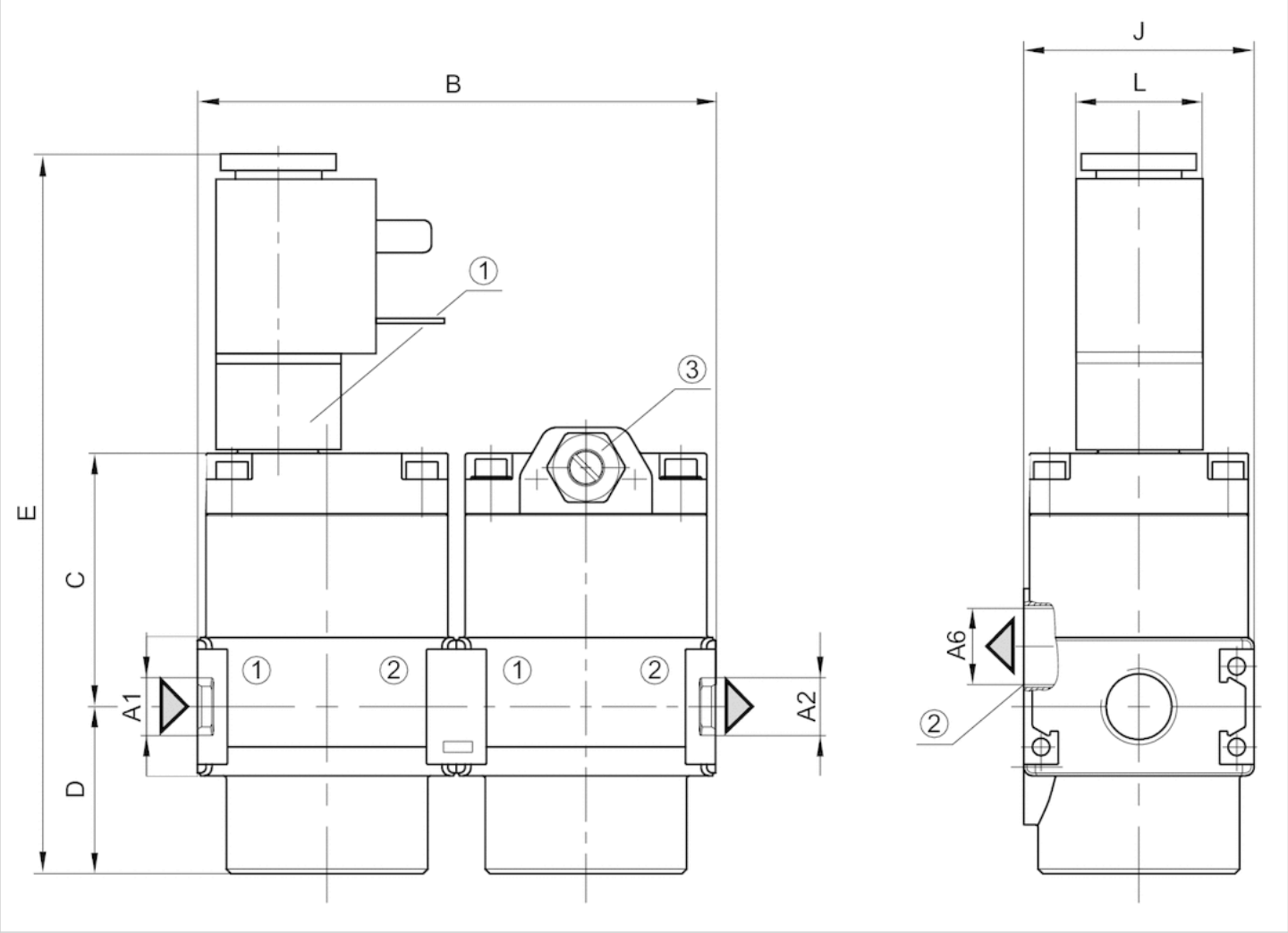
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.
ATEX optional: The ATEX ID depends on the selected ATEX coil.
Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

Dimensions

Dimensions



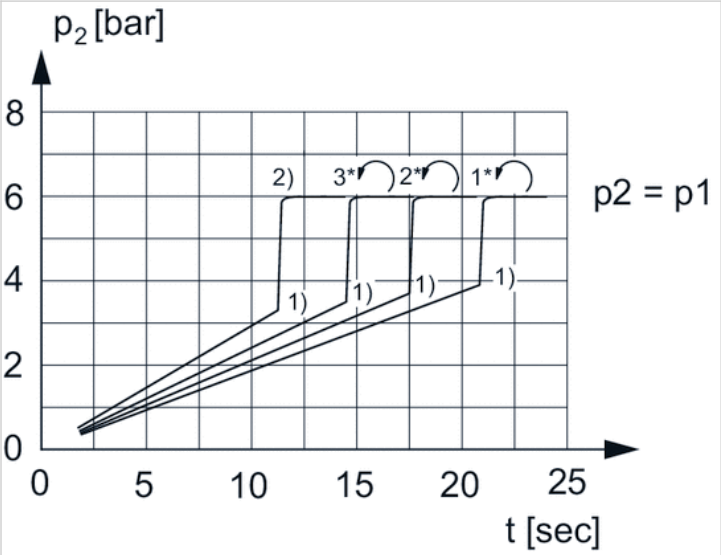
A1 = input
A2 = output
A6 = output
1) electrically operated
2) exhaust
3) Adjustment screw for filling time

Dimensions in mm

A1	A2	A6	B	C	D	E	J	L	L1	W
G 1/4	G 1/4	G 1/4	90	44.5	29	124.5	40	22	22	89.5

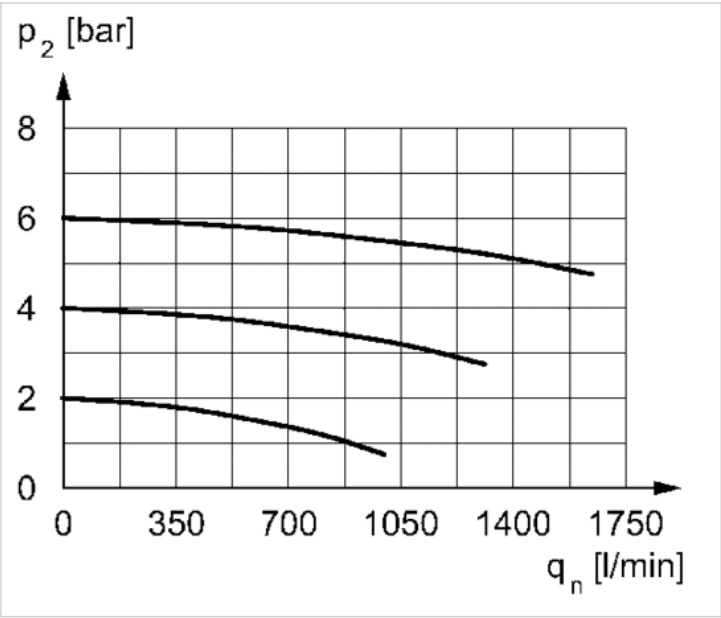
Diagrams

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 ≈ 0.5 x p1 (50%)
2) Throttle fully opened
* Adjustment screw rotations

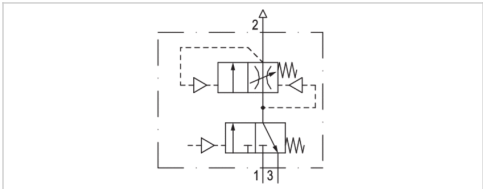
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

Filling unit, pneumatically operated, Series NL1-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 ... 232 psi
Control pressure min./max.	37 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Max. particle size	5 µm
Weight	1.83 lbs

Technical data

Part No.	Port	Exhaust	Flow	Flow
			Qn 1▸2	Qn 2▸3
0821300795	G 1/4	G 1/4	2.03 Cv	0.813 Cv

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

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

Technical information

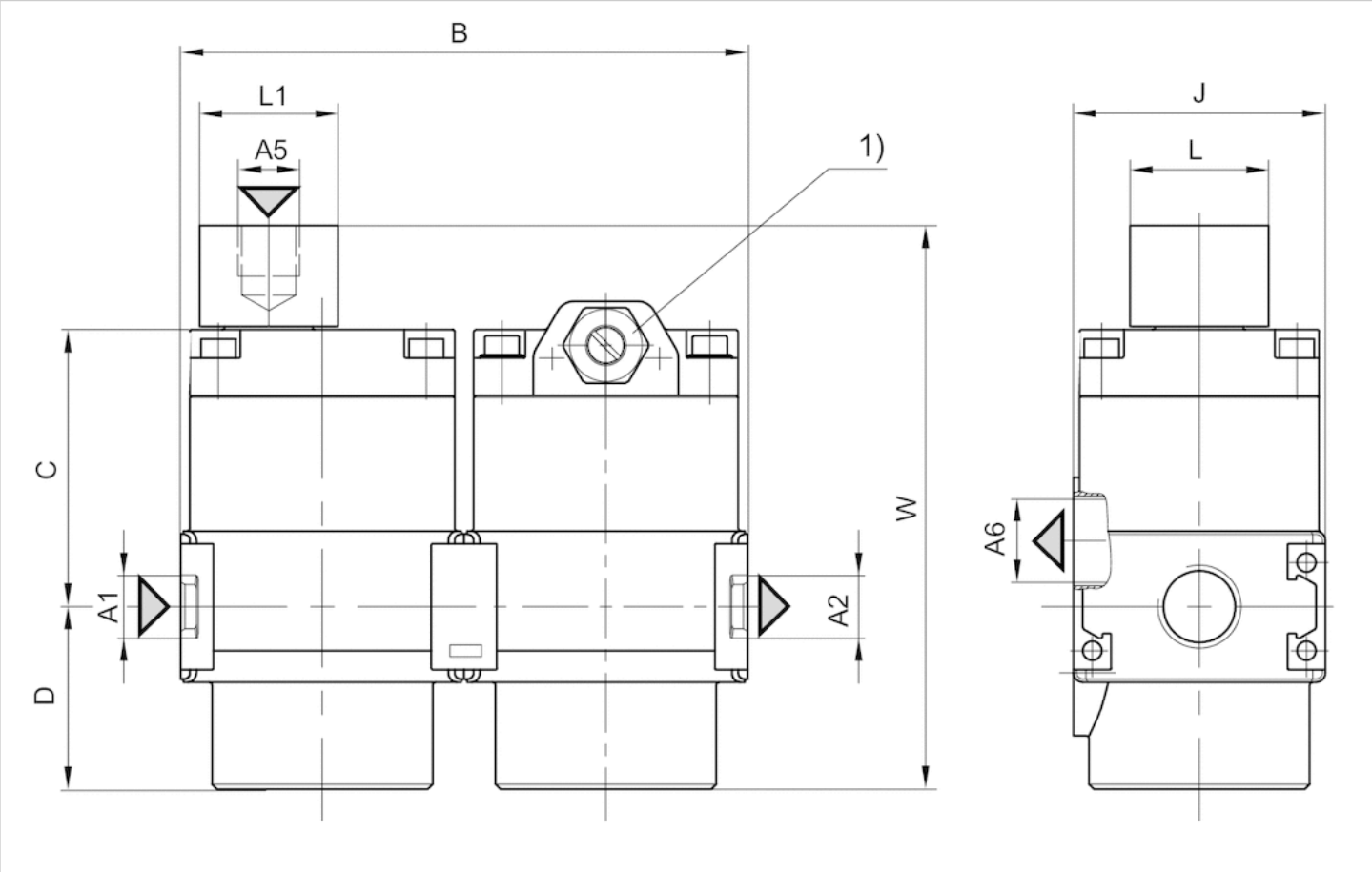
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.
Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

Dimensions

Dimensions



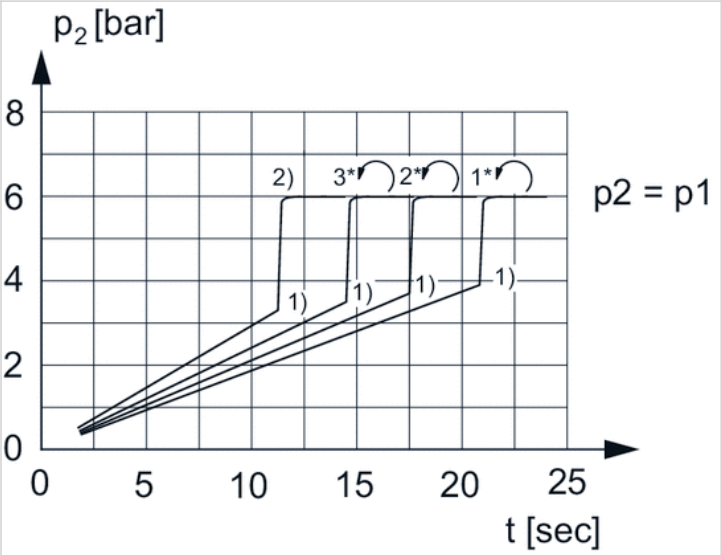
A1 = input
A2 = output
A5 = control pressure connection
A6 = ventilation port
1) Adjustment screw for filling time

Dimensions in mm

A1	A2	A5	A6	B	C	D	J	L	L1	W
G 1/4	G 1/4	G1/8	G 1/4	90	44.5	29	40	22	22	89.5

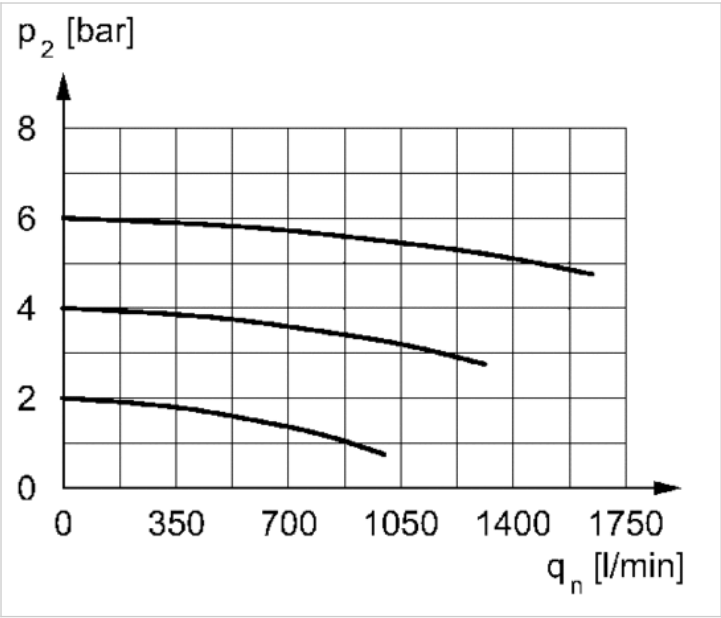
Diagrams

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 ≈ 0.5 x p1 (50%)
2) Throttle fully opened
* Adjustment screw rotations

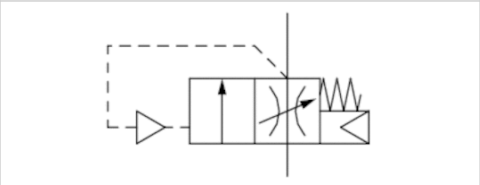
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

Filling valve, pneumatically operated, Series NL1-SSV

- adjustable filling time
- 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 ... 232 psi
Control pressure min./max.	37 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Max. particle size	5 µm
Weight	0.948 lbs

Technical data

Part No.	Port	Flow
		Qn
0821300774	G 1/4	2.24 Cv

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

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

Technical information

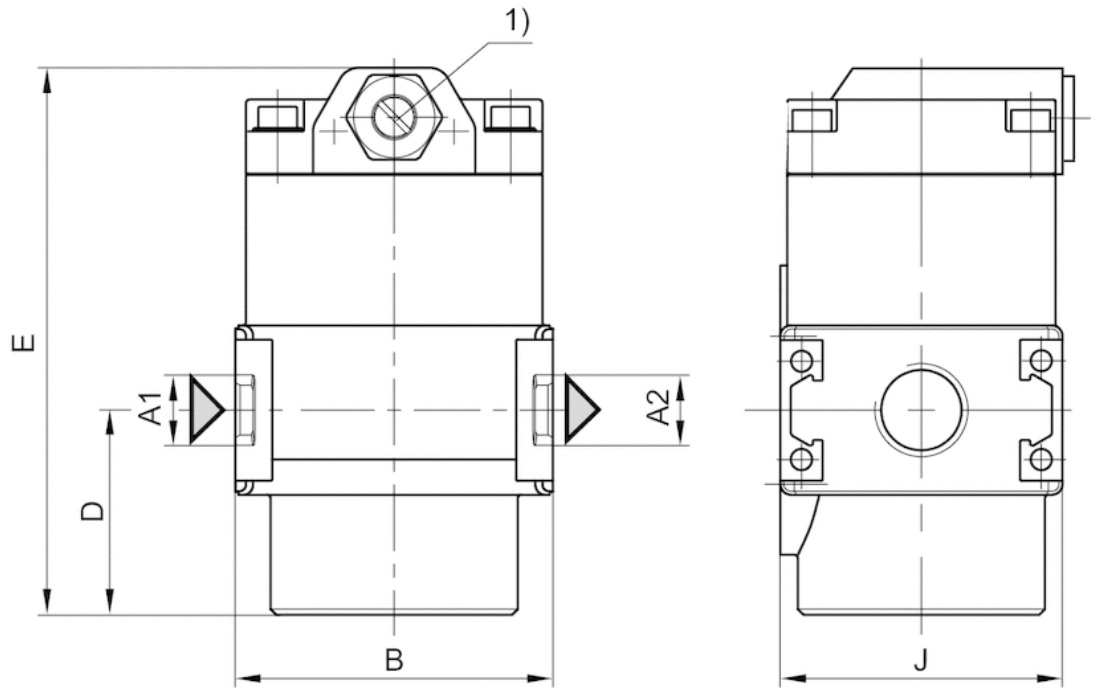
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.
Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

Dimensions

Dimensions



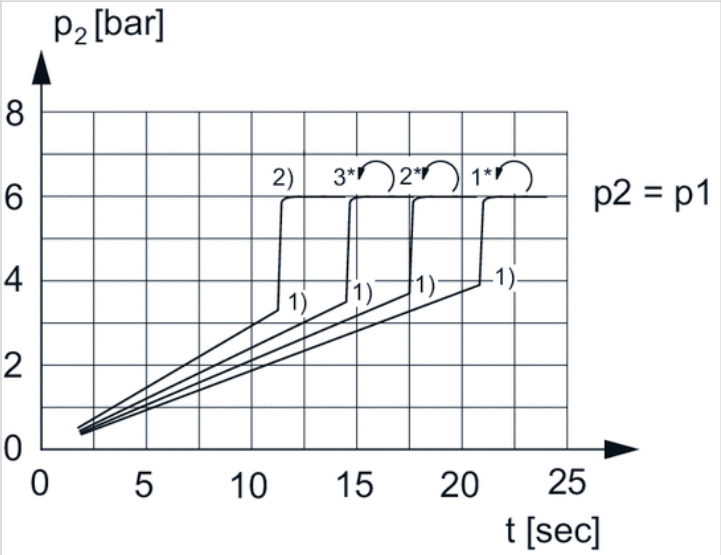
A1 = input
A2 = output
1) Adjustment screw for filling time

Dimensions in mm

A1	A2	B	D	E	J
G 1/4	G 1/4	45	29	77.5	40

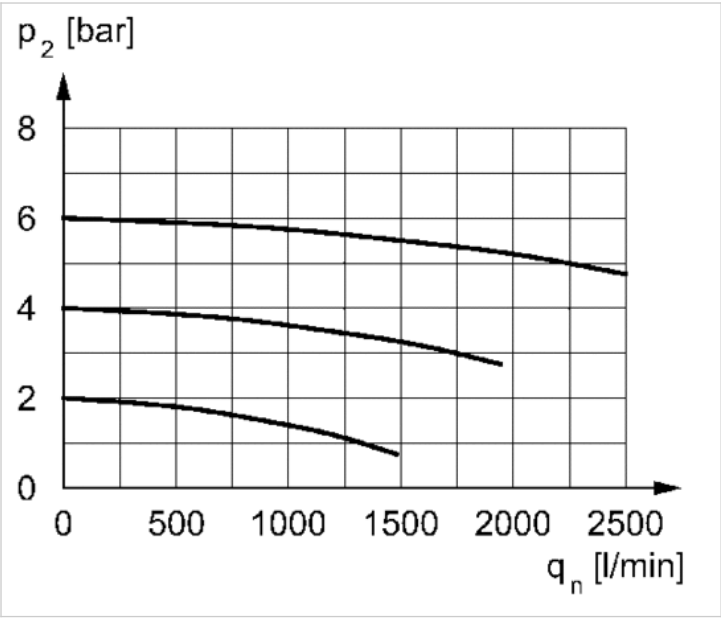
Diagrams

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 ≈ 0.5 x p1 (50%)
2) Throttle fully opened
* Adjustment screw rotations

Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

3/2-directional valve, electrically operated, Series NL1-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	2.03 Cv
Nominal flow 2 ▸ 3	0.813 Cv
Working pressure min./max.	44 ... 145 psi
Medium	Compressed air, Neutral gases
Medium temperature min./max.	14 ... 140 °F
Ambient temperature min./max.	14 ... 140 °F
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
0821300776		–	G 1/4	G 1/4	G 1/4
0821300777		–	G 1/4	G 1/4	G 1/4
0821300778		–	G 1/4	G 1/4	G 1/4
0821300779			G 1/4	G 1/4	G 1/4

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
0821300776	24 V	-	-
0821300777	-	230 V	230 V
0821300778	-	-	-
0821300779	-	-	-

Part No.	Power consumption	Holding power	Switch-on power	Manual override
	DC	AC 50 Hz	AC 50 Hz	
0821300776	4.8 W	-	-	-
0821300777	-	8.5 VA	11.8 VA	-
0821300778	-	-	-	-
0821300779	-	-	-	with detent

Part No.	Electrical connection	Connector standard	basic valve with electrical connector
	Pilot valve		
0821300776	Plug, ISO 6952, form B	ISO 6952	-

Part No.	Electrical connection	Connector standard	basic valve with electrical connector
	Pilot valve		
0821300777	Plug, ISO 6952, form B	ISO 6952	-
0821300778	Plug, ISO 6952, form B	-	pilot valve without coil
0821300779	Plug, ISO 6952, form B	-	pilot valve without coil

Part No.	Reverse polarity protection	Weight
0821300776	Protected against polarity reversal	0.992 lbs
0821300777	Protected against polarity reversal	0.992 lbs
0821300778	Protected against polarity reversal	0.926 lbs
0821300779	Protected against polarity reversal	0.926 lbs

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

Technical information

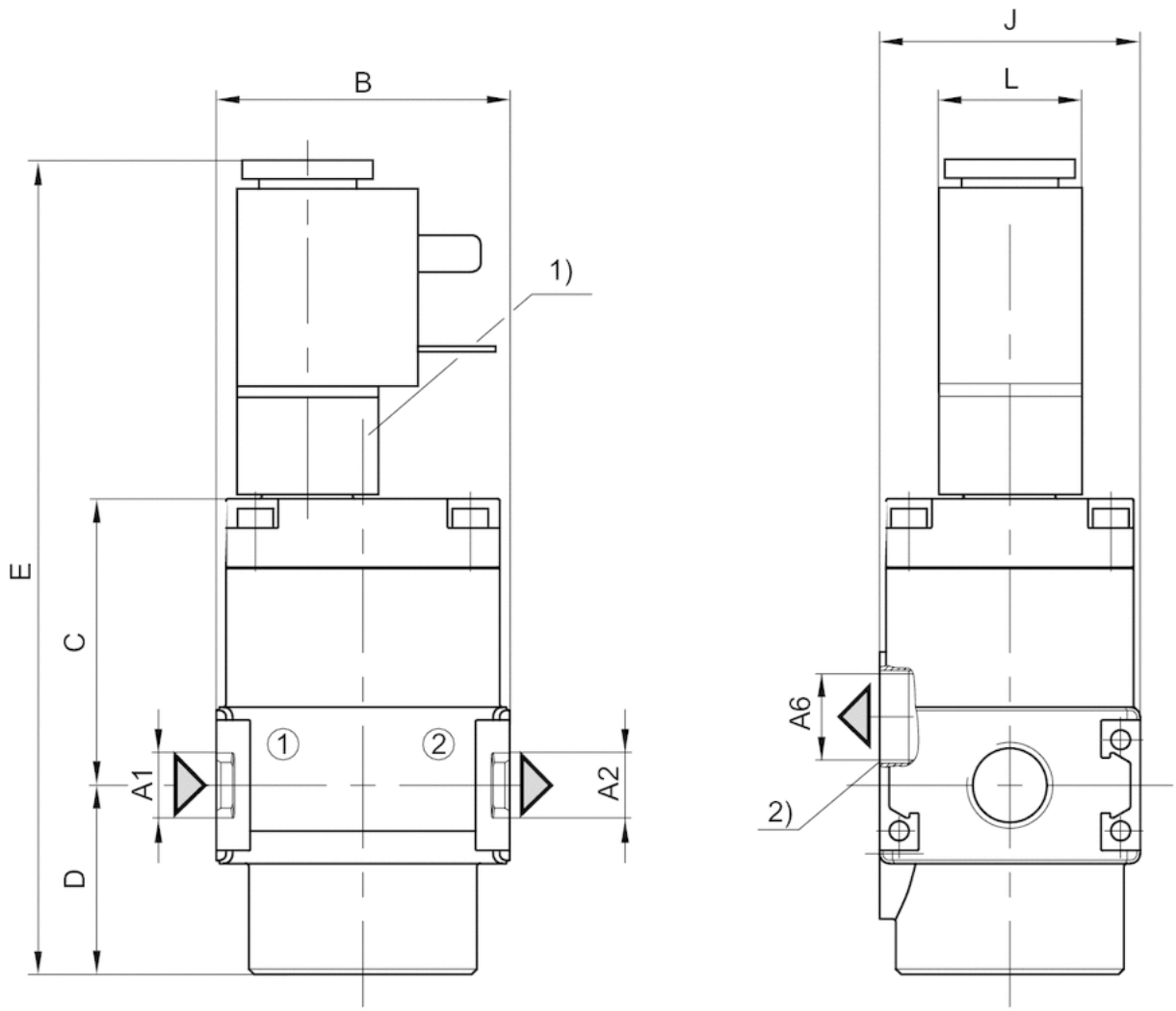
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
ATEX optional: The ATEX ID depends on the selected ATEX coil.

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene styrene

Dimensions

Dimensions



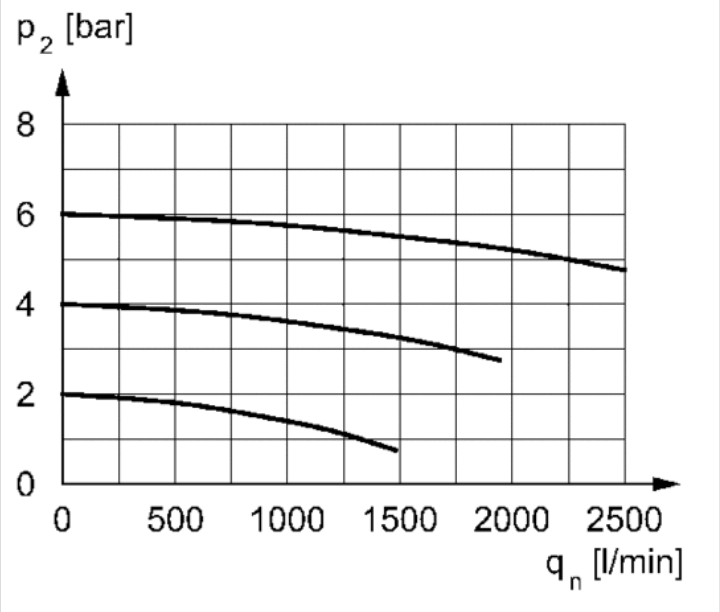
A1 = input
A2 = output
A6 = output
1) electrically operated
2) Port 3 (Exhaust)

Dimensions in mm

A1	A2	A6	B	C	D	E	J	L
G 1/4	G 1/4	G 1/4	45	44.5	29	124.5	40	22

Diagrams

Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

3/2-directional valve, electrically operated, Series NL1-SOV-...-DS

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

Version	Poppet valve, Can be assembled into blocks
Parts	3/2-directional valve, electrically operated
Nominal flow 1 ▸ 2	2.03 Cv
Nominal flow 2 ▸ 3	0.813 Cv
Working pressure min./max.	37 ... 145 psi
Medium	Compressed air, Neutral gases
Medium temperature min./max.	14 ... 140 °F
Ambient temperature min./max.	14 ... 140 °F
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
0821300673		–	G 1/4	G 1/4	G 1/4
0821300675		–	G 1/4	G 1/4	G 1/4
0821300676			G 1/4	G 1/4	G 1/4

Part No.	Operational voltage	Power consumption	Manual override
	DC	DC	
0821300673	24 V	4.8 W	-
0821300675	-	-	-
0821300676	-	-	with detent

Part No.	Electrical connection	basic valve with electrical connector
	Pilot valve	
0821300673	Plug, ISO 6952, form B	-
0821300675	Plug, ISO 6952, form B	pilot valve without coil
0821300676	Plug, ISO 6952, form B	pilot valve without coil

Part No.	Reverse polarity protection	Weight
0821300673	Protected against polarity reversal	0.992 lbs
0821300675	Protected against polarity reversal	0.926 lbs
0821300676	Protected against polarity reversal	0.926 lbs

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

Technical information

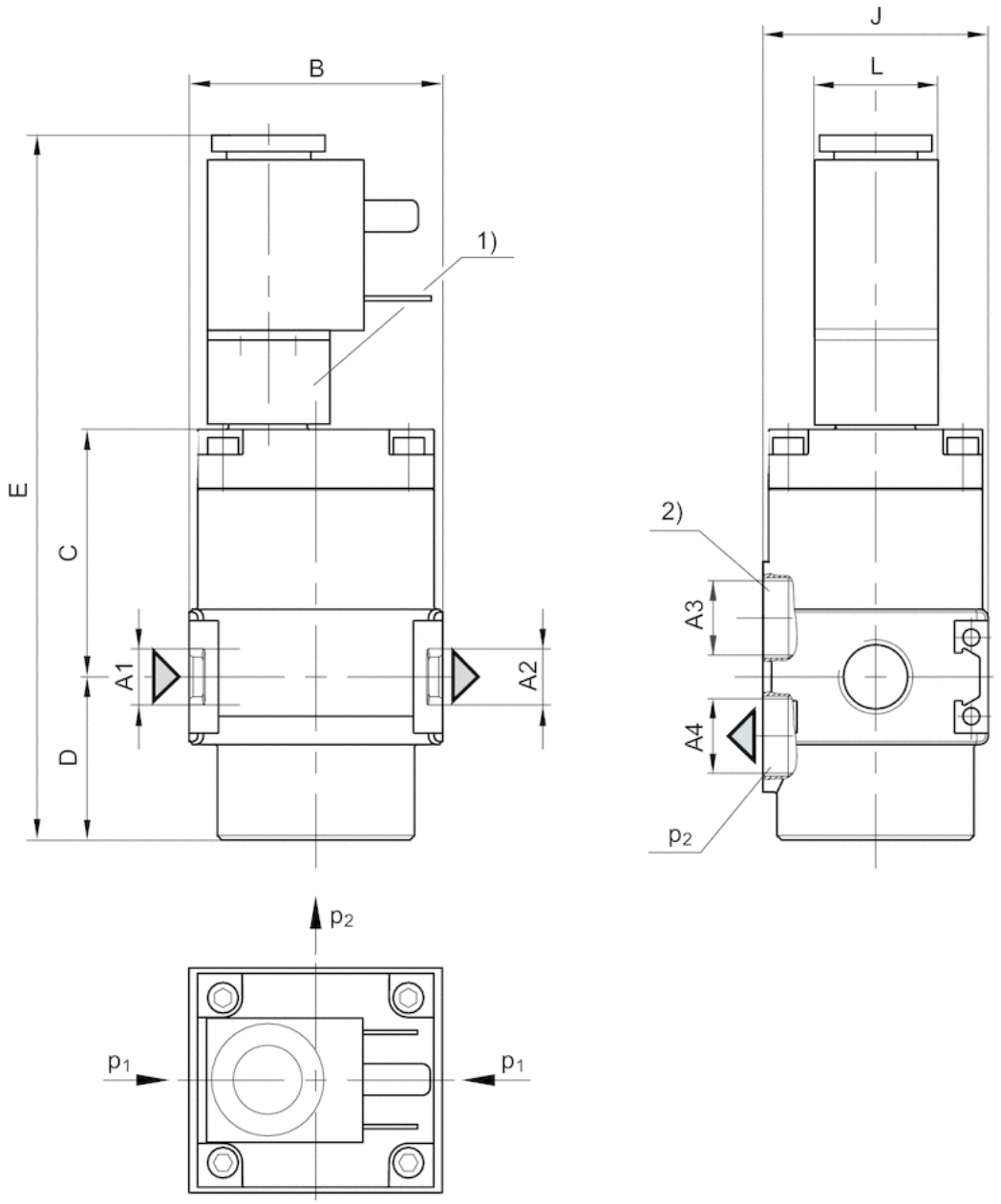
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
ATEX optional: The ATEX ID depends on the selected ATEX coil.

