

## Series NL6

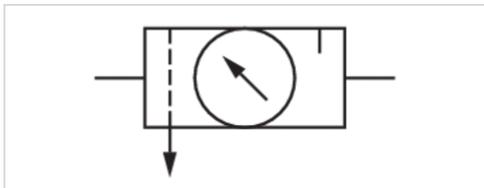


AVENTICS™ Series NL6



# Air preparation unit, 2-part, Series NL6-ACD

- G 1
- filter porosity 40 µm
- with pressure gauge



Version	2-part, Can be assembled into blocks
Parts	Filter pressure regulator, Lubricator
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	13500 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function Adjustment	with relieving air exhaust
range min./max. Pressure supply	0.5 ... 10 bar
Filter reservoir volume	125 cm <sup>3</sup>
Filter element	exchangeable
Condensate drain	semi-automatic, open without pressure
Lubricator reservoir volume	450 cm <sup>3</sup>
Type of filling	Manual oil filling
Max. Internal air consumption	0.5 l/min
Weight	See table below

## Technical data

Part No.	Port	filter porosity	Flow	Condensate drain
			Qn	
0821300877	G 1	40 µm	13500 l/min	semi-automatic, open without pressure
0821300878	G 1	40 µm	13500 l/min	semi-automatic, open without pressure

Part No.	Pressure gauge	Protective guard	Weight
0821300877	with pressure gauge	-	3.83 kg
0821300878	with pressure gauge	Steel	3.93 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar  
 Metal protective guard can be retrofitted for all polycarbonate reservoirs

## Technical information

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

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information". A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

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

Oil dosing at 1000 l/min 1-2 drops

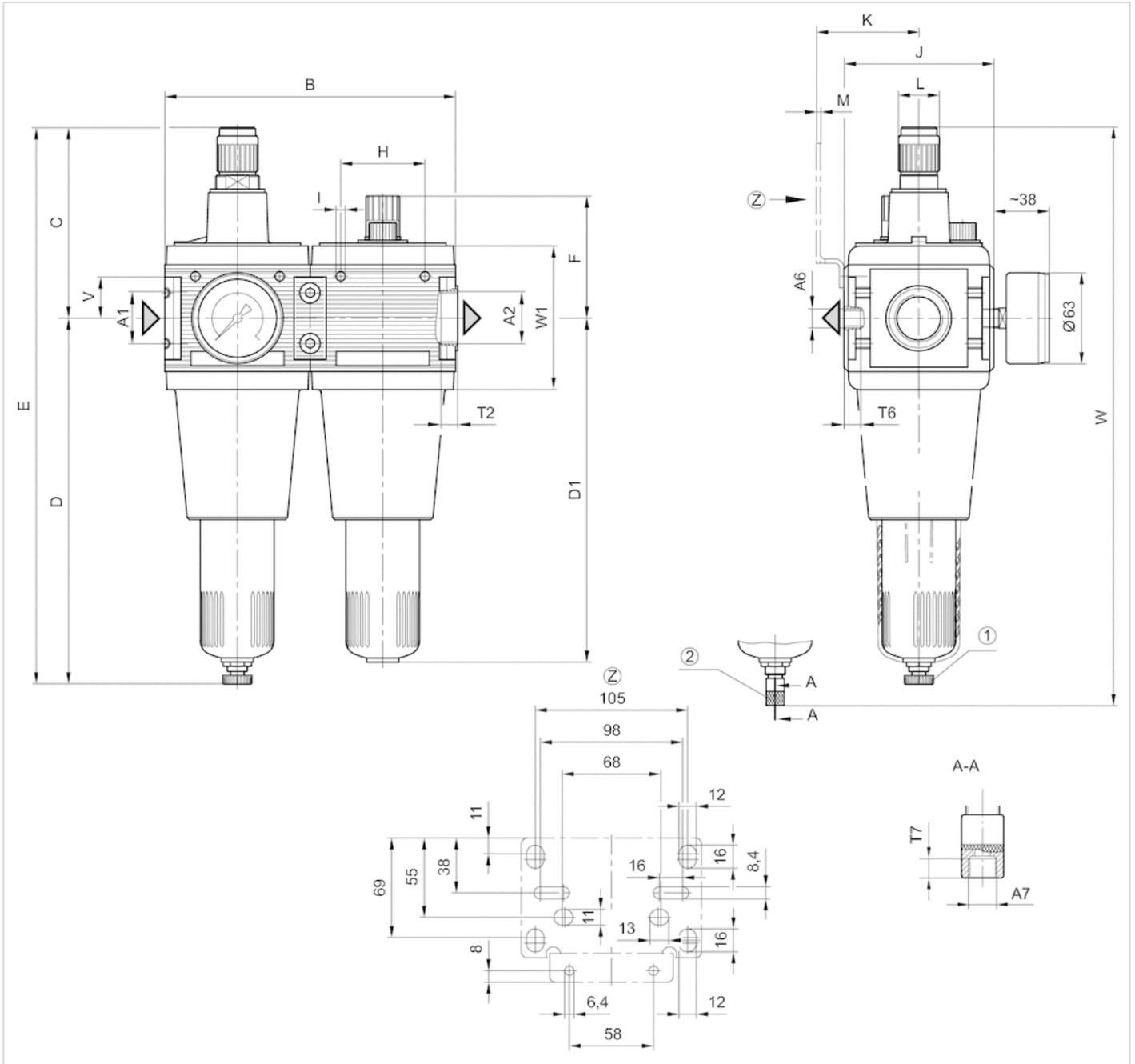
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 :-

## Technical information

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

# Dimensions

## Dimensions



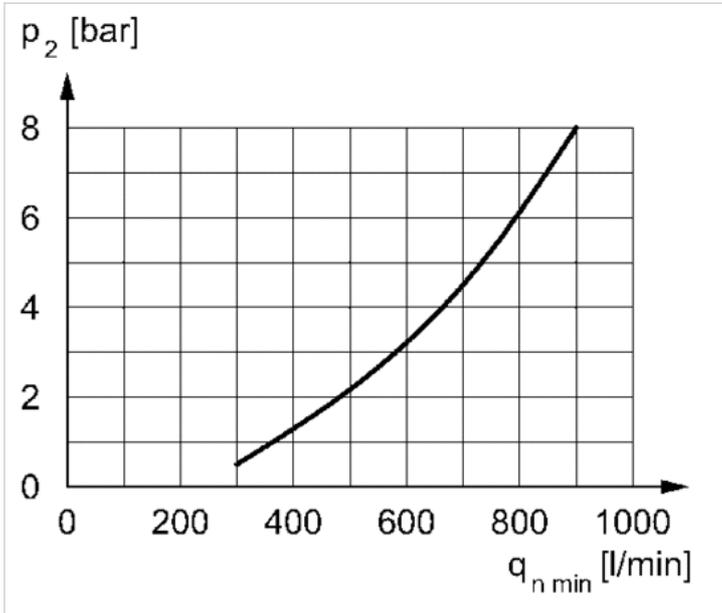
- A1 = input
- A2 = output
- A6 = output
- 1) Semi-automatic condensate drain
- 2) fully automatic condensate drain

## Dimensions in mm

A1	A2	A6	A7	B	C	D	D1	E	F	H	I	J	K	L	M	T2	T6	T7	V	W	W1
G 1	G 1	G 1/4	G 1/8	200	132	253	236	385	84	58	M6	103	70.5	28	3	18	7	8.5	29	403	101.5

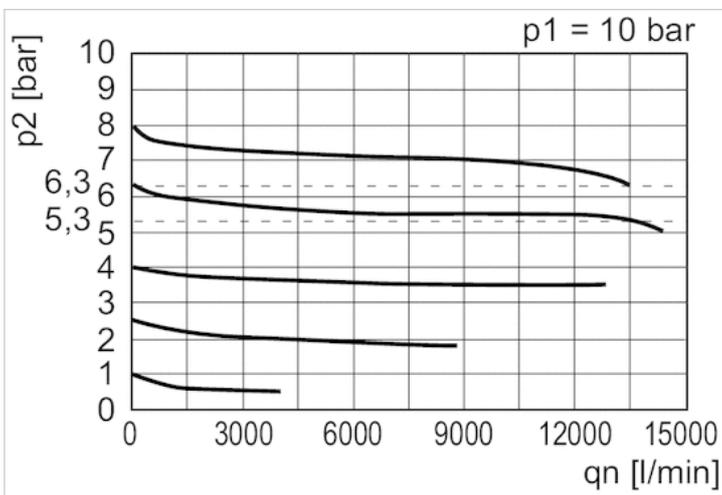
## Diagrams

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



p2 = secondary pressure  
 qnmin. = min. nominal flow

## Flow rate characteristic



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

# Pressure regulator, Series NL6-RGS

- G 3/4 G 1
- Qn = 15000 l/min
- Standard pressure regulator
- Activation Mechanical



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	0.5 ... 20 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Pressure supply	single
Activation	Mechanical
Internal air consumption qv max.	0.5 l/min
Weight	See table below

## Technical data

Part No.			Port	Flow	Pressure gauge	Weight	
				Qn			
0821302801		—	G 3/4	15000 l/min	-	1.46 kg	1)
0821302803			G 3/4	15000 l/min	with pressure gauge	1.55 kg	2)
0821302802		—	G 1	15000 l/min	-	1.46 kg	1)
0821302804			G 1	15000 l/min	with pressure gauge	1.55 kg	2)

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

- 1) Order pressure gauge separately.
- 2) Pressure gauge enclosed separately.

## Technical information

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

Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

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

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

Relieving exhaust (≤ 0.3 bar over set pressure).

With rear exhaust (> 3 bar ).

Recommended pre-filtering 5 μm

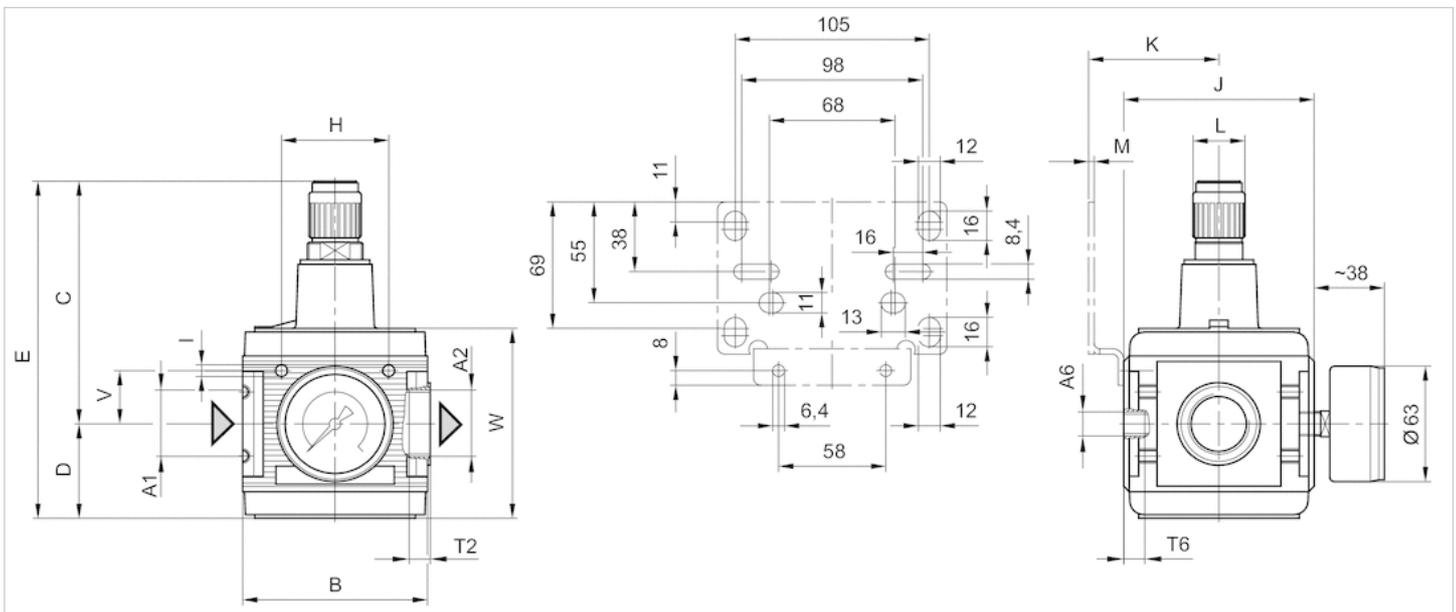
## Technical information

### Material

Housing	Die-cast aluminum
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions



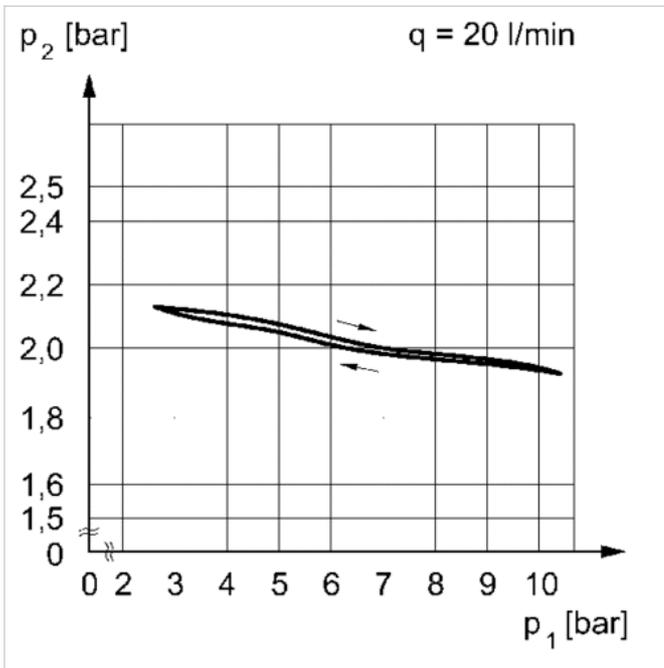
A1 = input  
 A2 = output  
 A6 = output

### Dimensions in mm

A1	A2	A6	B	C	D	E	H	I	J	K	L	M	T2	T6	V	W
G 3/4	G 3/4	G 1/4	100	132	51.5	183.5	58	M6	103	70.5	28	3	18	7	29	103.5
G 1	G 1	G 1/4	100	132	51.5	183.5	58	M6	103	70.5	28	3	18	7	29	103.5

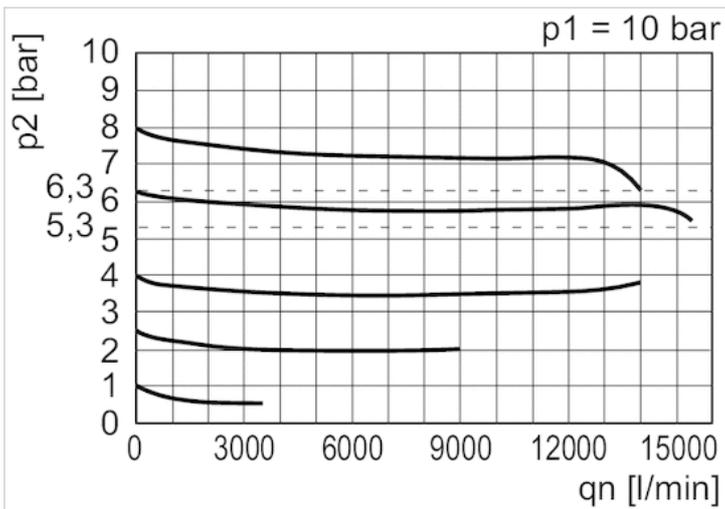
## Diagrams

### Pressure characteristics curve



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

### Flow rate characteristic (secondary range $p_2$ : 0.5 - 10 bar)



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

# Pressure regulator, Series NL6-RGS

- G 3/4 G 1
- Qn = 15000 l/min
- Standard pressure regulator
- Activation Mechanical
- lockable
- with key



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	0.5 ... 20 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Lock type	with key
Pressure supply	single
Activation	Mechanical
Internal air consumption qv max.	0.5 l/min
Weight	See table below

## Technical data

Part No.			Port	Flow	Pressure gauge	Weight	
				Qn			
0821302807			G 3/4	15000 l/min	with pressure gauge	1.66 kg	1)
0821302806		—	G 1	15000 l/min	-	1.57 kg	2)
0821302808			G 1	15000 l/min	with pressure gauge	1.64 kg	1)

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

- 1) Pressure gauge enclosed separately.
- 2) Order pressure gauge separately.

## Technical information

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

Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

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

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

Relieving exhaust (≤ 0.3 bar over set pressure).

With rear exhaust (> 3 bar ).

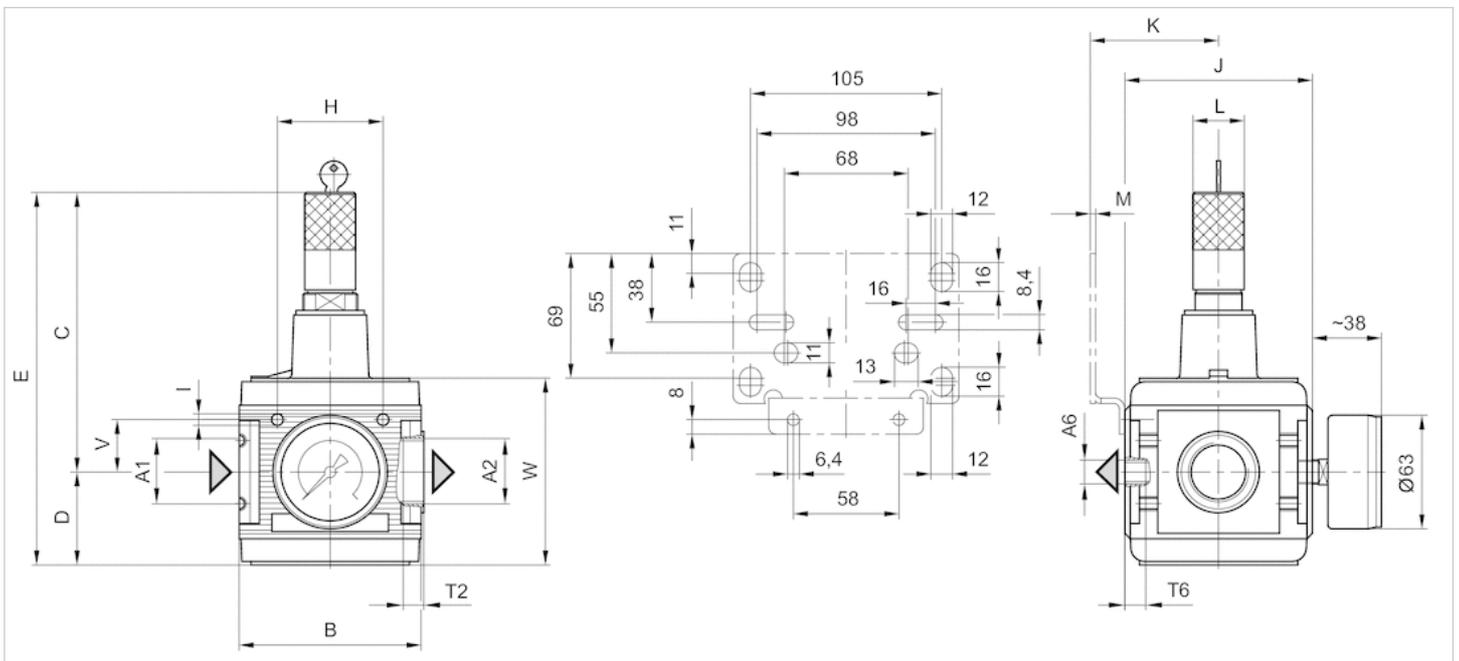
Recommended pre-filtering 5 μm

## Technical information

Material	
Housing	Die-cast aluminum
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions



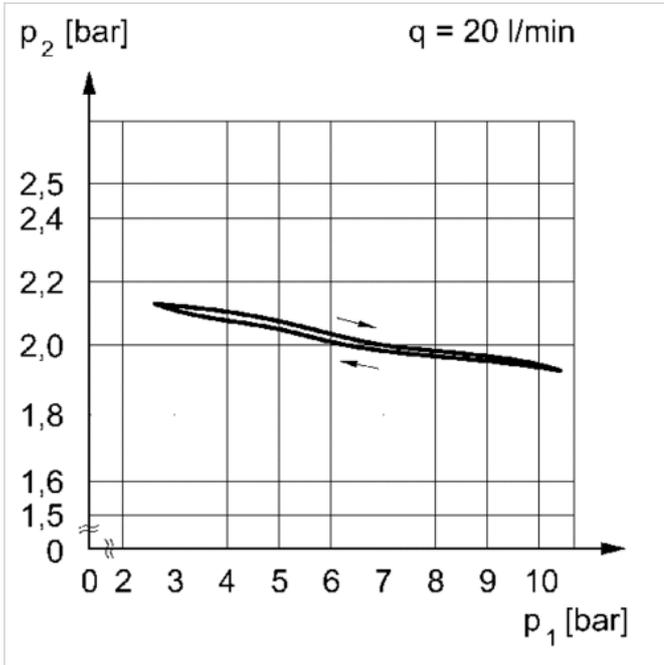
A1 = input  
 A2 = output  
 A6 = output

### Dimensions in mm

A1	A2	A6	B	C	D	E	H	I	J	K	L	M	T2	T6	V	W
G 3/4	G 3/4	G 1/4	100	156.5	51.5	208	58	M6	103	70.5	28	3	18	7	29	103.5
G 1	G 1	G 1/4	100	156.5	51.5	208	58	M6	103	70.5	28	3	18	7	29	103.5

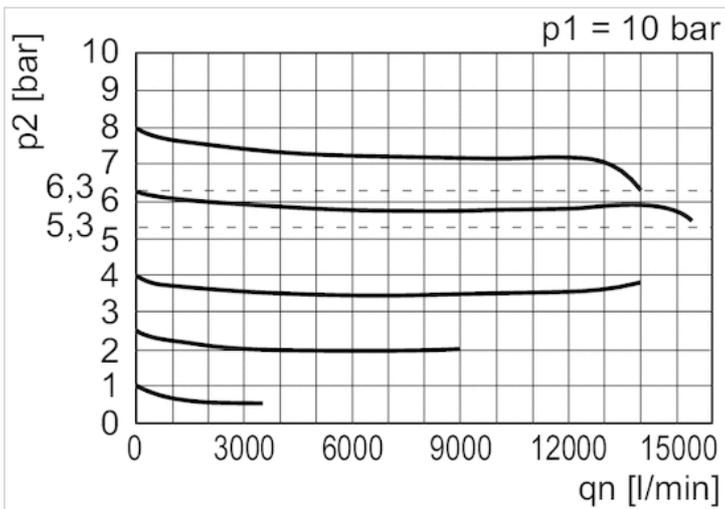
## Diagrams

### Pressure characteristics curve



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

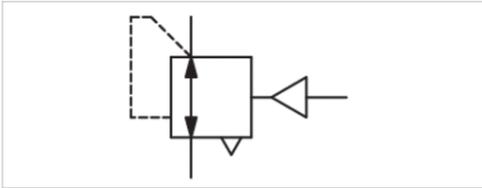
### Flow rate characteristic (secondary range $p_2$ : 0.5 - 10 bar)



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

# Pressure regulator, Series NL6-RGS

- G 3/4 G 1
- Qn = 15000 l/min
- Standard pressure regulator
- Activation pneumatically



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	0.5 ... 20 bar
Control pressure min./max.	10 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust
Regulator function Adjustment range min./max. Pressure supply	0.5 ... 10 bar single
Activation	pneumatically
Weight	1.35 kg

## Technical data

Part No.	Port	Flow
		Qn
0821302809	G 3/4	15000 l/min
0821302810	G 1	15000 l/min

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

Order pressure gauge separately.

## Technical information

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

Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

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

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

Relieving exhaust (≤ 0.3 bar over set pressure).

With rear exhaust (> 3 bar ).

