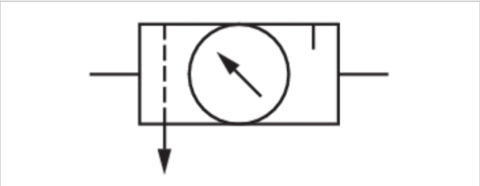
Maintenance unit, 2-part, Series NL2-ACD

- G 1/4, G 3/8
- with pressure gauge
- suitable for ATEX



Version	2-in-1, Can be assembled into blocks
Parts	Filter pressure regulator, Lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	29 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	1.12 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	0.85 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Lubricator reservoir volume	1.69 fl.oz.
Type of filling	Manual oil filling
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain	Reservoir
0821300400	G 1/4	1.12 Cv	semi-automatic, open without pressure	Polycarbonate
0821300403	G 1/4	1.12 Cv	fully automatic, open without pressure	Polycarbonate
0821300401	G 1/4	1.12 Cv	semi-automatic, open without pressure	Polycarbonate
0821300404	G 1/4	1.12 Cv	fully automatic, open without pressure	Polycarbonate
0821300402	G 1/4	1.12 Cv	semi-automatic, open without pressure	Die cast zinc
0821300405	G 1/4	1.12 Cv	fully automatic, open without pressure	Die cast zinc
0821300430	G 3/8	1.12 Cv	semi-automatic, open without pressure	Polycarbonate
0821300433	G 3/8	1.12 Cv	fully automatic, open without pressure	Polycarbonate
0821300431	G 3/8	1.12 Cv	semi-automatic, open without pressure	Polycarbonate
0821300434	G 3/8	1.12 Cv	fully automatic, open without pressure	Polycarbonate
0821300432	G 3/8	1.12 Cv	semi-automatic, open without pressure	Die cast zinc
0821300435	G 3/8	1.12 Cv	fully automatic, open without pressure	Die cast zinc

Part No.	Protective guard	Weight
0821300400	-	1.87 lbs
0821300403	-	1.96 lbs
0821300401	Steel	2.05 lbs
0821300404	Steel	2.14 lbs

Part No.	Protective guard	Weight
0821300402	-	2.65 lbs
0821300405	-	2.73 lbs
0821300430	-	1.87 lbs
0821300433	-	1.96 lbs
0821300431	Steel	2.05 lbs
0821300434	Steel	2.14 lbs
0821300432	-	1.24 lbs
0821300435	-	2.73 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, Die-cast zinc reservoir with inspection glass

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.

Oil dosing at 1 Cv 1-2 drops

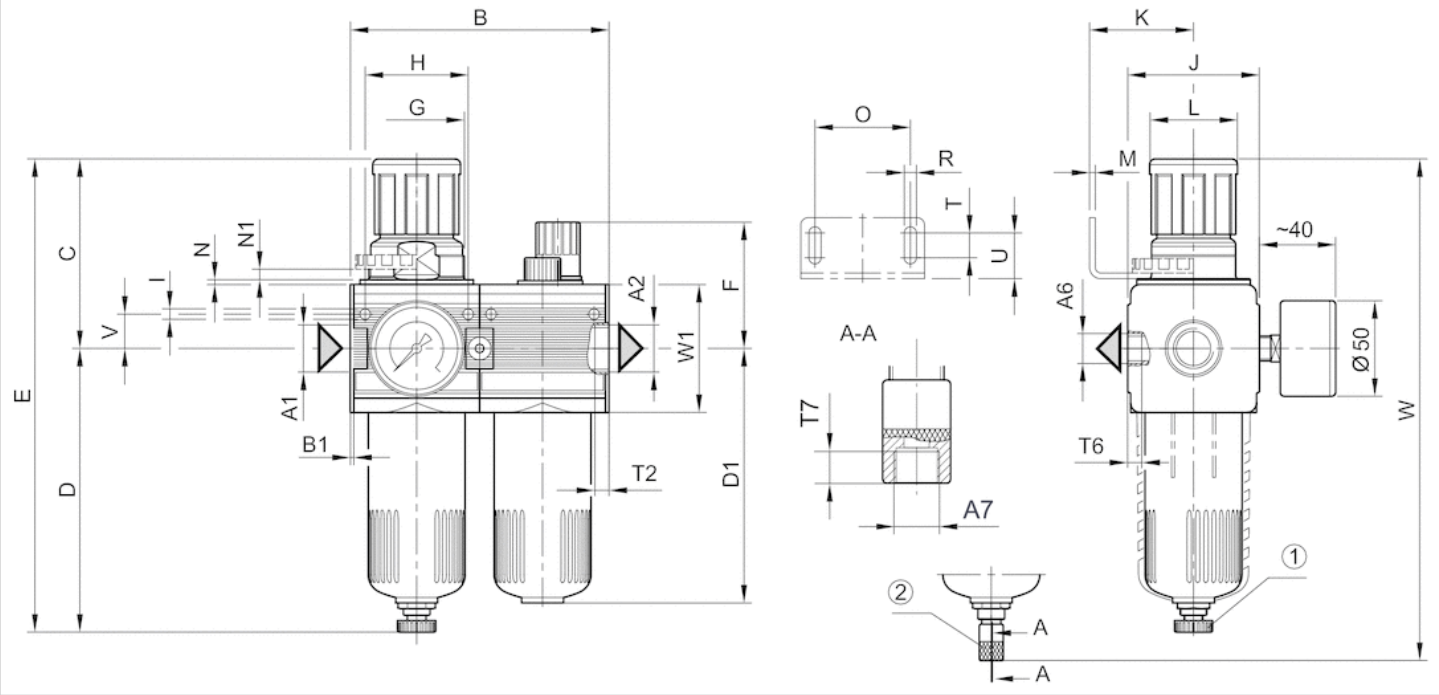
Compressed air class 6 : 7 : -

Technical information

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

Dimensions

Dimensions



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

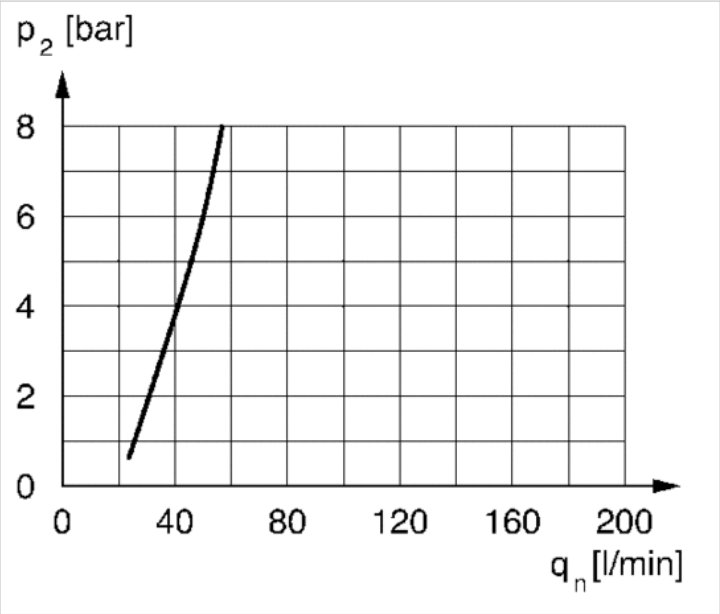
Dimensions in mm

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

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

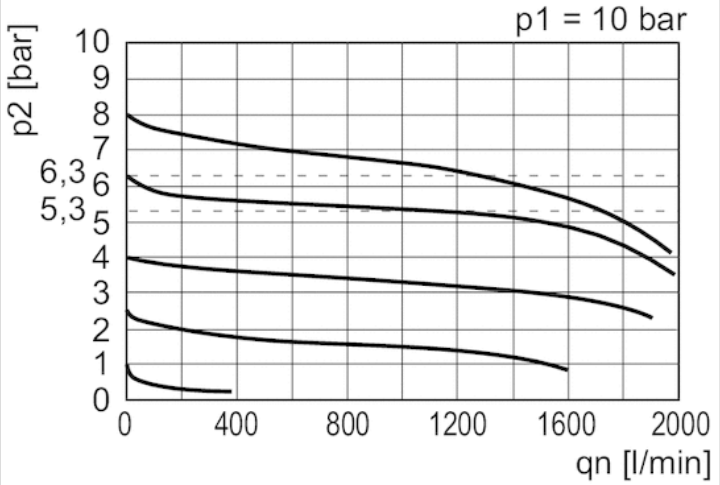
Diagrams

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



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

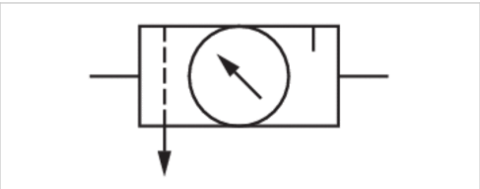
Flow rate characteristic



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

Maintenance unit, 3-part, Series NL2-ACT

- G 1/4, G 3/8
- with pressure gauge
- suitable for ATEX



Version	3-part, Can be assembled into blocks
Parts	Pressure regulator, Filter, Lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	29 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	1.22 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	0.85 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Lubricator reservoir volume	1.69 fl.oz.
Type of filling	Manual oil filling
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain	Reservoir
0821300450	G 1/4	1.22 Cv	semi-automatic, open without pressure	Polycarbonate
0821300453	G 1/4	1.22 Cv	fully automatic, open without pressure	Polycarbonate
0821300451	G 1/4	1.22 Cv	semi-automatic, open without pressure	Polycarbonate
0821300454	G 1/4	1.22 Cv	fully automatic, open without pressure	Polycarbonate
0821300452	G 1/4	1.22 Cv	semi-automatic, open without pressure	Die cast zinc
0821300455	G 1/4	1.22 Cv	fully automatic, open without pressure	Die cast zinc
0821300485	G 3/8	1.22 Cv	fully automatic, open without pressure	Die cast zinc
0821300480	G 3/8	1.22 Cv	semi-automatic, open without pressure	Polycarbonate
0821300483	G 3/8	1.22 Cv	fully automatic, open without pressure	Polycarbonate
0821300484	G 3/8	1.22 Cv	fully automatic, open without pressure	Polycarbonate
0821300481	G 3/8	1.22 Cv	semi-automatic, open without pressure	Polycarbonate
0821300482	G 3/8	1.22 Cv	semi-automatic, open without pressure	Die cast zinc

Part No.	Protective guard	Weight
0821300450	-	2.62 lbs
0821300453	-	2.71 lbs
0821300451	Steel	2.8 lbs
0821300454	Steel	2.89 lbs

Part No.	Protective guard	Weight
0821300452	-	3.4 lbs
0821300455	-	3.47 lbs
0821300485	-	3.47 lbs
0821300480	-	2.62 lbs
0821300483	-	2.71 lbs
0821300484	Steel	2.89 lbs
0821300481	Steel	2.8 lbs
0821300482	-	3.4 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.

Oil dosing at 1 Cv 1-2 drops

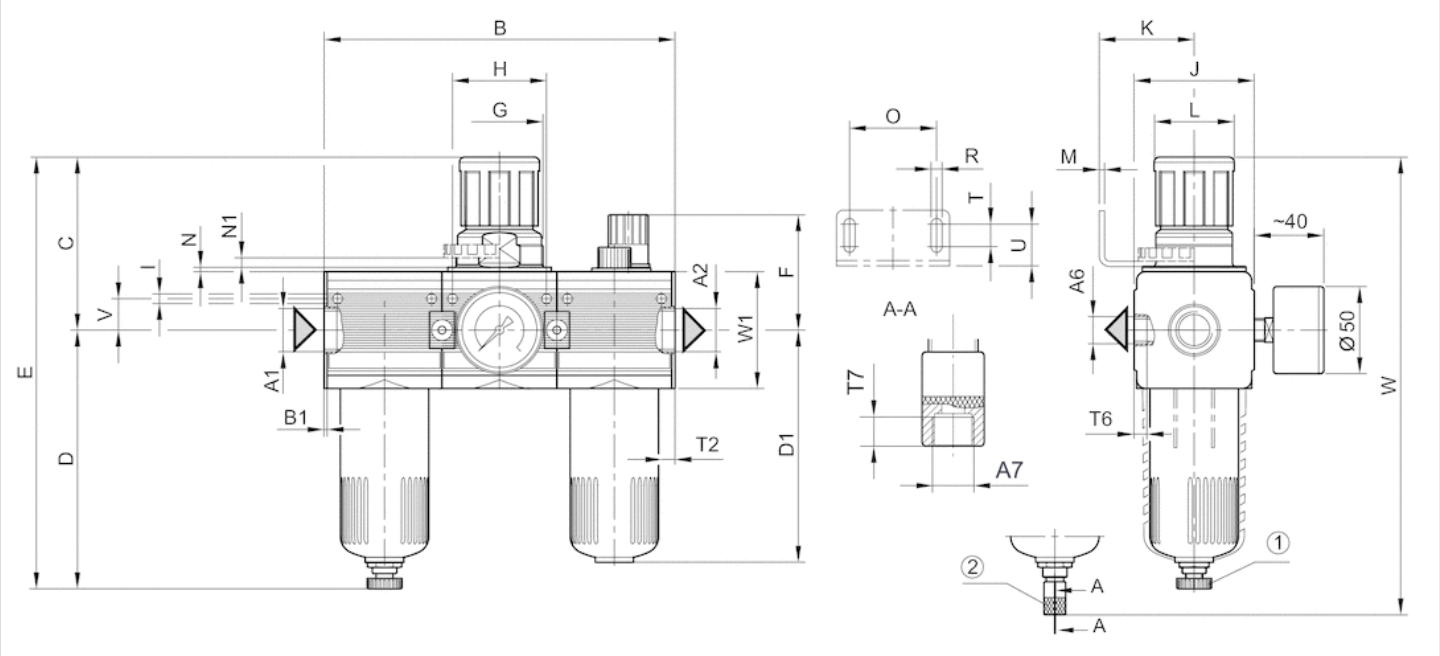
Compressed air class 6 : 7 : -

Technical information

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

Dimensions

Dimensions



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

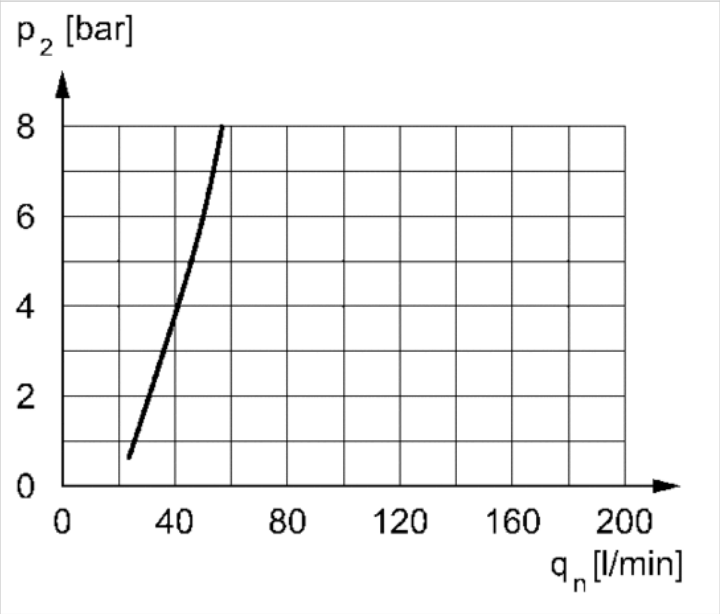
Dimensions in mm

A1	A2	A6	A7	B	B1	C	D	D1	E	F	G	H	I	J	K	L	M	N	N1	O
G 1/4	G 1/4	G 1/4	G 1/8	138	1.5	67.5	125	109	192.5	58	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38
G 3/8	G 3/8	G 1/4	G 1/8	138	1.5	67.5	125	109	192.5	58	M30x1,5	36	4.4	47	43.5	28	3	3	3.5	38

R	T	T2	T6	T7	U	V	W	W1
5.4	8	9.5	7	8.5	18.5	12.3	205.5	52
5.4	8	9.5	7	8.5	18.5	12.3	205.5	52

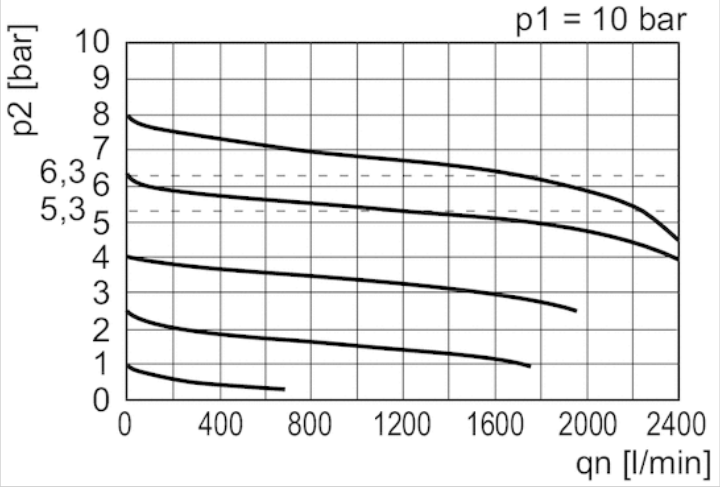
Diagrams

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



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

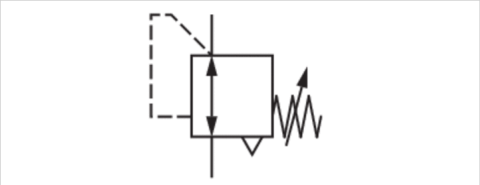
Flow rate characteristic



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

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

- G 1/4
- Qn = 2.03 Cv
- Standard pressure regulator
- Activation Mechanical
- 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
Activation	Mechanical
Weight	0.716 lbs

Technical data

Part No.	Port	Flow	Adjustment range min./max.	Max. pressure gauge Ø in blocked state
		Qn		
0821302411	G 1/4	2.03 Cv	2 ... 43 psi	40 mm
0821302409	G 1/4	2.03 Cv	3 ... 87 psi	40 mm
0821302408	G 1/4	2.03 Cv	8 ... 145 psi	40 mm

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)

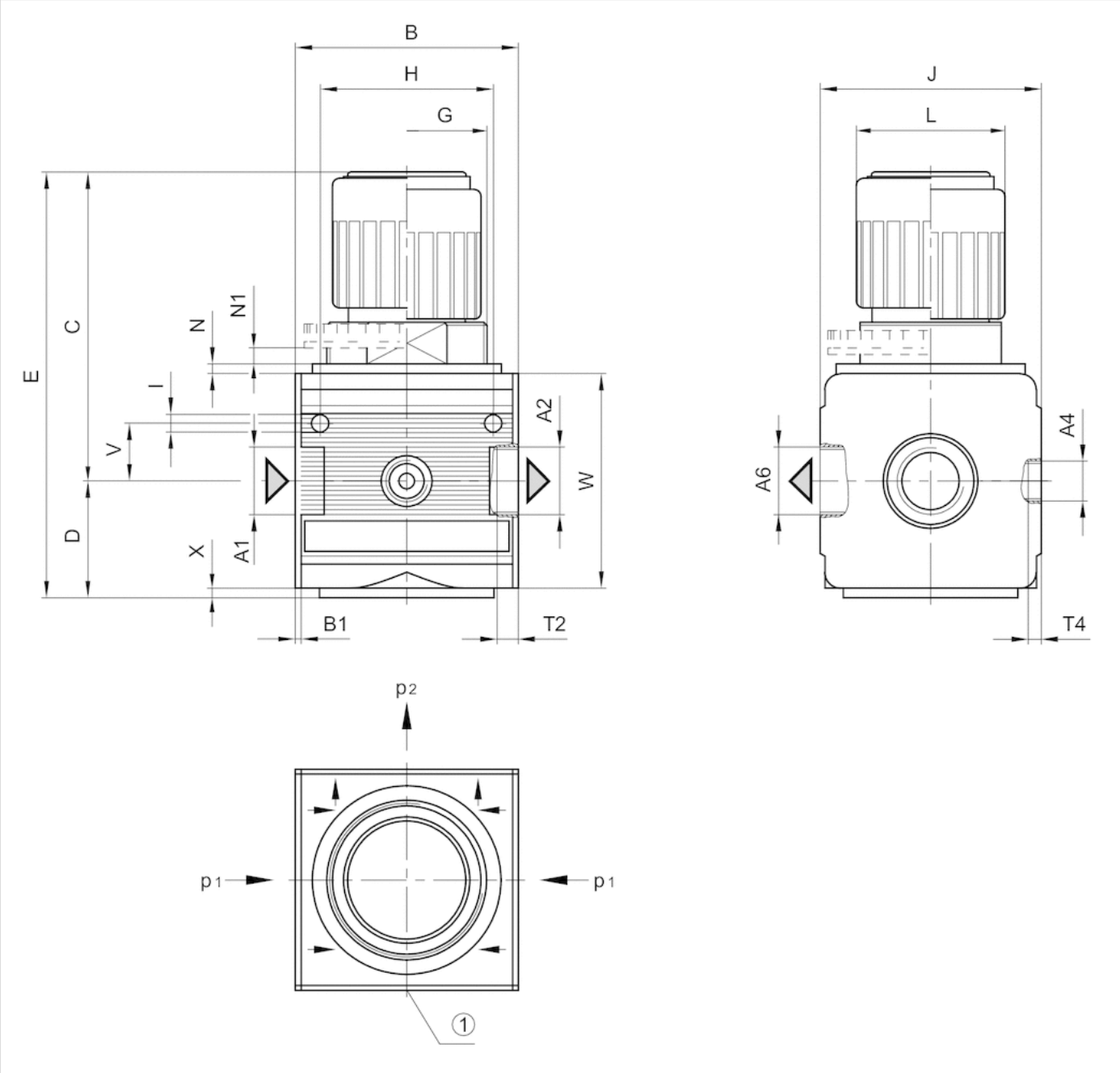
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



A1 = input
A2 = output
A4 = pressure gauge connection

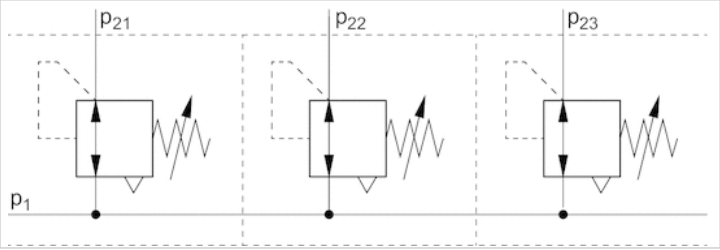
A6 = ventilation port
1) pressure gauge connection
p1 = working pressure
p2 = secondary pressure

Dimensions in mm

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

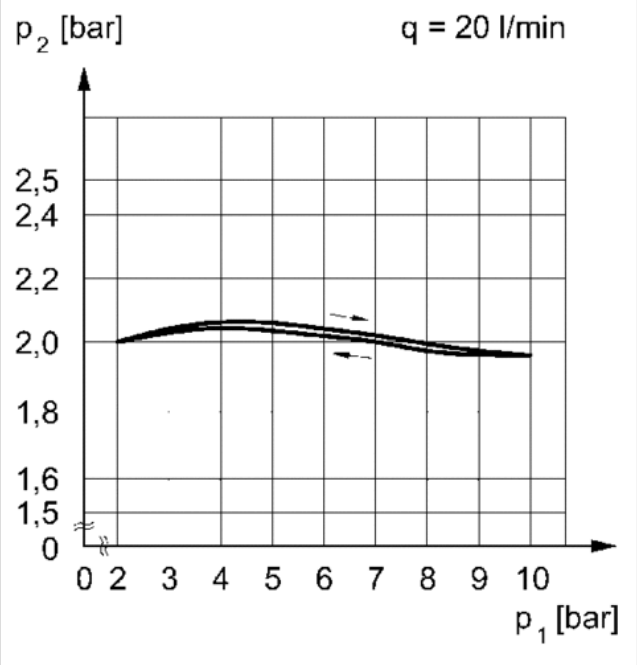
Diagrams

Application example



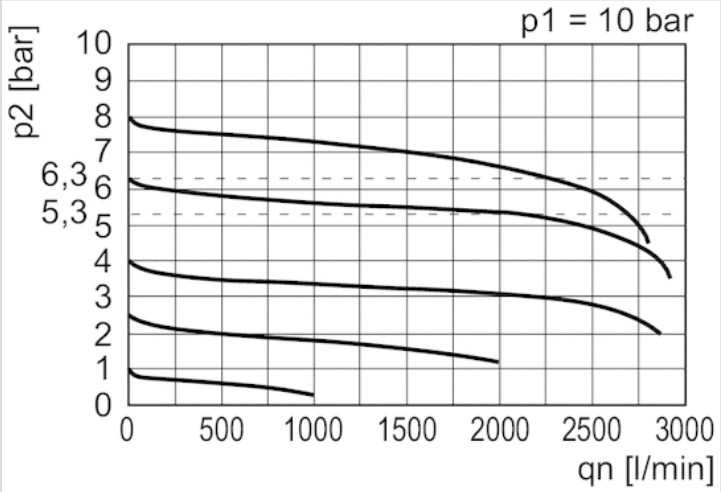
p1 = working pressure

Pressure characteristics curve



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

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



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

Pressure regulator, Series NL2-RGS

- G 1/4, G 3/8
- Qn = 2.03 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
0821302404			G 1/4	2.03 Cv	2 ... 43 psi	with pressure gauge
0821302560			G 1/4	2.03 Cv	3 ... 87 psi	with pressure gauge
0821302400			G 1/4	2.03 Cv	8 ... 145 psi	with pressure gauge
0821302405		–	G 1/4	2.03 Cv	2 ... 43 psi	-
0821302406		–	G 1/4	2.03 Cv	3 ... 87 psi	-
0821302401		–	G 1/4	2.03 Cv	8 ... 145 psi	-
0821302451			G 3/8	2.03 Cv	2 ... 43 psi	with pressure gauge
0821302452			G 3/8	2.03 Cv	3 ... 87 psi	with pressure gauge
0821302440			G 3/8	2.03 Cv	8 ... 145 psi	with pressure gauge
0821302444		–	G 3/8	2.03 Cv	2 ... 43 psi	-
0821302453		–	G 3/8	2.03 Cv	3 ... 87 psi	-
0821302441		–	G 3/8	2.03 Cv	8 ... 145 psi	-

Part No.	Weight
0821302404	0.904 lbs
0821302560	0.904 lbs
0821302400	0.904 lbs
0821302405	0.716 lbs
0821302406	0.716 lbs
0821302401	0.716 lbs
0821302451	0.904 lbs
0821302452	0.904 lbs
0821302440	0.904 lbs

Part No.	Weight
0821302444	0.716 lbs
0821302453	0.716 lbs
0821302441	0.716 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)

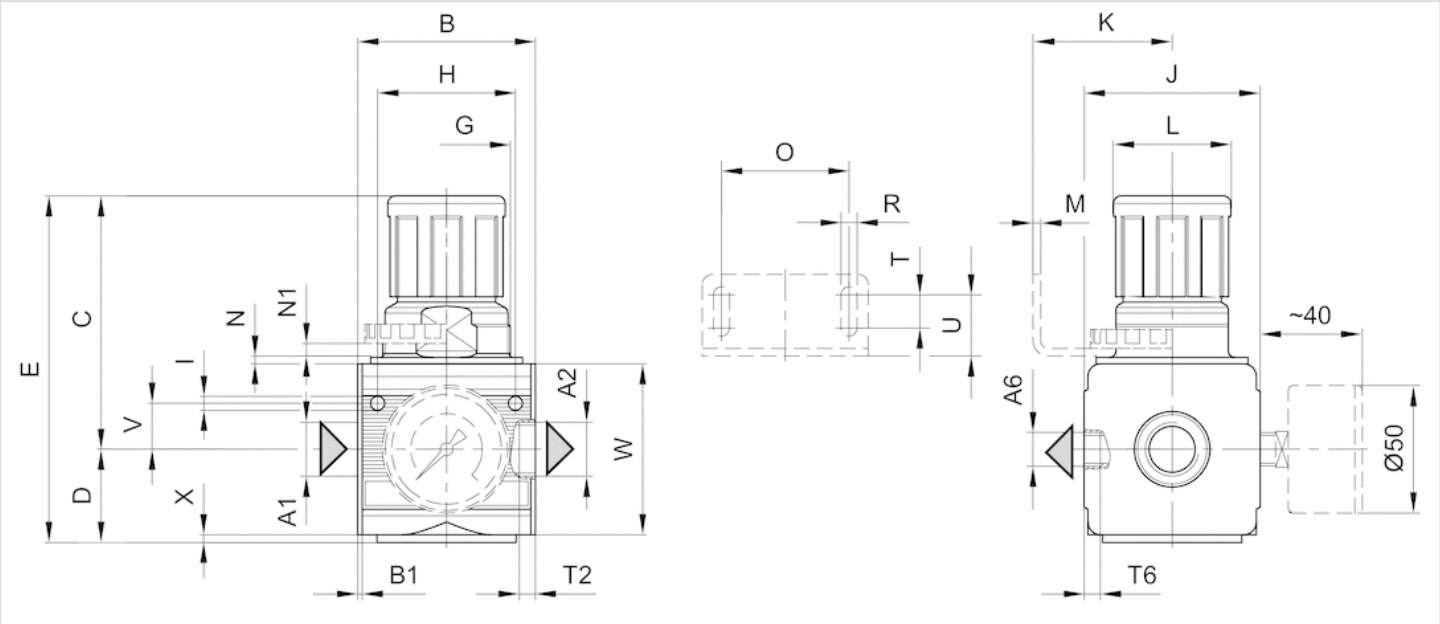
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



A1 = input

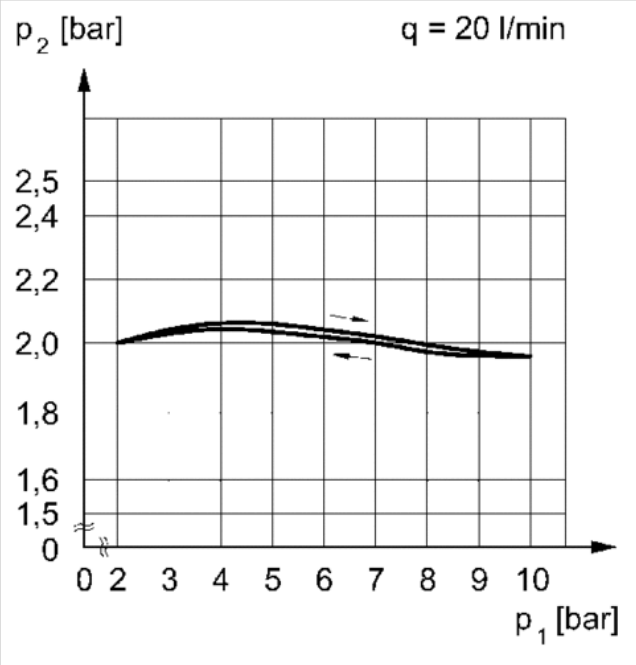
A2 = output
A6 = output

Dimensions in mm

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

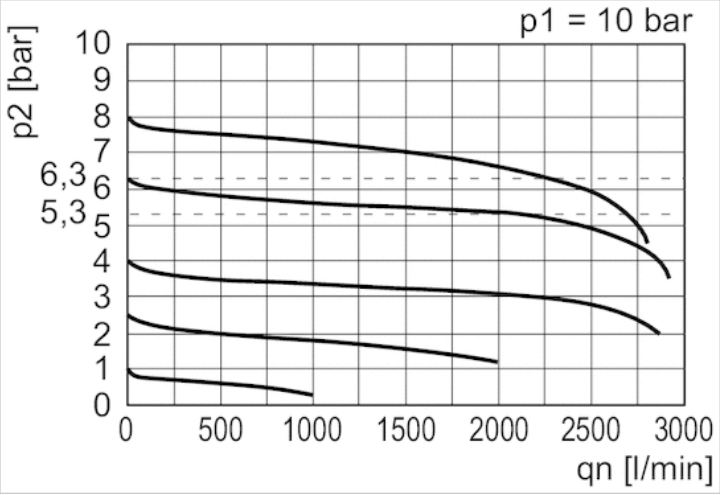
Diagrams

Pressure characteristics curve



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

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

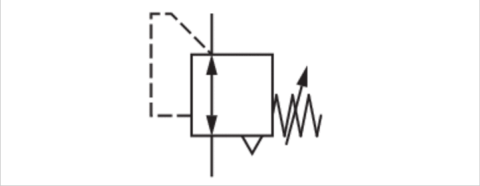


p1 = Working pressure

p2 = Secondary pressure
qn = Nominal flow

Pressure regulator, Series NL2-RGS

- G 1/4
- Qn = 2.03 Cv
- Standard pressure regulator
- Activation Mechanical
- - 86 °F cold-resistant



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	-22 ... 140 °F
Medium temperature min./max.	-22 ... 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	0.716 lbs

Technical data

Part No.	Port	Flow	Adjustment range min./max.
		Qn	
0821302107	G 1/4	2.03 Cv	8 ... 145 psi
R412007613	G 1/4	2.03 Cv	2 ... 43 psi

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

Order pressure gauge separately

Technical information

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

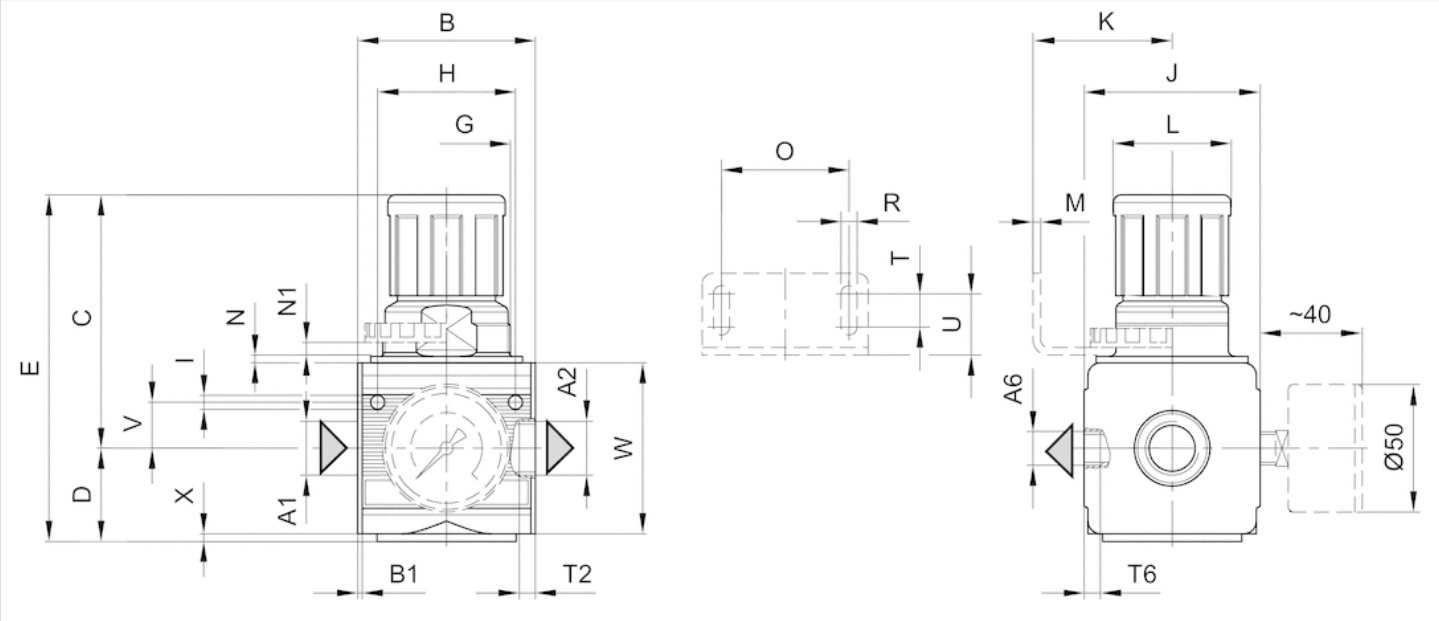
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



A1 = input
A2 = output
A6 = output

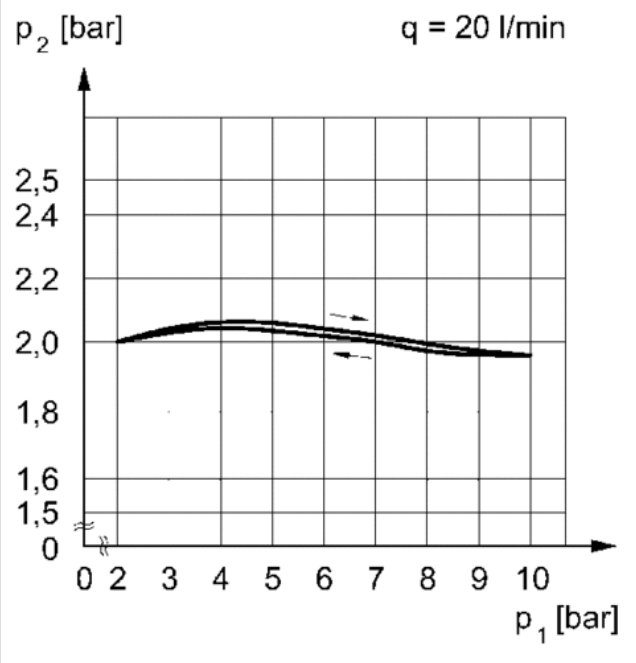
Dimensions in mm

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

V	W	X
12.3	52	1

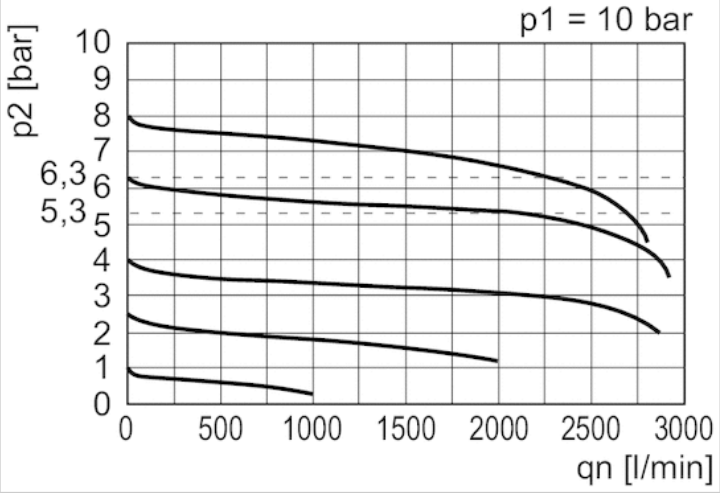
Diagrams

Pressure characteristics curve



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

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



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

Pressure regulator, Series NL2-RGS

- G 1/4, G 3/8
- Qn = 2.03 Cv
- Standard pressure regulator
- Activation Mechanical
- lockable
- with key
- suitable for ATEX

Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	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
Lock type	with key
Pressure supply	single
Activation	Mechanical
Weight	See table below

Technical data

Part No.			Port	Flow Qn	Adjustment range min./max.	Pressure gauge
0821302410			G 1/4	2.03 Cv	2 ... 43 psi	with pressure gauge
0821302561			G 1/4	2.03 Cv	3 ... 87 psi	with pressure gauge
0821302402			G 1/4	2.03 Cv	8 ... 145 psi	with pressure gauge
0821302562		–	G 1/4	2.03 Cv	2 ... 43 psi	-
0821302407		–	G 1/4	2.03 Cv	3 ... 87 psi	-
0821302403		–	G 1/4	2.03 Cv	8 ... 145 psi	-
0821302454			G 3/8	2.03 Cv	2 ... 43 psi	with pressure gauge
0821302455			G 3/8	2.03 Cv	3 ... 87 psi	with pressure gauge
0821302442			G 3/8	2.03 Cv	8 ... 145 psi	with pressure gauge
0821302456		–	G 3/8	2.03 Cv	2 ... 43 psi	-
0821302457		–	G 3/8	2.03 Cv	3 ... 87 psi	-
0821302443		–	G 3/8	2.03 Cv	8 ... 145 psi	-

Part No.	Weight
0821302410	0.904 lbs
0821302561	0.904 lbs
0821302402	0.904 lbs
0821302562	0.716 lbs
0821302407	0.716 lbs
0821302403	0.716 lbs

Part No.	Weight
0821302454	0.904 lbs
0821302455	0.904 lbs
0821302442	0.904 lbs
0821302456	0.716 lbs
0821302457	0.716 lbs
0821302443	0.716 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)

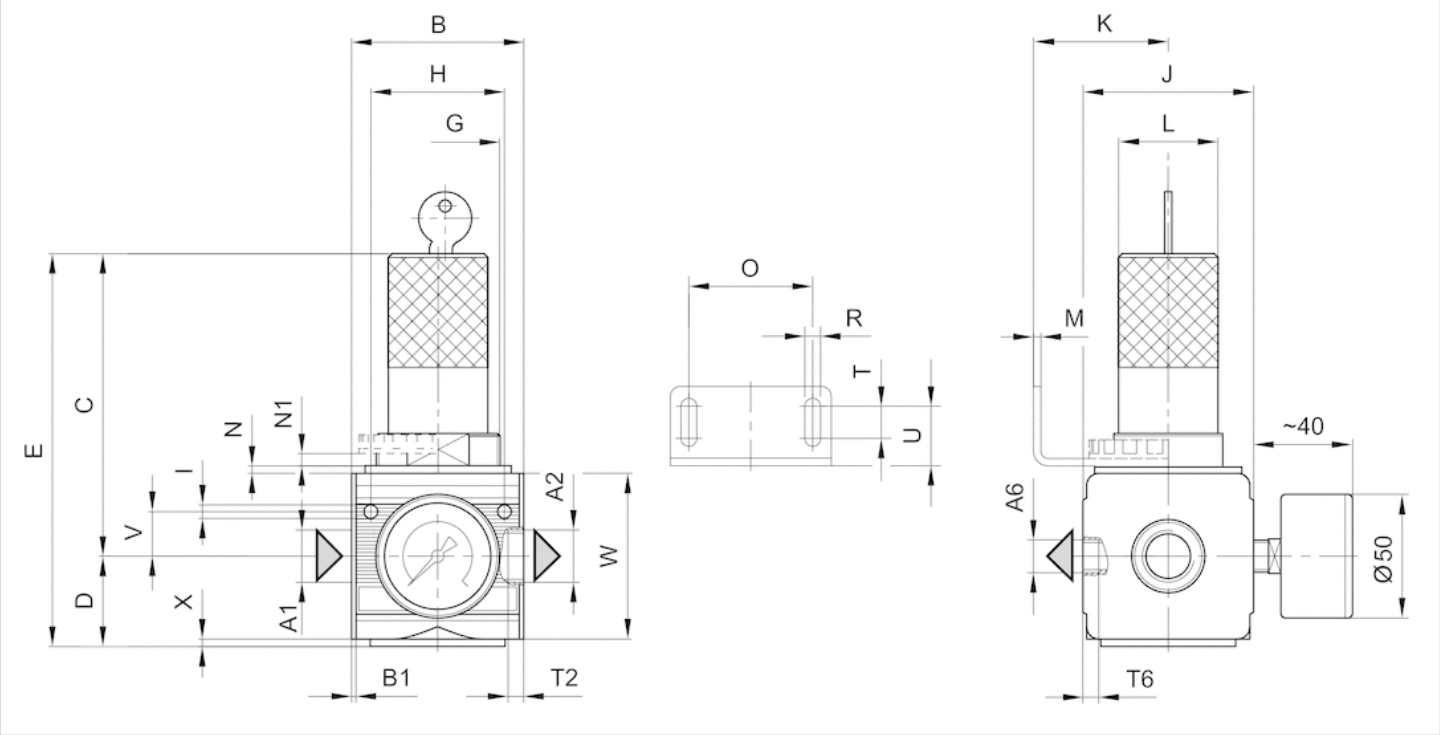
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



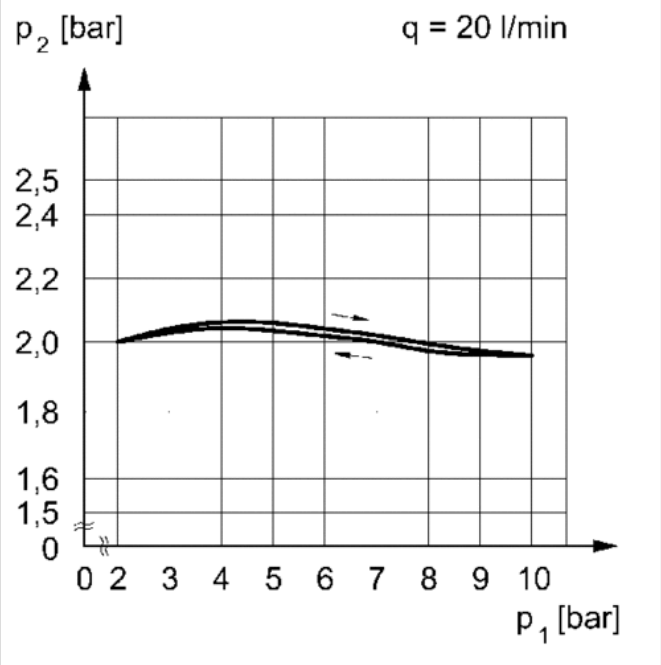
A1 = input
A2 = output
A6 = output

Dimensions in mm

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

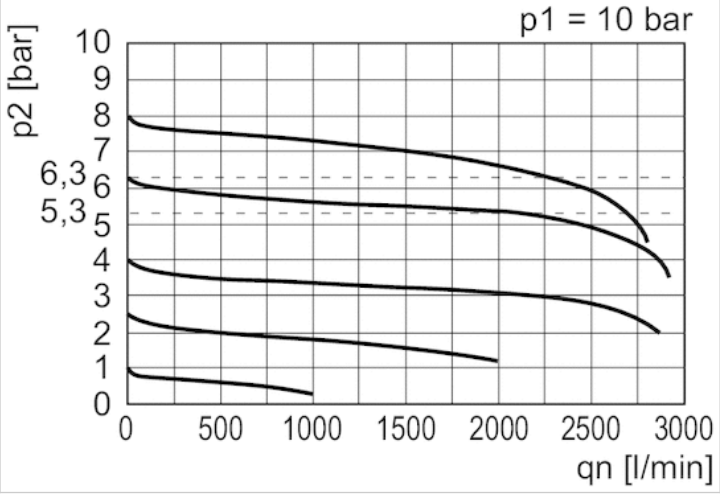
Diagrams

Pressure characteristics curve



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

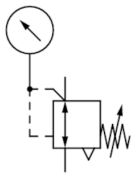
Flow rate characteristic (setting range p2: 0.5 - 10 bar)



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

Pressure regulator, Series NL2-RGS

- G 1/4
- Qn = 2.03 Cv
- Standard pressure regulator
- Activation Mechanical
- with pressure gauge in hand wheel
- suitable for ATEX



Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	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	0.882 lbs

Technical data

Part No.		Port	Flow Qn	Adjustment range min./max.	Pressure gauge
0821302557		G 1/4	2.03 Cv	2 ... 43 psi	with pressure gauge in hand wheel
0821302559		G 1/4	2.03 Cv	3 ... 87 psi	with pressure gauge in hand wheel
0821302558		G 1/4	2.03 Cv	8 ... 145 psi	with pressure gauge in hand wheel

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi, Panel nut included in scope of delivery

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

Technical information

The pressure dew point must be at least 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)

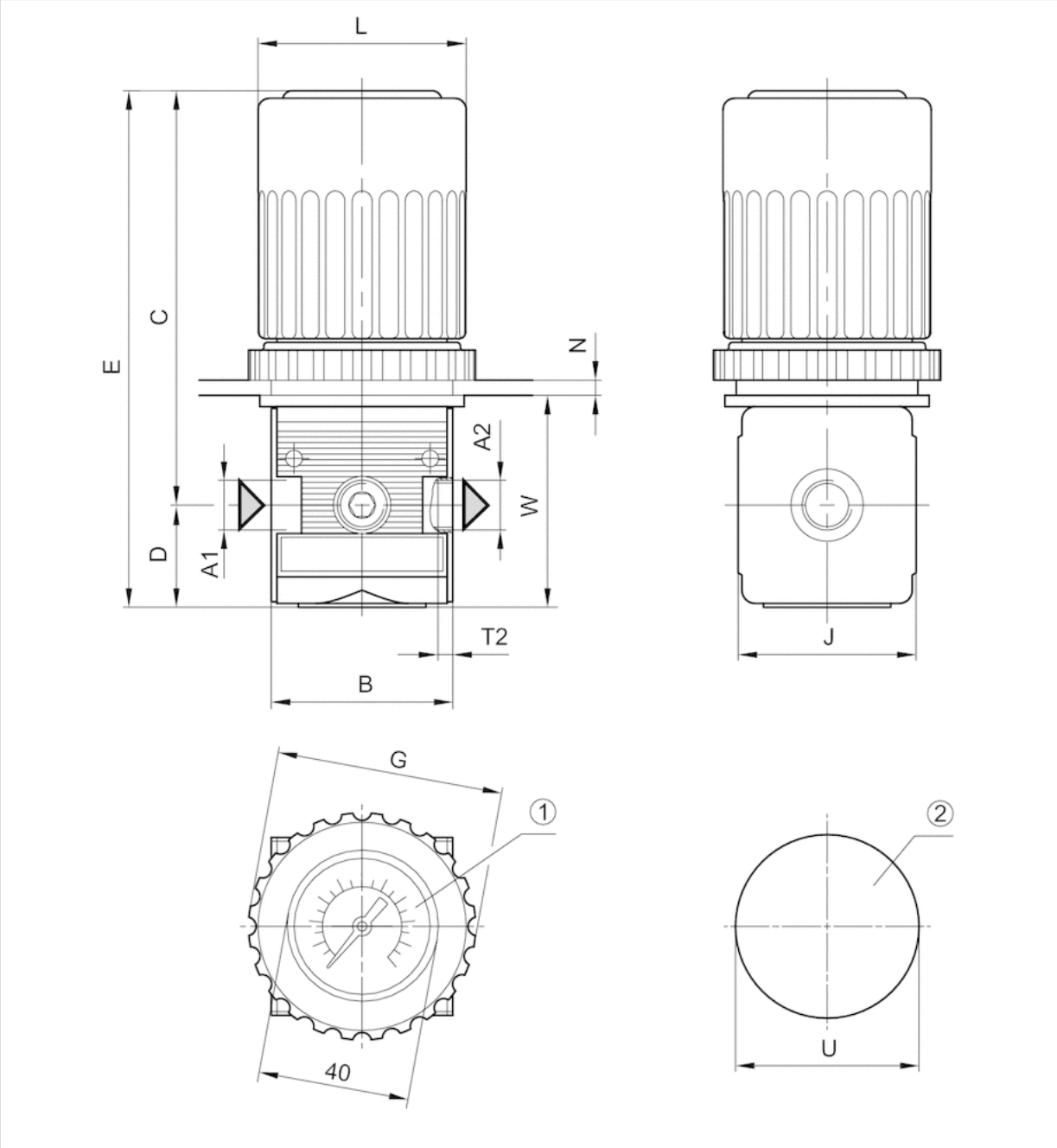
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