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene styrene

Dimensions

Dimensions



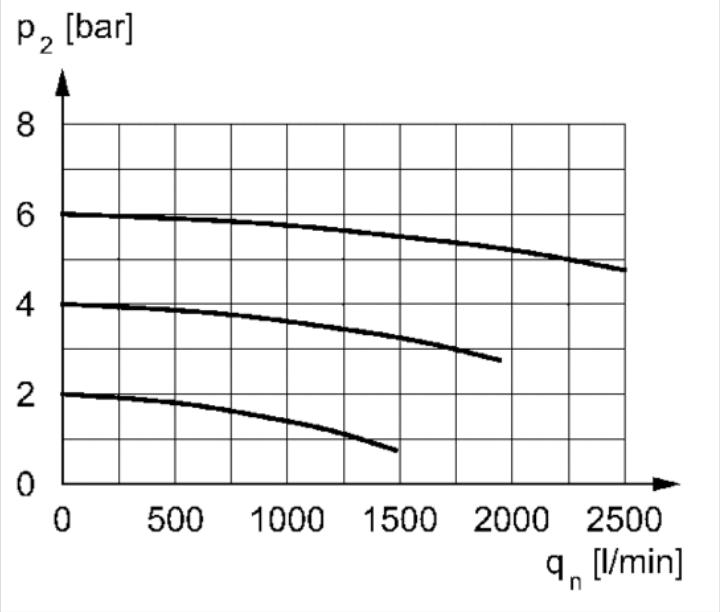
A1 = input
A2 = output
A3 = ventilation port
A4 = output
p1 = working pressure
p2 = secondary pressure
1) electrically operated
2) Port 3 (Exhaust)

Dimensions in mm

A1	A2	A3	A4	A6	B	C	D	E	J	L
G 1/4	G 1/4	G 1/4	G 1/4	G 1/4	45	44.5	29	124.5	40	22

Diagrams

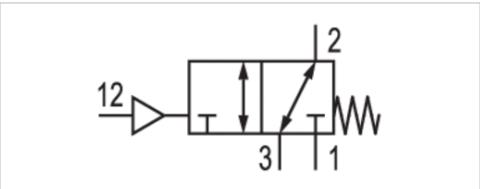
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

3/2-directional valve, pneumatically operated, Series NL1-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 ... 232 psi
Control pressure min./max.	37 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Max. particle size	5 µm
Weight	0.882 lbs

Technical data

Part No.	Port	Exhaust	Flow	Flow
			Qn 1▸2	Qn 2▸3
0821300775	G 1/4	G 1/4	2.24 Cv	0.813 Cv

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

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

Technical information

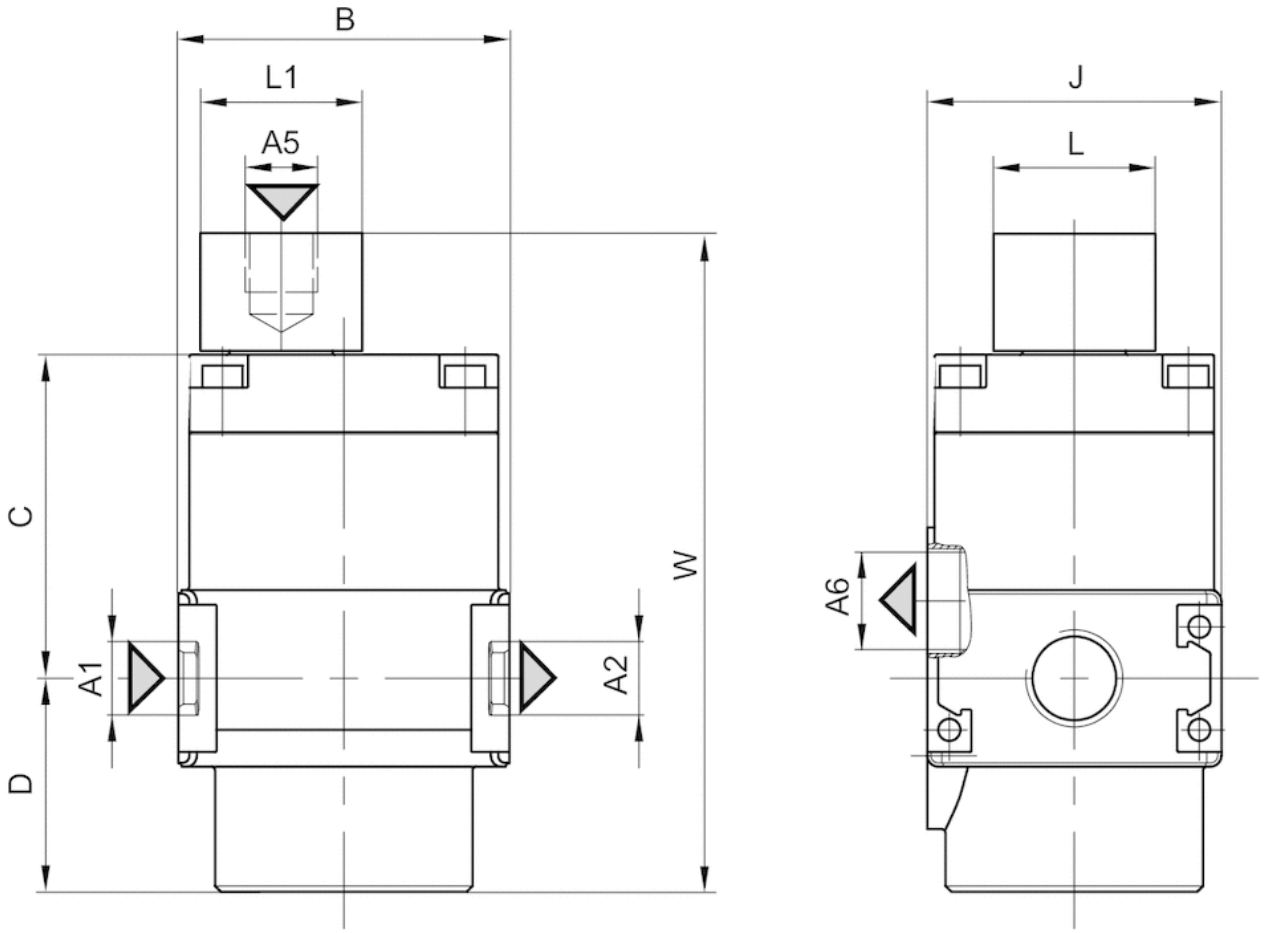
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



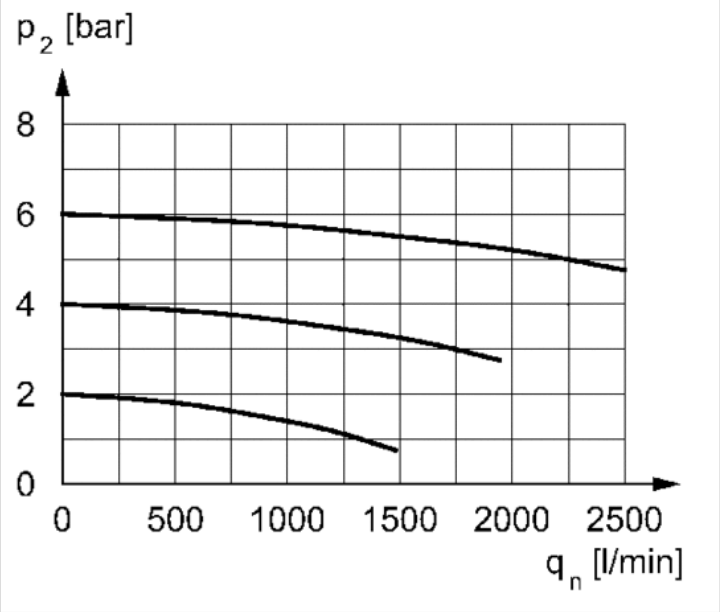
A1 = input
A2 = output
A5 = control pressure connection
A6 = ventilation port

Dimensions in mm

A1	A2	A5	A6	B	C	D	J	L	L1	W
G 1/4	G 1/4	G 1/8	G 1/4	45	44.5	29	40	22	22	89.5

Diagrams

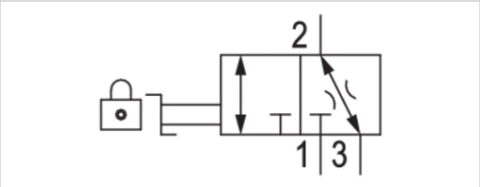
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

3/2-shut-off valve, mechanically operated, Series NL1-BAV

- G 1/8, G 1/4
- lockable
- for padlocks
- suitable for ATEX



Version	Ball valve
Activation	Mechanical
Lock type	lockable
Actuating element	rotary switch
Sealing principle	metal/metal sealing
Certificates	suitable for ATEX
Nominal flow Qn	3.05 Cv
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Weight	0.542 lbs

Technical data

Part No.	Version	Compressed air connection	Compressed air connection
		Input	Output
0821300772	3/2	G 1/8	G 1/8
0821300773	3/2	G 1/4	G 1/4

Part No.	Compressed air connection	Flow	Flow	Lock type
	Exhaust	Qn 1 ▸ 2	Qn 2▸3	
0821300772	G 1/4	1.83 Cv	0.071 Cv	for padlocks
0821300773	G 1/4	1.83 Cv	0.071 Cv	for padlocks

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

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

Technical information

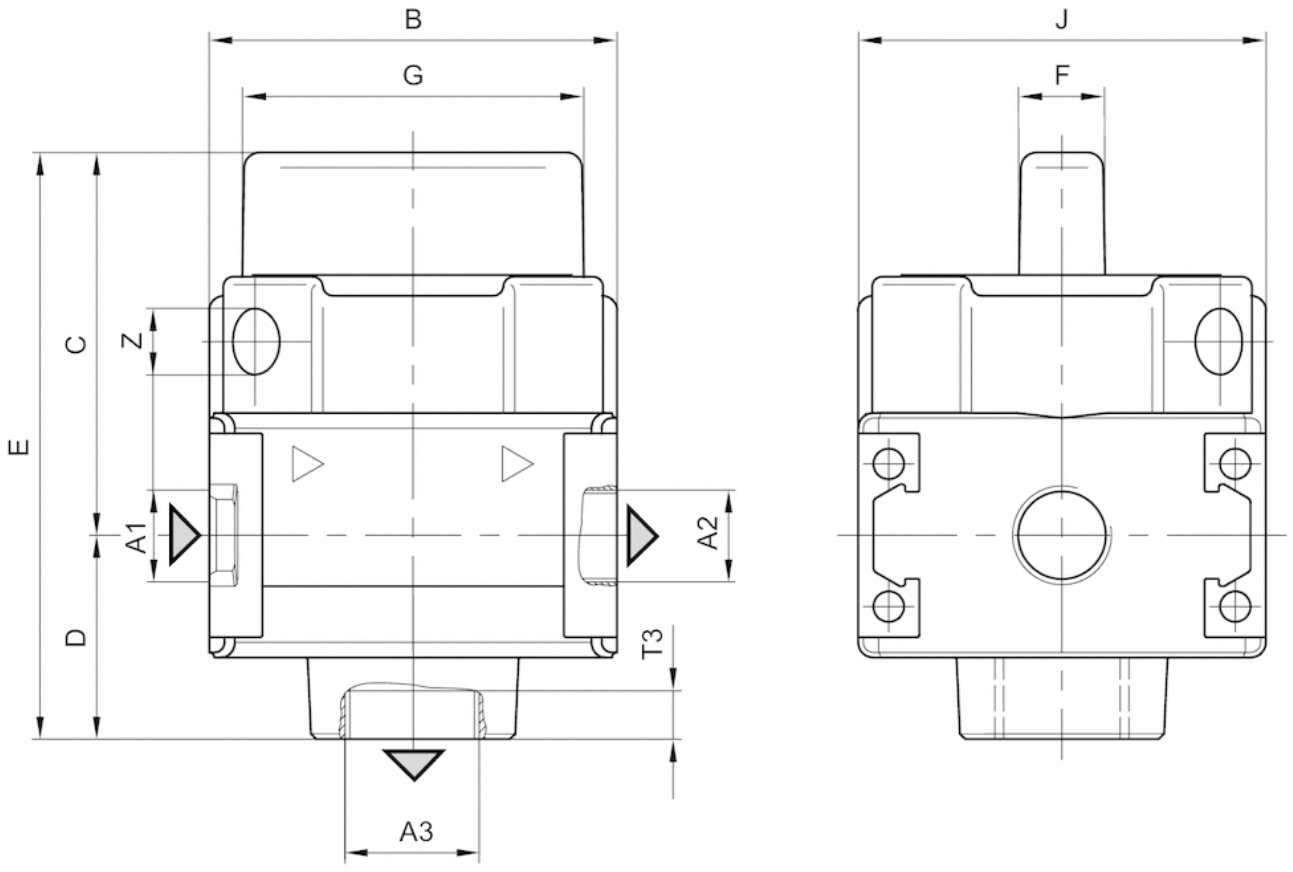
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

Dimensions

Dimensions



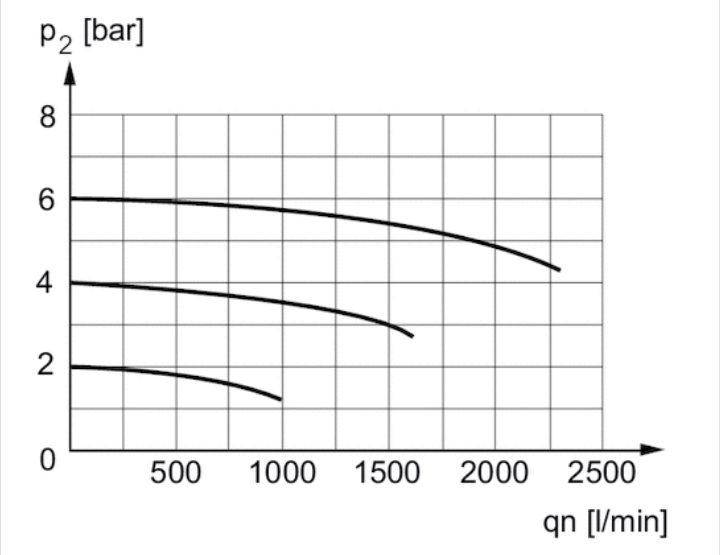
A1 = input
A2 = output
A3 = ventilation port

Dimensions in mm

A2	A3	B	C	D	E	F	G	J	T3	Z
G 1/8	G 1/4	40	37.6	20	57.6	8	33.5	40	10	6.5
G 1/4	G 1/4	40	37.6	20	57.6	8	33.5	40	10	6.5

Diagrams

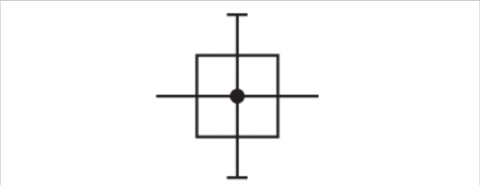
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

Distributor, Series NL1-DIL

- G 1/4
- Distributor 2x
- 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 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Weight	0.198 lbs

Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow
		Qn 1▸2	Qn 1▸3	Qn 1▸5
0821300771	G 1/4	2.74 Cv	1.32 Cv	1.32 Cv

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

Technical information

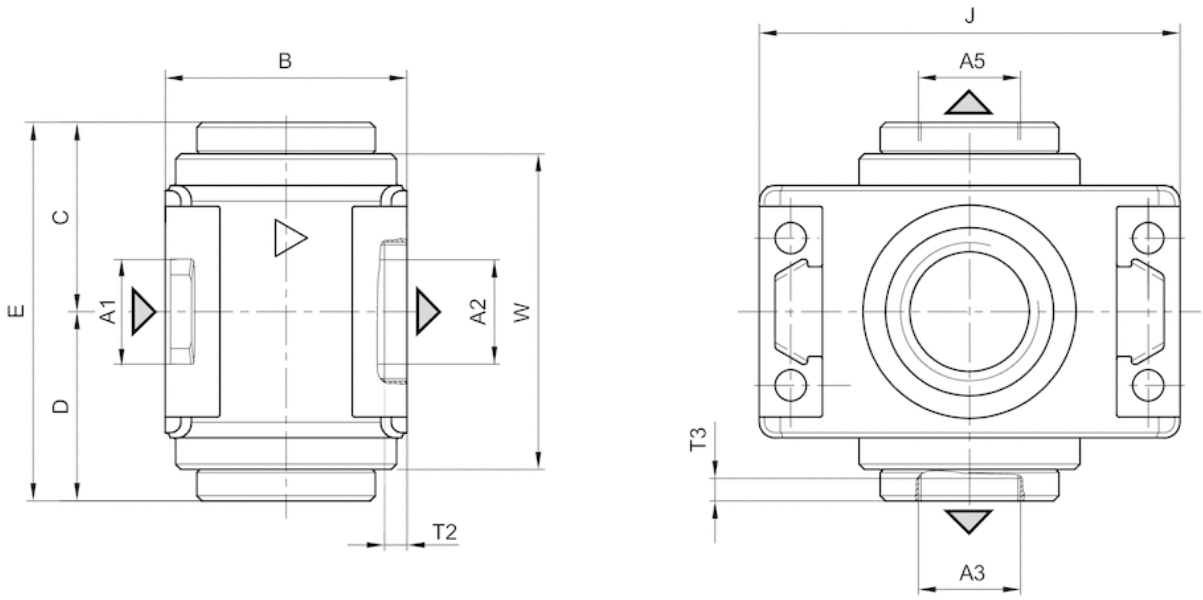
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

Material	
Housing	Die cast zinc

Dimensions

Dimensions



A1 = input
A2 = output
A3 = output
A5 = output

Dimensions in mm

A1	A2	A3	A5	B	C	D	E	J	T2	T3	W
G 1/4	G 1/4	G 1/8	G 1/8	23	18	20	40	40	6	8	30

Reservoir, Series AS1-CLS

- Material Die cast zinc, Polycarbonate

Version	Reservoir
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air
Filter reservoir volume	0.54 fl.oz.
Weight	See table below

Technical data

Part No.	Condensate drain	Reservoir	Weight	Fig.	
R412014751	fully automatic, open without pressure	Die cast zinc	0.276 lbs	Fig. 1	1)
1827009640	semi-automatic, open without pressure	Die cast zinc	0.337 lbs	Fig. 2	-
1827009639	semi-automatic, open without pressure	Polycarbonate	0.187 lbs	Fig. 3	1)

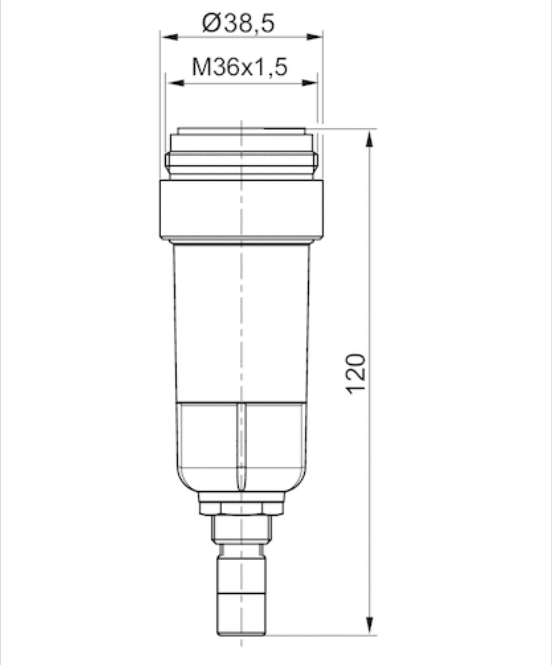
1) Suitable for use in Ex zones 1, 2, 21, 22

Technical information

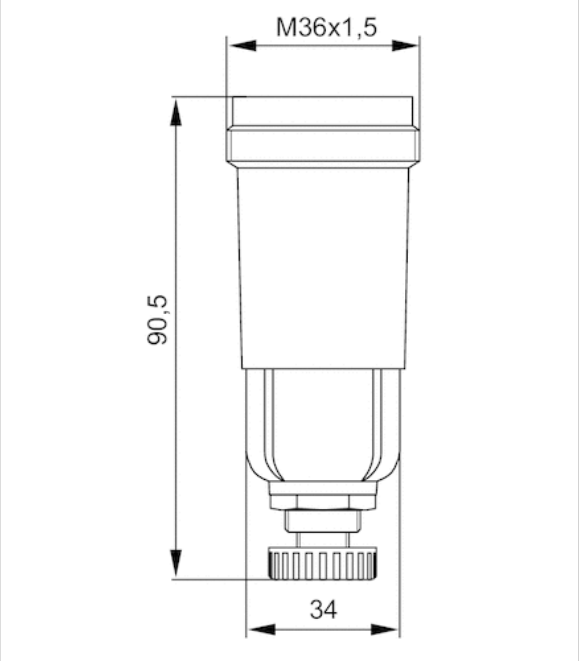
Material	
Reservoir	Die cast zinc, Polycarbonate
Seal	Acrylonitrile butadiene rubber

Dimensions

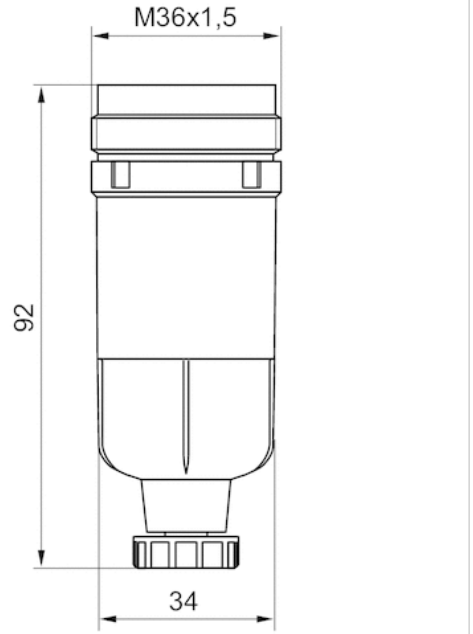
Dimensions Fig. 1



Dimensions Fig. 2



Dimensions Fig. 3



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 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Oil
Lubricator reservoir volume	1.18 fl.oz.
Filter reservoir volume	0.54 fl.oz.
Weight	0.154 lbs

Technical data

Part No.	Fig.
1827009333	Fig. 1

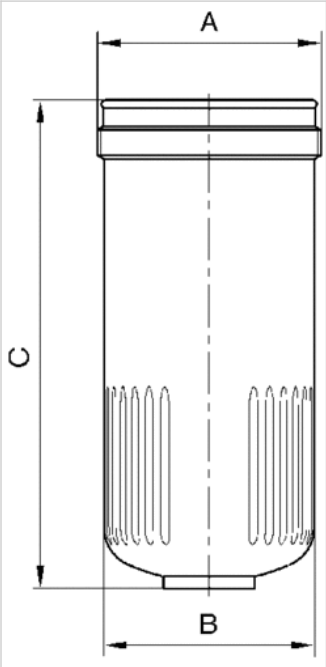
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

Material	
Reservoir	Polycarbonate
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

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

Reservoir, Series NL1/AS1-CBM/-CLA

- for active carbon filter and lubricator
- Material Polycarbonate, Die cast zinc

Version	Reservoir
Certificates	suitable for ATEX
Working pressure min./max.	232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air, Oil
Filter reservoir volume	0.54 fl.oz.
Weight	See table below

Technical data

Part No.	Reservoir	Weight	Fig.
1827009637	Polycarbonate	0.132 lbs	Fig. 1
1827009638	Die cast zinc	0.276 lbs	Fig. 2

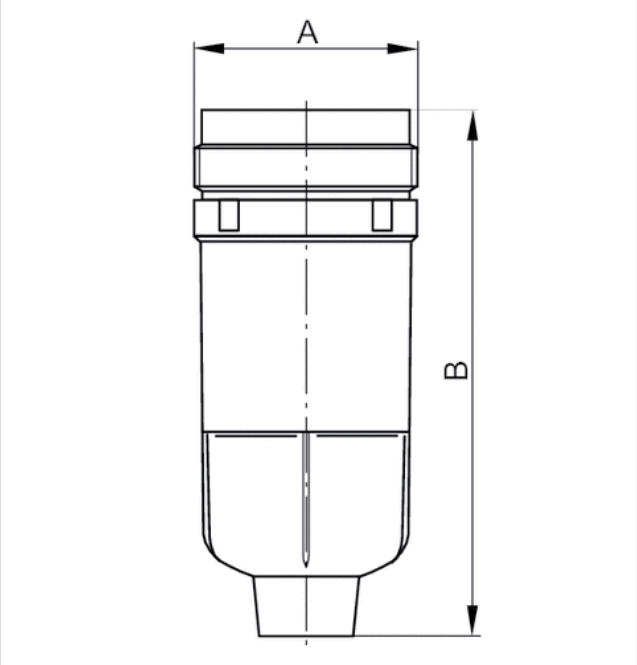
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

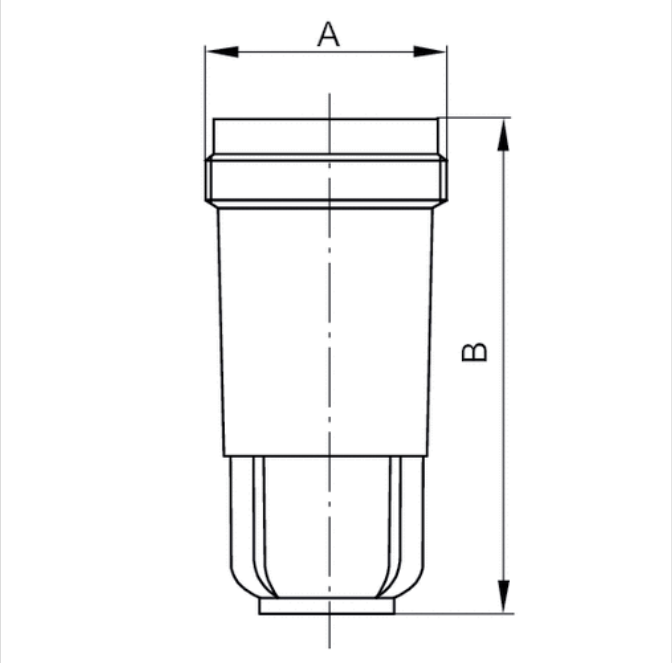
Material	
Reservoir	Polycarbonate, Die cast zinc
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions Fig. 1