Recommended pre-filtering 5 μm

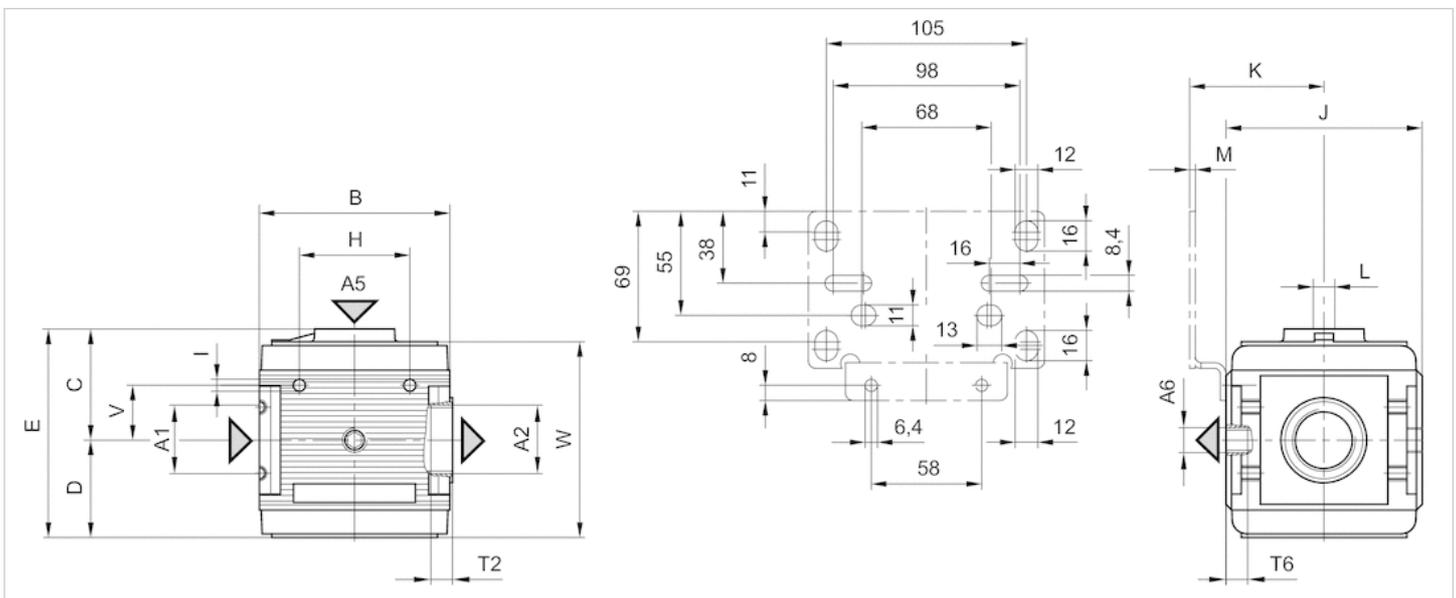
## Technical information

### Material

Housing	Die-cast aluminum
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions



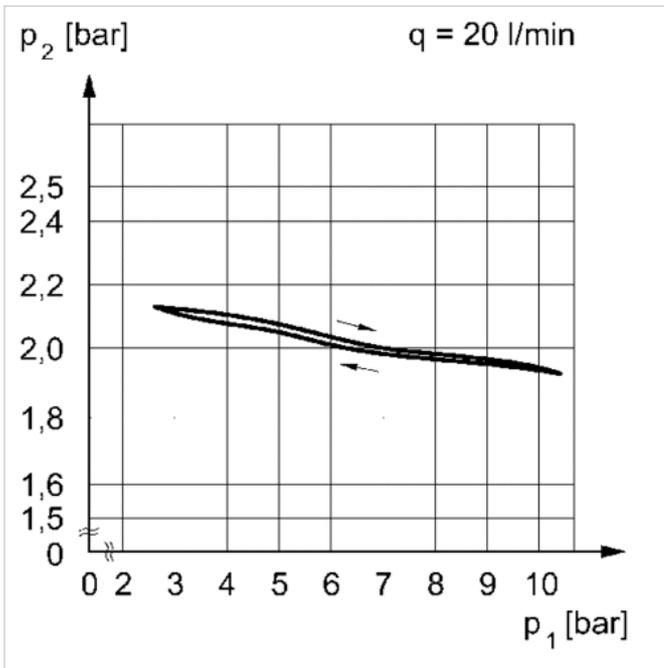
- A1 = input
- A2 = output
- A5 = control pressure connection
- A6 = ventilation port

### Dimensions in mm

A1	A2	A5	A6	B	C	D	E	H	I	J	K	L	M	N	T2	T6	V	W
G 3/4	G 3/4	G 1/8	G 1/4	100	61	51.5	112.5	58	M6	103	70.5	G 1/4	3	7	9.5	7	29	103.5
G 1	G 1	G 1/8	G 1/4	100	61	51.5	112.5	58	M6	103	70.5	G 1/4	3	7	18	7	29	103.5

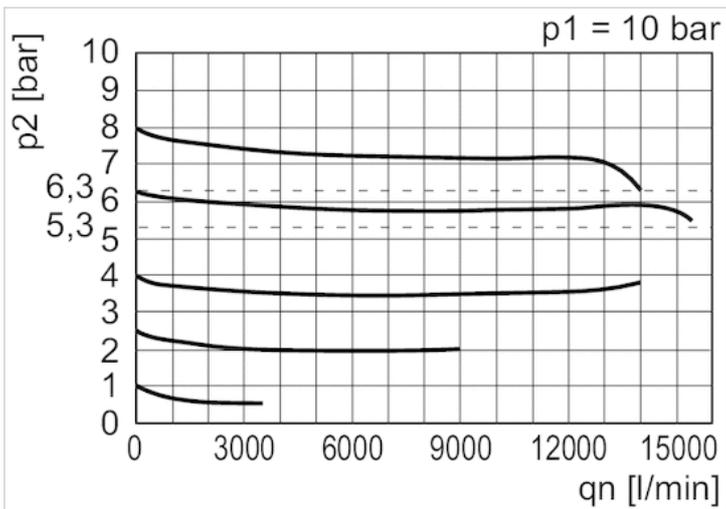
## Diagrams

### Pressure characteristics curve



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

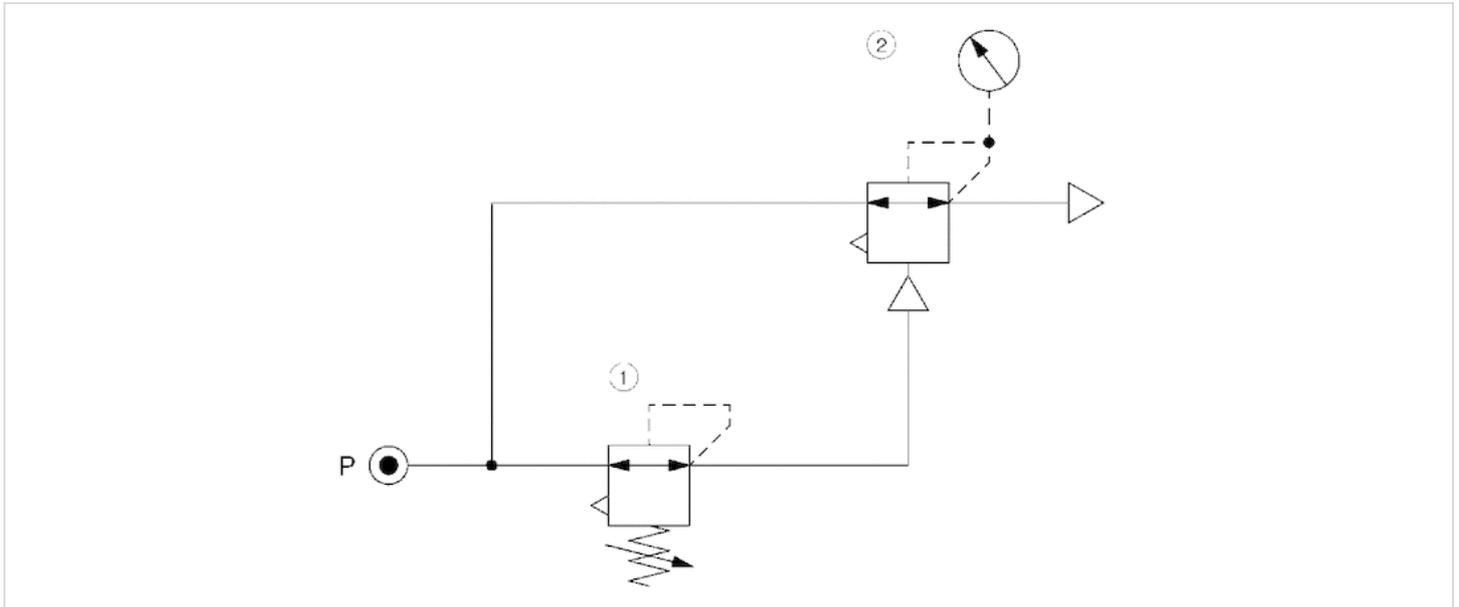
### Flow rate characteristic (secondary range $p_2$ : 0.5 - 10 bar)



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

## Circuit diagram

### Application example



1) precision pressure regulator

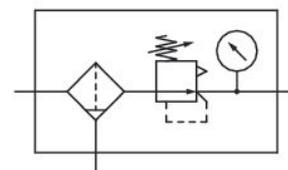
2) pressure regulator valve, pneumatically operated

# Filter pressure regulator, Series NL6-FRE

0821300132

General series information  
Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Parts  
Filter pressure regulator

Port  
G 1

Nominal flow Qn  
15000 l/min

Filter porosity  
5 µm

Condensate drain  
semi-automatic, open without pressure

Pressure gauge  
with pressure gauge

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

Regulation range min.  
0.5 bar

Regulation range max.  
10 bar

Type  
1-part

Type  
Can be assembled into blocks

Pressure supply  
single

Mounting orientation vertical	Filter reservoir volume 125 cm <sup>3</sup>
Regulator type Diaphragm-type pressure regulator	Max. achievable compressed air class acc. to ISO 8573-1:2010
Regulator function with relieving air exhaust	6 : 7 : -
Max. Internal air consumption 0.5 l/min	Medium Compressed air Neutral gases
Filter element exchangeable	Weight 2.25 kg

## Material

Housing material Die-cast aluminum	Material protective guard Steel
Seal material Acrylonitrile butadiene rubber	Material filter insert Polyethylene
Material front plate Acrylonitrile butadiene styrene	Part No. 0821300132
Material reservoir Polycarbonate	

## Technical information

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

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

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

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

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).

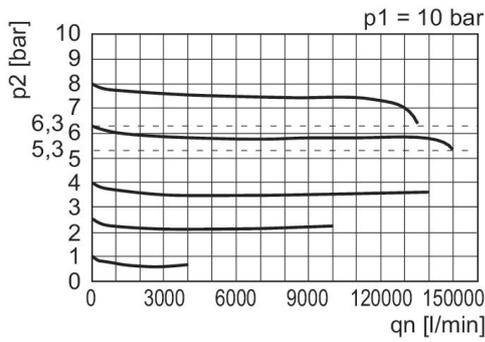
Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

Metal protective guard can be retrofitted for all polycarbonate reservoirs. Pressure gauge enclosed separately.

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

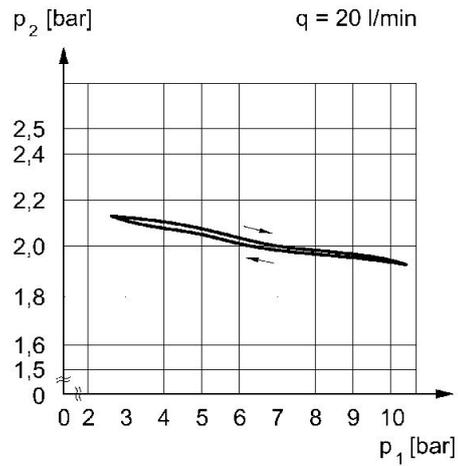


Flow rate characteristic,  $p_2 = 0,05 - 7$  bar



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

Pressure characteristics curve



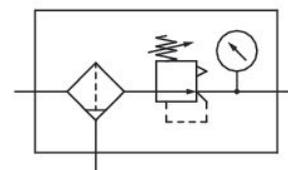
$p_1$  = working pressure  
 $p_2$  = secondary pressure  
 $q_n$  = nominal flow  
 $q$  = flow rate

# Filter pressure regulator, Series NL6-FRE

0821300864

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Parts  
Filter pressure regulator

Port  
G 1

Nominal flow Qn  
15000 l/min

Filter porosity  
5 µm

Condensate drain  
fully automatic, open without pressure

Pressure gauge  
with pressure gauge

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

inspection glass  
with window

Regulation range min.  
0.5 bar

Regulation range max.  
10 bar

Type  
1-part

Type  
Can be assembled into blocks

Pressure supply single	Filter reservoir volume 125 cm <sup>3</sup>
Mounting orientation vertical	Max. achievable compressed air class acc. to ISO 8573-1:2010
Regulator type Diaphragm-type pressure regulator	6 : 7 : -
Regulator function with relieving air exhaust	Medium Compressed air Neutral gases
Max. Internal air consumption 0.5 l/min	Weight 2.48 kg
Filter element exchangeable	

## Material

Housing material Die-cast aluminum	Material reservoir Die cast zinc
Seal material Acrylonitrile butadiene rubber	Material filter insert Polyethylene
Material front plate Acrylonitrile butadiene styrene	Part No. 0821300864

## Technical information

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

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

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

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

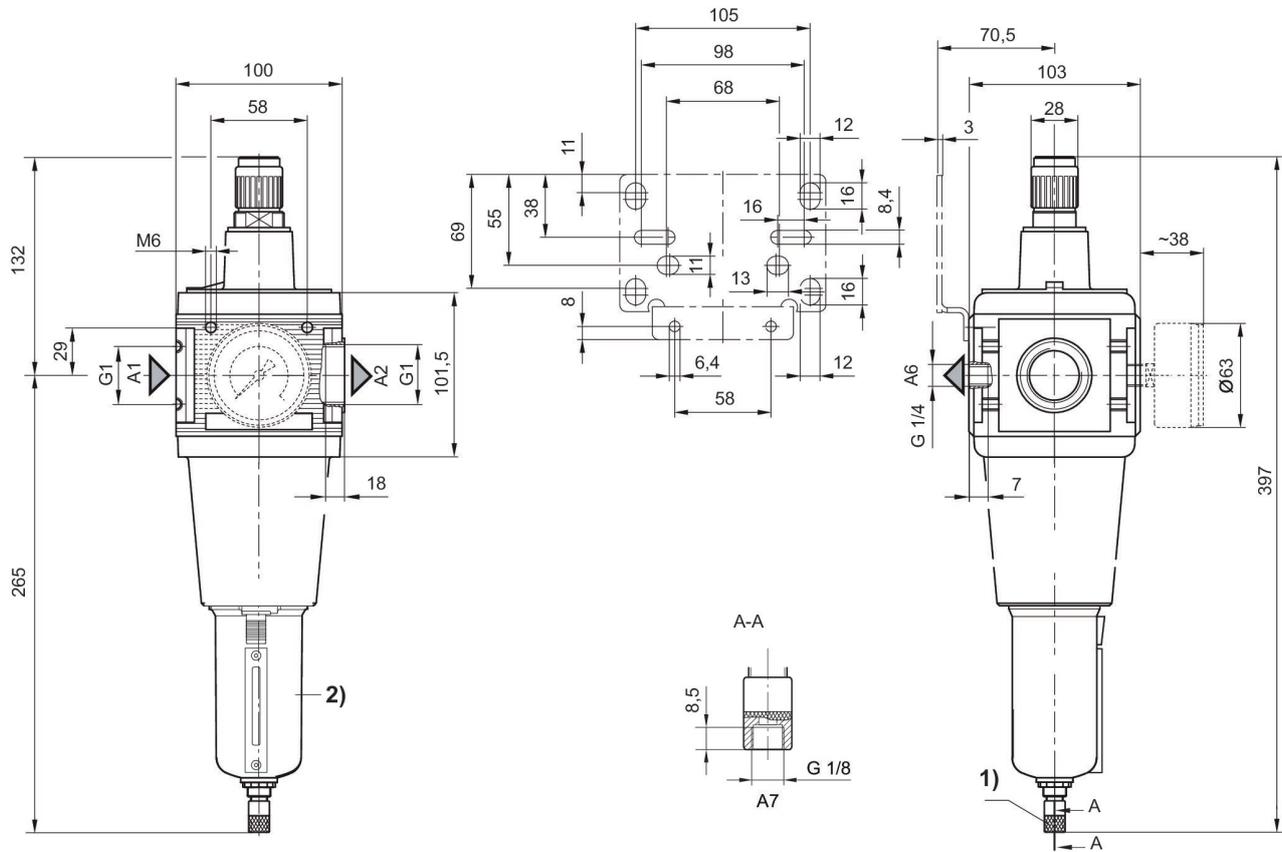
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

Pressure gauge enclosed separately

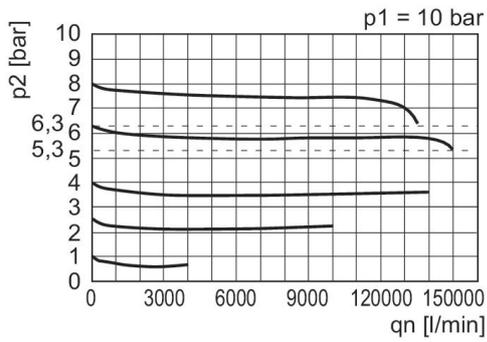
Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

Dimensions in mm



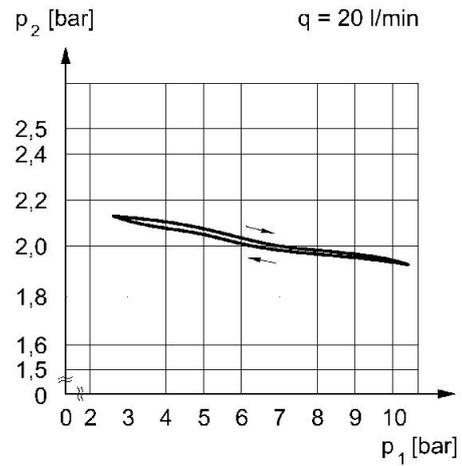
- A1 = input
- A2 = output
- A6 = output
- A7 = condensate drain
- 1) Fully automatic condensate drain
- 2) Metal reservoir with inspection glass

### Flow rate characteristic, $p_2 = 0,05 - 7$ bar



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

### Pressure characteristics curve



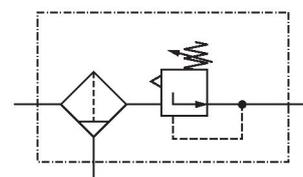
$p_1$  = working pressure  
 $p_2$  = secondary pressure  
 $q_n$  = nominal flow  
 $q$  = flow rate

# Filter pressure regulator, Series NL6-FRE

0821300865

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Parts  
Filter pressure regulator

Port  
G 1

Nominal flow Qn  
15000 l/min

Filter porosity  
5 µm

Condensate drain  
fully automatic, open without pressure

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

inspection glass  
with window

Regulation range min.  
0.5 bar

Regulation range max.  
10 bar

Type  
1-part

Type  
Can be assembled into blocks

Pressure supply  
single

Mounting orientation vertical	Filter reservoir volume 125 cm <sup>3</sup>
Regulator type Diaphragm-type pressure regulator	Max. achievable compressed air class acc. to ISO 8573-1:2010
Regulator function with relieving air exhaust	6 : 7 : -
Max. Internal air consumption 0.5 l/min	Medium Compressed air Neutral gases
Filter element exchangeable	Weight 2.48 kg

## Material

Housing material Die-cast aluminum	Material reservoir Die cast zinc
Seal material Acrylonitrile butadiene rubber	Material filter insert Polyethylene
Material front plate Acrylonitrile butadiene styrene	Part No. 0821300865

## Technical information

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

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

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

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

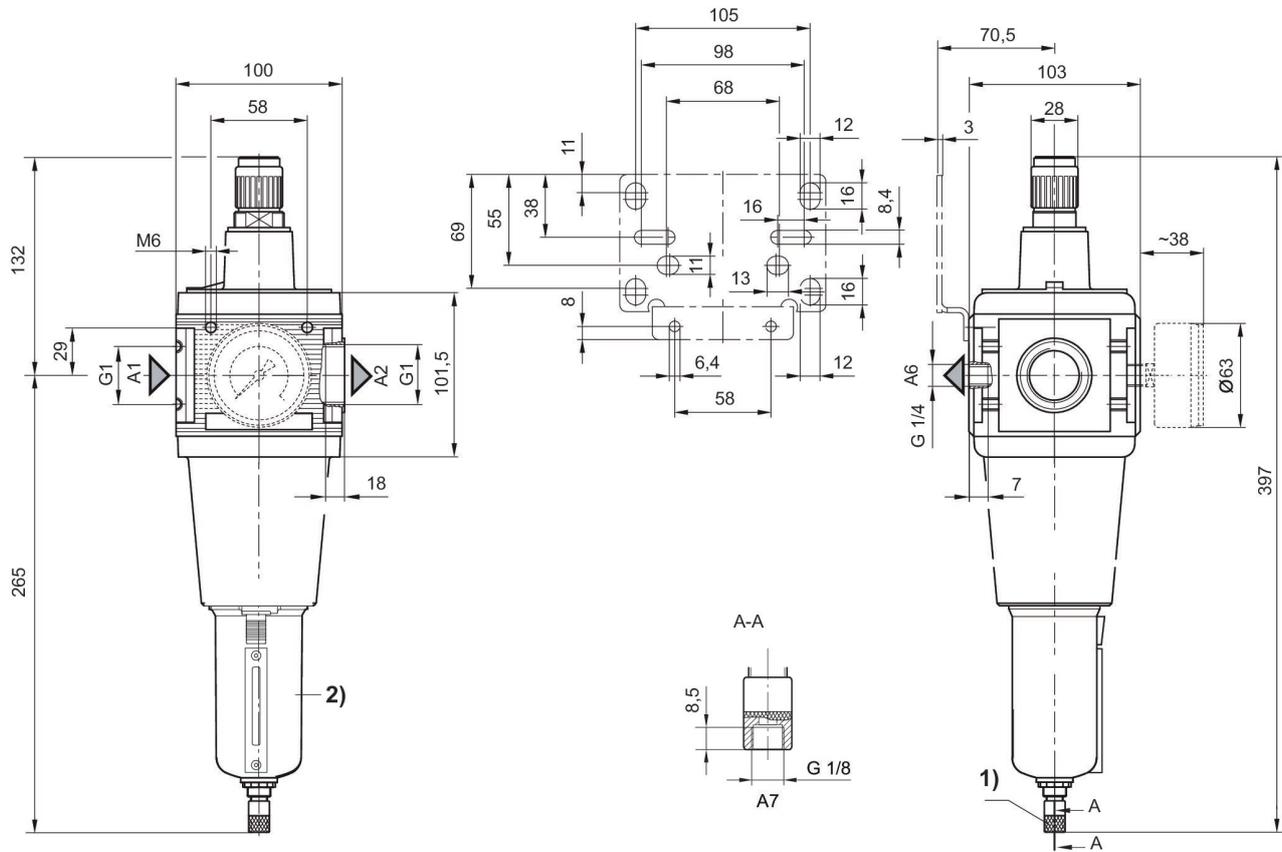
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

Metal protective guard can be retrofitted for all polycarbonate reservoirs. Order pressure gauge separately.

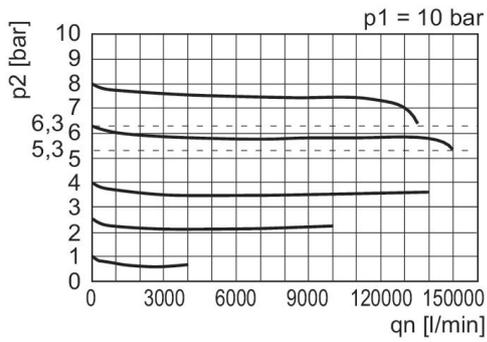
Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Dimensions in mm



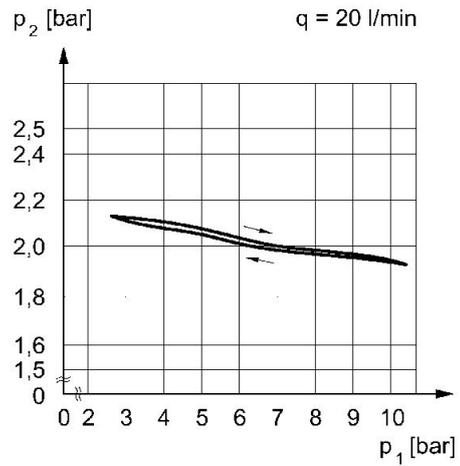
- A1 = input
- A2 = output
- A6 = output
- A7 = condensate drain
- 1) Fully automatic condensate drain
- 2) Metal reservoir with inspection glass

### Flow rate characteristic, $p_2 = 0,05 - 7$ bar



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

### Pressure characteristics curve



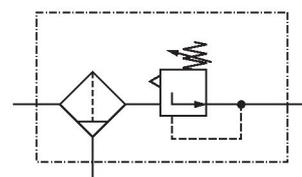
$p_1$  = working pressure  
 $p_2$  = secondary pressure  
 $q_n$  = nominal flow  
 $q$  = flow rate

# Filter pressure regulator, Series NL6-FRE

0821300885

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Parts  
Filter pressure regulator

Port  
G 1

Nominal flow Qn  
15000 l/min

Filter porosity  
5 µm

Condensate drain  
fully automatic, open without pressure

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

Regulation range min.  
0.5 bar

Regulation range max.  
10 bar

Type  
1-part

Type  
Can be assembled into blocks

Pressure supply  
single

Mounting orientation  
vertical

<b>Regulator type</b> Diaphragm-type pressure regulator	<b>Max. achievable compressed air class acc. to ISO 8573-1:2010</b> 6 : 7 : -
<b>Regulator function</b> with relieving air exhaust	<b>Medium</b> Compressed air Neutral gases
<b>Max. Internal air consumption</b> 0.5 l/min	<b>Weight</b> 2.18 kg
<b>Filter element</b> exchangeable	
<b>Filter reservoir volume</b> 125 cm <sup>3</sup>	

## Material

<b>Housing material</b> Die-cast aluminum	<b>Material reservoir</b> Polycarbonate
<b>Seal material</b> Acrylonitrile butadiene rubber	<b>Material filter insert</b> Polyethylene
<b>Material front plate</b> Acrylonitrile butadiene styrene	<b>Part No.</b> 0821300885

## Technical information

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

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

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

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

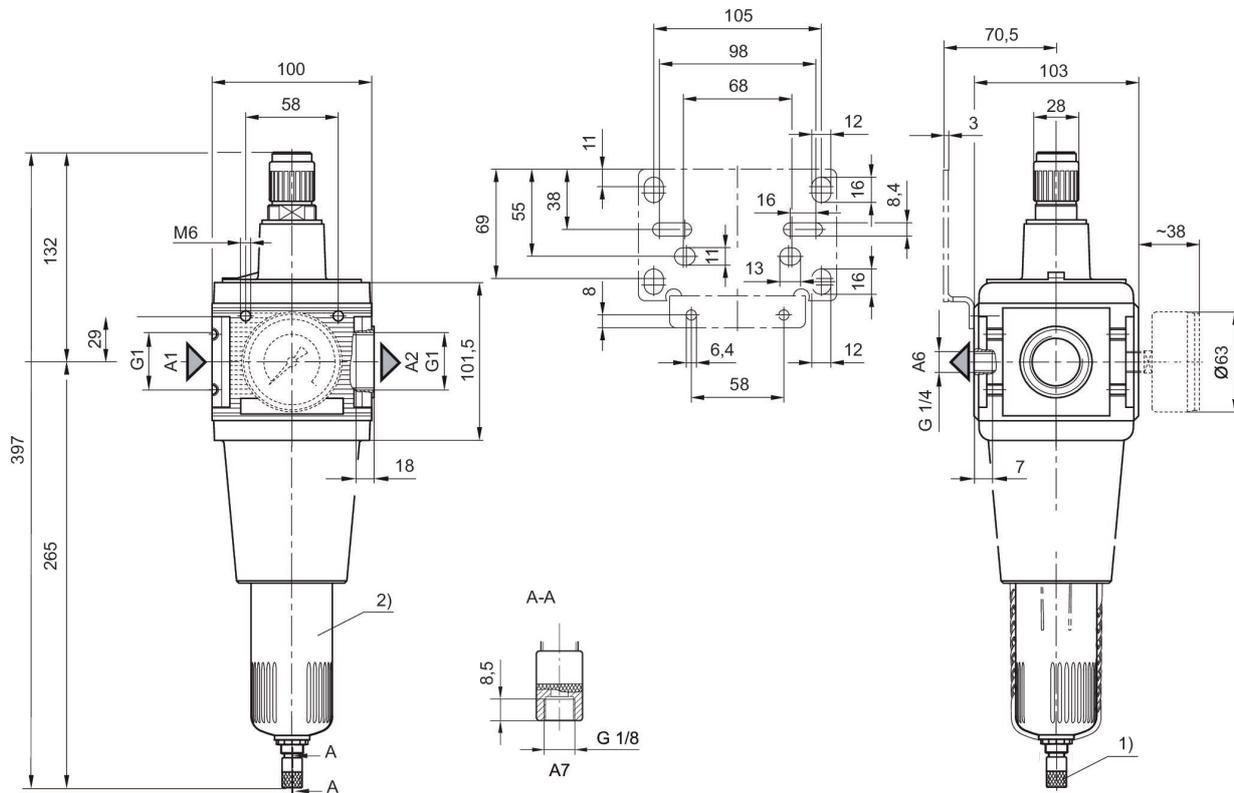
The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

Metal protective guard can be retrofitted for all polycarbonate reservoirs. Order pressure gauge separately.