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

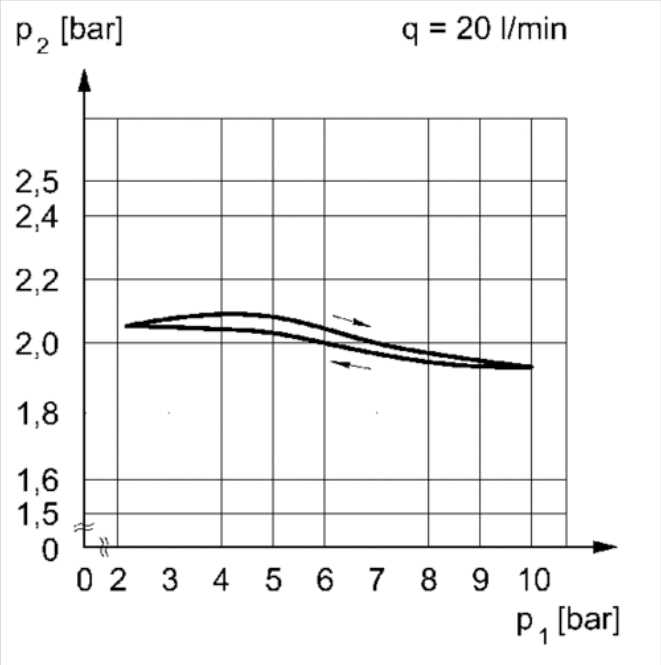
2) opening for control panel assembly

Dimensions in mm

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

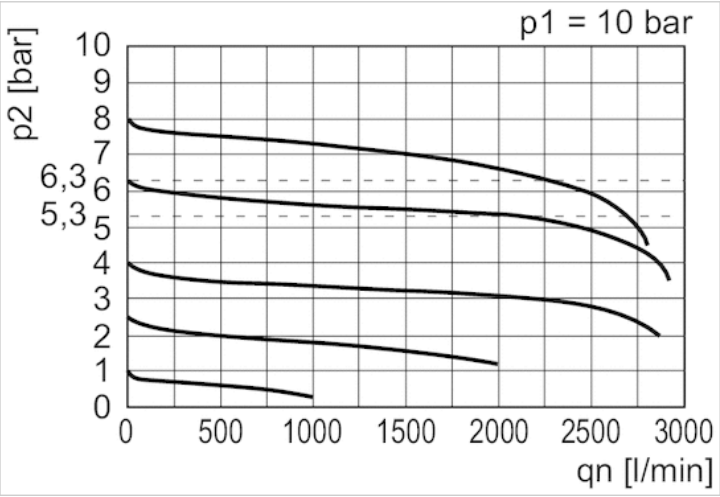
Diagrams

Pressure characteristics curve



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

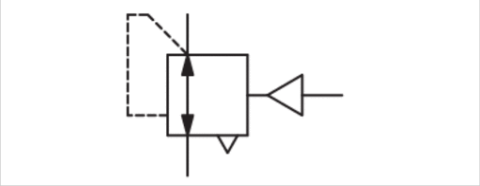
Flow rate characteristic (setting range p2: 0.5 - 10 bar)



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

Pressure regulator, Series NL2-RGS

- G 1/4, G 3/8
- Qn = 2.03 Cv
- Standard pressure regulator
- Activation Pneumatically
- suitable for ATEX



Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	8 ... 232 psi
Control pressure max.	145 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.	8 ... 145 psi
Pressure supply	single
Activation	Pneumatically
Weight	0.716 lbs

Technical data

Part No.	Port	Flow
		Qn
R412004950	G 1/4	2.03 Cv
R412004951	G 3/8	2.03 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 .
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)

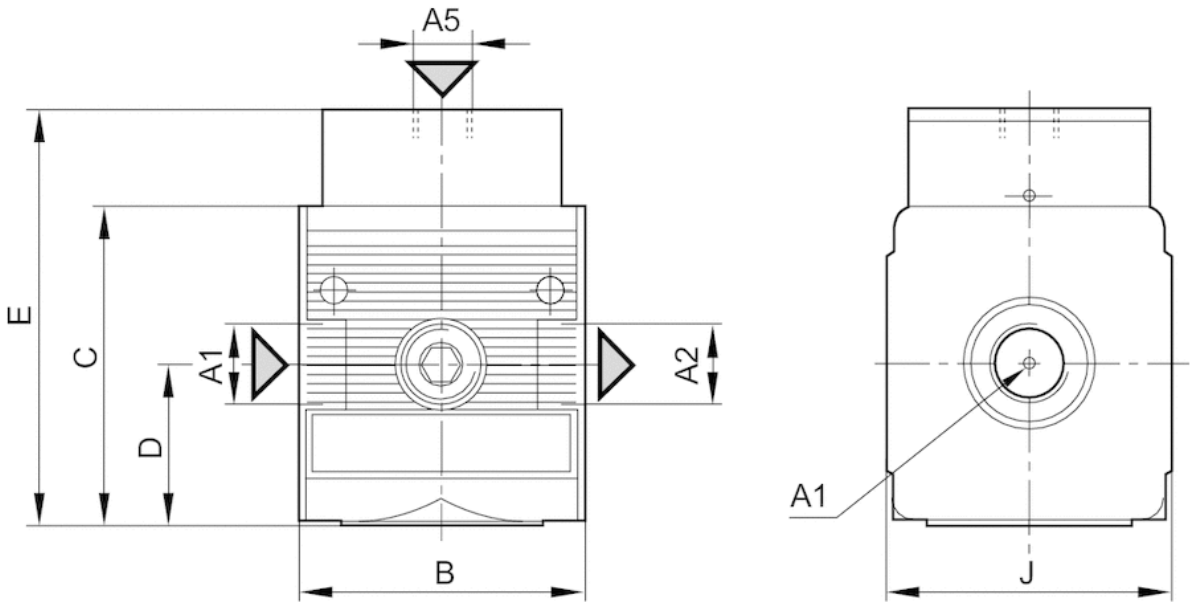
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



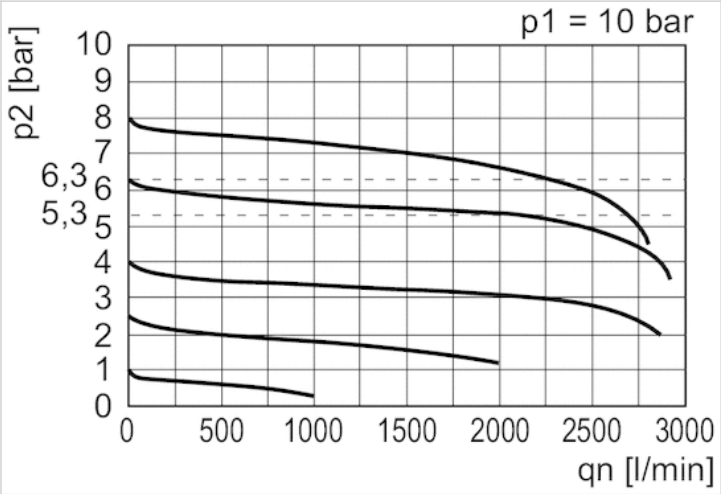
A1 = input
A2 = output
A5 = control pressure connection

Dimensions in mm

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

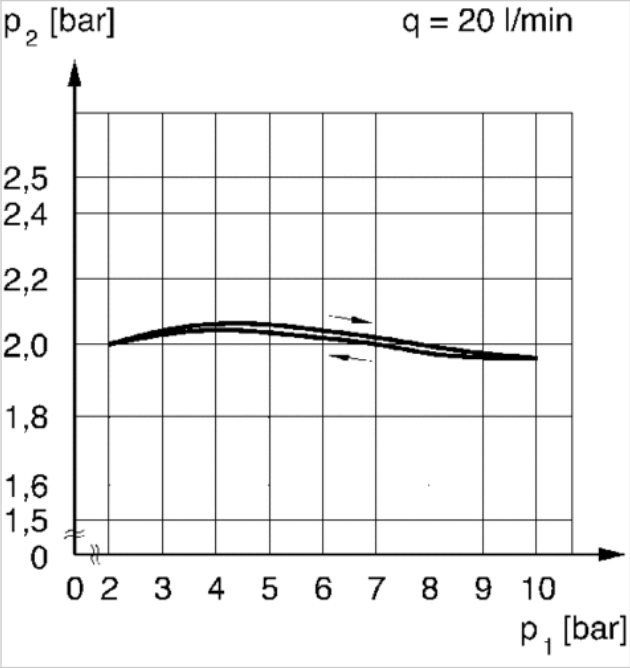
Diagrams

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



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

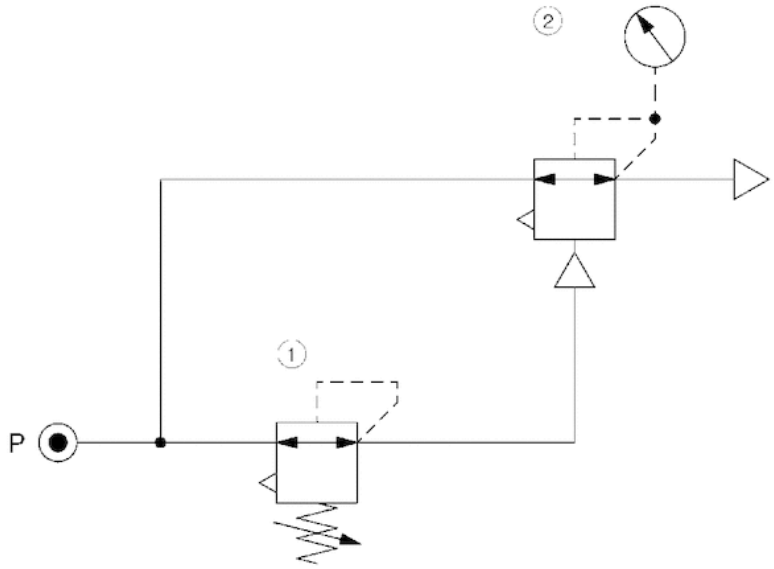
Pressure characteristics curve



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

Circuit diagram

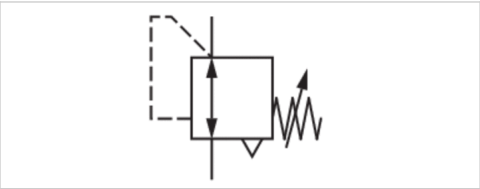
Application example



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

Precision pressure regulator, Series NL2-RGP

- G 1/4
- Qn = 1.52 Cv
- Precision pressure regulator
- Activation Mechanical
- suitable for ATEX



Parts	Precision 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
Internal air consumption q,max.	0 Cv
Weight	0.716 lbs

Technical data

Part No.	Port	Flow	Adjustment range min./max.
		Qn	
0821302515	G 1/4	1.52 Cv	2 ... 43 psi
0821302516	G 1/4	1.52 Cv	3 ... 87 psi
0821302517	G 1/4	1.52 Cv	8 ... 145 psi

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.

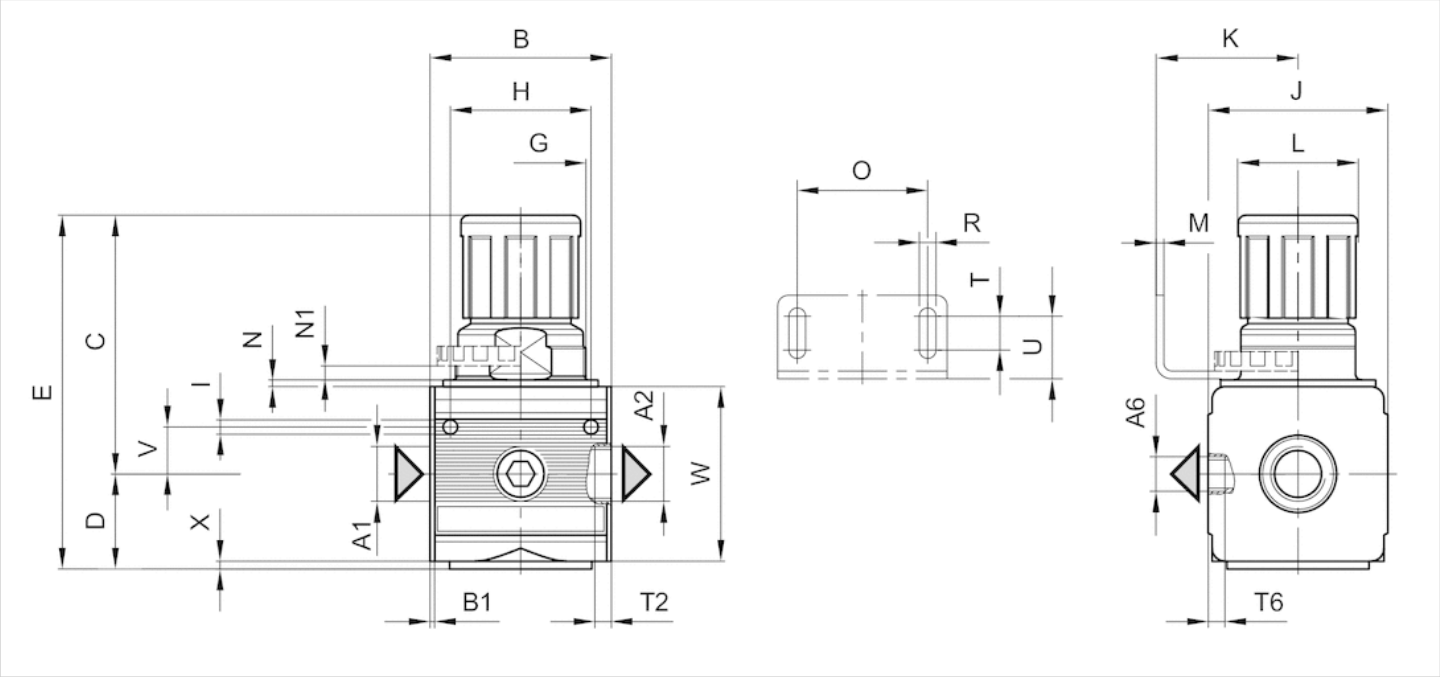
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



A1 = input
A2 = output
A6 = output

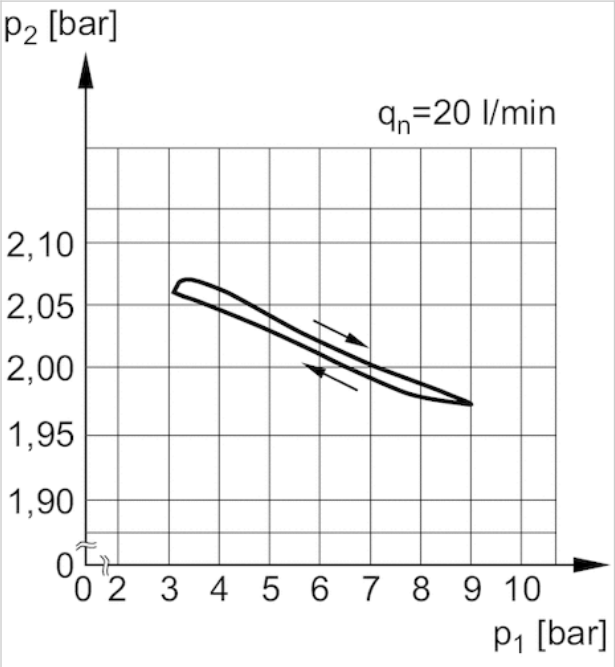
Dimensions in mm

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

V	W	X
12.3	52	1

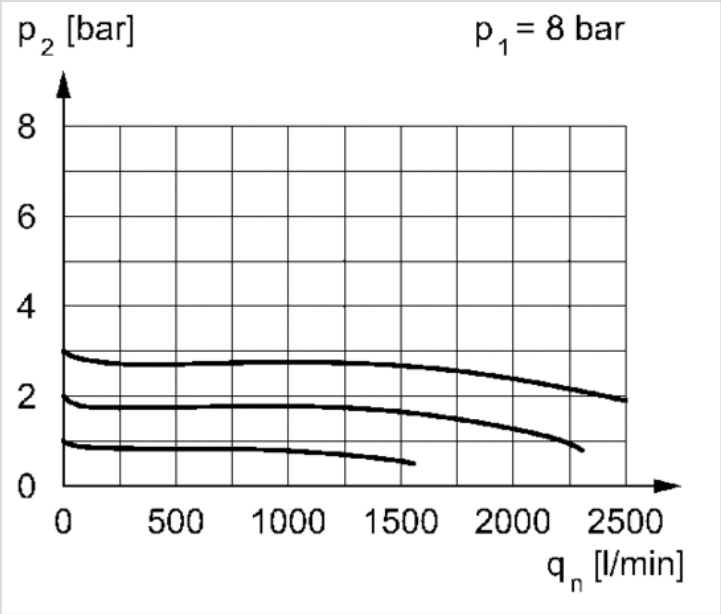
Diagrams

Pressure characteristics curve



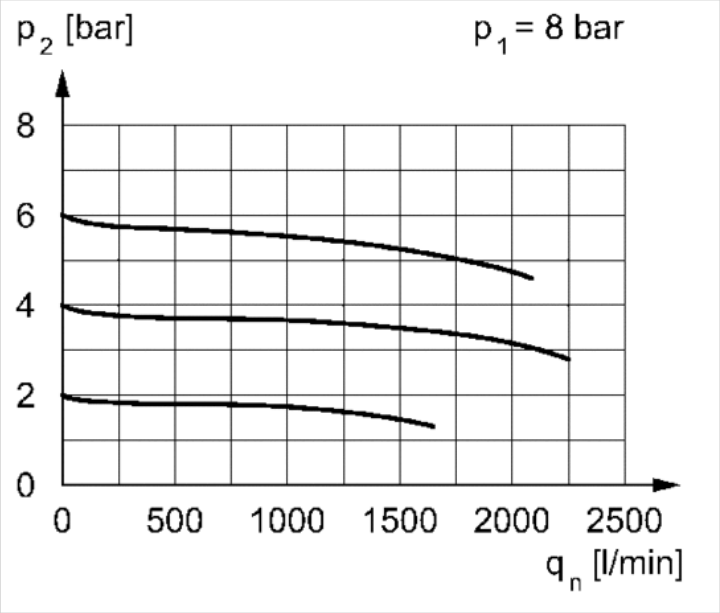
p1 = working pressure
p2 = secondary pressure
q = flow rate

Flow rate characteristic



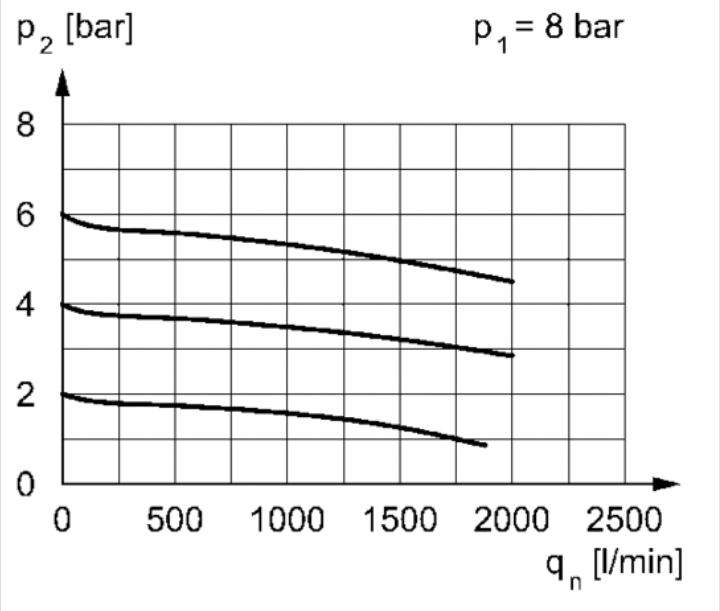
p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow
p2 = 0,1 - 3 bar

Flow rate characteristic



p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow
p2 = 0,2 - 6 bar

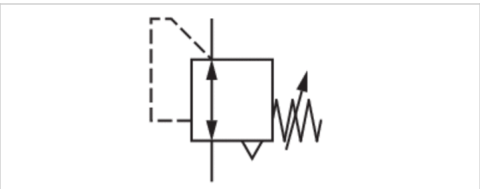
Flow rate characteristic



p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow
p2 = 0,5 - 10 bar

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

- G 1/4
- Qn = 1.52 Cv
- Precision pressure regulator
- Activation Mechanical
- with continuous pressure supply
- suitable for ATEX



Parts	Precision 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
Activation	Mechanical
Internal air consumption q,max.	0 Cv
Weight	0.716 lbs

Technical data

Part No.	Port	Flow	Adjustment range min./max.	Max. pressure gauge Ø in blocked state
		Qn		
0821302527	G 1/4	1.52 Cv	2 ... 43 psi	50 mm
0821302528	G 1/4	1.52 Cv	3 ... 87 psi	50 mm
0821302529	G 1/4	1.52 Cv	8 ... 145 psi	50 mm

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

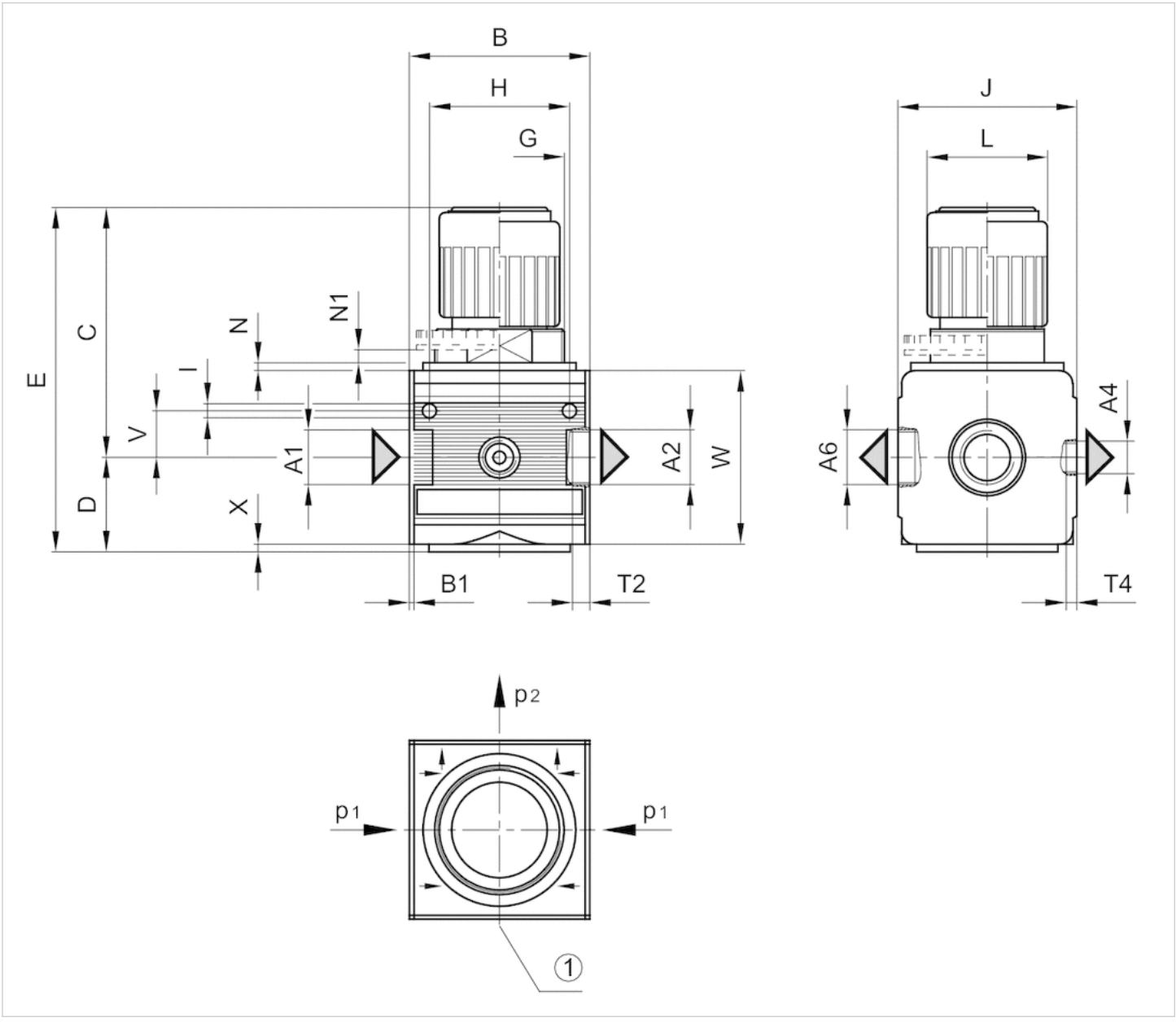
Recommended pre-filtering 5 µm

Technical information

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

Dimensions

Dimensions



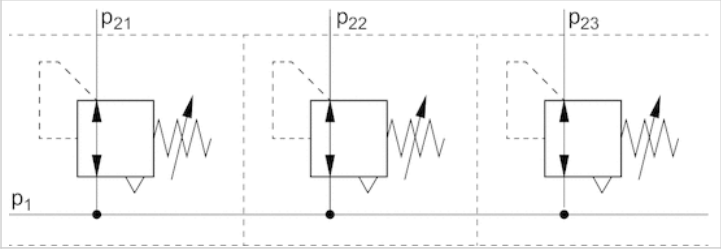
A1 = input
A2 = output
A6 = output
1) pressure gauge connection
p1 = working pressure
p2 = secondary pressure

Dimensions in mm

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

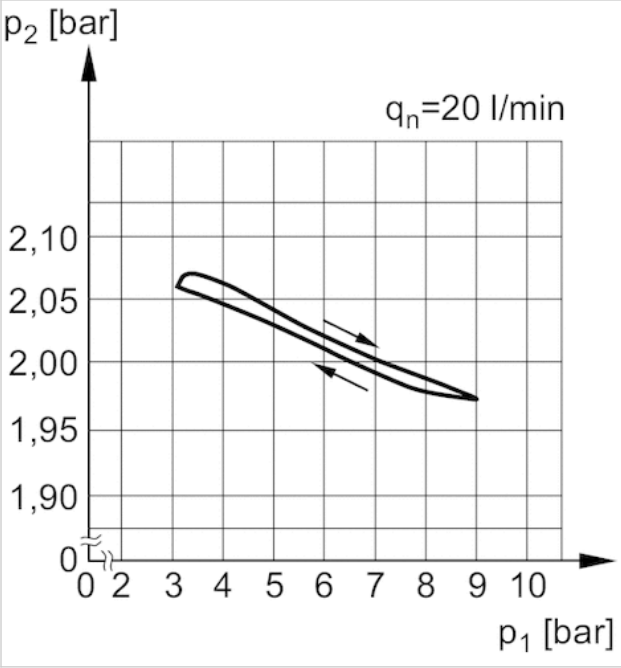
Diagrams

Application example



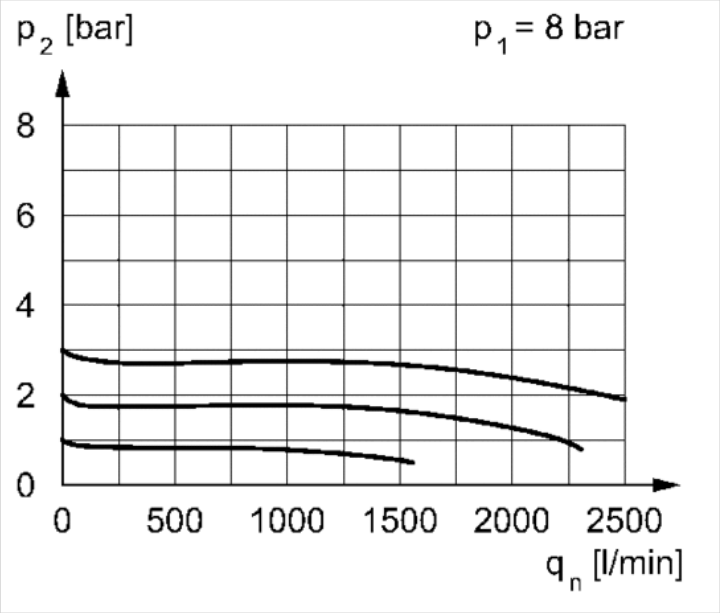
p1 = working pressure

Pressure characteristics curve



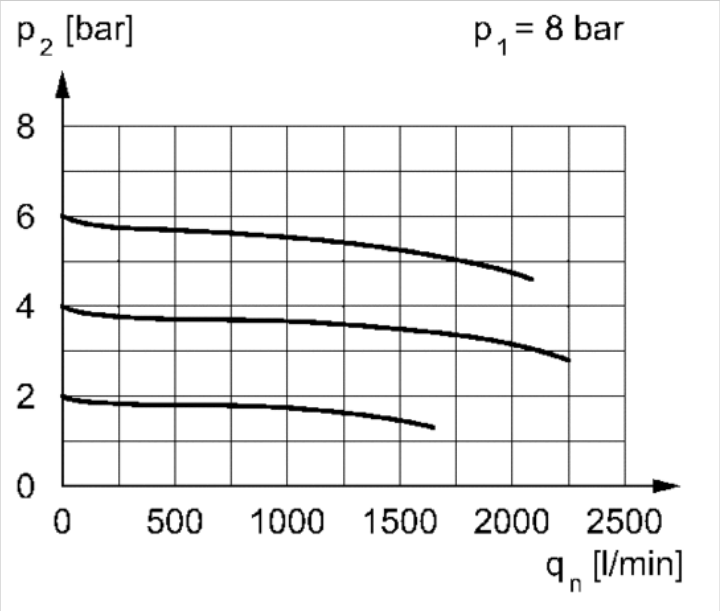
p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow

Flow rate characteristic



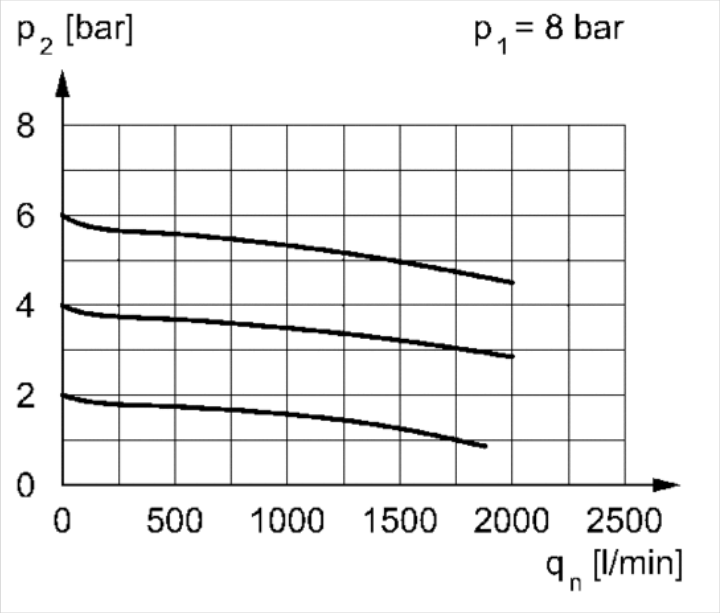
p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow
p2 = 0,1 - 3 bar

Flow rate characteristic



p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow
p2 = 0,2 - 6 bar

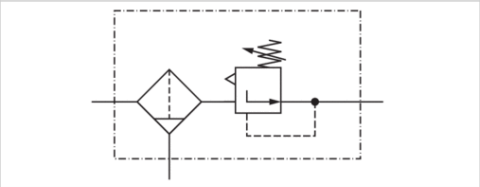
Flow rate characteristic



p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow
p2 = 0,5 - 10 bar

Filter pressure regulator, Series NL2-FRE

- G 1/4, G 3/8
- 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.	29 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	1.68 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	0.85 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Condensate drain	Reservoir	Weight
0821300316	G 1/4	1.68 Cv	semi-automatic, open without pressure	Polycarbonate	1.19 lbs
0821300275	G 1/4	1.68 Cv	semi-automatic, open without pressure	Die cast zinc	1.58 lbs
0821300347	G 1/4	1.68 Cv	fully automatic, open without pressure	Polycarbonate	1.26 lbs
0821300343	G 3/8	1.68 Cv	semi-automatic, open without pressure	Polycarbonate	1.19 lbs

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

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

Technical information

The pressure dew point must be at least 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
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.

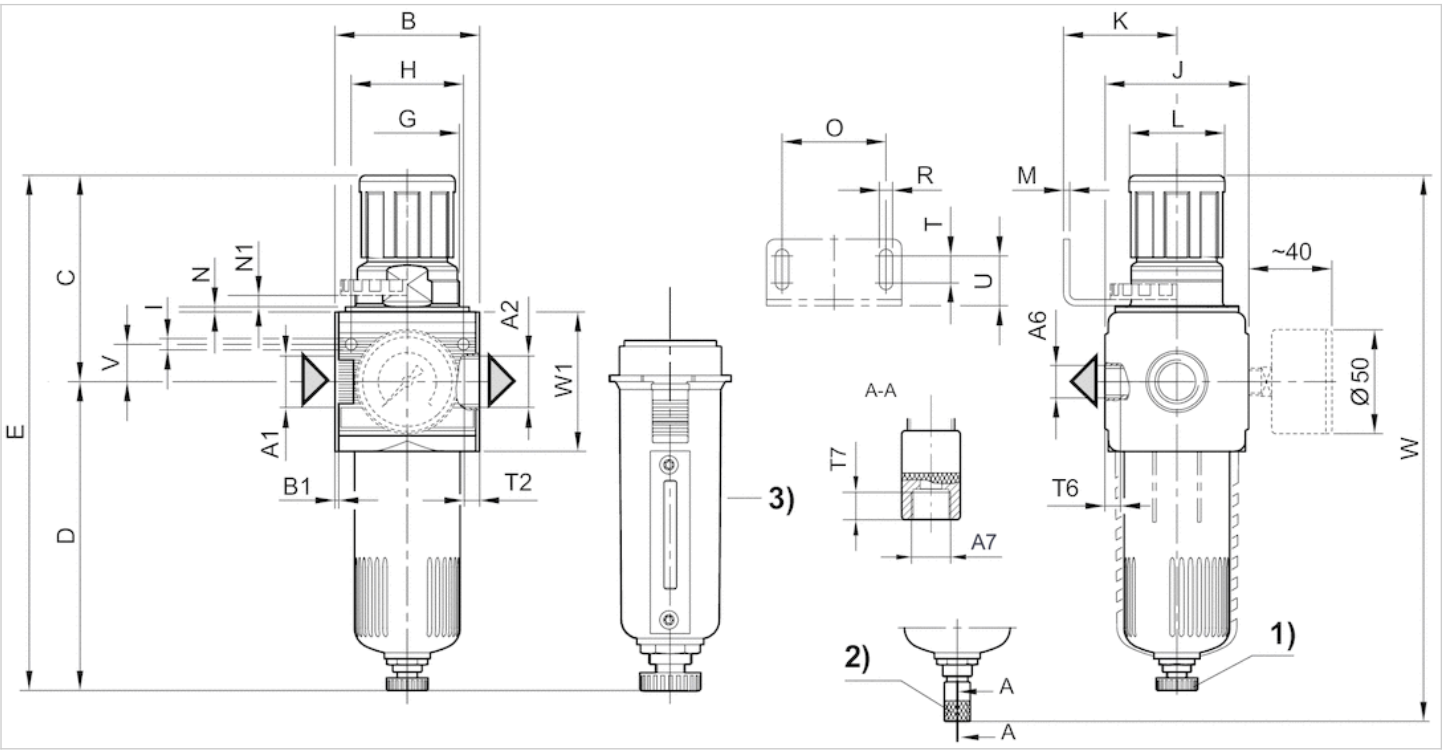
Compressed air class 6 : 7 : -

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
A6 = output
A7 = condensate drain
1) Semi-automatic condensate drain
2) fully automatic condensate drain
3) Metal reservoir with level indicator

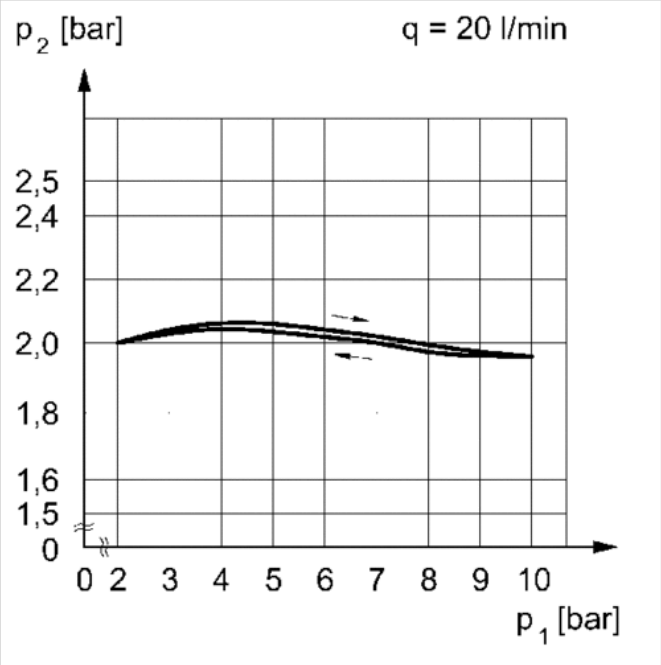
Dimensions in mm

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

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

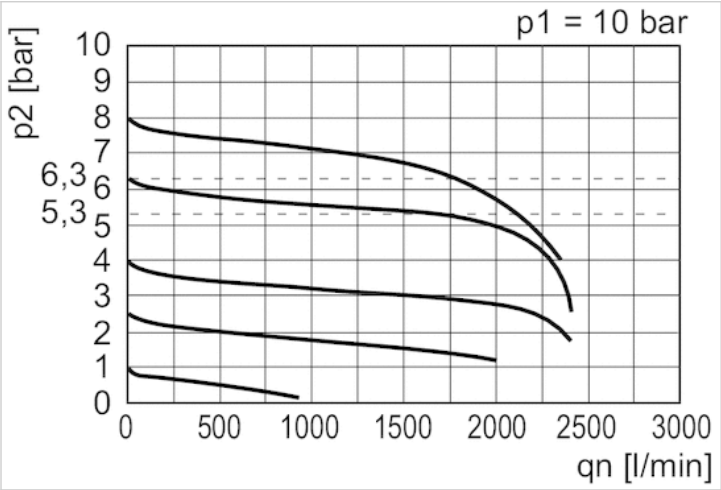
Diagrams

Pressure characteristics curve



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

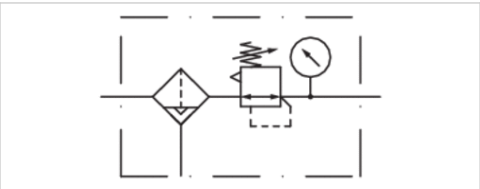
Flow rate characteristic



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

Filter pressure regulator, Series NL2-FRE

- G 1/4, G 3/8
- with pressure gauge
- 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.	29 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	1.68 Cv
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Filter reservoir volume	0.85 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below

Technical data

Part No.		Port	Flow	Adjustment range min./max.
			Qn	
0821300300		G 1/4	1.68 Cv	8 ... 145 psi
0821300301		G 1/4	1.68 Cv	8 ... 145 psi
0821300302		G 1/4	1.68 Cv	8 ... 145 psi
0821300303		G 1/4	1.68 Cv	8 ... 145 psi
0821300304		G 1/4	1.68 Cv	8 ... 145 psi
0821300305		G 1/4	1.68 Cv	8 ... 145 psi
0821300307		G 1/4	1.68 Cv	2 ... 43 psi
0821300308		G 1/4	1.68 Cv	3 ... 87 psi
0821300330		G 3/8	1.68 Cv	8 ... 145 psi
0821300331		G 3/8	1.68 Cv	8 ... 145 psi
0821300332		G 3/8	1.68 Cv	8 ... 145 psi
0821300333		G 3/8	1.68 Cv	8 ... 145 psi
0821300334		G 3/8	1.68 Cv	8 ... 145 psi
0821300335		G 3/8	1.68 Cv	8 ... 145 psi

Part No.	Condensate drain	Reservoir	Protective guard	Weight
0821300300	semi-automatic, open without pressure	Polycarbonate	-	1.19 lbs
0821300301	semi-automatic, open without pressure	Polycarbonate	Steel	1.19 lbs
0821300302	semi-automatic, open without pressure	Die cast zinc	-	1.58 lbs
0821300303	fully automatic, open without pressure	Polycarbonate	-	1.26 lbs

Part No.	Condensate drain	Reservoir	Protective guard	Weight
0821300304	fully automatic, open without pressure	Polycarbonate	Steel	1.35 lbs
0821300305	fully automatic, open without pressure	Die cast zinc	-	1.65 lbs
0821300307	semi-automatic, open without pressure	Polycarbonate	-	1.19 lbs
0821300308	semi-automatic, open without pressure	Polycarbonate	-	1.19 lbs
0821300330	semi-automatic, open without pressure	Polycarbonate	-	1.19 lbs
0821300331	semi-automatic, open without pressure	Polycarbonate	Steel	1.29 lbs
0821300332	semi-automatic, open without pressure	Die cast zinc	-	1.58 lbs
0821300333	fully automatic, open without pressure	Polycarbonate	-	1.26 lbs
0821300334	fully automatic, open without pressure	Polycarbonate	Steel	1.35 lbs
0821300335	fully automatic, open without pressure	Die cast zinc	-	1.65 lbs

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

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

Technical information

The pressure dew point must be at least 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
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.

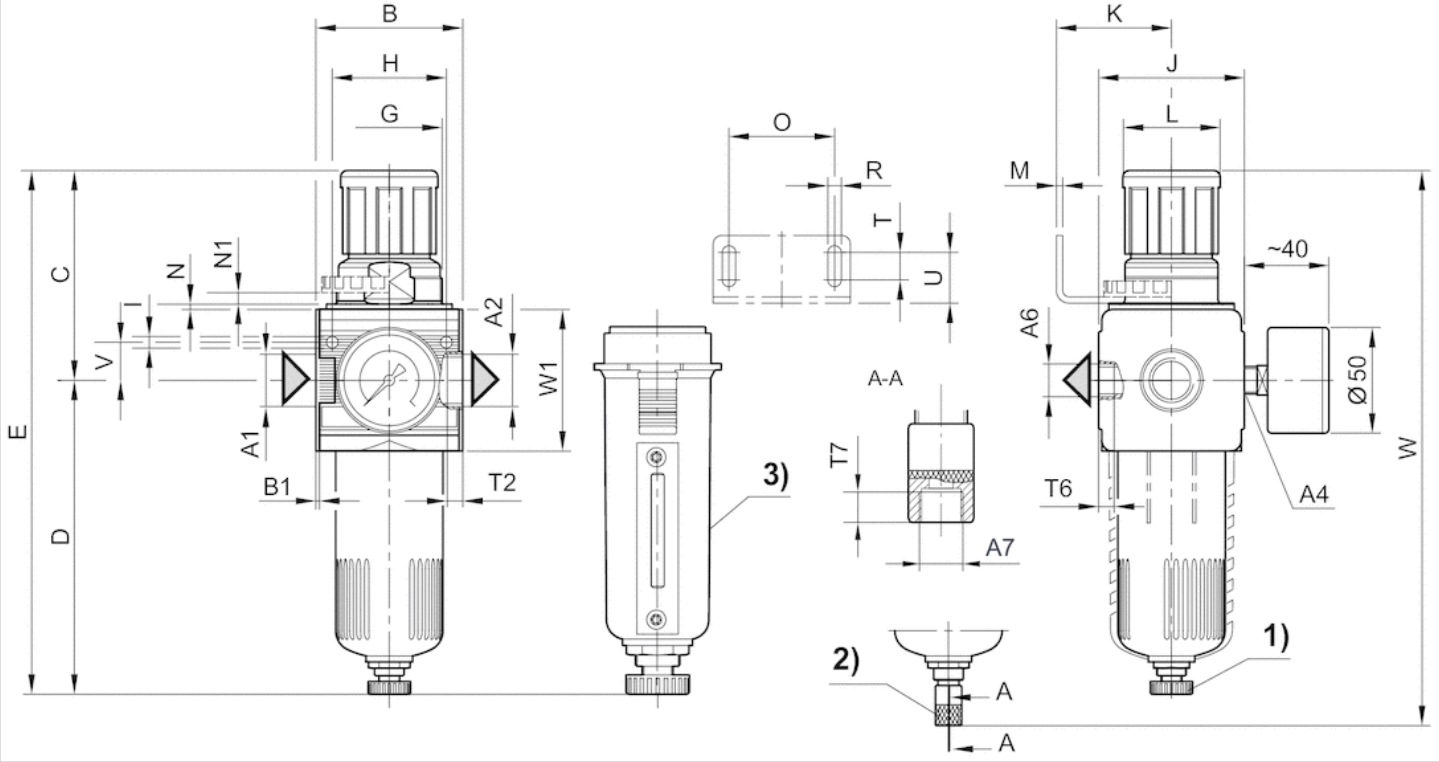
Compressed air class 6 : 7 : -

Technical information

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

Dimensions

Dimensions



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

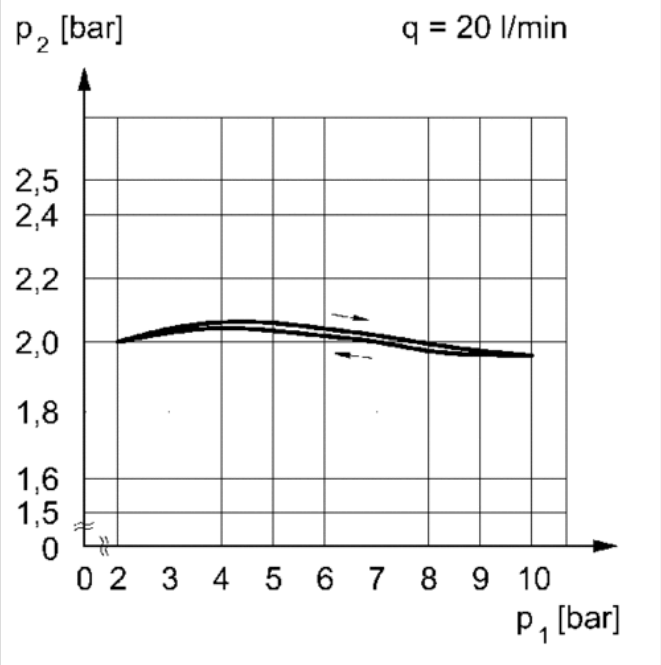
Dimensions in mm

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

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

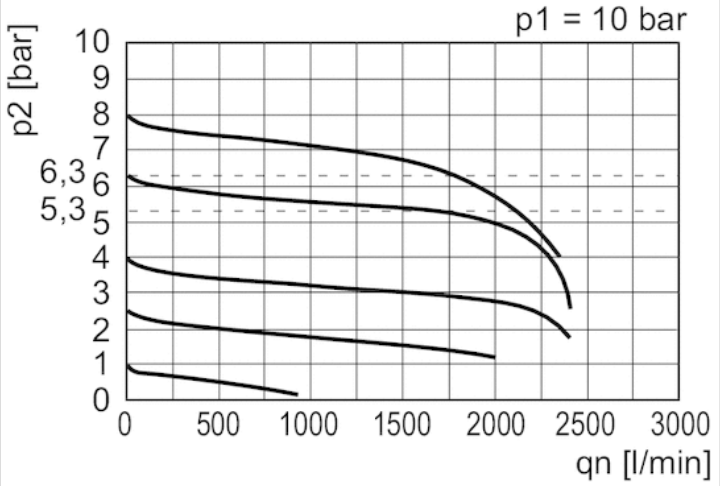
Diagrams

Pressure characteristics curve



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

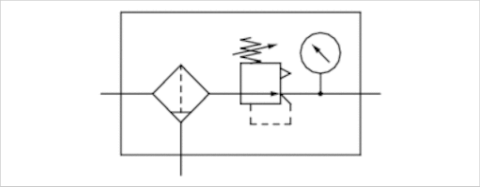
Flow rate characteristic



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

Filter pressure regulator, Series NL2-FRE

- G 1/4, G 3/8
- lockable
- with key
- with pressure gauge
- 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.	29 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Nominal flow Qn	1.68 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	0.85 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below

Technical data

Part No.		Port	Flow Qn	Condensate drain	Reservoir
0821300306		G 1/4	1.68 Cv	semi-automatic, open without pressure	Polycarbonate
0821300220		G 1/4	1.68 Cv	semi-automatic, open without pressure	Polycarbonate
0821300221		G 1/4	1.68 Cv	semi-automatic, open without pressure	Die cast zinc
0821300312		G 1/4	1.68 Cv	fully automatic, open without pressure	Polycarbonate
0821300222		G 1/4	1.68 Cv	fully automatic, open without pressure	Polycarbonate
0821300223		G 1/4	1.68 Cv	fully automatic, open without pressure	Die cast zinc
0821300336		G 3/8	1.68 Cv	semi-automatic, open without pressure	Polycarbonate
0821300224		G 3/8	1.68 Cv	semi-automatic, open without pressure	Polycarbonate
0821300226		G 3/8	1.68 Cv	fully automatic, open without pressure	Polycarbonate
0821300228		G 3/8	1.68 Cv	fully automatic, open without pressure	Die cast zinc

Part No.	Protective guard	Weight
0821300306	-	1.32 lbs
0821300220	Steel	1.41 lbs
0821300221	-	1.71 lbs
0821300312	-	1.38 lbs
0821300222	Steel	1.48 lbs
0821300223	-	1.78 lbs

Part No.	Protective guard	Weight
0821300336	-	1.32 lbs
0821300224	Steel	1.41 lbs
0821300226	-	1.38 lbs
0821300228	-	1.78 lbs

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

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

Technical information

The pressure dew point must be at least 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
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.