Dimensions Fig. 2



Dimensions

Part No.	Fig.	A	B
1827009637	Fig. 1	M36x1.5	85
1827009638	Fig. 2	M36x1.5	74.5

Protective guard

- NL1
- Filter, Lubricator

Weight 0.066 lbs

Technical data

Part No.
1820507004

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

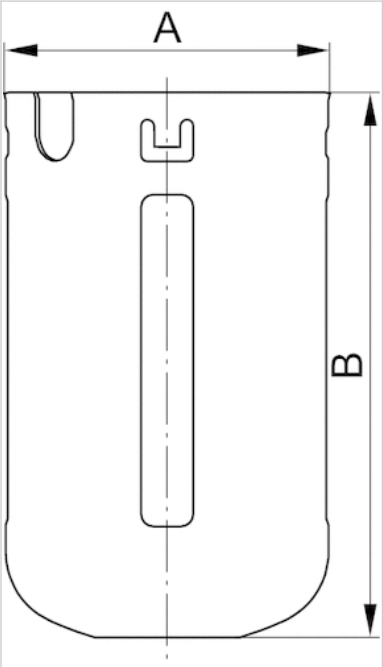
Technical information

Can be retrofitted for PC reservoir

Technical information

Material	
Material	Steel, galvanized

Dimensions



Dimensions

Part No.	A	B
1820507004	37	63

Mounting bracket

- NL1/NL2-MBR-...-W02

Ambient temperature min./max.	-40 ... 140 °F
Weight	0.143 lbs

Technical data

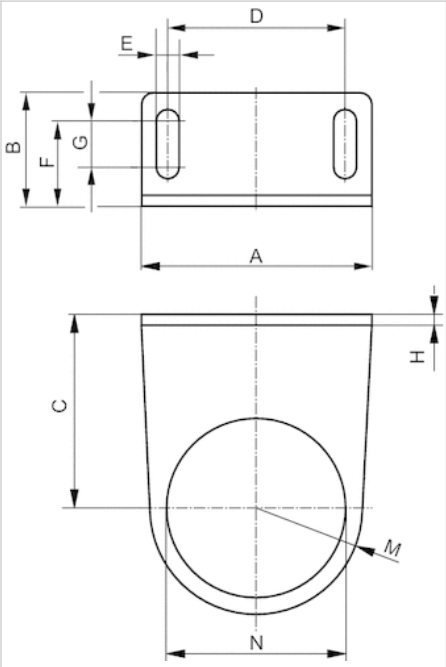
Part No.
1821331013

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 NL1-W04

Weight	0.044 lbs

Technical data

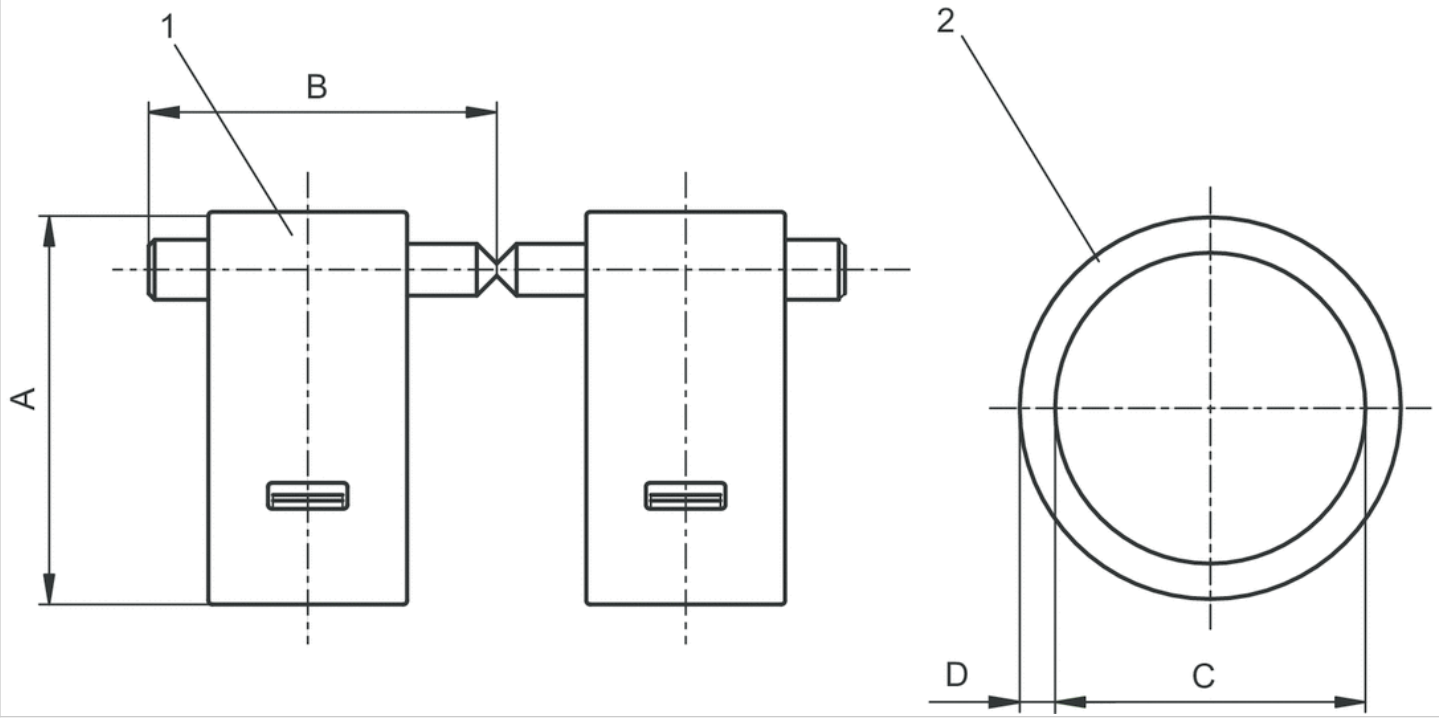
Part No.
1827009636

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

Technical information

Material	
Material	Polyamide

Dimensions



1) coupling clamp 2) O-ring

Dimensions

Part No.	A	B	C	D
1827009636	19.7	17.5	15.6	1.78

Mounting kit

- NL1-MBR-...-W05

Weight 0.044 lbs

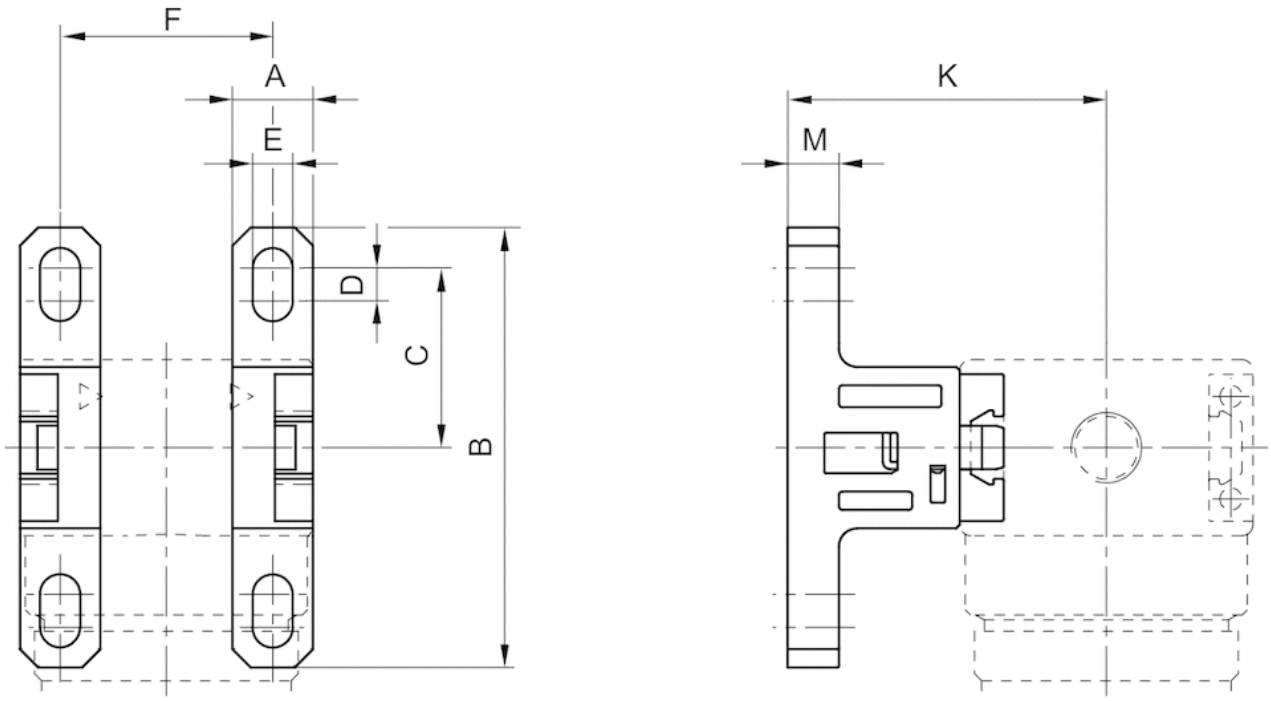
Technical data

Part No.
1821336024

Technical information

Material	
Housing	Polyamide

Dimensions



Dimensions

Part No.	A	B	C	D	E	F	K	M	Material	Weight
1821336024	11	60	24.5	4.5	5.5	29	43.5	7	Polyamide	0.044 lbs

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

- for AS1, NL1, NL2, MU1, AS1, NL1, NL2

Weight

See table below

The delivered product may vary from that in the illustration.

Technical data

Part No.	Port	Material	Scope of delivery	Weight	
1829234070	M30x1,5	Brass	5 piece	0.029 lbs	1)
1829234073	M30x1,5	Plastic	5 piece	0.013 lbs	-

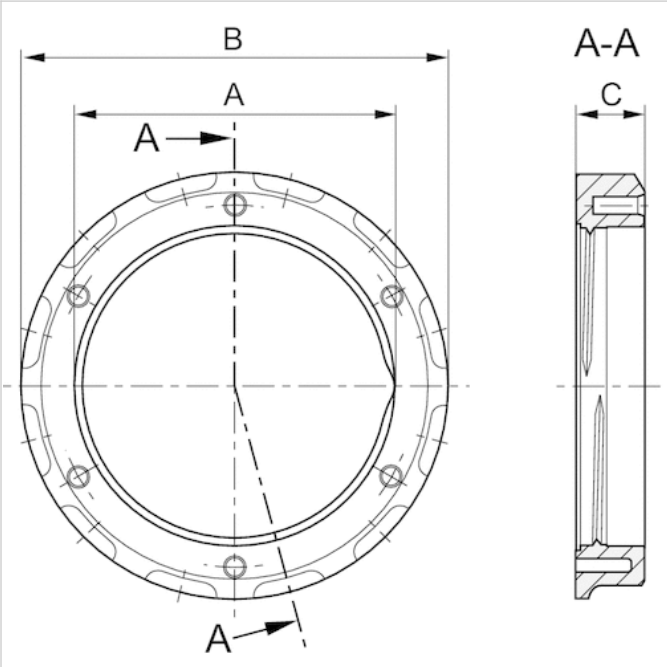
1) Suitable for use in Ex zones 1, 2, 21, 22

Technical information

Material	
Housing	Brass, Plastic

Dimensions

Dimensions

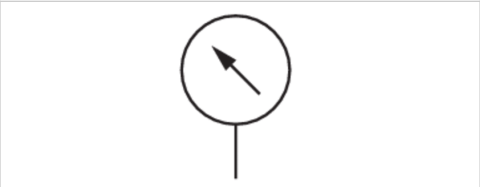


Dimensions

Part No.	For series	A	B	C
1829234070	AS1, NL1, NL2, MU1	M30x1,5	35	5.5
1829234073	AS1, NL1, NL2	M30x1,5	37.5	7.5

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 ... 140 °F
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	0.132 lbs

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value	
1827231053	G 1/8	1.57 inch	-0.8 ... 0 bar	-1 ... 0 bar	-14 ... 0 psi	0.1	-
1827231048	G 1/8	1.57 inch	0 ... 1.7 bar	0 ... 2.5 bar	0 ... 36 psi	0.1	-
1827231024	G 1/8	1.57 inch	0 ... 8 bar	0 ... 10 bar	0 ... 145 psi	0.5	1)
1827231009	G 1/8	1.57 inch	0 ... 12 bar	0 ... 16 bar	0 ... 232 psi	0.5	1)

Order seal 1829202004 separately

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

Technical information

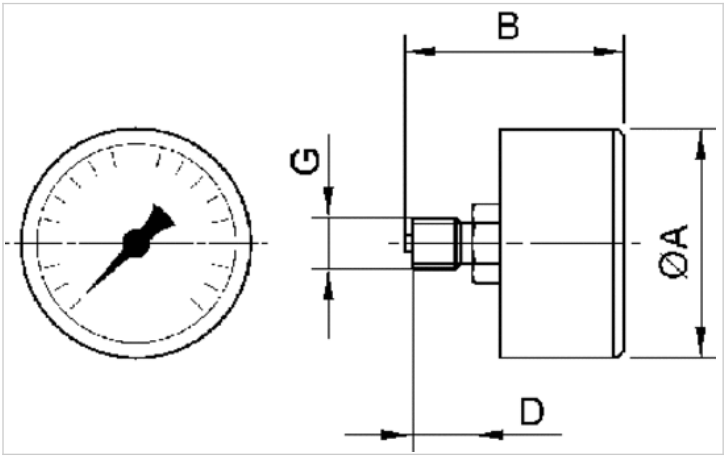
Order axial seal separately

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 1/8	1.57 inch	39	44	10

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 ... 140 °F
Medium	Compressed air
Work area	adjustable work area display
Work Area Display, Color	Red, Green
Main scale unit (outside)	bar
Main scale color (outside)	Black
Background color	White
Pointer color	Black
Weight	0.198 lbs

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
1827231075	G 1/8	1.97 inch	0 bar ... 1.2	0 bar ... 1.6	0 ... 23 psi	0.05
1827231076	G 1/8	1.97 inch	0 bar ... 2	0 bar ... 2.5	0 ... 36 psi	0.1
1827231077	G 1/8	1.97 inch	0 bar ... 3.2	0 bar ... 4	0 ... 58 psi	0.2
1827231078	G 1/8	1.97 inch	0 bar ... 4	0 bar ... 6	0 ... 87 psi	0.2
1827231079	G 1/8	1.97 inch	0 bar ... 8	0 bar ... 10	0 ... 145 psi	0.5
1827231080	G 1/8	1.97 inch	0 bar ... 12	0 bar ... 16	0 ... 232 psi	0.5

Technical information

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

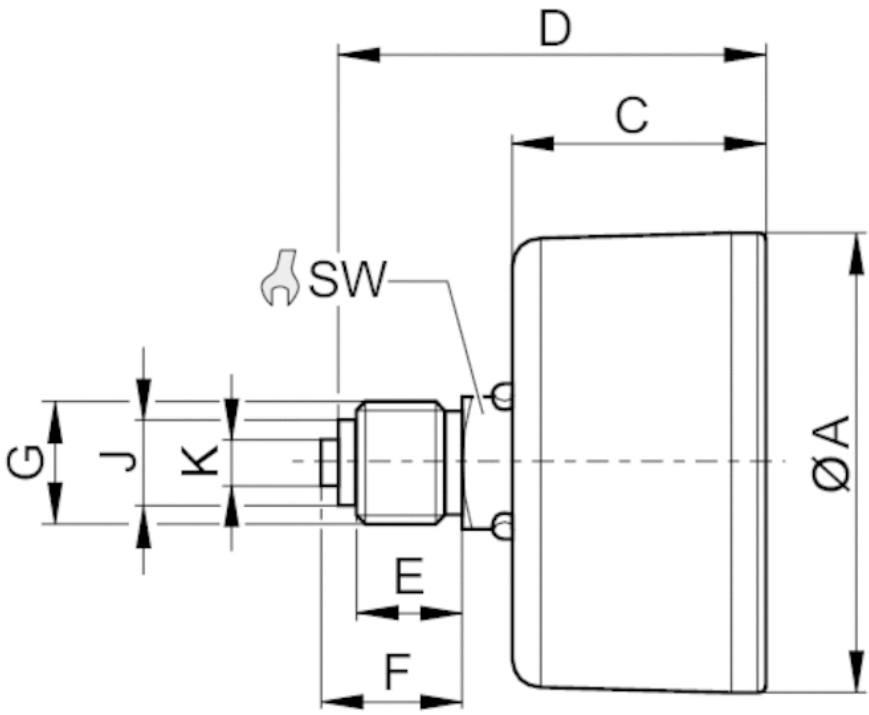
Technical information

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 1/8	1.97 inch	49	26.5	41.5	8	10	8	–	14

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
Ambient temperature min./max.	-40 ... 140 °F
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	0.214 lbs

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value	Class	
1827231040	G 1/8	1.57 inch	-0.8 ... 0	0 ... 1	-14 ... 0 psi	0.1	1,6	1)
1827231042	G 1/8	1.57 inch	0 ... 2	0 ... 2.5	0 ... 36 psi	0.1	1,6	-
1827231041	G 1/8	1.57 inch	0 ... 4	0 ... 6	0 ... 87 psi	0.2	1,6	-
1827231030	G 1/8	1.57 inch	0 ... 8	0 ... 10	0 ... 145 psi	0.5	1,6	-
1827231031	G 1/8	1.57 inch	0 ... 12	0 ... 16	0 ... 232 psi	0.5	2,5	-

1) Vacuum

Technical information

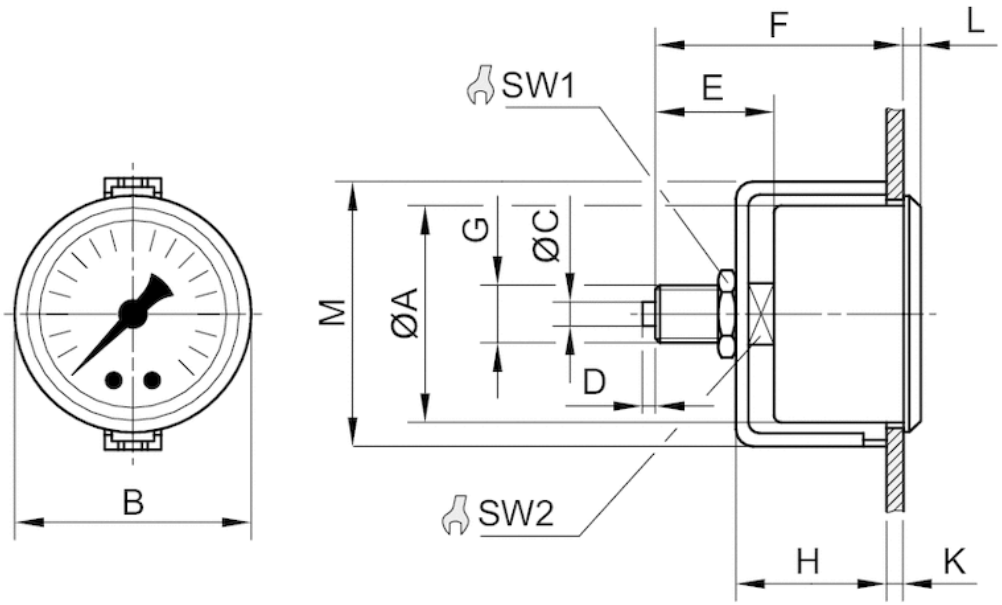
To set the operating range, the cover (inspection glass) must be removed. To do this, carefully lift the inspection glass by inserting a pointed or flat object in the slot provided for this purpose on the housing circumference.
Order axial seal separately

Technical information

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

Dimensions

Dimensions

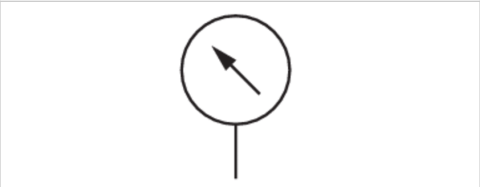


Dimensions in mm

Compressed air connection	Nominal diameter	Ø A	B	C	D	E	F	H	K	L	M	SW1	SW2
G 1/8	1.57 inch	40	43	–	–	25.5	49	32	4	4	49	17	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 ... 140 °F
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	0.132 lbs

Technical data

Part No.	Compressed air connection	Range of application	Display range	Operating pressure	Scale value
1827231018	G 1/8	0 ... 4 bar	0 ... 6 bar	0 psi	0.2

Order seal 1829202004 separately
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

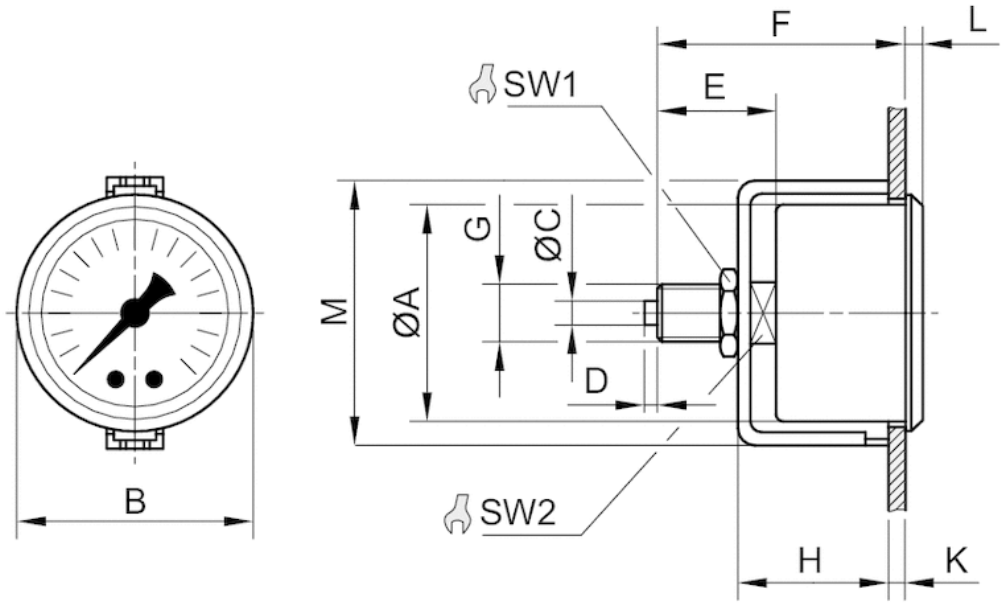
Order axial seal separately

Technical information

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

Dimensions

Dimensions

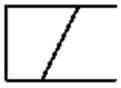


Dimensions in mm

Compressed air connection	Ø A	B	C	D	E	F	H	K	L	M	SW1	SW2
G 1/8	40	43	–	–	25.5	49	32	4	4	49	17	14

Coil, Series CO1

- form B
- Coil width 0.87 inch
- 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.	122 °F
Protection class,With valve plug connector/plug	IP65
Duty cycle ED	100 %
Compatibility index	14
Weight	0.154 lbs

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

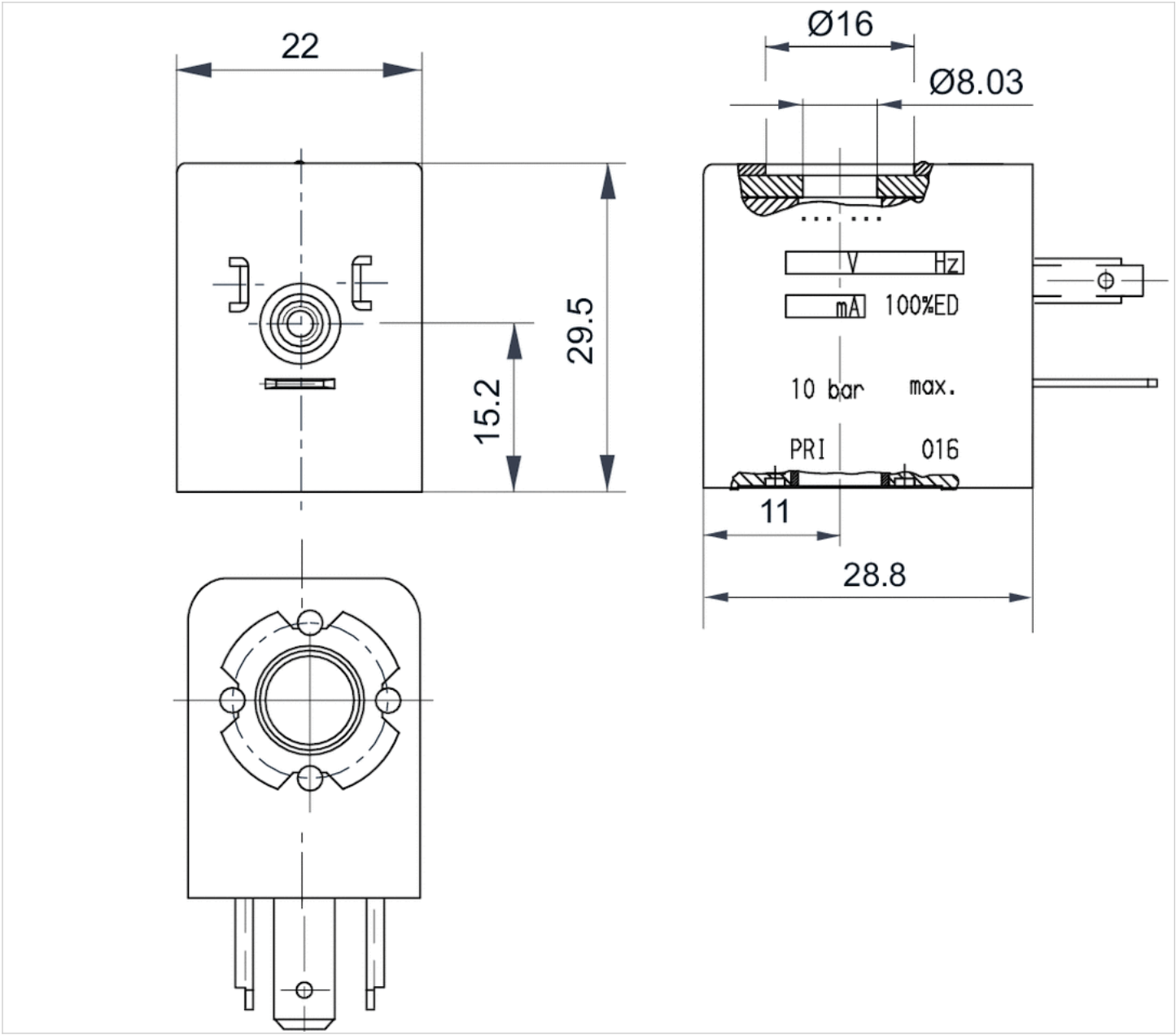
Part No.	Holding power	Holding power	Switch-on power	Switch-on power
	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz
1824210235	9.7 VA	7.9 VA	12.6 VA	10.2 VA

Technical information

Material	
Housing	Thermoplastic elastomer

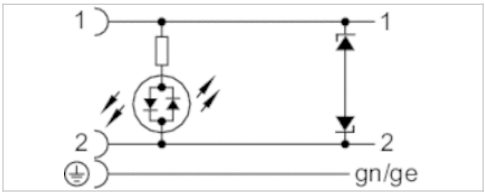
Dimensions

Dimensions



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.	-4 ... 176 °F
Operational voltage	24 V, AC/DC
Protection class	IP67
Protective circuit	Z-diode
Wire cross-section	0.001 in²
Mounting screw tightening torque	0.3 ft./lbs.
Weight	See table below

Technical data

Part No.	Max. current	Contact assignment	LED status display	Number of wires	Cable length	Weight	Fig.
1834484153	10 A	2+E	Yellow	3	9.84 ft.	0.441 lbs	Fig. 2
1834484155	10 A	2+E	Yellow	3	16.4 ft.	0.683 lbs	Fig. 2

Scope of delivery incl. flat gasket

Technical information

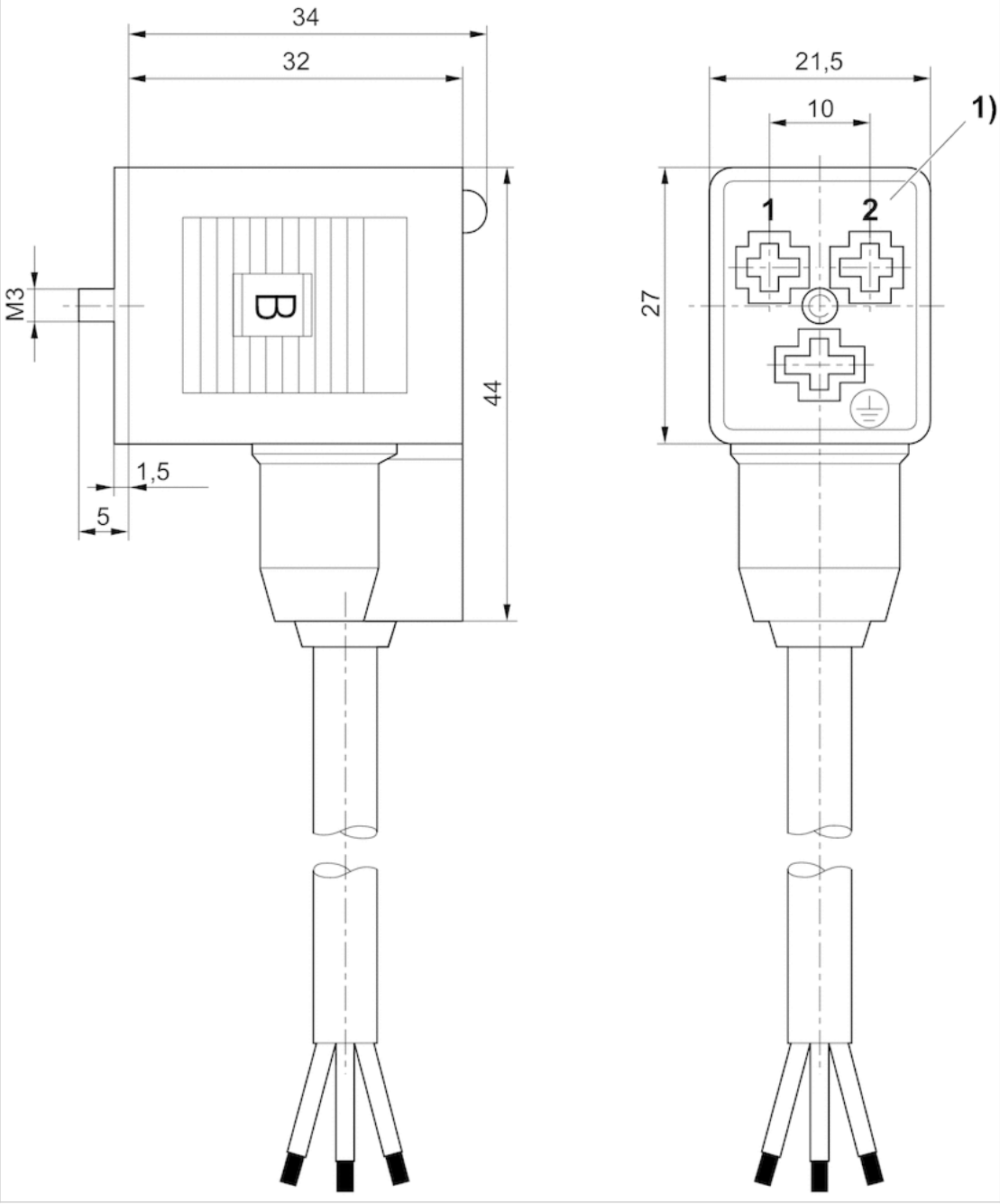
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc
Cable sheath	Polyvinyl chloride