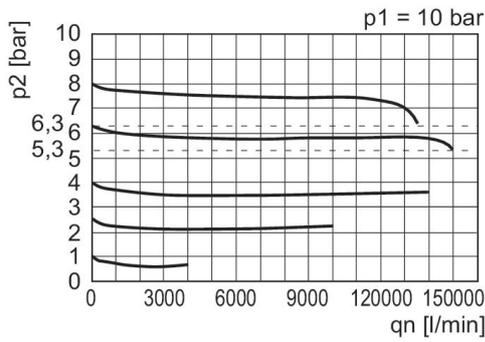
Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

## Dimensions in mm



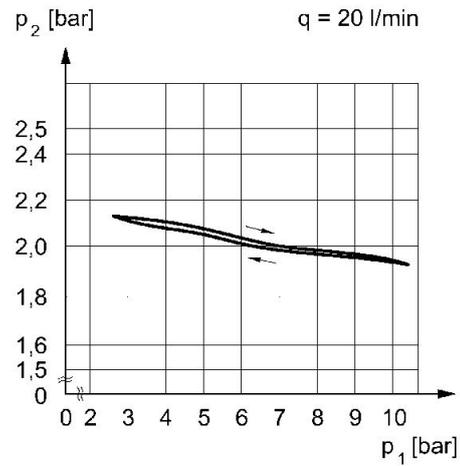
- A1 = input  
A2 = output  
A6 = output  
A7 = condensate drain  
1) Fully automatic condensate drain  
2) Reservoir: polycarbonate

### Flow rate characteristic, $p_2 = 0,05 - 7$ bar



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

### Pressure characteristics curve



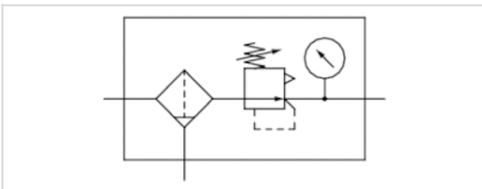
$p_1$  = working pressure  
 $p_2$  = secondary pressure  
 $q_n$  = nominal flow  
 $q$  = flow rate

# Filter pressure regulator, Series NL6-FRE

- G 3/4 G 1

- filter porosity 40 µm

- with pressure gauge



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	15000 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function Adjustment range min./max. Pressure supply	with relieving air exhaust 0.5 ... 10 bar single
Filter reservoir volume	125 cm <sup>3</sup>
Filter element	exchangeable
Max. Internal air consumption	0.5 l/min
Weight	See table below

## Technical data

Part No.	Port	filter porosity	Flow	Condensate drain
			Qn	
0821300850	G 3/4	40 µm	15000 l/min	semi-automatic, open without pressure
0821300851	G 3/4	40 µm	15000 l/min	semi-automatic, open without pressure
0821300852	G 3/4	40 µm	15000 l/min	semi-automatic, open without pressure
0821300853	G 3/4	40 µm	15000 l/min	fully automatic, open without pressure
0821300854	G 3/4	40 µm	15000 l/min	fully automatic, open without pressure
0821300855	G 3/4	40 µm	15000 l/min	fully automatic, open without pressure
0821300856	G 1	40 µm	15000 l/min	semi-automatic, open without pressure
0821300857	G 1	40 µm	15000 l/min	semi-automatic, open without pressure
0821300858	G 1	40 µm	15000 l/min	semi-automatic, open without pressure
0821300859	G 1	40 µm	15000 l/min	fully automatic, open without pressure
0821300860	G 1	40 µm	15000 l/min	fully automatic, open without pressure
0821300861	G 1	40 µm	15000 l/min	fully automatic, open without pressure

Part No.	Pressure gauge	Reservoir	Protective guard	Weight
0821300850	with pressure gauge	Polycarbonate	-	2.15 kg
0821300851	with pressure gauge	Polycarbonate	Steel	5.3 kg
0821300852	with pressure gauge	Die cast zinc	-	2.45 kg
0821300853	with pressure gauge	Polycarbonate	-	2.18 kg
0821300854	with pressure gauge	Polycarbonate	Steel	2.28 kg

Part No.	Pressure gauge	Reservoir	Protective guard	Weight
0821300855	with pressure gauge	Die cast zinc	-	2.48 kg
0821300856	with pressure gauge	Polycarbonate	-	2.15 kg
0821300857	with pressure gauge	Polycarbonate	Steel	2.25 kg
0821300858	with pressure gauge	Die cast zinc	-	2.45 kg
0821300859	with pressure gauge	Polycarbonate	-	2.18 kg
0821300860	with pressure gauge	Polycarbonate	Steel	2.28 kg
0821300861	with pressure gauge	Die cast zinc	-	2.48 kg

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

Pressure gauge enclosed separately, Metal protective guard can be retrofitted for all polycarbonate reservoirs

## Technical information

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

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

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

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

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

Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

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

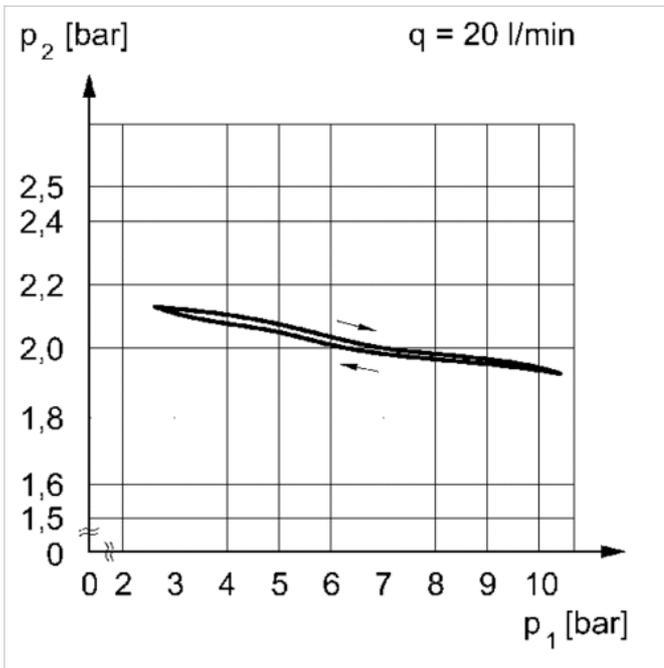
## Technical information

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



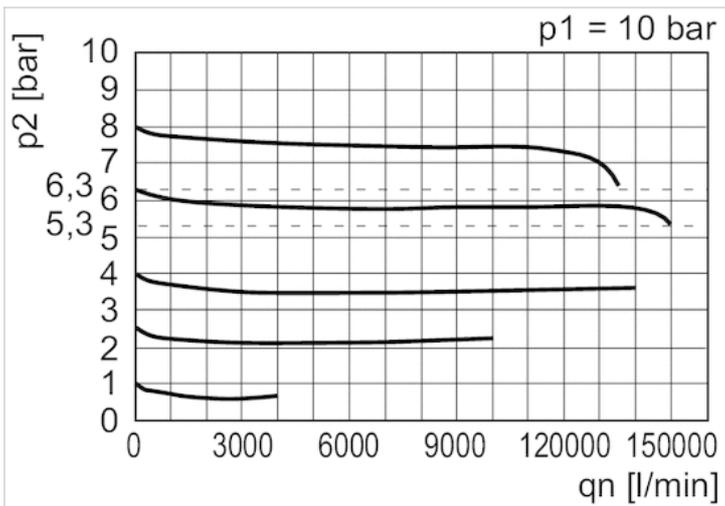
## Diagrams

### Pressure characteristics curve



$p_1$  = working pressure  
 $p_2$  = secondary pressure  
 $q_n$  = nominal flow  
 $q$  = flow rate

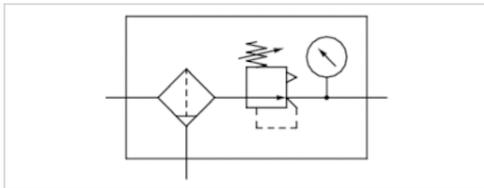
### Flow rate characteristic



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

# Filter pressure regulator, Series NL6-FRE

- G 3/4 G 1
- filter porosity 40 µm
- lockable
- with key
- with pressure gauge



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	15000 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function Adjustment	with relieving air exhaust
range min./max. Pressure supply	0.5 ... 10 bar single
Filter reservoir volume	125 cm³
Filter element	exchangeable
Condensate drain	semi-automatic, open without pressure
Max. Internal air consumption	0.5 l/min
Weight	2.26 kg

## Technical data

Part No.		Port	filter porosity	Flow	Condensate drain
				Qn	
0821300862		G 3/4	40 µm	15000 l/min	semi-automatic, open without pressure
0821300863		G 1	40 µm	15000 l/min	semi-automatic, open without pressure

Part No.	Pressure gauge
0821300862	with pressure gauge
0821300863	with pressure gauge

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

Pressure gauge enclosed separately. Metal protective guard can be retrofitted for all polycarbonate reservoirs

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".  
 A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.  
 Also suitable for separation of fluid oil or water due to the design.  
 The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

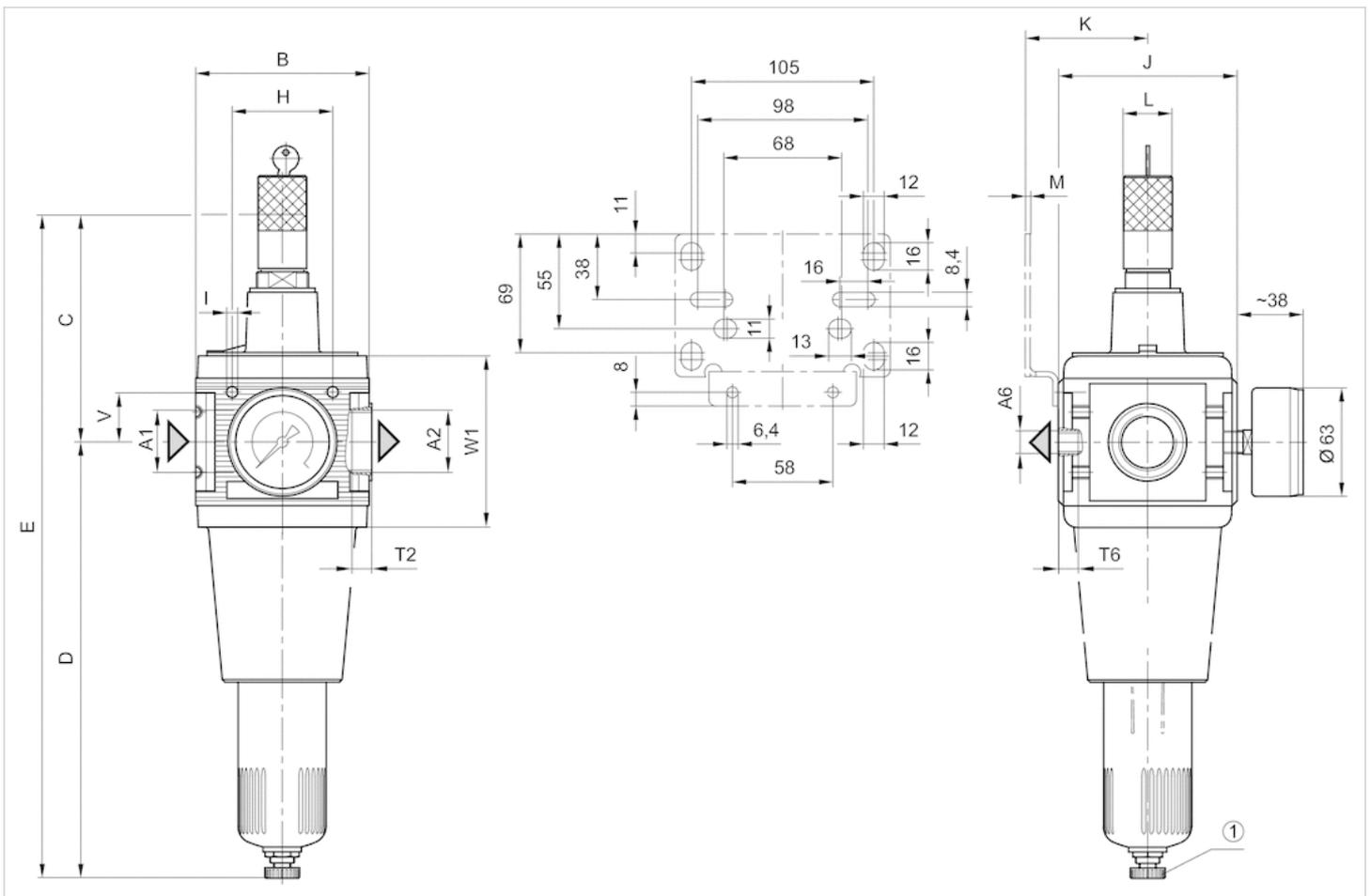
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 :-

## Technical information

Material	
Housing	Die-cast aluminum
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Reservoir	Polycarbonate
Filter insert	Polyethylene

## Dimensions

### Dimensions



A1 = input

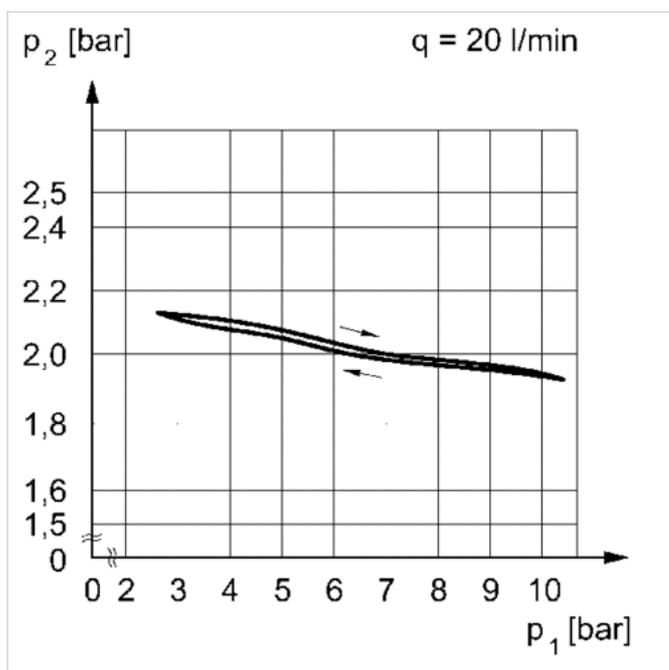
A2 = output  
 A6 = output  
 1) semi-automatic condensate drain

Dimensions in mm

A1	A2	A6	B	C	D	E	H	I	J	K	L	M	T2	T6	V	W1
G 3/4	G 3/4	G 1/4	100	157	253	410	58	M6	103	70.5	28	3	18	7	29	101.5
G 1	G 1	G 1/4	100	157	253	410	58	M6	103	70.5	28	3	18	7	29	101.5

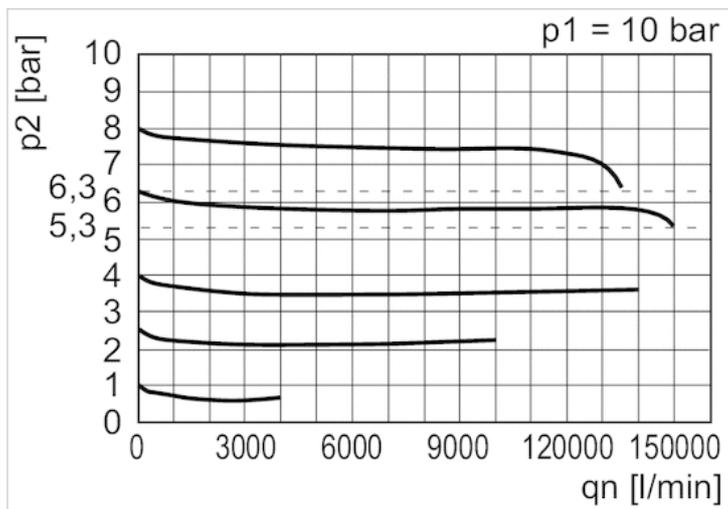
Diagrams

Pressure characteristics curve



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

## Flow rate characteristic



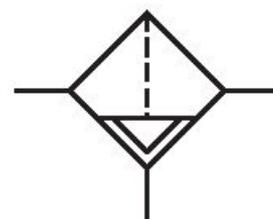
p1 = Working pressure  
p2 = Secondary pressure  
qn = Nominal flow

# Filter, Series NL6-FLS

0821303820

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Type  
Standard filter

Parts  
Filter

Port  
G 1

Filter porosity  
5  $\mu\text{m}$

Nominal flow  $Q_n$   
7200 l/min

Condensate drain  
fully automatic, open without pressure

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

Medium  
Compressed air  
Neutral gases

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

Filter reservoir volume  
125 cm<sup>3</sup>

Filter element  
exchangeable

Weight  
1.97 kg

Mounting orientation  
vertical

Type  
Can be assembled into blocks

Reservoir  
reservoir, polycarbonate, without protective guard

## Material

Housing material  
Die-cast aluminum

Material front plate  
Acrylonitrile butadiene styrene

Seal material  
Acrylonitrile butadiene rubber

Material reservoir  
Polycarbonate

Material filter insert  
Polyethylene

Part No.  
0821303820

## Technical information

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

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

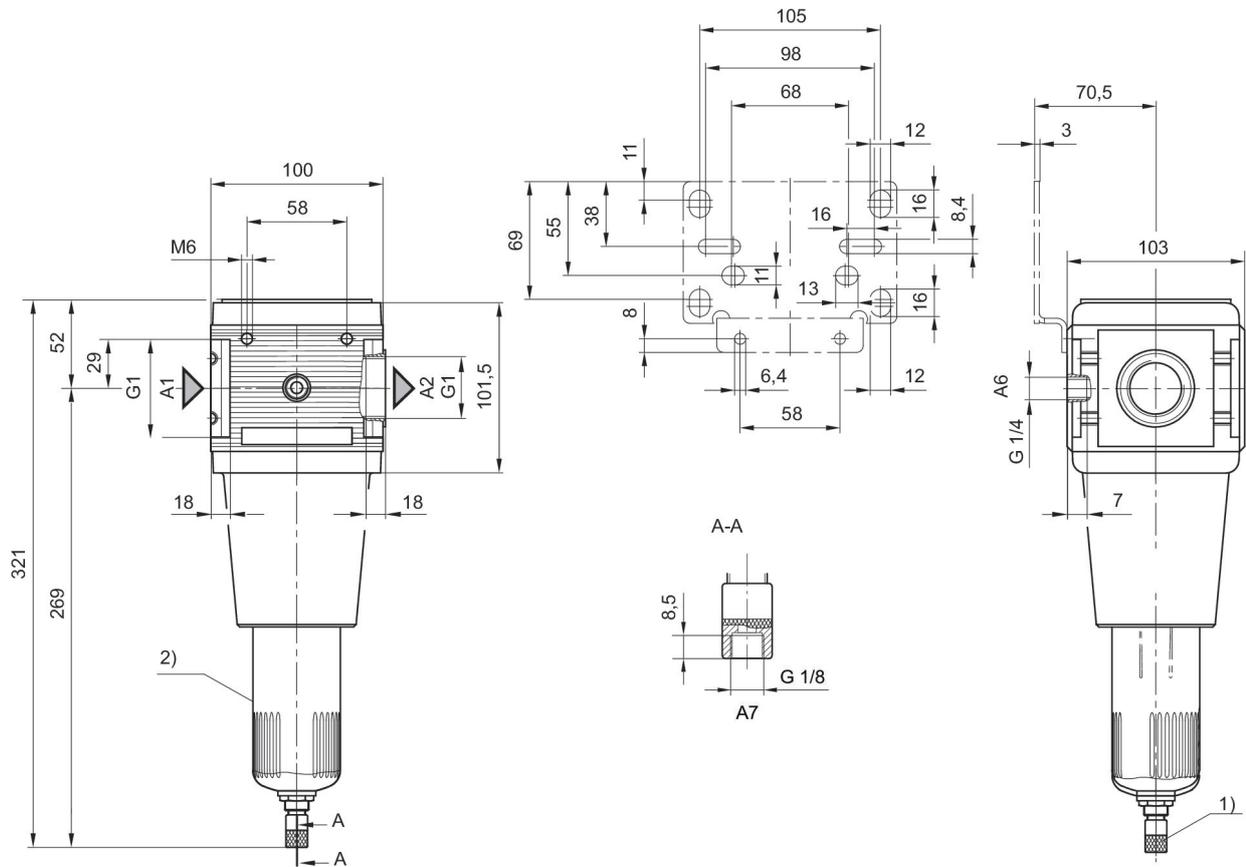
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Mounting with mounting bracket 1821336017.

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

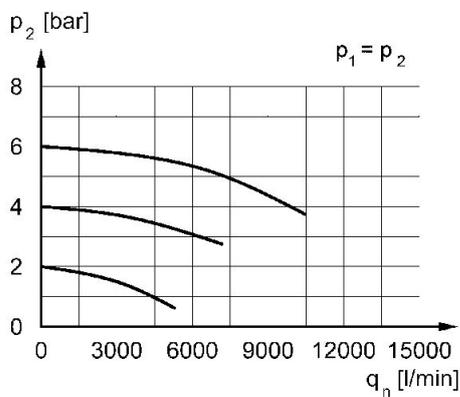
Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

## Dimensions in mm



- A1 = input
- A2 = output
- A6 = output
- A7 = condensate drain
- 1) Fully automatic condensate drain
- 2) Reservoir: polycarbonate

## Flow rate characteristic, $p_2 = 0,05 - 7$ bar



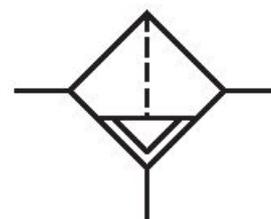
$p_2$  = secondary pressure  
 $q_n$  = nominal flow

# Filter, Series NL6-FLS

0821303821

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Type  
Standard filter

Parts  
Filter

Port  
G 1

Filter porosity  
5  $\mu\text{m}$

Nominal flow Qn  
7200 l/min

Condensate drain  
fully automatic, open without pressure

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

Medium  
Compressed air  
Neutral gases

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

Filter reservoir volume  
125 cm<sup>3</sup>

Filter element  
exchangeable

Weight  
1.99 kg

Mounting orientation  
vertical

Type  
Can be assembled into blocks

Reservoir  
reservoir, polycarbonate, with metal protective guard

## Material

Housing material  
Die-cast aluminum

Material front plate  
Acrylonitrile butadiene styrene

Seal material  
Acrylonitrile butadiene rubber

Material reservoir  
Polycarbonate

Material protective guard  
Steel

Material filter insert  
Polyethylene

Part No.  
0821303821

## Technical information

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

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

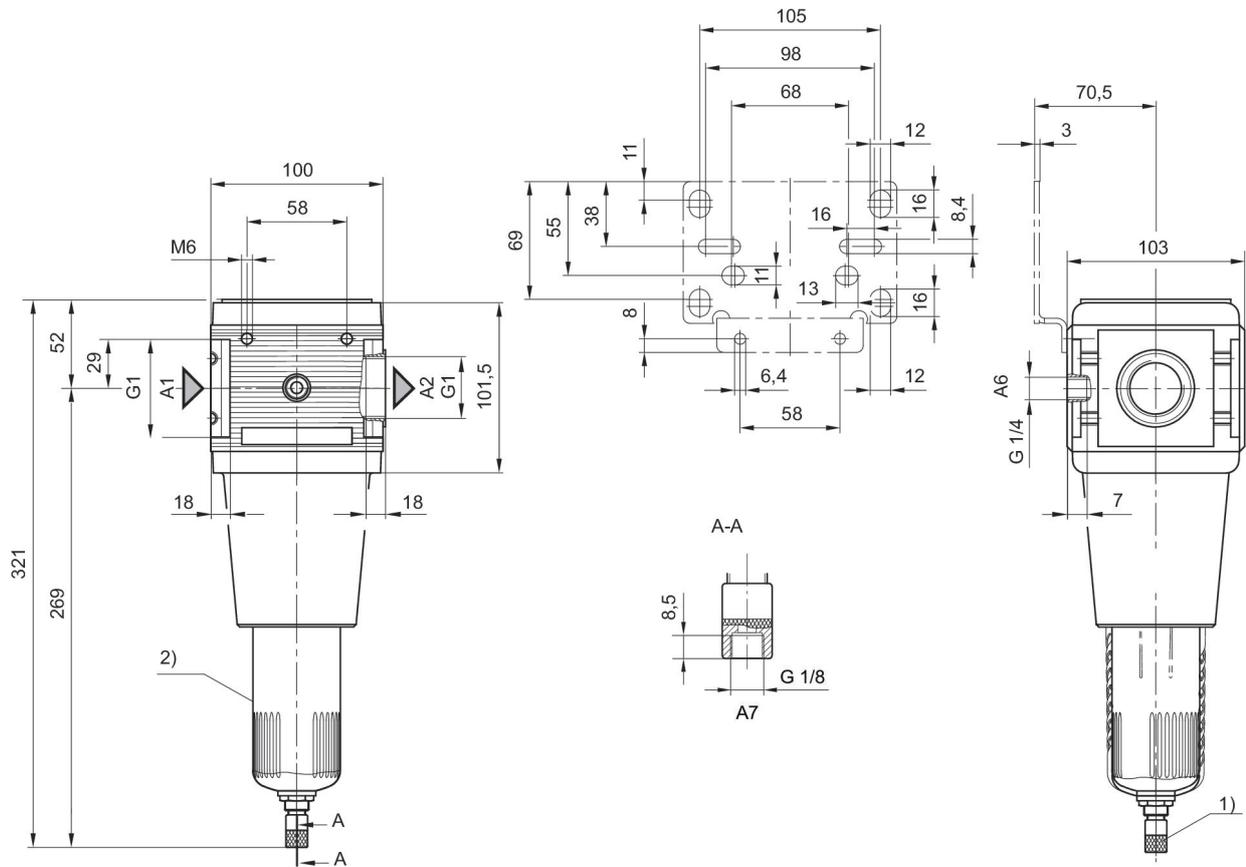
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Mounting with mounting bracket 1821336017.