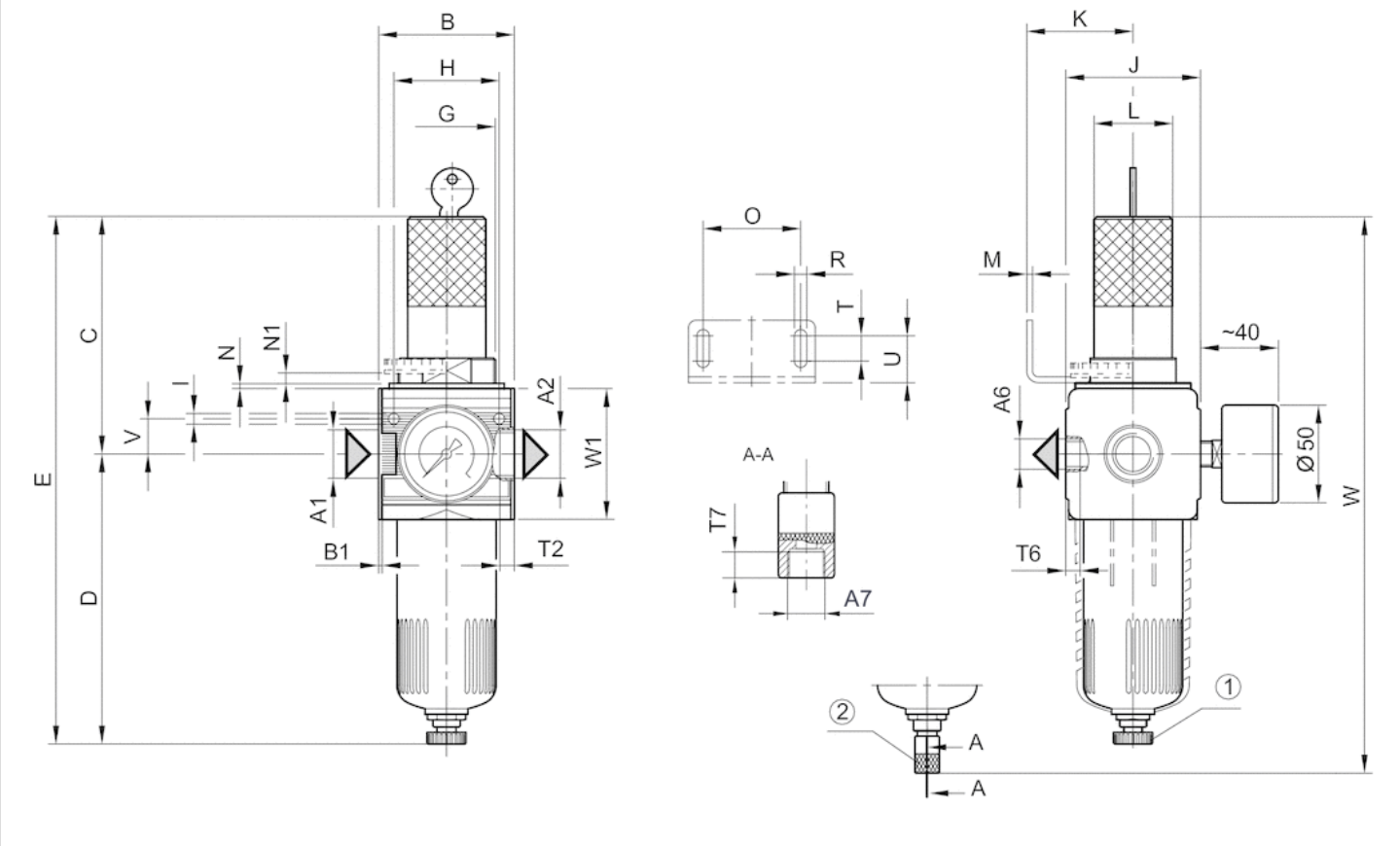
Compressed air class 6 : 7 : -

Technical information

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

Dimensions

Dimensions



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

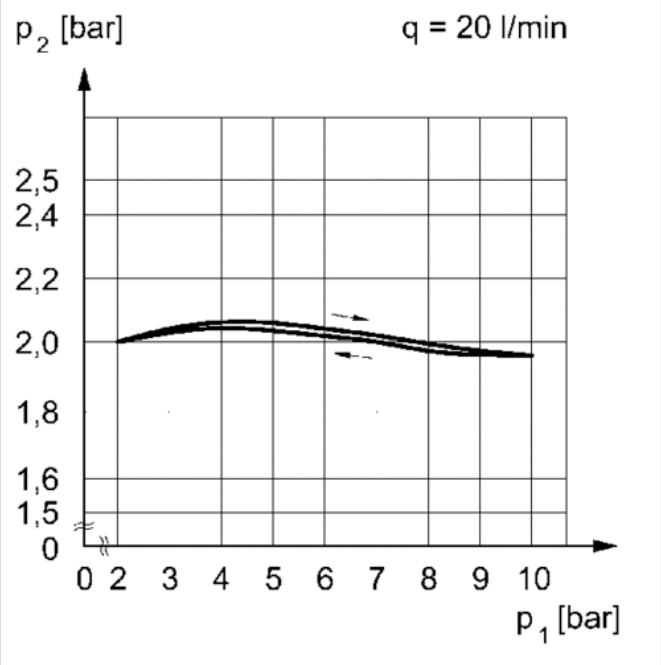
Dimensions in mm

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

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

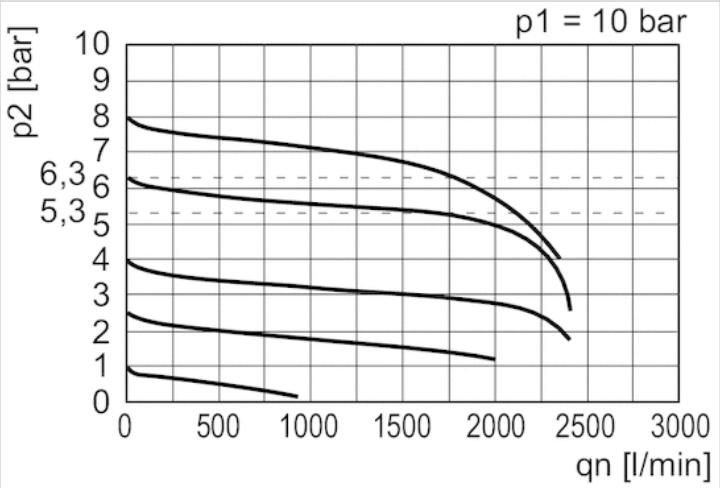
Diagrams

Pressure characteristics curve



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

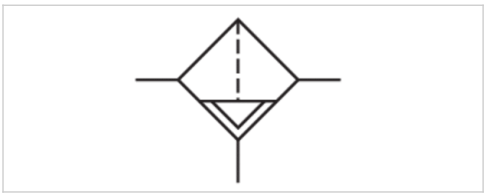
Flow rate characteristic



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

Filter, Series NL2-FLS

- G 1/4, G 3/8
- suitable for ATEX



Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	29 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Filter reservoir volume	0.85 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Qn	Condensate drain
0821303400	G 1/4	2.13 Cv	semi-automatic, open without pressure
0821303401	G 1/4	2.13 Cv	semi-automatic, open without pressure
0821303402	G 1/4	2.13 Cv	semi-automatic, open without pressure
0821303403	G 1/4	2.13 Cv	fully automatic, open without pressure
0821303404	G 1/4	2.13 Cv	fully automatic, open without pressure
0821303405	G 1/4	2.13 Cv	fully automatic, open without pressure
0821303440	G 3/8	2.13 Cv	semi-automatic, open without pressure
0821303441	G 3/8	2.13 Cv	semi-automatic, open without pressure
0821303442	G 3/8	2.13 Cv	semi-automatic, open without pressure
0821303443	G 3/8	2.13 Cv	fully automatic, open without pressure
0821303444	G 3/8	2.13 Cv	fully automatic, open without pressure
0821303445	G 3/8	2.13 Cv	fully automatic, open without pressure

Part No.	Reservoir	Protective guard	Weight
0821303400	Polycarbonate	-	0.606 lbs
0821303401	Polycarbonate	Steel	0.697 lbs
0821303402	Die cast zinc, with window	-	0.992 lbs
0821303403	Polycarbonate	-	0.677 lbs
0821303404	Polycarbonate	Steel	0.767 lbs
0821303405	Die cast zinc, with window	-	1.06 lbs
0821303440	Polycarbonate	-	0.606 lbs
0821303441	Polycarbonate	Steel	0.697 lbs

Part No.	Reservoir	Protective guard	Weight
0821303442	Die cast zinc, with window	-	0.992 lbs
0821303443	Polycarbonate	-	0.677 lbs
0821303444	Polycarbonate	Steel	0.767 lbs
0821303445	Die cast zinc, with window	-	1.06 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 .
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.

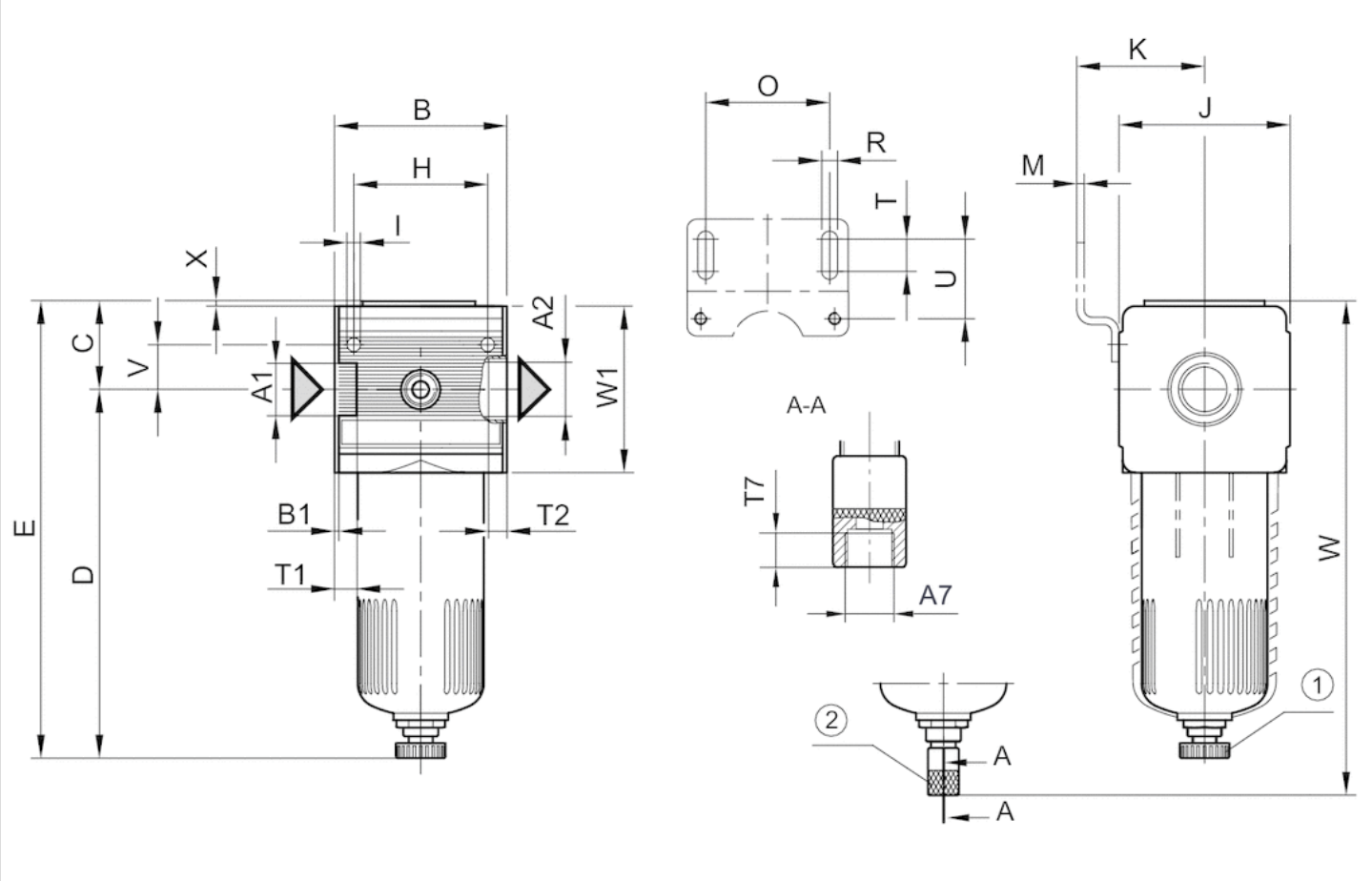
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

Technical information

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

Dimensions

Dimensions



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

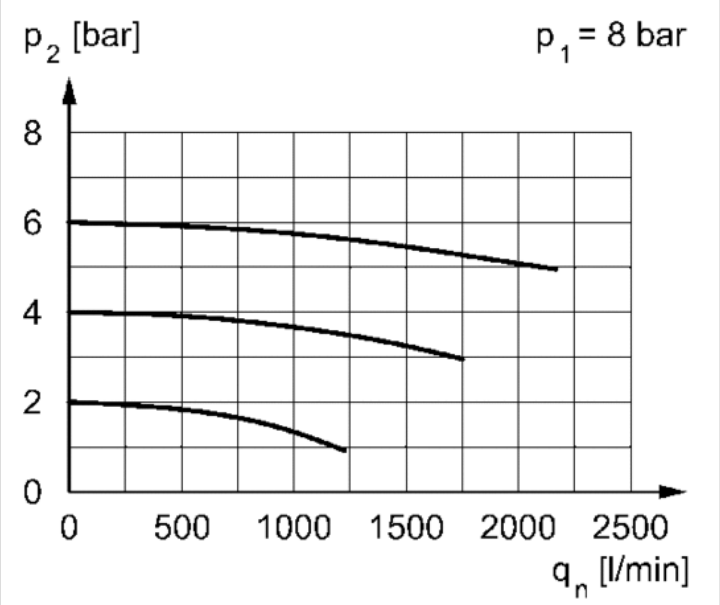
Dimensions in mm

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

X
1.5
1.5

Diagrams

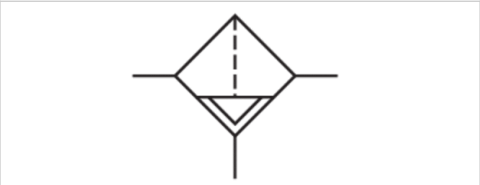
Flow rate characteristic



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

Pre-filter, Series NL2-FLP

- G 1/4
- suitable for ATEX



Version	Pre-filter, Can be assembled into blocks
Parts	Pre-filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	29 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Filter reservoir volume	0.34 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Qn	Condensate drain	Reservoir	Weight
0821303308	G 1/4	0.386 Cv	semi-automatic, open without pressure	Polycarbonate	0.992 lbs
0821303309	G 1/4	0.386 Cv	fully automatic, open without pressure	Polycarbonate	0.992 lbs
R412010785	G 1/4	0.386 Cv	fully automatic, open without pressure	Die cast zinc	1.06 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 5 µm

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

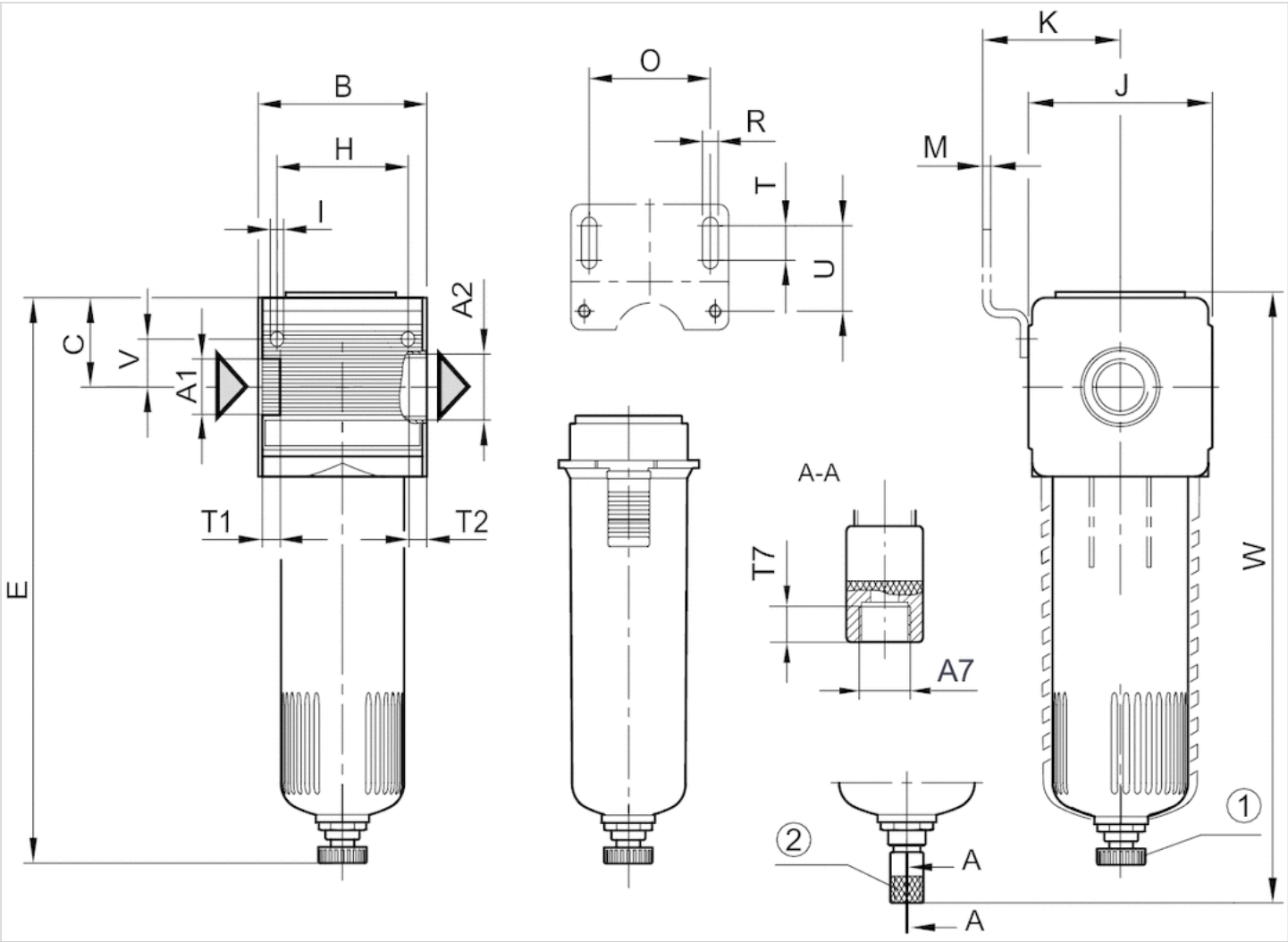
Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene

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

Dimensions

Dimensions



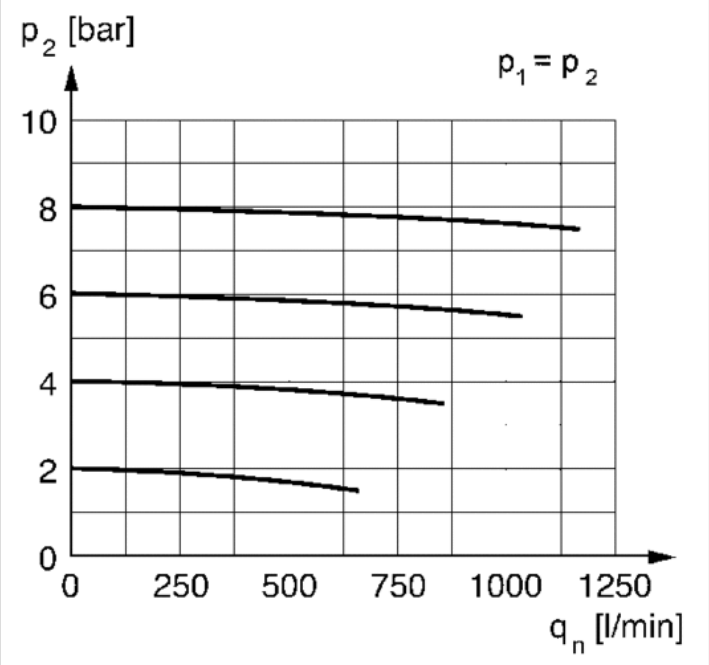
A1 = input
A2 = output
A7 = condensate drain
1) Semi-automatic condensate drain
2) fully automatic condensate drain

Dimensions in mm

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

Diagrams

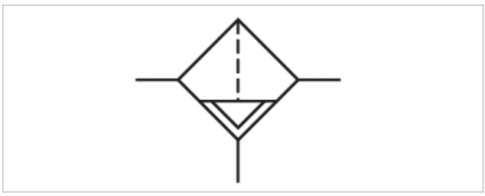
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

Microfilter, Series NL2-FLC

- 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	0.34 fl.oz.
Filter element	exchangeable
Condensate drain	See table below
Weight	See table below

Technical data

Part No.	Port	Qn	Condensate drain
0821303449	G 1/4	0.284 Cv	semi-automatic, open without pressure
R412010787	G 1/4	0.284 Cv	semi-automatic, open without pressure
R412010788	G 1/4	0.284 Cv	semi-automatic, open without pressure
R412010786	G 1/4	0.284 Cv	fully automatic, open without pressure
0821303305	G 1/4	0.284 Cv	fully automatic, open without pressure
R412010789	G 1/4	0.284 Cv	fully automatic, open without pressure
R412010790	G 1/4	0.284 Cv	fully automatic, open without pressure

Part No.	Reservoir	Protective guard	Weight
0821303449	Polycarbonate	-	0.992 lbs
R412010787	Polycarbonate	Steel	0.992 lbs
R412010788	Die cast zinc, with window	-	0.992 lbs
R412010786	Die cast zinc	-	1.06 lbs
0821303305	Polycarbonate	-	1.06 lbs
R412010789	Polycarbonate	Steel	1.06 lbs
R412010790	Die cast zinc, with window	-	1.06 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

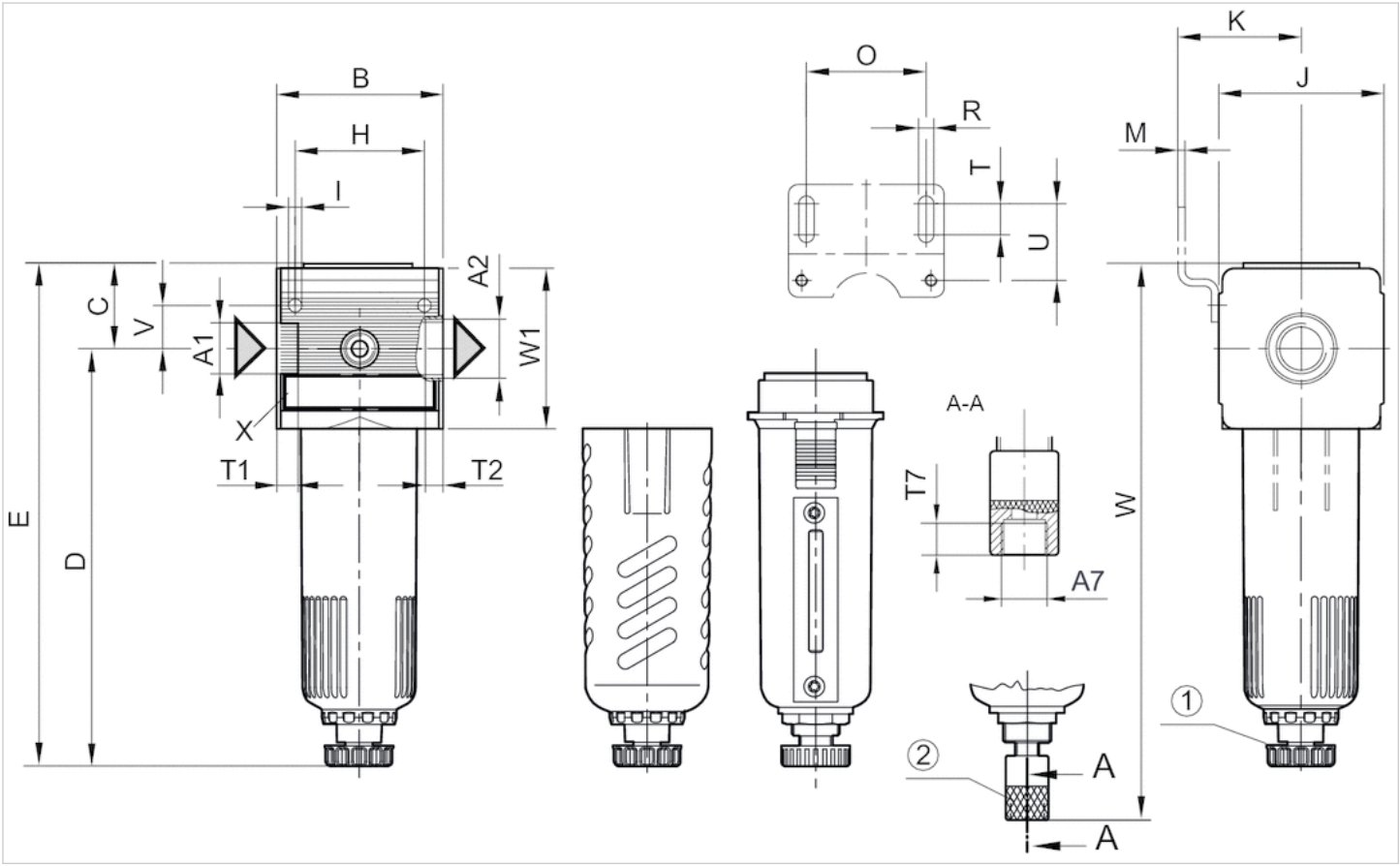
Max. achievable compressed air class acc. to ISO 8573-1:2010 1 : - : 2

Technical information

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

Dimensions

Dimensions



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

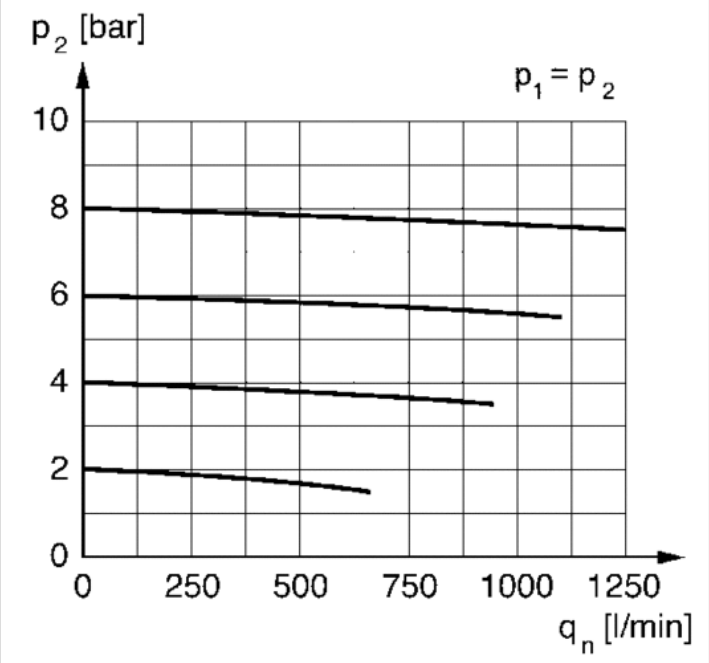
Dimensions in mm

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

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

Diagrams

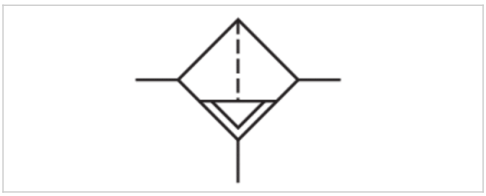
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

Active carbon filter, Series NL2-FLA

- G 1/4
- suitable for ATEX



Version	Active carbon filter, Can be assembled into blocks
Parts	Active carbon filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	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	0.34 fl.oz.
Filter element	exchangeable
Weight	0.952 lbs

Technical data

Part No.	Port	Qn
R412010792	G 1/4	0.386 Cv

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

Recommended pre-filtering 0.01 µm

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

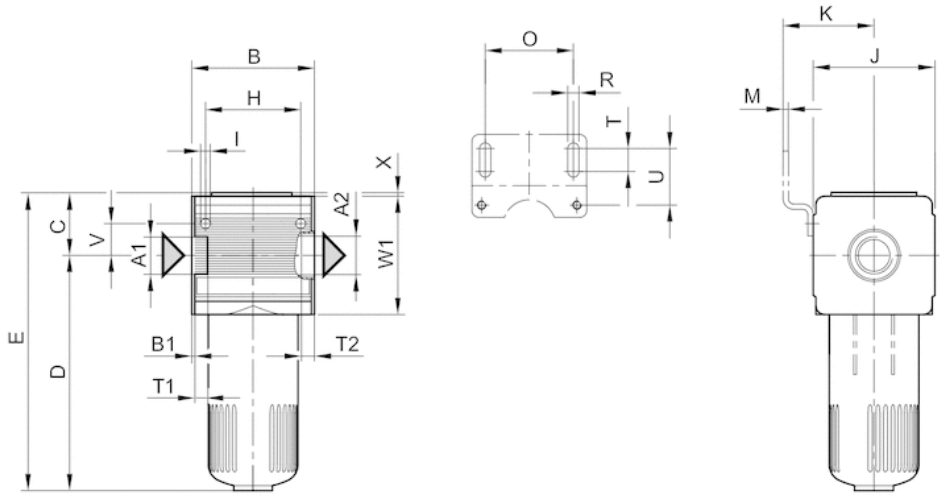
Technical information

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

Material	
Filter insert	Active carbon

Dimensions

Dimensions



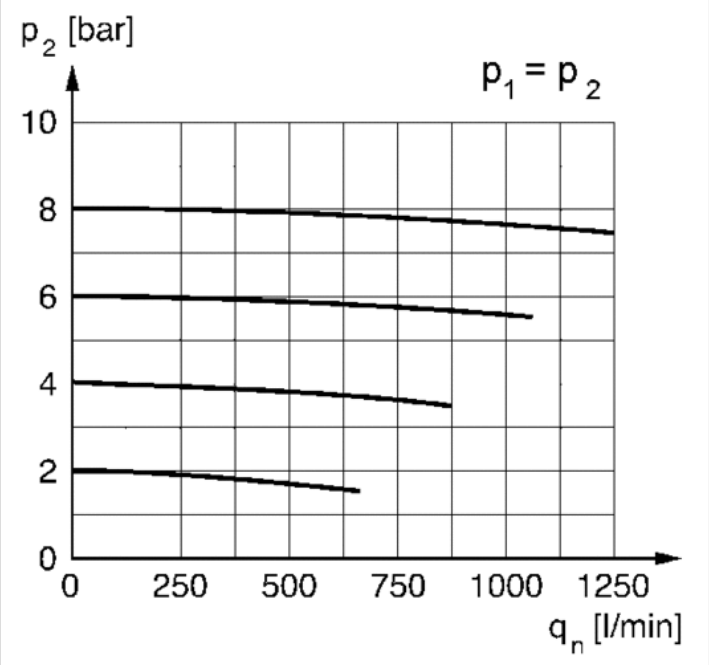
A1 = input
A2 = output

Dimensions in mm

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

Diagrams

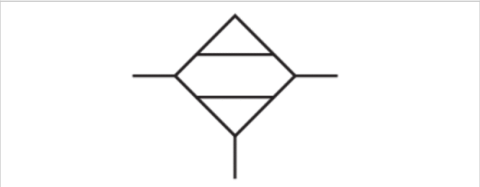
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

Diaphragm-type dryer, Series NL2-ADD

- G 1/4
- suitable for ATEX



Version	Diaphragm-type dryer
Parts	Diaphragm-type dryer
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	58 ... 181 psi
Ambient temperature min./max.	36 ... 140 °F
Medium temperature min./max.	36 ... 140 °F
Medium	Compressed air, Neutral gases
Filter element	not exchangeable
Lowering pressure dew point	68 °F
Weight	See table below

Technical data

Part No.	Port	Flow Qn	Reservoir	Weight	
R412004170	G 1/4	0.051 Cv	Aluminum	1.26 lbs	1)
R412004243	G 1/4	0.102 Cv	Aluminum	1.39 lbs	1)
R412004244	G 1/4	0.152 Cv	Aluminum	1.54 lbs	1)
R412004245	G 1/4	0.203 Cv	Aluminum	1.79 lbs	1)
R412007648	G 1/4	0.305 Cv	Aluminum	5.51 lbs	2)
R412007649	G 1/4	0.406 Cv	Aluminum	5.51 lbs	2)

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

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Notice: air may not contain condensate
purge air approx. 12% of nominal flow Qn
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

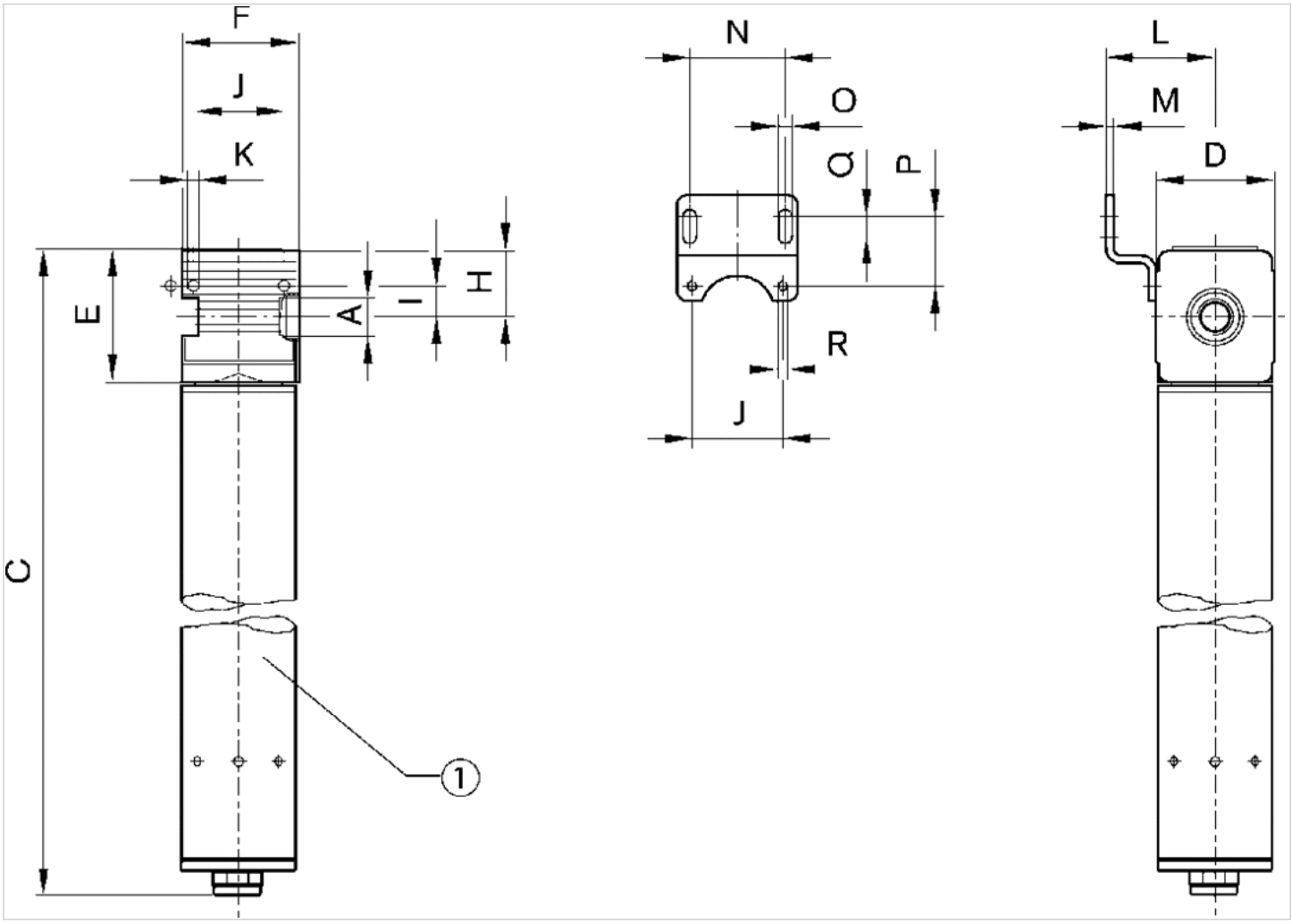
Recommended pre-filtering,µm 5
0.01 µm

Technical information

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

Dimensions

Fig. 1



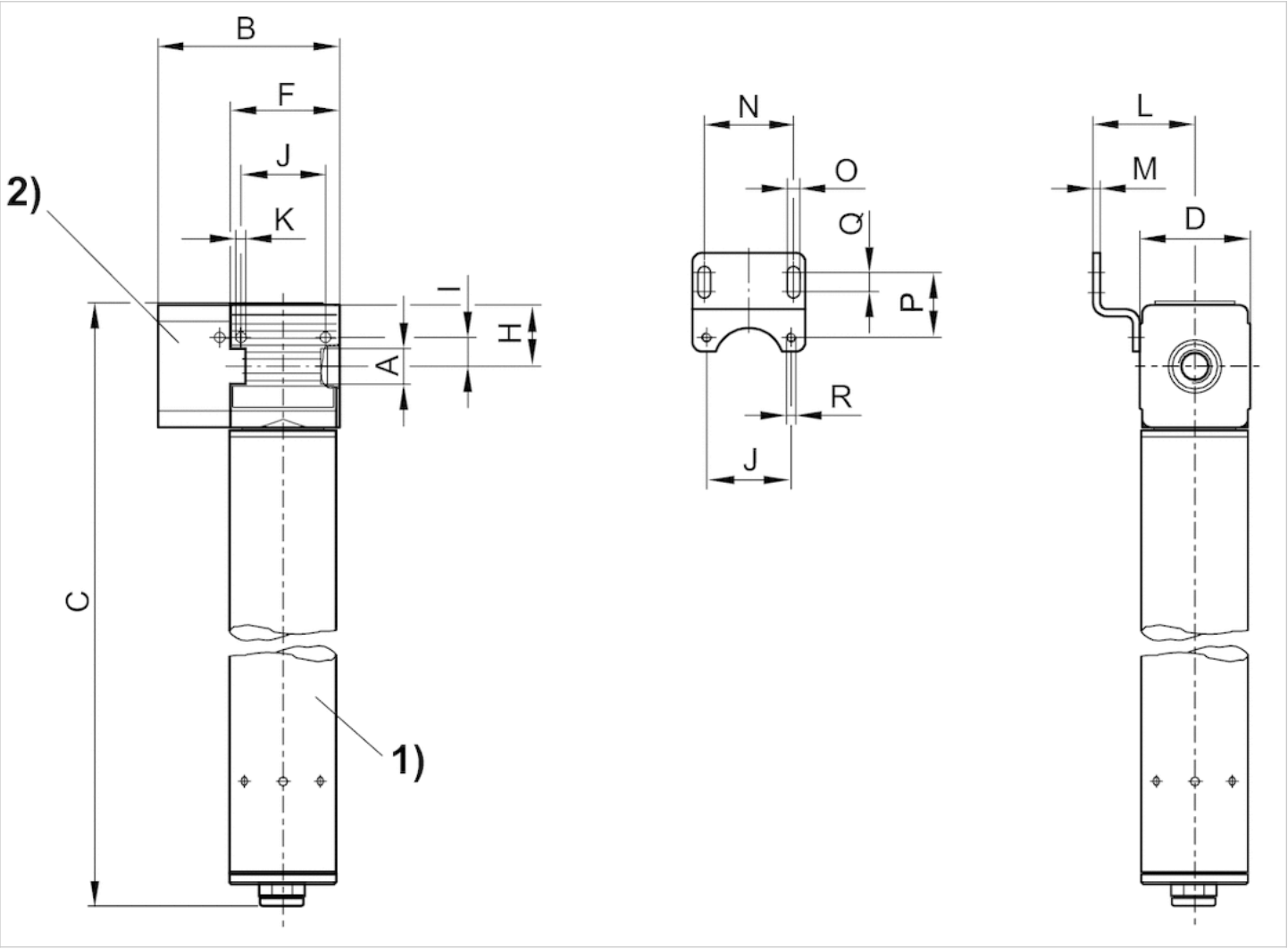
1) diaphragm-type dryer

Dimensions in mm

Part No.	A	C	D	E	F	H	I	J	Ø K	L	M	N	O	P	Q	R
R412004170	G 1/4	190.2	47	52	48	27	12.3	36	4	43.5	3	38	5.4	27.5	8	M4
R412004243	G 1/4	240.2	47	52	48	27	12.3	36	4	43.5	3	38	5.4	27.5	8	M4
R412004244	G 1/4	280.2	47	52	48	27	12.3	36	4	43.5	3	38	5.4	27.5	8	M4
R412004245	G 1/4	340.2	47	52	48	27	12.3	36	4	43.5	3	38	5.4	27.5	8	M4

Dimensions

Fig. 2



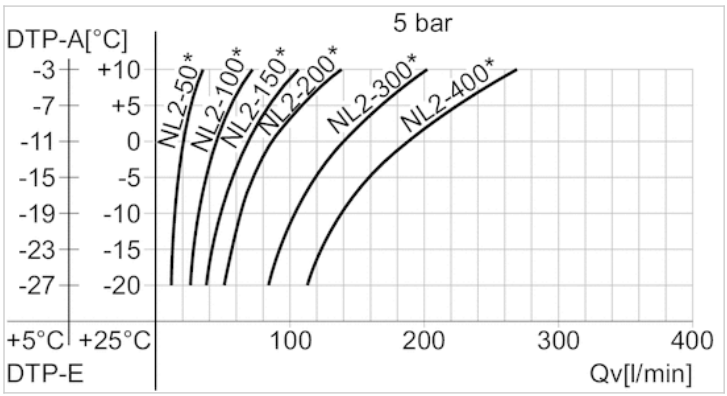
1) diaphragm-type dryer
2) Incl. second distributor

Dimensions in mm

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

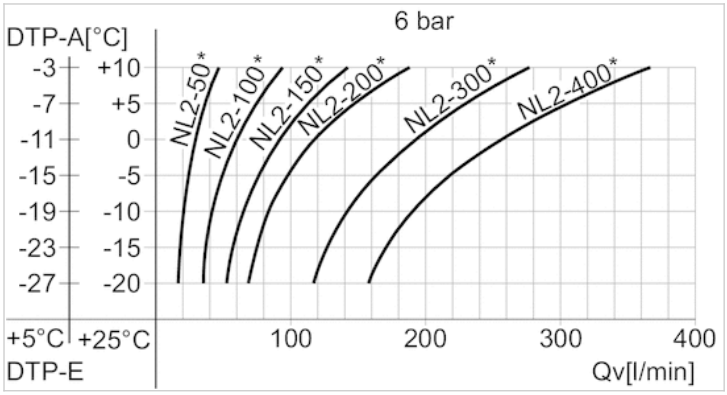
Diagrams

performance charts



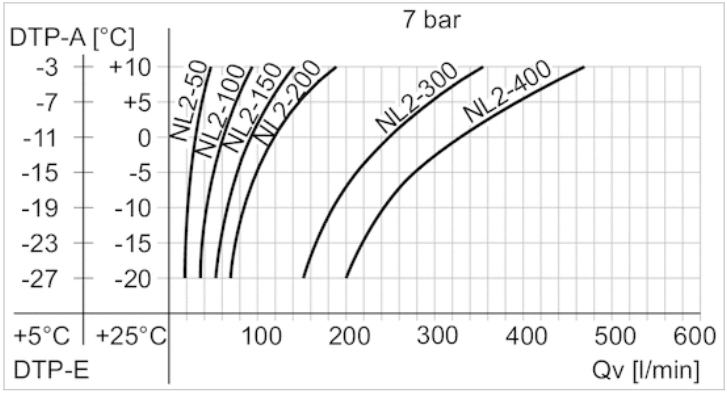
DTP-E: pressure dew point input
DTP-A: pressure dew point output
Qv: input flow rate (nominal flow rate Qn + purge air)
* Nominal flow Qn

performance charts



DTP-E: pressure dew point input
DTP-A: pressure dew point output
Qv: input flow rate (nominal flow rate Qn + purge air)
* Nominal flow Qn

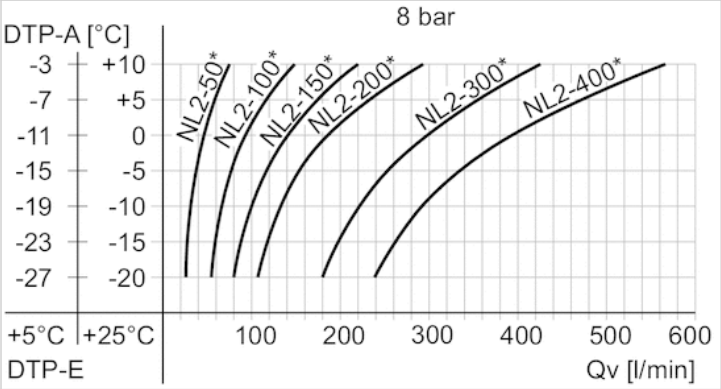
performance charts



DTP-E: pressure dew point input
DTP-A: pressure dew point output
Qv: input flow rate (nominal flow rate Qn + purge air)

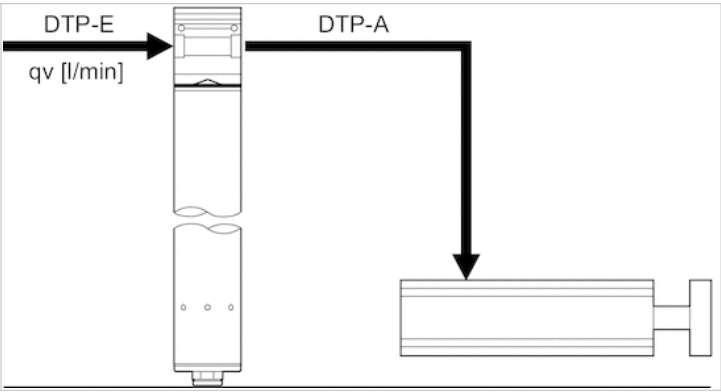
* Nominal flow Qn

performance charts

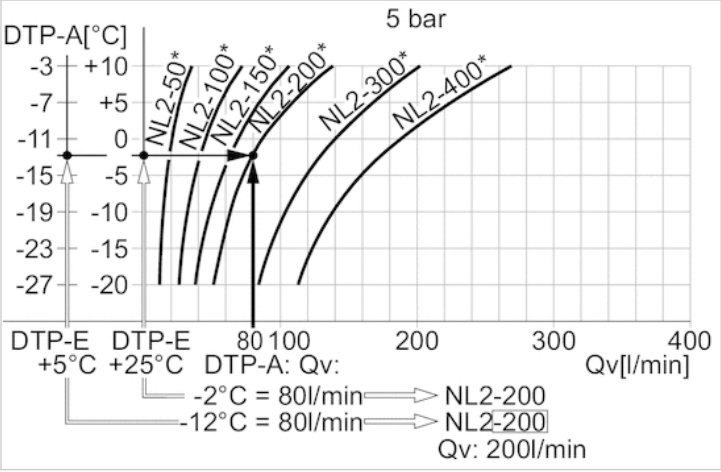


DTP-E: pressure dew point input
DTP-A: pressure dew point output
Qv: input flow rate (nominal flow rate Qn + purge air)
* Nominal flow Qn

Example



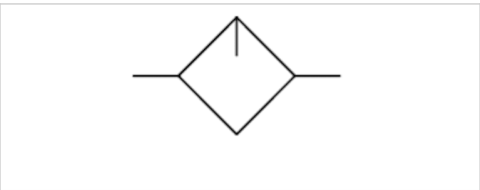
Example



Result: membrane dryer series NL2-200
(with a Qn of 200 l/min), part no. R412004245
* Nominal flow Qn

Standard oil-mist lubricator, Series NL2-LBS

- G 1/4, G 3/8
- suitable for ATEX



Version	Oil-mist lubricator, Can be assembled into blocks
Parts	Standard oil-mist lubricator
Mounting orientation	vertical
Working pressure min./max.	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	1.69 fl.oz.
Type of filling	Manual oil filling
Weight	See table below

Technical data

Part No.	Port	Nominal flow Qn	Reservoir	Protective guard	Electrical level indicator
0821301408	G 1/4	1.83 Cv	Polycarbonate	-	with internal query
0821301400	G 1/4	1.83 Cv	Polycarbonate	-	-
0821301401	G 1/4	1.83 Cv	Polycarbonate	Steel	-
0821301402	G 1/4	1.83 Cv	Die cast zinc, with window	-	-
0821301440	G 3/8	1.83 Cv	Polycarbonate	-	-
0821301441	G 3/8	1.83 Cv	Polycarbonate	Steel	-
0821301442	G 3/8	1.83 Cv	Die cast zinc, with window	-	-

Part No.	Weight	Fig.	
0821301408	0.816 lbs	Fig. 2	-
0821301400	0.721 lbs	Fig. 1	1)
0821301401	0.811 lbs	Fig. 1	1)
0821301402	1.11 lbs	Fig. 1	1)
0821301440	0.721 lbs	Fig. 1	1)
0821301441	0.811 lbs	Fig. 1	1)
0821301442	1.11 lbs	Fig. 1	1)

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

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

Technical information

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The entire preset drip quantity enters the pressure system
Manual oil filling possible during operation
Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

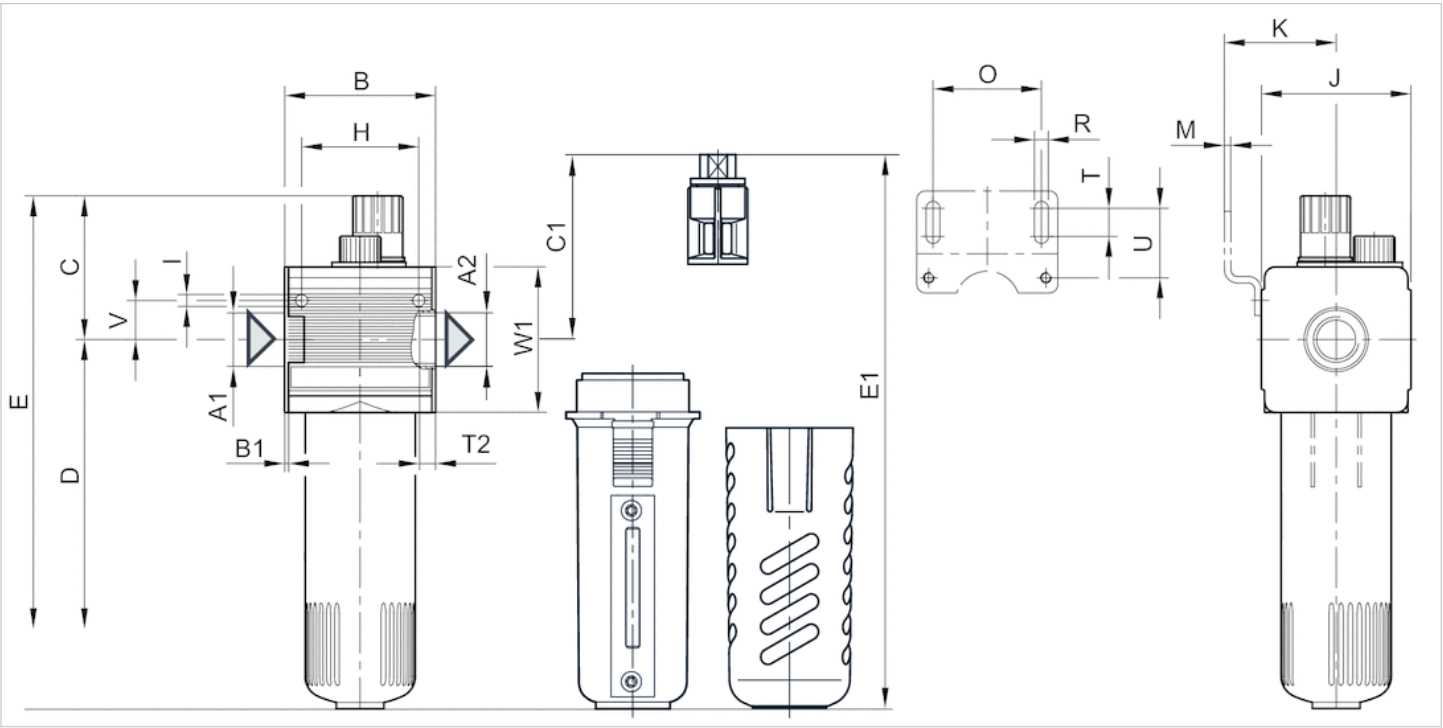
Oil dosing at 1 Cv 1-2 drops

Technical information

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

Dimensions

Fig. 1



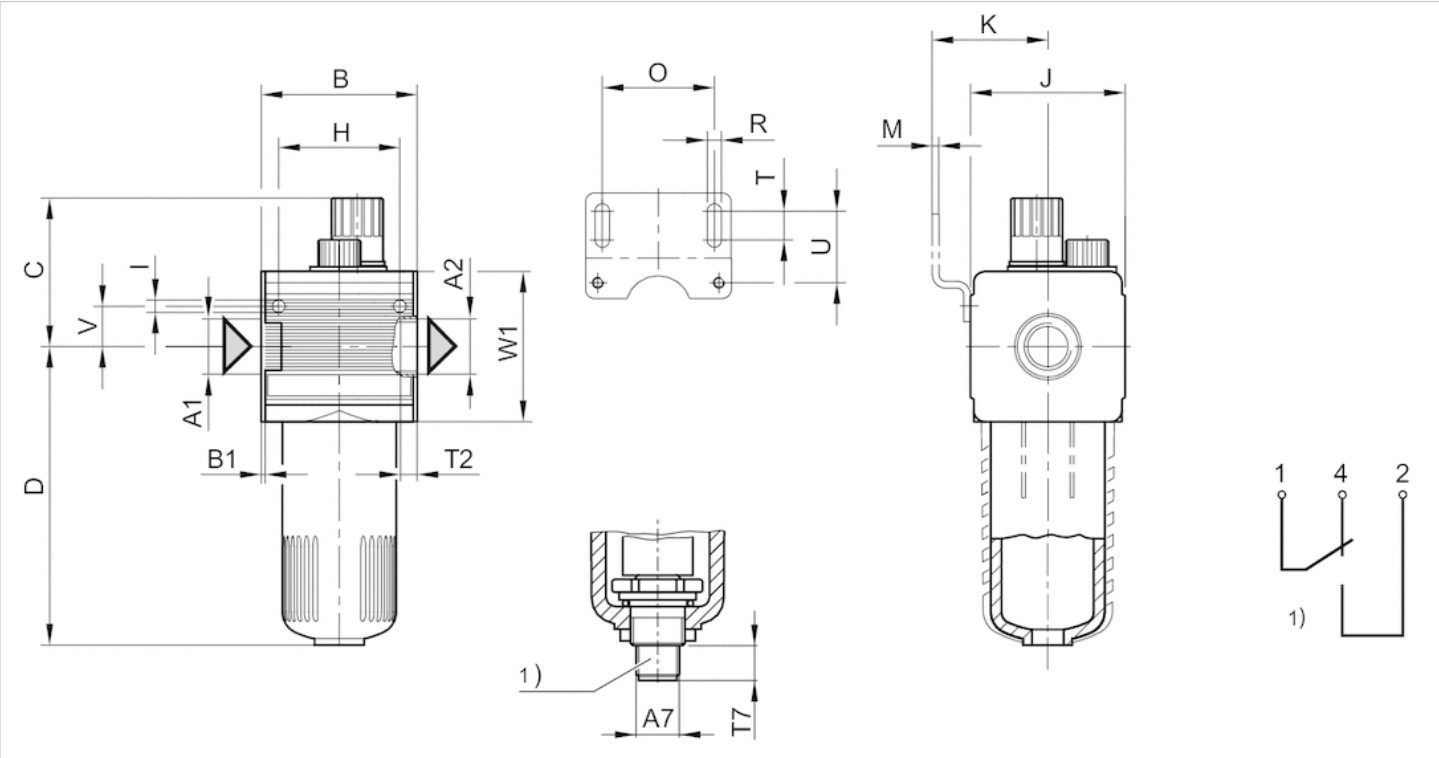
A1 = input
A2 = output

Dimensions in mm

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

Dimensions

Fig. 2



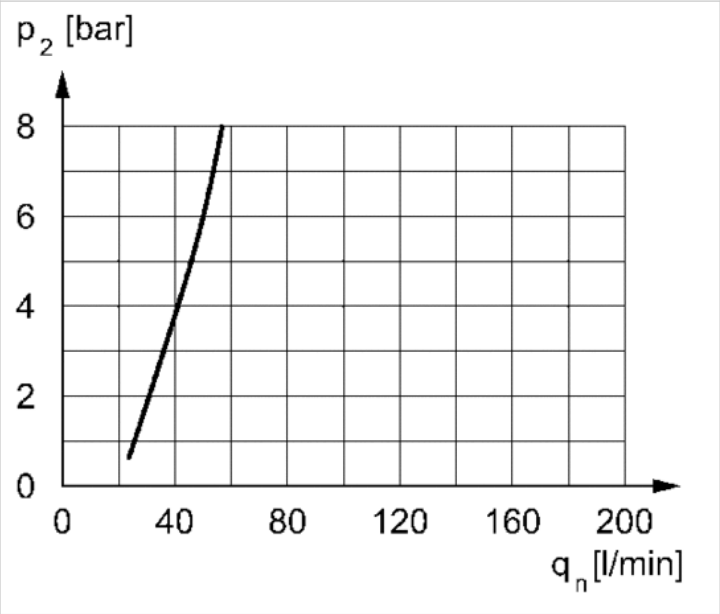
A1 = input
A2 = output
1) electrical level indicator
– connection: 4-pin, M12x1
– contact load: 50 V AC/0.5 A/5 W
– type: 1 change-over contact (make contact/break contact) for min. fluid level
Order valve plug connector (M12x1) separately

Dimensions in mm

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

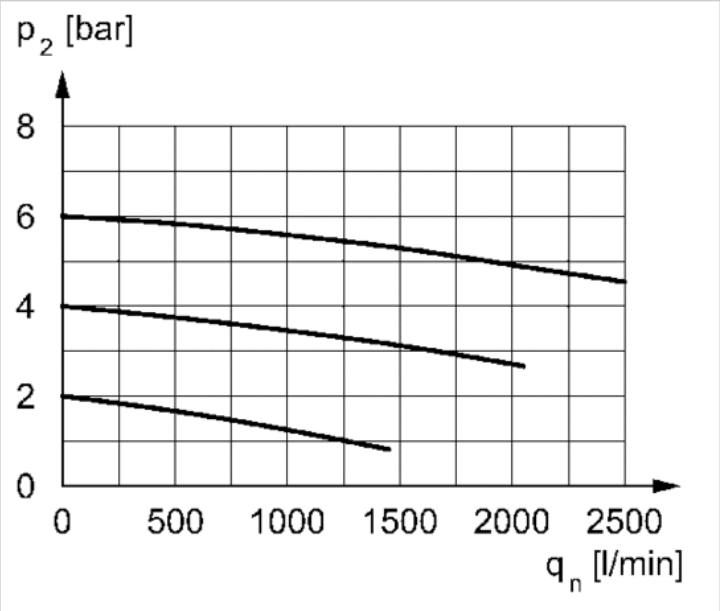
Diagrams

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



p2 = secondary pressure
qnmin. = min. nominal flow

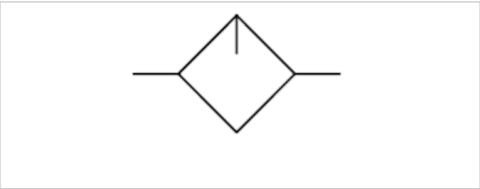
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

Micro oil-mist lubricator, Series NL2-LBM

- G 1/4



Version	Micro oil-mist lubricator, Can be assembled into blocks
Parts	Micro oil-mist lubricator
Mounting orientation	vertical
Compressed air connection	G 1/4
Working pressure min./max.	8 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Type of filling	Manual oil filling

Technical data

Part No.	Port	Nominal flow Qn	Lubricator reservoir volume	Reservoir	Protective guard
0821301411	G 1/4	1.32 Cv	1.69 fl.oz.	Polycarbonate	-
0821301415	G 1/4	1.32 Cv	1.69 fl.oz.	Polycarbonate	Steel
R412007651	G 1/4	1.32 Cv	1.69 fl.oz.	Die cast zinc, with window	-
0821301412	G 1/4	1.32 Cv	1.69 fl.oz.	Polycarbonate	-
R412007652	G 1/4	1.32 Cv	1.69 fl.oz.	Polycarbonate	Steel
0821301413	G 1/4	1.32 Cv	33.81 fl.oz.	Die cast zinc, with window	-
0821301414	G 1/4	1.32 Cv	50.72 fl.oz.	Die cast zinc, with window	-

Part No.	Electrical level indicator	ATEX	Fig.	
0821301411	-	suitable for ATEX	Fig. 1	1)
0821301415	-	suitable for ATEX	Fig. 1	1)
R412007651	-	suitable for ATEX	Fig. 2	1)
0821301412	with internal query	-	Fig. 1	-
R412007652	with internal query	-	Fig. 1	-
0821301413	with internal query	-	Fig. 3	-
0821301414	with internal query	-	Fig. 3	-

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

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

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
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.