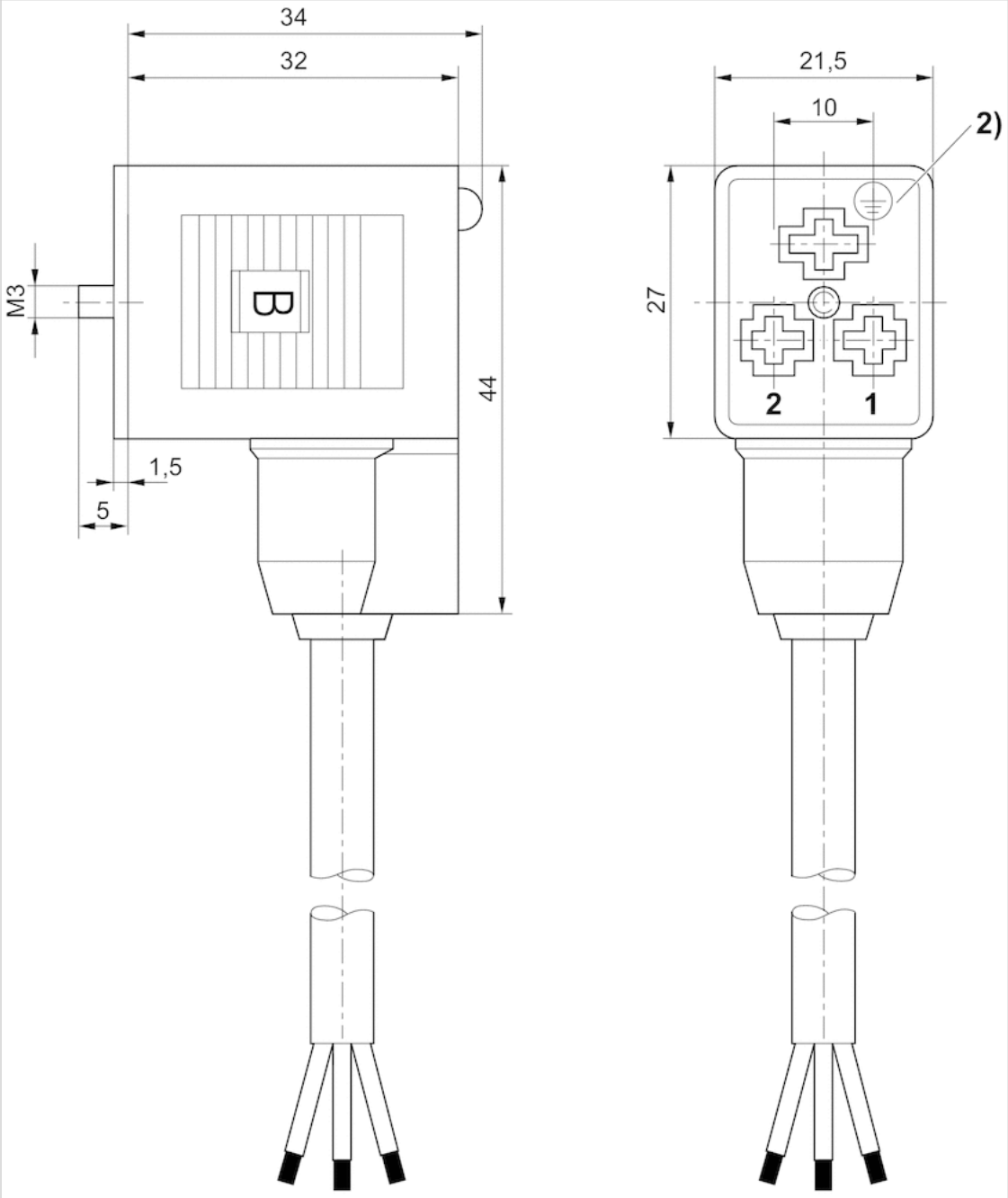
Dimensions

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.	-13 ... 122 °F
Operational voltage	See table below
Protection class	IP65
Mounting screw tightening torque	0.3 ft./lbs.
Weight	0.044 lbs

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	0.24 / 0.31 inch	Fig. 2
1834484105	Red, Red	0.24 / 0.31 inch	Fig. 2
1834484106	Red, Red	0.24 / 0.31 inch	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

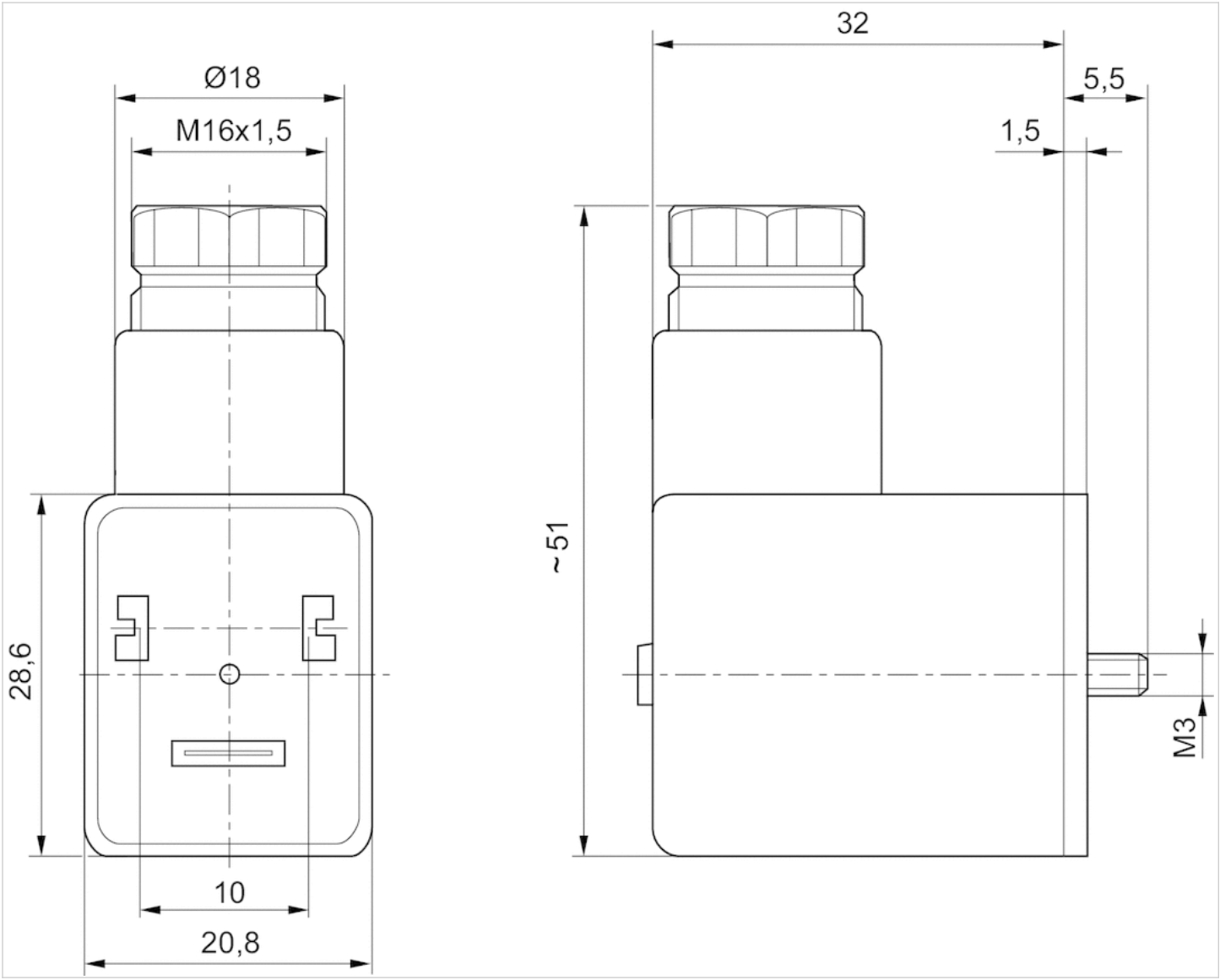
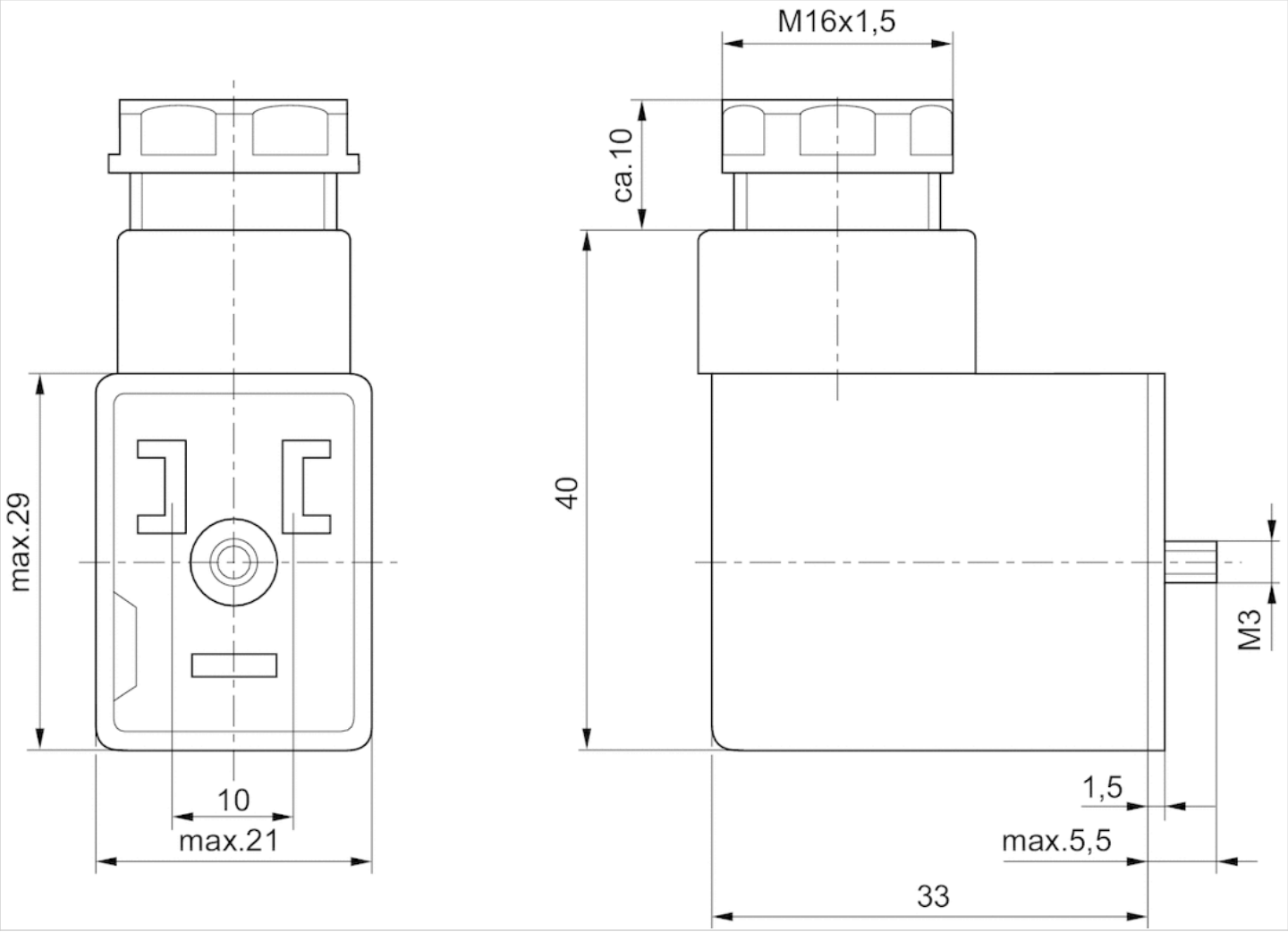


Fig. 2



Pressure sensor, Series PE5

- Operating pressure -14.5 ... 0, -14.5 ... 14, 0 ... 87, 0 ... 145, 0 ... 174 psi
- electronic
- Output signal analog 4 ... 20 mA
- Output signal digital 2 outputs, 1 output
- IO-Link
- Electr. connection Plug, M12x1, 4-pin
- Compressed air connection Internal thread, G 1/4

Type	electronic
Certificates	CE declaration of conformity, cULus, RoHS, Conforms with REACH, Free of substances that impair surface wetting in the coating process
Compressed air connection	Internal thread, G 1/4
Ambient temperature min./max.	32 ... 140 °F
Medium temperature min./max.	32 ... 140 °F
Medium	Compressed air (max. 40 µm)
Max. oil content of compressed air	40 mg/m³
Measurement	Relative pressure
Display	LCD display, 4 digits, Color setting: green or red
Units displayed	bar, psi, kPa, MPa, inHg
Switching logic	NO/NC (adjustable)
Shock resistance max.	30 g
Vibration resistance	5 g (10 - 150 Hz)
Precision (% of full scale value)	±1.5% in temperature range of 10 - 30°C, ± 2 % including temperature drift
Repeatability (% of full scale value)	± 0,2 %
Switching time	5 ms
Switching point	adjustable 0 ... 100%
Resetting point	adjustable 0 ... 100%
Hysteresis	adjustable
Delayed hysteresis	adjustable
Window function	adjustable
DC operating voltage,min./max.	17 ... 30 V DC
Analog output	0 - 10 V DC, 4 - 20 mA
Quiescent current consumption	40 mA
Analog output linearity	± 0.5% of the final value
Maximum load (analog current output)	600 Ω
Short circuit resistance	Max. 600 ohms (current output), Min. 3K ohms (voltage output)
Mounting types	Directly on hat rail and wall mounting, For panel installation using mounting kit, via double nipple
Protection class	IP65, IP67 with connections assembled
Electr. connection	Plug, M12x1, 4-pin
Weight	0.088 lbs

Technical data

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

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

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

Technical information

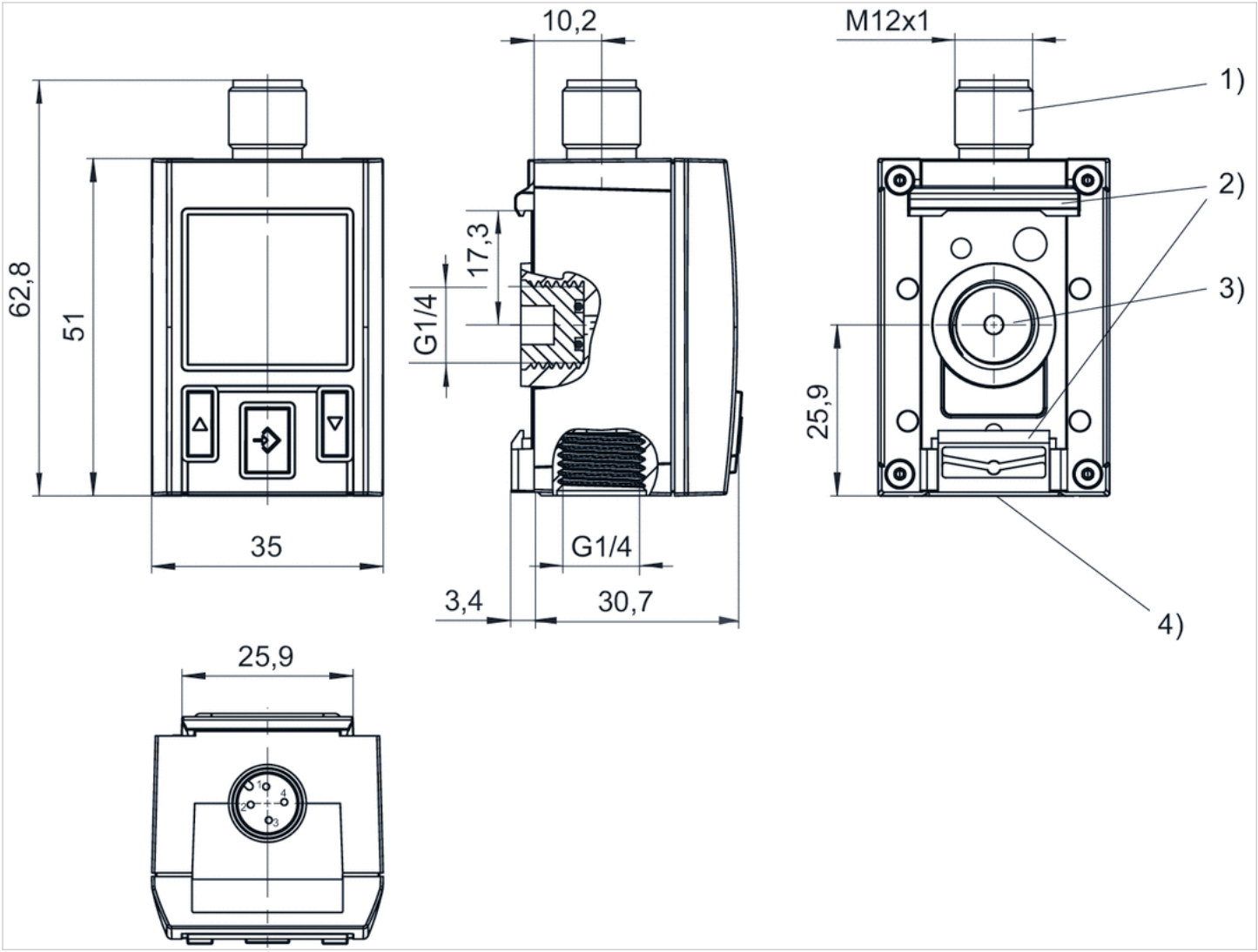
Alternative pressure connection (G1/4) on the rear side (closed with plug)
Display color selectable, red or green
The IO-Link device description (IODD) for the PE5 pressure sensor is available for download in the Media Centre.

Technical information

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

Dimensions

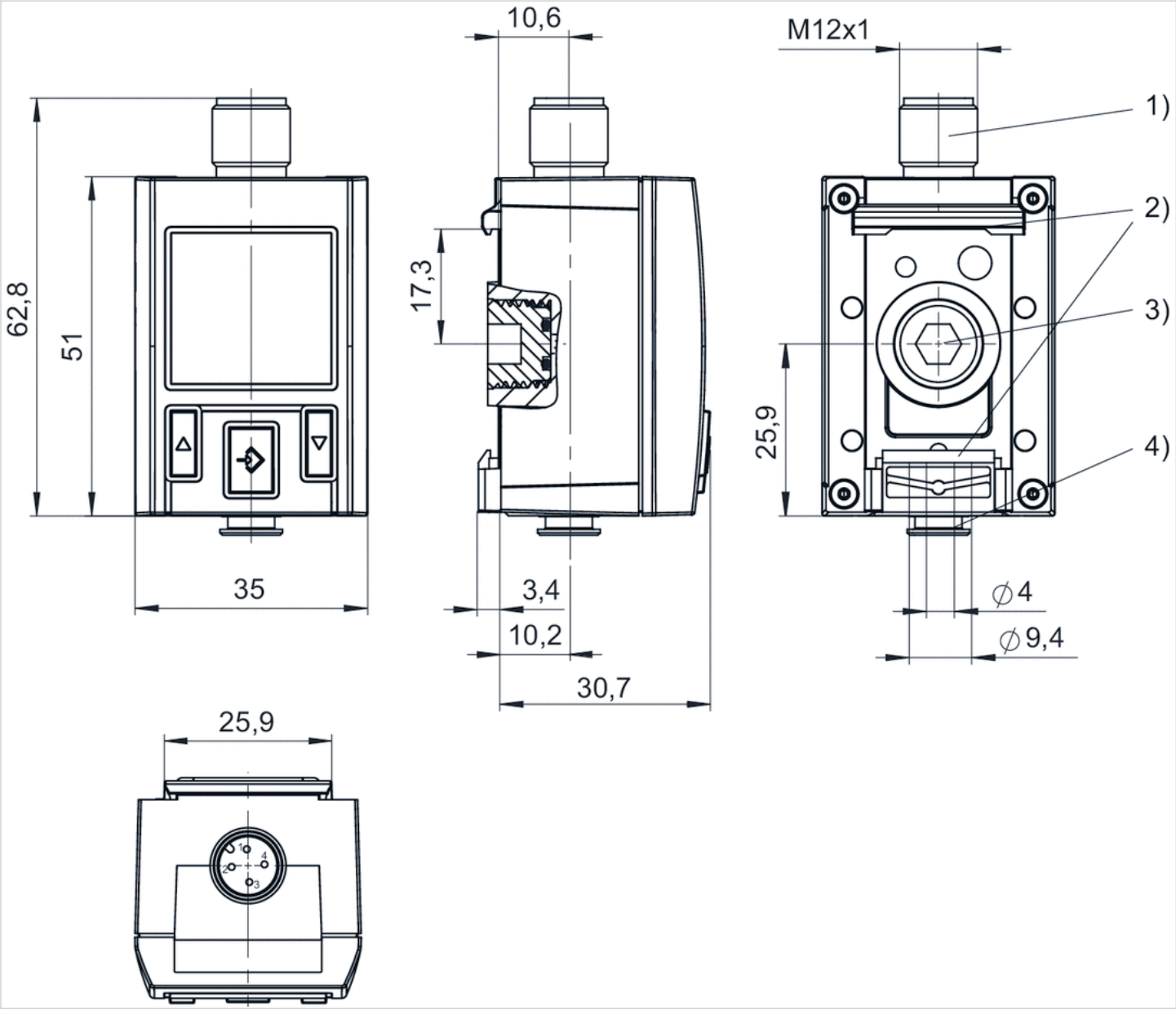
Fig. 1



1) M12x1 electrical connection
2) Mounting for hat rail and wall mounting

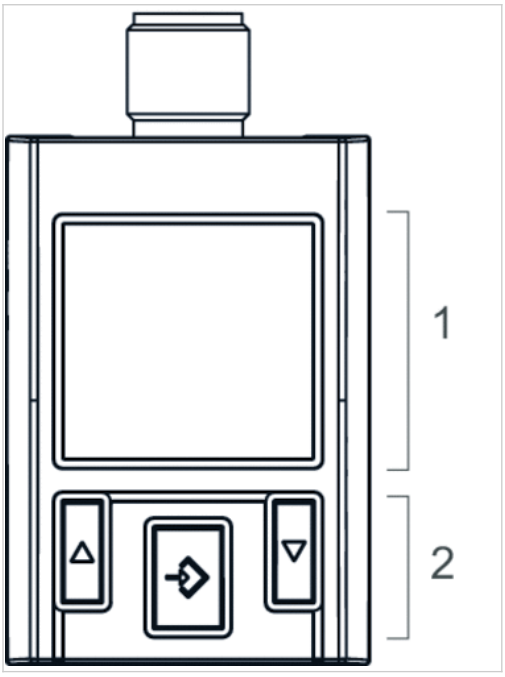
3) Alternative pressure connection (G1/4) closed with plug
4) Pressure connection G1/4

Fig. 2



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

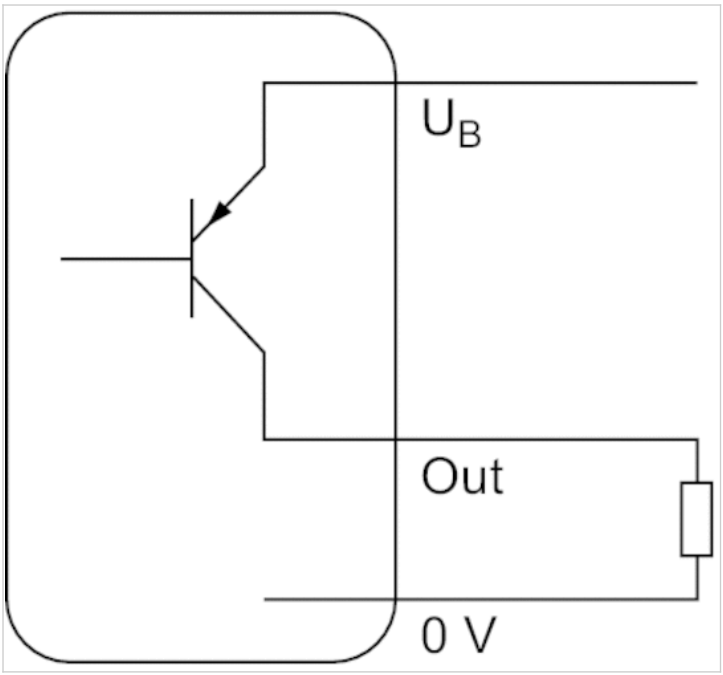
Display and operation area



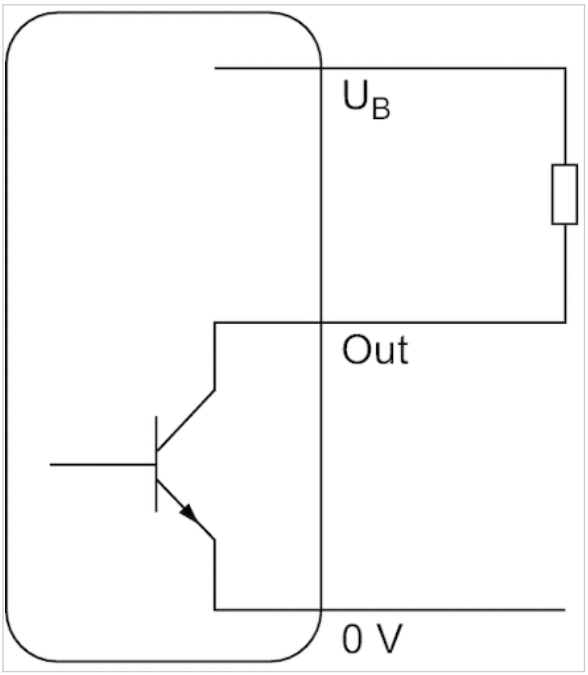
1) LCD display
2) Control panel with 3 buttons

Diagrams

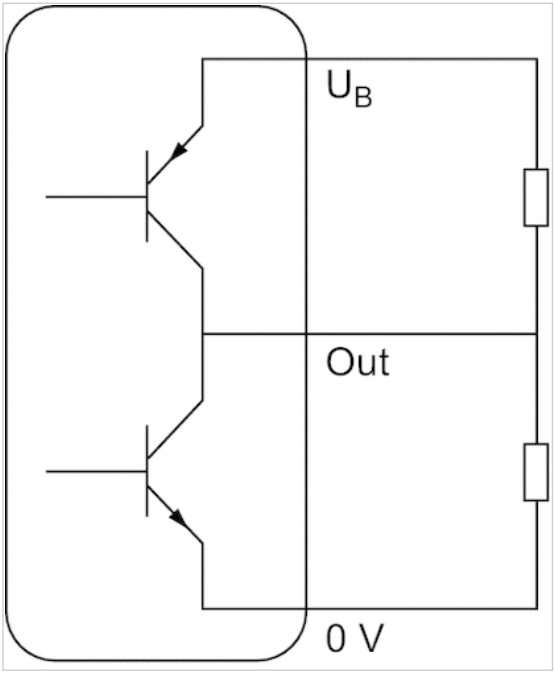
Operating mode PNP



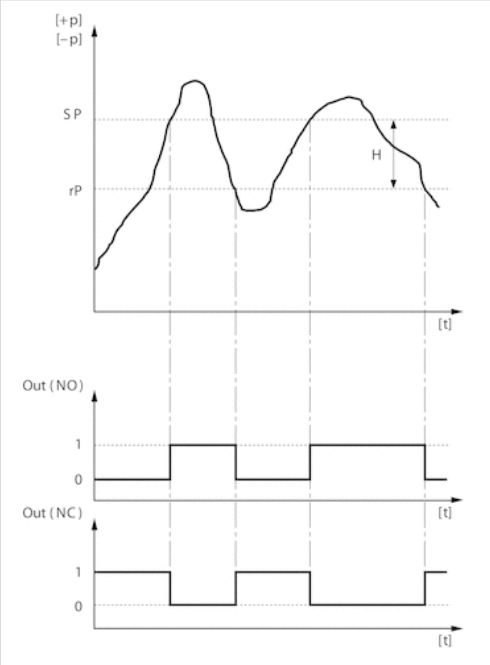
Operating mode NPN



Operating mode Push-pull

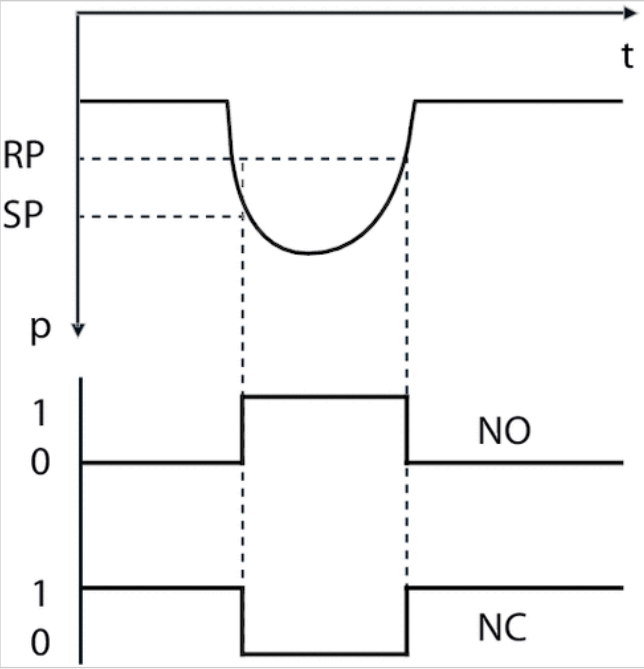


Hysteresis function: switching and resetting behavior dependent on pressure p and time t In case