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

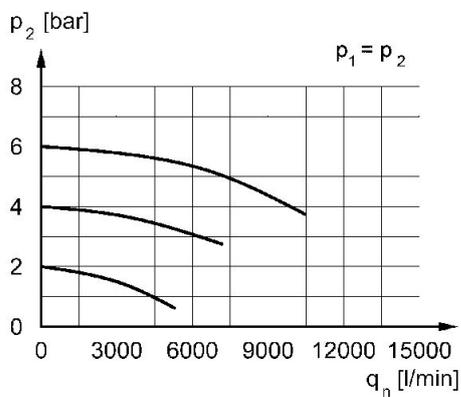
Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

## Dimensions in mm



- A1 = input  
 A2 = output  
 A6 = output  
 A7 = condensate drain  
 1) Fully automatic condensate drain  
 2) Plastic reservoir and protective guard with window

## Flow rate characteristic, $p_2 = 0,05 - 7$ bar

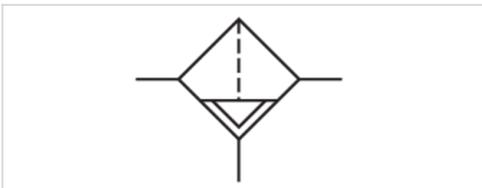


$p_2$  = secondary pressure  
 $q_n$  = nominal flow

# Filter, Series NL6-FLS

- G 3/4 G 1

- filter porosity 40 µm



Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	125 cm <sup>3</sup>
Filter element	exchangeable
filter porosity	40 µm
Condensate drain	See table below
Weight	See table below

## Technical data

Part No.	Port	Flow Qn	Working pressure min./max.	Condensate drain
0821303801	G 3/4	7200 l/min	1.5 ... 16 bar	semi-automatic, open without pressure
0821303802	G 3/4	7200 l/min	1.5 ... 16 bar	semi-automatic, open without pressure
0821303803	G 3/4	7200 l/min	1.5 ... 20 bar	semi-automatic, open without pressure
0821303804	G 3/4	7200 l/min	1.5 ... 16 bar	fully automatic, open without pressure
0821303805	G 3/4	7200 l/min	1.5 ... 16 bar	fully automatic, open without pressure
0821303806	G 3/4	7200 l/min	1.5 ... 20 bar	fully automatic, open without pressure
0821303807	G 1	7200 l/min	1.5 ... 16 bar	semi-automatic, open without pressure
0821303808	G 1	7200 l/min	1.5 ... 16 bar	semi-automatic, open without pressure
0821303809	G 1	7200 l/min	1.5 ... 20 bar	semi-automatic, open without pressure
0821303810	G 1	7200 l/min	1.5 ... 16 bar	fully automatic, open without pressure
0821303811	G 1	7200 l/min	1.5 ... 16 bar	fully automatic, open without pressure
0821303812	G 1	7200 l/min	1.5 ... 20 bar	fully automatic, open without pressure

Part No.	Version	Weight
0821303801	reservoir, polycarbonate, without protective guard	1.65 kg
0821303802	reservoir, polycarbonate, with metal protective guard	1.75 kg
0821303803	reservoir, metal, with inspection glass	1.95 kg
0821303804	reservoir, polycarbonate, without protective guard	1.68 kg
0821303805	reservoir, polycarbonate, with metal protective guard	1.78 kg
0821303806	reservoir, metal, with inspection glass	1.98 kg
0821303807	reservoir, polycarbonate, without protective guard	1.65 kg

Part No.	Version	Weight
0821303808	reservoir, polycarbonate, with metal protective guard	1.75 kg
0821303809	reservoir, metal, with inspection glass	1.95 kg
0821303810	reservoir, polycarbonate, without protective guard	1.68 kg
0821303811	reservoir, polycarbonate, with metal protective guard	1.78 kg
0821303812	reservoir, metal, with inspection glass	1.98 kg

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

Metal protective guard can be retrofitted for all polycarbonate reservoirs

## Technical information

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

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.

Mounting with mounting bracket 1821336017.

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

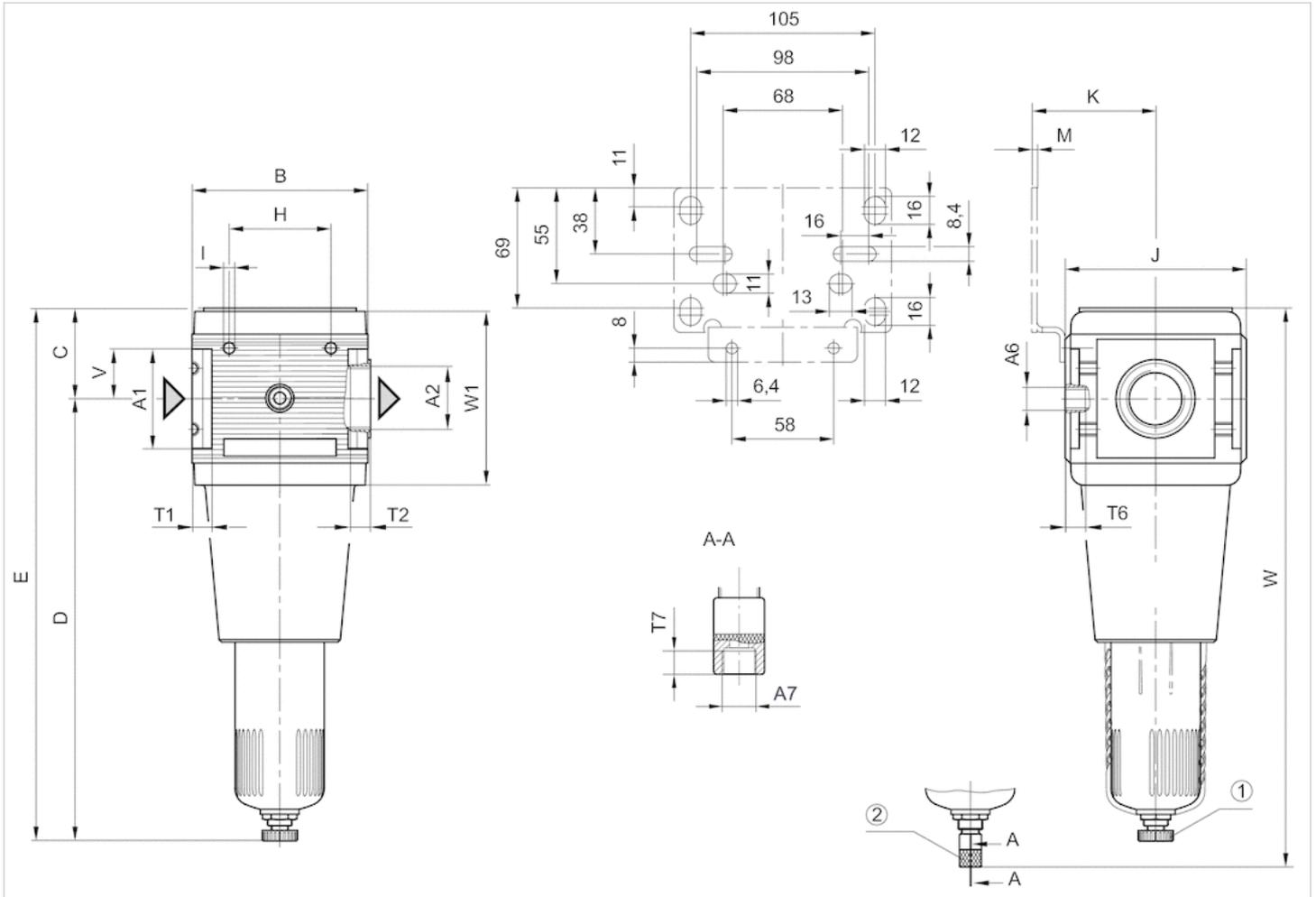
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

## Technical information

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

# Dimensions

## Dimensions



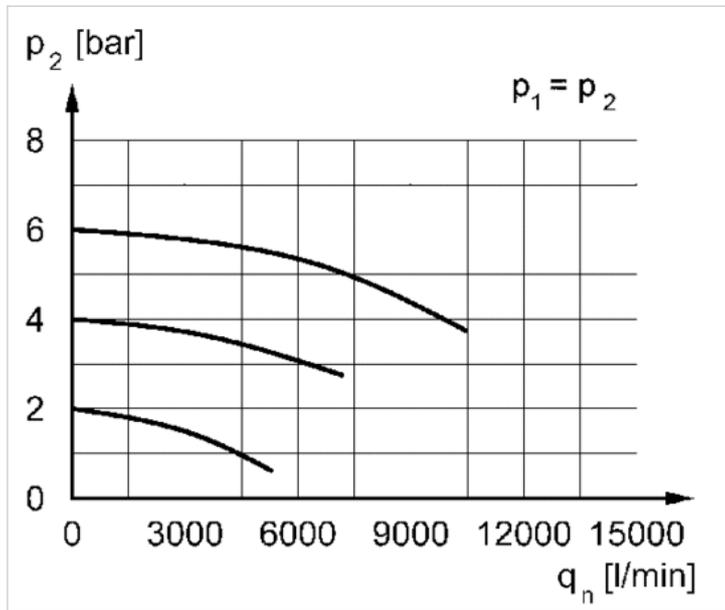
- A1 = input
- A2 = output
- A6 = output
- A7 = condensate drain
- 1) Semi-automatic condensate drain
- 2) fully automatic condensate drain

## Dimensions in mm

A1	A2	A6	A7	B	C	D	E	H	I	J	K	M	T1	T2	T6	T7	V	W	W1
G 3/4	G 3/4	G 1/4	G 1/8	100	52	254	306	58	M6	103	70.5	3	18	18	7	8.5	29	321	101.5
G 1	G 1	G 1/4	G 1/8	100	52	254	306	58	M6	103	70.5	3	18	18	7	8.5	29	321	101.5

## Diagrams

## Flow rate characteristic



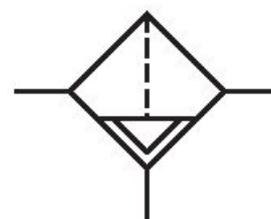
$p_2$  = secondary pressure  
 $q_n$  = nominal flow

# Pre-filter, Series NL6-FLP

0821303816

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Type  
Pre-filter

Parts  
Pre-filter

Reservoir  
Metal reservoir without window

Port  
G 1

Filter porosity  
0.3  $\mu\text{m}$

Nominal flow  $Q_n$   
1600 l/min

Condensate drain  
fully automatic, open without pressure

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

Medium  
Compressed air  
Neutral gases

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

Filter reservoir volume  
150  $\text{cm}^3$

Filter element  
exchangeable

Recommended pre-filtering  
5  $\mu\text{m}$

Weight  
1.97 kg

Mounting orientation  
vertical

Type  
Can be assembled into blocks

## Material

Housing material  
Die cast zinc

Material front plate  
Acrylonitrile butadiene styrene

Seal material  
Acrylonitrile butadiene rubber

Material reservoir  
Die cast zinc

Material filter insert  
Impregnated paper

Part No.  
0821303816

## Technical information

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

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

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

Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

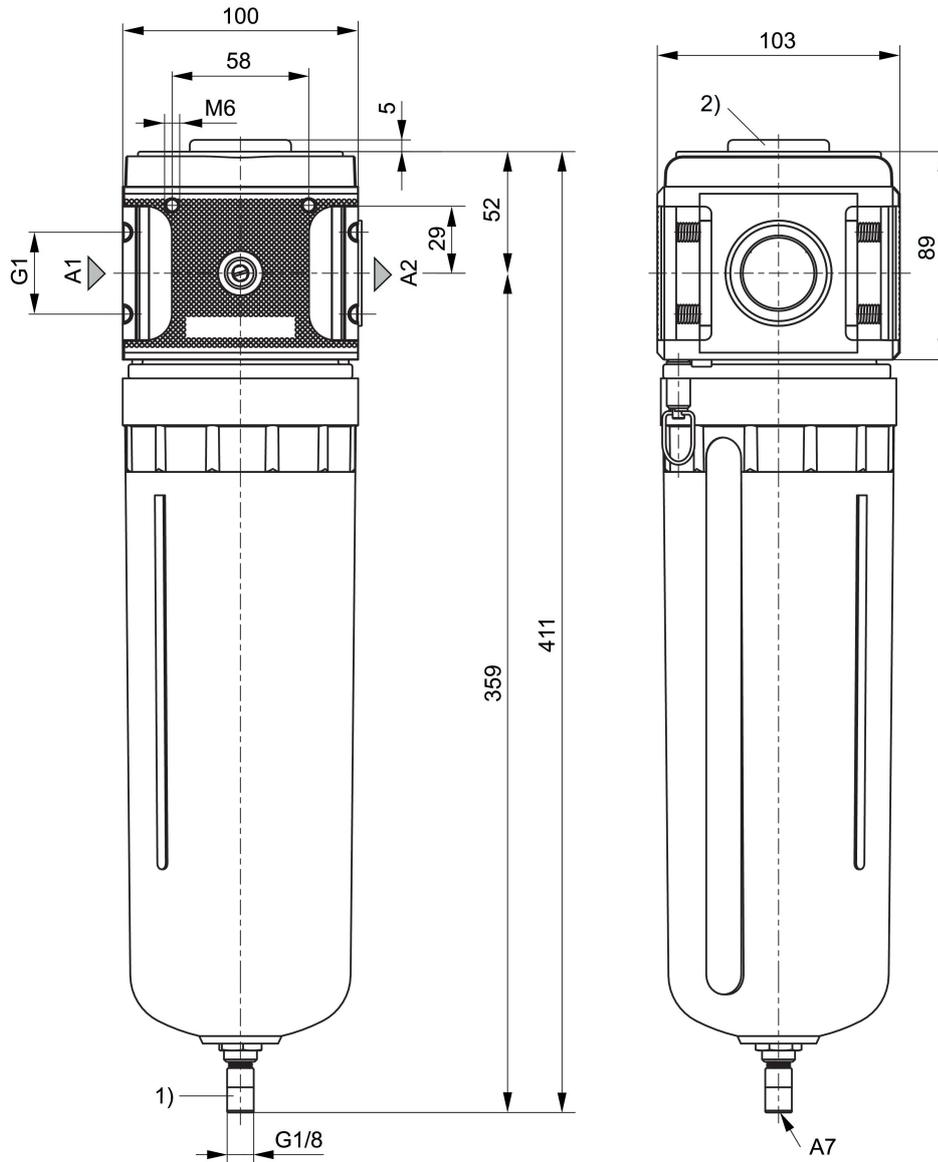
If pre-filter/microfilter/active carbon filter are placed directly next to each other, a stop plate 1827009590 (G3/4) or 1827009591 (G1) has to be mounted in between with NL6 block assembly kit 1827009593.

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 0,1$  bar

Dust separation = 99.99%

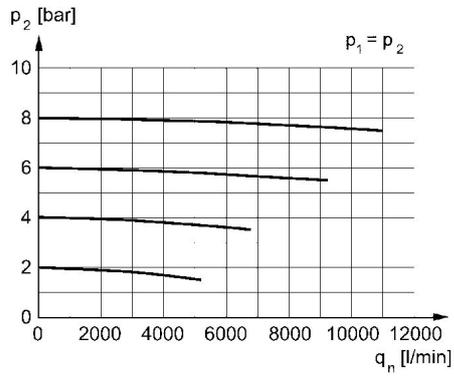
Differential pressure gauge can be retrofitted to monitor the filter

### Dimensions in mm

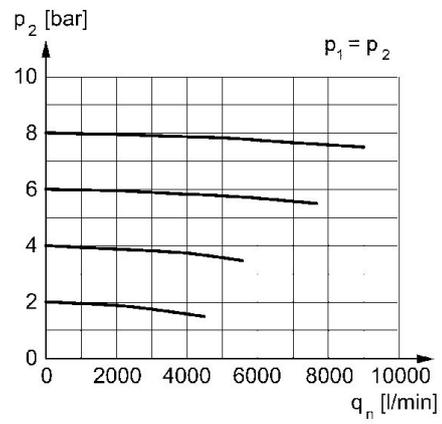


- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Fully automatic condensate drain
- 2) Differential pressure gauge connection

Flow rate characteristic,  $p_2 = 0,05 - 7$   
bar  
0821303816



Flow rate characteristic,  $p_2 = 0,05 - 7$   
bar  
0821303818



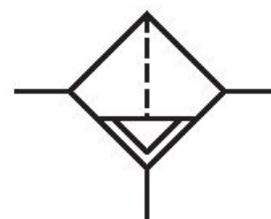
$p_2$  = secondary pressure  $q_n$  = nominal flow

# Pre-filter, Series NL6-FLP

0821303818

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Type  
Pre-filter

Parts  
Pre-filter

Reservoir  
Metal reservoir without window

Port  
G 3/4

Filter porosity  
0.3  $\mu\text{m}$

Nominal flow  $Q_n$   
1600 l/min

Condensate drain  
fully automatic, open without pressure

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

Medium  
Compressed air  
Neutral gases

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

Filter reservoir volume  
150  $\text{cm}^3$

Filter element  
exchangeable

Recommended pre-filtering  
5 µm

Weight  
1.66 kg

Mounting orientation  
vertical

Type  
Can be assembled into blocks

## Material

Housing material  
Die cast zinc

Material front plate  
Acrylonitrile butadiene styrene

Seal material  
Acrylonitrile butadiene rubber

Material reservoir  
Die cast zinc

Material filter insert  
Impregnated paper

Part No.  
0821303818

## Technical information

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

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

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

Mounting: mounting bracket 1821336017 / block assembly kit 1827009593

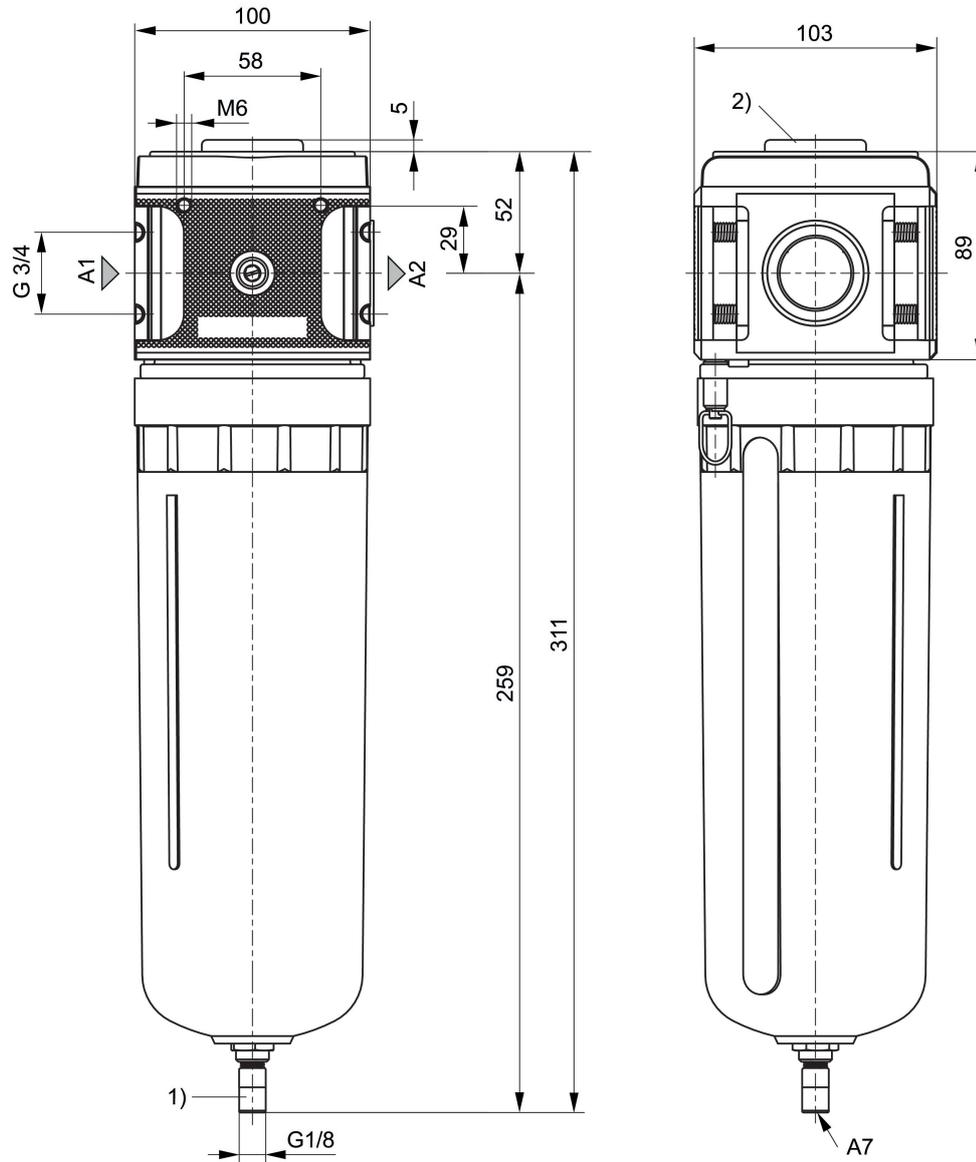
If pre-filter/microfilter/active carbon filter are placed directly next to each other, a stop plate 1827009590 (G3/4) or 1827009591 (G1) has to be mounted in between with NL6 block assembly kit 1827009593.