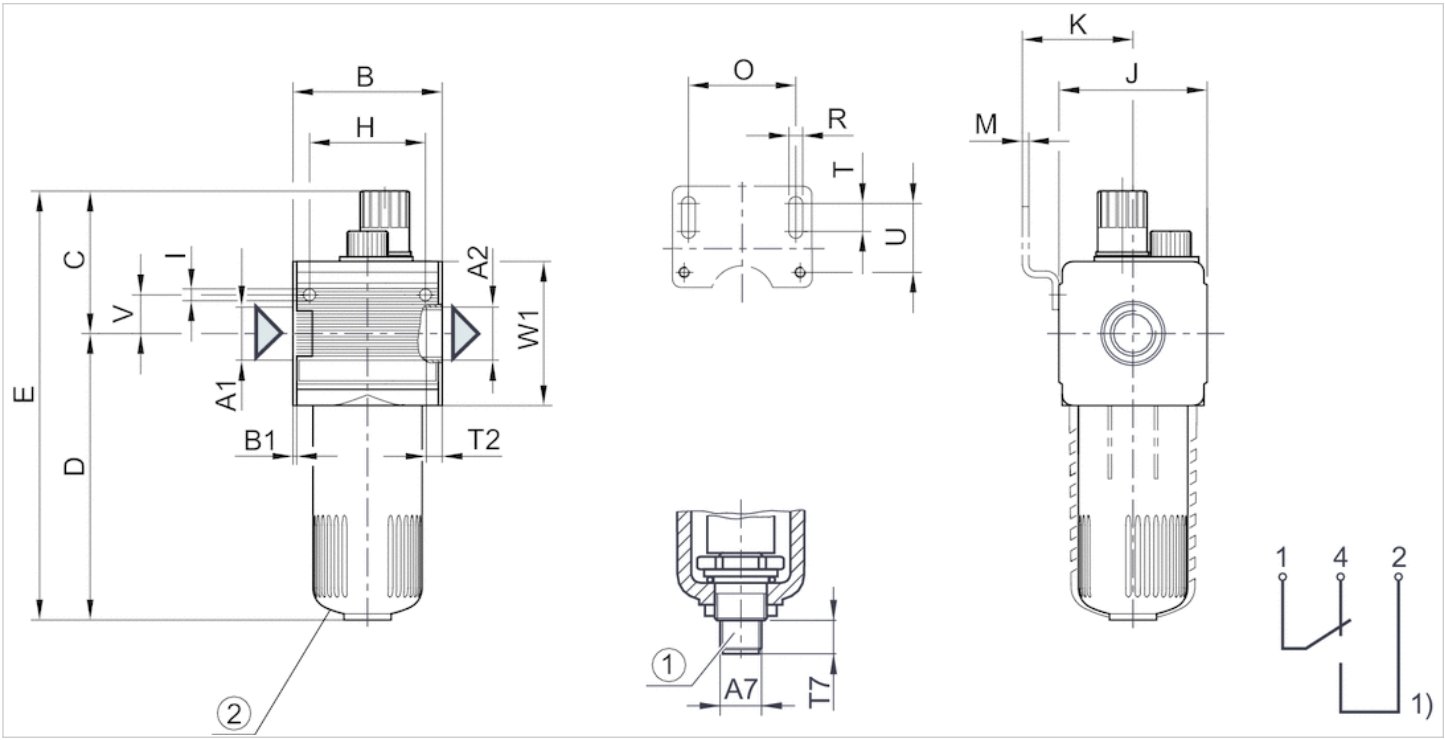
Oil dosing at 1 Cv 10-20 drops

Technical information

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

Dimensions

Fig. 1 PC reservoir



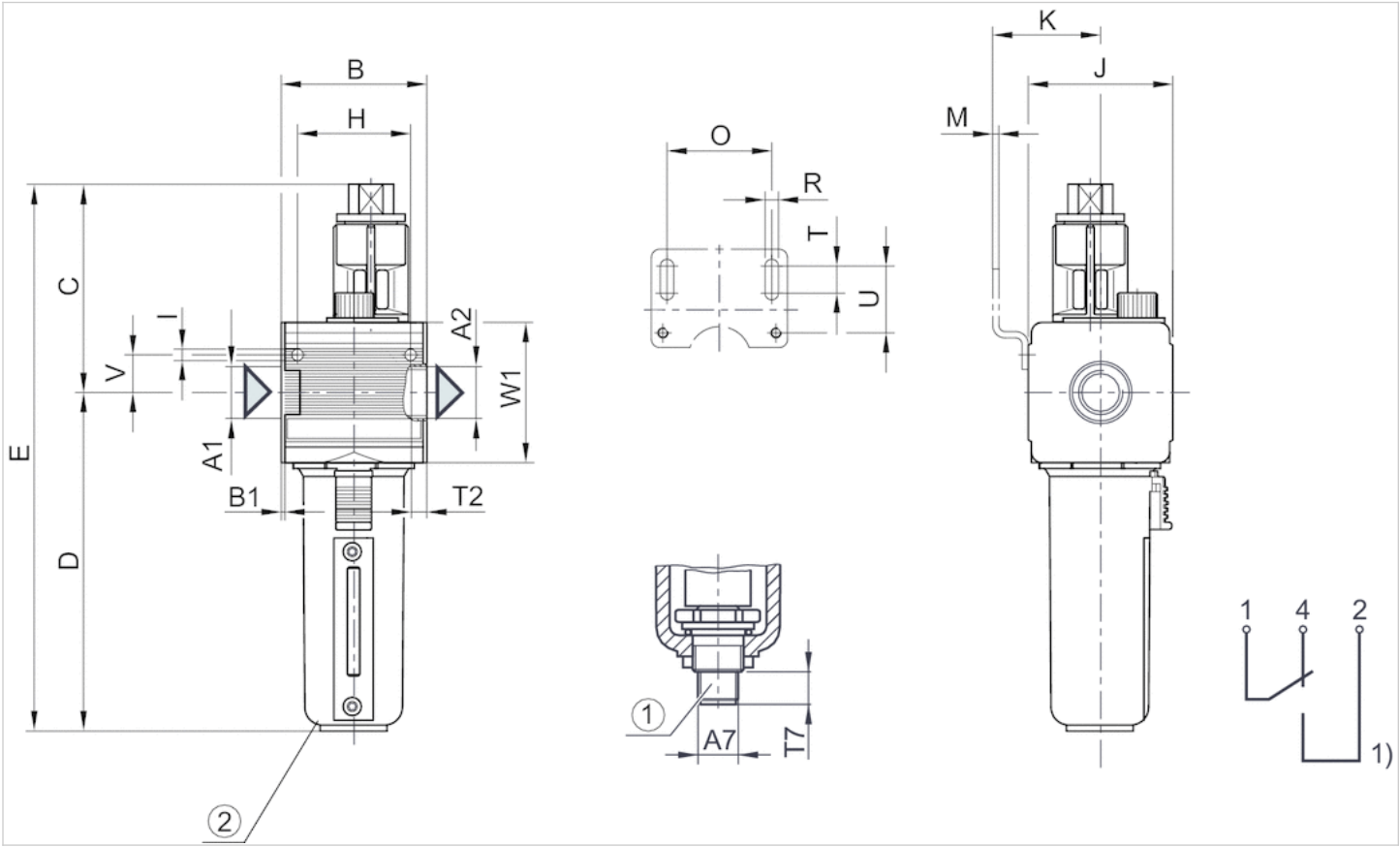
1) electrical level indicator
– connection: 4-pin, M12x1
– contact load: 50 V AC/0.5 A/5 W
– type: 1 change-over contact (make contact/break contact) for min. fluid level
Order valve plug connector (M12x1) separately
2) PC reservoir

Dimensions in mm

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

Dimensions

Fig. 2 Metal reservoir with level indicator



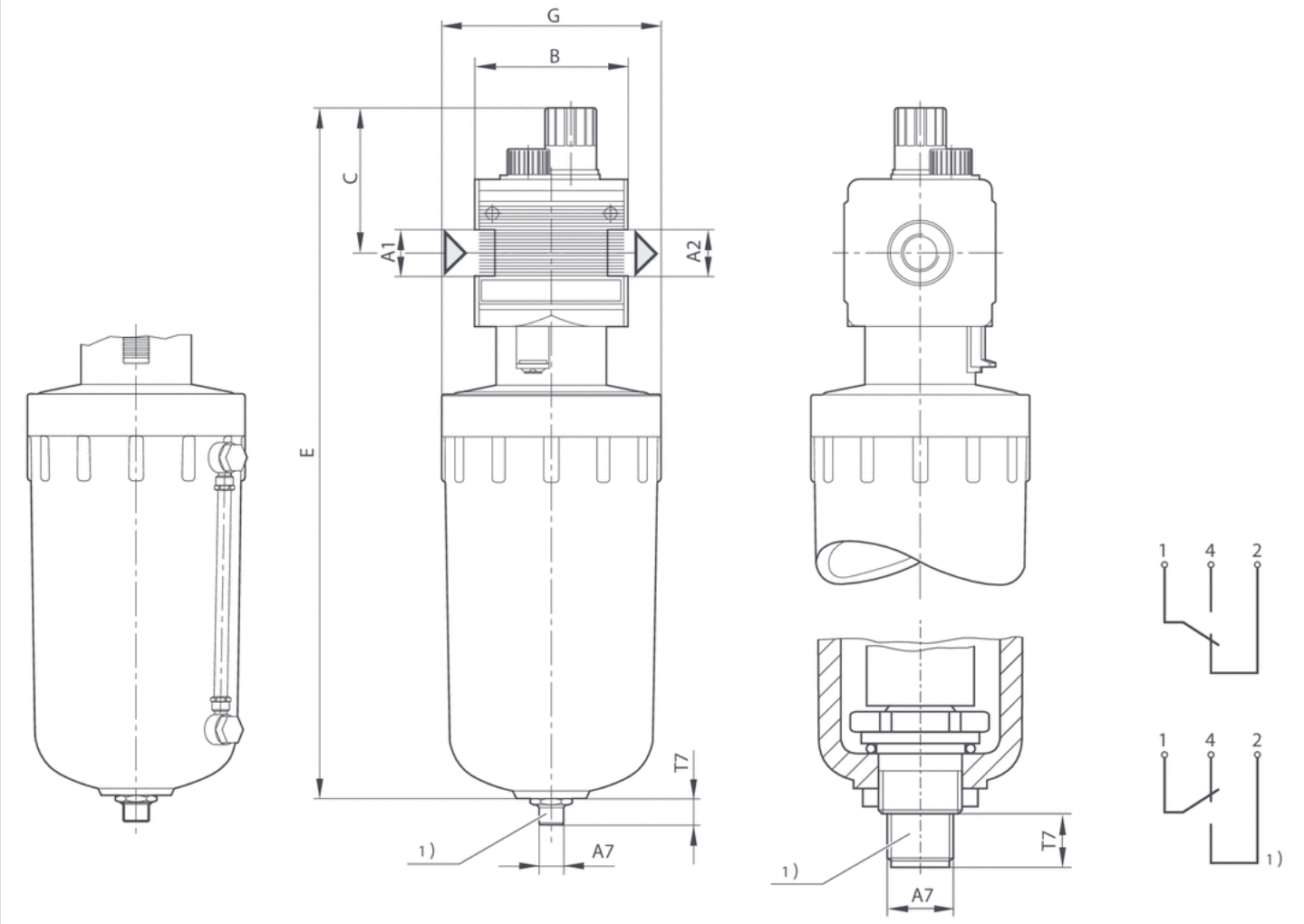
1) electrical level indicator
– connection: 4-pin, M12x1
– contact load: 50 V AC/0.5 A/5 W
– type: 1 change-over contact (make contact/break contact) for min. fluid level
Order valve plug connector (M12x1) separately
2) Metal reservoir with level indicator

Dimensions in mm

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

Dimensions

Dimensions Metal reservoir



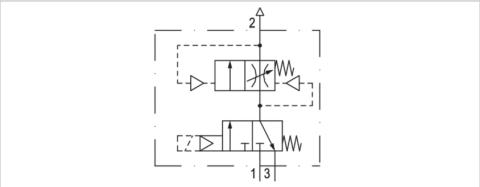
A1 = input
A2 = output
1) electrical level indicator
– connection: 4-pin, M12x1
– contact load: 50 V AC/0.5 A/5 W
– type: 1 change-over contact (make contact/break contact) for min. fluid level
Order valve plug connector (M12x1) separately

Dimensions in mm

Lubricator reservoir volume	A2	A7	B ±5	C ±5	E	G ±5	T7
33.81 fl.oz.	G 1/4	M12x1	48	58	299	Ø 100	12 ±2,5
50.72 fl.oz.	G 1/4	M12x1	48	58	399	Ø 100	12 ±2,5

Filling unit, electrically operated, Series NL2-SSU

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



Version	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow 1 ▸ 2	0.915 Cv
Nominal flow 2 ▸ 3	0.457 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	Operational voltage
				DC
0821300941	G 1/4	G 1/4	G 1/4	24 V
0821300942	G 1/4	G 1/4	G 1/4	-
0821300943	G 1/4	G 1/4	G 1/4	-
0821300944	G 1/4	G 1/4	G 1/4	-
0821300946	G 1/4	G 1/4	G 1/4	24 V
0821300947	G 1/4	G 1/4	G 1/4	-
0821300948	G 1/4	G 1/4	G 1/4	-

Part No.	Operational voltage	Operational voltage	Power consumption
	AC 50 Hz	AC 60 Hz	DC
0821300941	-	-	4.8 W
0821300942	230 V	230 V	-
0821300943	-	-	-
0821300944	-	-	-
0821300946	-	-	4.8 W
0821300947	230 V	230 V	-
0821300948	-	-	-

Part No.	Holding power	Switch-on power	Manual override	Electrical connection
	AC 50 Hz	AC 50 Hz		Pilot valve
0821300941	-	-	-	Plug, ISO 6952, form B
0821300942	-	11.8 VA	-	Plug, ISO 6952, form B
0821300943	-	-	-	-
0821300944	-	-	with detent	-
0821300946	-	-	-	Plug, ISO 6952, form B
0821300947	8.5 VA	11.8 VA	-	Plug, ISO 6952, form B
0821300948	-	-	with detent	-

Part No.	Connector standard	basic valve with electrical connector	Reverse polarity protection
0821300941	ISO 6952	-	Protected against polarity reversal
0821300942	ISO 6952	-	Protected against polarity reversal
0821300943	-	pilot valve without coil	Protected against polarity reversal
0821300944	-	pilot valve without coil	Protected against polarity reversal
0821300946	ISO 6952	-	Protected against polarity reversal
0821300947	ISO 6952	-	Protected against polarity reversal
0821300948	-	pilot valve without coil	Protected against polarity reversal

Part No.	Weight	
0821300941	1.39 lbs	1)
0821300942	1.39 lbs	1)
0821300943	1.3 lbs	1)
0821300944	1.79 lbs	2)
0821300946	1.39 lbs	3)
0821300947	1.39 lbs	3)
0821300948	1.3 lbs	3)

Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 1.45 psi, MO = Manual override

1) adjustable filling

2) adjustable filling, With manual override

3) Filling with fixed diaphragm

Technical information

The pressure dew point must be at least 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.

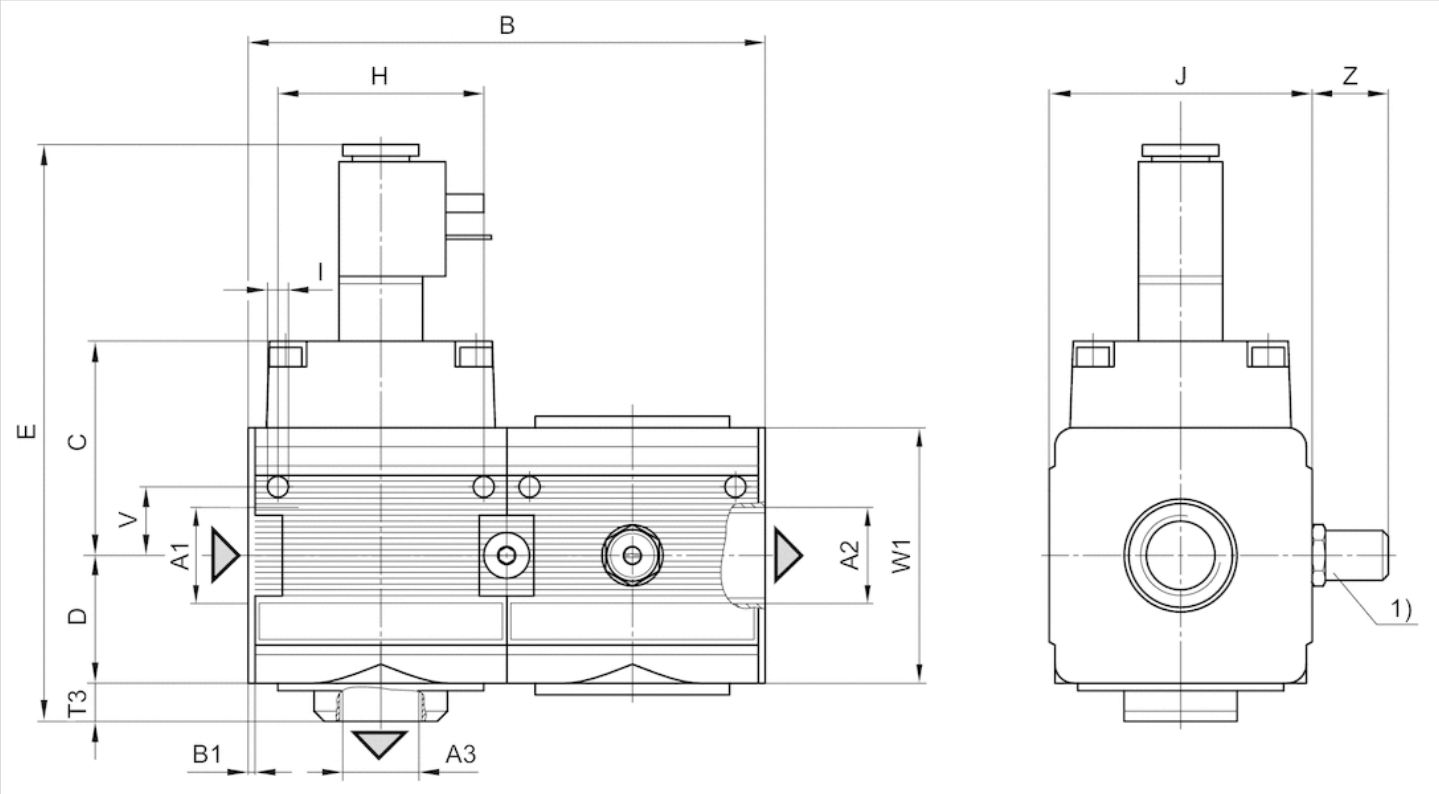
Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene styrene
Threaded bushing	Die cast zinc

Dimensions

Dimensions



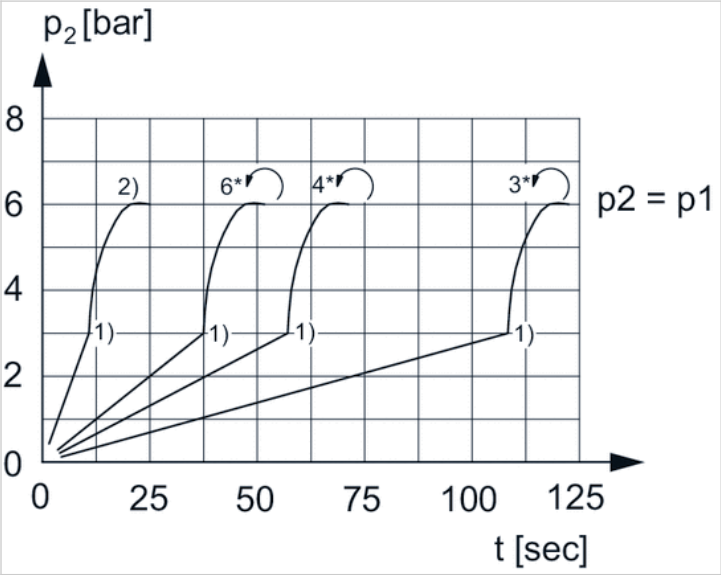
A1 = input
A2 = output
A3 = output
1) Adjustment screw for filling time

Dimensions in mm

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

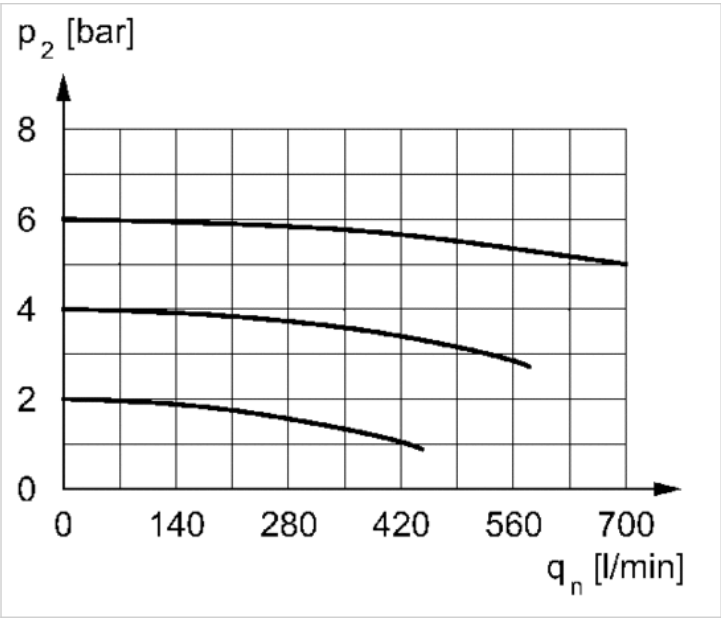
Diagrams

Secondary pressure while filling



p1 = working pressure
p2 = secondary pressure
t = filling time, adjustable via adjustment screw (throttle)
1) Switching point: adjustable filling time, fixed change-over pressure ≈ 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 NL2-SSU

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

Version	Poppet valve, Can be assembled into blocks
Pilot	Internal
Sealing principle	Soft sealing
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 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
Oil content of compressed air	0 ... 1 mg/m³
Weight	1.28 lbs

Technical data

Part No.		Port	Exhaust	Flow Qn 1▸2	Flow Qn 2▸3	
0821300940		G 1/4	G 1/4	0.915 Cv	0.457 Cv	1)
0821300945		G 1/4	G 1/4	0.915 Cv	0.457 Cv	2)

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

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

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

Technical information

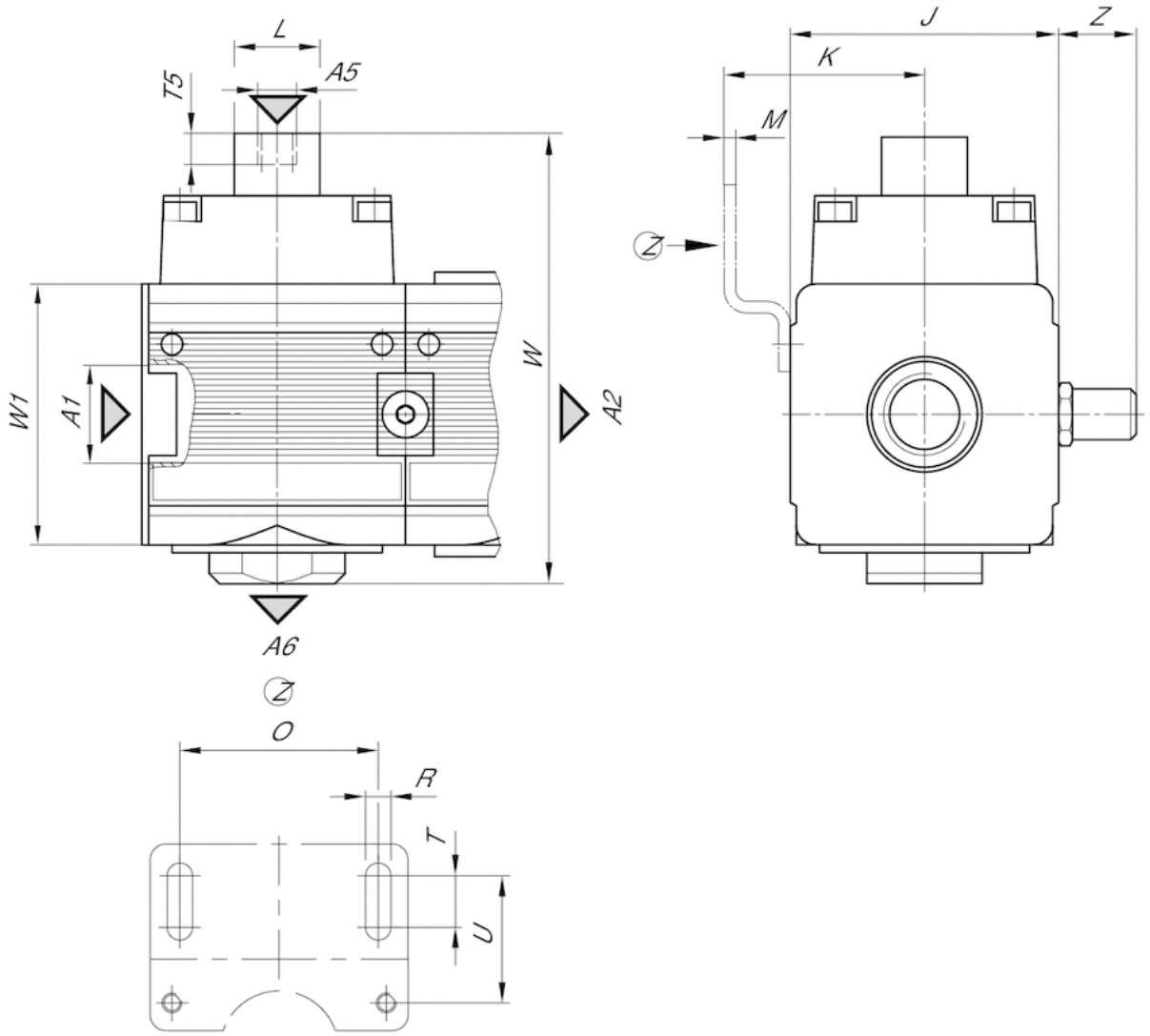
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids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

Dimensions in mm

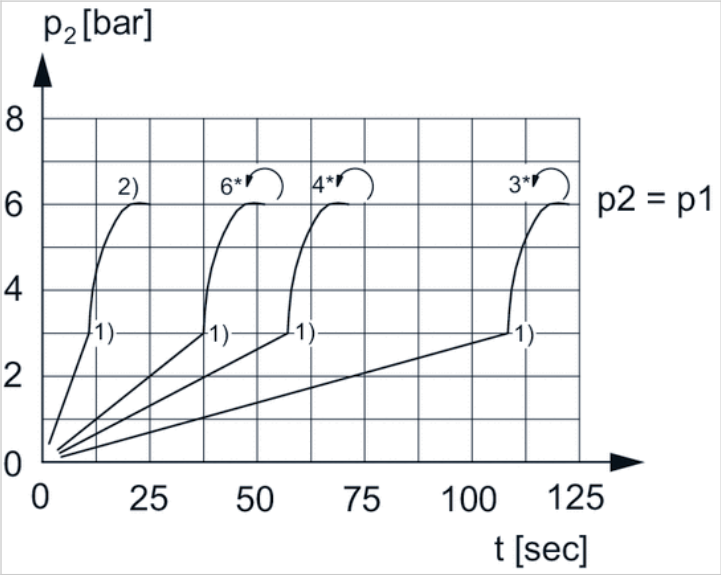
A1	A2	A5	A6		J	K	L	M	O	R	T	T5	U	W	W1	Z
G 1/4	G 1/4	G 1/8	G 1/4	2)	47	43.5	22	3	38	5.4	8	9.5	27.5	96	52	–
G 1/4	G 1/4	G 1/8	G 1/4	1)	47	43.5	22	3	38	5.4	8	9.5	27.5	96	52	20

1) adjustable filling

2) Filling with fixed diaphragm

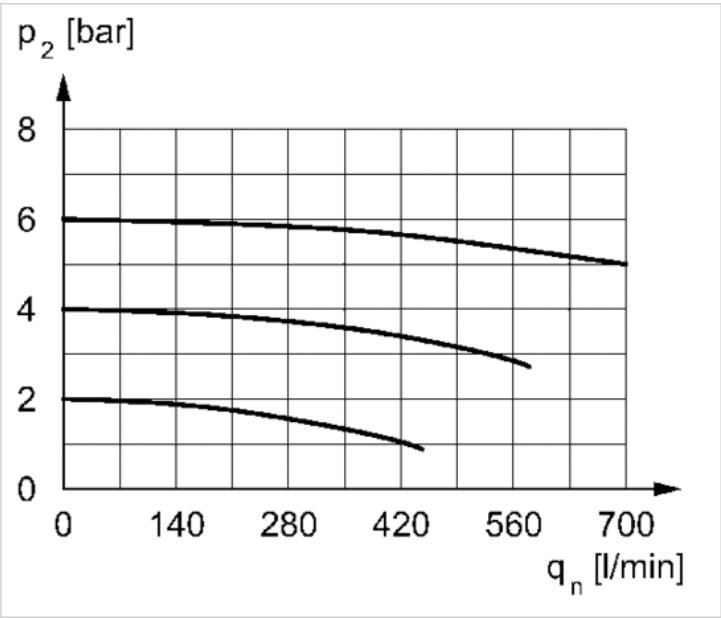
Diagrams

Secondary pressure while filling



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 NL2-SSV

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

Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 232 psi
Control pressure min./max.	44 ... 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	See table below

Technical data

Part No.		Port	Flow Qn	Weight	
0821300926		G 1/4	1.02 Cv	0.716 lbs	1)
0821300925		G 1/4	1.02 Cv	0.683 lbs	2)

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

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

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

Technical information

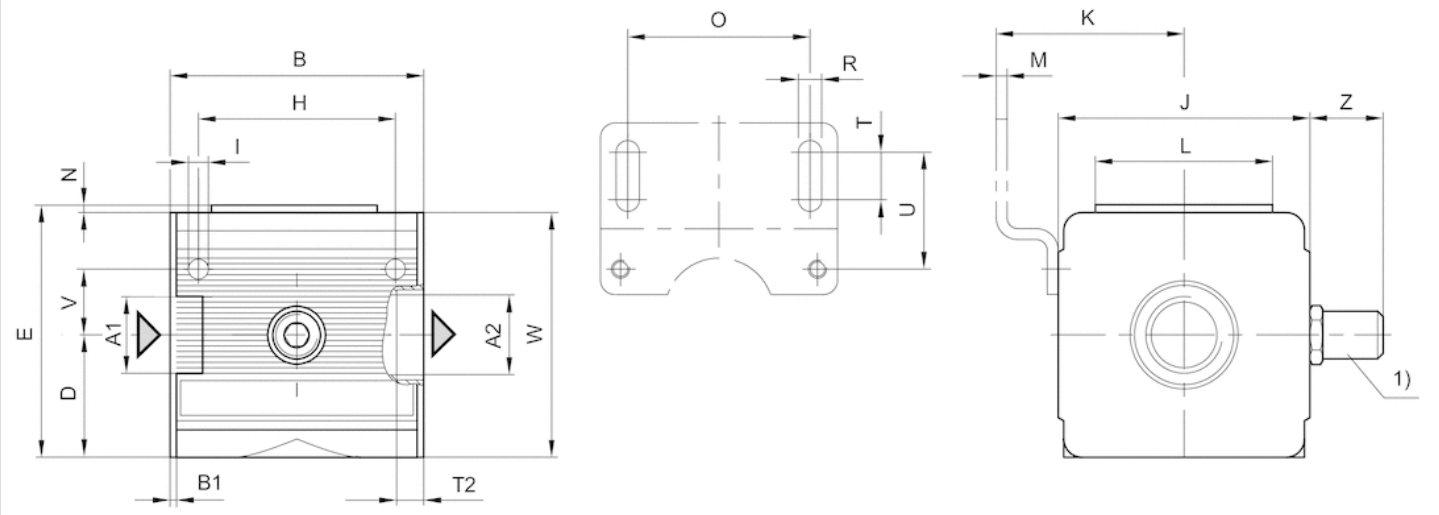
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids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



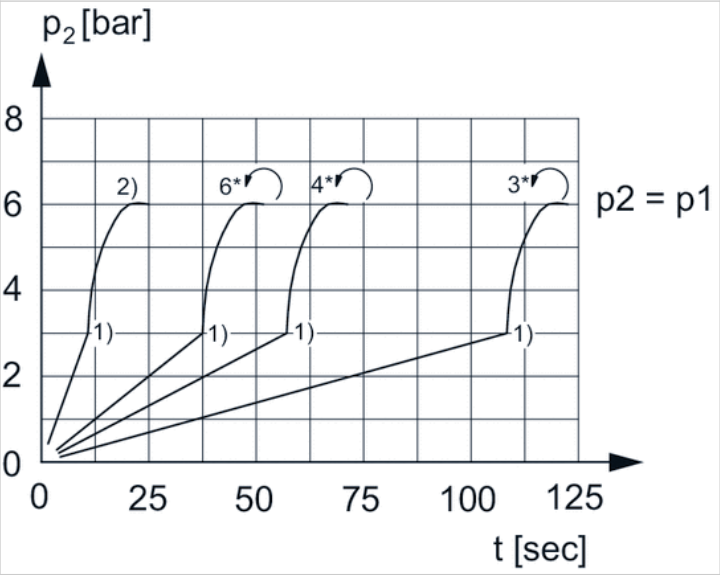
A1 = input
A2 = output
1) Adjustment screw for filling time

Dimensions in mm

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

Diagrams

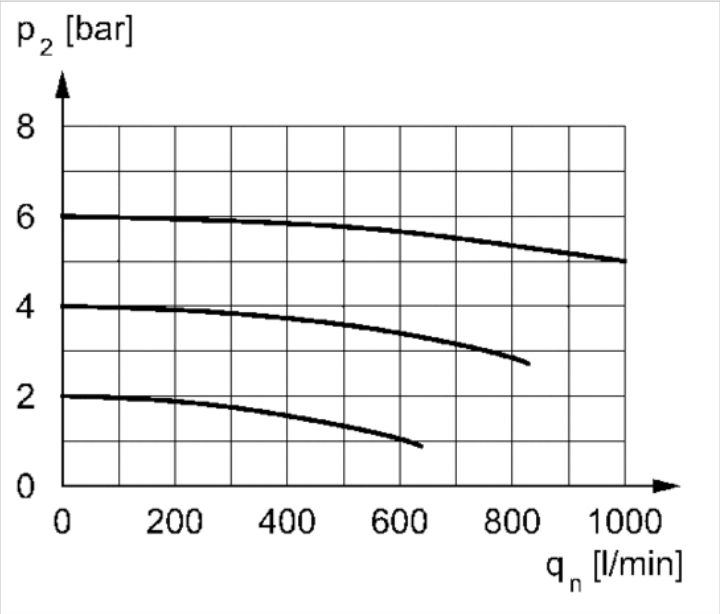
Secondary pressure while filling



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 NL2-SOV

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

Version	Poppet valve, Can be assembled into blocks
Parts	3/2-directional valve, electrically operated
Nominal flow 1 ▸ 2	1.12 Cv
Nominal flow 2 ▸ 3	0.457 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
0821300922		–	G 1/4	G 1/4	G 1/4
0821300923		–	G 1/4	G 1/4	G 1/4
0821300924		–	G 1/4	G 1/4	G 1/4
0821300929			G 1/4	G 1/4	G 1/4

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

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

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

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

Part No.	Reverse polarity protection	Weight
0821300922	Protected against polarity reversal	0.992 lbs
0821300923	Protected against polarity reversal	0.992 lbs
0821300924	Protected against polarity reversal	1.08 lbs
0821300929	Protected against polarity reversal	0.992 lbs

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

Technical information

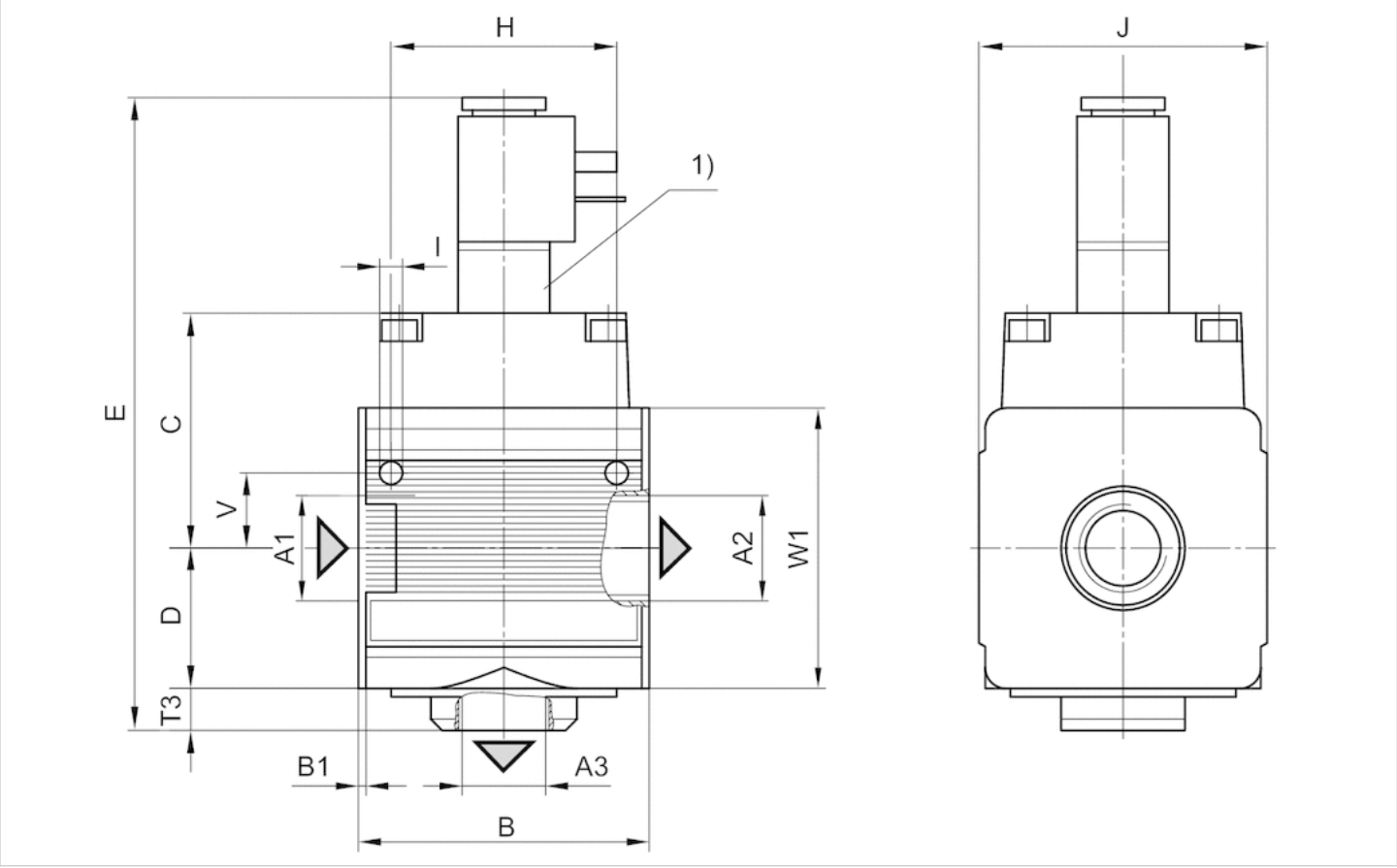
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
ATEX optional: The ATEX ID depends on the selected ATEX coil.
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° 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

Dimensions

Dimensions



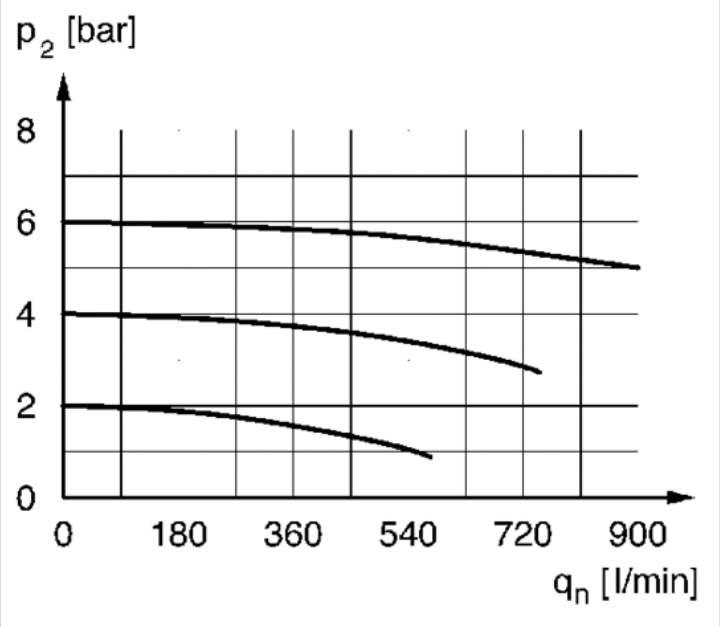
A1 = input
A2 = output
A3 = output
1) electrically operated

Dimensions in mm

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

Diagrams

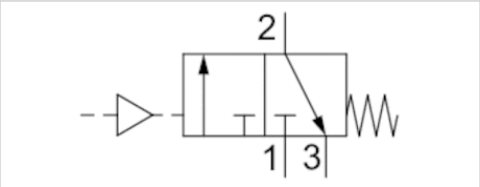
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

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

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



Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 232 psi
Control pressure min./max.	44 ... 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
0821300921	G 1/4	G 1/4	1.12 Cv	0.457 Cv

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

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

Technical information

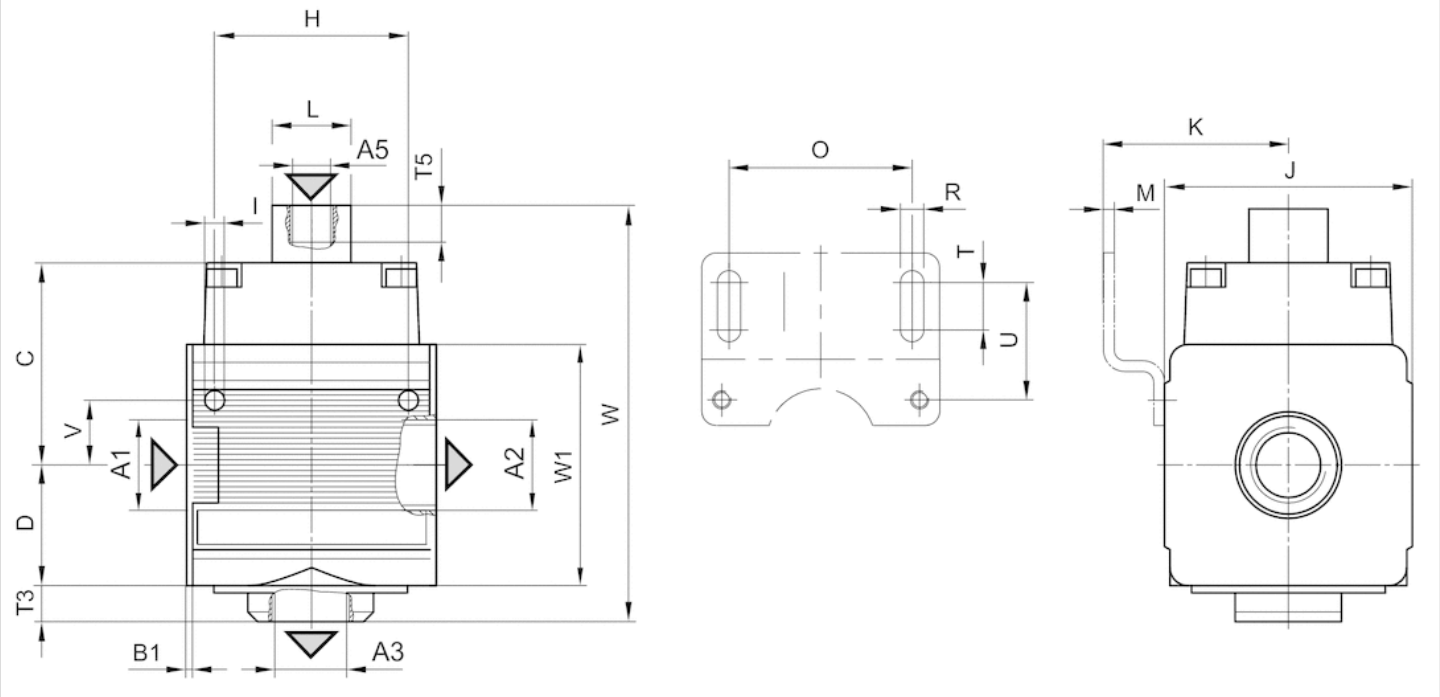
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis.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

Technical information

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

Dimensions

Dimensions



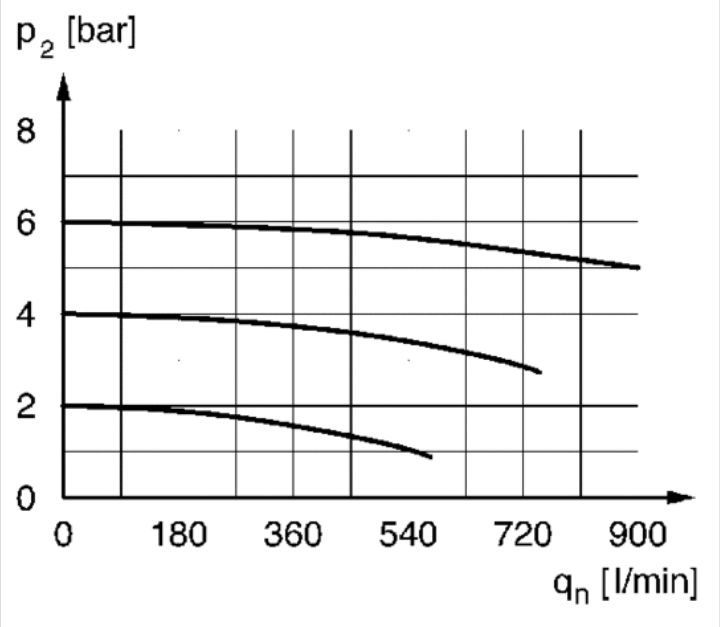
A1 = input
A2 = output
A3 = ventilation port
A5 = control pressure connection

Dimensions in mm

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

Diagrams

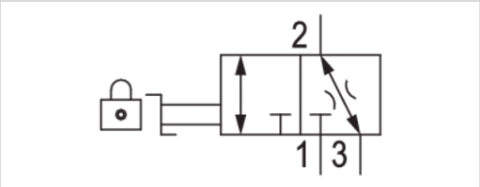
Flow rate characteristic



p2 = secondary pressure, qn = nominal flow

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

- G 1/4, G 3/8
- 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	0.794 lbs

Technical data

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

Part No.	Compressed air connection	Flow	Flow	Lock type
	Exhaust	Qn 1 ▸ 2	Qn 2▸3	
0821300901	G 1/4	2.85 Cv	0.071 Cv	for padlocks
0821300903	G 1/4	2.85 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