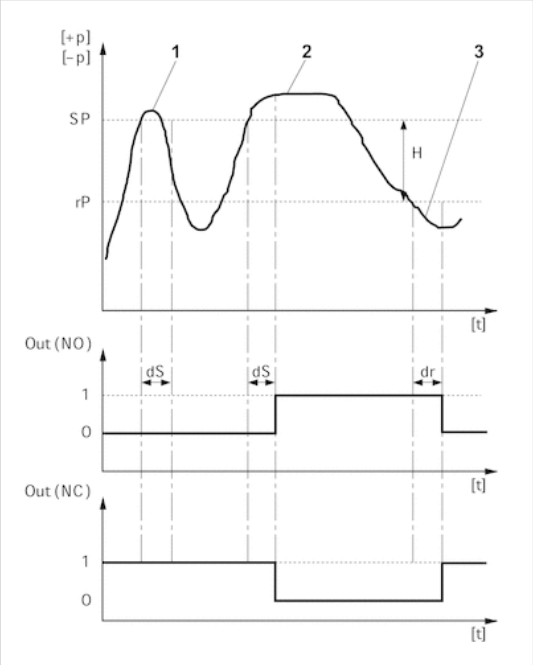


H: Hysteresis
SP = switching point
RP = resetting point
Out (NC): switch output, break contact
Out (NO): switch output, make contact

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

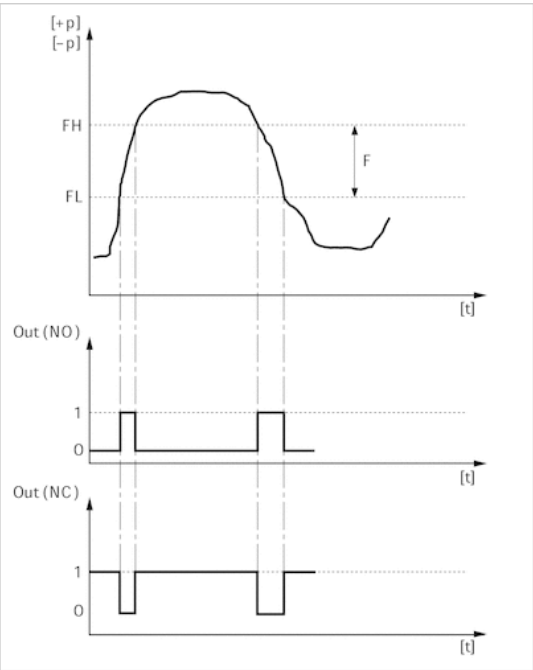


Delayed hysteresis function: switching and resetting behavior depending on pressure p and time



H: Hysteresis
SP = switching point
RP = resetting point
Out (NC): switch output, break contact
Out (NO): switch output, make contact
dS: switching delay
dR = reset delay
1) period of pressure over the switching point dS: pressure sensor does not switch
2) Period of pressure over the switching point > dS: pressure sensor switches
3) Period of pressure under the resetting point > dR: pressure sensor switches

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

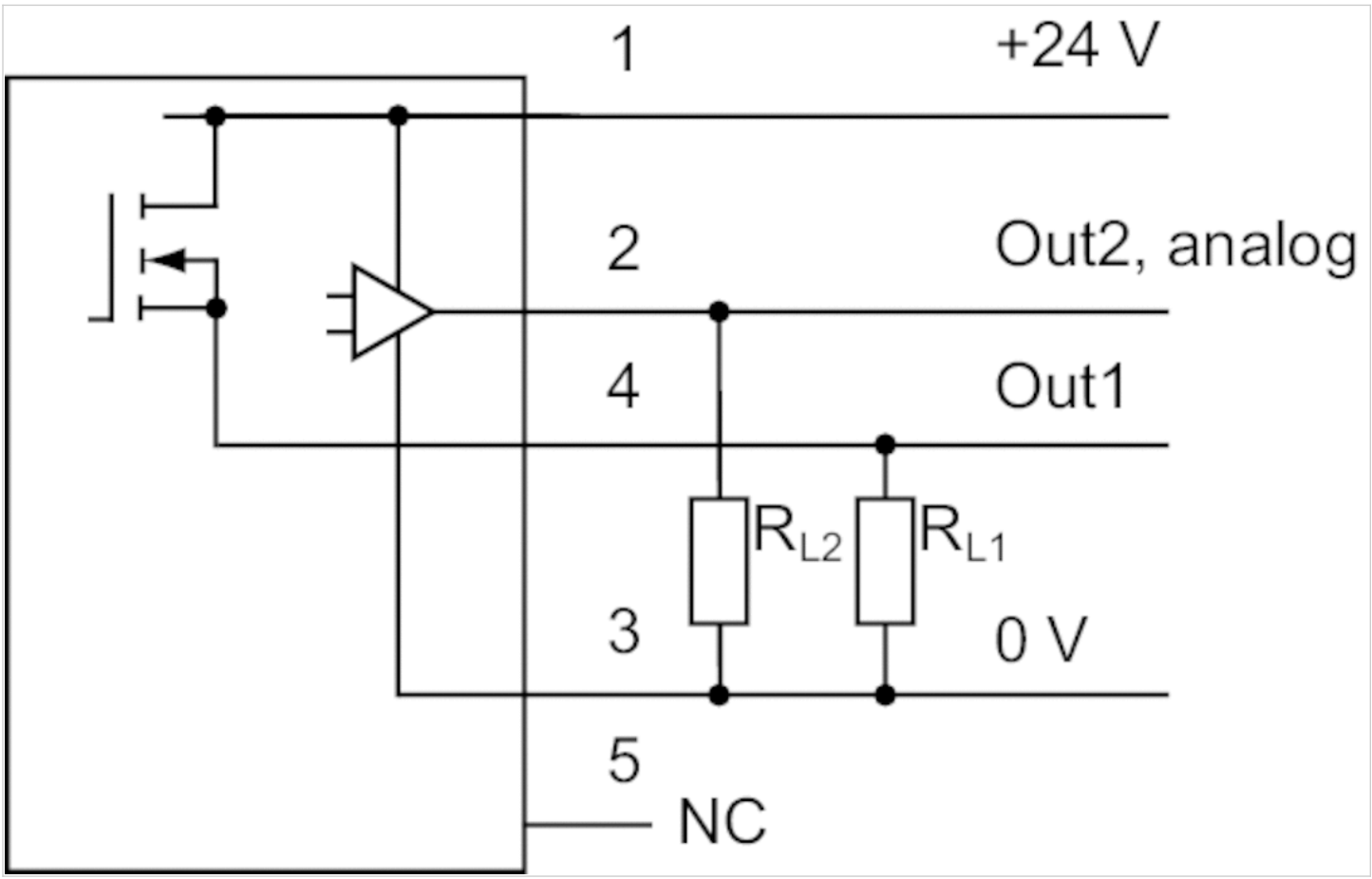


FH: pressure band, upper value
FL: pressure band, lower value
Out (NC): switch output, break contact

Out (NO): switch output, make contact

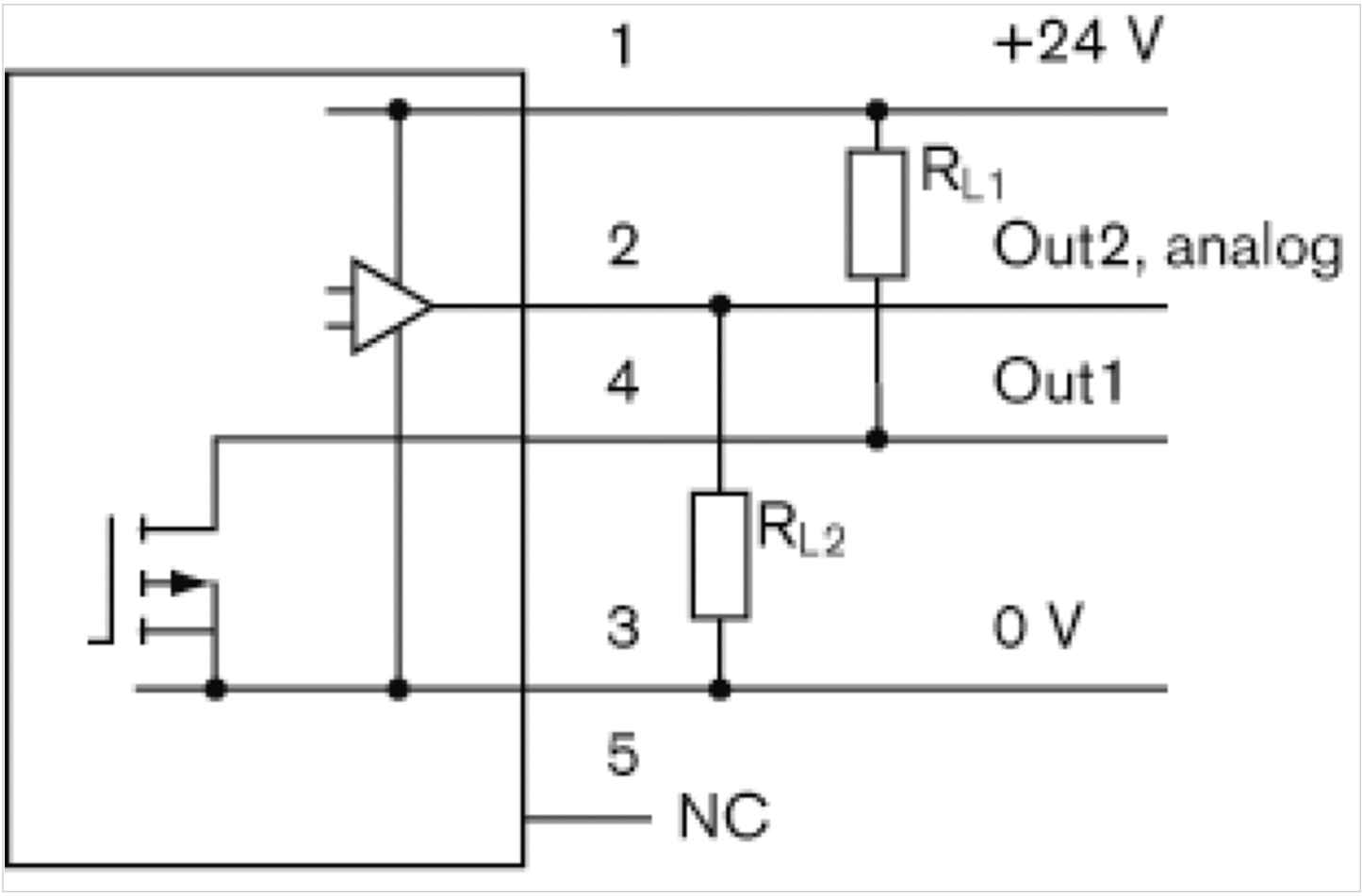
Circuit diagram

Block diagram 1x PNP and 1x analog



RL = storable postion

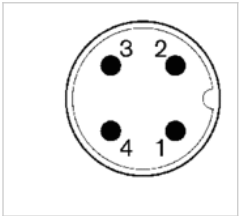
Block diagram 1x NPN and 1x analog



RL = storable postion

Pin assignments

Pin assignments M12x1



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

Pressure sensor, Series PE2

- Operating pressure 0 ... 14, 0 ... 232 psi
- electronic
- Output signal analog 4 ... 20 mA
- Output signal digital 1 x PNP, 2 x PNP
- Electr. connection Plug, M12x1, 5-pin
- Compressed air connection Internal thread, G 1/4

Type	electronic
Function	1 x PNP, 2 x PNP, 1x PNP and 1x analog
Mounting orientation	Any
Certificates	CE declaration of conformity, EMV
Compressed air connection	Internal thread, G 1/4
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 167 °F
Medium temperature min./max.	14 ... 167 °F
Medium	Compressed air, Neutral gases
Measurement	Relative pressure
Display	OLED
Units displayed	bar, mbar, psi, kPa, MPa, %
Switching logic	Hysteresis function NO/NC (programmable), Window function NO/NC (programmable)
Operating pressure display	2 LED
Shock resistance max.	30 g
Vibration resistance	5 g (10 - 150 Hz)
Precision (% of full scale value)	± 1 % including temperature drift
Switching time	10 ms at loads 100 kΩ, > 10 ms at loads > 100 kΩ
Switching point	Adjustable ≥ 0.5% ... 100% FS
Resetting point	Adjustable 0% FS to SP -0.5% FS (or +0.5% FS when SP 0)
Hysteresis	adjustable
Switching/reset delay	adjustable
DC operating voltage,min./max.	15 ... 32 V DC
Analog output	1 x PNP, 1 x analog 4-20 mA
Quiescent current consumption	50 mA
Maximum load (analog current output)	600 Ω
Short circuit resistance	short circuit resistant
Mounting types	via through holes
Protection class	IP65
Electr. connection	Plug, M12x1, 5-pin
Weight	0.661 lbs

Technical data

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

Part No.	Protection against overpressure	Output signal	Output signal	Fig.
		Analog	digital	
R412010848	145 psi	-	1 x PNP	Fig. 1
R412010853	145 psi	-	2 x PNP	Fig. 1
R412010856	145 psi	4 ... 20 mA	1 x PNP	Fig. 1
R412010850	580 psi	-	1 x PNP	Fig. 1
R412010854	580 psi	-	2 x PNP	Fig. 1
R412010857	580 psi	4 ... 20 mA	1 x PNP	Fig. 1

Technical information

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

Technical information

Material	
Housing	Aluminum, Vibration-ground
Seals	Fluorocaoutchouc
Electr. connection	Aluminum with polymer insert
	At the flange connection: Nitrile butadiene rubber and fluororubber

Dimensions

Fig. 1

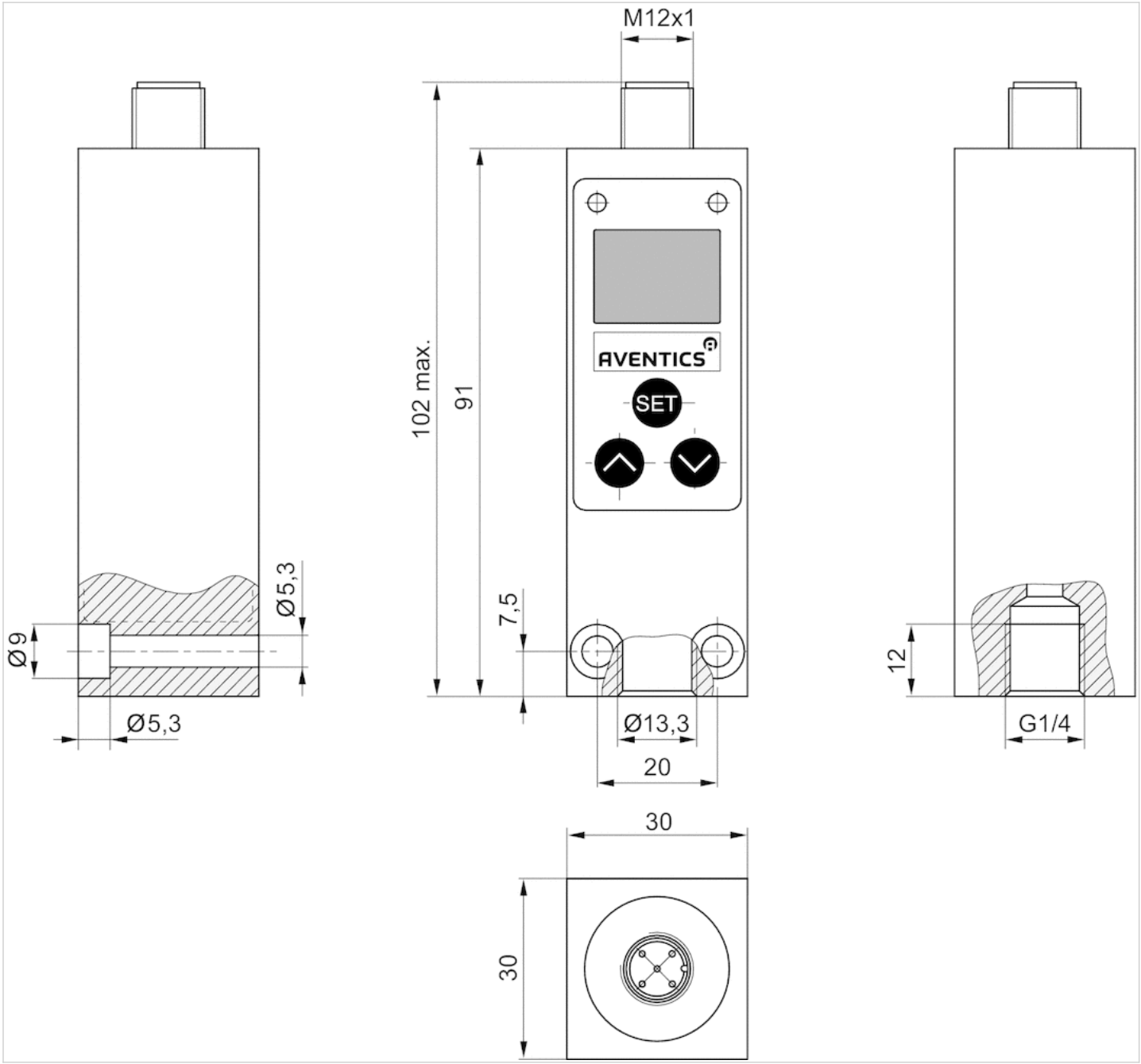
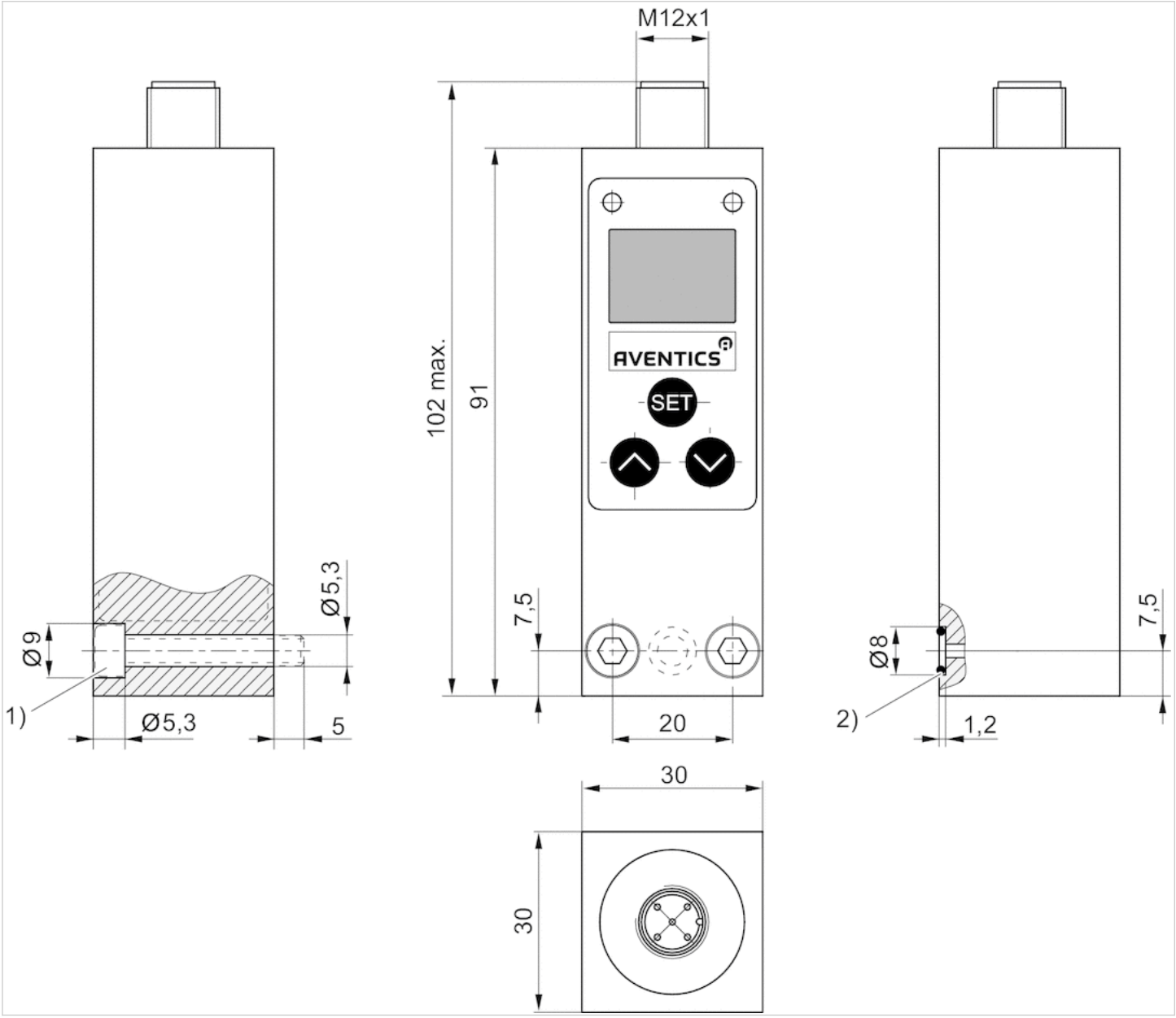
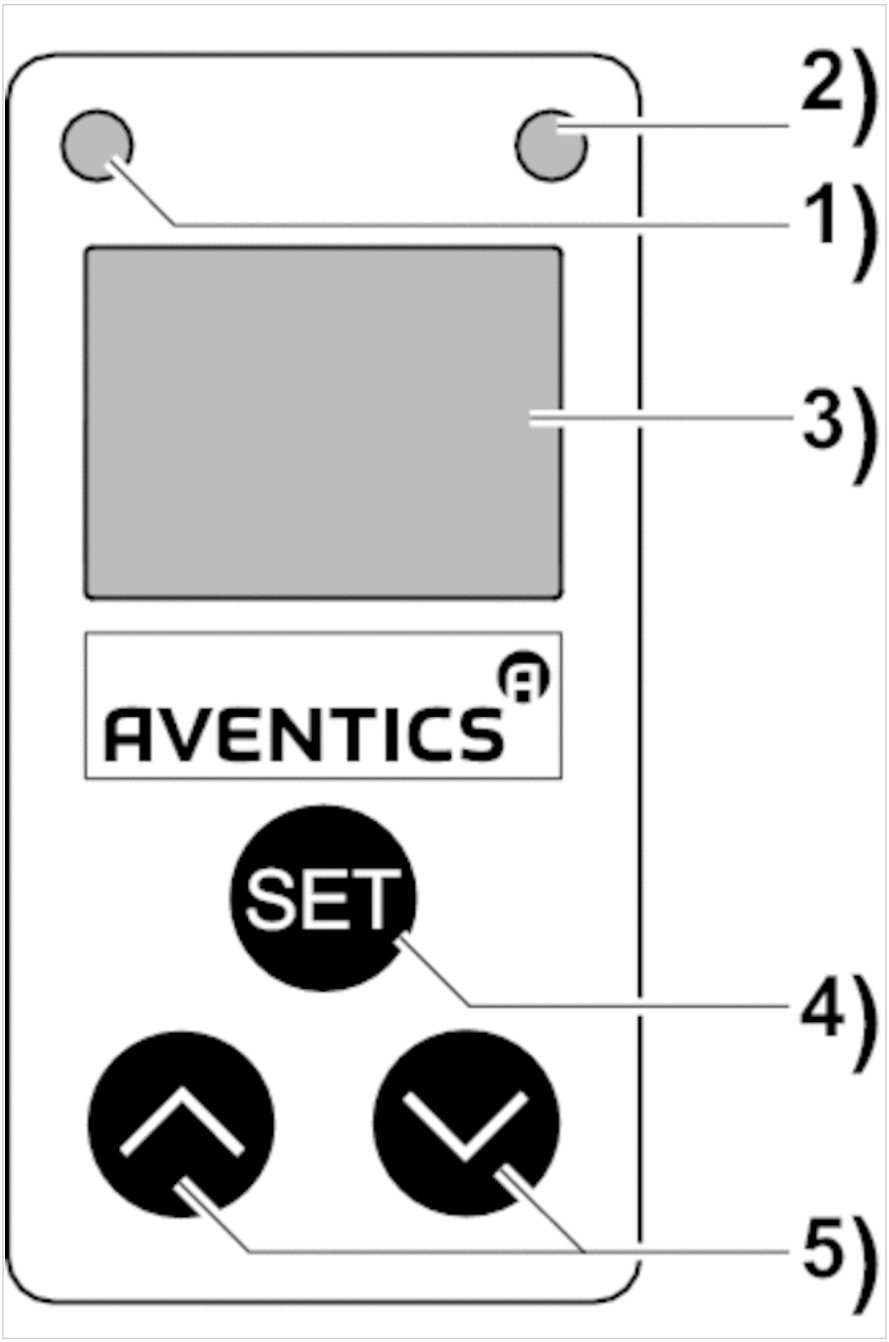


Fig. 2



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

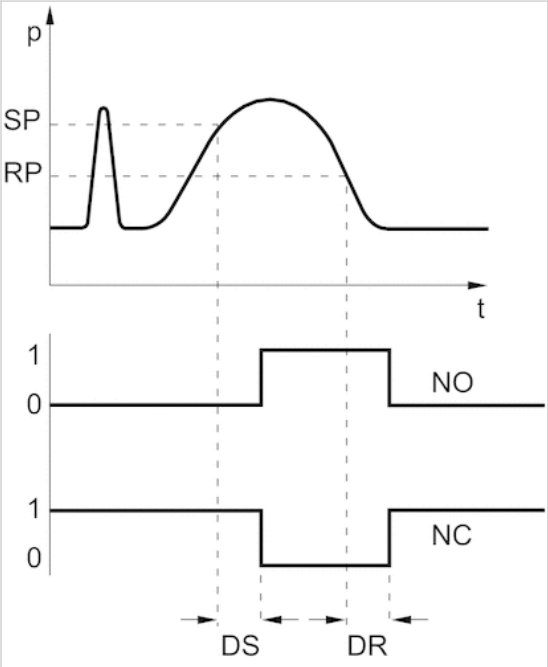
Display and operation area



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

Diagrams

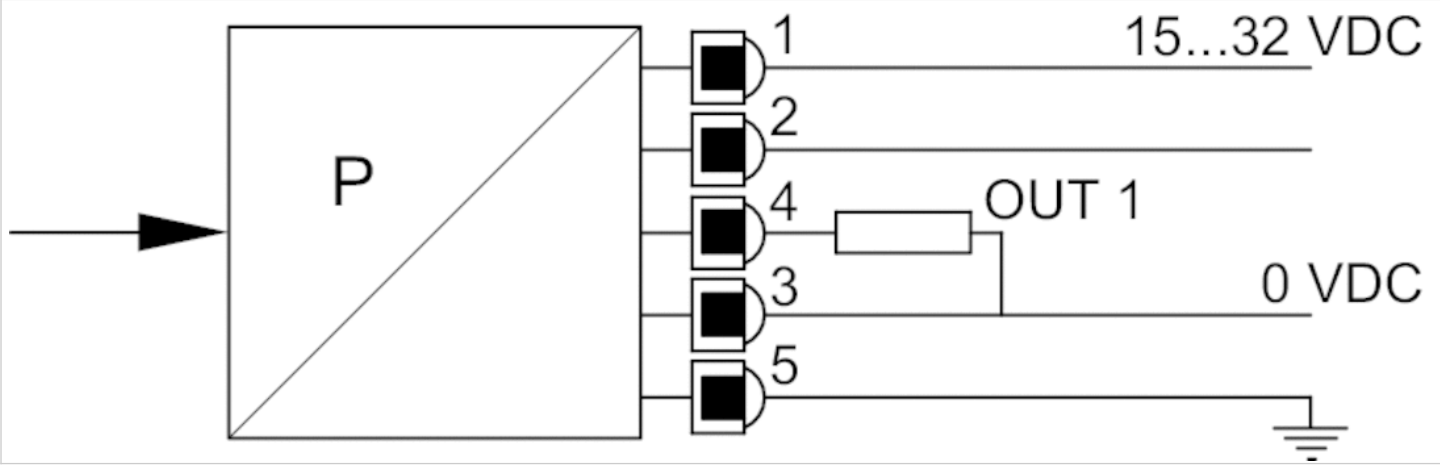
Pressure-voltage characteristics curve



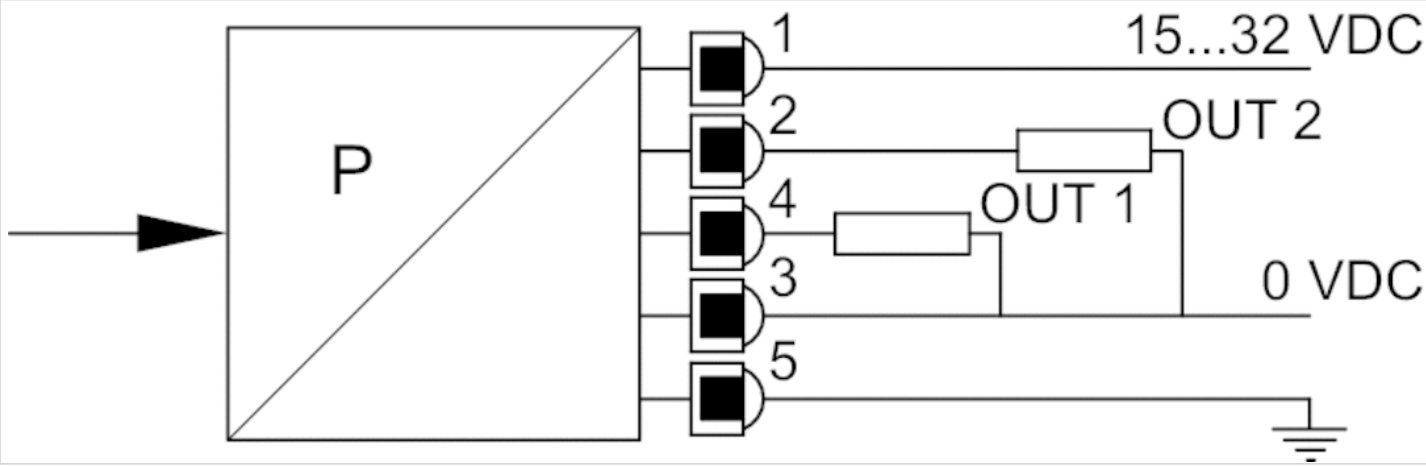
SP = switching point
RP = resetting point
NO = Switching function open
NC = Switching function closed without current
DS = Delay for the switching point
DR = Delay for the resetting point