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 0,1$  bar

Dust separation = 99.99%

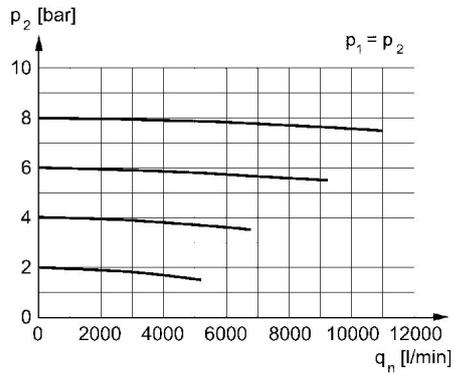
Differential pressure gauge can be retrofitted to monitor the filter

### Dimensions in mm

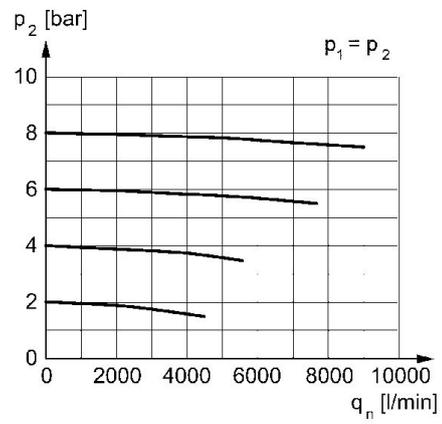


- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Fully automatic condensate drain
- 2) Differential pressure gauge connection

Flow rate characteristic,  $p_2 = 0,05 - 7$   
bar  
0821303816



Flow rate characteristic,  $p_2 = 0,05 - 7$   
bar  
0821303818



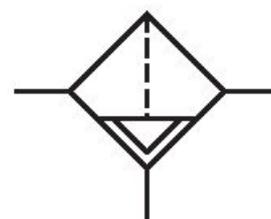
$p_2$  = secondary pressure  $q_n$  = nominal flow

# Microfilter, Series NL6-FLC

0821303814

General series information  
Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Type  
Microfilter

Parts  
Microfilter

Reservoir  
Metal reservoir without window

Port  
G 1

Filter porosity  
0.01  $\mu\text{m}$

Nominal flow  $Q_n$   
4200 l/min

Condensate drain  
fully automatic, open without pressure

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

Medium  
Compressed air  
Neutral gases

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

Filter reservoir volume  
150 cm<sup>3</sup>

Filter element  
exchangeable

Recommended pre-filtering  
0.3 µm

Weight  
1.97 kg

Mounting orientation  
vertical

Type  
Can be assembled into blocks

## Material

Housing material  
Die cast zinc

Material front plate  
Acrylonitrile butadiene styrene

Seal material  
Acrylonitrile butadiene rubber

Material reservoir  
Die cast zinc

Material filter insert  
Borosilicate glass fiber

Part No.  
0821303814

## Technical information

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

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

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

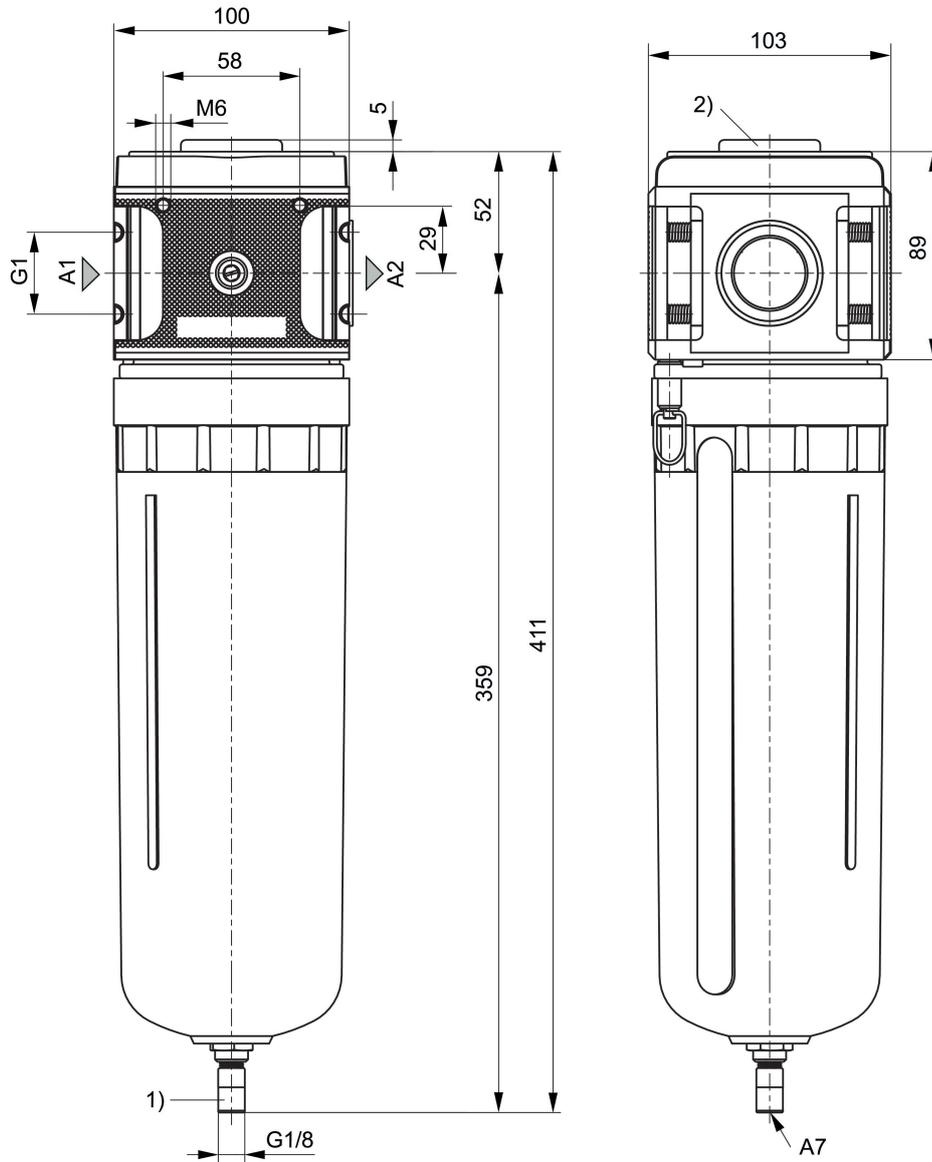
Reservoir: metal, with bayonet catch

If pre-filter/microfilter/active carbon filter are placed directly next to each other, a stop plate 1827009590 (G3/4) or 1827009591 (G1) has to be mounted in between with NL6 block assembly kit 1827009593.

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 0,1$  bar

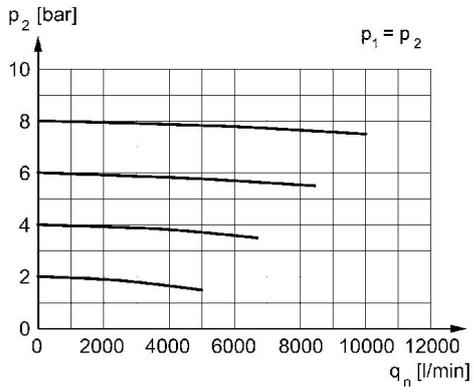
Differential pressure gauge can be retrofitted to monitor the filter

### Dimensions in mm



- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Fully automatic condensate drain
- 2) Differential pressure gauge connection

## Flow rate characteristic, $p_2 = 0,05 - 7$ bar



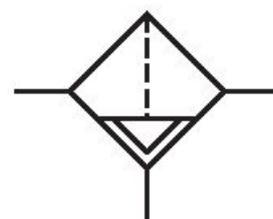
$p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

# Microfilter, Series NL6-FLC

0821303819

General series information  
Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Type  
Microfilter

Parts  
Microfilter

Reservoir  
Metal reservoir without window

Port  
G 3/4

Filter porosity  
0.01  $\mu\text{m}$

Nominal flow  $Q_n$   
2600 l/min

Condensate drain  
fully automatic, open without pressure

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

Medium  
Compressed air  
Neutral gases

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

Filter reservoir volume  
150  $\text{cm}^3$

Filter element  
exchangeable

Recommended pre-filtering  
0.3  $\mu\text{m}$

Weight  
1.66 kg

Mounting orientation  
vertical

Type  
Can be assembled into blocks

## Material

Housing material  
Die cast zinc

Material front plate  
Acrylonitrile butadiene styrene

Seal material  
Acrylonitrile butadiene rubber

Material reservoir  
Die cast zinc

Material filter insert  
Borosilicate glass fiber

Part No.  
0821303819

## Technical information

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

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

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

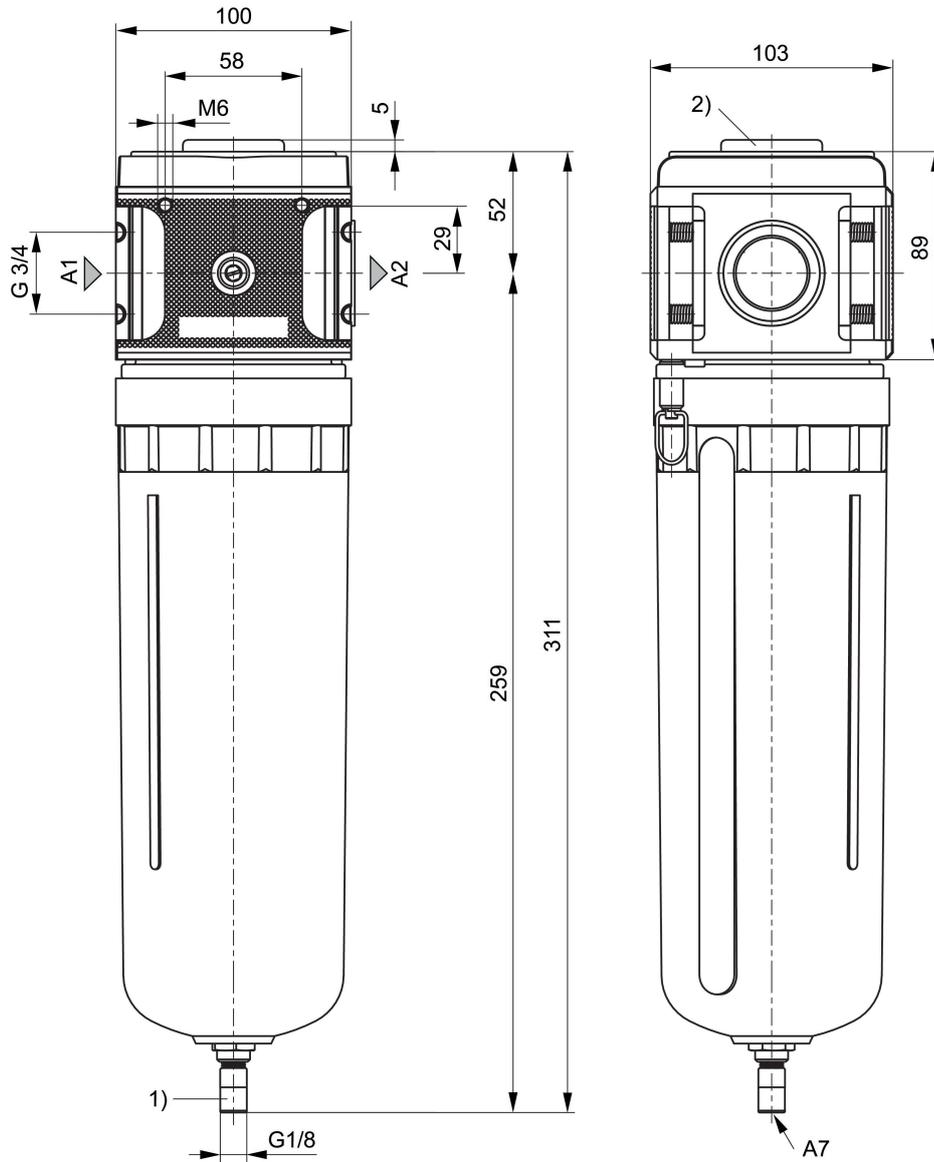
Reservoir: metal, with bayonet catch

If pre-filter/microfilter/active carbon filter are placed directly next to each other, a stop plate 1827009590 (G3/4) or 1827009591 (G1) has to be mounted in between with NL6 block assembly kit 1827009593.

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6 \text{ bar}$  at  $\Delta p = 0,1 \text{ bar}$

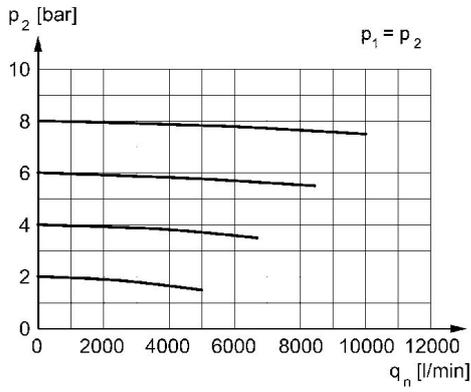
Differential pressure gauge can be retrofitted to monitor the filter

## Dimensions in mm



- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Fully automatic condensate drain
- 2) Differential pressure gauge connection

## Flow rate characteristic, $p_2 = 0,05 - 7$ bar



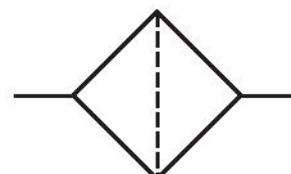
$p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

# Active carbon filter, Series NL6-FLA

0821303815

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

**Industry**  
Industrial

**Type**  
Active carbon filter

**Parts**  
Active carbon filter

**Reservoir**  
Metal reservoir without window

**Port**  
G 1

**Nominal flow Qn**  
5500 l/min

**Working pressure min.**  
0.5 bar

**Working pressure max**  
16 bar

**Min. ambient temperature**  
-10 °C

**Max. ambient temperature**  
60 °C

**Medium**  
Compressed air  
Neutral gases

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

**Filter reservoir volume**  
130 cm<sup>3</sup>

**Filter element**  
exchangeable

**Recommended pre-filtering**  
0.01 µm

**Weight**  
1.92 kg

**Mounting orientation**  
vertical

## Type

Can be assembled into blocks

## Material

### Housing material

Die cast zinc

### Material front plate

Acrylonitrile butadiene styrene

### Seal material

Acrylonitrile butadiene rubber

### Material reservoir

Die cast zinc

### Material filter insert

Active carbon

### Part No.

0821303815

## Technical information

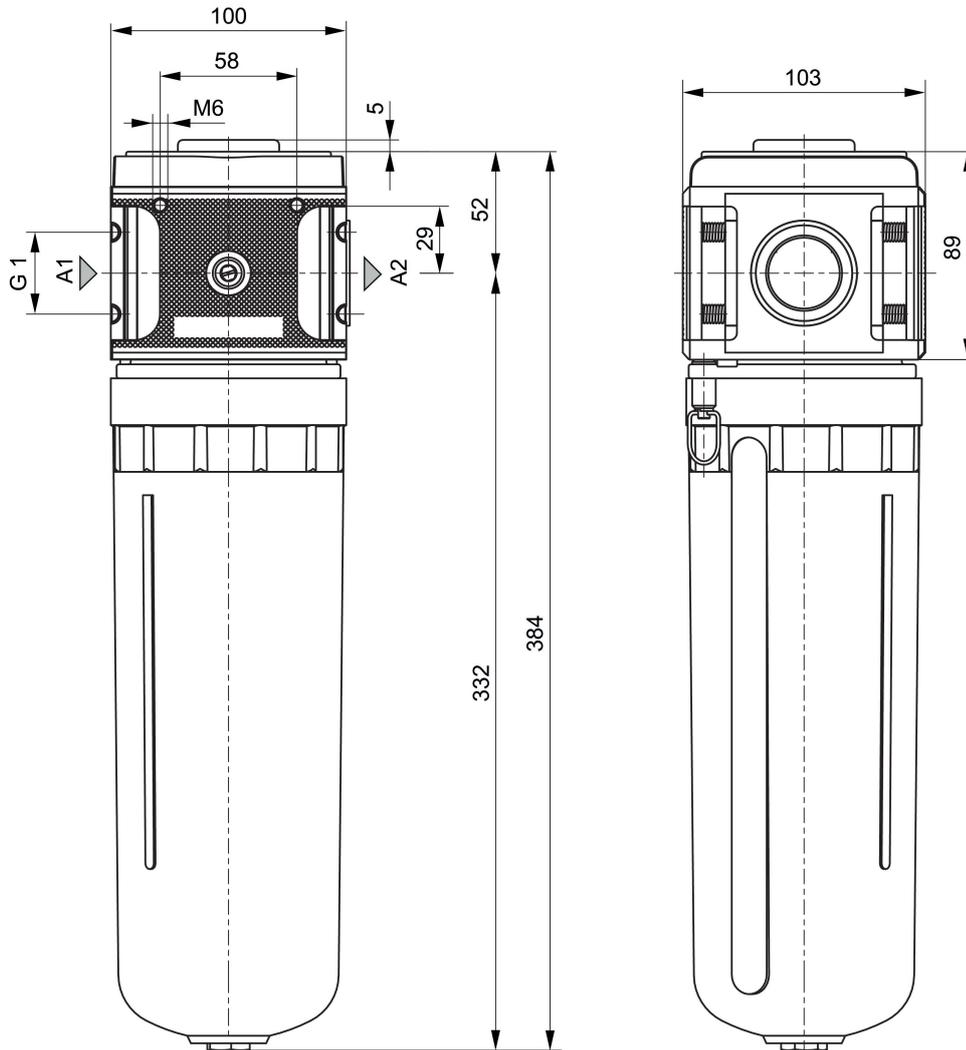
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

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

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 0,1$  bar

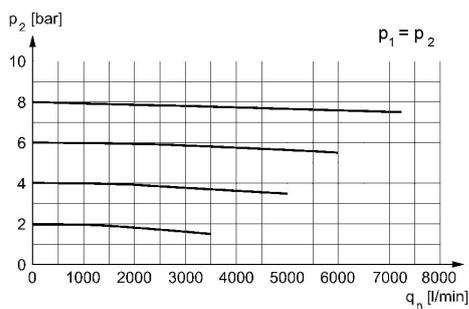
If pre-filter/microfilter/active carbon filter are placed directly next to each other, a stop plate 1827009590 (G3/4) or 1827009591 (G1) has to be mounted in between with NL6 block assembly kit 1827009593.

### Dimensions in mm



A1 = input  
A2 = output

### Flow rate characteristic, $p_2 = 0,05 - 7$ bar



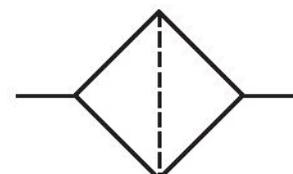
$p_2$  = secondary pressure  $q_n$  = nominal flow

# Active carbon filter, Series NL6-FLA

0821303817

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

**Industry**  
Industrial

**Type**  
Active carbon filter

**Parts**  
Active carbon filter

**Reservoir**  
Metal reservoir without window

**Port**  
G 3/4

**Nominal flow Q<sub>n</sub>**  
4000 l/min

**Working pressure min.**  
0.5 bar

**Working pressure max**  
16 bar

**Min. ambient temperature**  
-10 °C

**Max. ambient temperature**  
60 °C

**Medium**  
Compressed air  
Neutral gases

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

**Filter reservoir volume**  
130 cm<sup>3</sup>

**Filter element**  
exchangeable

**Recommended pre-filtering**  
0.01 µm

**Weight**  
1.62 kg

**Mounting orientation**  
vertical

## Type

Can be assembled into blocks

## Material

### Housing material

Die cast zinc

### Material front plate

Acrylonitrile butadiene styrene

### Seal material

Acrylonitrile butadiene rubber

### Material reservoir

Die cast zinc

### Material filter insert

Active carbon

### Part No.

0821303817

## Technical information

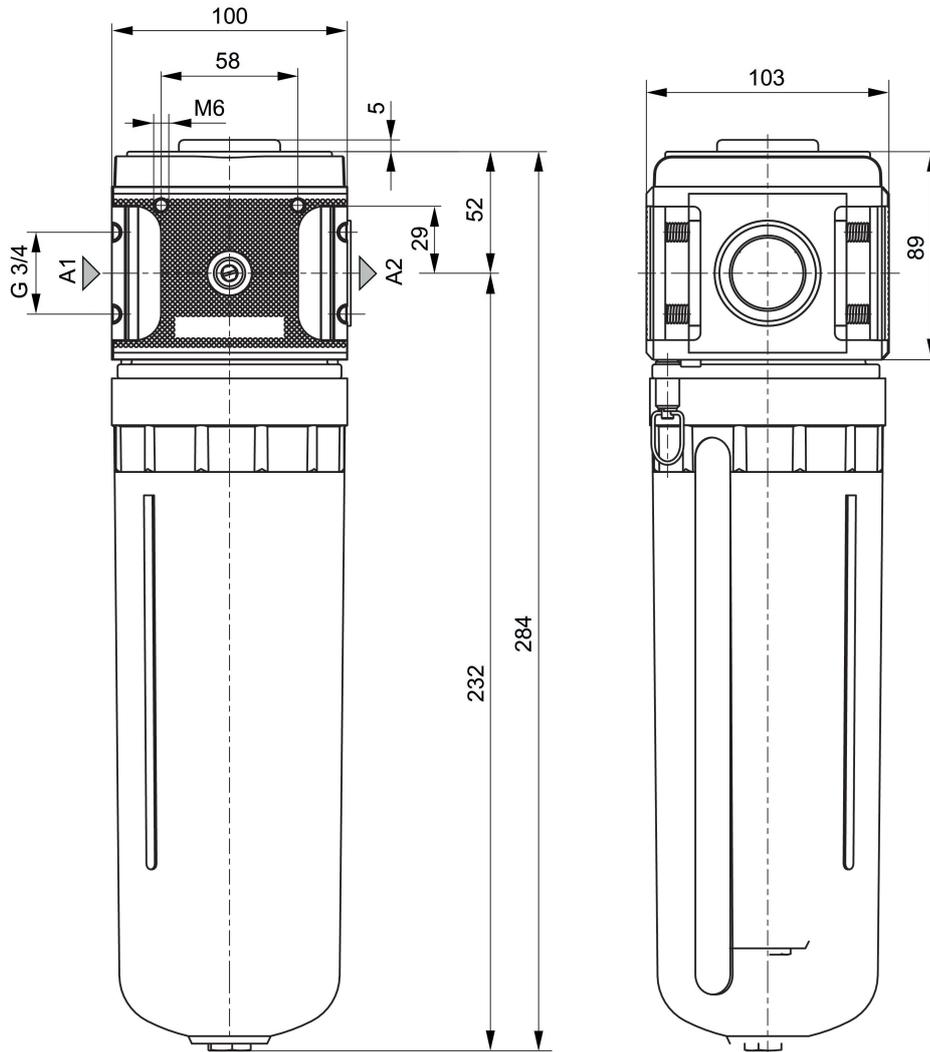
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

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

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 0,1$  bar

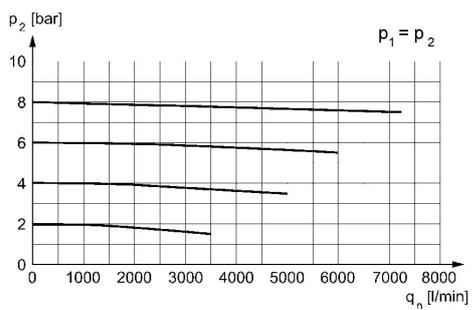
If pre-filter/microfilter/active carbon filter are placed directly next to each other, a stop plate 1827009590 (G3/4) or 1827009591 (G1) has to be mounted in between with NL6 block assembly kit 1827009593.

### Dimensions in mm



A1 = input  
A2 = output

### Flow rate characteristic, $p_2 = 0,05 - 7$ bar



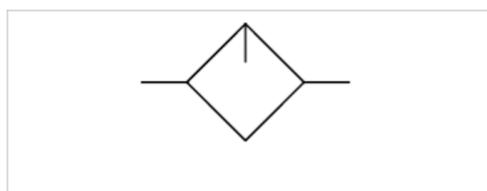
$p_2$  = secondary pressure  $q_n$  = nominal flow

# Standard oil-mist lubricator, Series NL6-LBS

- G 3/4 G 1



Version	Oil-mist lubricator, Can be assembled into blocks
Parts	Standard oil-mist lubricator
Mounting orientation	vertical
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Lubricator reservoir volume	450 cm <sup>3</sup>
Type of filling	Manual oil filling
Weight	See table below



## Technical data

Part No.	Port	Nominal flow Qn	Material Reservoir	Protective guard
0821301801	G 3/4	18000 l/min	Polycarbonate	-
0821301802	G 3/4	18000 l/min	Polycarbonate	Steel
0821301803	G 3/4	18000 l/min	Die cast zinc with window	-
0821301804	G 1	18000 l/min	Polycarbonate	-
0821301805	G 1	18000 l/min	Polycarbonate	Steel
0821301806	G 1	18000 l/min	Die cast zinc with window	-

Part No.	Reservoir	Weight
0821301801	reservoir, polycarbonate, without protective guard	1.5 kg
0821301802	reservoir, polycarbonate, with metal protective guard	1.6 kg
0821301803	reservoir, metal, with inspection glass	1.8 kg
0821301804	reservoir, polycarbonate, without protective guard	1.5 kg
0821301805	reservoir, polycarbonate, with metal protective guard	1.6 kg
0821301806	reservoir, metal, with inspection glass	1.8 kg

Nominal flow Qn with secondary pressure p<sub>2</sub> = 6 bar at Δp = 1 bar

Metal protective guard can be retrofitted for all polycarbonate reservoirs

## Technical information

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

The entire preset drip quantity enters the pressure system.

Manual oil filling possible during operation.