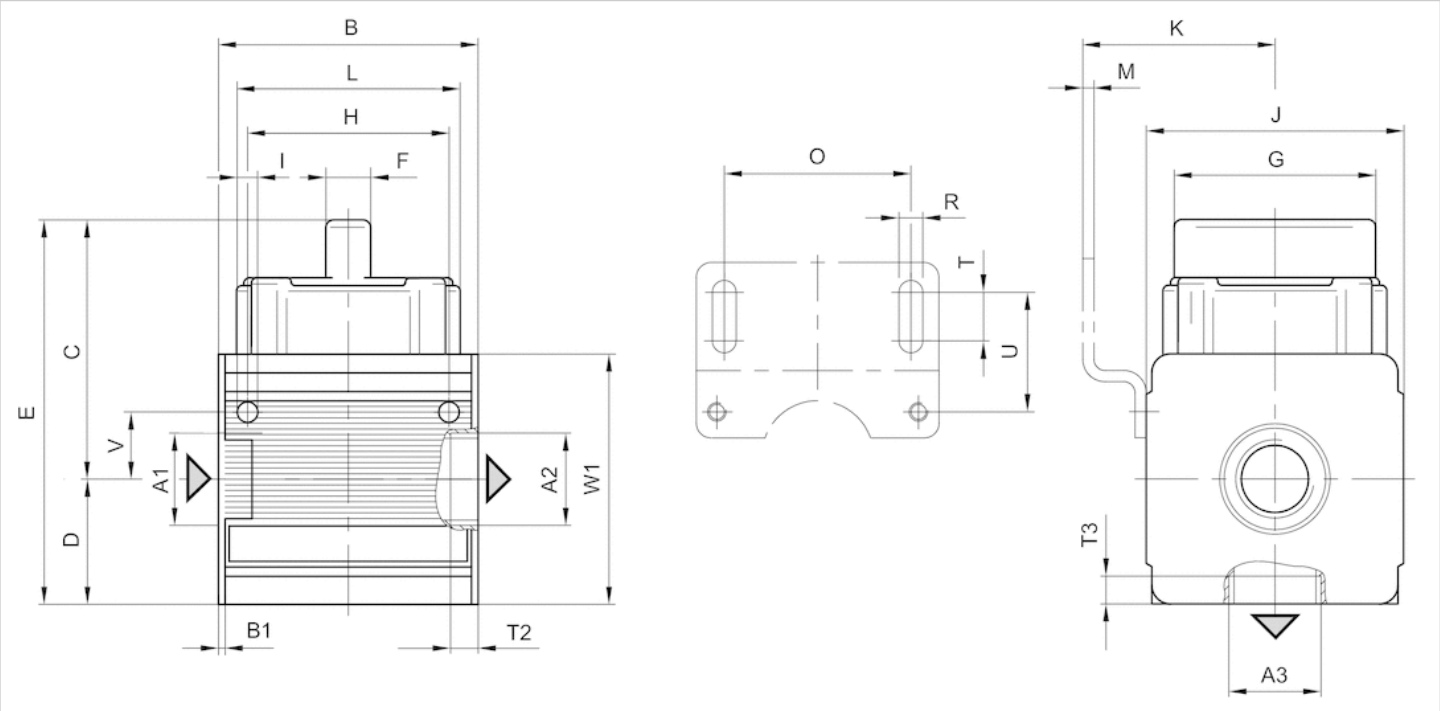
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis.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

Technical information

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

Dimensions

Dimensions



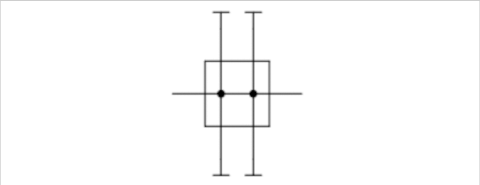
A1 = input
A2 = output
A3 = ventilation port

Dimensions in mm

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

Distributor, Series NL2-DIL

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



Version	Narrow distributor, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Weight	0.551 lbs

Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow	Nominal flow	Nominal flow
		Qn 1▸2	Qn 1▸3	Qn 1▸4	Qn 1▸5	Qn 1▸6
0821300920	G 1/4	2.74 Cv	2.74 Cv	0.915 Cv	2.03 Cv	0.915 Cv

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

Technical information

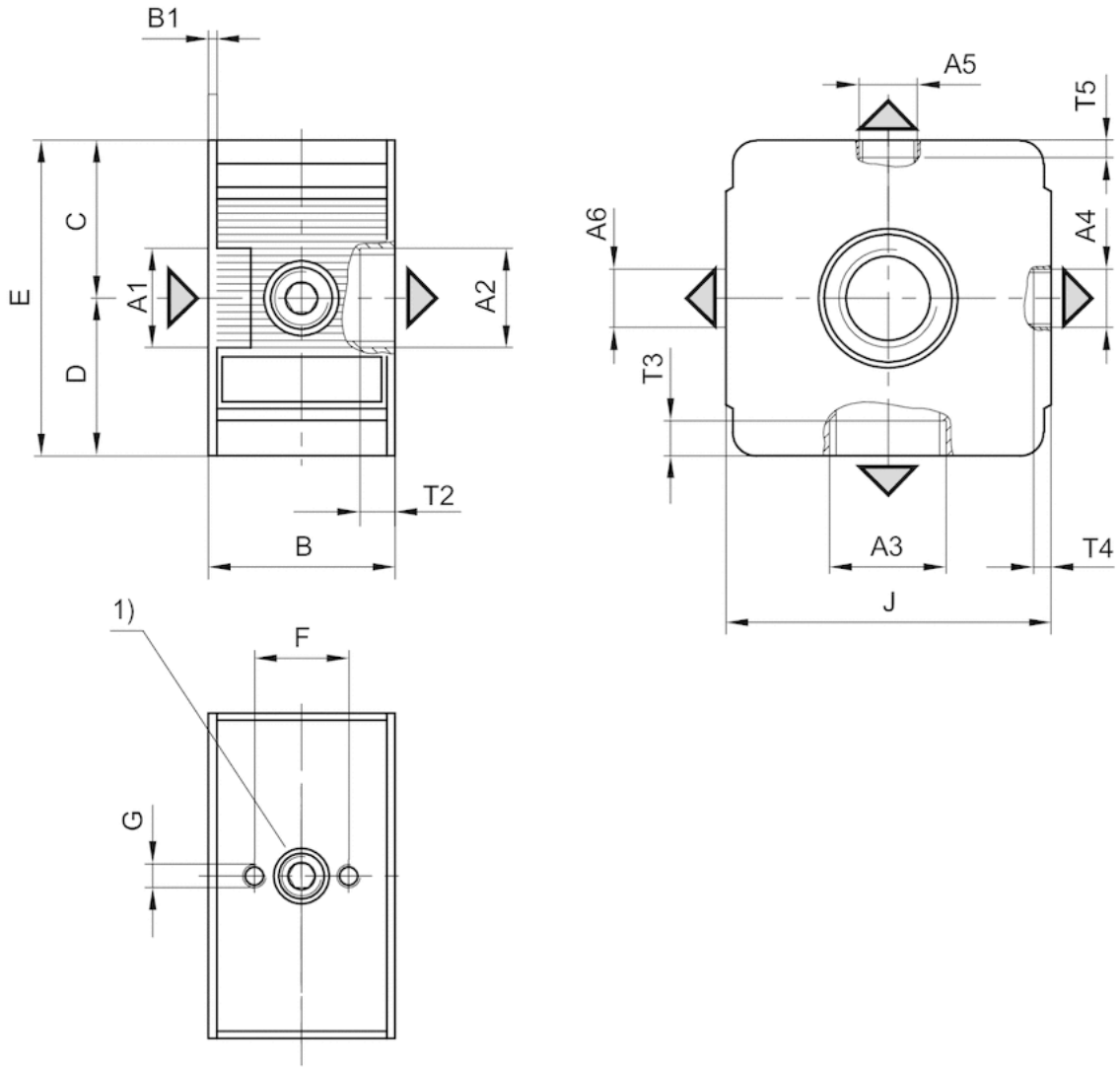
Suitable for direct mounting of a PE1 and PM1 series pressure sensor (flange version)
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene

Dimensions

Dimensions



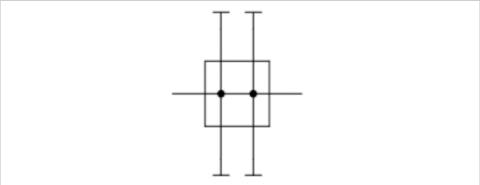
A1 = input
A2 = output
A3 = output
A4 = output
A5 = output
A6 = output
1) hole pattern for mechanical vacuum/pressure switch

Dimensions in mm

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

Distributor, Series NL2-DIS

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



Version	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	0.728 lbs

Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow	Nominal flow	Nominal flow
		Qn 1▸2	Qn 1▸3	Qn 1▸4	Qn 1▸5	Qn 1▸6
0821300907	G 1/4	2.54 Cv	2.03 Cv	0.915 Cv	2.03 Cv	0.915 Cv
0821300909	G 3/8	2.54 Cv	2.03 Cv	0.915 Cv	2.03 Cv	0.915 Cv

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

Technical information

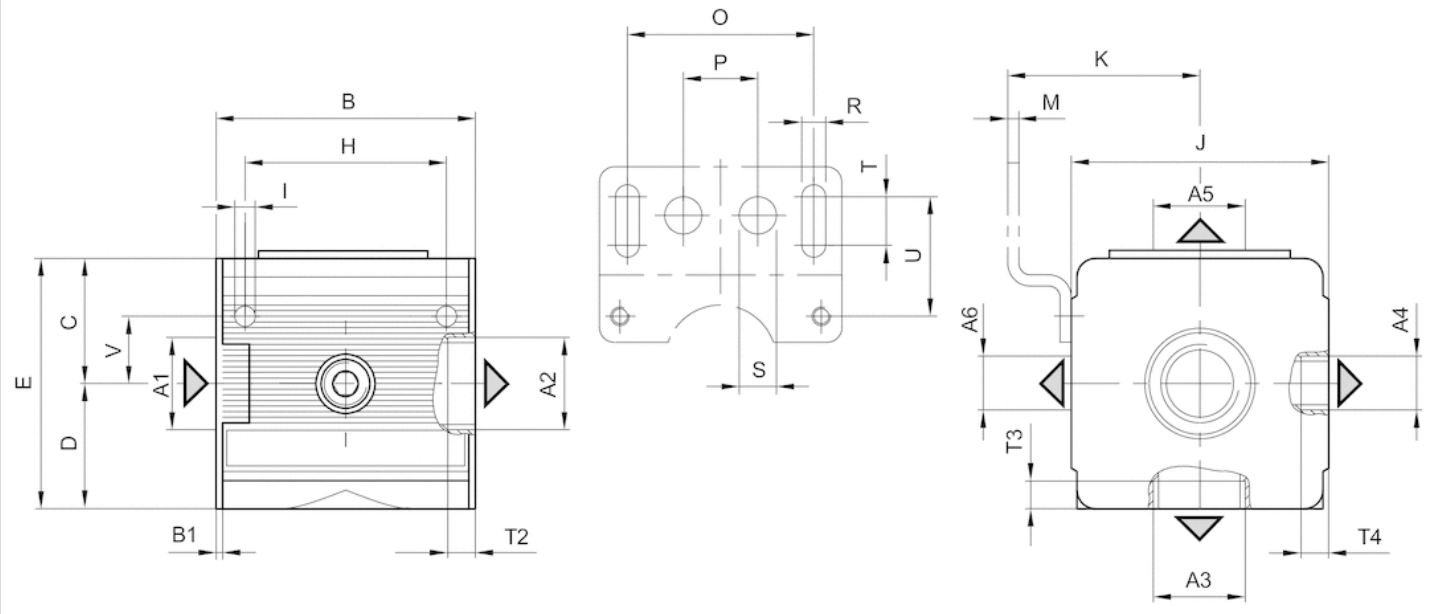
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene

Dimensions

Dimensions



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

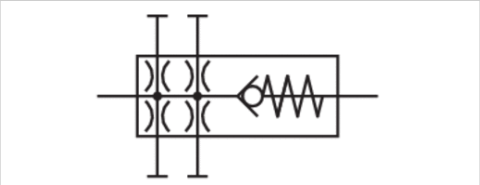
Dimensions in mm

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

U	V
27.5	12.3
27.5	12.3

Distributor, Series NL2-DIN

- G 1/4, G 3/8
- Distributor 4x
- Non-return valve
- suitable for ATEX



Version	Non-return valve, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	2 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Weight	0.728 lbs

Technical data

Part No.	Port	Nominal flow Qn 1▸2	Nominal flow Qn 1▸3	Nominal flow Qn 1▸4	Nominal flow Qn 1▸5	Nominal flow Qn 1▸6
0821300904	G 1/4	0.711 Cv	0.686 Cv	0.457 Cv	0.686 Cv	0.457 Cv
0821300906	G 3/8	0.711 Cv	0.686 Cv	0.457 Cv	0.686 Cv	0.457 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

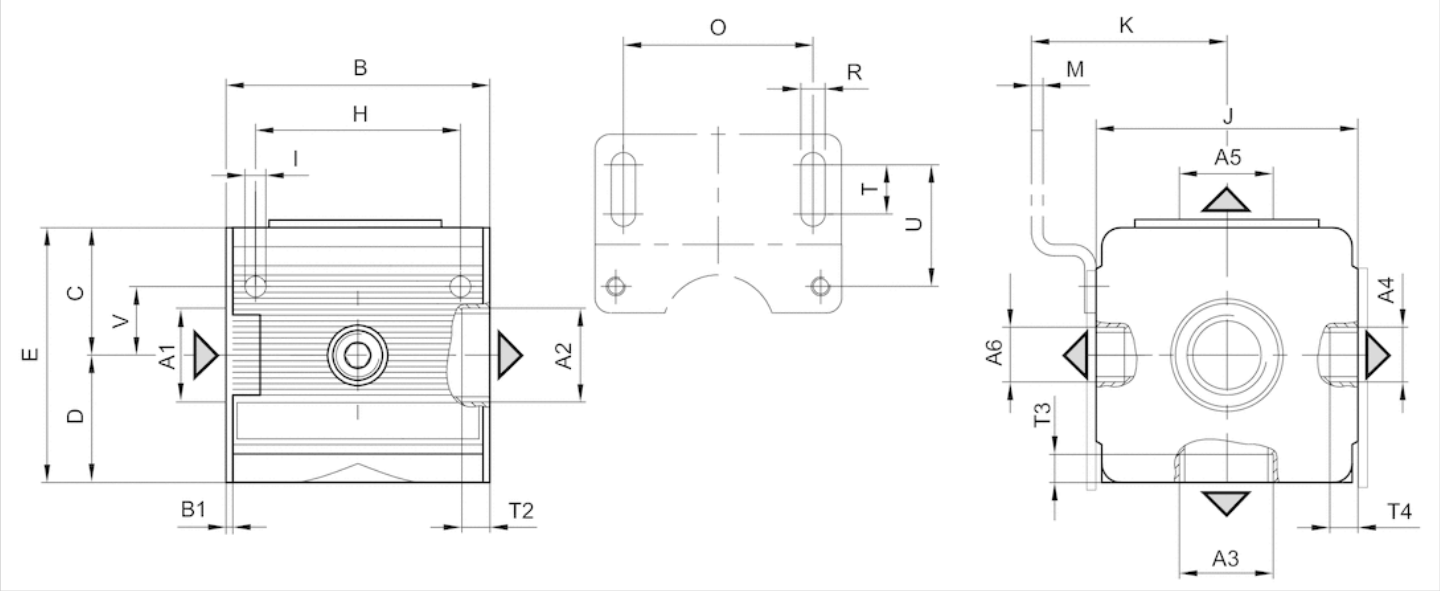
Suitable for use in Ex zones 1, 2, 21, 22
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Technical information

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

Dimensions

Dimensions



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

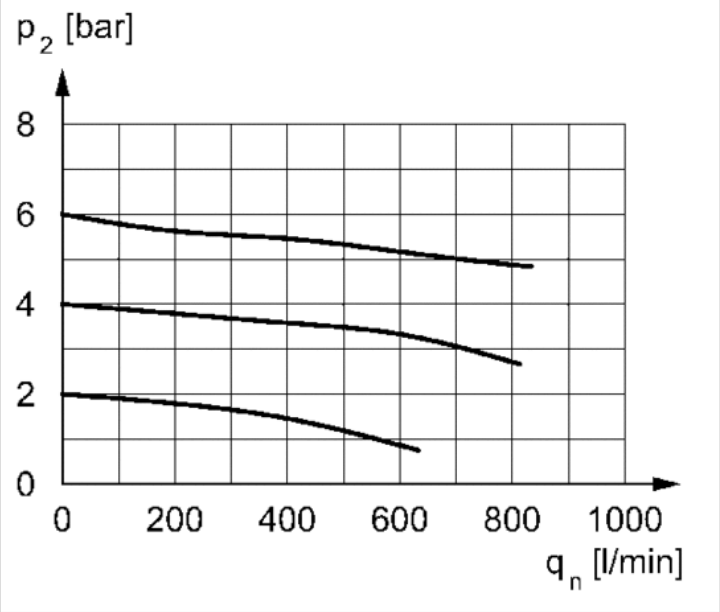
Dimensions in mm

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

V
12.3
12.3

Diagrams

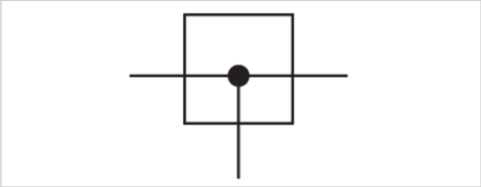
Flow rate characteristic



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

Distributor, Series NL2-DIC

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



Version	Center infeed, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	14 ... 140 °F
Medium temperature min./max.	14 ... 140 °F
Medium	Compressed air, Neutral gases
Weight	1.31 lbs

Technical data

Part No.	Port	Nominal flow	Nominal flow
		Qn 1▸2	Qn 1▸3
0821300264	G 1/4	2.74 Cv	2.74 Cv

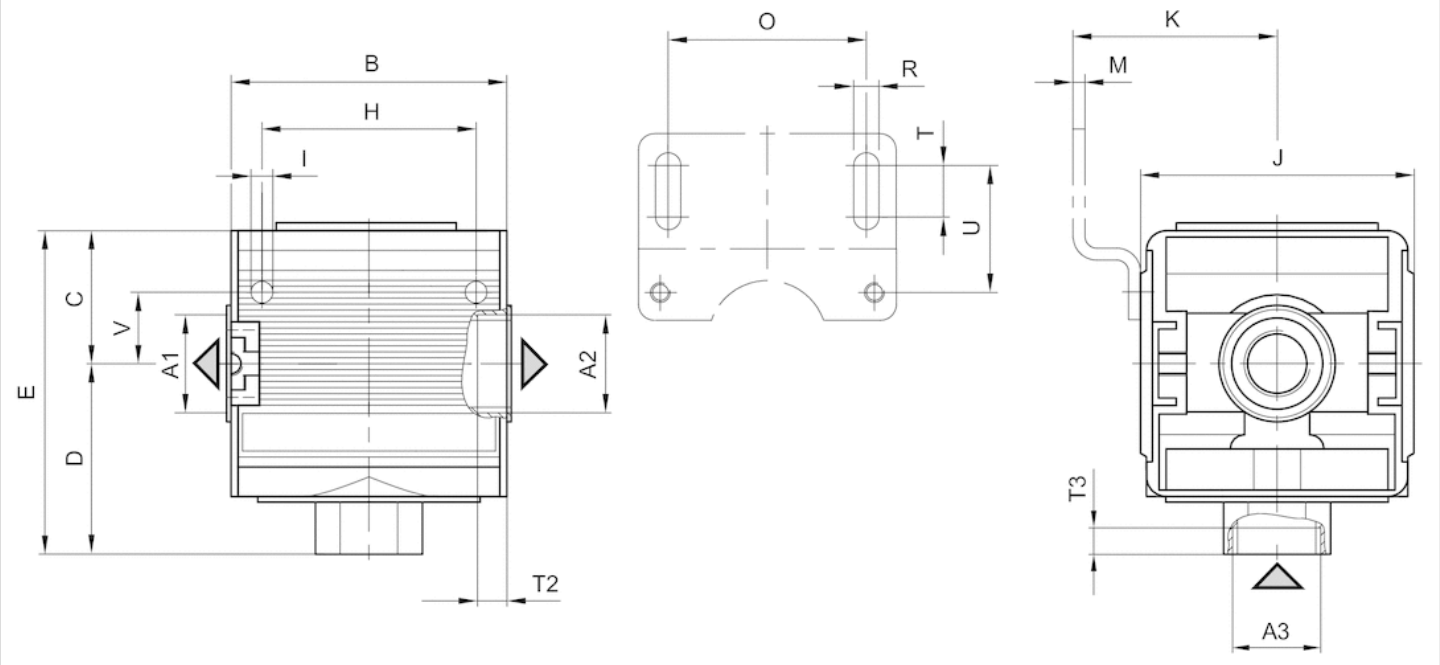
Nominal flow Qn with secondary pressure p2 = 87 psi at Δp = 14.5 psi

Technical information

Material	
Housing	Die cast zinc
Front plate	Acrylonitrile butadiene styrene

Dimensions

Dimensions



A1 = output
A2 = output
A3 = input

Dimensions in mm

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

Reservoir, Series NL2-CLS

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

Version	Reservoir
Certificates	suitable for ATEX
Working pressure min./max.	29 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air
Filter reservoir volume	0.85 fl.oz.
Weight	See table below

Technical data

Part No.	Condensate drain	Reservoir	Weight
1827009334	semi-automatic, open without pressure	Polycarbonate	0.198 lbs
1827009340	semi-automatic, open without pressure	Die cast zinc, with window	0.595 lbs
1827009335	fully automatic, open without pressure	Polycarbonate	0.254 lbs
1827009341	fully automatic, open without pressure	Die cast zinc, with window	0.683 lbs

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

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

Technical information

Material	
Reservoir	Polycarbonate, Die cast zinc
Seal	Acrylonitrile butadiene rubber

Dimensions

Fig. 3

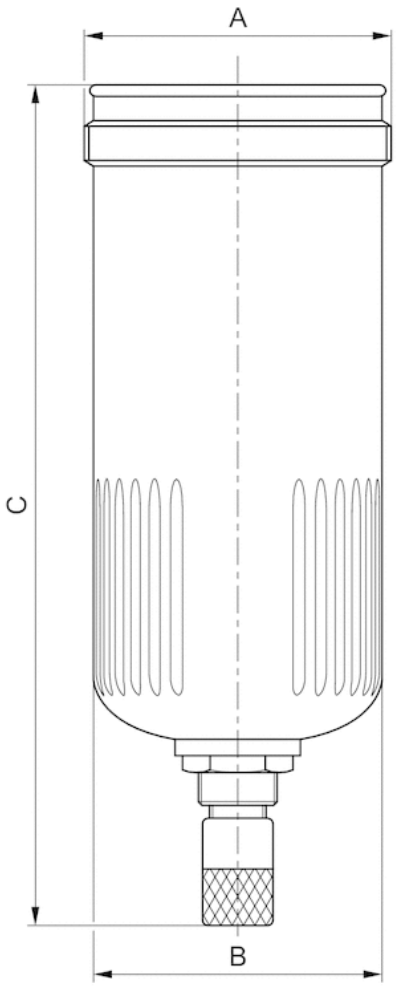


Fig. 1

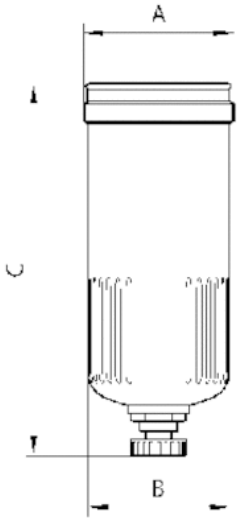


Fig. 2

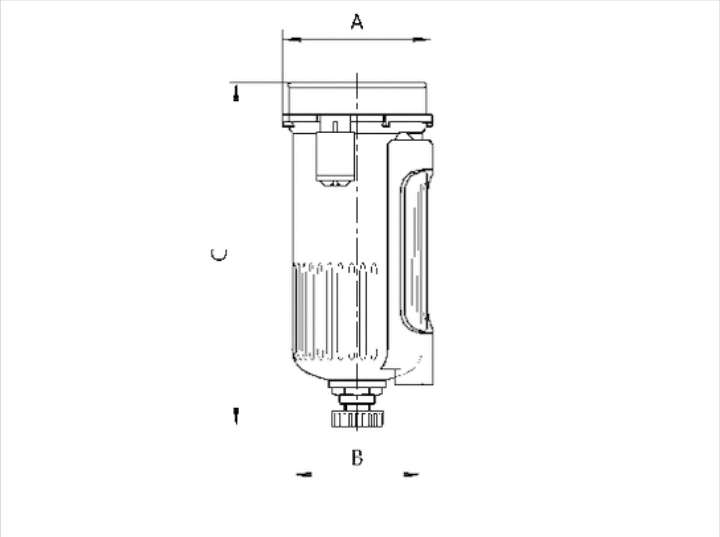
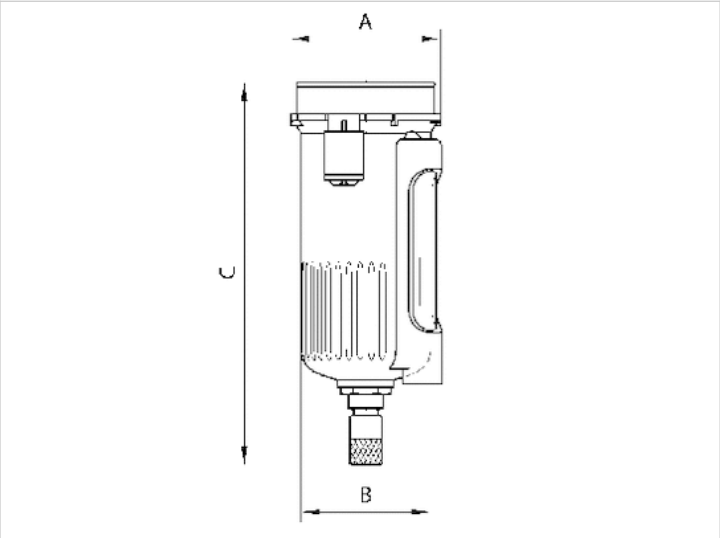


Fig. 4



Dimensions

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

Reservoir, Series NL2-CLC

- for prefilters and microfilters
- Material Die cast zinc

Version	Reservoir
Version	Metal reservoir without window
Certificates	suitable for ATEX
Working pressure min./max.	29 ... 232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air
Filter reservoir volume	0.85 fl.oz.
Weight	0.595 lbs

Technical data

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

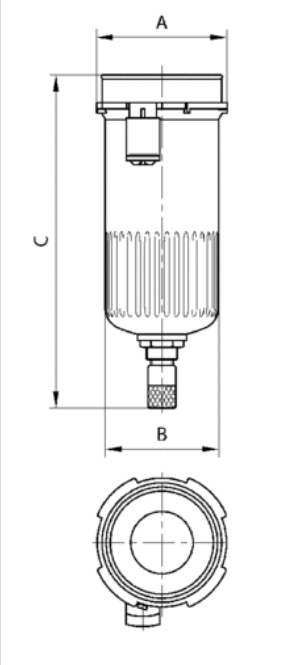
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

Material	
Reservoir	Die cast zinc
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C
1827009600	42.5	33.2	137

Reservoir, Series NL2-CLA

- for active carbon filter
- Material Die cast zinc

Version	Reservoir
Version	Metal reservoir without window
Certificates	suitable for ATEX
Working pressure min./max.	232 psi
Ambient temperature min./max.	14 ... 122 °F
Medium temperature min./max.	14 ... 122 °F
Medium	Compressed air
Filter reservoir volume	4.4 fl.oz.
Weight	0.331 lbs

Technical data

Part No.
1827009606

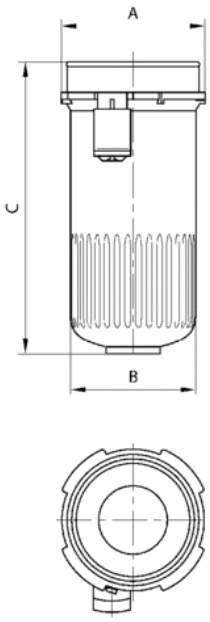
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

Material	
Reservoir	Die cast zinc
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C
1827009606	42.5	33.2	100

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

- for active carbon filter and lubricator
- Material Polycarbonate

Version	Reservoir
Version	reservoir, polycarbonate, without protective guard
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 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

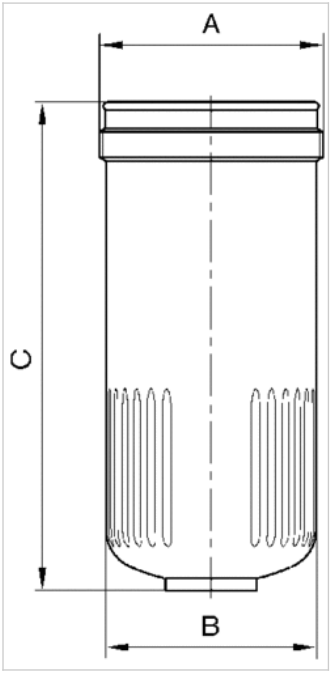
Suitable for use in Ex zones 1, 2, 21, 22

Technical information

Material	
Reservoir	Polycarbonate
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

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

Protective guard, Series NL2

- NL2
- Filter, Lubricator

Weight 0.146 lbs

Technical data

Part No.	Type
1820507000	NL2

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

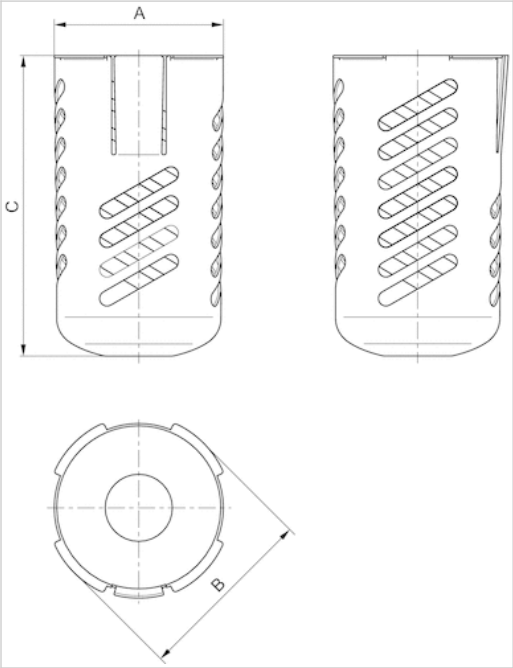
Technical information

Can be retrofitted for PC reservoir

Technical information

Material	
Material	Steel, black oxidized

Dimensions



Dimensions

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

Mounting plate

Weight	0.143 lbs

Technical data

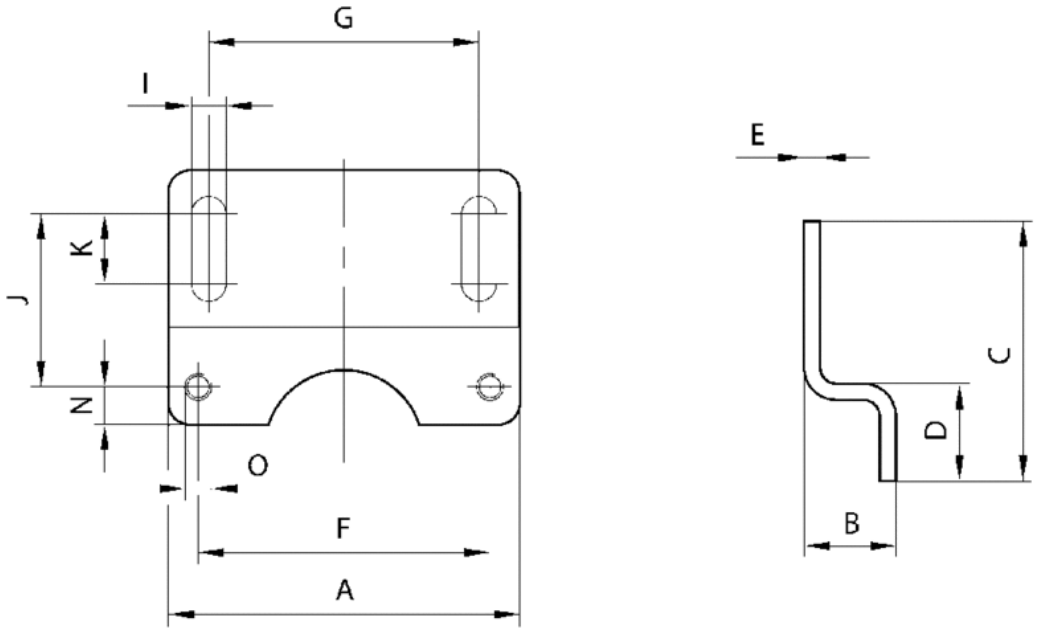
Part No.
1821336006

Scope of delivery incl. mounting screws

Technical information

Material	
Housing	Steel, galvanized

Dimensions



Dimensions

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

Mounting bracket

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

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

Technical data

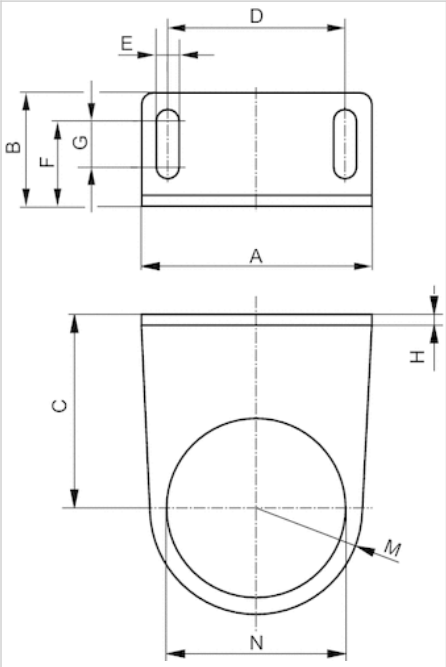
Part No.
1821331013

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

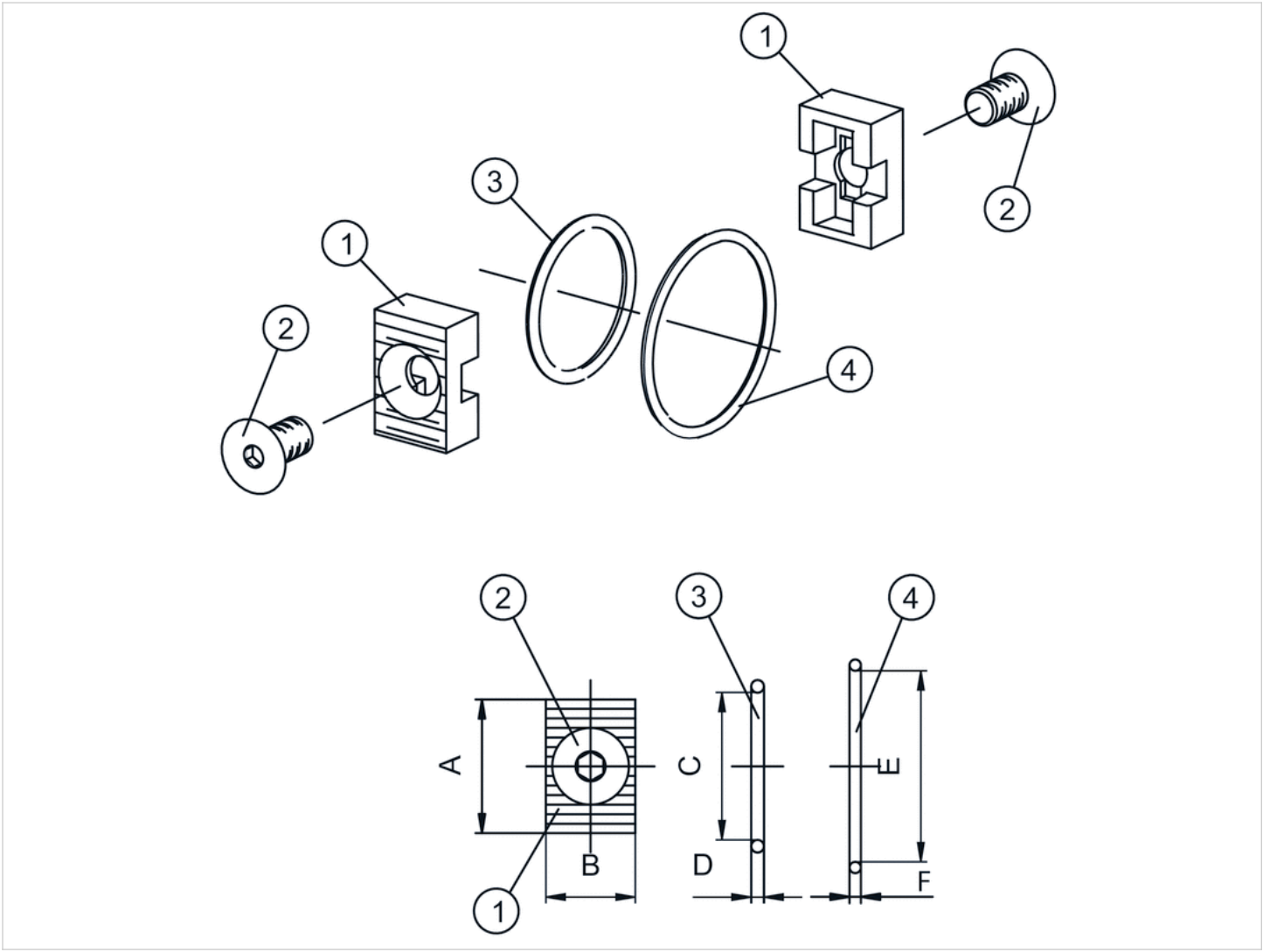
Weight	0.044 lbs

Technical data

Part No.
1827009359

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

Dimensions



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

Dimensions

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

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

- 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	-

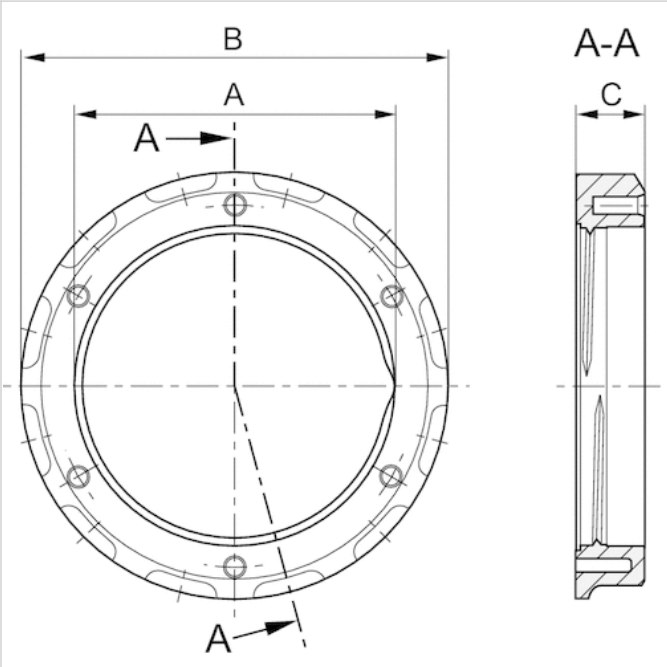
1) Suitable for use in Ex zones 1, 2, 21, 22

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

Mounting screws for wall mounting, Series NL2, NL4

Weight See table below

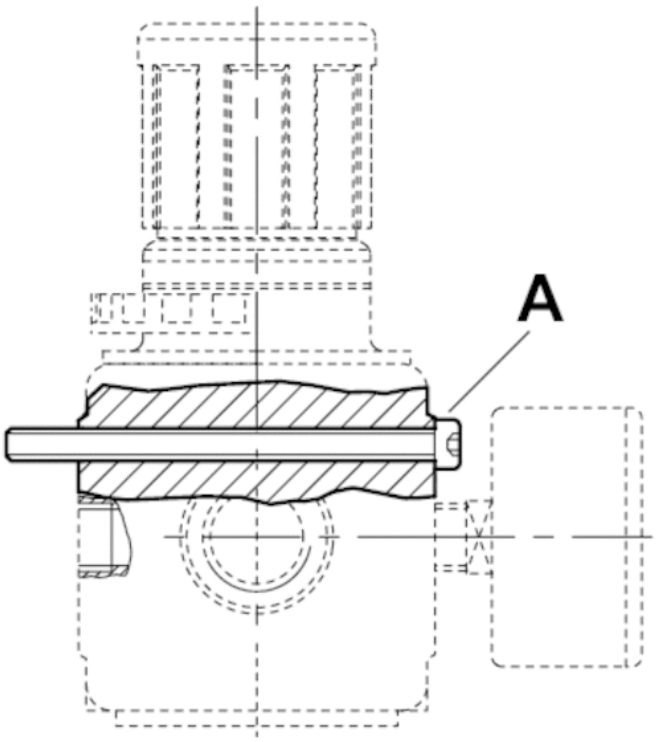
Technical data

Part No.	Type	Type	Delivery unit	Weight
1823414009	DIN 912 - M4x60	NL2	10 piece	0.013 lbs
1823414014	DIN 912 - M5x85	NL4	10 piece	0.015 lbs

Technical information

Material	
Material	Steel, galvanized

Dimensions



Dimensions

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

Pressure gauge, Series PG1-SNL

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

Version	Bourdon tube pressure gauge
Seal	Axial
Standardization	EN 837-1
Class	1,6
Ambient temperature min./max.	-40 ... 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	See table below

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value	Weight
1827231057	G 1/4	1.57 inch	-0.8 ... 0	-1 ... 0	-14 ... 0 psi	0.1	0.132 lbs
1827231047	G 1/4	1.57 inch	0 ... 10	0 ... 16	0 ... 232 psi	0.5	0.132 lbs
1827231059	G 1/4	1.57 inch	0 ... 4	0 ... 6	0 ... 87 psi	0.2	0.132 lbs
1827231060	G 1/4	1.57 inch	0 ... 8	0 ... 10	0 ... 145 psi	0.5	0.132 lbs
1827231054	G 1/4	1.97 inch	-0.8 ... 0	-1 ... 0	-14 ... 0 psi	0.1	0.198 lbs
1827231012	G 1/4	1.97 inch	0 ... 2	0 ... 2.5	0 ... 36 psi	0.1	0.198 lbs
1827231016	G 1/4	1.97 inch	0 ... 4	0 ... 6	0 ... 87 psi	0.2	0.198 lbs
1827231015	G 1/4	1.97 inch	0 ... 8	0 ... 10	0 ... 145 psi	0.5	0.198 lbs
1827231010	G 1/4	1.97 inch	0 ... 12	0 ... 16	0 ... 232 psi	0.5	0.198 lbs
1827231055	G 1/4	2.48 inch	-0.8 ... 0	-1 ... 0	-14 ... 0 psi	0.1	0.22 lbs
1827231011	G 1/4	2.48 inch	0 ... 12	0 ... 16	0 ... 232 psi	0.5	0.22 lbs

Part No.	
1827231057	-
1827231047	1)
1827231059	-
1827231060	1)
1827231054	-

Part No.	
1827231012	-
1827231016	1)
1827231015	1)
1827231010	1)
1827231055	-
1827231011	1)

Order seal 1829202004 separately

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

Technical information

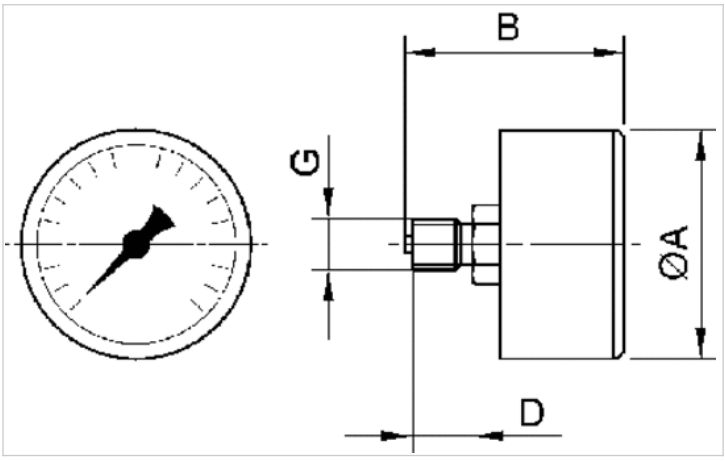
Order axial seal separately

Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Polystyrene

Dimensions

Dimensions



Dimensions in mm

G	Nominal diameter	Ø A	B	D
G 1/4	1.57 inch	41	41.5	10
G 1/4	1.97 inch	49	47.5	13
G 1/4	2.48 inch	63	48.3	13

Pressure gauge, Series PG1-SNL

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

Version	Bourdon tube pressure gauge
Mounting	with U-clip
Seal	Axial
Standardization	EN 837-1
Class	1,6
Ambient temperature min./max.	-40 ... 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	See table below

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value	Weight
1827231032	G 1/4	1.97 inch	0 ... 2	0 ... 2.5	0 ... 36 psi	0.1	0.326 lbs
1827231036	G 1/4	2.48 inch	0 ... 2	0 ... 2.5	0 ... 36 psi	0.1	0.419 lbs
1827231033	G 1/4	1.97 inch	0 ... 4	0 ... 6	0 ... 87 psi	0.2	0.326 lbs
1827231037	G 1/4	2.48 inch	0 ... 4	0 ... 6	0 ... 87 psi	0.2	0.419 lbs
1827231034	G 1/4	1.97 inch	0 ... 8	0 ... 10	0 ... 145 psi	0.5	0.326 lbs
1827231038	G 1/4	2.48 inch	0 ... 8	0 ... 10	0 ... 145 psi	0.5	0.419 lbs
1827231035	G 1/4	1.97 inch	0 ... 12	0 ... 16	0 ... 232 psi	0.5	0.326 lbs
1827231039	G 1/4	2.48 inch	0 ... 12	0 ... 16	0 ... 232 psi	0.5	0.419 lbs

Technical information

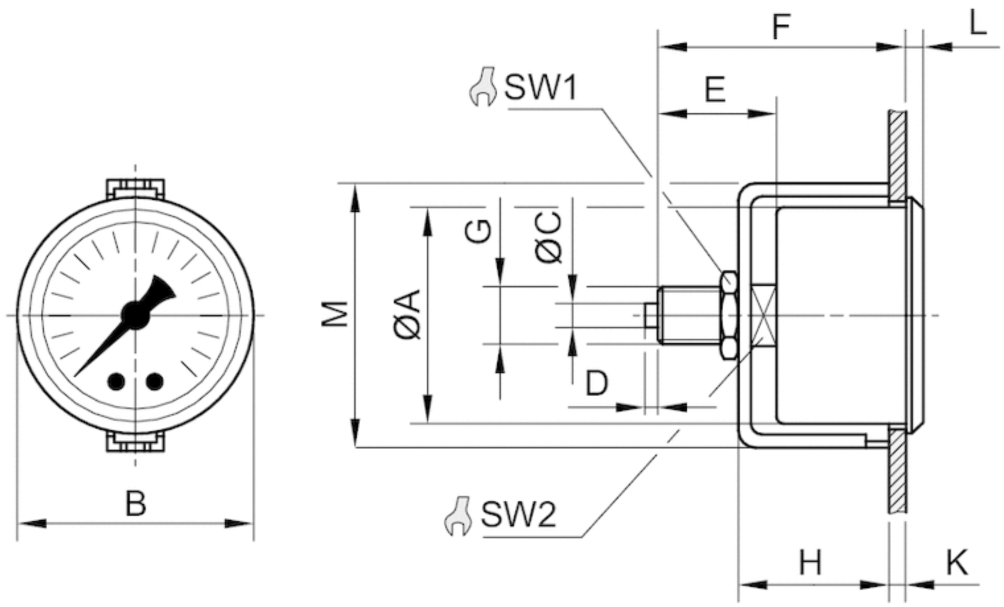
To set the operating range, the cover (inspection glass) must be removed. To do this, carefully lift the inspection glass by inserting a pointed or flat object in the slot provided for this purpose on the housing circumference.
Order axial seal separately

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
G 1/4	1.97 inch	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	2.48 inch	62	67	5	3	27	53	36.3	4.2	5.5	75	17
G 1/4	1.97 inch	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	2.48 inch	62	67	5	3	27	53	36.3	4.2	5.5	75	17
G 1/4	1.97 inch	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	2.48 inch	62	67	5	3	27	53	36.3	4.2	5.5	75	17
G 1/4	1.97 inch	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	2.48 inch	62	67	5	3	27	53	36.3	4.2	5.5	75	17

SW2
14
14
14
14
14

SW2
14
14
14

Pressure gauge, Series PG1-SNL-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
R412003474	G 1/4	1.97 inch	0 bar ... 1.2	0 bar ... 1.6	0 ... 23 psi	0.05
R412003475	G 1/4	1.97 inch	0 bar ... 2	0 bar ... 2.5	0 ... 36 psi	0.1
R412003476	G 1/4	1.97 inch	0 bar ... 3.2	0 bar ... 4	0 ... 58 psi	0.2
R412003477	G 1/4	1.97 inch	0 bar ... 4	0 bar ... 6	0 ... 87 psi	0.2
R412003478	G 1/4	1.97 inch	0 bar ... 8	0 bar ... 10	0 ... 145 psi	0.5
R412003479	G 1/4	1.97 inch	0 bar ... 12	0 bar ... 16	0 ... 232 psi	0.5

Technical information

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

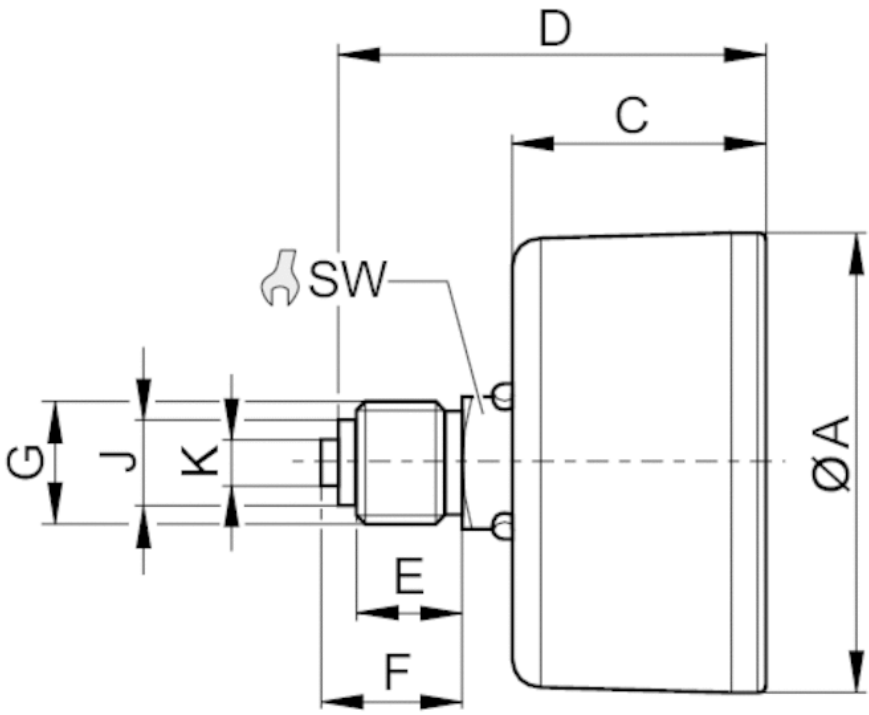
Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass

Material	
Viewing window	Polystyrene

Dimensions

Dimensions



Dimensions

Compressed air connection	Nominal diameter	Ø A	C	D	E	F	J	K	SW
G 1/4	1.97 inch	49	26.5	44.5	11	15	9.5	5	14

Pressure gauge, Series PG1-SNL

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

Version	Bourdon tube pressure gauge
Seal	Axial
Standardization	EN 837-1
Class	1,6
Ambient temperature min./max.	-40 ... 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	0.198 lbs