Circuit diagram

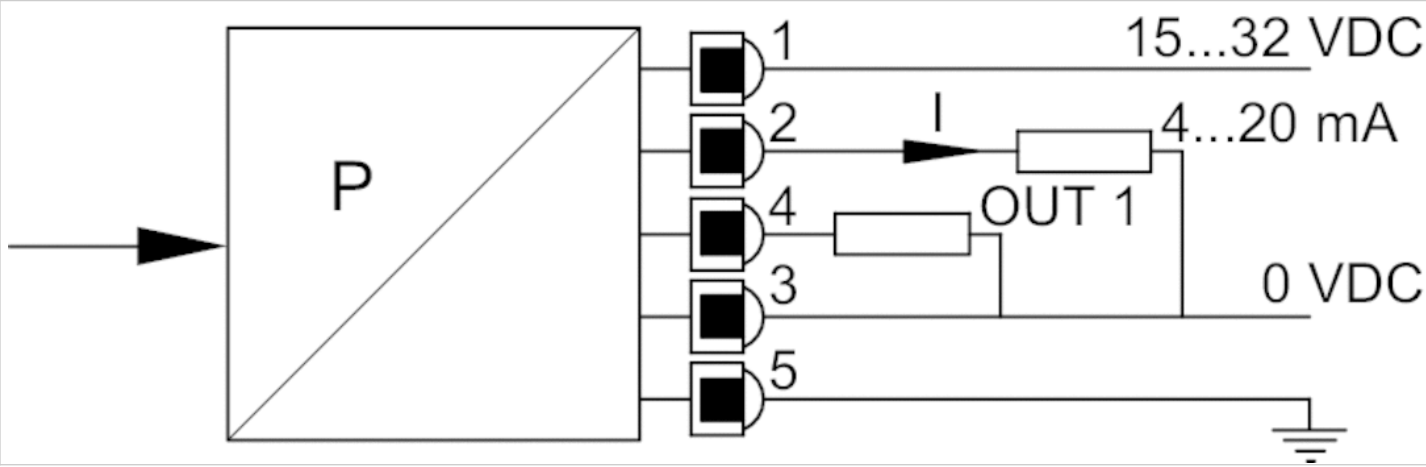
Block diagram 1 x PNP



Block diagram 2 x PNP

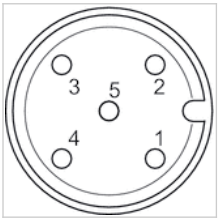


Block diagram 1x PNP and 1x analog



Pin assignments

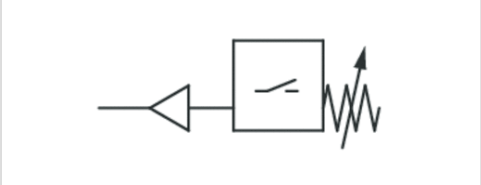
Pin assignments



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

Pressure Switches, Series PM1

- Operating pressure -13.05 ... 0 psi
- Mechanical
- Spring-loaded bellow, adjustable
- Electr. connection Plug, EN 175301-803, form A
- Compressed air connection Internal thread, G 1/4
- PM1-M3-G014



Type	Mechanical
Function	change-over contact (mechanical)
Mounting orientation	Any
Compressed air connection	Internal thread, G 1/4
Working pressure min./max.	-13 ... 0 psi
Ambient temperature min./max.	-4 ... 176 °F
Medium temperature min./max.	14 ... 176 °F
Medium	Compressed air
Measurement	Relative pressure
Switching element	microswitch (input/output)
Protection against overpressure	1160 psi
Max. switching frequency	1,5 Hz
Shock resistance max.	15 g
Vibration resistance	10 g (60 - 500 Hz)
Repeatability (% of full scale value)	± 1 %
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage,min./max.	12 ... 30 V DC
Operational voltage AC,min./max.	12 ... 250 V AC
Mounting types	via through holes
Protection class	IP65
Electr. connection	Plug, EN 175301-803, form A
Weight	0.353 lbs

Technical data

Part No.	Type	Operating pressure range min./max.	Fig.
R412010711	PM1-M3-G014	-13.05 ... 0 psi	Fig. 1

Technical information

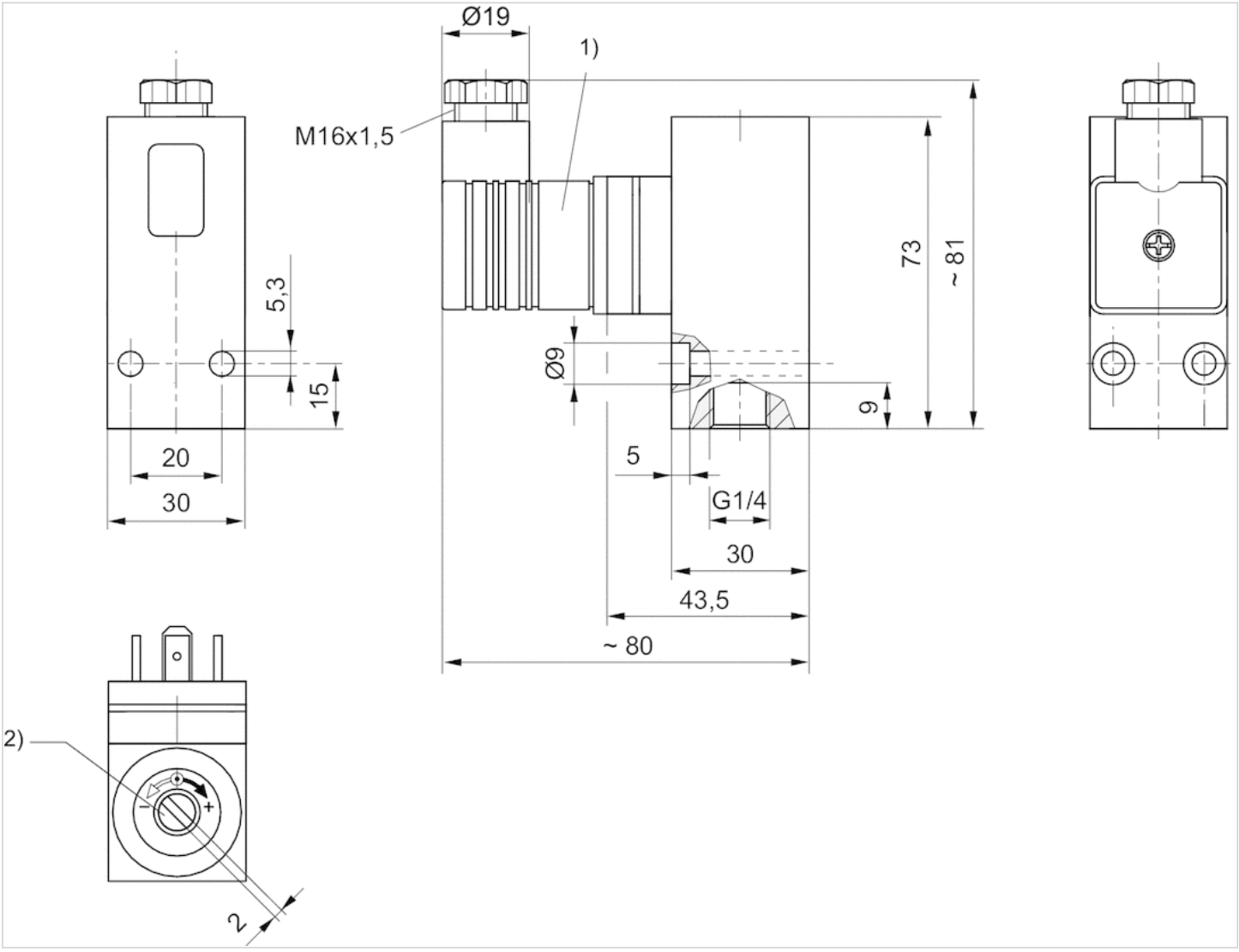
Switching function increasing pressure: contact switches from 1-2 to 1-3.
Switching function decreasing pressure: contact switches from 1-3 to 1-2.
Notice:Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!
The microswitch has silver-plated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

Technical information

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

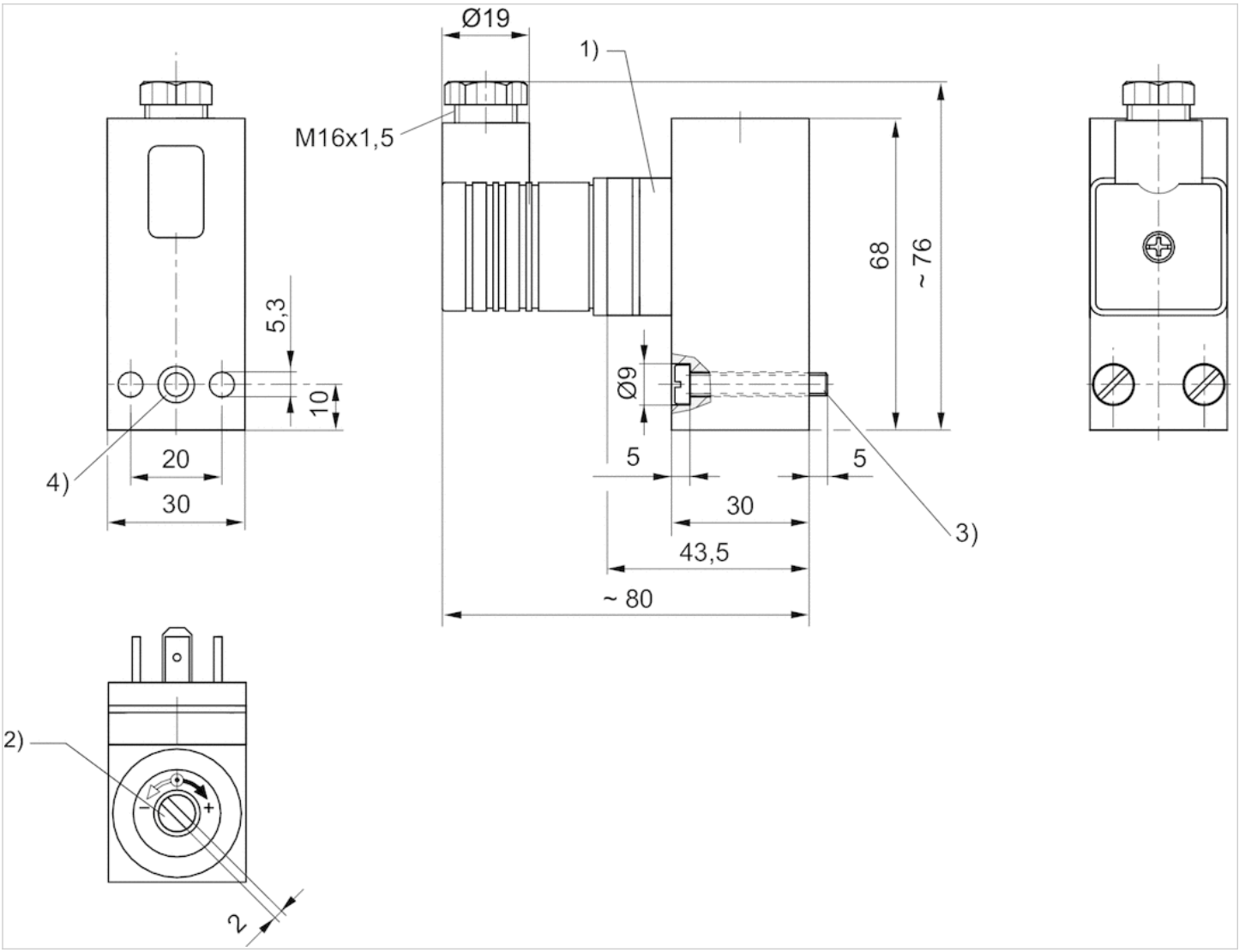
Dimensions

Fig. 1



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

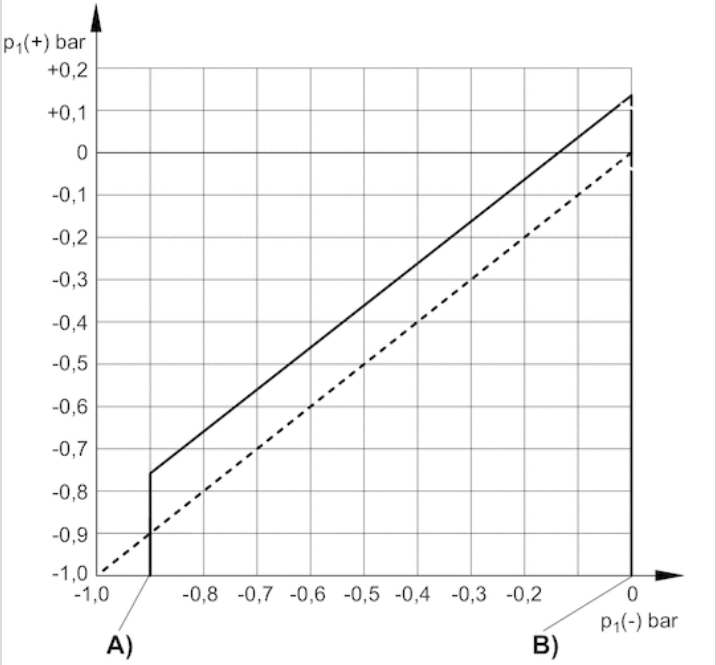
Fig. 2



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

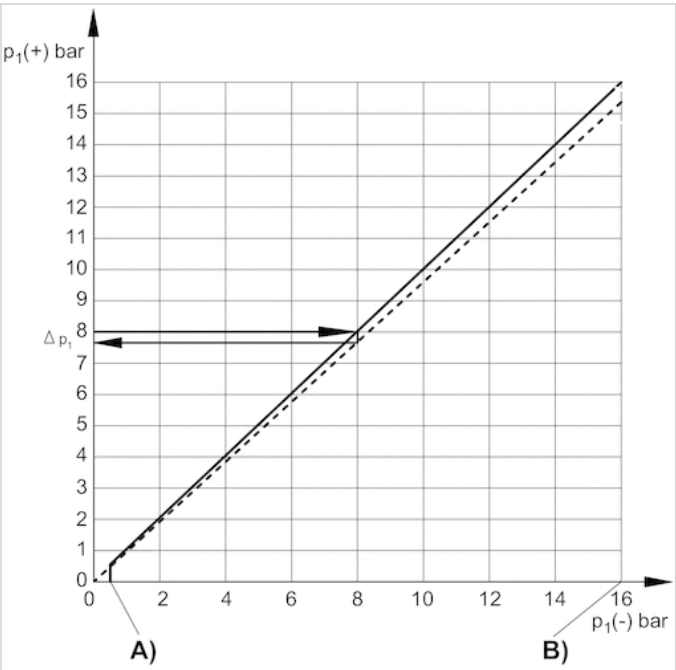
Diagrams

differential switching pressure characteristic curve (-09 – 0 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

differential switching pressure characteristic curve (02 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
Δ p1 = max. operating pressure difference or hysteresis
Example:

p1 (+) = 8 bar > p1(-) = 7.6 bar
Δ p1 = 0.4 bar

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

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

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

1) AC

2) DC

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

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

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

1) AC

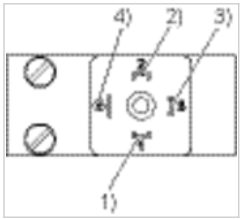
2) DC

3) cos ≈ 0,7°

4) L/R ≈ 10 ms

Pin assignments

PIN assignment for valve plug connectors



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

Pressure Switches, Series PM1

- Operating pressure -13.05 ... 0, 2.9 ... 232 psi
- Mechanical
- Spring-loaded 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.	-4 ... 176 °F
Medium temperature min./max.	14 ... 176 °F
Medium	Compressed air
Measurement	Relative pressure
Switching element	microswitch (input/output)
Protection against overpressure	1160 psi
Max. switching frequency	1,5 Hz
Shock resistance max.	15 g
Vibration resistance	10 g (60 - 500 Hz)
Repeatability (% of full scale value)	± 1 %
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage,min./max.	12 ... 30 V DC
Operational voltage AC,min./max.	12 ... 30 V AC
Mounting types	via through holes
Protection class	IP67
Electr. connection	Plug, M12x1
Weight	0.331 lbs

Technical data

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

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

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

Technical information

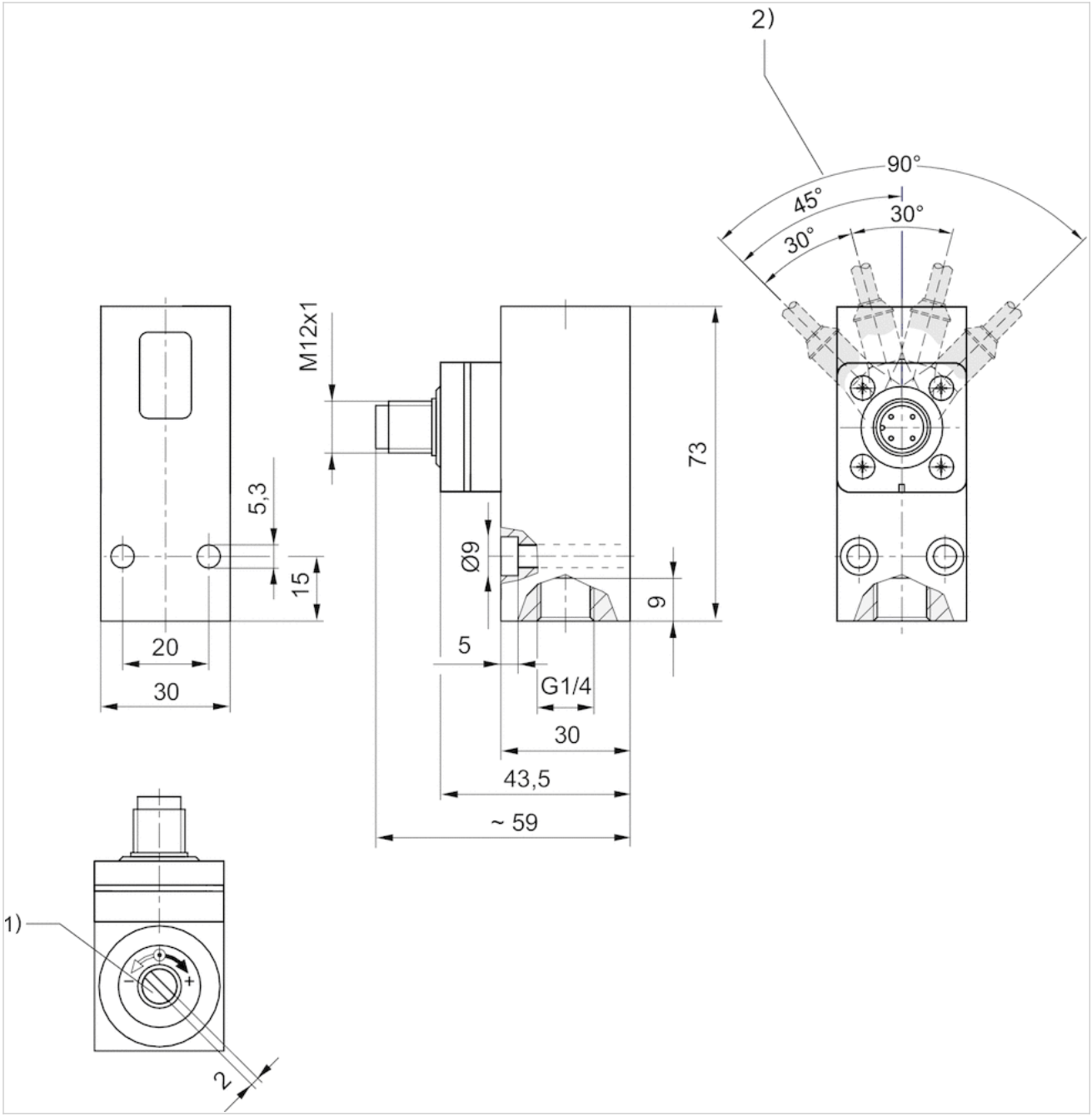
Switching function increasing pressure: contact switches from 1-2 to 1-3.
Switching function decreasing pressure: contact switches from 1-3 to 1-2.
Notice:Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!
The microswitch has silver-plated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

Technical information

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

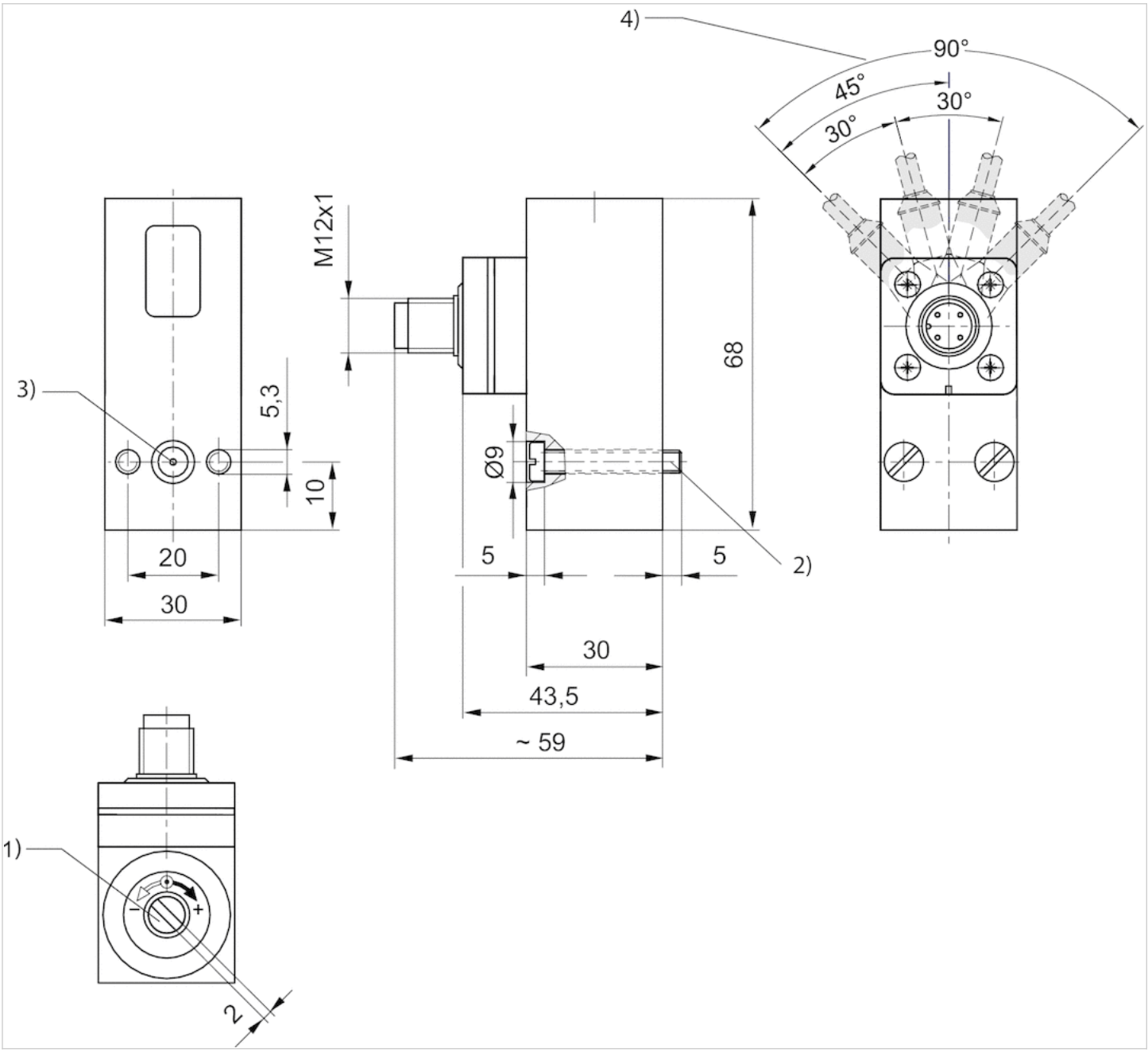
Dimensions

Fig. 1



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

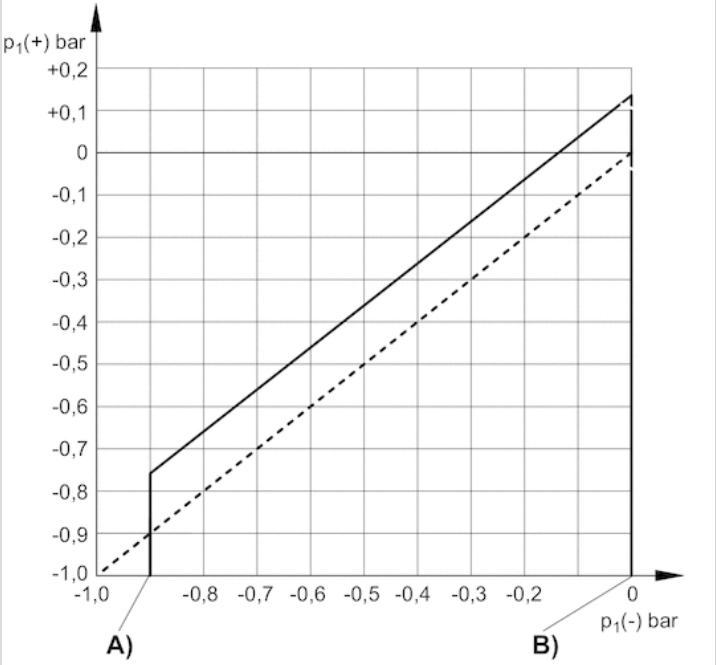
Fig. 2



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

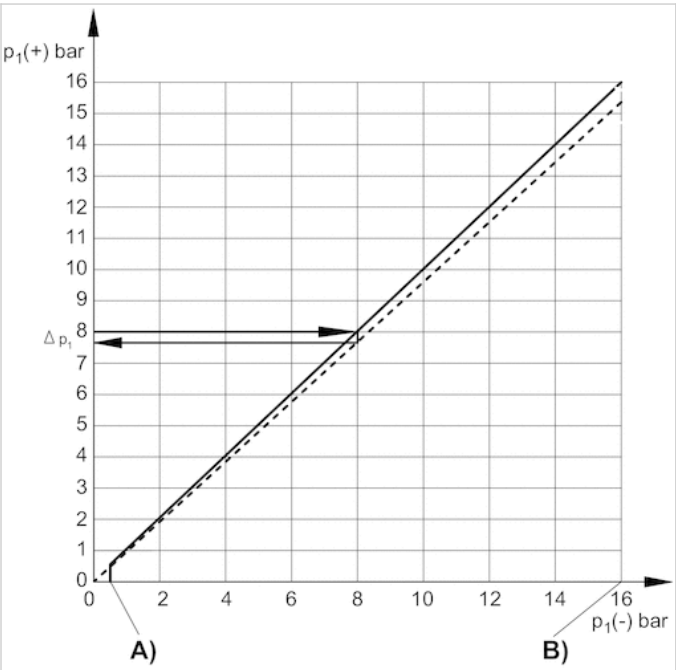
Diagrams

differential switching pressure characteristic curve (-09 – 0 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

differential switching pressure characteristic curve (02 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
Δ p1 = max. operating pressure difference or hysteresis
Example:

p1 (+) = 8 bar > p1(-) = 7.6 bar
Δ p1 = 0.4 bar

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

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

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

1) AC

2) DC

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

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

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

1) AC

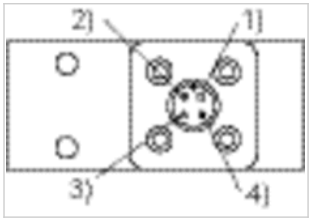
2) DC

3) cos ≈ 0,7°

4) L/R ≈ 10 ms

Pin assignments

Pin assignments



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

QR1-S standard series

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

Working pressure min./max.	-13 ... 145 psi
Ambient temperature min./max.	32 ... 140 °F
Weight	See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight
2122004180	G 1/8	Ø 4	10 piece	0.027 lbs
2122006180	G 1/8	Ø 6	10 piece	0.028 lbs
2122008180	G 1/8	Ø 8	10 piece	0.034 lbs
R412005094	G 1/8	Ø 10	10 piece	0.061 lbs
R412005095	G 1/8	Ø 12	10 piece	0.086 lbs
2122004140	G 1/4	Ø 4	10 piece	0.038 lbs
2122006140	G 1/4	Ø 6	10 piece	0.042 lbs
2122008140	G 1/4	Ø 8	10 piece	0.051 lbs
2122010140	G 1/4	Ø 10	10 piece	0.063 lbs
2122012140	G 1/4	Ø 12	10 piece	0.093 lbs