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information". A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Oil dosing at 1000 l/min 1-2 drops

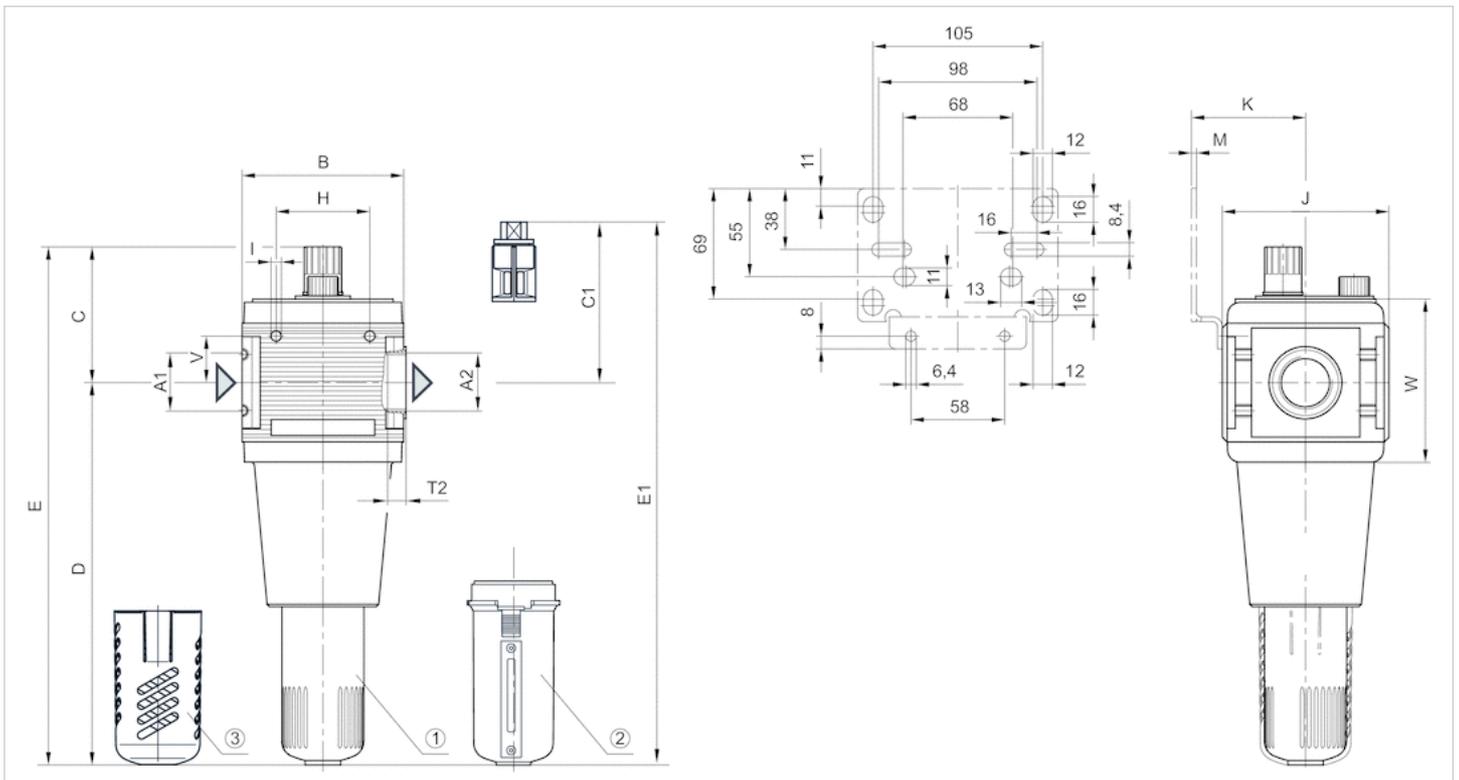
## Technical information

### Material

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

## Dimensions

### Dimensions



A1 = input

A2 = output

1) PC reservoir

2) Metal reservoir with inspection glass

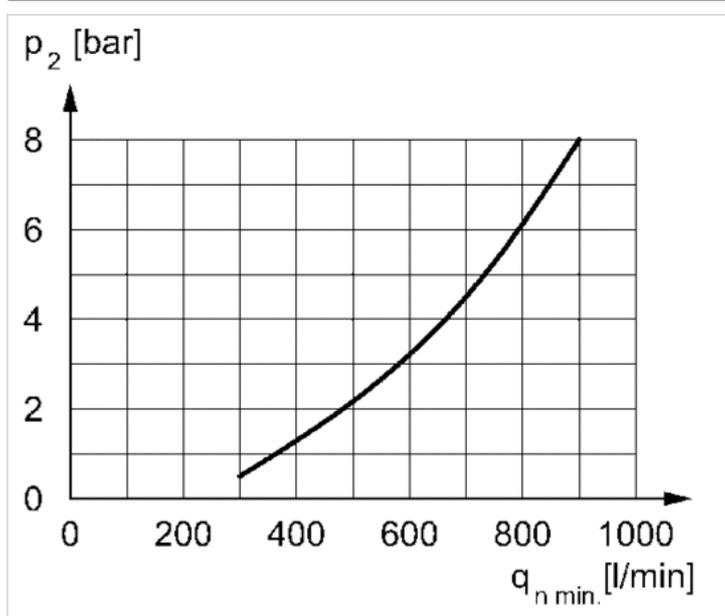
## 3) metal protective guard

## Dimensions in mm

A1	A2	B	C	C1	D	E	E1	H	I	J	K	M	T2	V	W
G 3/4	G 3/4	100	85	-	238	321	-	58	M6	103	70.5	3	18	29	101.5
G 3/4	G 3/4	100	85	100	238	321	336,5	58	M6	103	70.5	3	18	29	101.5
G 1	G 1	100	85	-	238	321	-	58	M6	103	70.5	3	18	29	101.5
G 1	G 1	100	85	100	238	321	336,5	58	M6	103	70.5	3	18	29	101.5

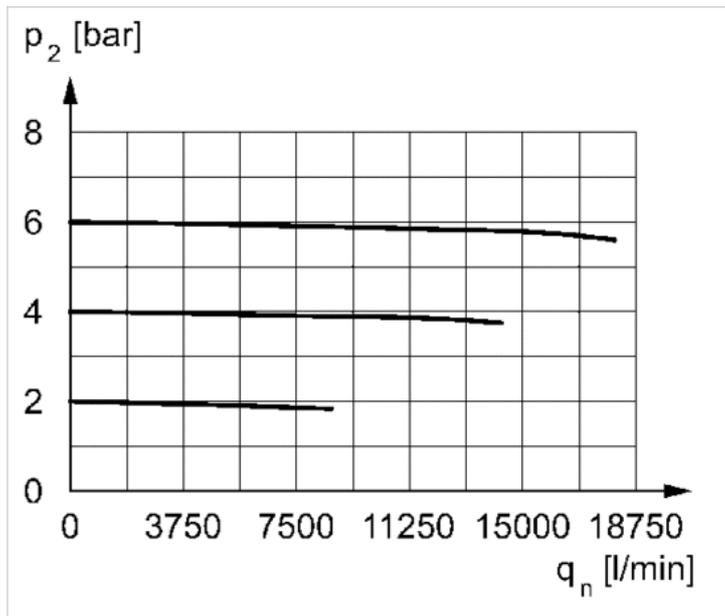
## Diagrams

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



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

## Flow rate characteristic



$p_2$  = secondary pressure  
 $q_n$  = nominal flow

# Filling unit, electrically operated, Series NL6-SSU

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



Version	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow 1 ▶ 2	8750 l/min
Nominal flow 2 ▶ 3	3900 l/min
Working pressure min./max.	2.5 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 60 °C
Ambient temperature min./max.	-10 ... 60 °C
Pilot	Internal
Sealing principle	Soft sealing
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
0821300959		G 3/4	G 3/4	G 1/2
0821300960		G 3/4	G 3/4	G 1/2
0821300961		G 1	G 1	G 1/2
0821300962		G 1	G 1	G 1/2
0821300963		G 1	G 1	G 1/2

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
0821300959	24 V	-	-
0821300960	-	-	-
0821300961	24 V	-	-
0821300962	-	230 V	230 V
0821300963	-	-	-

Part No.	Power consumption	Holding power	Switch-on power	Manual override
	DC	AC 50 Hz	AC 50 Hz	
0821300959	4.8 W	-	-	-
0821300960	-	-	-	without
0821300961	4.8 W	-	-	-
0821300962	-	8.5 VA	11.8 VA	-
0821300963	-	-	-	without

Part No.	Electrical connection	basic valve with electrical connector
	Pilot valve	
0821300959	Plug, ISO 6952, form B	-
0821300960	-	pilot valve without coil
0821300961	Plug, ISO 6952, form B	-
0821300962	Plug, ISO 6952, form B	-
0821300963	-	pilot valve without coil

Part No.	Reverse polarity protection	Weight
0821300959	Protected against polarity reversal	3.13 kg
0821300960	-	3.06 kg
0821300961	Protected against polarity reversal	3.13 kg
0821300962	Protected against polarity reversal	3.13 kg
0821300963	-	3.06 kg

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

## Technical information

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

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

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

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

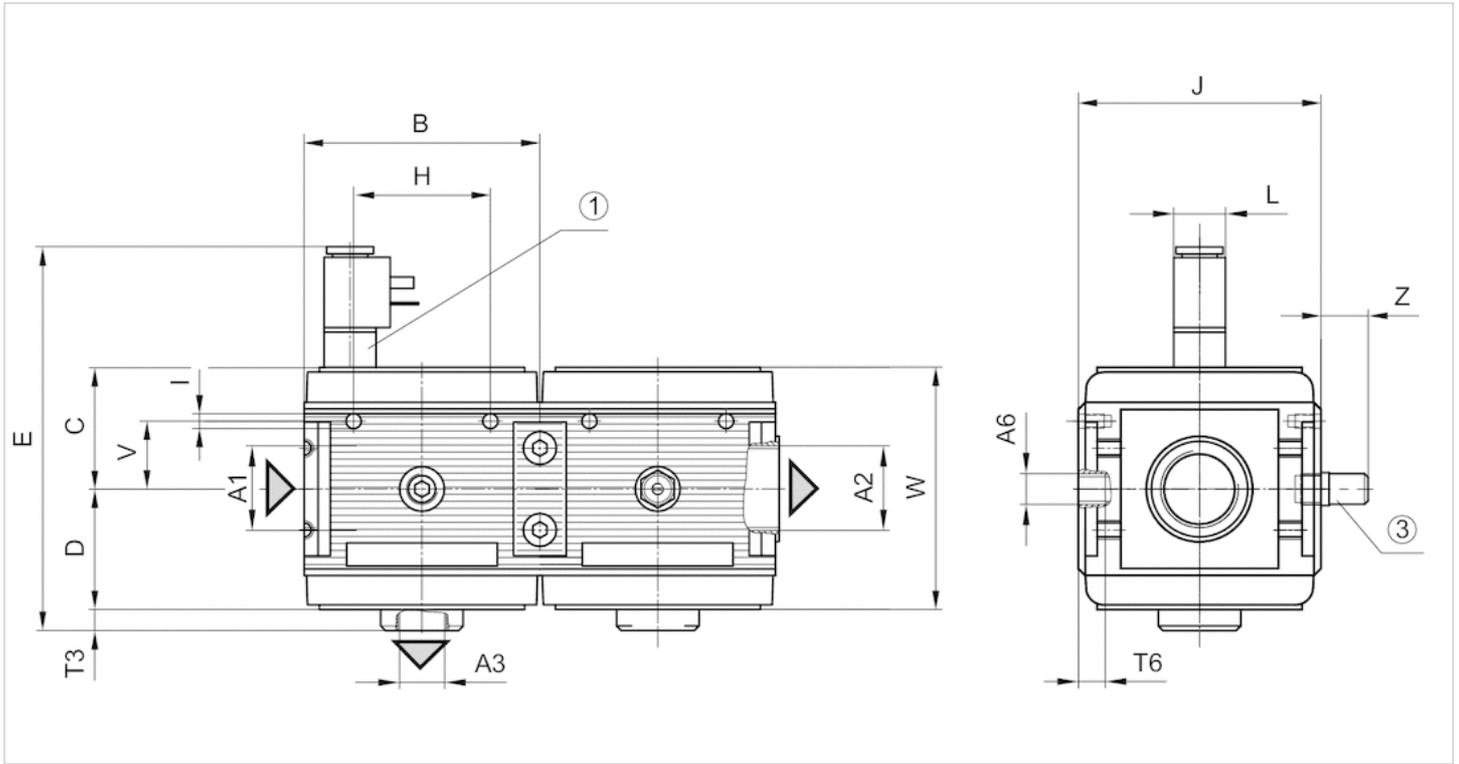
Recommended pre-filtering 8 µm

## Technical information

Material	
Housing	Die-cast aluminum
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene styrene

## Dimensions

### Dimensions



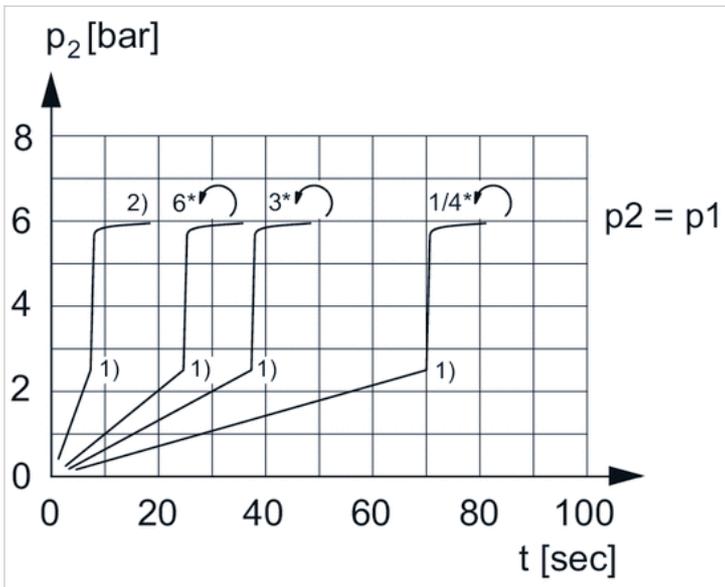
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) electrically operated
- 2) Adjustment screw for filling time

### Dimensions in mm

A1	A2	A3	A6	B	C	D	E	H	I	J	L	T3	T6	V	W	Z
G 3/4	G 3/4	G 1/2	G 1/4	100	52	51.5	164.5	58	M6	103	22	9.5	7	29	103.5	20
G 1	G 1	G 1/2	G 1/4	100	52	51.5	164.5	58	M6	103	22	9.5	7	29	103.5	20

## Diagrams

### secondary pressure while filling



$p_1$  = working pressure

$p_2$  = secondary pressure

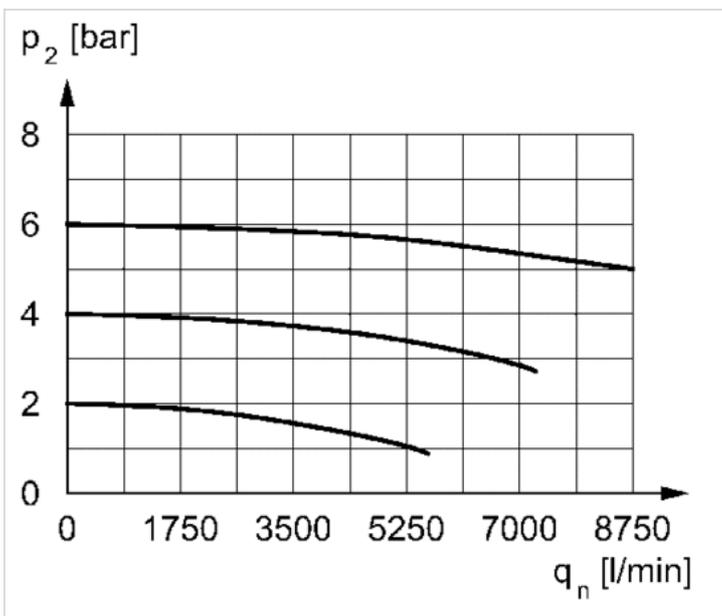
$t$  = filling time, adjustable via adjustment screw (throttle)

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

2) Throttle fully opened

\* Adjustment screw rotations

### Flow rate characteristic



$p_2$  = secondary pressure

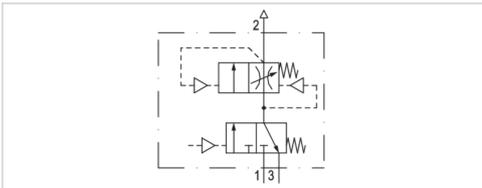
$q_n$  = nominal flow

# Filling unit, pneumatically operated, Series NL6-SSU

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



Version	Poppet valve, Can be assembled into blocks
Pilot	Internal
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 16 bar
Control pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Weight	3.08 kg



## Technical data

Part No.	Port	Exhaust	Flow	Flow
			Qn 1→2	Qn 2→3
0821300992	G 3/4	G 1/2	8750 l/min	3900 l/min
0821300993	G 1	G 1/2	8750 l/min	3900 l/min

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

## Technical information

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

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

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

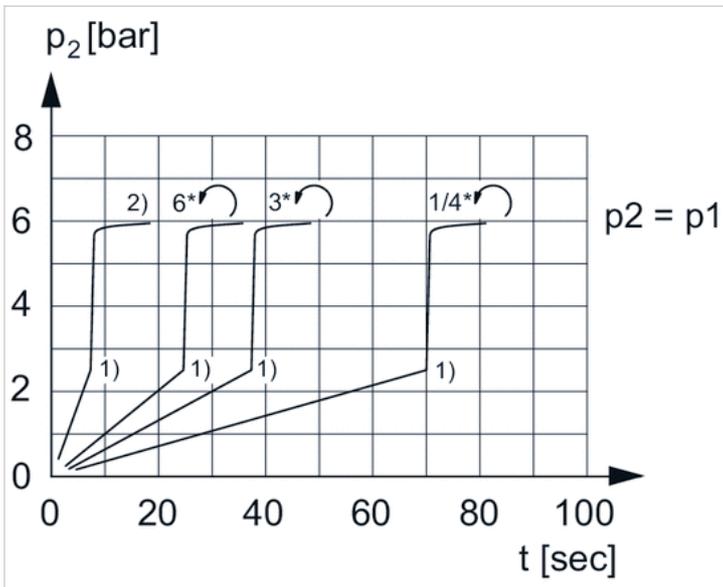
Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.

Recommended pre-filtering 8 μm



## Diagrams

### secondary pressure while filling



p1 = working pressure

p2 = secondary pressure

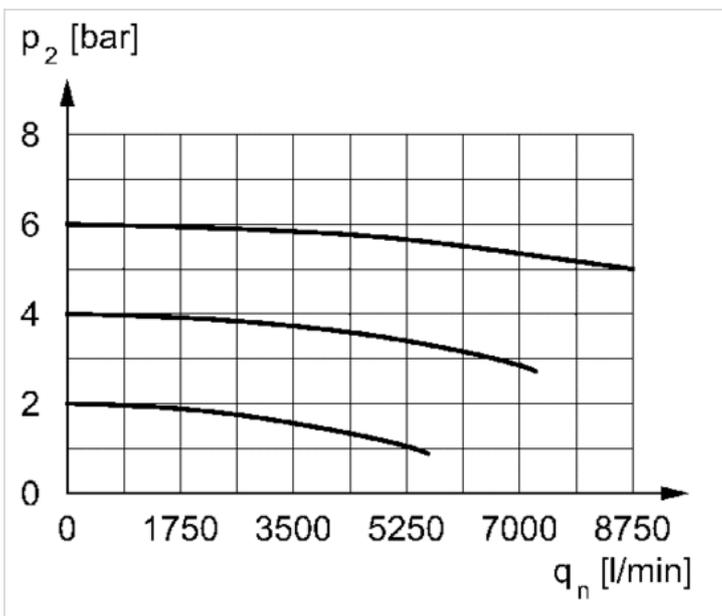
t = filling time, adjustable via adjustment screw (throttle)

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

2) Throttle fully opened

\* Adjustment screw rotations

### Flow rate characteristic



p2 = secondary pressure

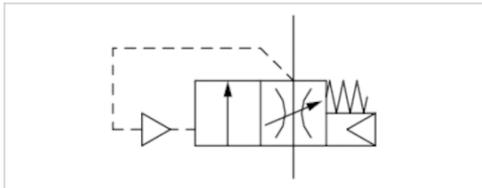
qn = nominal flow

# Filling valve, pneumatically operated, Series NL6-SSV

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



Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 16 bar
Control pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Weight	1.48 kg



## Technical data

Part No.	Port	Flow
		Qn
0821300974	G 3/4	12000 l/min
0821300967	G 1	12000 l/min

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

## Technical information

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

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

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

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

Recommended pre-filtering 8 µm

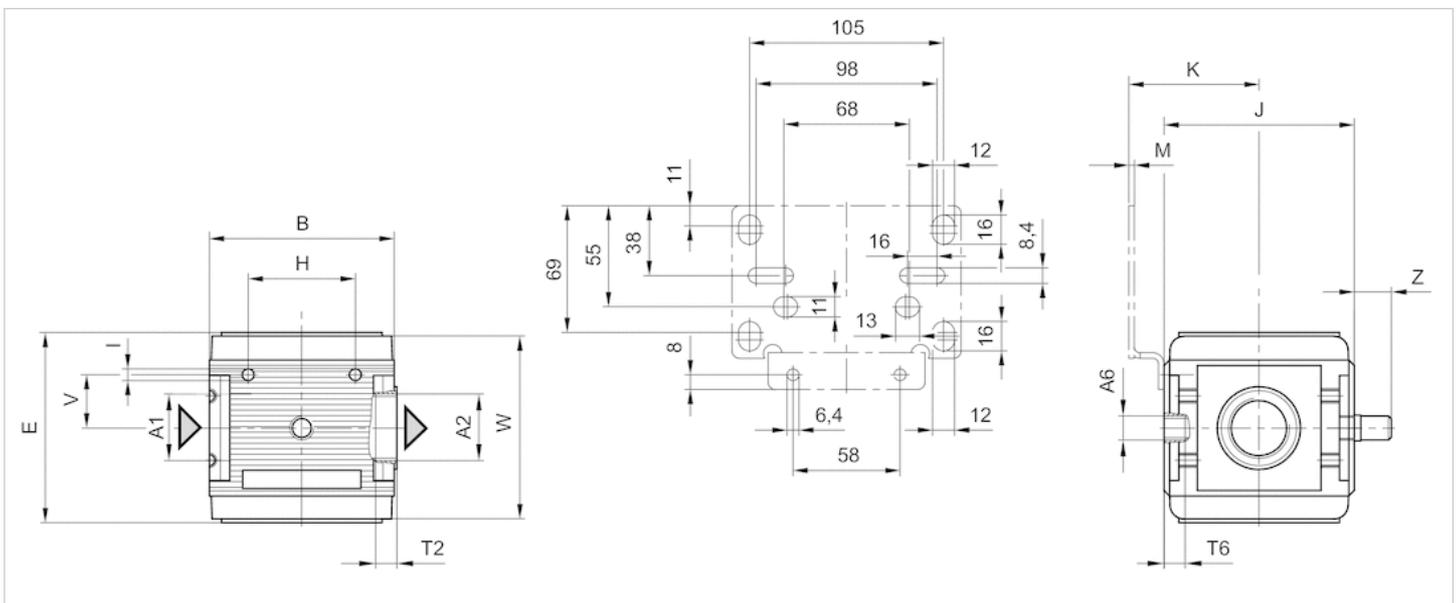
## Technical information

### Material

Housing	Die-cast aluminum
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions



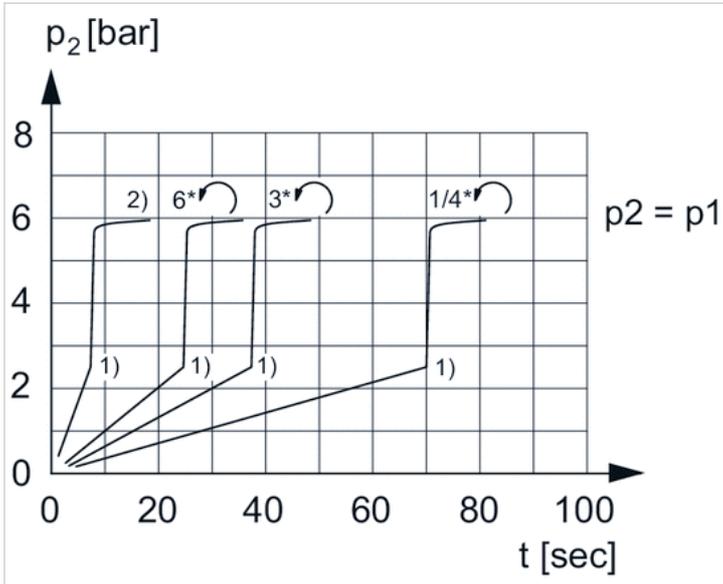
A1 = input  
 A2 = output  
 A6 = output

### Dimensions in mm

A1	A2	A6	B	E	H	I	J	K	M	T2	T6	V	W	Z
G 3/4	G 3/4	G 1/4	100	103	58	M6	103	70.5	3	18	7	29	100	20
G 1	G 1	G 1/4	100	103	58	M6	103	70.5	3	18	7	29	100	20

## Diagrams

### secondary pressure while filling



p1 = working pressure

p2 = secondary pressure

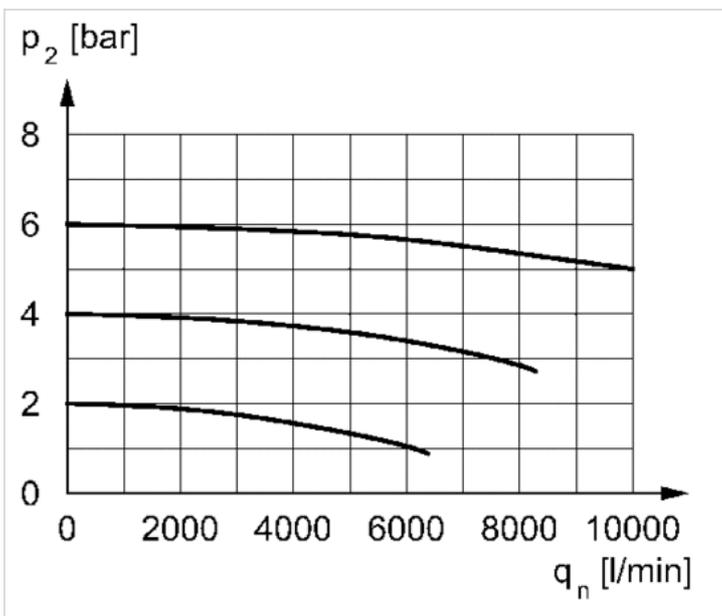
t = filling time, adjustable via adjustment screw (throttle)

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

2) Throttle fully opened

\* Adjustment screw rotations

### Flow rate characteristic



p2 = secondary pressure

qn = nominal flow

# 3/2-directional valve, electrically operated, Series NL6-SOV

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



Version	Poppet valve, Can be assembled into blocks
Parts	3/2-directional valve, electrically operated
Nominal flow 1 ▶ 2	12500 l/min
Nominal flow 2 ▶ 3	3900 l/min
Working pressure min./max.	2.5 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 60 °C
Ambient temperature min./max.	-10 ... 60 °C
Pilot	Internal
Sealing principle	Soft sealing
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
0821300973		G 3/4	G 3/4	G 1/2
0821300972		G 3/4	G 3/4	G 1/2
0821300971		G 3/4	G 3/4	G 1/2
0821300990		G 3/4	G 3/4	G 1/2
0821300966		G 1	G 1	G 1/2
0821300965		G 1	G 1	G 1/2
0821300964		G 1	G 1	G 1/2
0821300991		G 1	G 1	G 1/2

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
0821300973	-	-	-
0821300972	24 V	-	-
0821300971	-	230 V	230 V
0821300990	-	-	-
0821300966	-	-	-
0821300965	24 V	-	-
0821300964	-	230 V	230 V
0821300991	-	-	-

Part No.	Power consumption	Holding power	Switch-on power	Manual override
	DC	AC 50 Hz	AC 50 Hz	
0821300973	-	-	-	without

Part No.	Power consumption	Holding power	Switch-on power	Manual override
	DC	AC 50 Hz	AC 50 Hz	
0821300972	4.8 W	-	-	-
0821300971	-	8.5 VA	11.8 VA	-
0821300990	-	-	-	with detent
0821300966	-	-	-	without
0821300965	4.8 W	-	-	-
0821300964	-	8.5 VA	11.8 VA	-
0821300991	-	-	-	with detent

Part No.	Electrical connection	basic valve with electrical connector
	Pilot valve	
0821300973	-	pilot valve without coil
0821300972	Plug, ISO 6952, form B	-
0821300971	Plug, ISO 6952, form B	-
0821300990	-	pilot valve without coil
0821300966	-	pilot valve without coil
0821300965	Plug, ISO 6952, form B	-
0821300964	Plug, ISO 6952, form B	-
0821300991	-	pilot valve without coil

Part No.	Reverse polarity protection	Weight
0821300973	-	1.42 kg
0821300972	Protected against polarity reversal	1.49 kg
0821300971	Protected against polarity reversal	1.49 kg
0821300990	-	1.42 kg
0821300966	-	1.42 kg
0821300965	Protected against polarity reversal	1.49 kg
0821300964	Protected against polarity reversal	1.49 kg
0821300991	-	1.42 kg

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

## Technical information

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

The connections on the front and back are not connected to the main air flow. No pressure gauge may be connected here.