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
R412004987	G 1/4	1.97 inch	0 ... 12 bar	0 ... 16 bar	0 ... 232 psi	0.5

Technical information

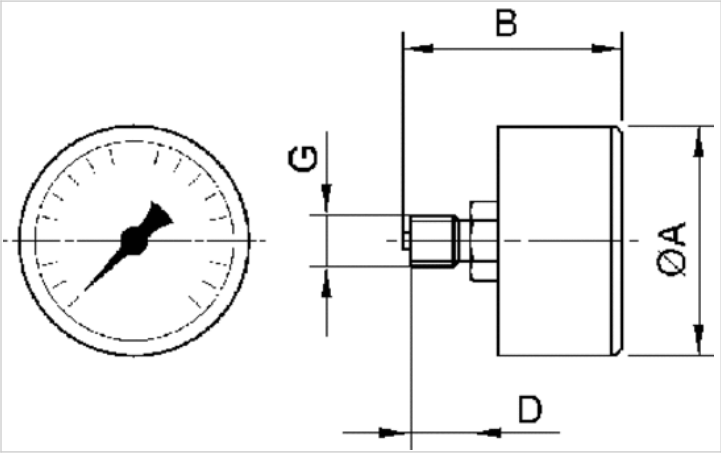
Suitable for use in Ex zones 1, 2, 21, 22
Order axial seal separately

Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Mineral glass

Dimensions

Dimensions

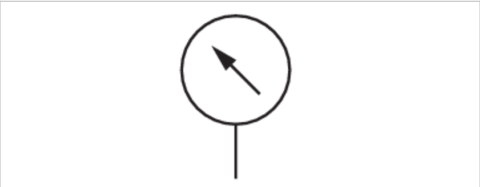


Dimensions in mm

G	Nominal diameter	Ø A	B	D
G 1/4	1.97 inch	49	47.5	13

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	0.198 lbs

Technical data

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

Order seal 1829202004 separately

Technical information

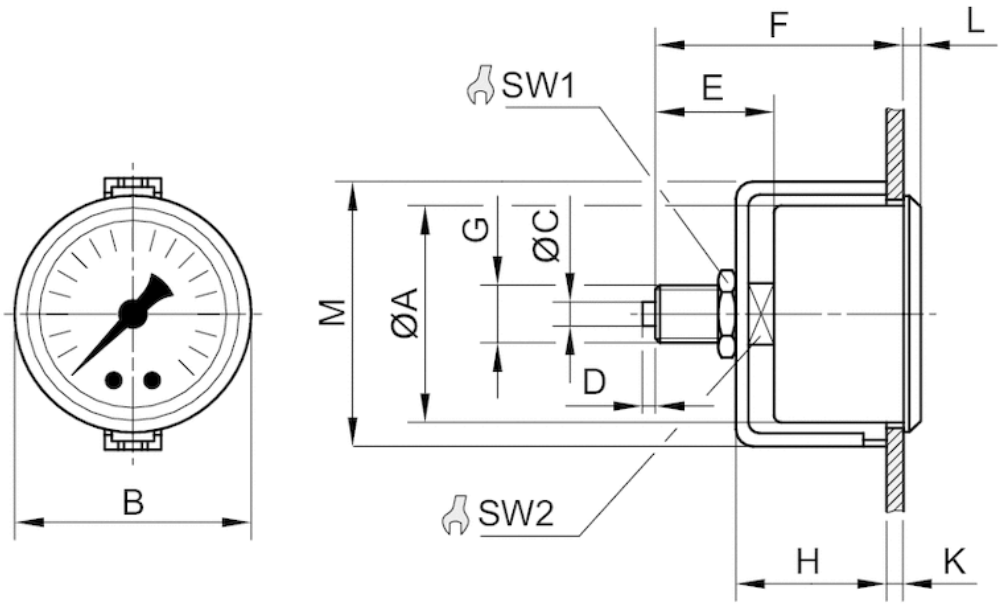
Order axial seal separately

Technical information

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

Dimensions

Dimensions

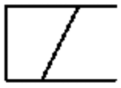


Dimensions in mm

Compressed air connection	Ø A	B	C	D	E	F	H	K	L	M	SW1	SW2
G 1/4	50	54	5	3	29.5	51.5	34.5	3	4.5	61	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

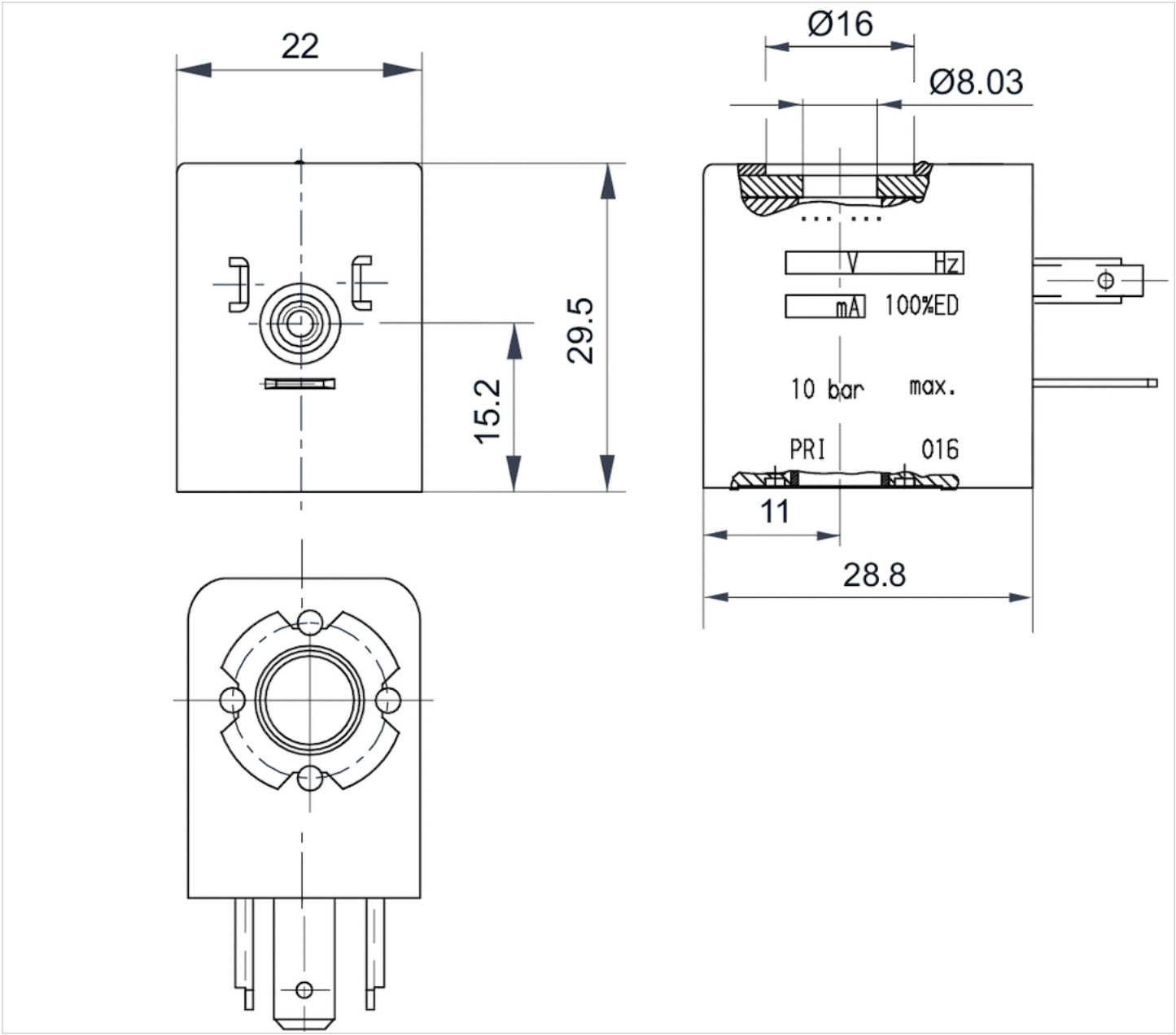
Part No.	Holding power	Holding power	Switch-on power	Switch-on power
	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz
1824210235	9.7 VA	7.9 VA	12.6 VA	10.2 VA

Technical information

Material	
Housing	Thermoplastic elastomer

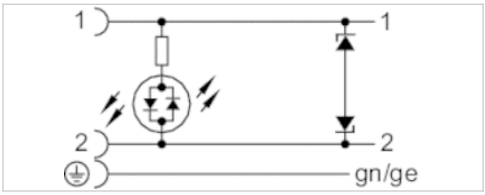
Dimensions

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

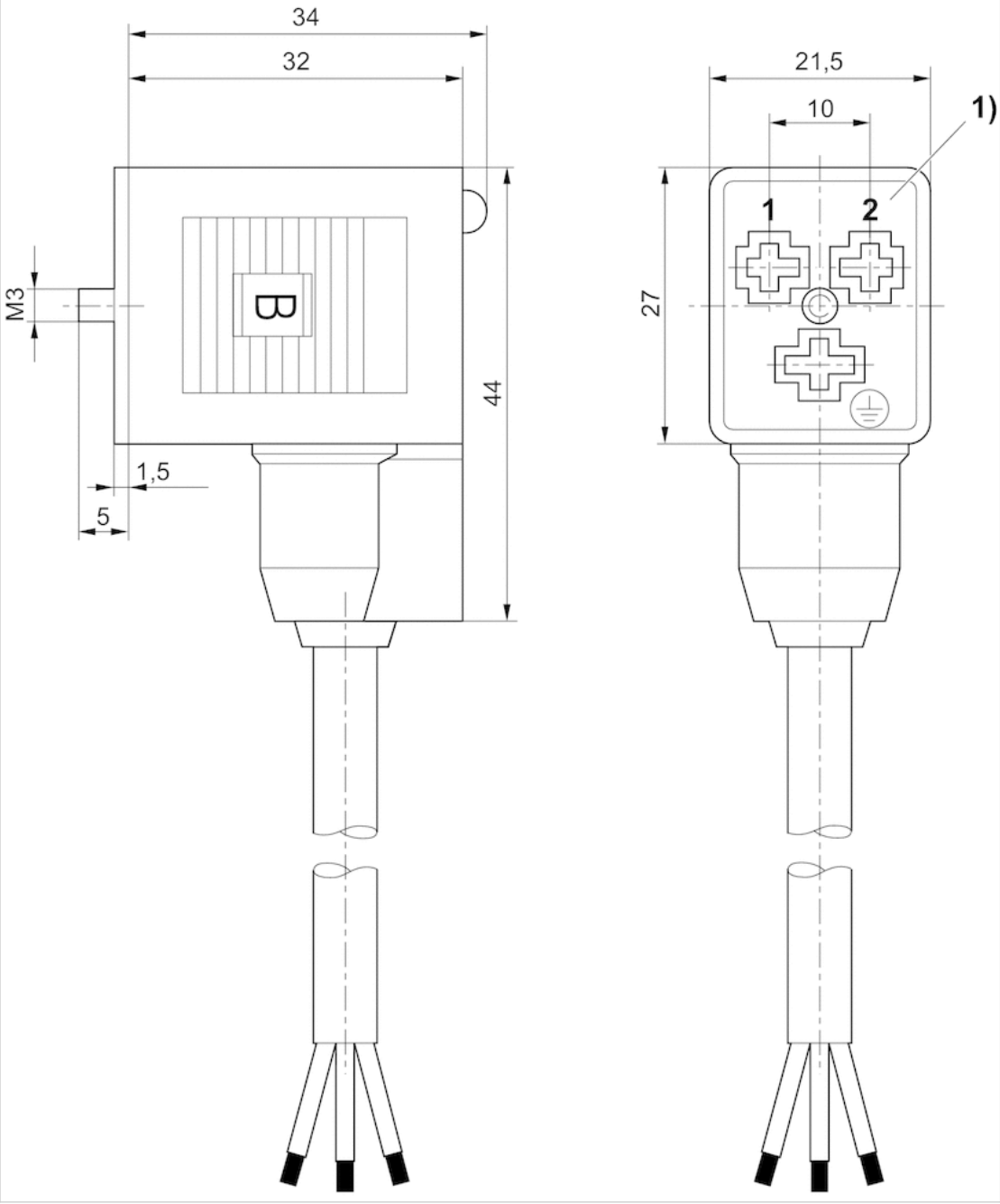
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc
Cable sheath	Polyvinyl chloride

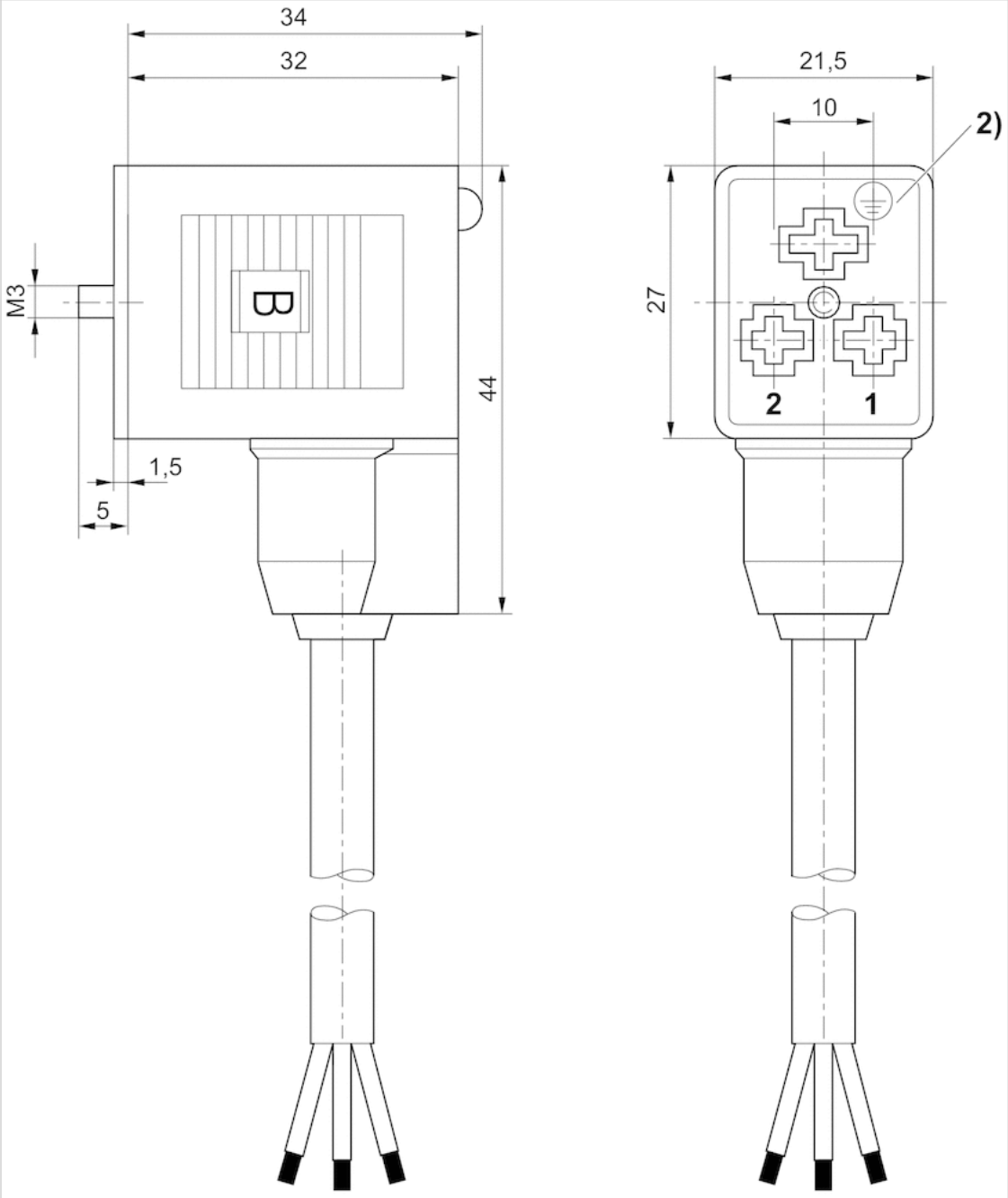
Dimensions

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

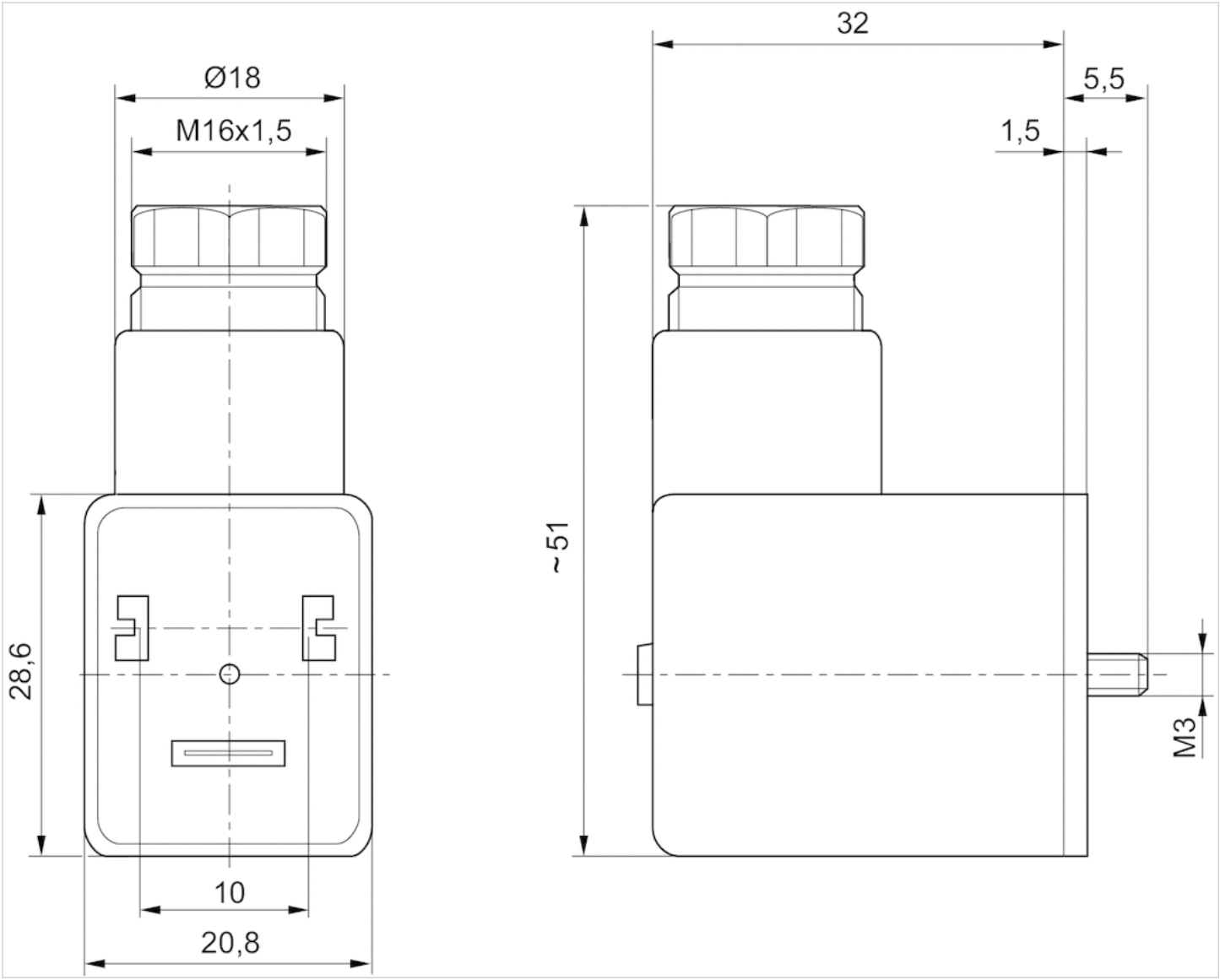
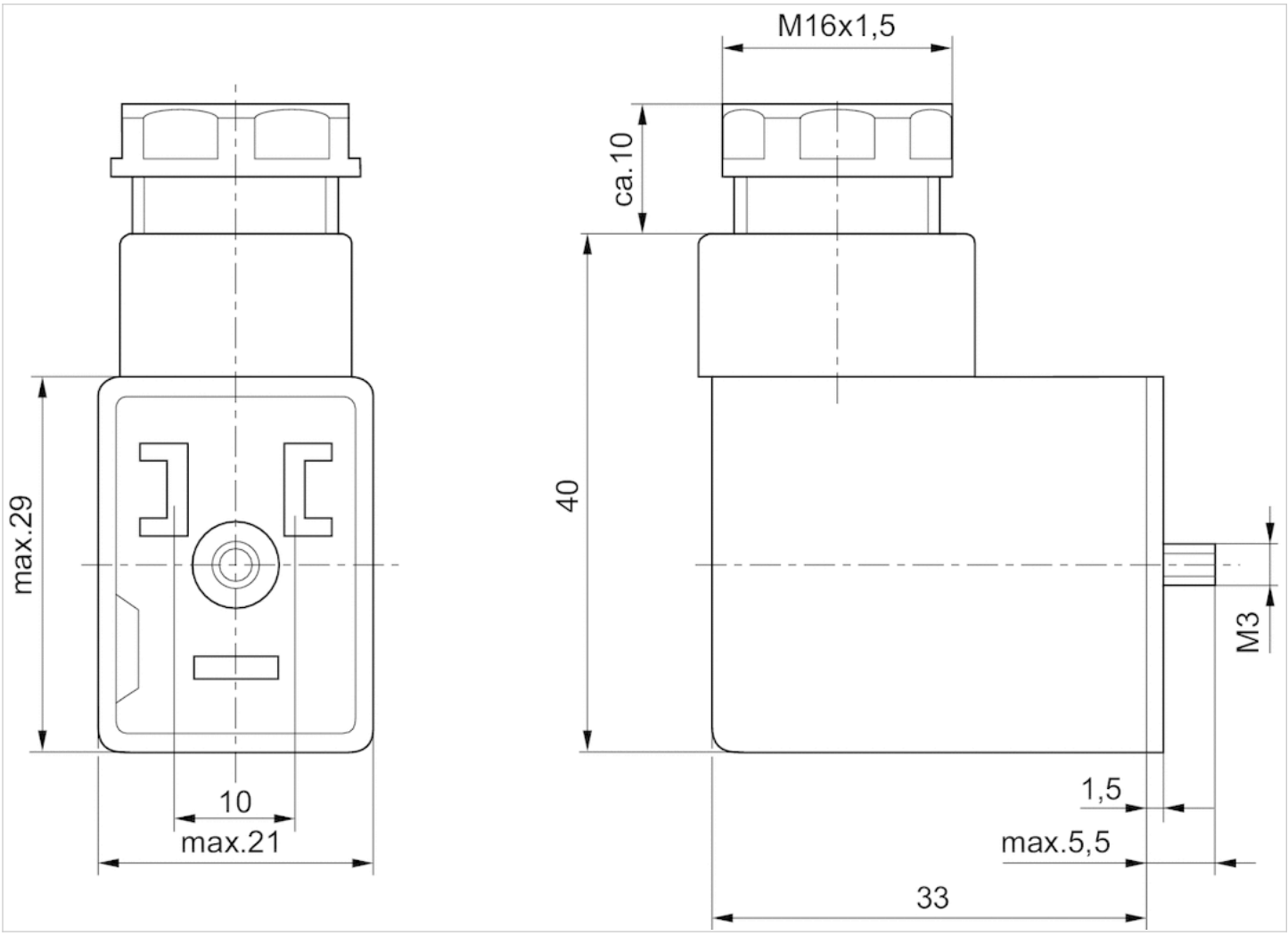


Fig. 2



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

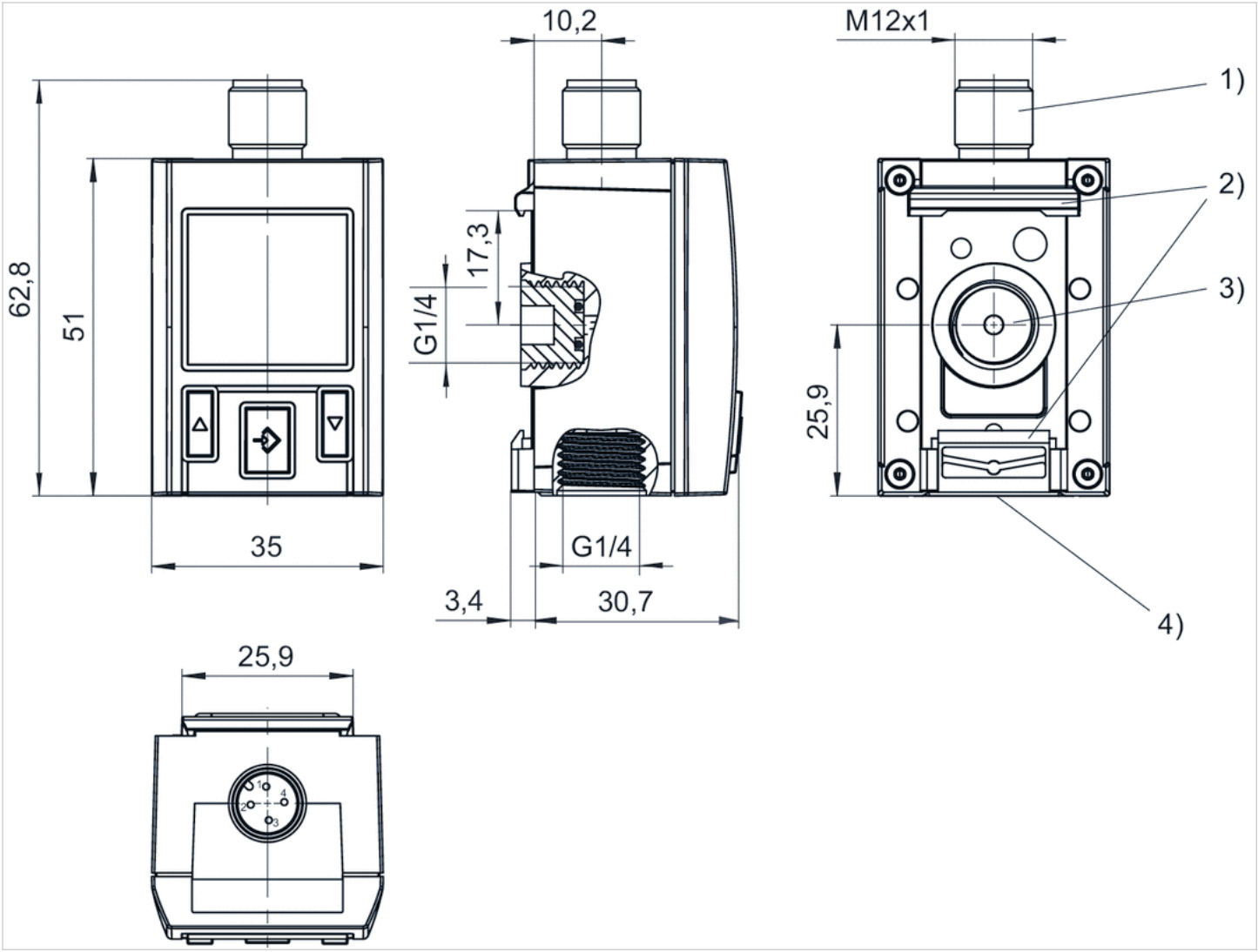
Alternative pressure connection (G1/4) on the rear side (closed with plug)
Display color selectable, red or green
The IO-Link device description (IODD) for the PE5 pressure sensor is available for download in the Media Centre.

Technical information

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

Dimensions

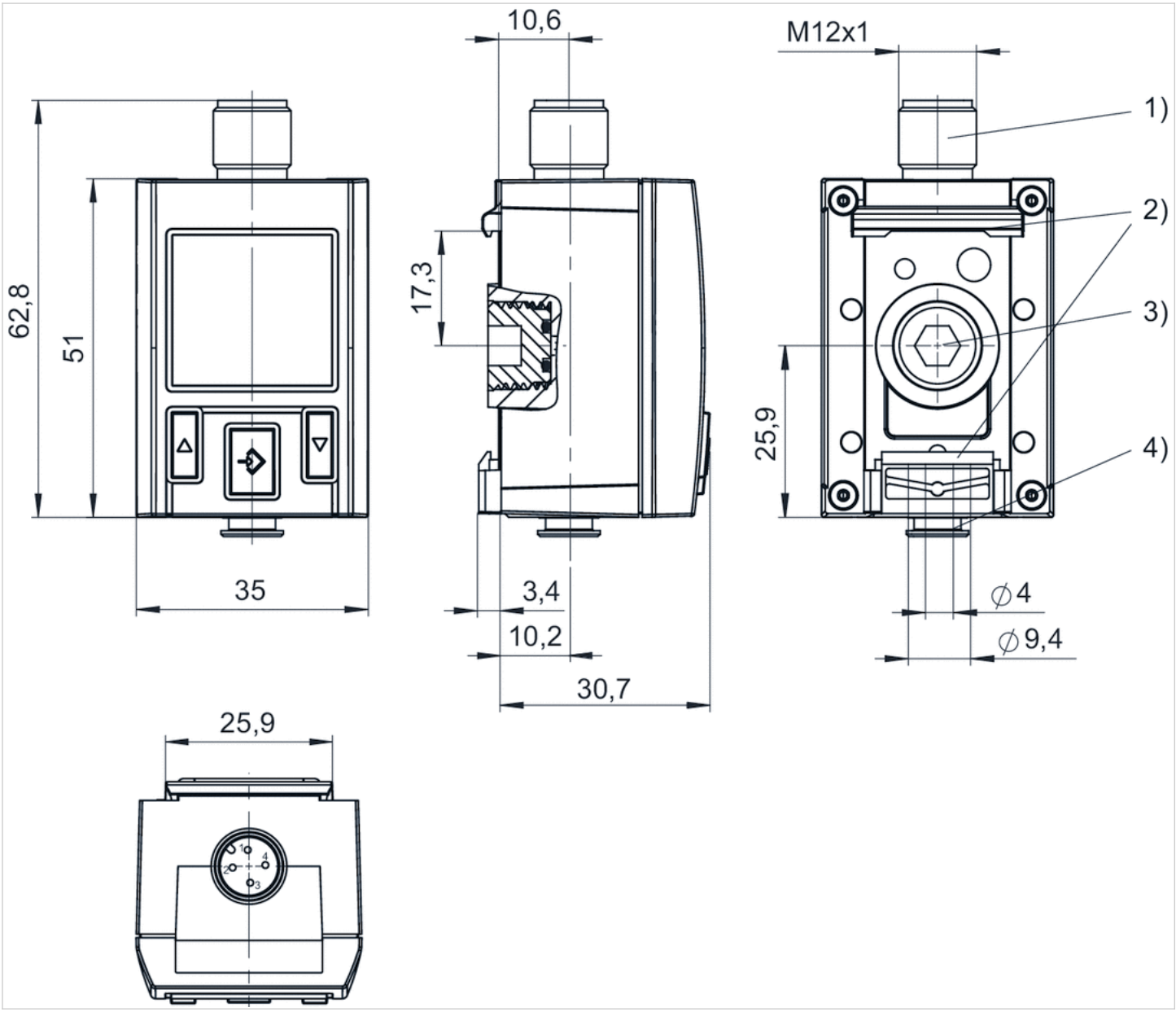
Fig. 1



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

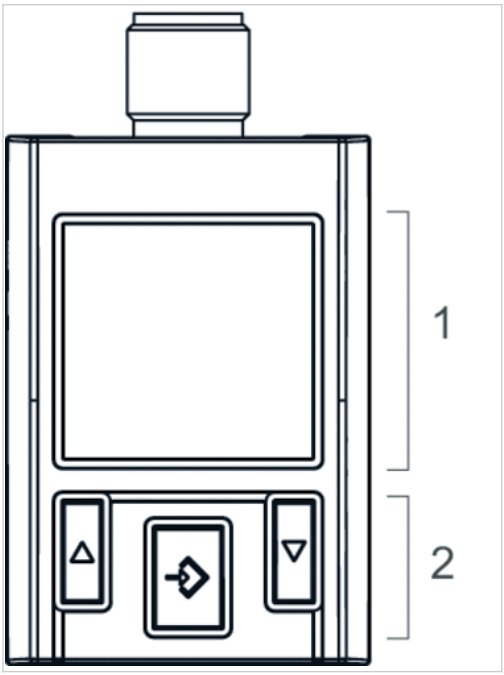
3) Alternative pressure connection (G1/4) closed with plug
4) Pressure connection G1/4

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

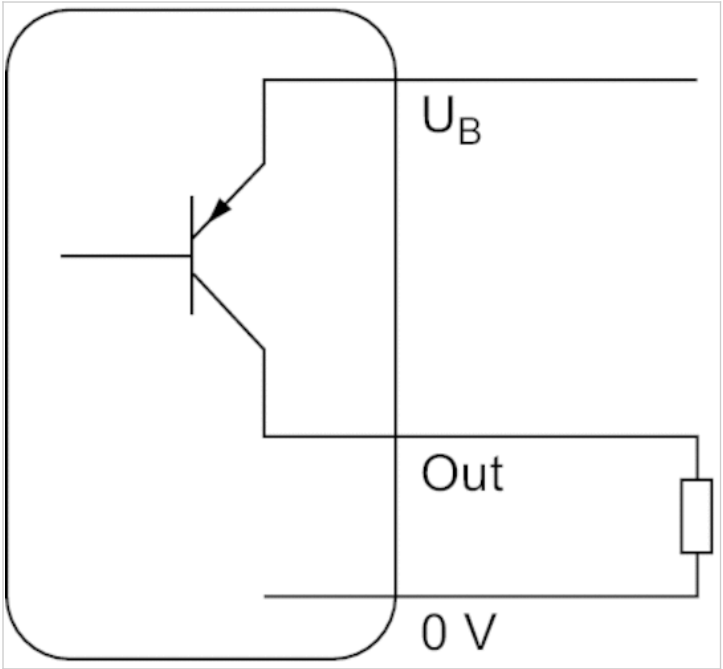
Display and operation area



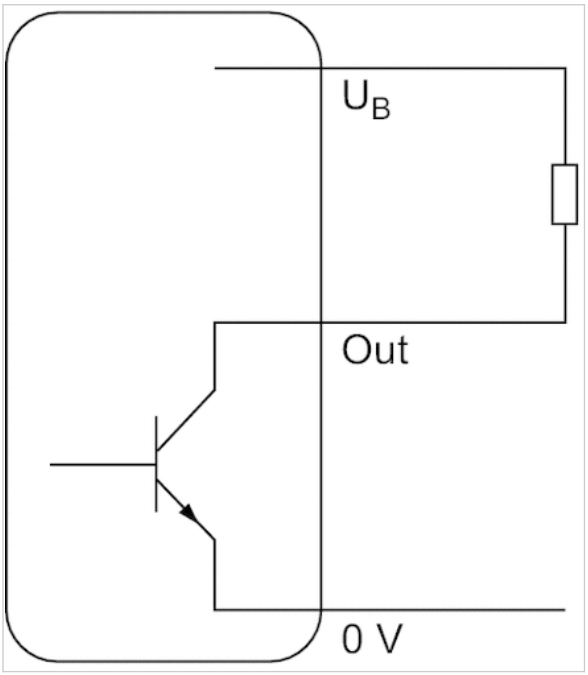
1) LCD display
2) Control panel with 3 buttons

Diagrams

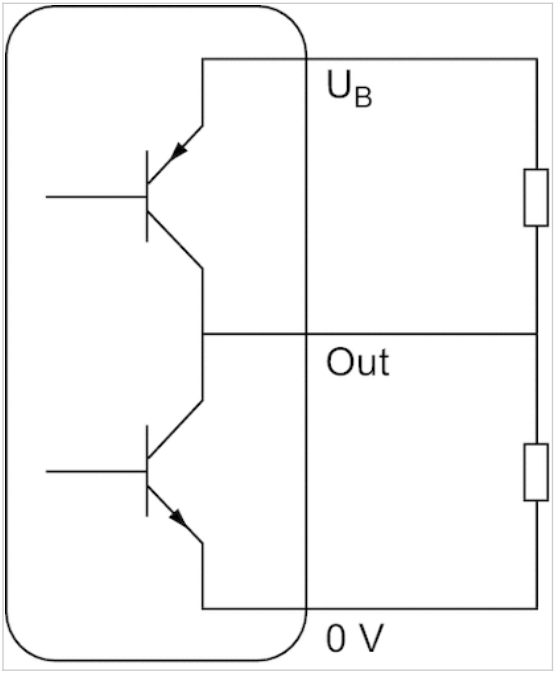
Operating mode PNP



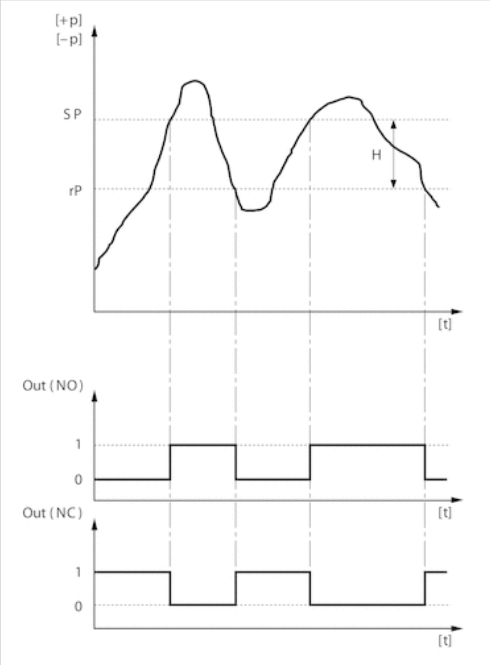
Operating mode NPN



Operating mode Push-pull

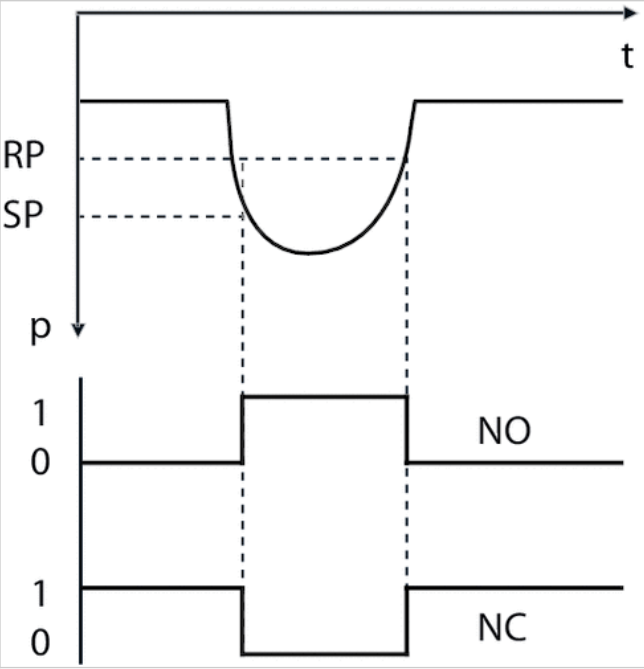


Hysteresis function: switching and resetting behavior dependent on pressure p and time t In case

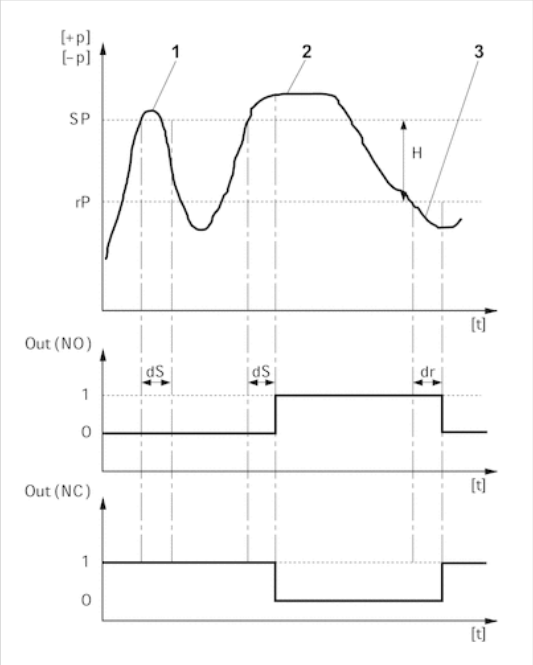


H: Hysteresis
SP = switching point
RP = resetting point
Out (NC): switch output, break contact
Out (NO): switch output, make contact

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

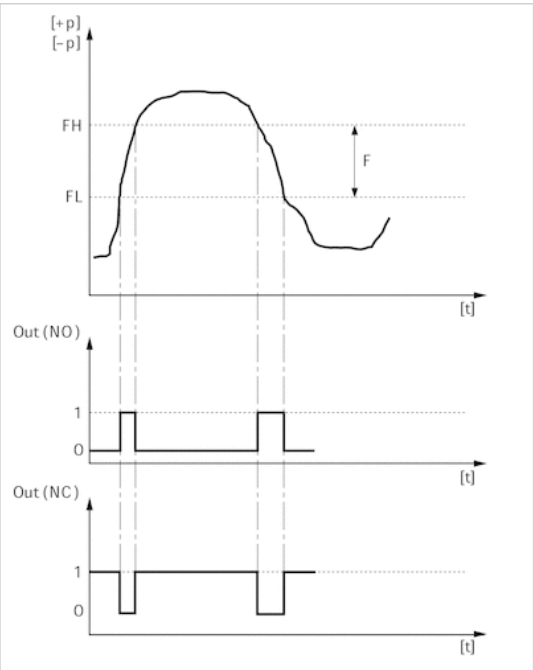


Delayed hysteresis function: switching and resetting behavior depending on pressure p and time



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

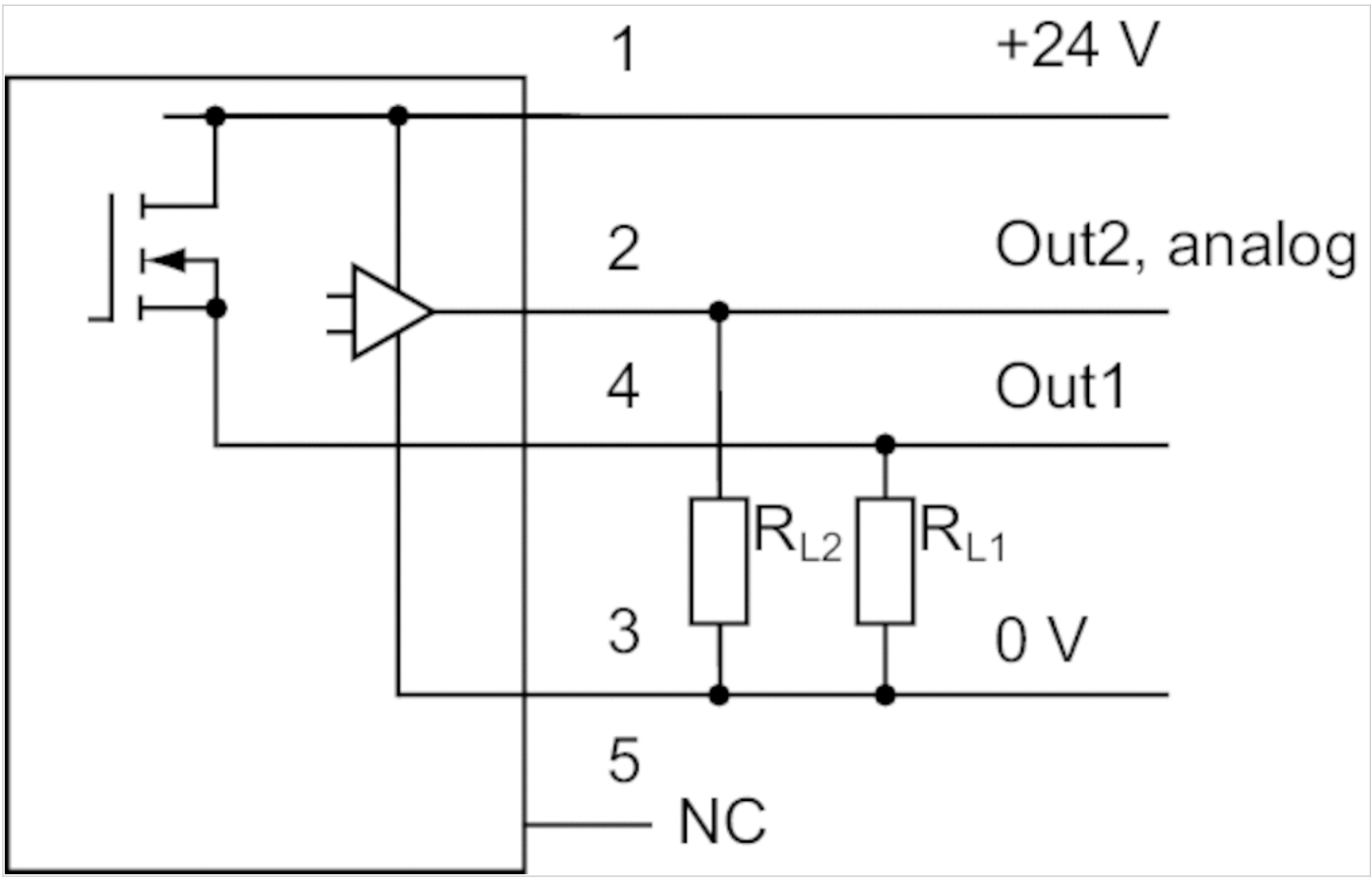


FH: pressure band, upper value
FL: pressure band, lower value
Out (NC): switch output, break contact

Out (NO): switch output, make contact

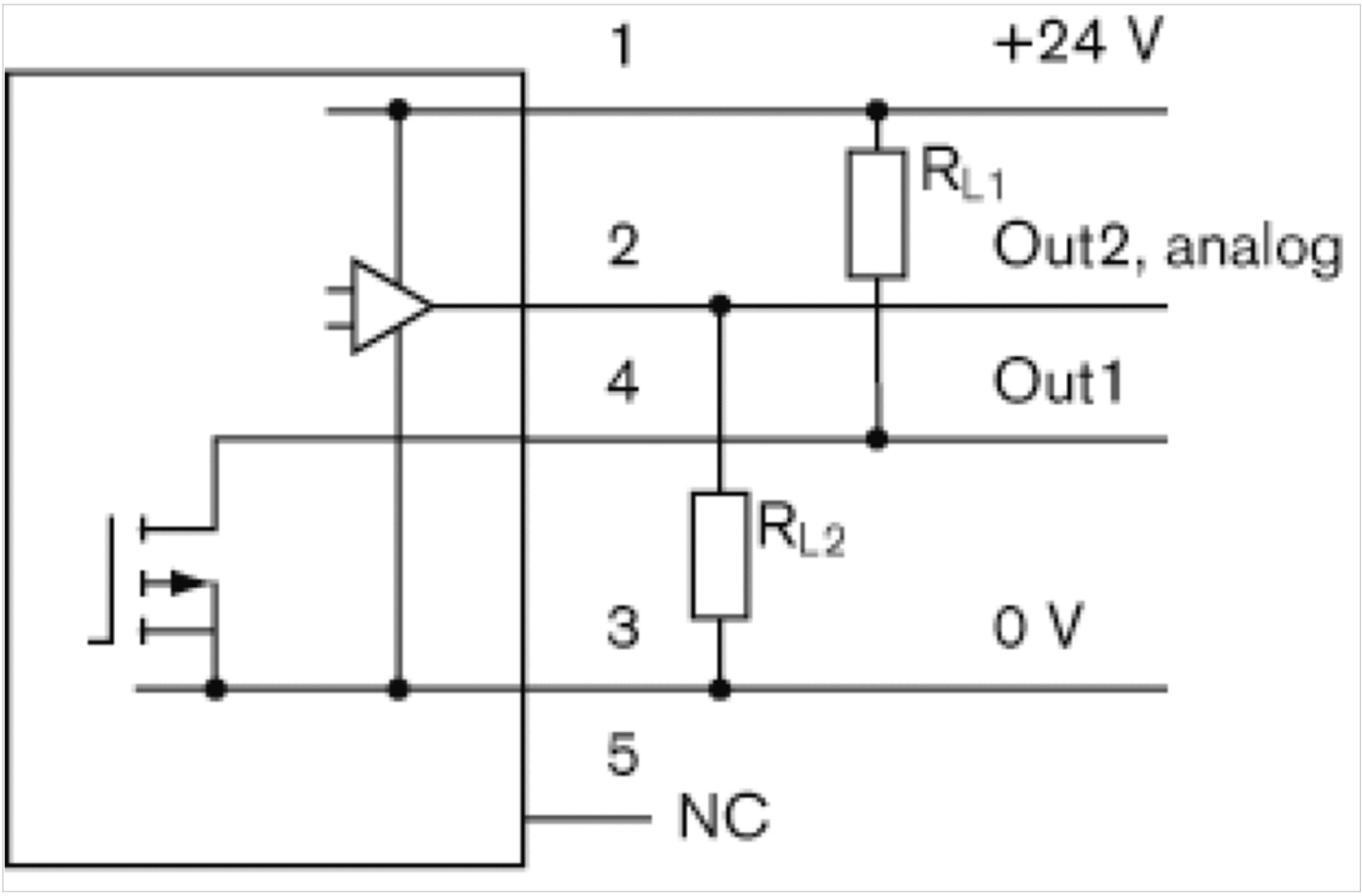
Circuit diagram

Block diagram 1x PNP and 1x analog



RL = storable postion

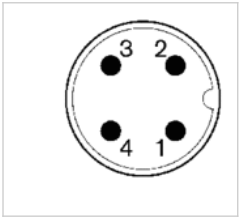
Block diagram 1x NPN and 1x analog



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, Flange with O-ring, Ø 5x1,5

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

Technical data

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

Part No.	Protection against overpressure	Output signal	Output signal	Compressed air connection
		Analog	digital	
R412010848	145 psi	-	1 x PNP	Internal thread, G 1/4
R412010849	145 psi	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010853	145 psi	-	2 x PNP	Internal thread, G 1/4
R412010856	145 psi	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010850	580 psi	-	1 x PNP	Internal thread, G 1/4
R412010851	580 psi	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010854	580 psi	-	2 x PNP	Internal thread, G 1/4
R412010855	580 psi	-	2 x PNP	Flange with O-ring, Ø 5x1,5
R412010857	580 psi	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010858	580 psi	4 ... 20 mA	1 x PNP	Flange with O-ring, Ø 5x1,5