Weight per piece

Technical information

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

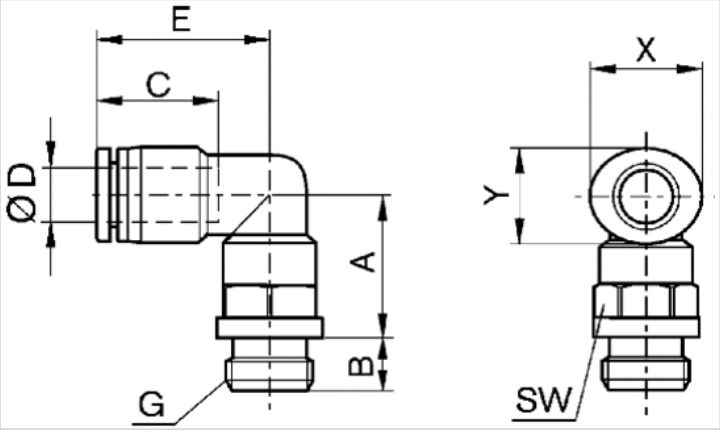
For further information about assembling and tolerances of adaptable tubing can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Material	nickel-plated
Housing	Polybutyleneterephthalate
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Polyoxymethylene
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
2122004180	Ø 4	G 1/8	9.5	5	16	18.5	13	12	10
2122006180	Ø 6	G 1/8	10.7	5	17	20.3	13	14	12
2122008180	Ø 8	G 1/8	14.4	5	18.5	22.6	13	16	14
R412005094	Ø 10	G 1/8	16.5	5	21	27	16	19	17
R412005095	Ø 12	G 1/8	18.2	5	22.5	29.2	16	23	21
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

Series QR2-S, standard

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

Working pressure min./max.	-13 ... 232 psi
Ambient temperature min./max.	-4 ... 176 °F
Weight	See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight	Fig.
1823373041	G 1/8	Ø 4	25 piece	0.011 lbs	Fig. 1
1823373042	G 1/8	Ø 5	10 piece	0.022 lbs	Fig. 1
1823373043	G 1/8	Ø 6	25 piece	0.024 lbs	Fig. 1
1823373044	G 1/8	Ø 8	25 piece	0.026 lbs	Fig. 1
1823373045	G 1/4	Ø 4	25 piece	0.026 lbs	Fig. 1
1823373046	G 1/4	Ø 5	10 piece	0.029 lbs	Fig. 1
1823373047	G 1/4	Ø 6	25 piece	0.033 lbs	Fig. 1
1823373048	G 1/4	Ø 8	10 piece	0.035 lbs	Fig. 1
1823373049	G 1/4	Ø 10	10 piece	0.057 lbs	Fig. 1
1823391809	G 1/4	Ø 12	10 piece	0.068 lbs	Fig. 1
R412004708	G 1/4	Ø 12	10 piece	0.048 lbs	Fig. 2

Weight per piece

Technical information

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

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

Technical information

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

Dimensions

Fig. 1

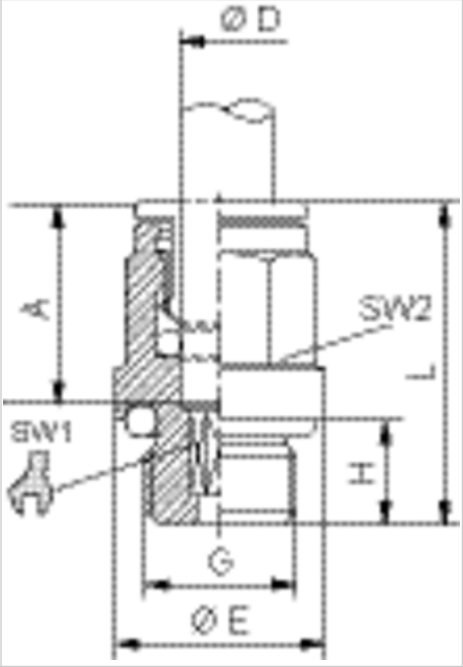
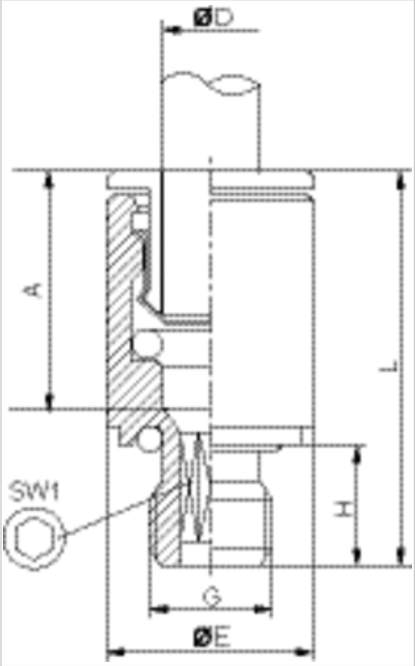


Fig. 2



Dimensions

Part No.	Port D	Port G	Ø E	H	L	A*	SW 1	SW 2	Fig.
1823373041	Ø 4	G 1/8	13.5	6	20	15	2.5	9	Fig. 1
1823373042	Ø 5	G 1/8	13.5	6	22	16	4	10	Fig. 1
1823373043	Ø 6	G 1/8	13.5	6	24	16	4	11	Fig. 1
1823373044	Ø 8	G 1/8	13	6	26.5	18	5	13	Fig. 1
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

* Insertion depth

Series QR2-S, standard

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

Working pressure min./max.	-13 ... 232 psi
Ambient temperature min./max.	-4 ... 176 °F
Weight	See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight
1823391710	G 1/8	Ø 4	10 piece	0.04 lbs
1823391711	G 1/8	Ø 6	10 piece	0.044 lbs
1823391712	G 1/8	Ø 8	10 piece	0.048 lbs
R412007687	G 1/8	Ø 10	5 piece	0.07 lbs
1823391713	G 1/4	Ø 4	10 piece	0.053 lbs
1823391714	G 1/4	Ø 6	10 piece	0.055 lbs
1823391715	G 1/4	Ø 8	10 piece	0.06 lbs
1823391718	G 1/4	Ø 10	5 piece	0.068 lbs
1823391843	G 1/4	Ø 12	5 piece	0.092 lbs

Weight per piece

Technical information

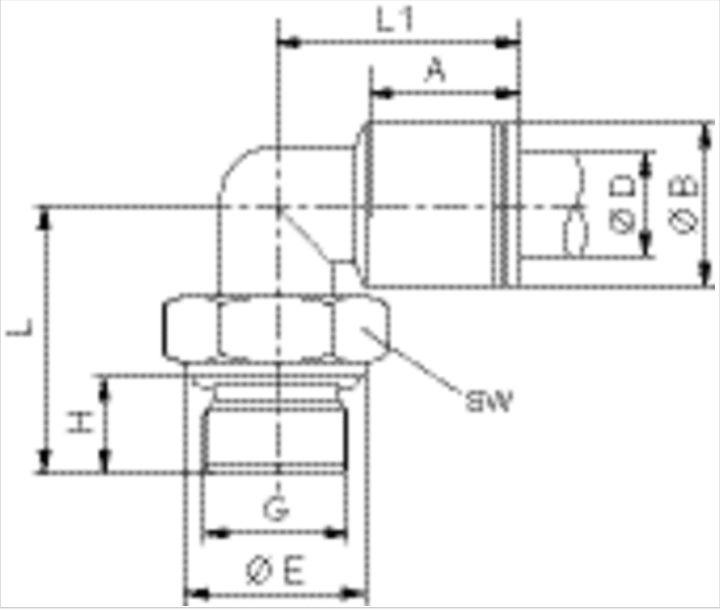
The series QR1 (plastic) and QR2 (metal) can not be combined
Thread seal with captive O-ring

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

Technical information

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

Dimensions



Dimensions

Part No.	Port D	Port G	ØB	ØE	H	L	L1	A*	SW
1823391710	Ø 4	G 1/8	9	13	6	20	19	15	13
1823391711	Ø 6	G 1/8	11	13	6	20	21	16	13
1823391712	Ø 8	G 1/8	13	13	6	20	24	18	13
R412007687	Ø 10	G 1/8	15	13	6	24	27	19	13
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

* Insertion depth

Series NU2

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

Working pressure min./max.	-13 ... 145 psi
Ambient temperature min./max.	14 ... 140 °F
Weight	See table below

Technical data

Part No.	Port G	Port D	Delivery unit	Weight
1823391294	G 1/4	Ø 6	2 piece	0.075 lbs
1823391295	G 1/4	Ø 8	2 piece	0.097 lbs
R412010658	G 1/4	Ø 9	1 piece	0.608 lbs

Weight per piece

Technical information

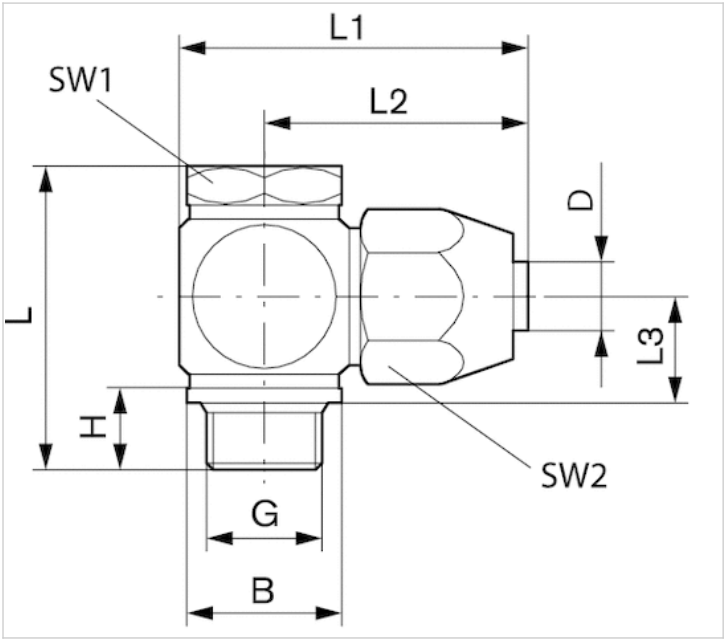
For further information about assembling and tolerances of adaptable tubing can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Housing	Aluminum, anodized
Seal	Polyvinyl chloride

Dimensions

Dimensions



for fabric-reinforced plastic tubing

Dimensions

Part No.	Port D	Port G	B	H	L	L1	L2	L3	SW1	SW2
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

Connection D = inside diameter of the tubing to be used

Double nipple, Series PE5

- External thread

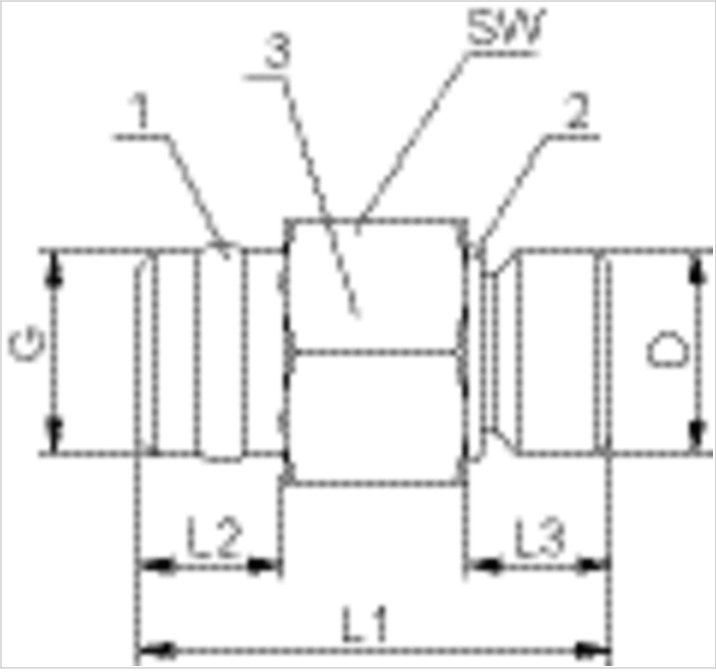
Weight 0.088 lbs

Technical data

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

Dimensions

Dimensions



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

Dimensions

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

Blanking screw

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

Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 176 °F

Technical data

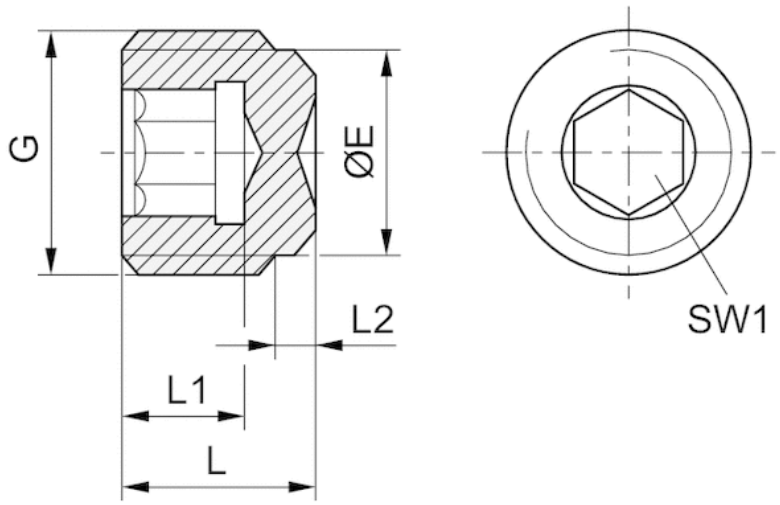
Part No.	Port G	Delivery unit
1823462004	G 1/8	10 piece
1823462003	G 1/4	10 piece

Technical information

Material	
Material	Brass

Dimensions

Dimensions



Dimensions

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

Blanking screw, gasket

- G 1/8, G 1/4, G 3/8, G 1/2, G 3/4, G 1
- FPT-S-RBI

Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 176 °F

The delivered product may vary from that in the illustration.

Technical data

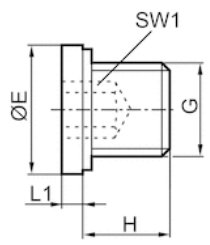
Part No.	Port G	Delivery unit
1823462028	G 1/8	25 piece
1823462029	G 1/4	25 piece
1823462030	G 3/8	25 piece
1823462031	G 1/2	25 piece
1823462032	G 3/4	10 piece
1823462033	G 1	5 piece

Technical information

Material	
Material	Steel, galvanized
Seal	Polyvinyl chloride, hard

Dimensions

Dimensions

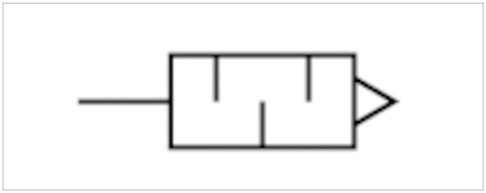


Dimensions

Port G	Ø E	H	L1	SW1
G 1/8	14	8	3	5
G 1/4	18	12	3	6
G 3/8	22	12	3	8
G 1/2	26	14	4	10
G 3/4	32	16	4	12
G 1	39	16	5	17

Silencers, series SI1

- Polyethylene



Working pressure min./max.	0 ... 145 psi
Ambient temperature min./max.	-13 ... 176 °F
Medium	Compressed air
Sound pressure level	80 dB
Weight	0.007 lbs
Comment	Flow characteristic curves can be found under “Diagrams”.

Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000020	G 1/4	3.1 Cv	5 piece

Weight per piece

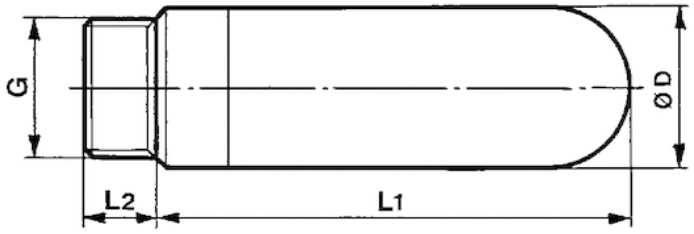
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Polyethylene
Thread	Polyethylene

Dimensions

Dimensions

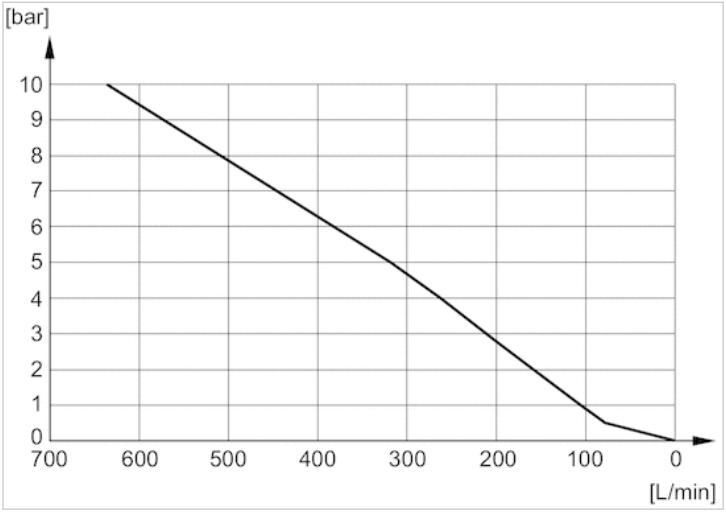


Dimensions

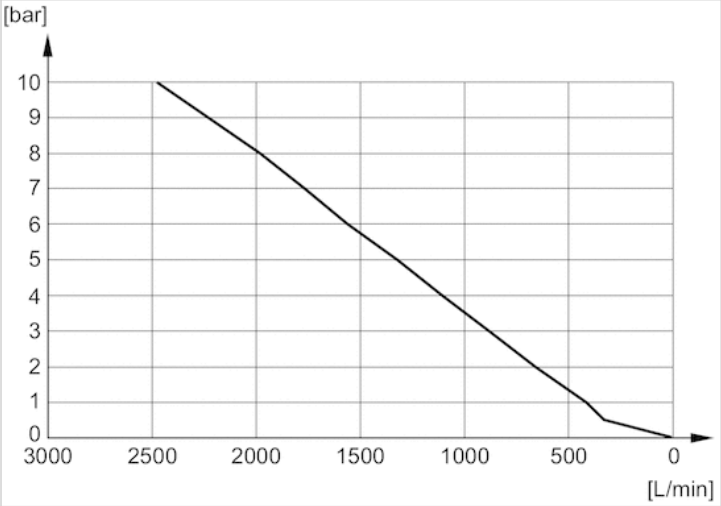
Part No.	Port G	Ø D	L1	L2
1827000020	G 1/4	15.5	34.5	8

Diagrams

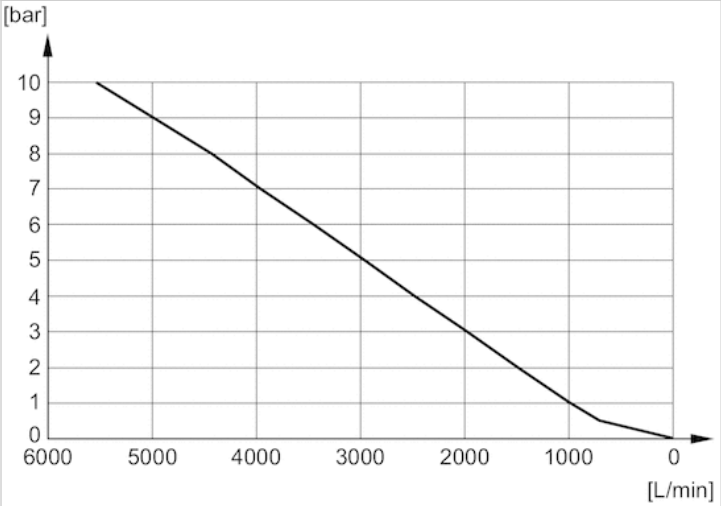
Flow diagram 1827000018



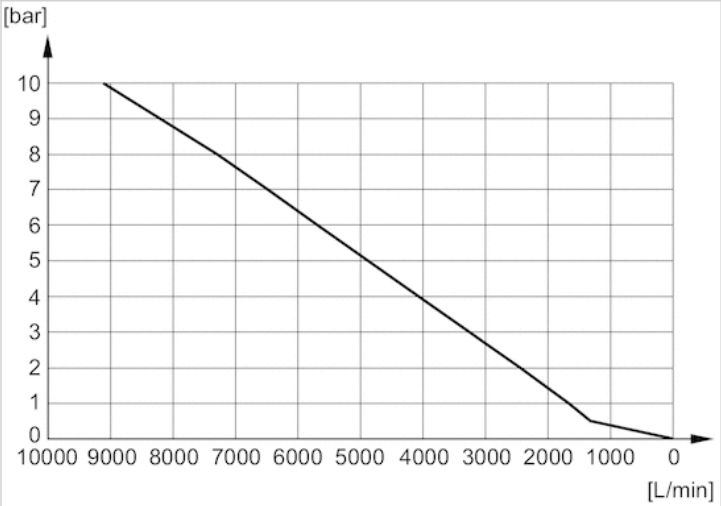
Flow diagram 1827000019



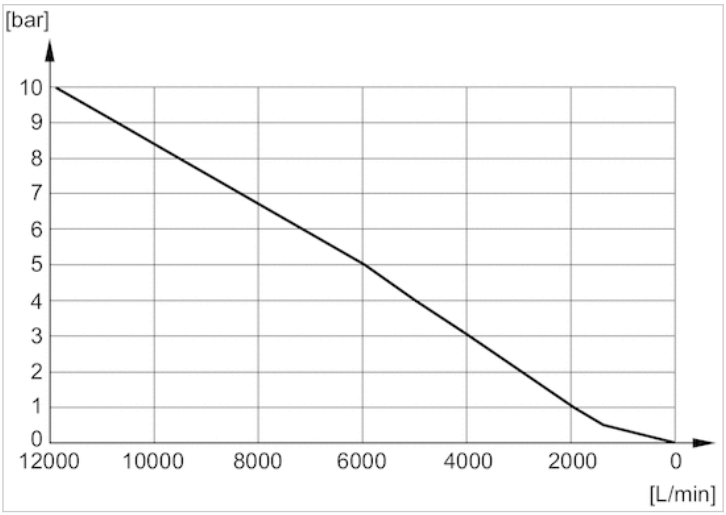
Flow diagram 1827000020



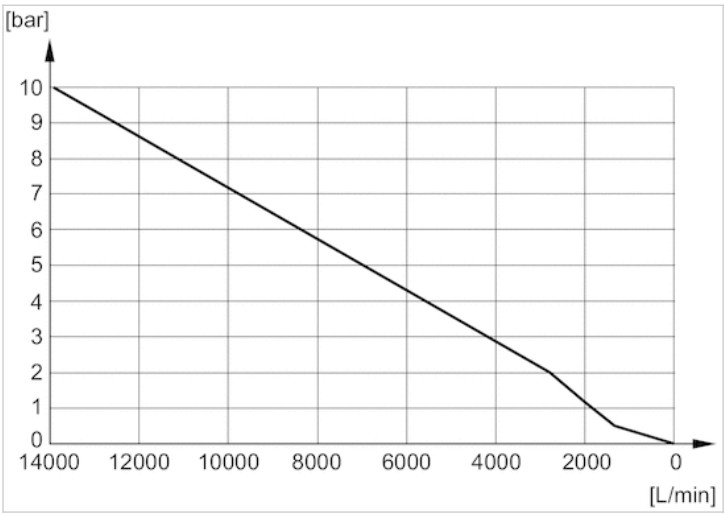
Flow diagram 1827000021



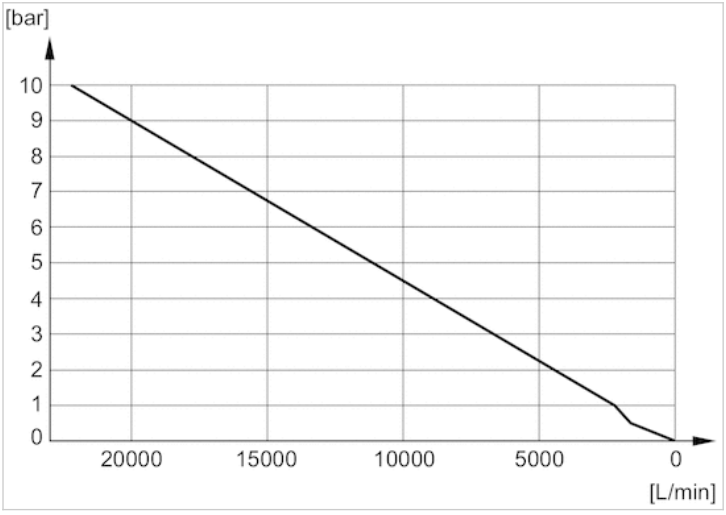
Flow diagram 1827000022



Flow diagram 1827000023

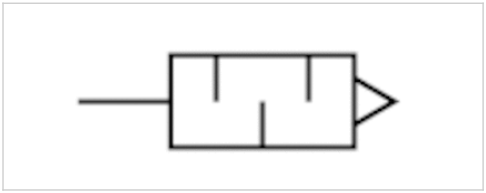


Flow diagram 1827000024



Silencers, series SI1

- Sintered bronze



Working pressure min./max.	0 ... 145 psi
Ambient temperature min./max.	-13 ... 176 °F
Medium	Compressed air
Sound pressure level	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	-	6.05 Cv	10 piece	0.029 lbs
1827000001	G 1/4	79 dB	2.9 Cv	10 piece	0.044 lbs

Weight per piece

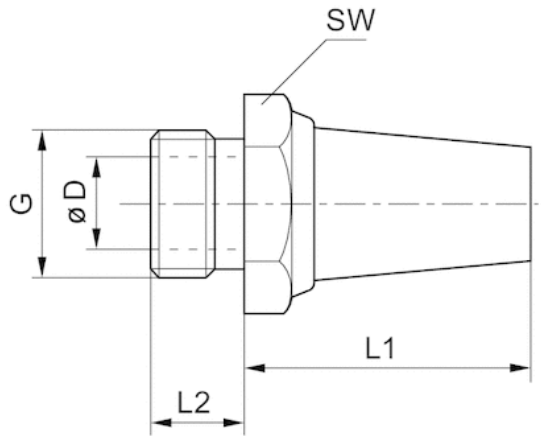
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

Dimensions

Dimensions

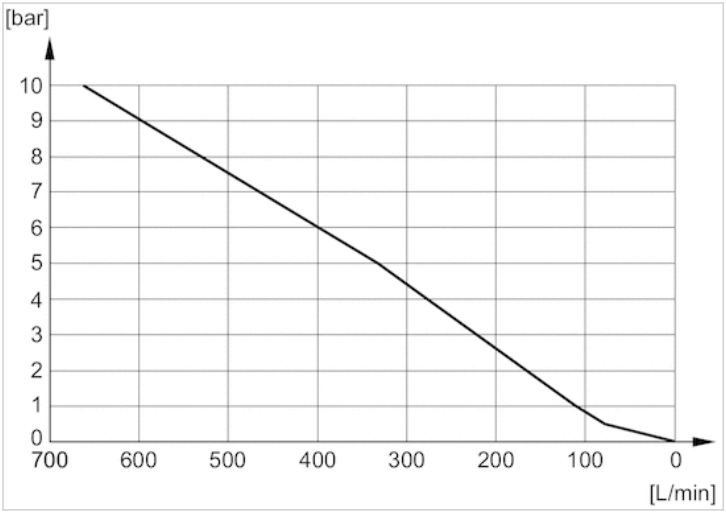


Dimensions

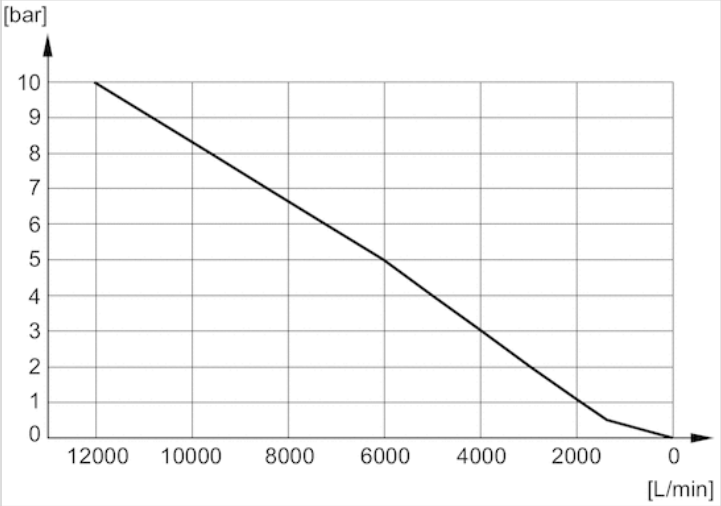
Part No.	Port G	SW	Ø D	L1	L2
R412004817	G 1/4	16	8.5	18.7	7.6
1827000001	G 1/4	17	8.5	25	8