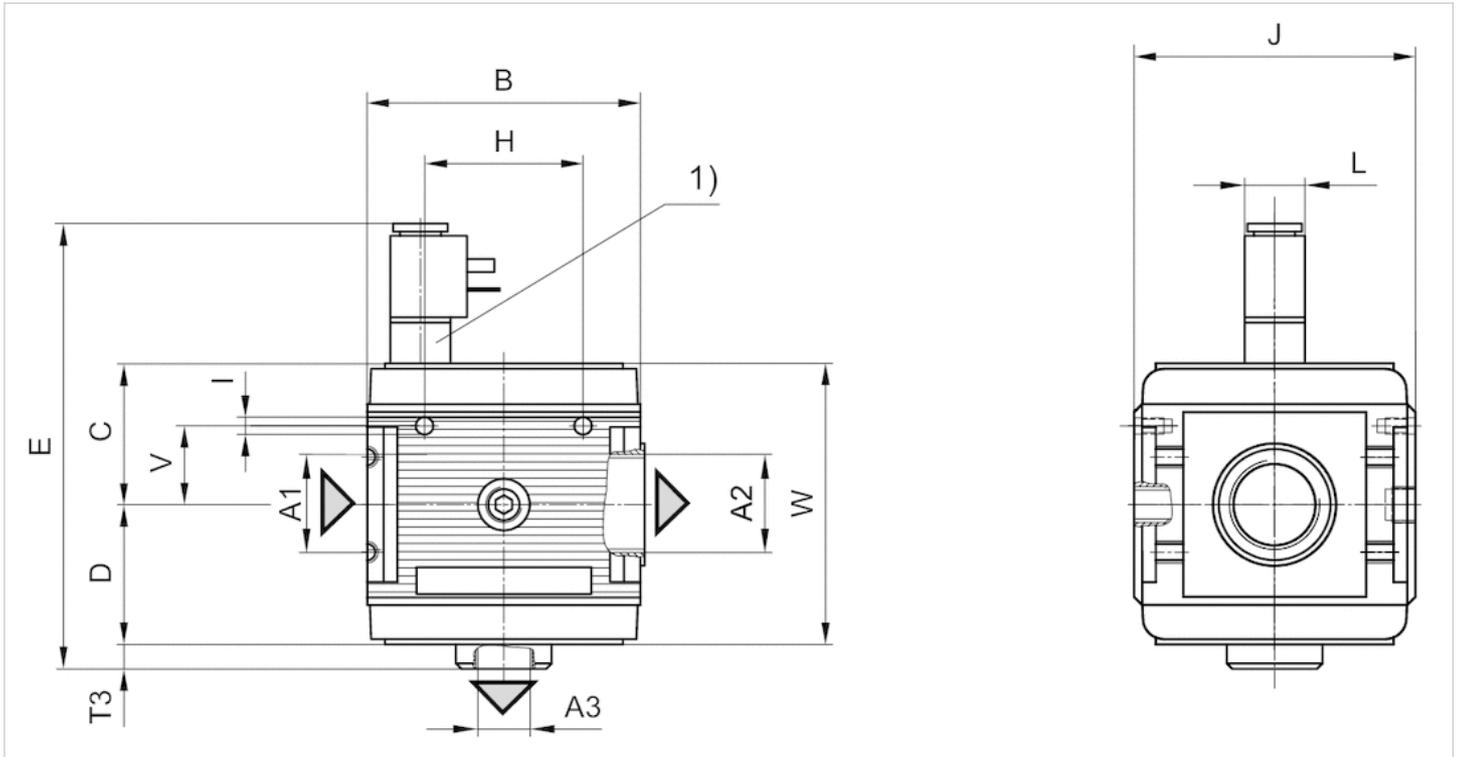
Recommended pre-filtering 8 µm

## Technical information

Material	
Housing	Die-cast aluminum
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene styrene

## Dimensions

### Dimensions



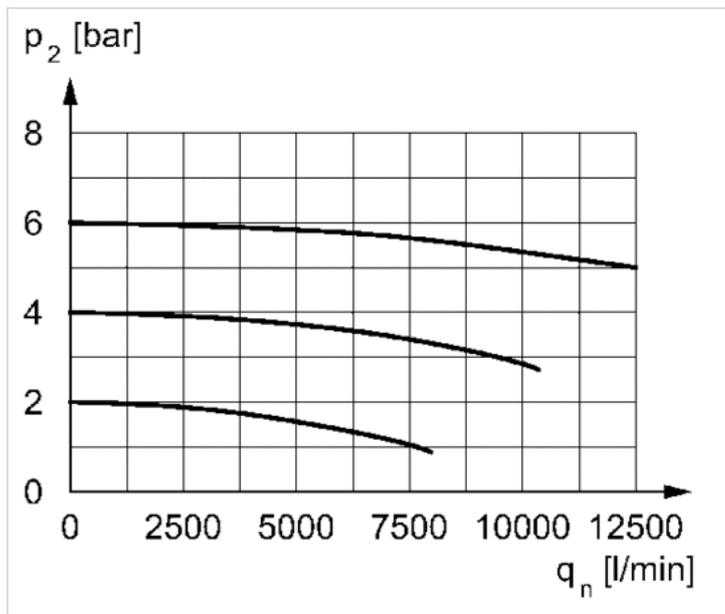
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) electrically operated

### Dimensions in mm

A1	A2	A3	B	C	D	E	H	I	J	L	T3	T5	V	W
G 3/4	G 3/4	G 1/2	100	52	51.5	164.5	58	M6	103	22	9.5	7	29	103.5
G 1	G 1	G 1/2	100	52	51.5	164.5	58	M6	103	22	9.5	7	29	103.5

## Diagrams

### Flow rate characteristic



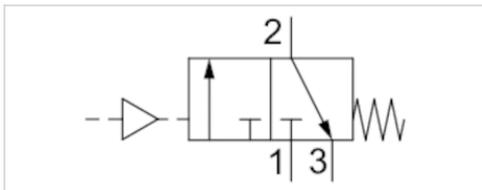
$p_2$  = secondary pressure  
 $q_n$  = nominal flow

# 3/2-directional valve, pneumatically operated, Series NL6-SOV

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



Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 16 bar
Control pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Weight	1.44 kg



## Technical data

Part No.	Port	Exhaust	Flow	Flow
			Qn 1→2	Qn 2→3
0821300988	G 3/4	G 1/2	12500 l/min	3900 l/min
0821300989	G 1	G 1/2	12500 l/min	3900 l/min

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

## Technical information

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

Recommended pre-filtering 8 μm

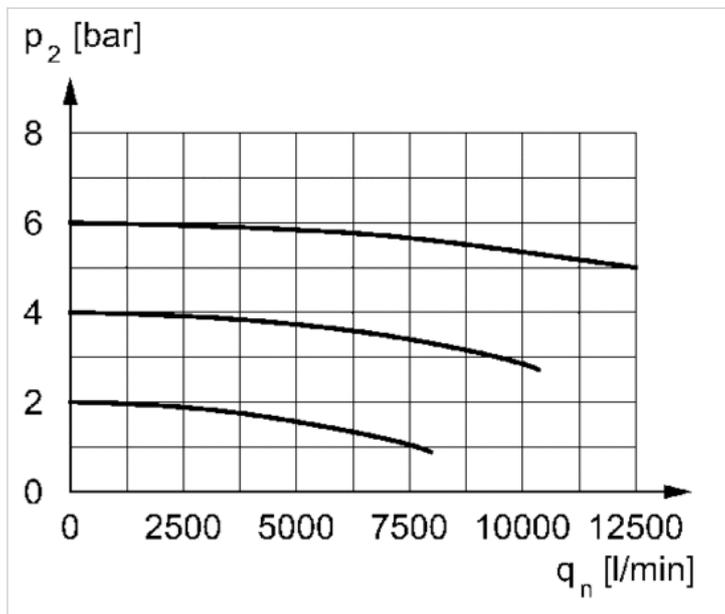
## Technical information

Material	
Housing	Die-cast aluminum
Front plate	Acrylonitrile butadiene styrene



## Diagrams

### Flow rate characteristic



$p_2$  = secondary pressure

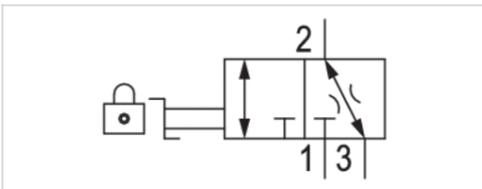
$q_n$  = nominal flow

# 3/2-shut-off valve, mechanically operated, Series NL6-BAV

- Qn 1►2 = 25000 l/min
- Qn 2►3 = 110 l/min
- Compressed air connection output G 3/4 G 1



Version	Ball valve
Activation	Mechanical
Lock type	lockable
Actuating element	rotary switch
Sealing principle	metal/metal sealing
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Weight	1.83 kg



## Technical data

Part No.	Version	Compressed air connection type	Compressed air connection Input	Compressed air connection Output
0821300976	3/2	Internal thread	G 3/4	G 3/4
0821300977	3/2	Internal thread	G 1	G 1

Part No.	Compressed air connection Exhaust	Flow		Lock type
		Qn 1 ► 2	Qn 2 ► 3	
0821300976	G 1/2	25000 l/min	110 l/min	for padlocks
0821300977	G 1/2	25000 l/min	110 l/min	for padlocks

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

## Technical information

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

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

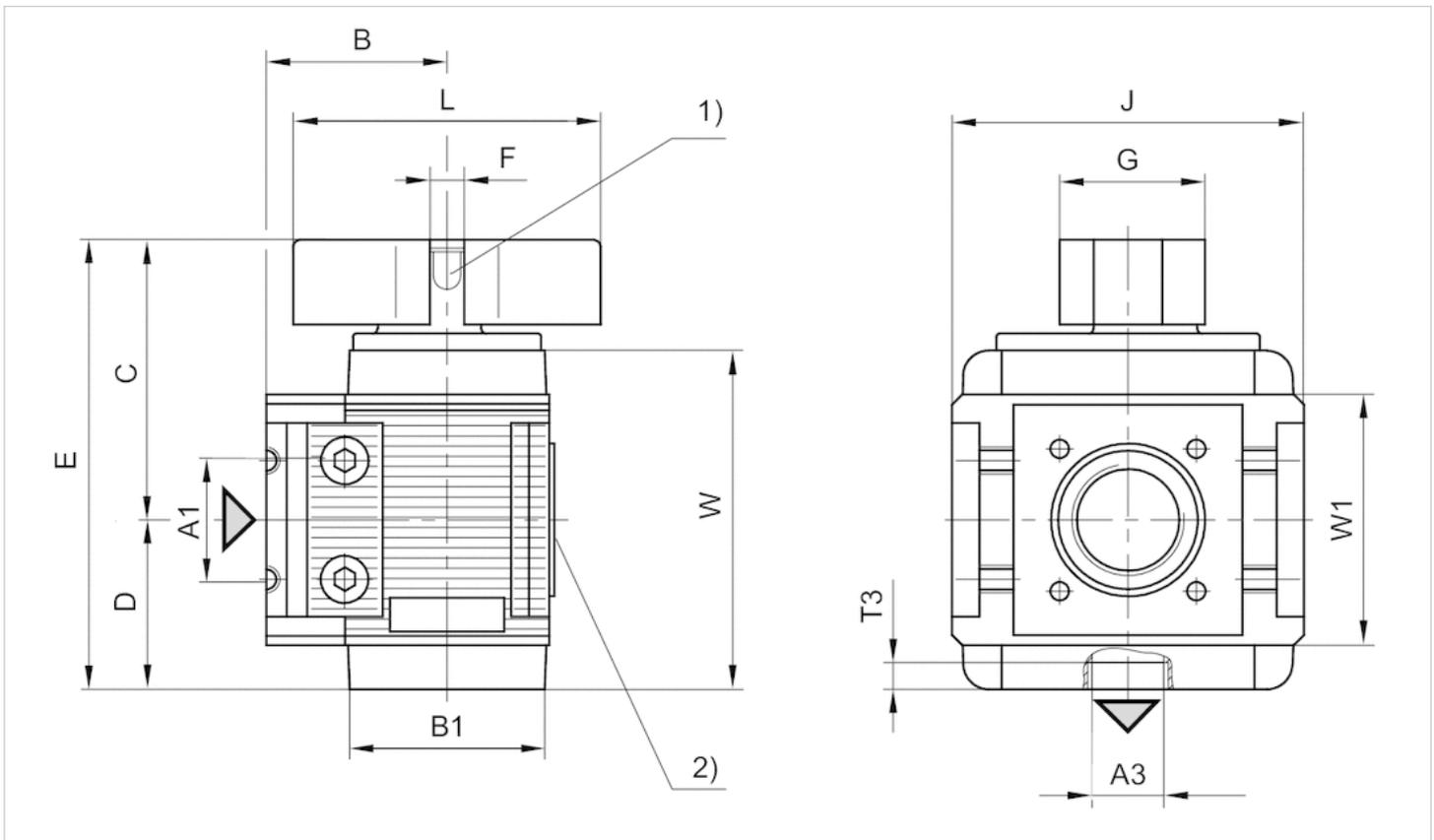
Subbase (G3/4 = 1827009590, G1 = 1827009591) with block assembly kit (1827009593) is required to connect with the piping on the right.

## Technical information

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

## Dimensions

### Dimensions



- A1 = input
- A2 = output
- A3 = ventilation port
- 1) lockable with padlock
- 2) no connection thread

### Dimensions in mm

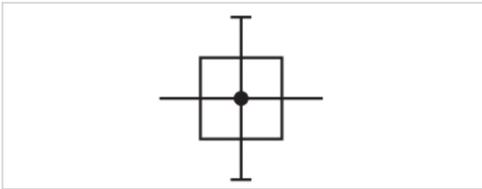
A3	B	B1	C	D	E	F	G	J	L	T3	W	W1
G 1/2	53	60	82.5	50	132.5	8	42.5	103	90	14.5	100	74

# Distributor, Series NL6-DIL

- G 1
- Distributor 2x
- Narrow distributor



Version	Narrow distributor, Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air Neutral gases
Weight	0.95 kg



## Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow
		Qn 1→2	Qn 1→3	Qn 1→5
0821300978	G 1	25000 l/min	10000 l/min	10000 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar, Subbase G1, material number 1827009591, must be ordered separately., Block assembly with block assembly kit, material number 1827009593.

## Technical information

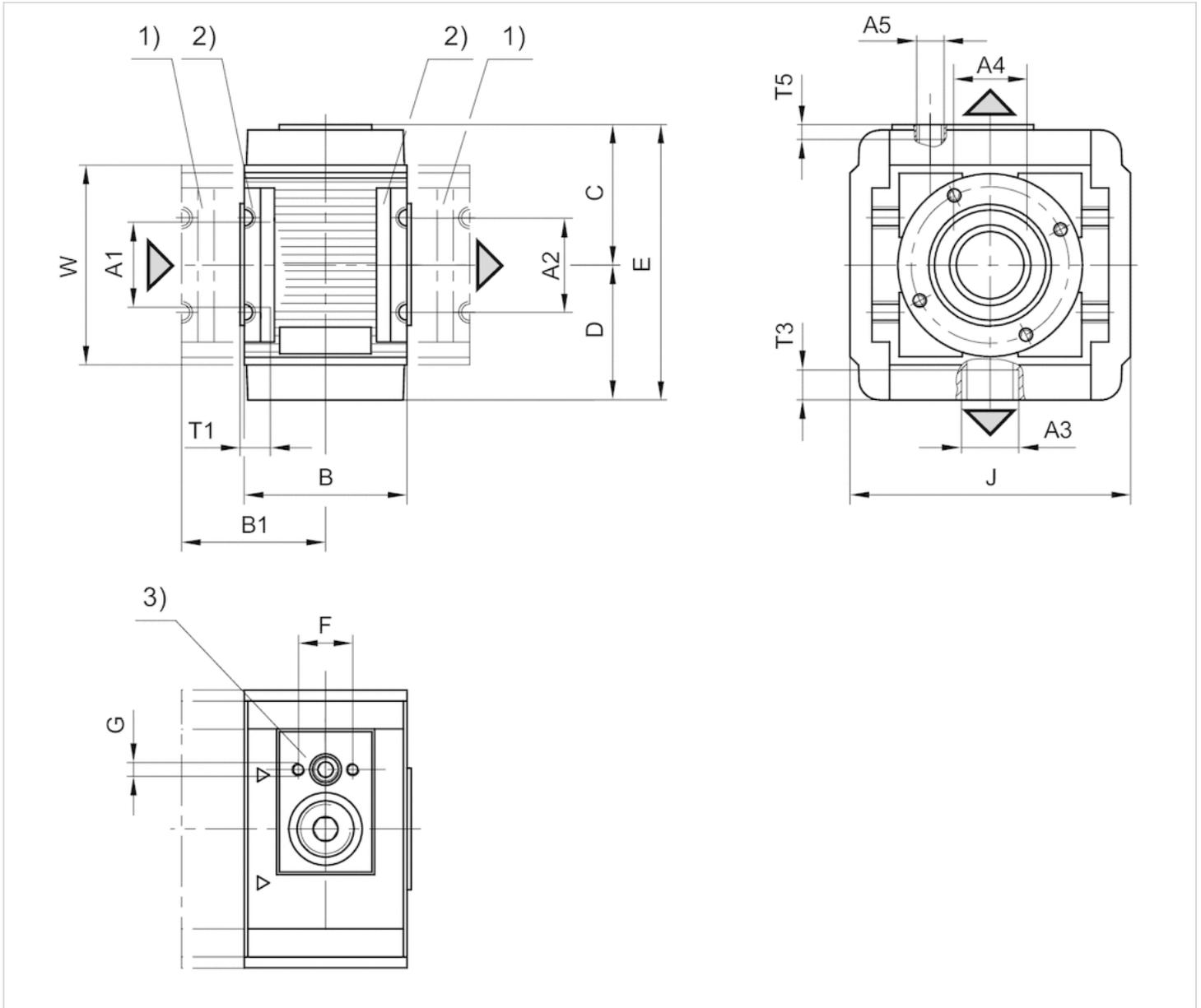
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C . Suitable for direct mounting of a PE2 and PM1 series pressure sensor (flange version). A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

## Technical information

Material	
Housing	Die-cast aluminum

## Dimensions

### Dimensions



- A1 = input
  - A2 = output
  - A3 = output
  - A4 = output
  - 1) Subbase G1, material number 1827009591, must be ordered separately.
  - 2) No connection thread
  - 3) hole pattern for mechanical vacuum/pressure switch
- Block assembly with block assembly kit, material number 1827009593

### Dimensions in mm

A1	A2	A3	A4	A5	B	B1	C	D	E	F	G	J	T1	T3	T5	W
G 1	G 1	G 1/2	G 1/2	G 1/8	60	53	52	50	102	20	M5	103	18	14.5	8	74

# Reservoir, Series NL4-CLS, NL6-CLS

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



Version	Reservoir
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Filter reservoir volume	50 cm <sup>3</sup>
Weight	See table below

## Technical data

Part No.	Condensate drain	Reservoir	Weight
1827009337	semi-automatic, open without pressure	Polycarbonate	0.17 kg
1827009343	semi-automatic, open without pressure	Die cast zinc, with window	0.55 kg
1827009338	fully automatic, open without pressure	Polycarbonate	0.2 kg
1827009344	fully automatic, open without pressure	Die cast zinc, with window	0.56 kg

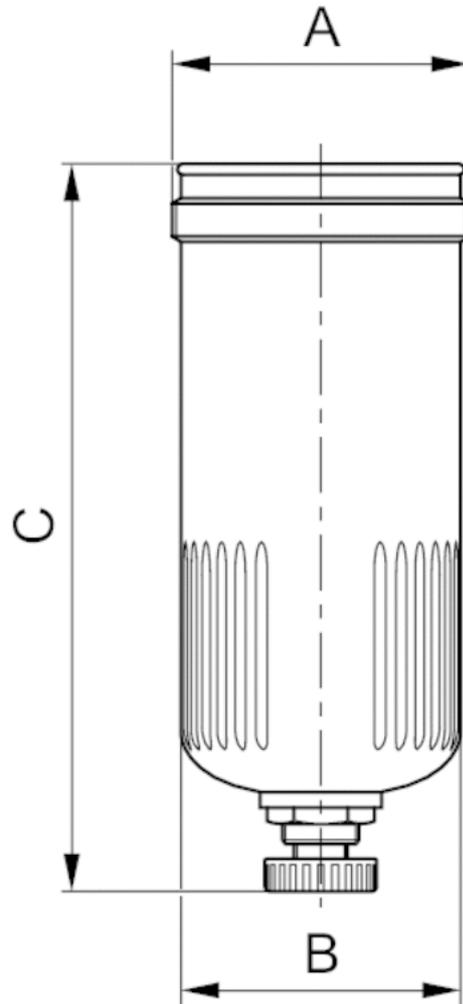
Part No.	Fig.
1827009337	Fig. 1
1827009343	Fig. 2
1827009338	Fig. 3
1827009344	Fig. 4

## Technical information

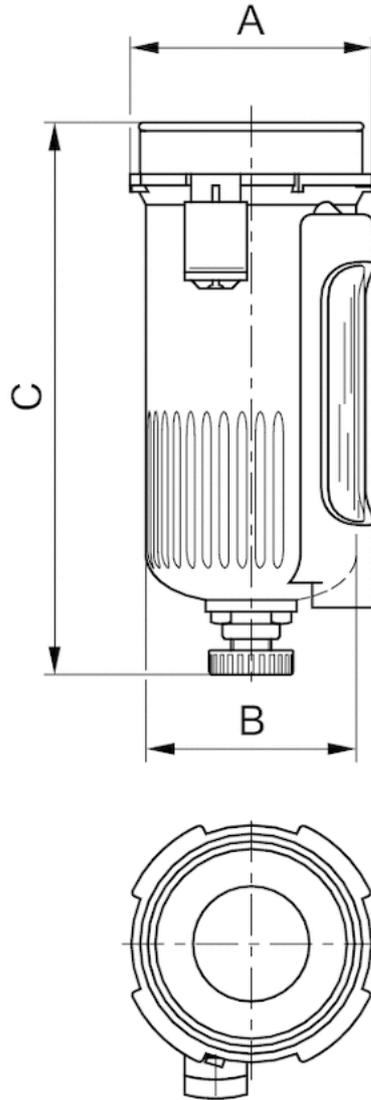
Material	
Reservoir	Polycarbonate Die cast zinc
Seal	Acrylonitrile butadiene rubber

## Dimensions

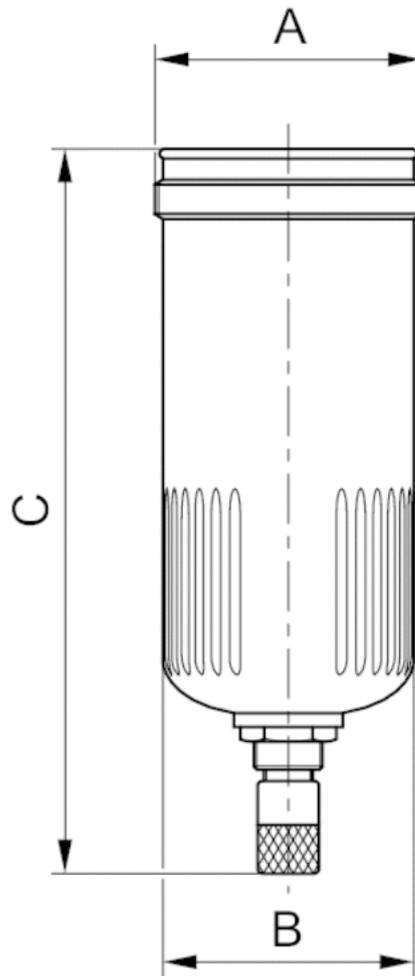
Dimensions, Fig. 1



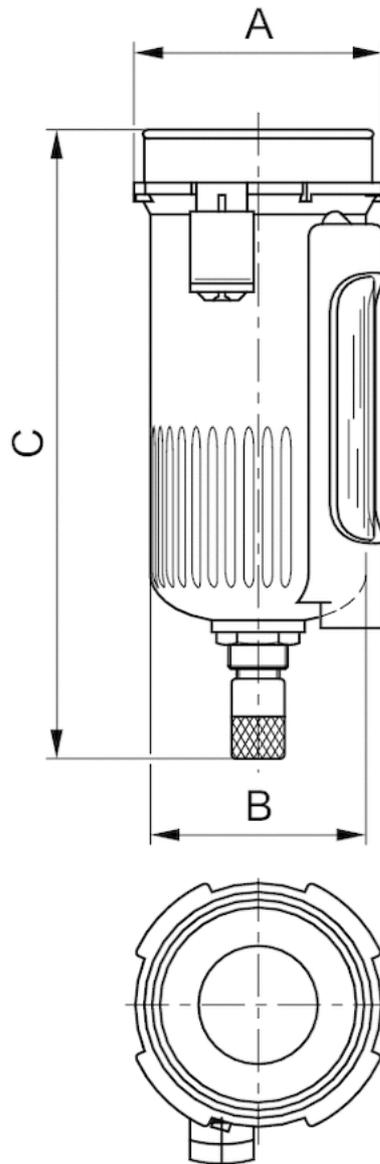
Dimensions, Fig. 2



Dimensions, Fig. 3



Dimensions, Fig. 4



Dimensions in mm

Part No.	A	B	C
1827009337	M56x1,5	53.5	132
1827009343	62.5	53.5	132
1827009338	M56x1,5	53.5	150
1827009344	62.5	53.5	150