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

Technical information

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

Technical information

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

Dimensions

Fig. 1

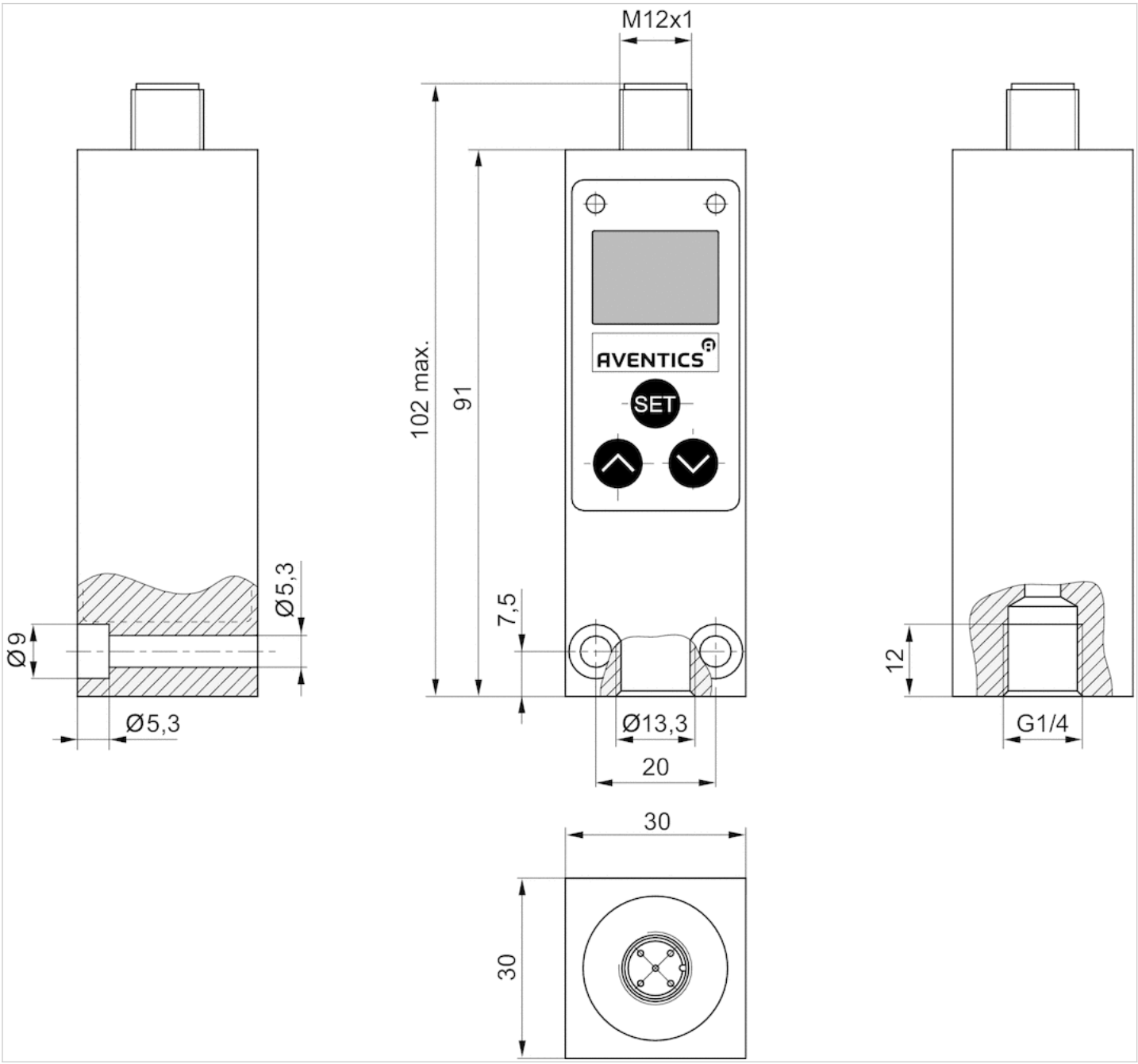
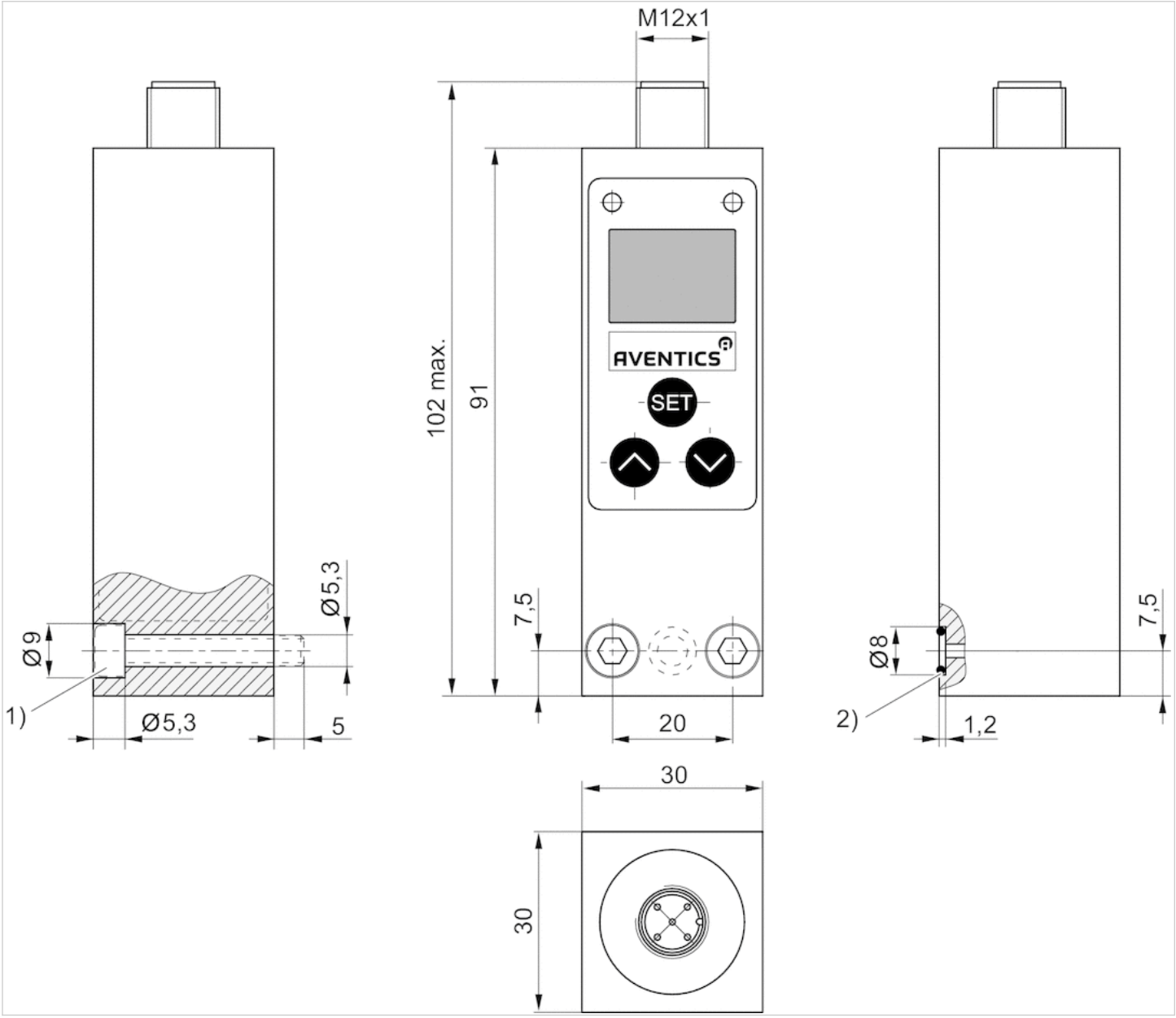
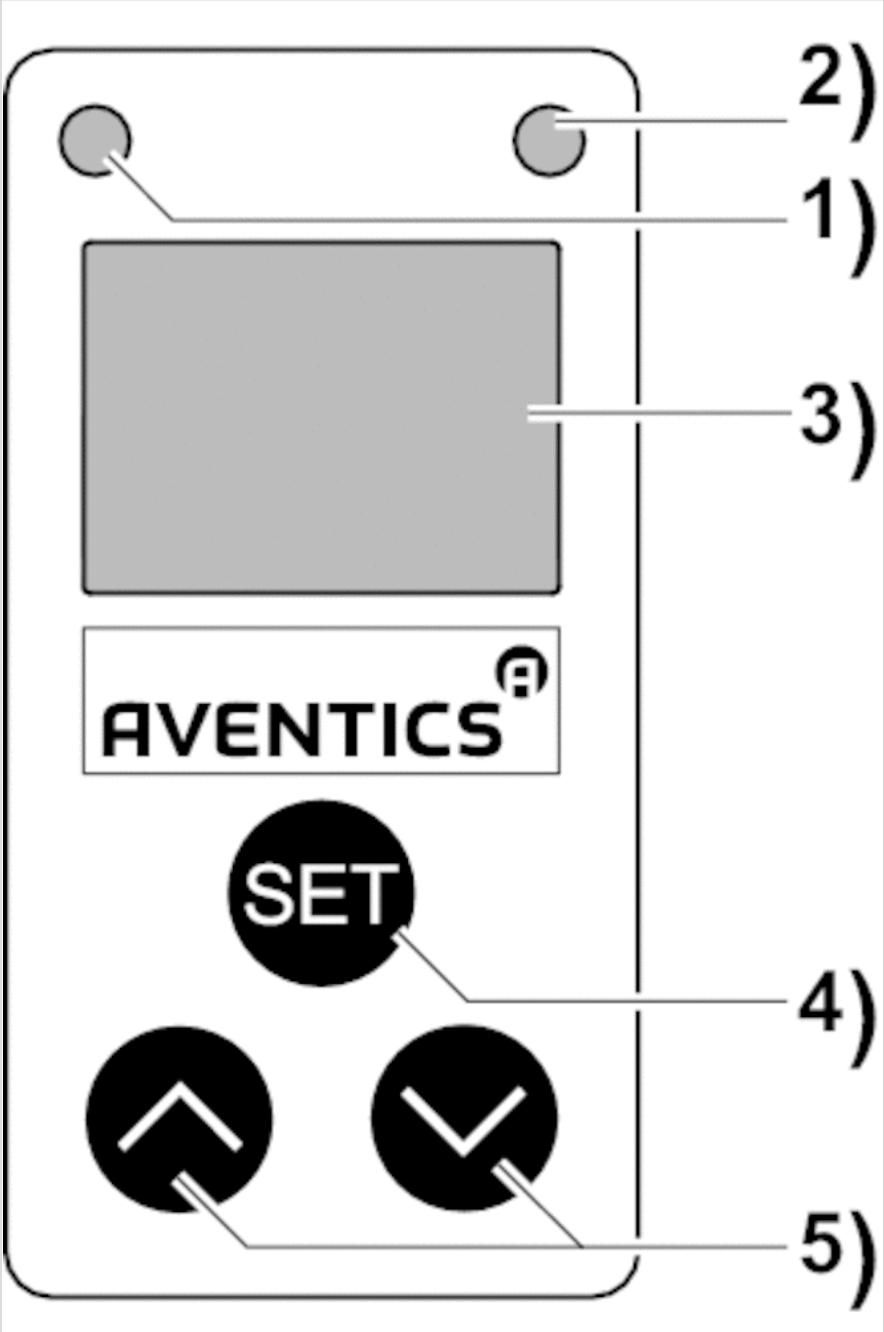


Fig. 2



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

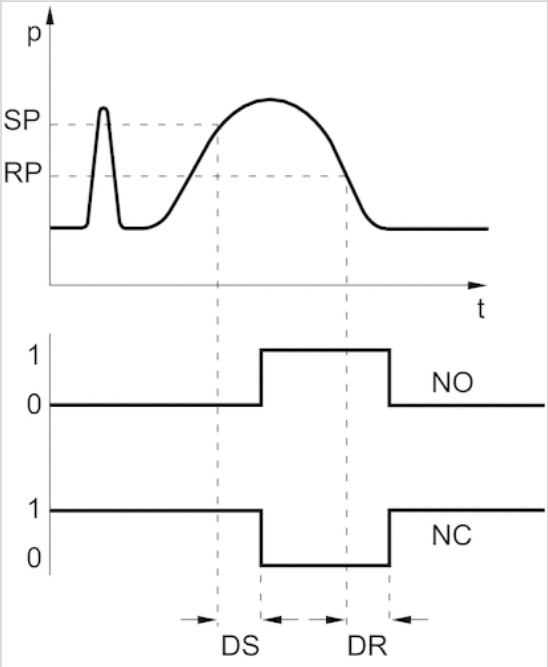
Display and operation area



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

Diagrams

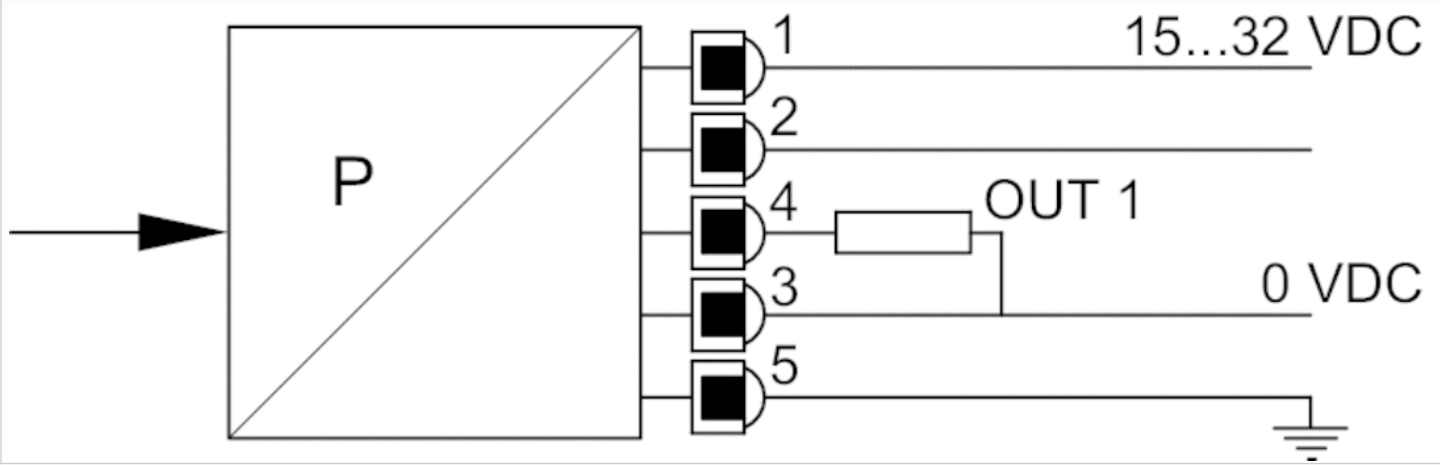
Pressure-voltage characteristics curve



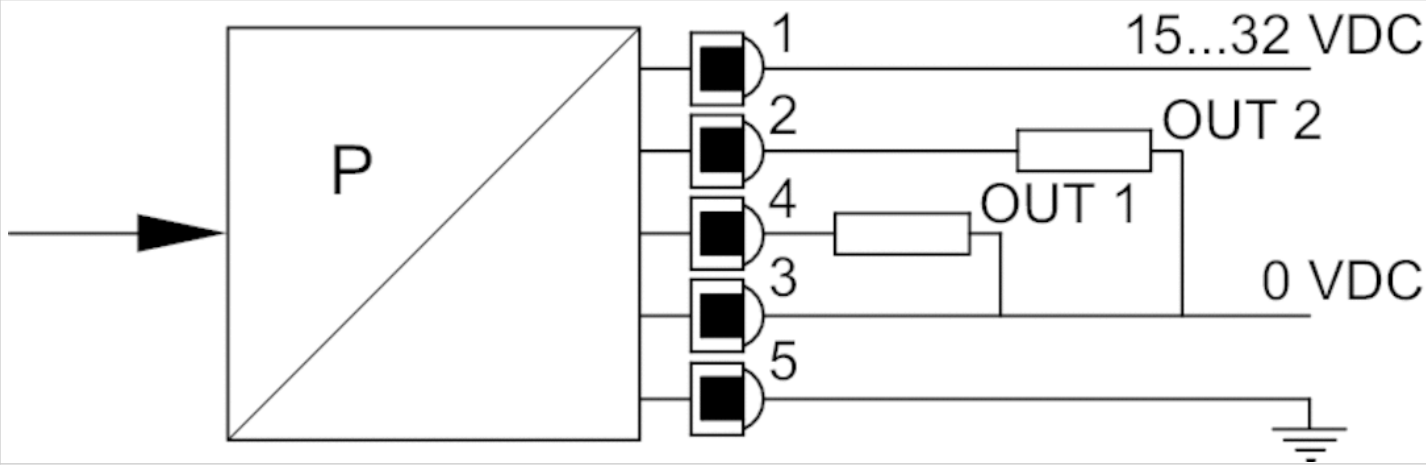
SP = switching point
RP = resetting point
NO = Switching function open
NC = Switching function closed without current
DS = Delay for the switching point
DR = Delay for the resetting point

Circuit diagram

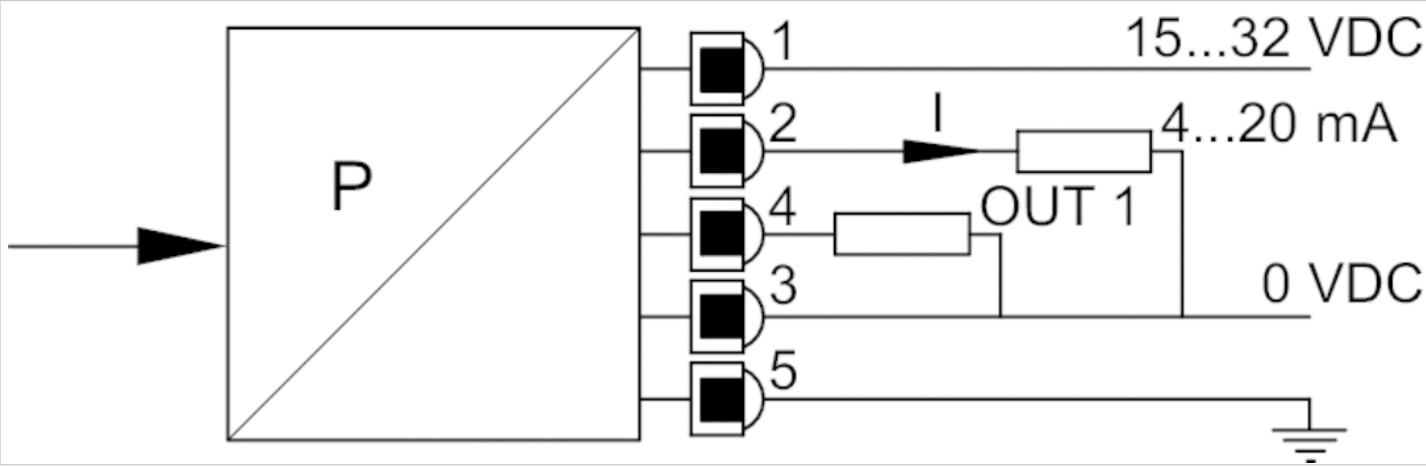
Block diagram 1 x PNP



Block diagram 2 x PNP

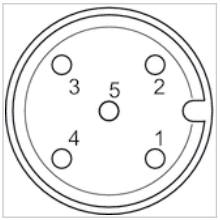


Block diagram 1x PNP and 1x analog



Pin assignments

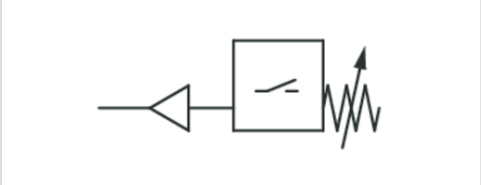
Pin assignments



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

Pressure Switches, Series PM1

- Operating pressure -13.05 ... 0 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

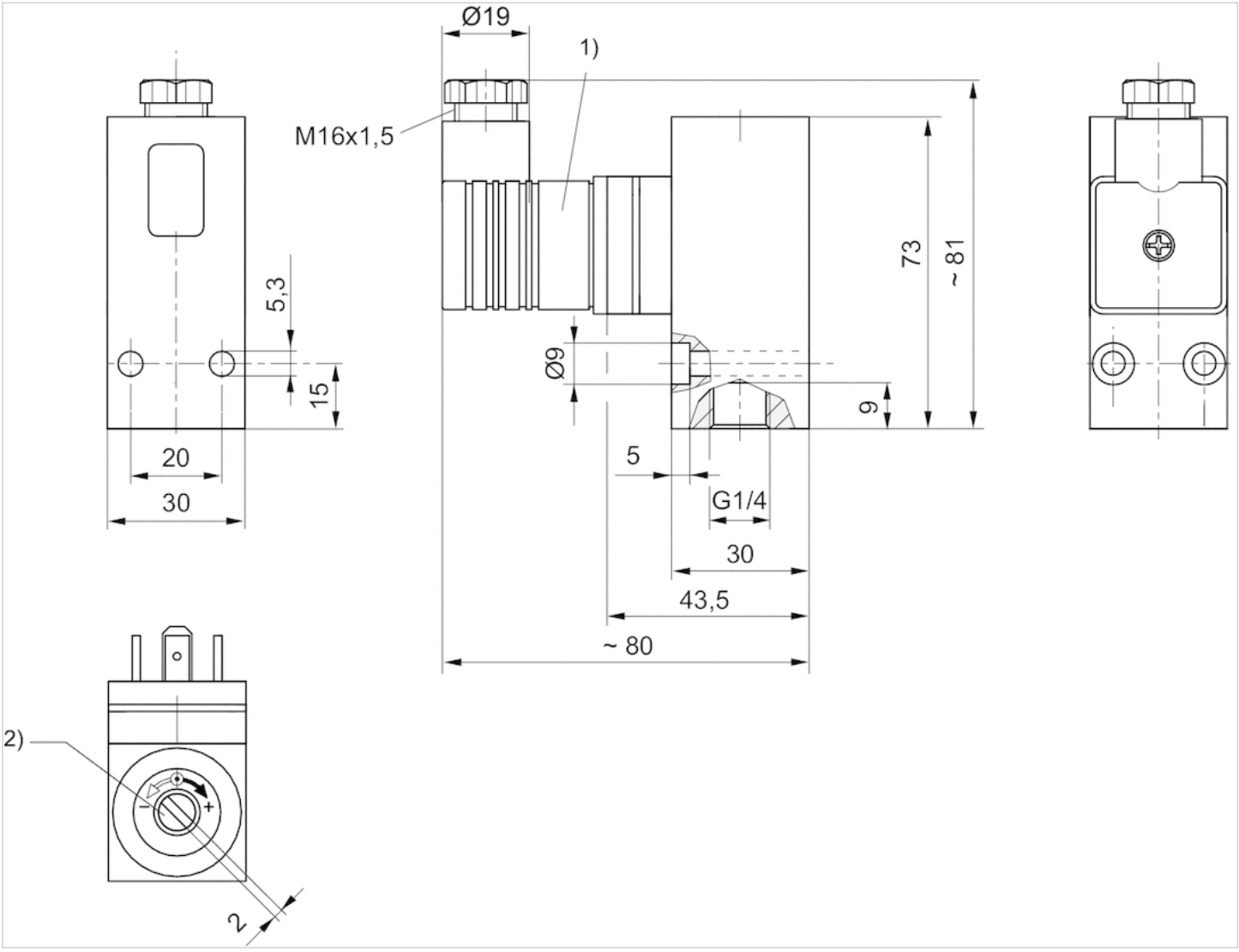
Switching function increasing pressure: contact switches from 1-2 to 1-3.
Switching function decreasing pressure: contact switches from 1-3 to 1-2.
Notice:Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!
The microswitch has silver-plated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

Technical information

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

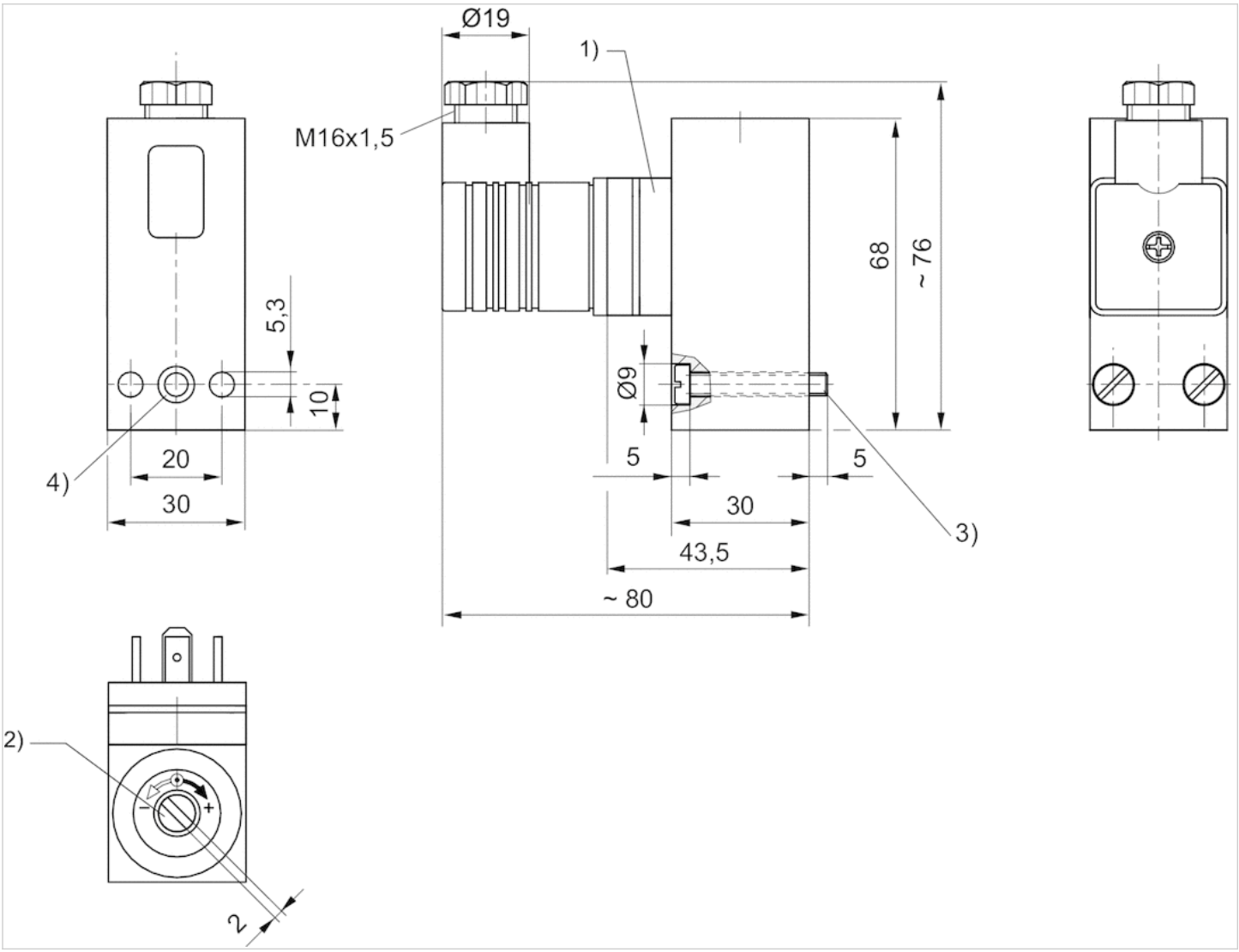
Dimensions

Fig. 1



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

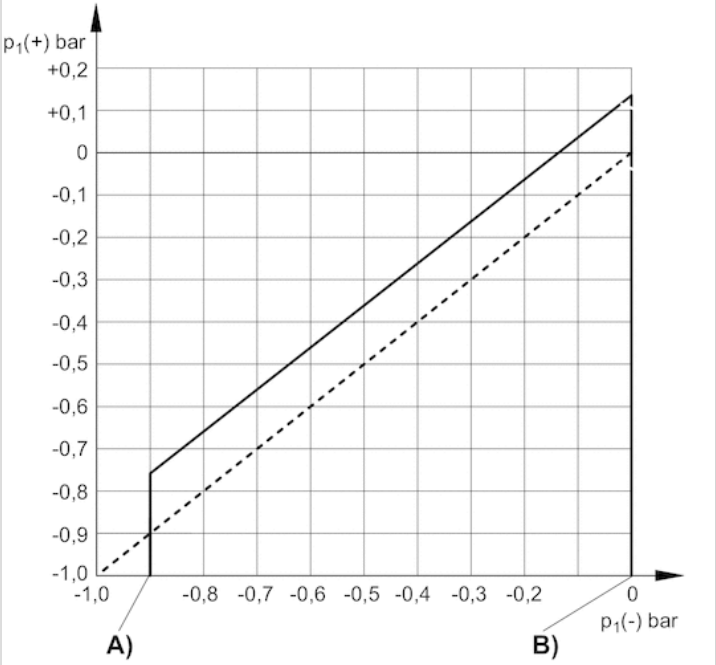
Fig. 2



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

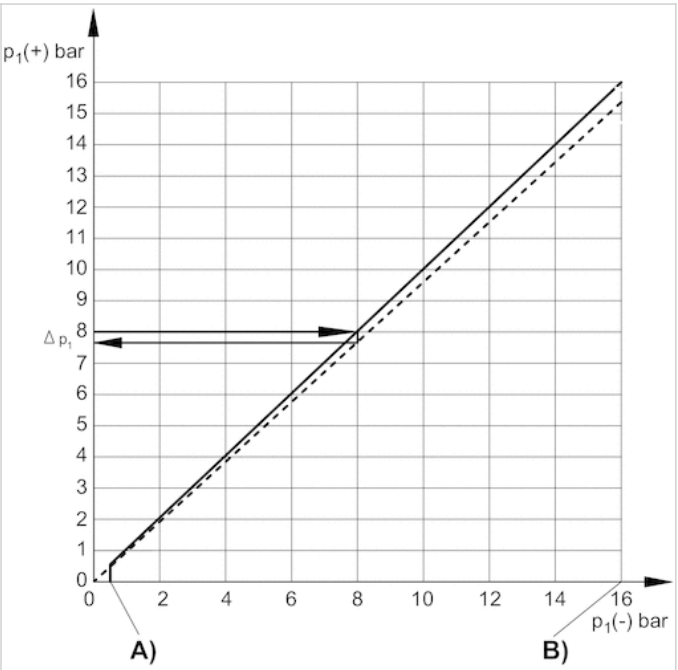
Diagrams

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

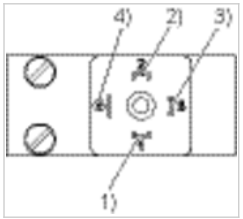
2) DC

3) cos ≈ 0,7°

4) L/R ≈ 10 ms

Pin assignments

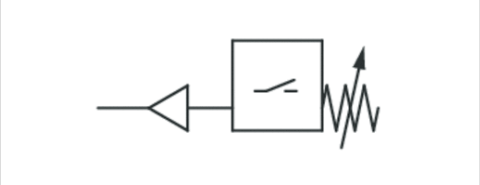
PIN assignment for valve plug connectors



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

Pressure Switches, Series PM1

- Operating pressure -13.05 ... 0 psi
- Mechanical
- Spring-loaded bellow, adjustable
- Electr. connection Plug, M12x1
- 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 ... 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.	Fig.
R412010716	PM1-M3-G014	-13.05 ... 0 psi	Fig. 1

Technical information

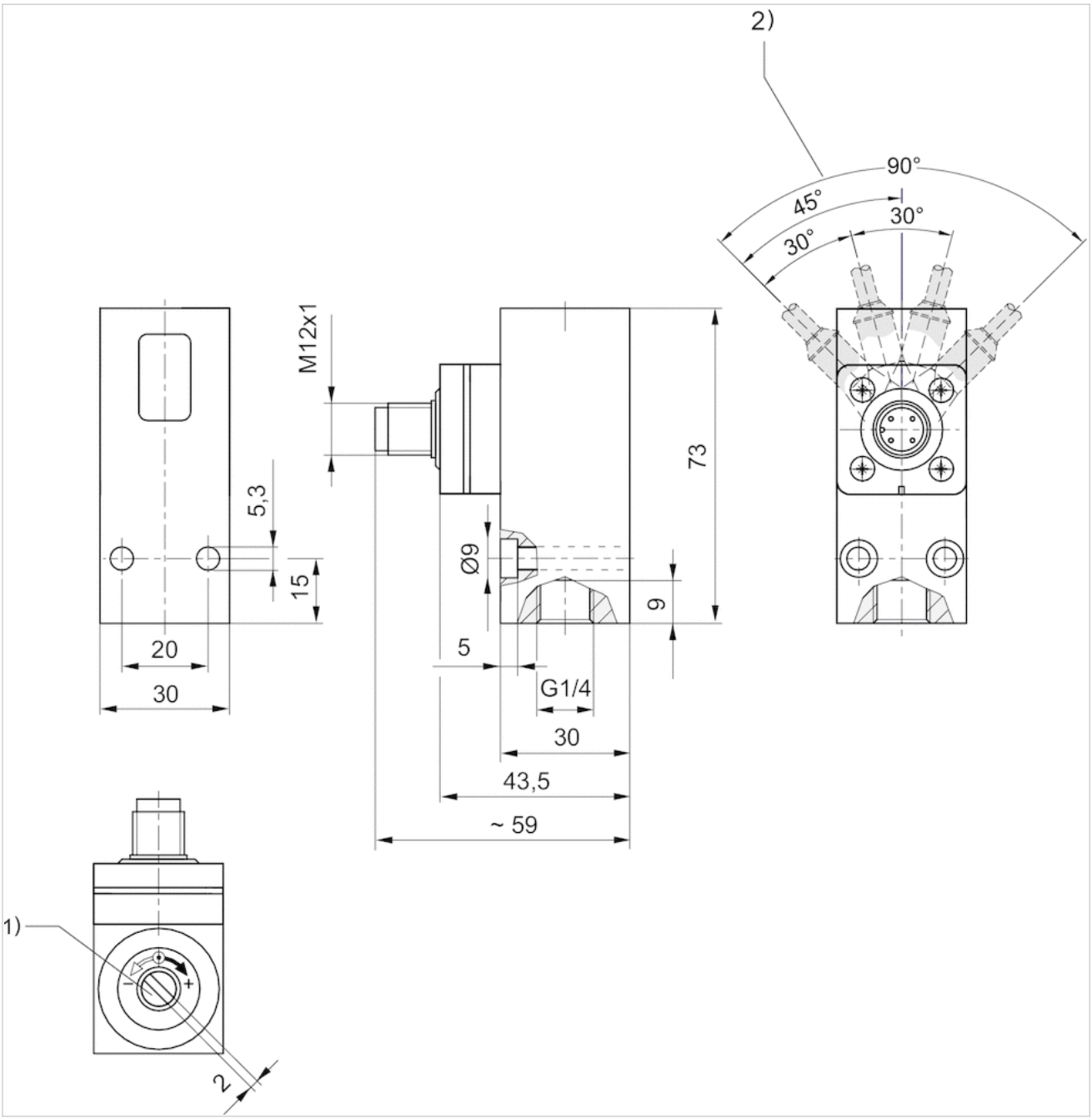
Switching function increasing pressure: contact switches from 1-2 to 1-3.
Switching function decreasing pressure: contact switches from 1-3 to 1-2.
Notice:Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!
The microswitch has silver-plated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

Technical information

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

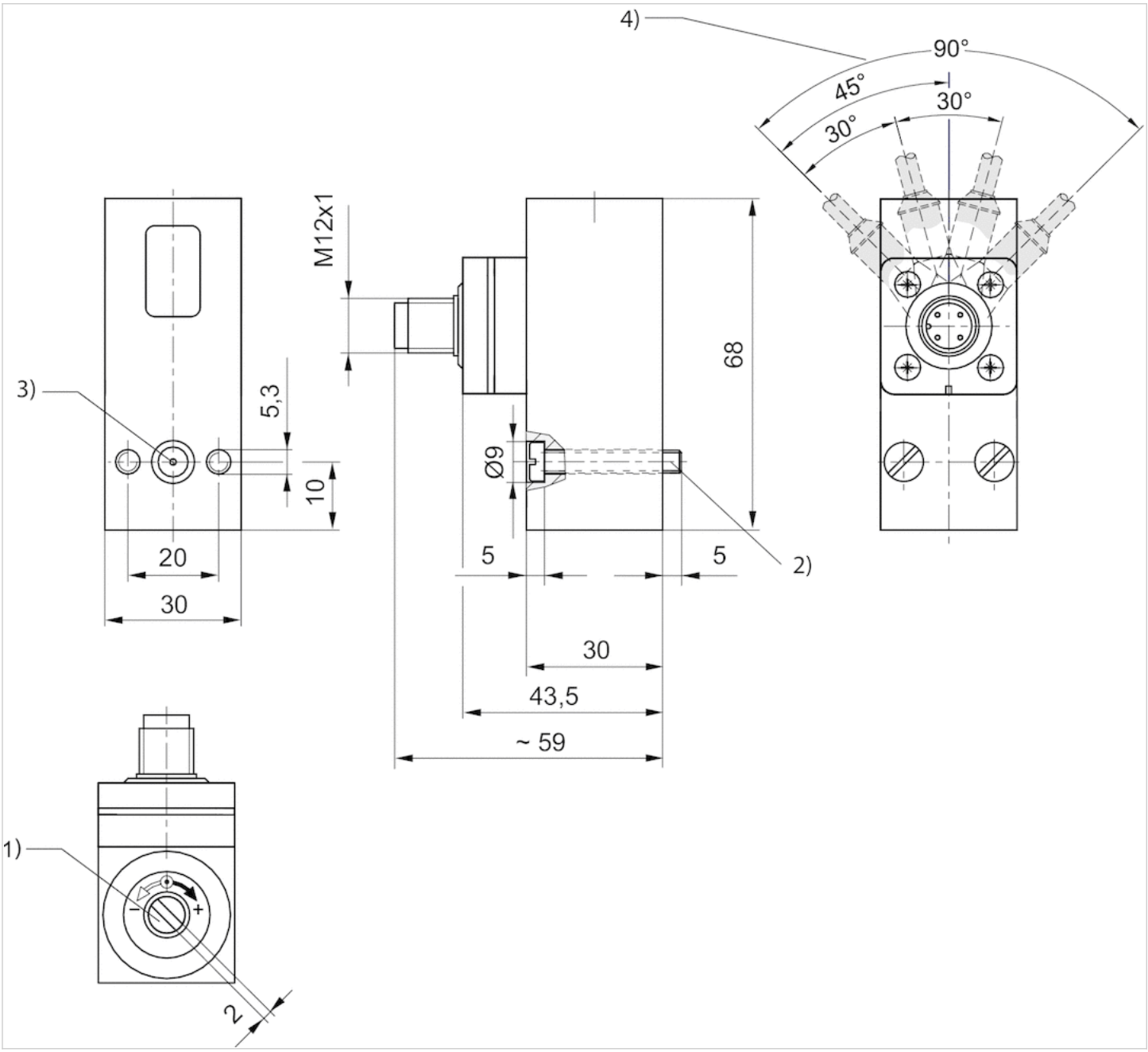
Dimensions

Fig. 1



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

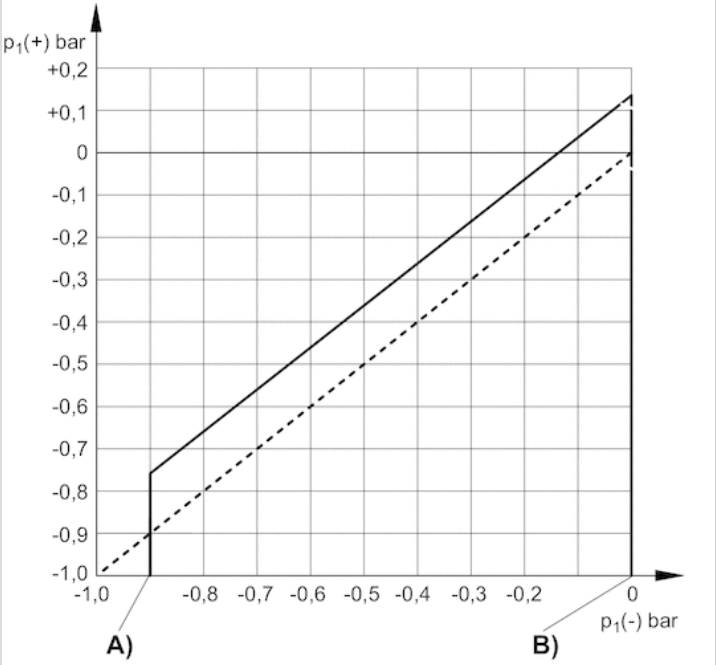
Fig. 2



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

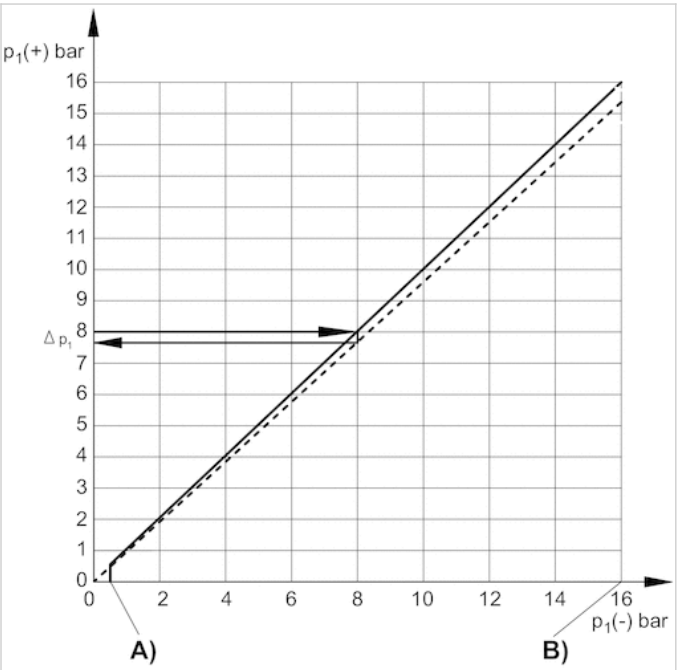
Diagrams

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

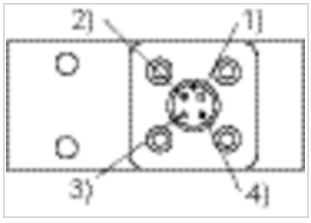
2) DC

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

- Straight fitting
- External thread
- G 1/4, G 3/8
- push-in fitting
- Ø 4, Ø 6, Ø 8, Ø 10, Ø 12, Ø 14, Ø16
- QR1-S-RPN

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

Technical data

Part No.	Port G	Port D	Delivery unit	Weight
2121004140	G 1/4	Ø 4	10 piece	0.044 lbs
2121006140	G 1/4	Ø 6	10 piece	0.047 lbs
2121008140	G 1/4	Ø 8	10 piece	0.053 lbs
2121010140	G 1/4	Ø 10	10 piece	0.058 lbs
2121012140	G 1/4	Ø 12	10 piece	0.087 lbs
R412005000	G 3/8	Ø 6	10 piece	0.071 lbs
2121008380	G 3/8	Ø 8	10 piece	0.078 lbs
2121010380	G 3/8	Ø 10	10 piece	0.092 lbs
2121012380	G 3/8	Ø 12	10 piece	0.099 lbs
2121014380	G 3/8	Ø 14	10 piece	0.1 lbs
R412005005	G 3/8	Ø16	10 piece	0.128 lbs

Technical information

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

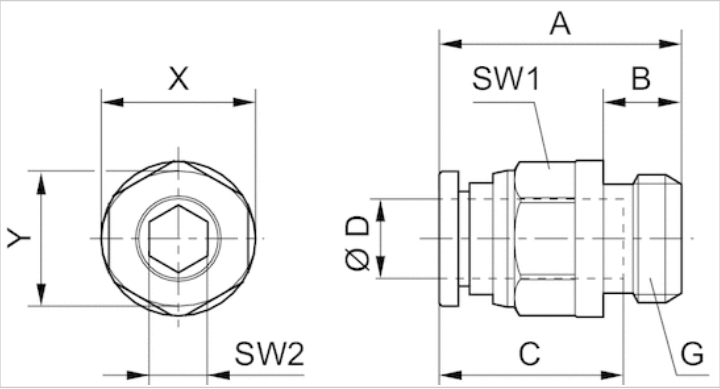
For further information about assembling and tolerances of adaptable tubing can be found in the “Technical information” document (available in the MediaCentre).

Technical information

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

Dimensions

Dimensions



Dimensions

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

QR1-S standard series

- Elbow fitting
- External thread
- G 1/4, G 3/8
- push-in fitting
- Ø 4, Ø 6, Ø 8, Ø 10, Ø 12, Ø 14, Ø16
- QR1-S-RVT

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

Technical data

Part No.	Port G	Port D	Delivery unit	Weight
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
R412005092	G 3/8	Ø 6	10 piece	0.068 lbs
2122008380	G 3/8	Ø 8	10 piece	0.072 lbs
2122010380	G 3/8	Ø 10	10 piece	0.088 lbs
2122012380	G 3/8	Ø 12	10 piece	0.096 lbs
2122014380	G 3/8	Ø 14	5 piece	0.106 lbs
R412005097	G 3/8	Ø16	5 piece	0.135 lbs

Weight per piece

Technical information

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

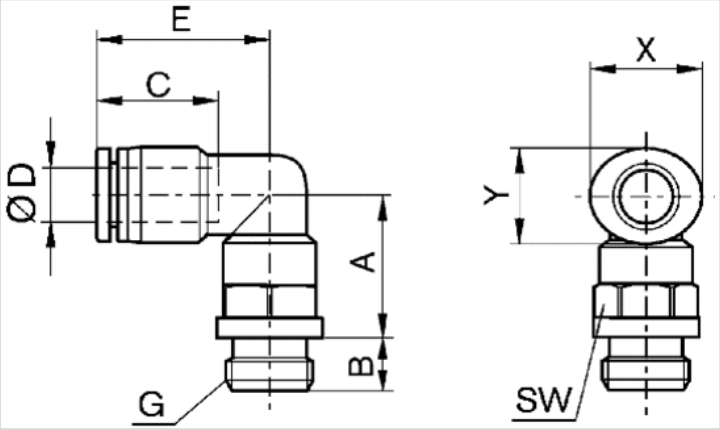
For further information about assembling and tolerances of adaptable tubing can be found in the “Technical information” document (available in the MediaCentre).

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
2122004140	Ø 4	G 1/4	9.5	6	16	18.5	16	12	10
2122006140	Ø 6	G 1/4	10.7	6	17	20.3	16	14	12
2122008140	Ø 8	G 1/4	11.5	6	18.5	22.6	16	16	14
2122010140	Ø 10	G 1/4	16.5	6	21	27	16	19	17
2122012140	Ø 12	G 1/4	18.3	6	22.5	29.2	16	23	21
R412005092	Ø 6	G 3/8	11.2	7	17	20.3	20	14	12
2122008380	Ø 8	G 3/8	11.5	7	18.5	22.6	20	16	14
2122010380	Ø 10	G 3/8	13.6	7	21	27	20	19	16
2122012380	Ø 12	G 3/8	15.3	7	22.5	29.2	20	23	21
2122014380	Ø 14	G 3/8	23.1	7	24.6	32.1	20	25	23
R412005097	Ø16	G 3/8	24.2	7	24.8	33.3	20	27	24

Series QR2-S, standard

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

Working pressure min./max.	-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.
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
1823373050	G 3/8	Ø 8	10 piece	0.046 lbs	Fig. 1
1823373051	G 3/8	Ø 10	10 piece	0.062 lbs	Fig. 1
1823373052	G 3/8	Ø 12	5 piece	0.084 lbs	Fig. 1
1823373053	G 3/8	Ø 14	5 piece	0.13 lbs	Fig. 1

Weight per piece

Technical information

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

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

Technical information

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

Dimensions

Fig. 1

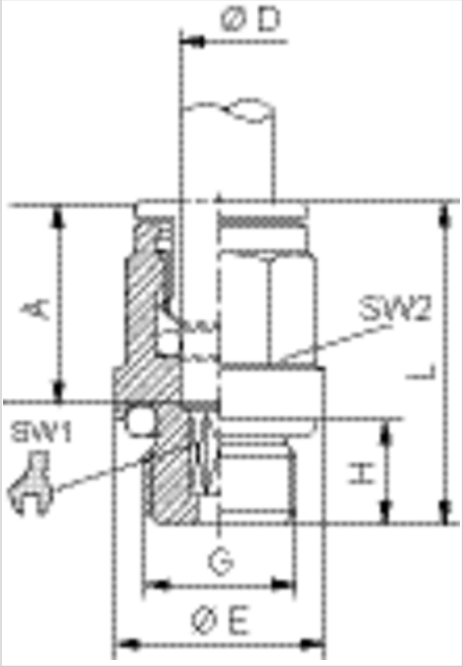
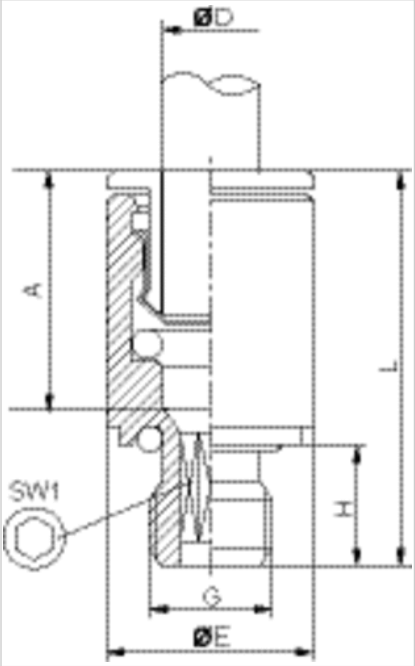


Fig. 2



Dimensions

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

* Insertion depth

Series QR2-S, standard

- Elbow fitting, rotatable
- External thread
- G 1/4, G 3/8
- push-in fitting
- Ø 4, Ø 6, Ø 8, Ø 10, Ø 12, Ø 14, Ø16
- 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
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
1823391716	G 3/8	Ø 8	5 piece	0.092 lbs
1823391717	G 3/8	Ø 10	5 piece	0.092 lbs
1823391838	G 3/8	Ø 12	5 piece	0.099 lbs
1823391839	G 3/8	Ø 14	5 piece	0.137 lbs
R412010182	G 3/8	Ø16	1 piece	0.159 lbs

Weight per piece

Technical information

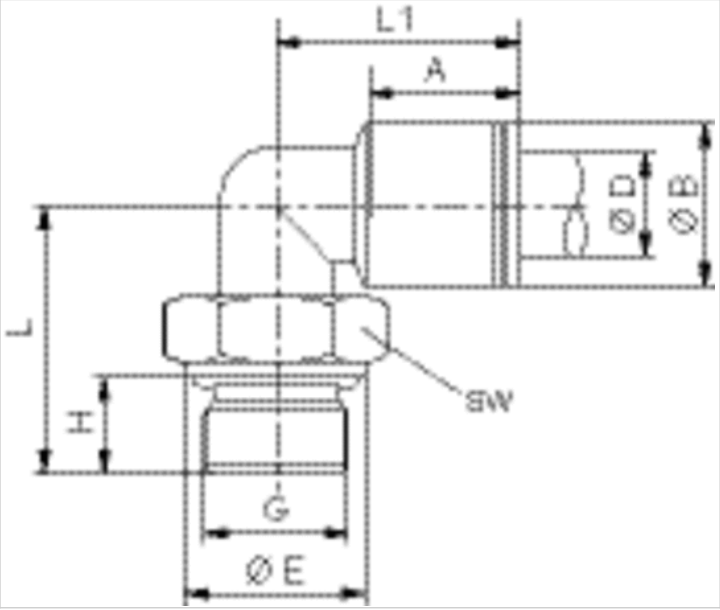
The series QR1 (plastic) and QR2 (metal) can not be combined
Thread seal with captive O-ring

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
1823391713	Ø 4	G 1/4	9	16	8	24	19	15	13
1823391714	Ø 6	G 1/4	11	16	8	24	21	16	13
1823391715	Ø 8	G 1/4	13	16	8	24	24	18	13
1823391718	Ø 10	G 1/4	15	16	8	24	27	19	16
1823391843	Ø 12	G 1/4	17	16	8	30.5	29	20	16
1823391716	Ø 8	G 3/8	13	20	9	25.5	24	18	13
1823391717	Ø 10	G 3/8	15	20	9	28	27	19	16
1823391838	Ø 12	G 3/8	17	20	9	28.5	28	20	20
1823391839	Ø 14	G 3/8	20	20	9	28.5	31	22	20
R412010182	Ø16	G 3/8	23	20	9	33.5	33	23.5	20

* Insertion depth

Series NU2

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

Working pressure min./max.	-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
1823391296	G 3/8	Ø 8	2 piece	0.123 lbs
R412007839	G 3/8	Ø 13	2 piece	0.174 lbs

Weight per piece

Technical information

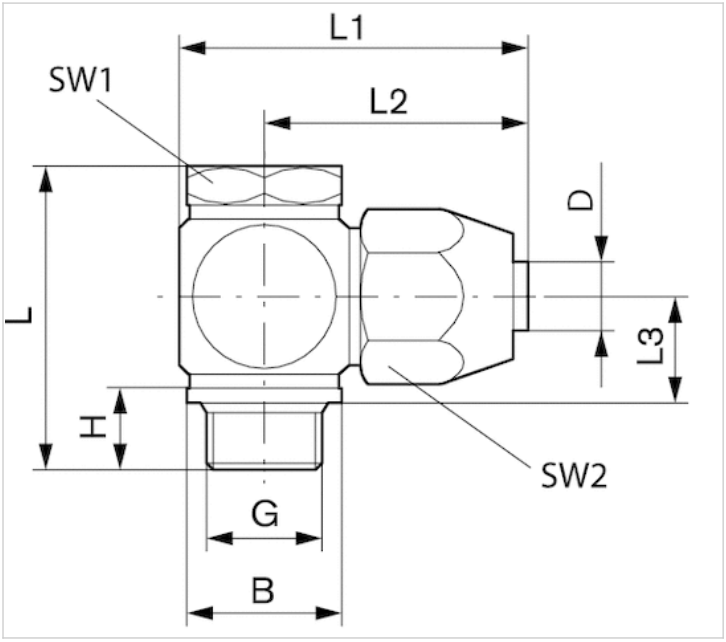
For further information about assembling and tolerances of adaptable tubing can be found in the “Technical information” document (available in the MediaCentre).