Diagrams

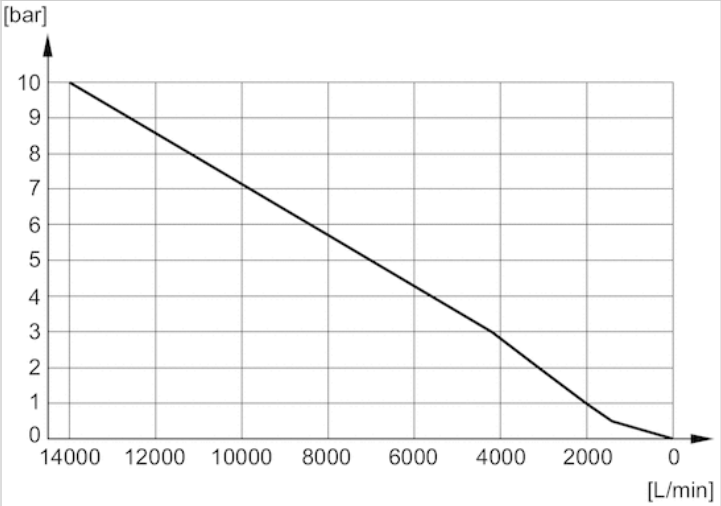
Flow diagram 1827000006



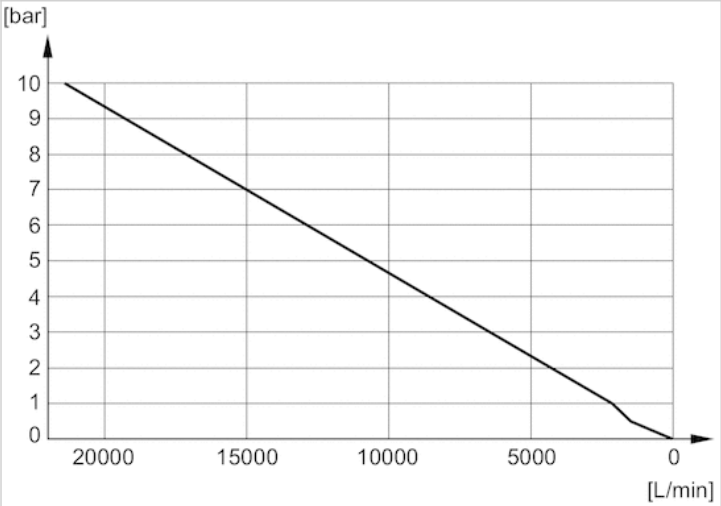
Flow diagram 1827000003



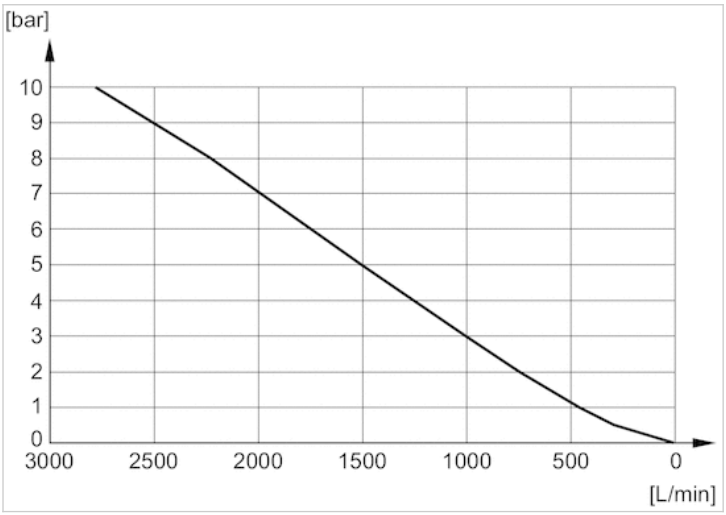
Flow diagram 1827000004



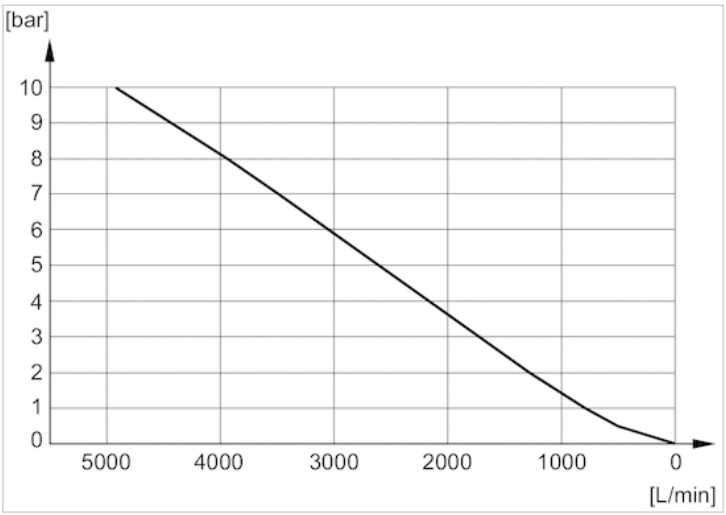
Flow diagram 1827000005



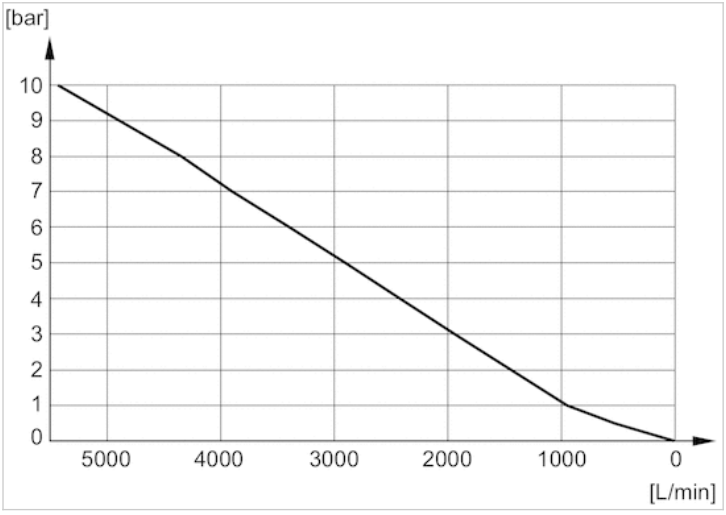
Flow diagram 5324001110



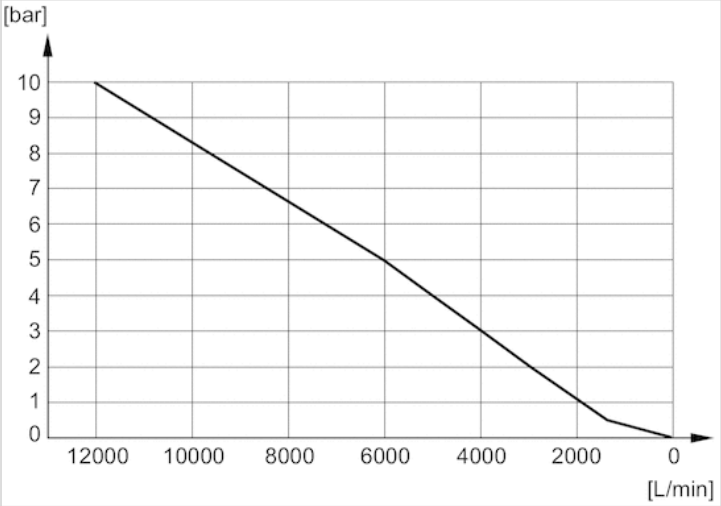
Flow diagram 5324001170



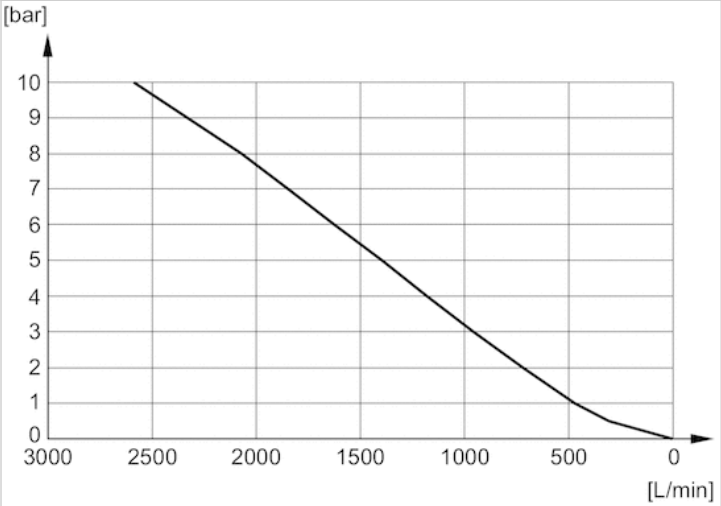
Flow diagram 5324001120



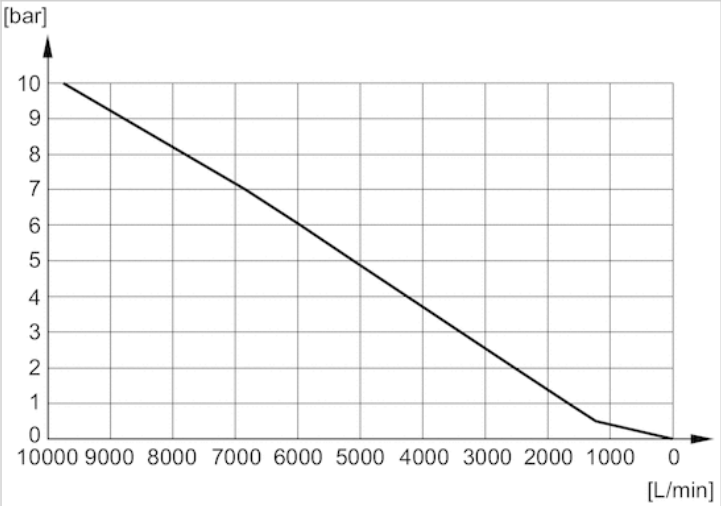
Flow diagram 5324001140



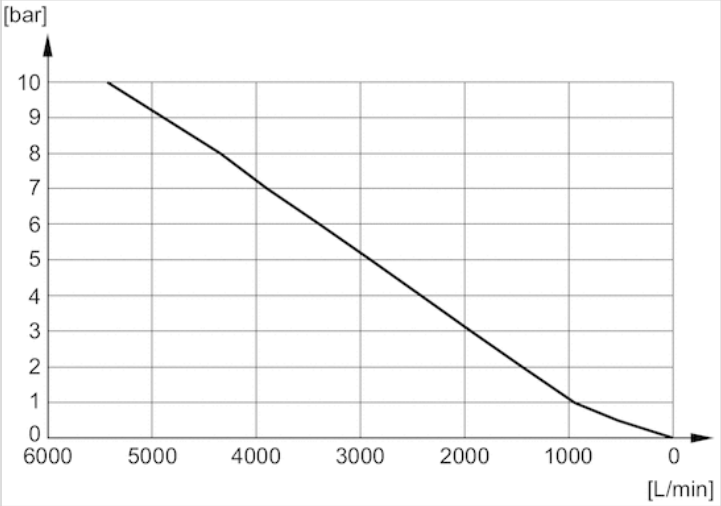
Flow diagram 1827000000



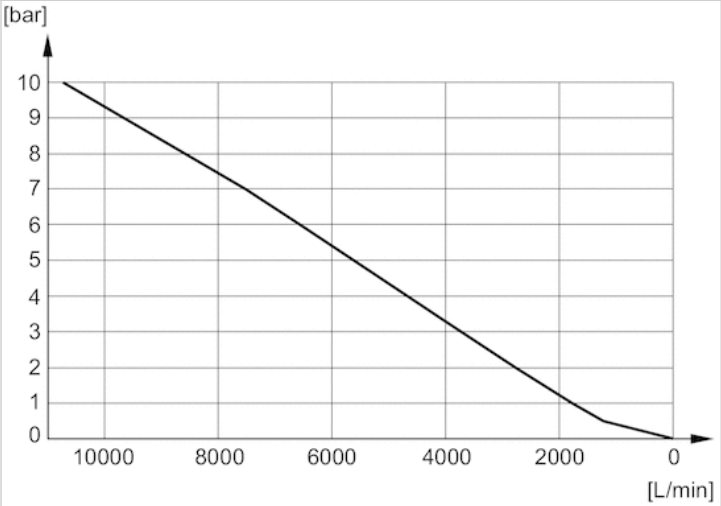
Flow diagram R412004817



Flow diagram 1827000001

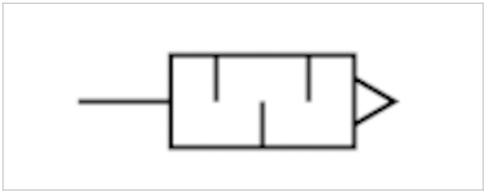


Flow diagram 1827000002



Silencers, series SI1

- Stainless steel



Working pressure min./max.	0 ... 174 psi
Ambient temperature min./max.	-4 ... 302 °F
Medium	Compressed air
Sound pressure level	93 dB
Weight	0.046 lbs
Comment	Flow characteristic curves can be found under “Diagrams”.

Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
R412010082	G 1/4	0.85 Cv	1 piece

Weight per piece

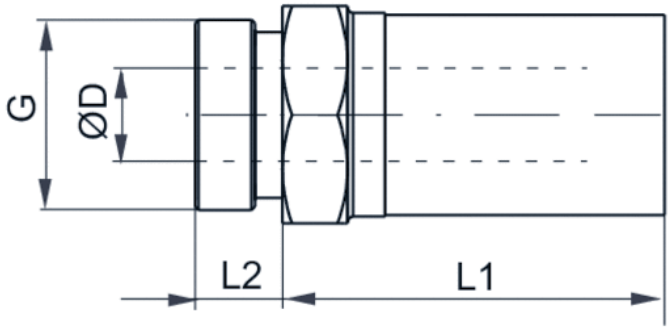
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Stainless steel
Thread	Stainless steel

Dimensions

Dimensions

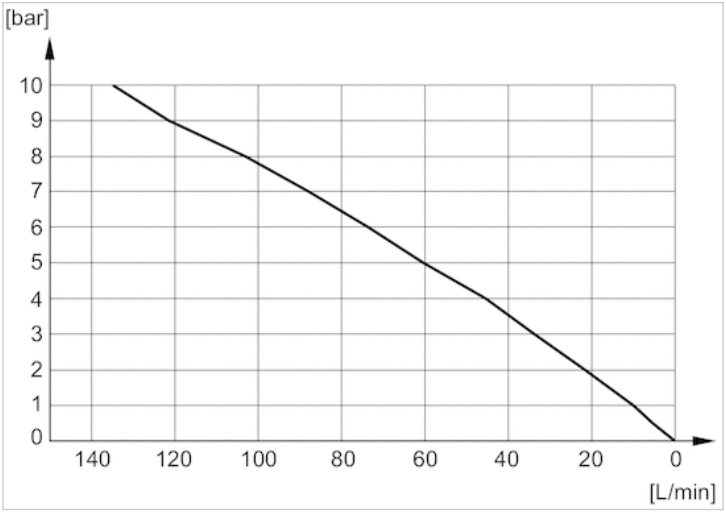


Dimensions

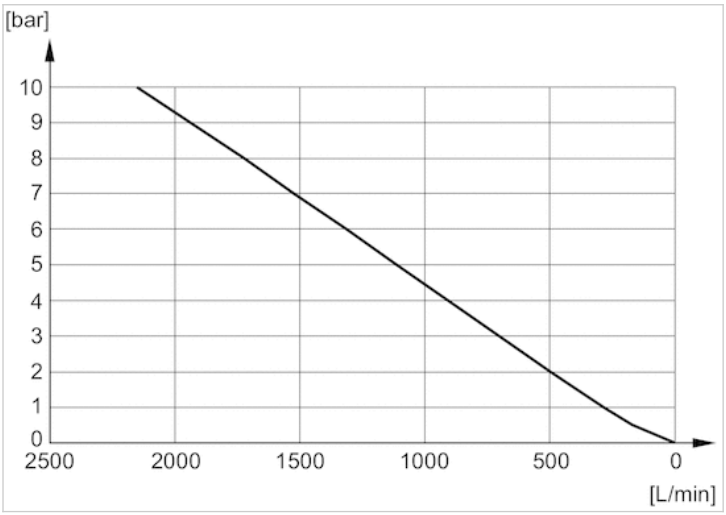
Part No.	Port G	SW	Ø D	L1	L2
R412010082	G 1/4	16	8.6	29.5	7.5

Diagrams

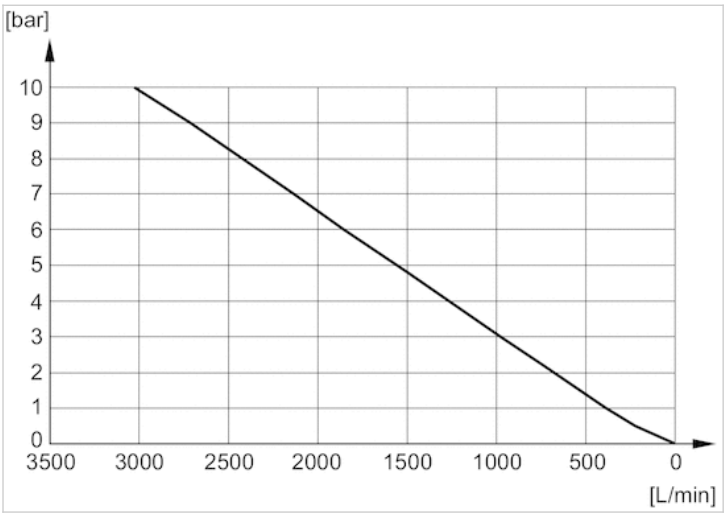
Flow diagram R412010090



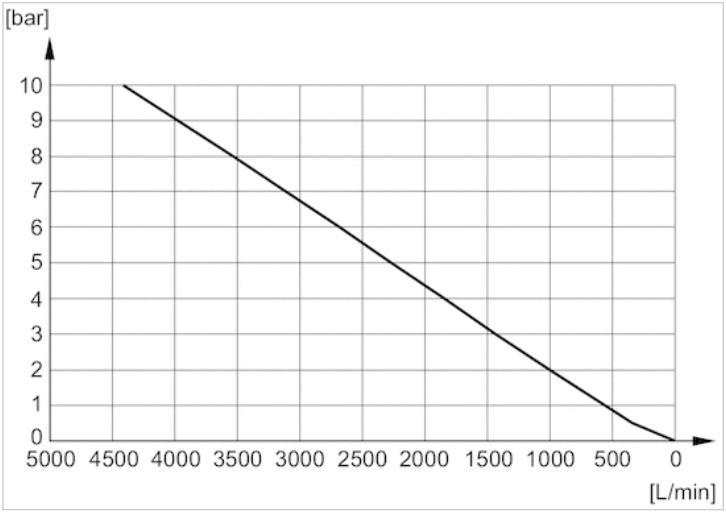
Flow diagram R412010081



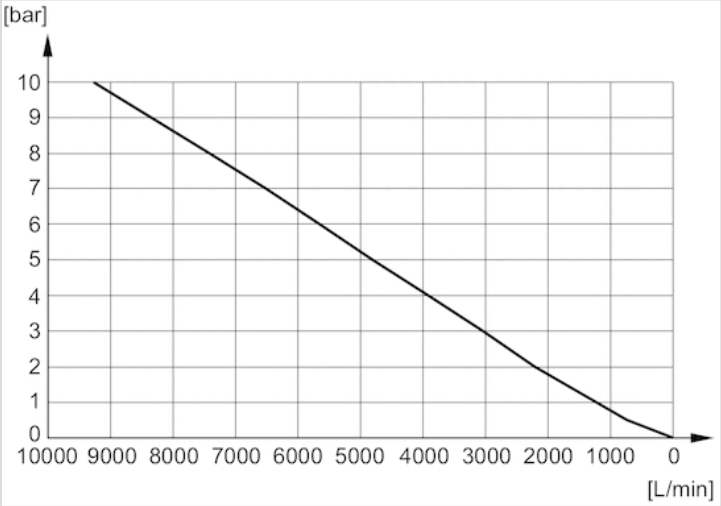
Flow diagram R412010082



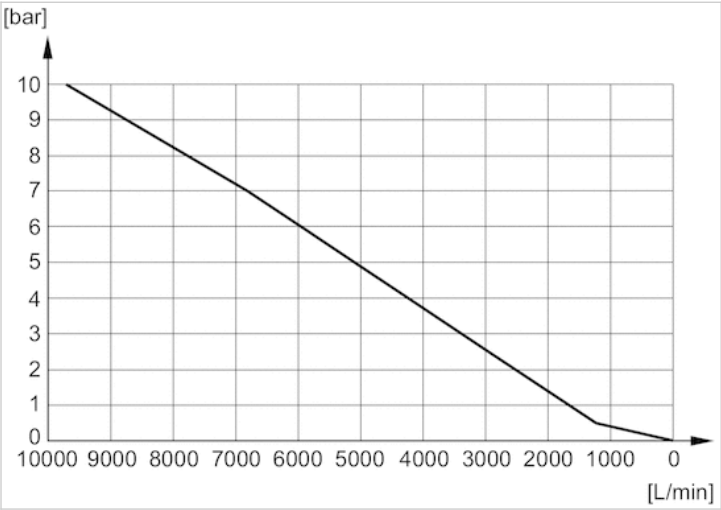
Flow diagram R412010083



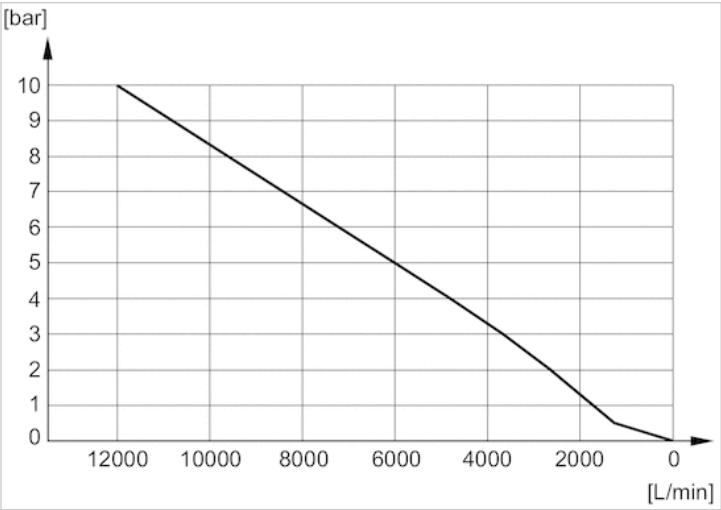
Flow diagram R412010084



Flow diagram R412010085

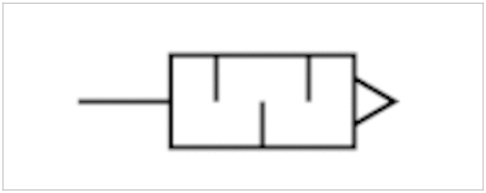


Flow diagram R412010086



Silencers, series SI1

- Sintered bronze



Working pressure min./max.	0 ... 145 psi
Ambient temperature min./max.	-13 ... 176 °F
Medium	Compressed air
Sound pressure level	88 dB
Weight	0.022 lbs
Comment	Flow characteristic curves can be found under “Diagrams”.

Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000033	G 1/4	0.9 Cv	10 piece

Weight per piece

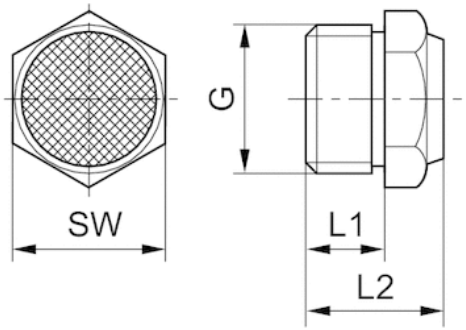
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

Dimensions

Dimensions



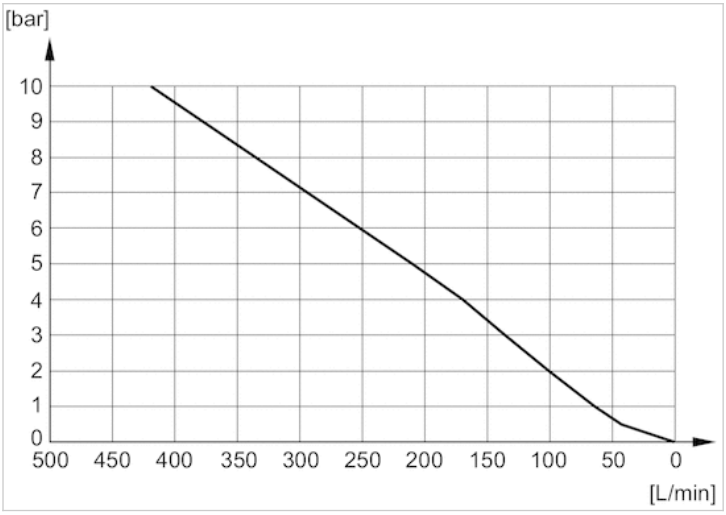
Dimensions

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

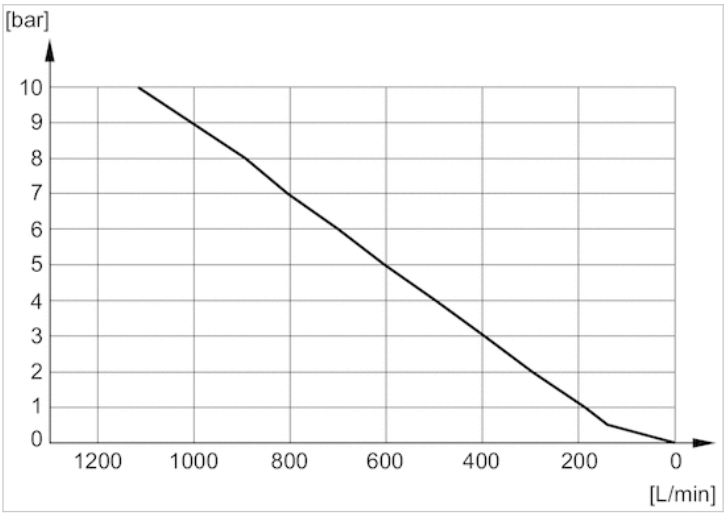
Sound pressure level measured at 6 bar at 1 m distance

Diagrams

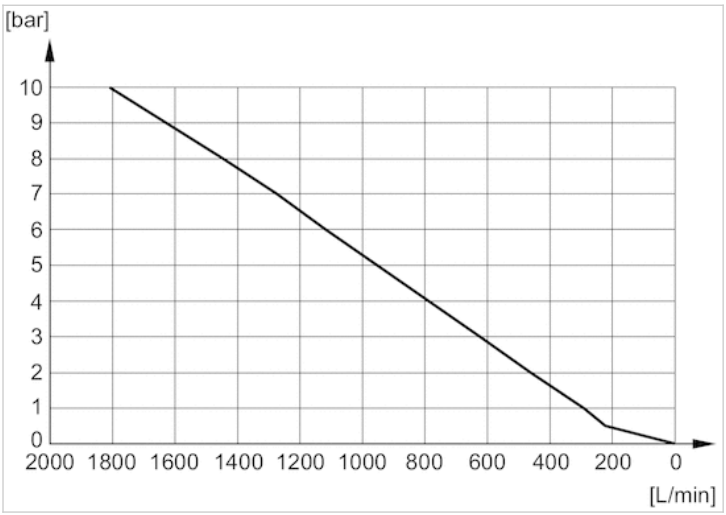
Flow diagram 1827000032



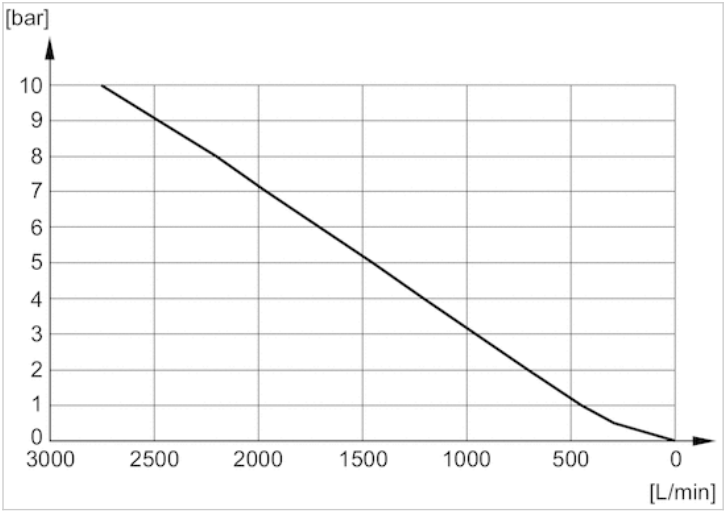
Flow diagram 1827000031



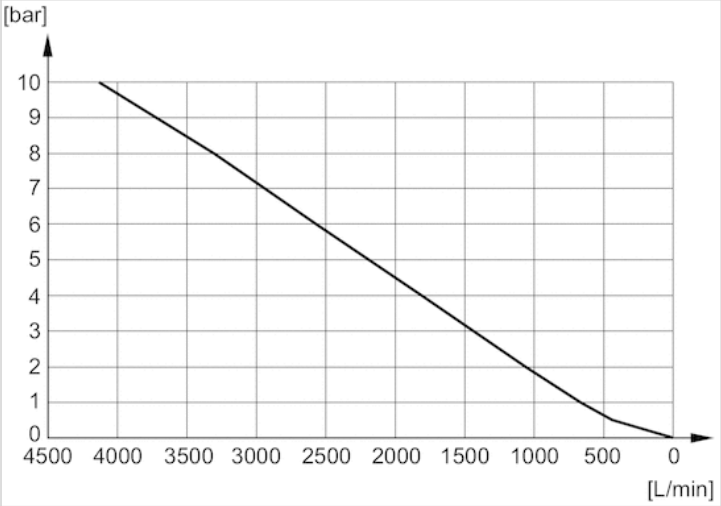
Flow diagram 1827000033



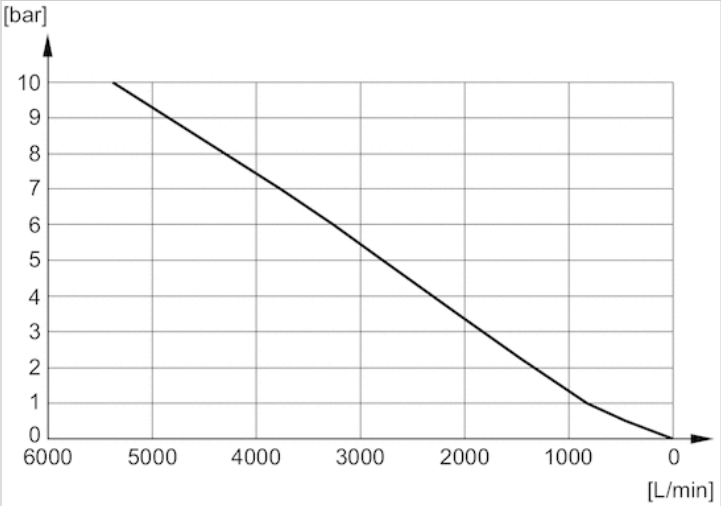
Flow diagram 1827000034



Flow diagram 1827000035



Flow diagram 8145003400



Flow diagram 8145001000