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
1823391296	Ø 8	G 3/8	21	12.5	43	47	35	15.5	22	22
R412007839	Ø 13	G 3/8	22.9	12.5	47	49	37	18.5	22	30

Connection D = inside diameter of the tubing to be used

Double nipple, Series PE5

- External thread

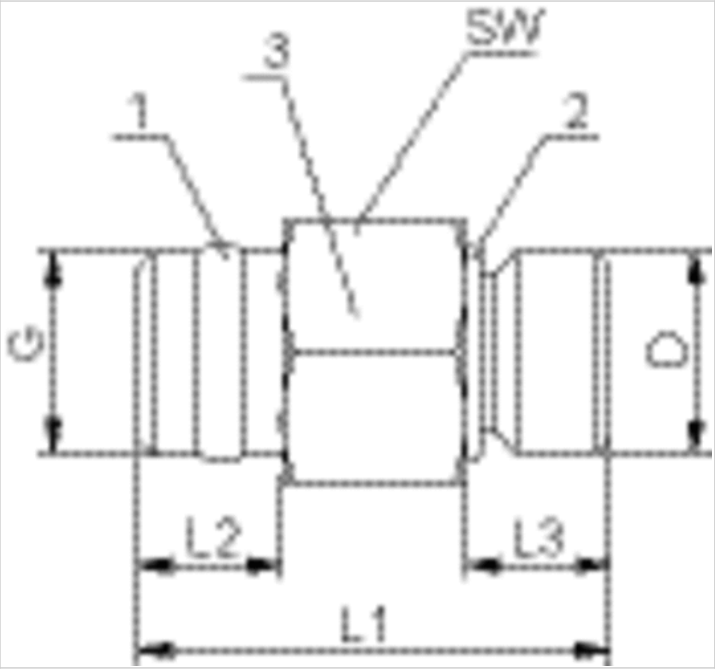
Weight 0.088 lbs

Technical data

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

Dimensions

Dimensions



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

Dimensions

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

Blanking screw

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

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

Technical data

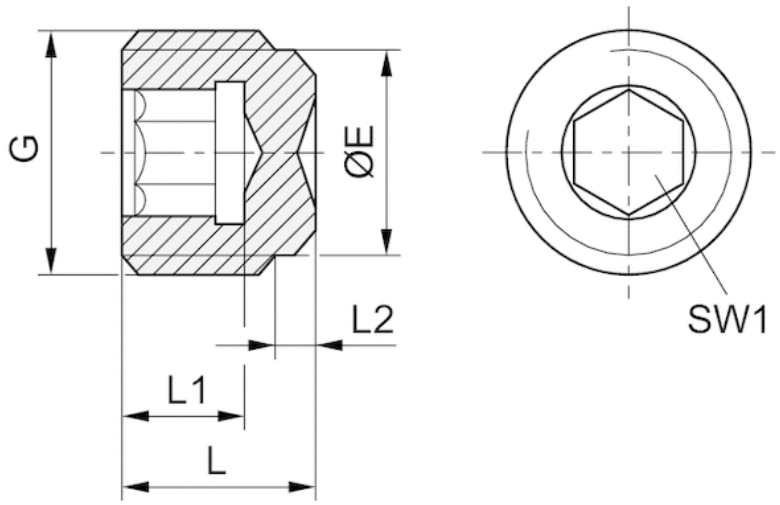
Part No.	Port G	Delivery unit
1823462004	G 1/8	10 piece
1823462003	G 1/4	10 piece

Technical information

Material	
Material	Brass

Dimensions

Dimensions



Dimensions

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

plugs

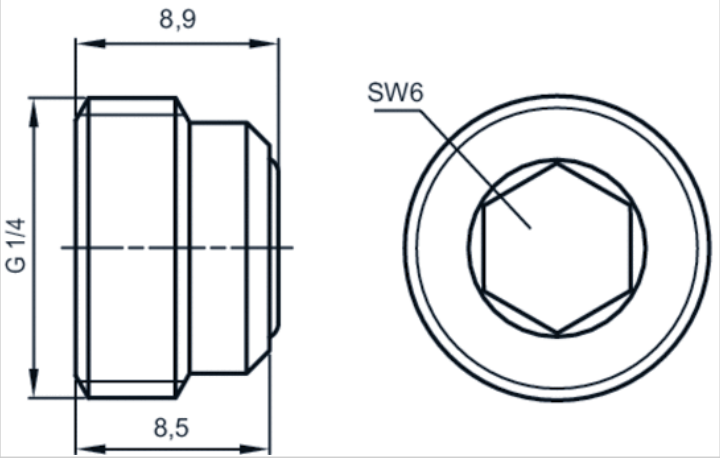
Technical data

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

Technical information

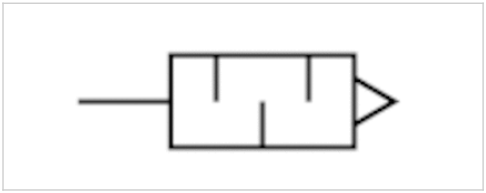
Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

Dimensions



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

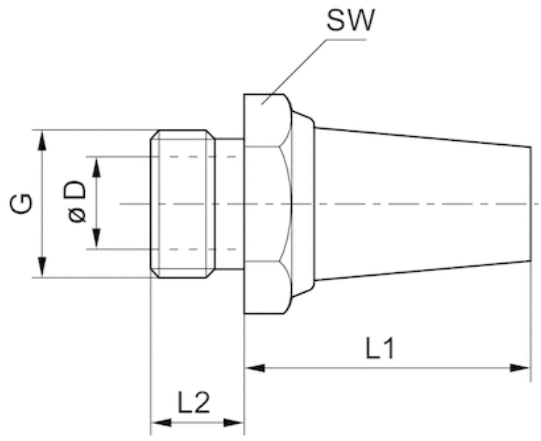
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

Dimensions

Dimensions

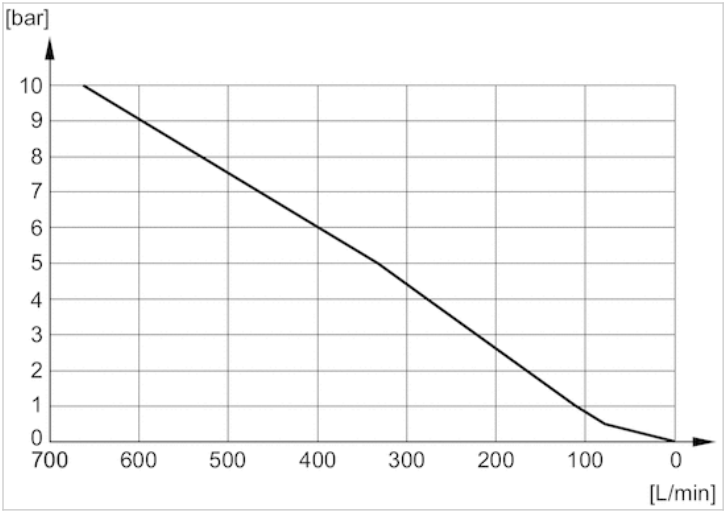


Dimensions

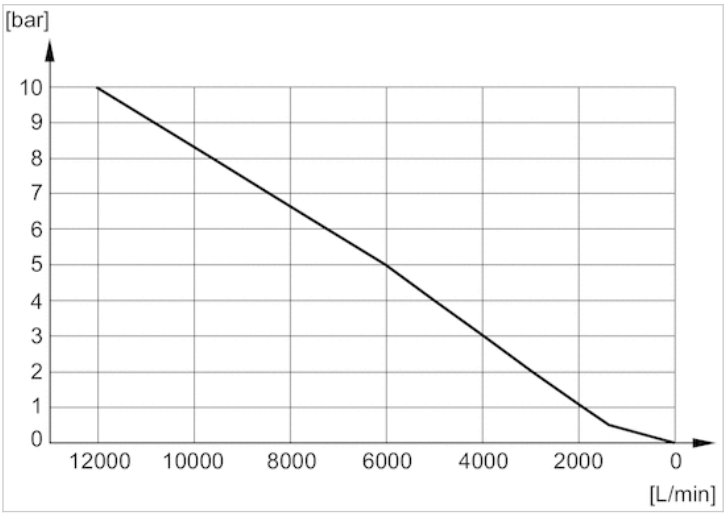
Part No.	Port G	SW	Ø D	L1	L2
R412004817	G 1/4	16	8.5	18.7	7.6
1827000001	G 1/4	17	8.5	25	8

Diagrams

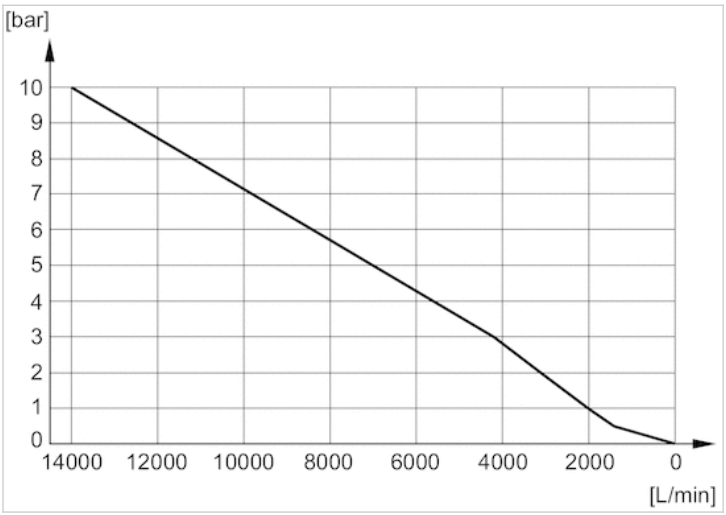
Flow diagram 1827000006



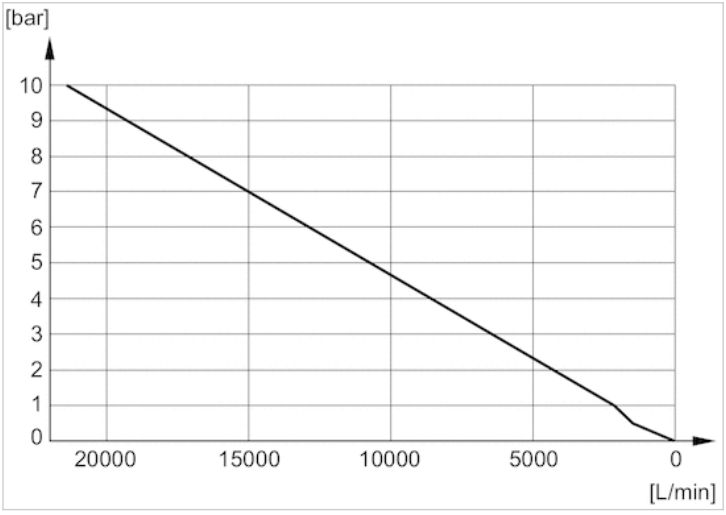
Flow diagram 1827000003



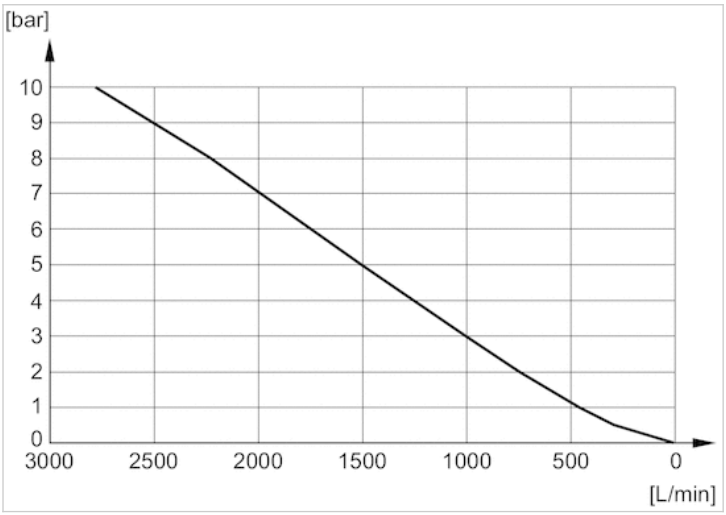
Flow diagram 1827000004



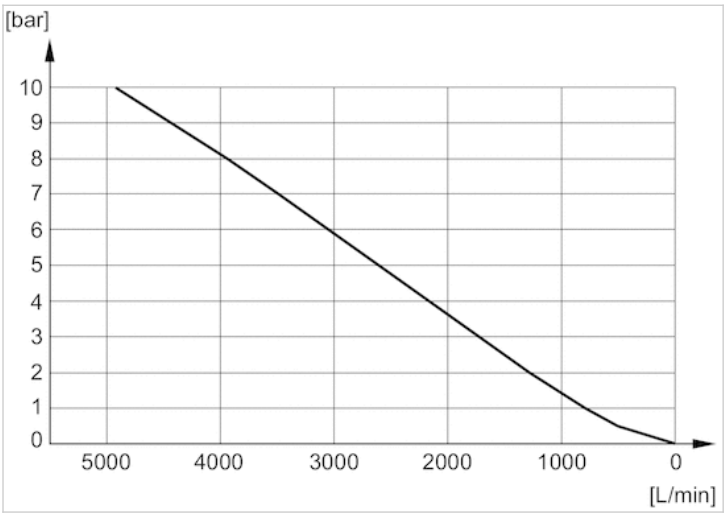
Flow diagram 1827000005



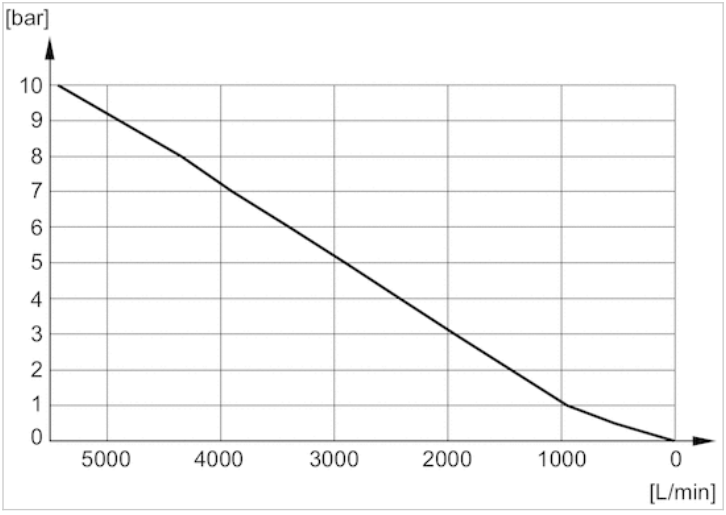
Flow diagram 5324001110



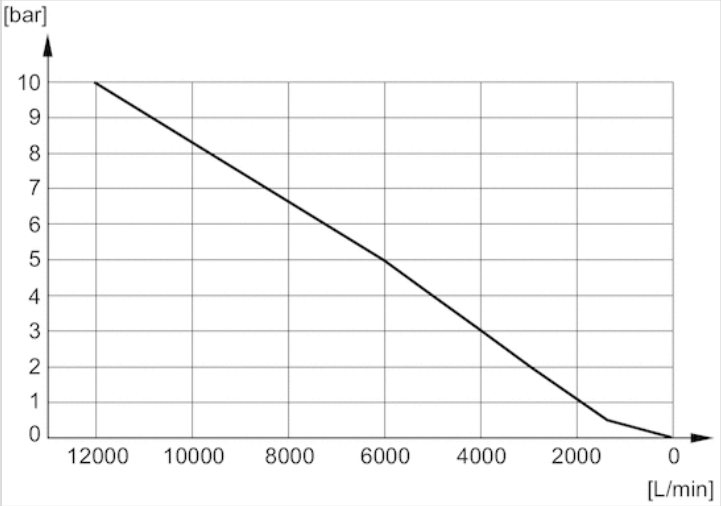
Flow diagram 5324001170



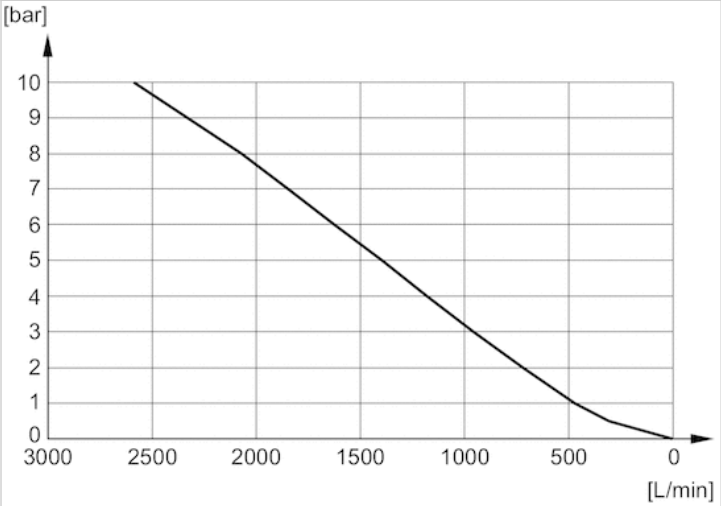
Flow diagram 5324001120



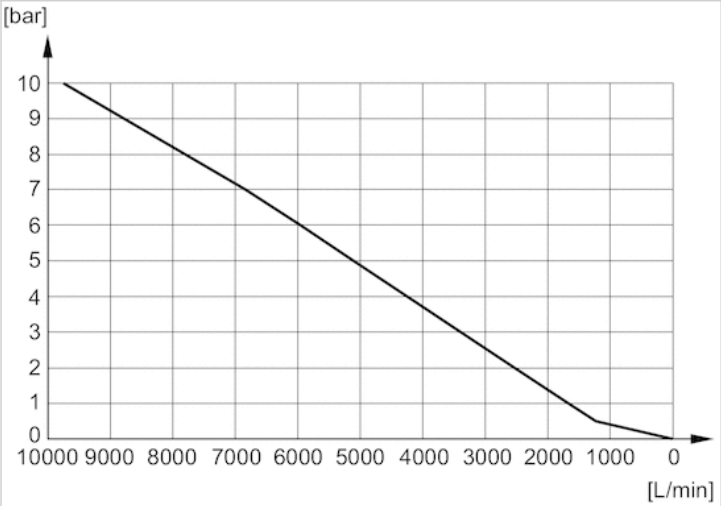
Flow diagram 5324001140



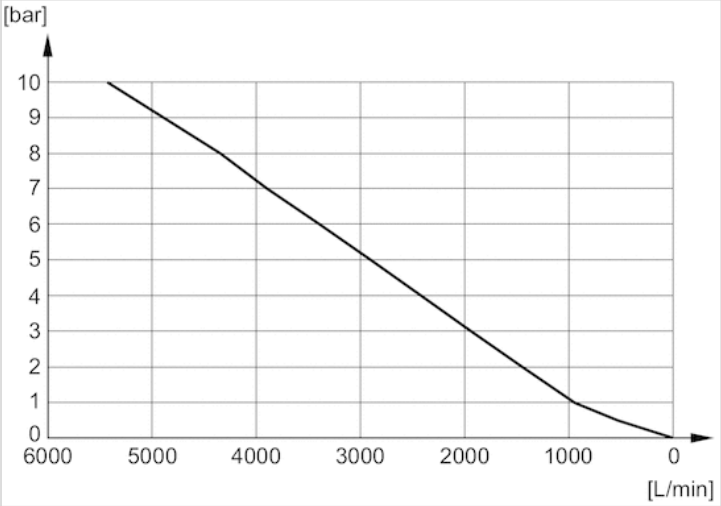
Flow diagram 1827000000



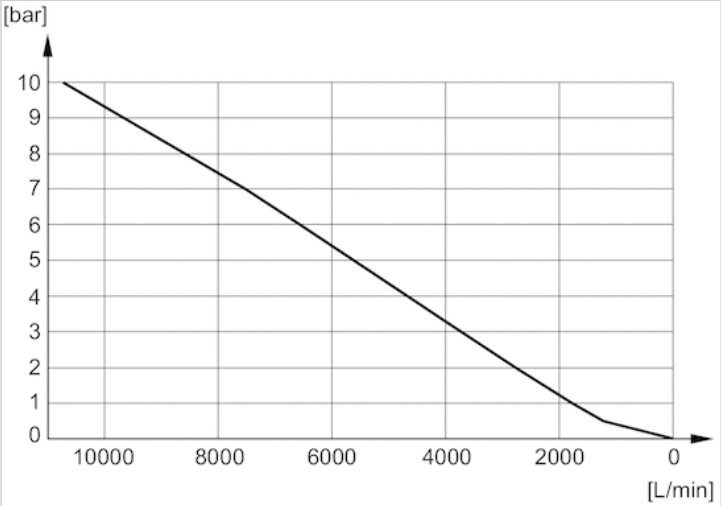
Flow diagram R412004817



Flow diagram 1827000001

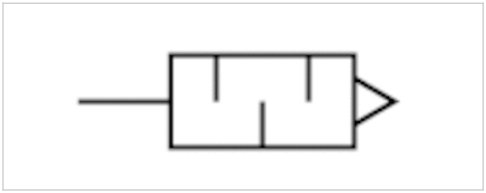


Flow diagram 1827000002



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

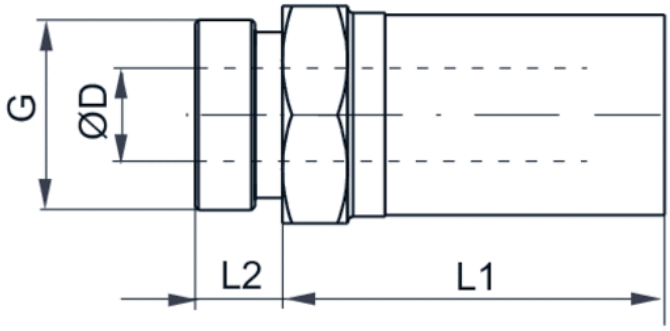
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Stainless steel
Thread	Stainless steel

Dimensions

Dimensions

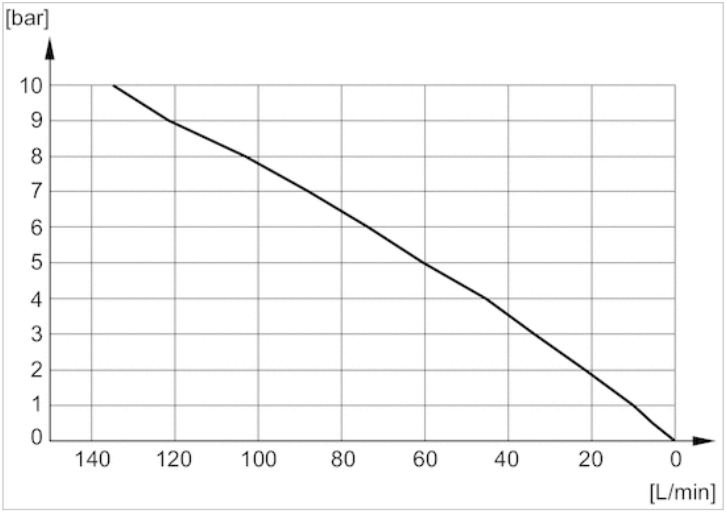


Dimensions

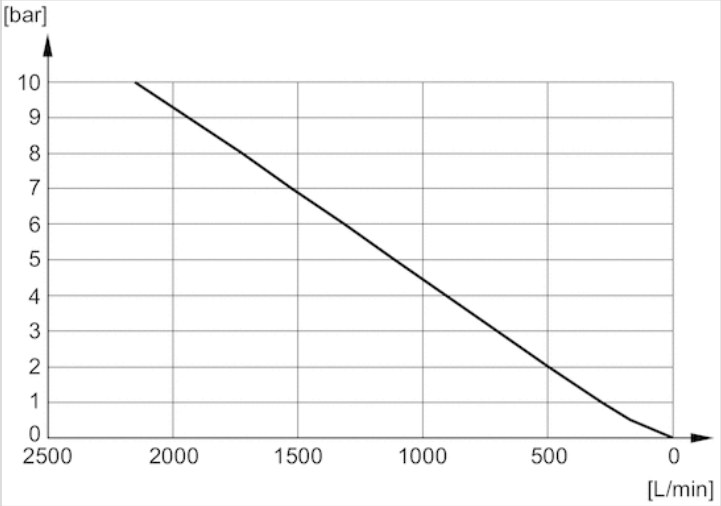
Part No.	Port G	SW	Ø D	L1	L2
R412010082	G 1/4	16	8.6	29.5	7.5

Diagrams

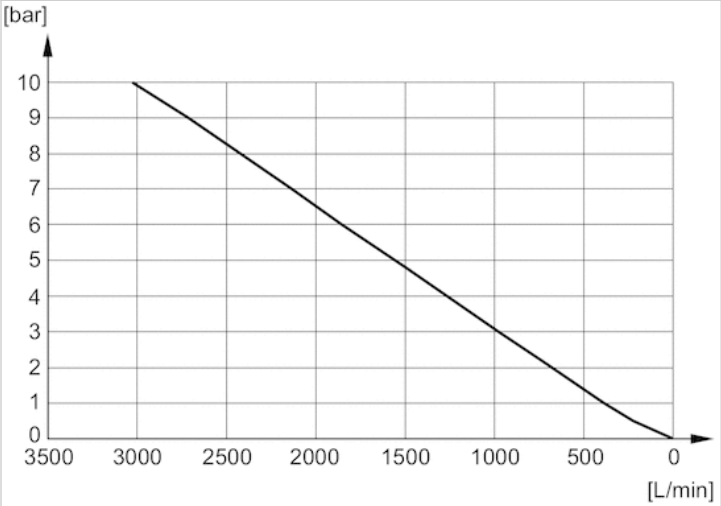
Flow diagram R412010090



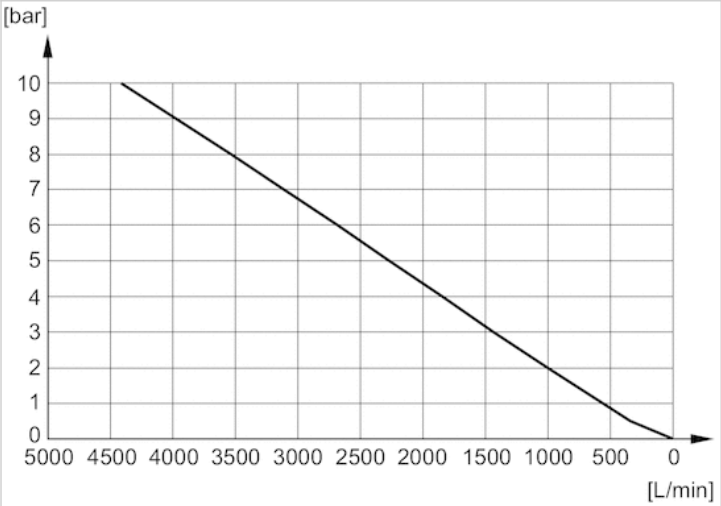
Flow diagram R412010081



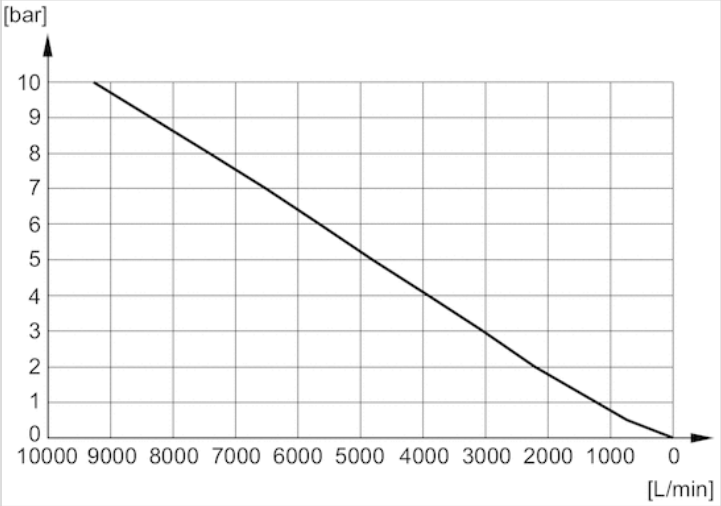
Flow diagram R412010082



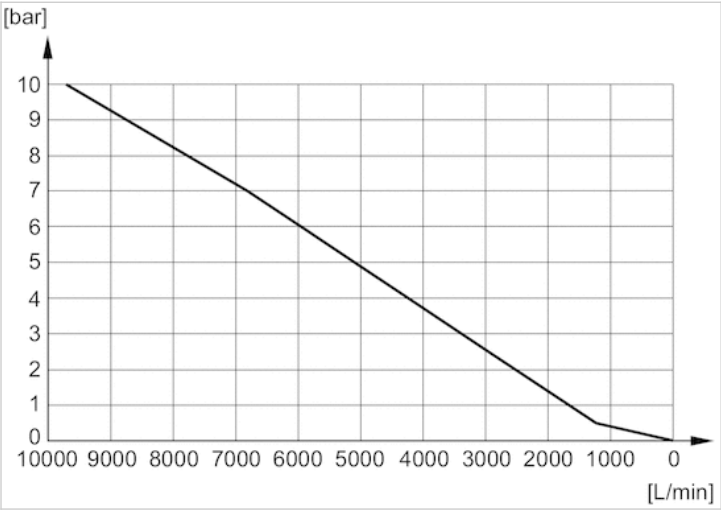
Flow diagram R412010083



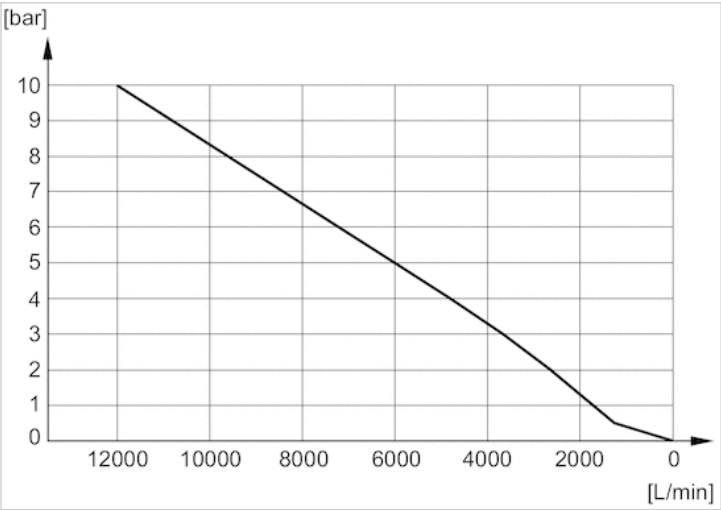
Flow diagram R412010084



Flow diagram R412010085

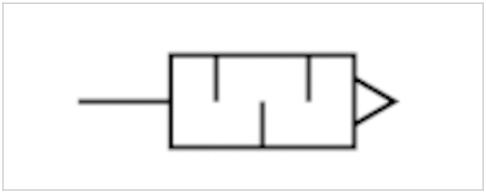


Flow diagram R412010086



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

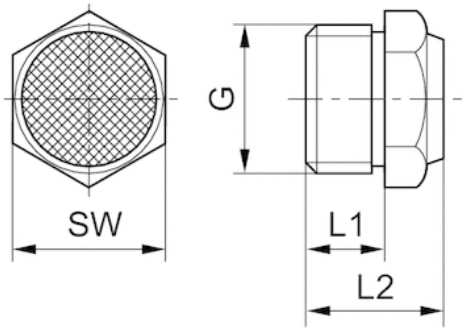
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

Dimensions

Dimensions



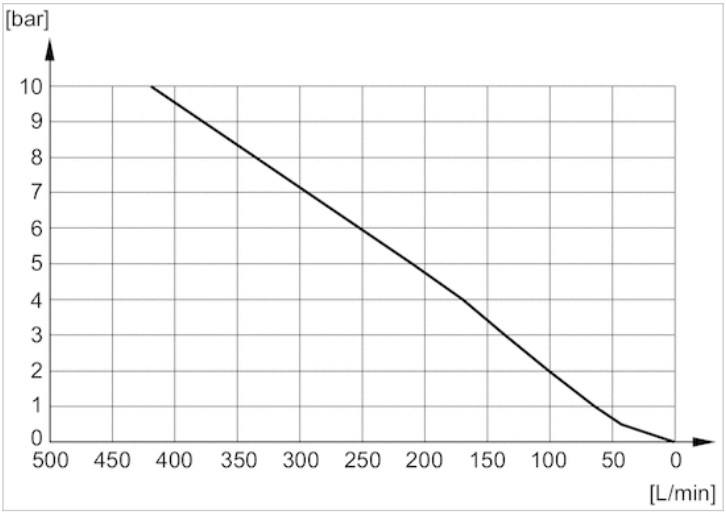
Dimensions

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

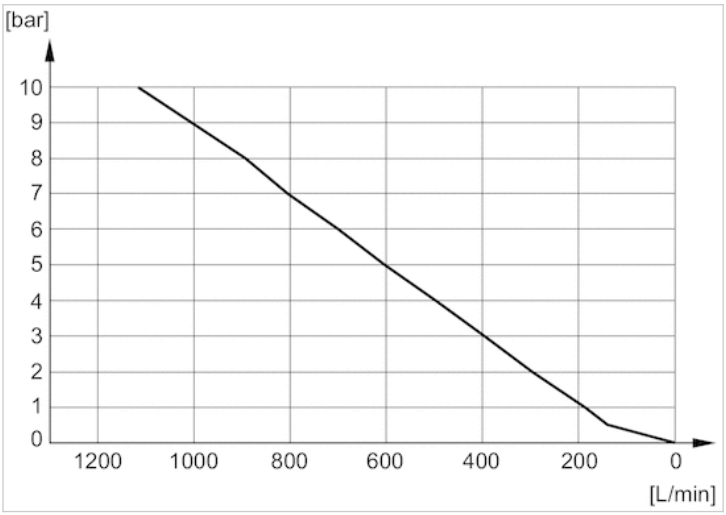
Sound pressure level measured at 6 bar at 1 m distance

Diagrams

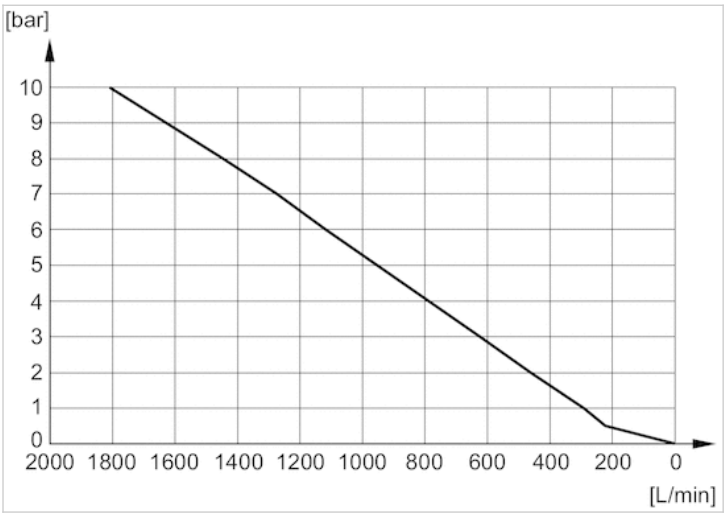
Flow diagram 1827000032



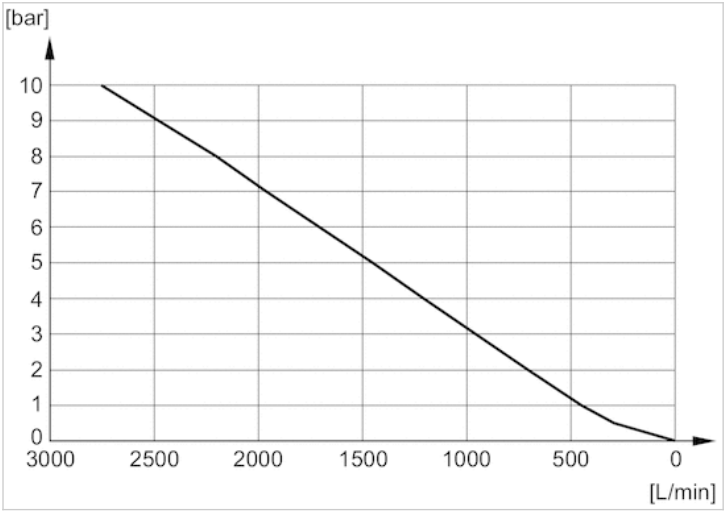
Flow diagram 1827000031



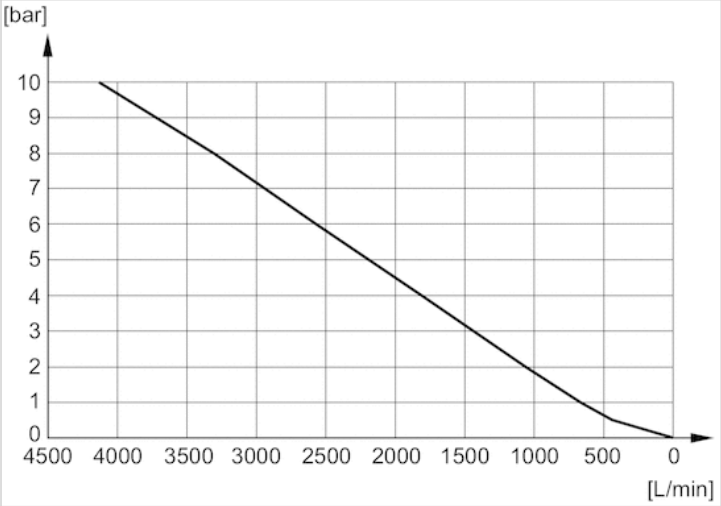
Flow diagram 1827000033



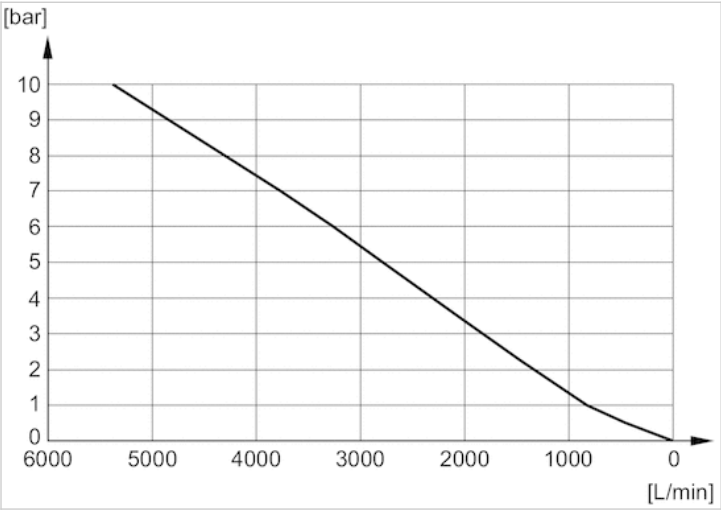
Flow diagram 1827000034



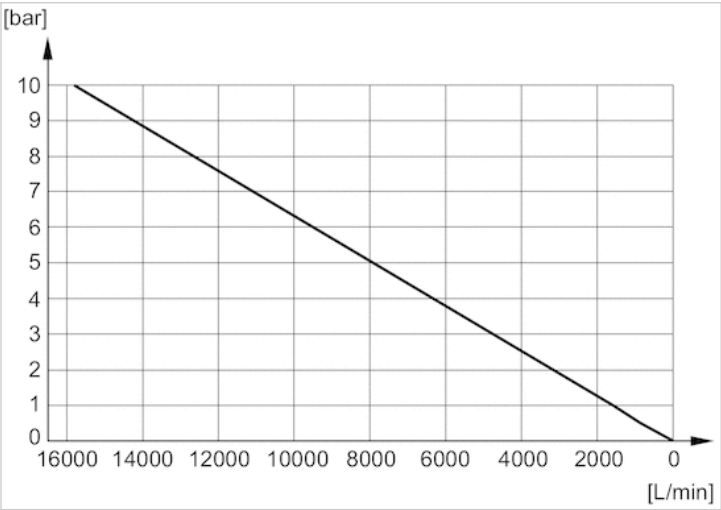
Flow diagram 1827000035



Flow diagram 8145003400

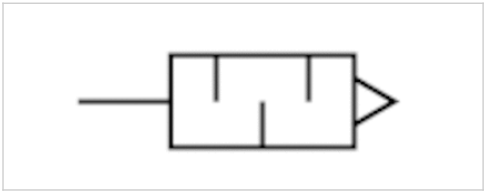


Flow diagram 8145001000



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

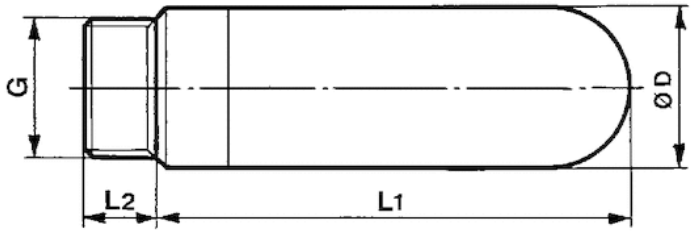
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

Technical information

Material	
Silencers	Polyethylene
Thread	Polyethylene

Dimensions

Dimensions

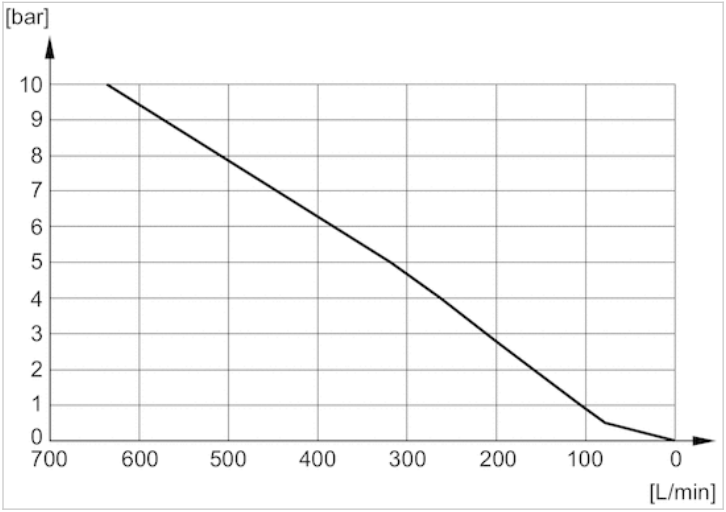


Dimensions

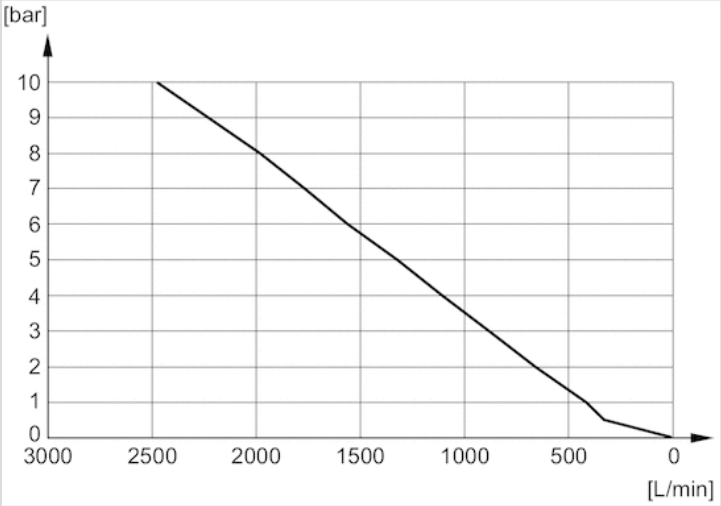
Part No.	Port G	Ø D	L1	L2
1827000020	G 1/4	15.5	34.5	8

Diagrams

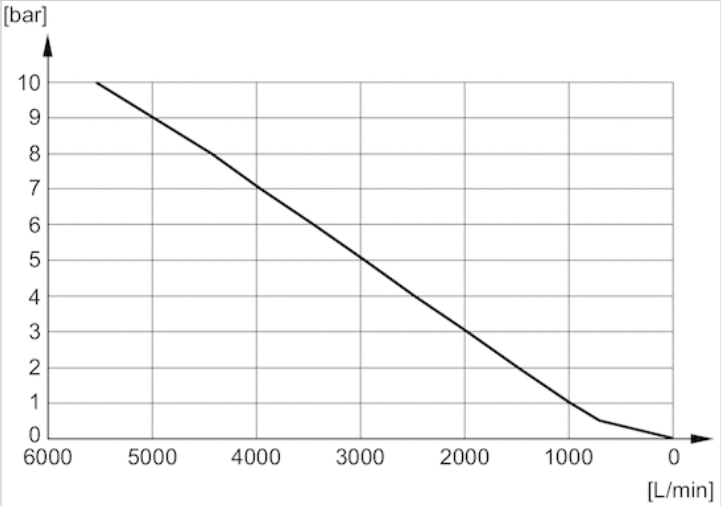
Flow diagram 1827000018



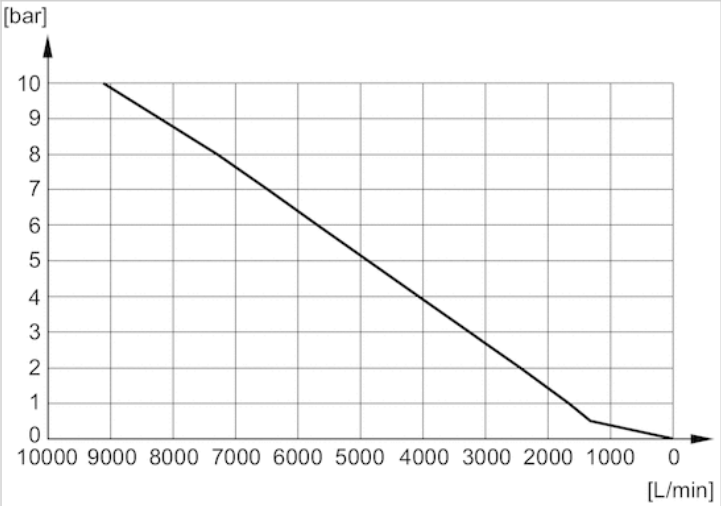
Flow diagram 1827000019



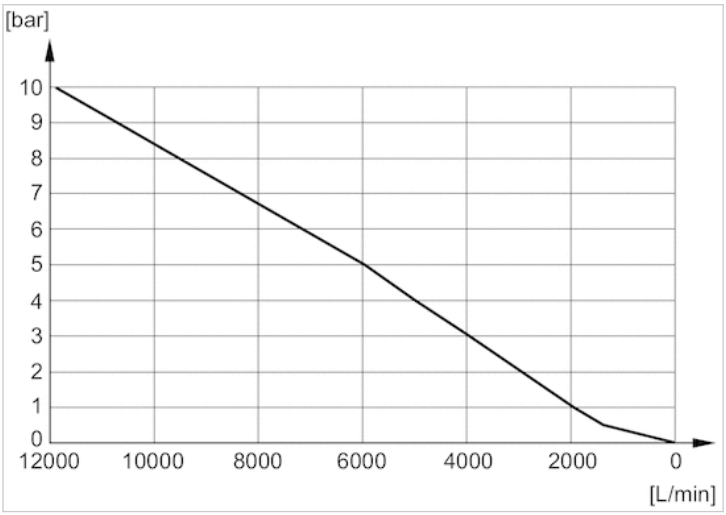
Flow diagram 1827000020



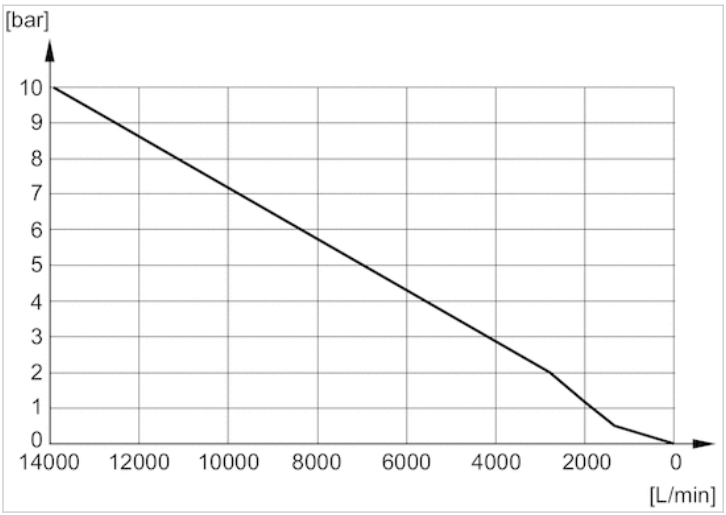
Flow diagram 1827000021



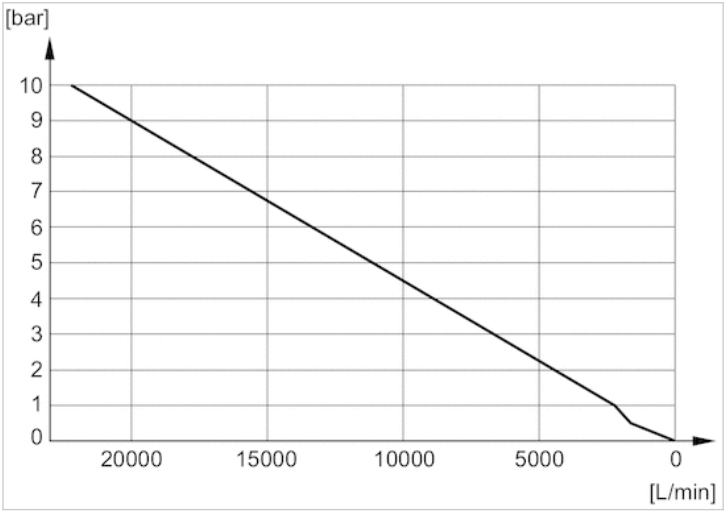
Flow diagram 1827000022



Flow diagram 1827000023

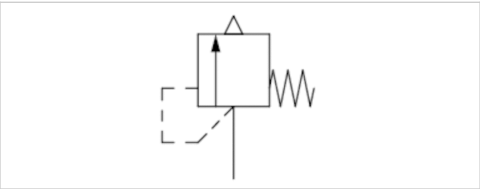


Flow diagram 1827000024



Series RV1

- Qn 1▸2 = 0.687-7.3 Cv
- thread-in
- External thread
- G 1/4
- Uncollected



Version	Poppet valve
Certificates	CE declaration of conformity
Working pressure min./max.	0 ... 290 psi
Opening pressure of valve	See table below
Ambient temperature min./max.	-4 ... 212 °F
Medium	Compressed air

Technical data

Part No.	Port 1	Opening pressure of valve	Flow
			Qn 1▸2
R412007521	G 1/4	0.8 bar	0.687 Cv
R412007522	G 1/4	1.5 bar	1.01 Cv
R412007523	G 1/4	2 bar	1.24 Cv
R412007524	G 1/4	3.5 bar	1.9 Cv
R412007525	G 1/4	4 bar	2.12 Cv
R412007526	G 1/4	4.8 bar	2.46 Cv
R412007527	G 1/4	6 bar	2.98 Cv
R412007528	G 1/4	8 bar	3.84 Cv
R412007529	G 1/4	10 bar	4.71 Cv
R412007530	G 1/4	11 bar	5.14 Cv
R412007531	G 1/4	15 bar	6.86 Cv
R412007532	G 1/4	16 bar	7.3 Cv

Technical information

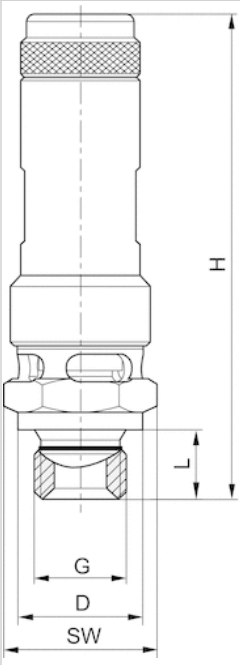
The specified performance values are achieved at a 10% (PE 14.5 psi , 1.45 psi) pressure increase, measured with compressed air at 68 °F .

Technical information

Material	
Housing	Brass
Seals	Fluorocaoutchouc

Dimensions

Dimensions



G = connection 1

Dimensions

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

T = maximum torque

NW = nominal width