# Reservoir, Series NL6-CLC

1827009604

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

**Industry**  
Industrial

**Parts**  
Reservoir

**Reservoir**  
reservoir, polycarbonate, with metal protective guard

**Filter reservoir volume**  
150 cm<sup>3</sup>

**Condensate drain**  
fully automatic, open without pressure

**Working pressure min.**  
1.5 bar

**Working pressure max**  
16 bar

**Min. ambient temperature**  
-10 °C

**Max. ambient temperature**  
60 °C

**Min. medium temperature**  
-10 °C

**Max. medium temperature**  
60 °C

**Medium**  
Compressed air

**Weight**  
1.1 kg

**Material reservoir**  
Polycarbonate

**Seal material**  
Acrylonitrile butadiene rubber

**Part No.**  
1827009604

## Technical information

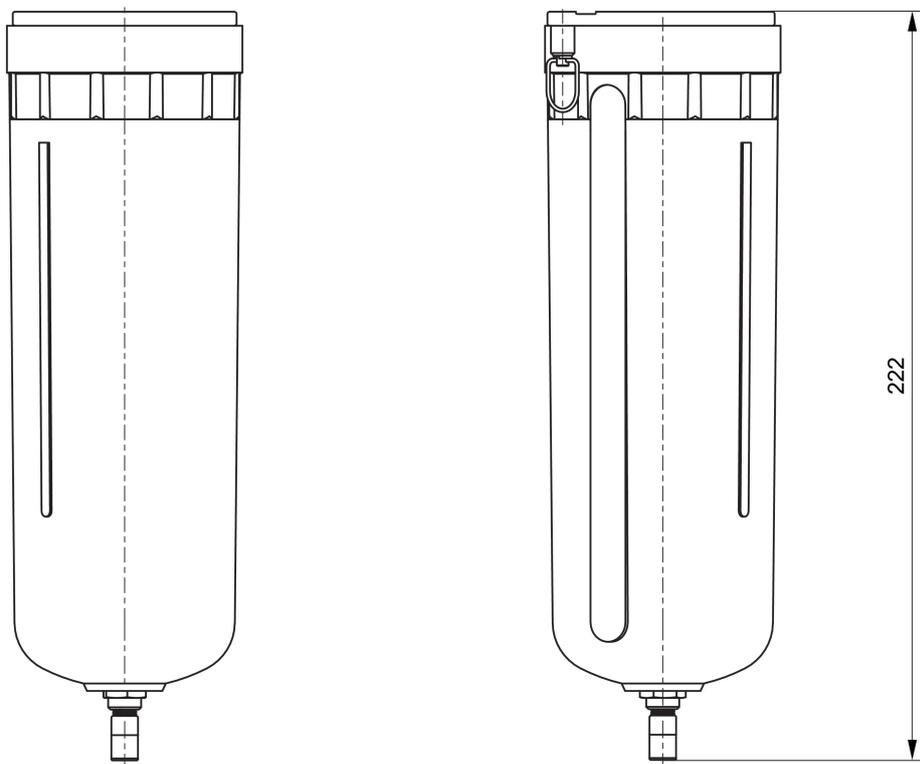
If pre-filter/microfilter/active carbon filter are placed directly next to each other, a stop plate 1827009590 (G3/4) or 1827009591 (G1) has to be mounted in between with NL6 block assembly kit 1827009593.

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

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

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

## Dimensions in mm



# Reservoir, Series NL6-CLC

1827009605

## General series information Series NL6

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



## Technical data

Industry  
Industrial

Parts  
Reservoir

Reservoir  
Metal reservoir without window

Filter reservoir volume  
150 cm<sup>3</sup>

Condensate drain  
fully automatic, open without pressure

Working pressure min.  
1.5 bar

Working pressure max  
16 bar

Min. ambient temperature  
-10 °C

Max. ambient temperature  
60 °C

Min. medium temperature  
-10 °C

Max. medium temperature  
60 °C

Medium  
Compressed air

Weight  
1.1 kg

Material reservoir  
Die cast zinc

Seal material  
Acrylonitrile butadiene rubber

Part No.  
1827009605

## Technical information

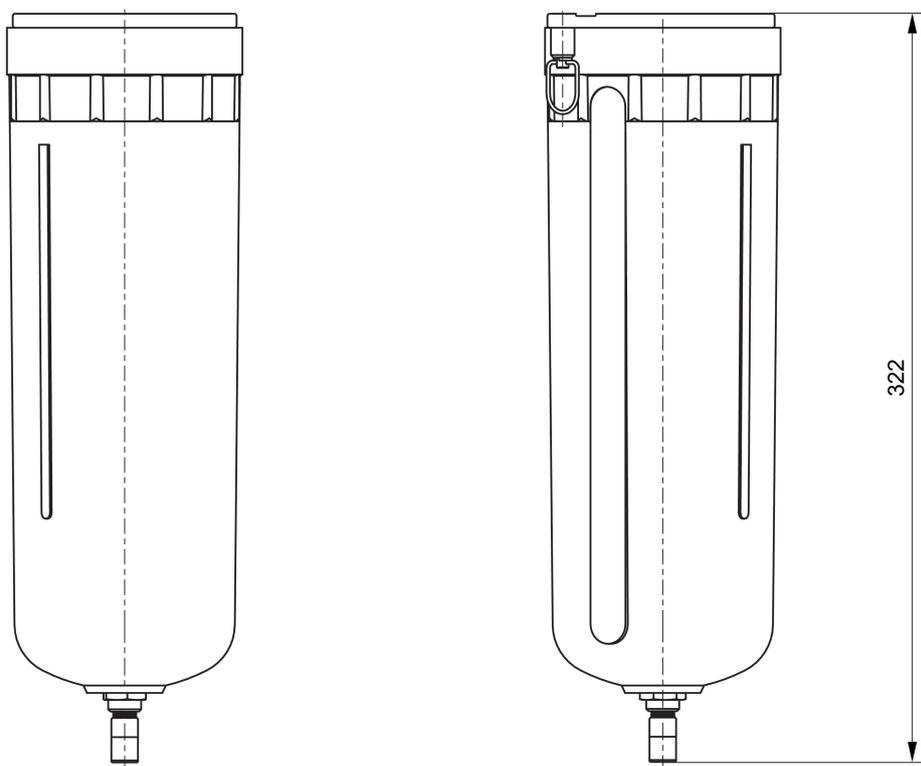
If pre-filter/microfilter/active carbon filter are placed directly next to each other, a stop plate 1827009590 (G3/4) or 1827009591 (G1) has to be mounted in between with NL6 block assembly kit 1827009593.

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

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

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

## Dimensions in mm



# Reservoir, Series NL6-CLA

- for active carbon filter
- Material Die cast zinc



Version

Version

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Filter reservoir volume

Weight

Reservoir

Metal reservoir without window

16 bar

-10 ... 60 °C

-10 ... 60 °C

Compressed air

130 cm<sup>3</sup>

See table below

## Technical data

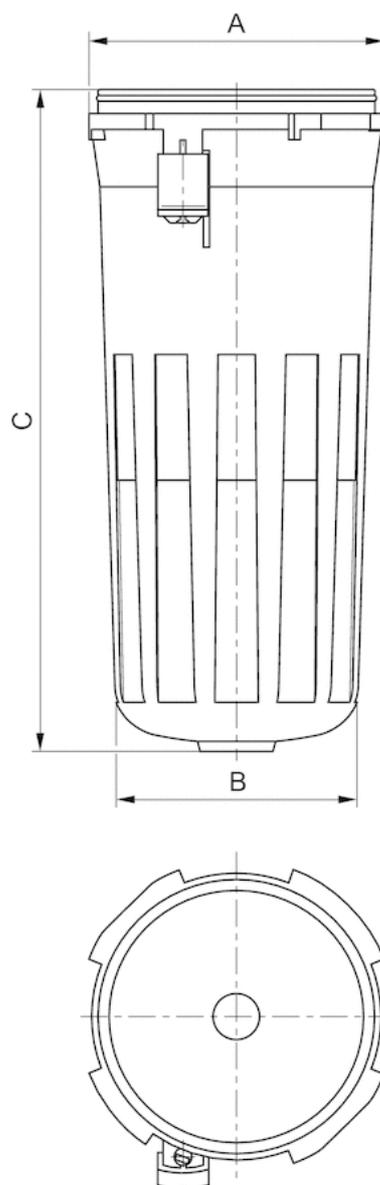
Part No.	Weight
1827009610	0.9 kg
1827009611	1.1 kg

## Technical information

Material	
Reservoir	Die cast zinc
Seal	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions



### Dimensions in mm

Part No.	Compressed air connection	A	B	C
1827009610	G 3/4	94.5	75.4	200
1827009611	G 1	94.5	70.5	300

# Reservoir, Series NL4-CBS, NL4-CLA, NL6-CBS

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



Version	Reservoir
Working pressure min./max.	16 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Lubricator reservoir volume	125 cm <sup>3</sup>
Weight	See table below

## Technical data

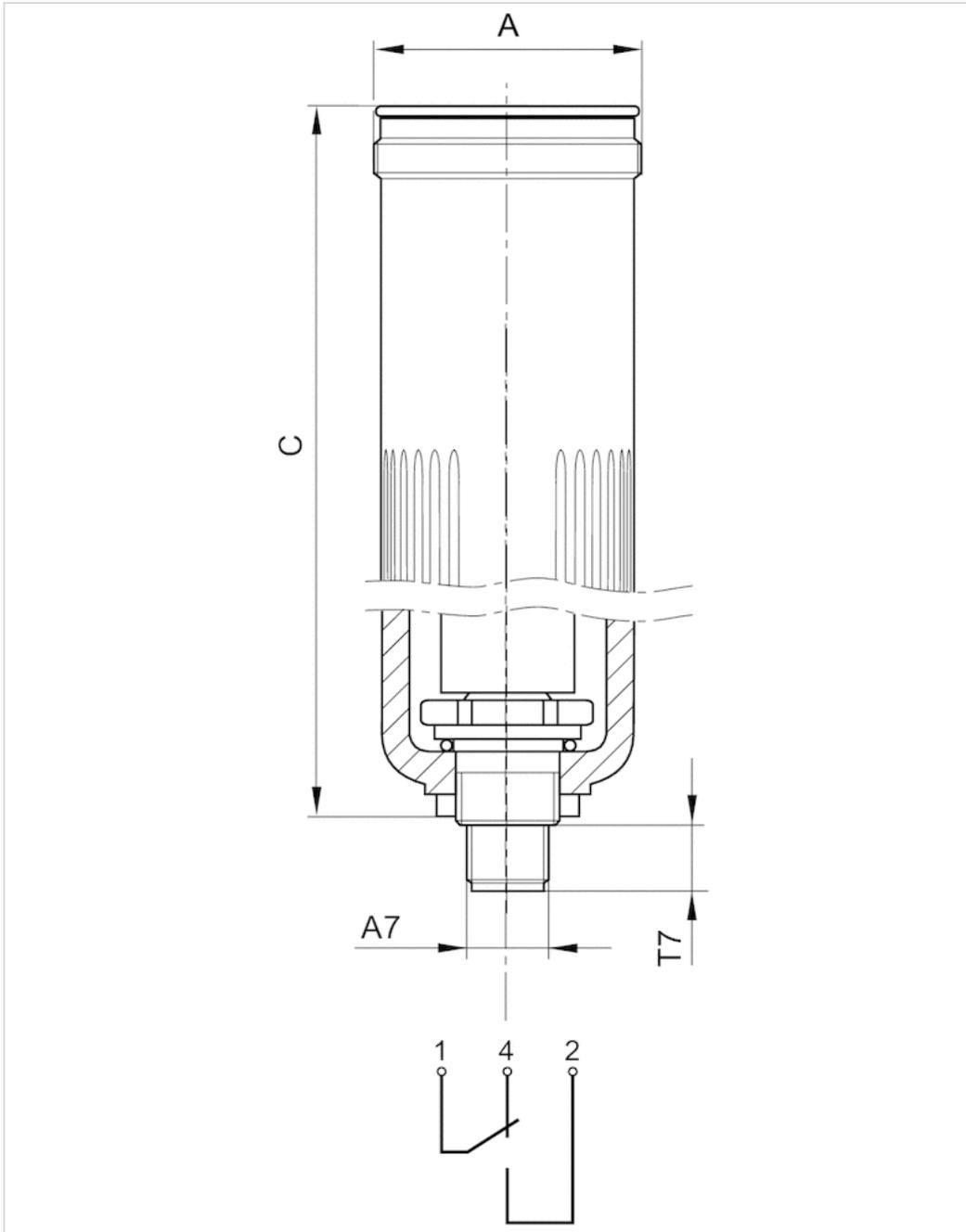
Part No.	Electrical level indicator	Reservoir	Weight	Fig.
R412003757	with internal query	Polycarbonate	0.18 kg	Fig. 1
1827009336	-	Polycarbonate	0.15 kg	Fig. 2
1827009342	-	Die cast zinc, with window	0.55 kg	Fig. 3

## Technical information

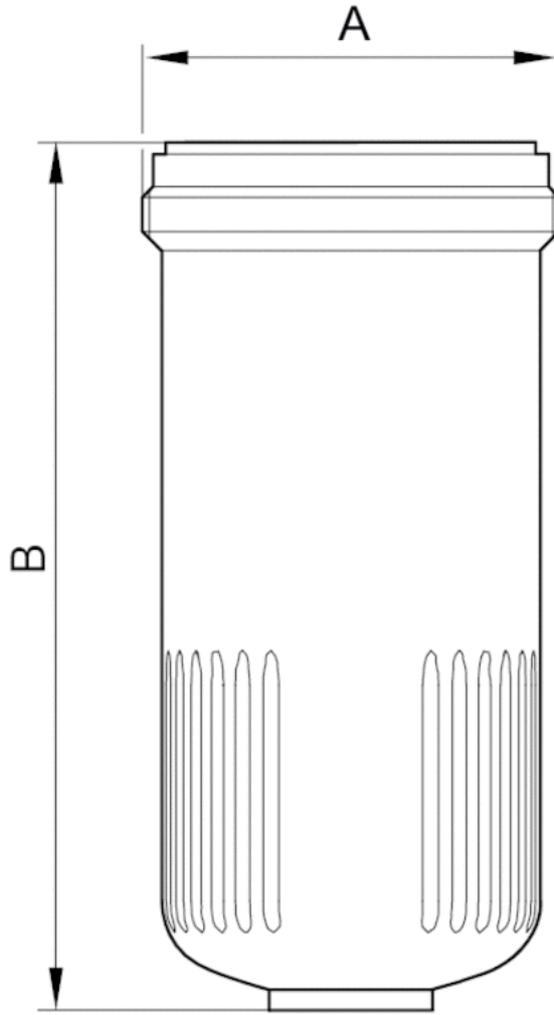
Material	
Reservoir	Polycarbonate Die cast zinc
Seal	Acrylonitrile butadiene rubber

# Dimensions

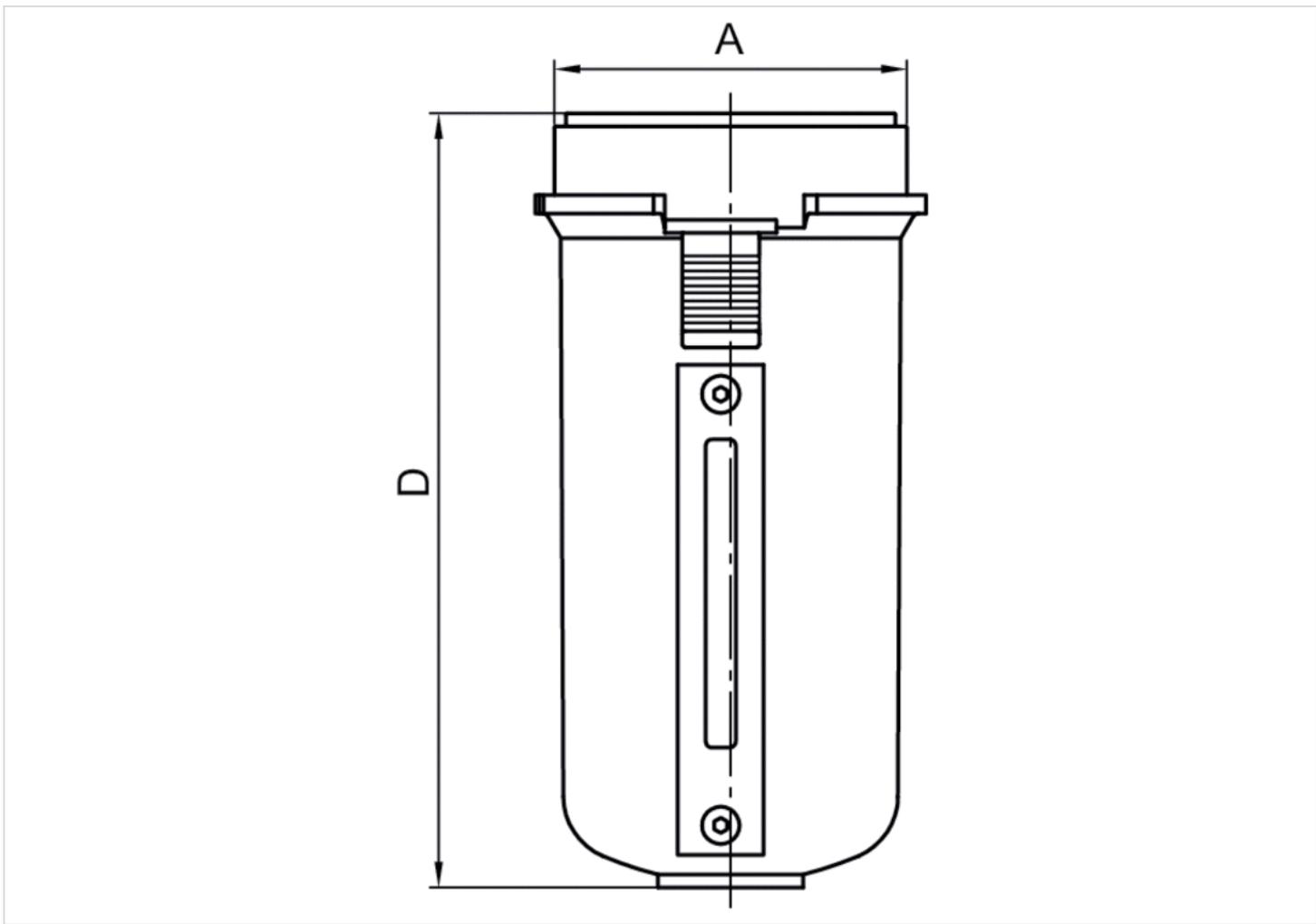
Dimensions, Fig. 1



Dimensions, Fig. 2



Dimensions, Fig. 3



Dimensions in mm

Part No.	A	A7	B	C	D	T7
R412003757	M56x1.5	M12x1	-	129.5	-	12
1827009336	M56x1.5	-	117.5	129.5	-	-
1827009342	Ø53.1	-	-	119	119	-

# Protective guard

- NL4, NL6
- Filter, Lubricator



Weight

0.14 kg

## Technical data

Part No.	Type
1820507001	NL4

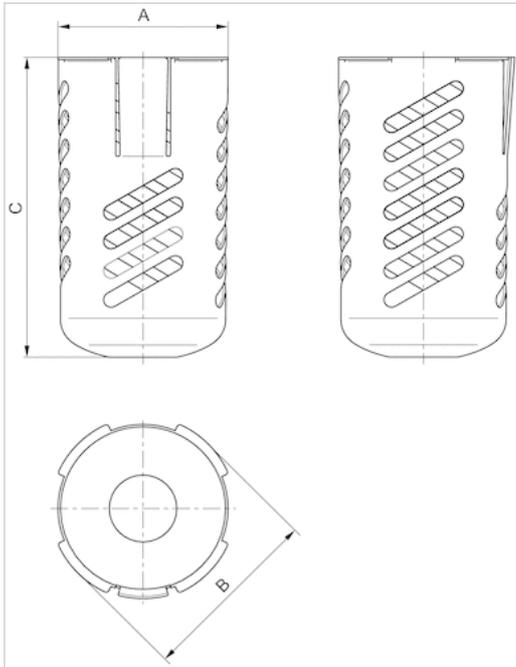
## Technical information

Can be retrofitted for PC reservoir

## Technical information

Material	
Material	Steel black oxidized

## Dimensions



## Dimensions

Part No.	Type	A	B	C
1820507001	NL4	57,8	62,6	103

# Mounting plate, Series NL6-MBR-...-W01

- for NL6



Ambient temperature min./max.

-40 ... 60 °C

Weight

0.275 kg

## Technical data

Part No.	for
1821336017	NL6

Scope of delivery incl. mounting screws

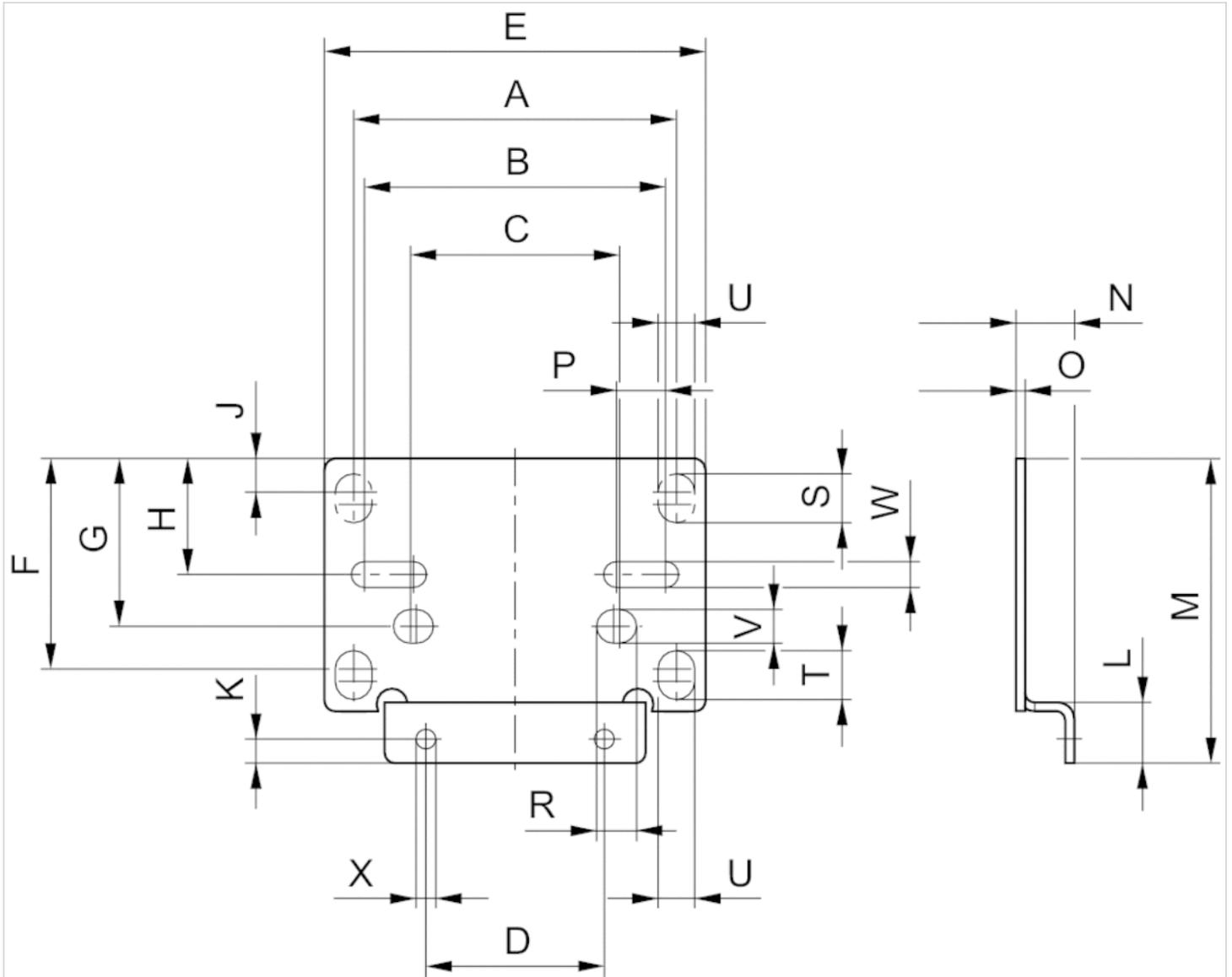
## Technical information

suitable for individual units

## Technical information

Material	
Housing	Steel, galvanized

## Dimensions



## Dimensions

Part No.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U	V	W	X
1821336017	105	98	68	58	124	69	55	38	11	8	20	100	19	3	16	13	16	16	12	11	8.4	6.4

# Block assembly kit, Series NL6-MBR-...-W04

- NL6



Weight

0.02 kg

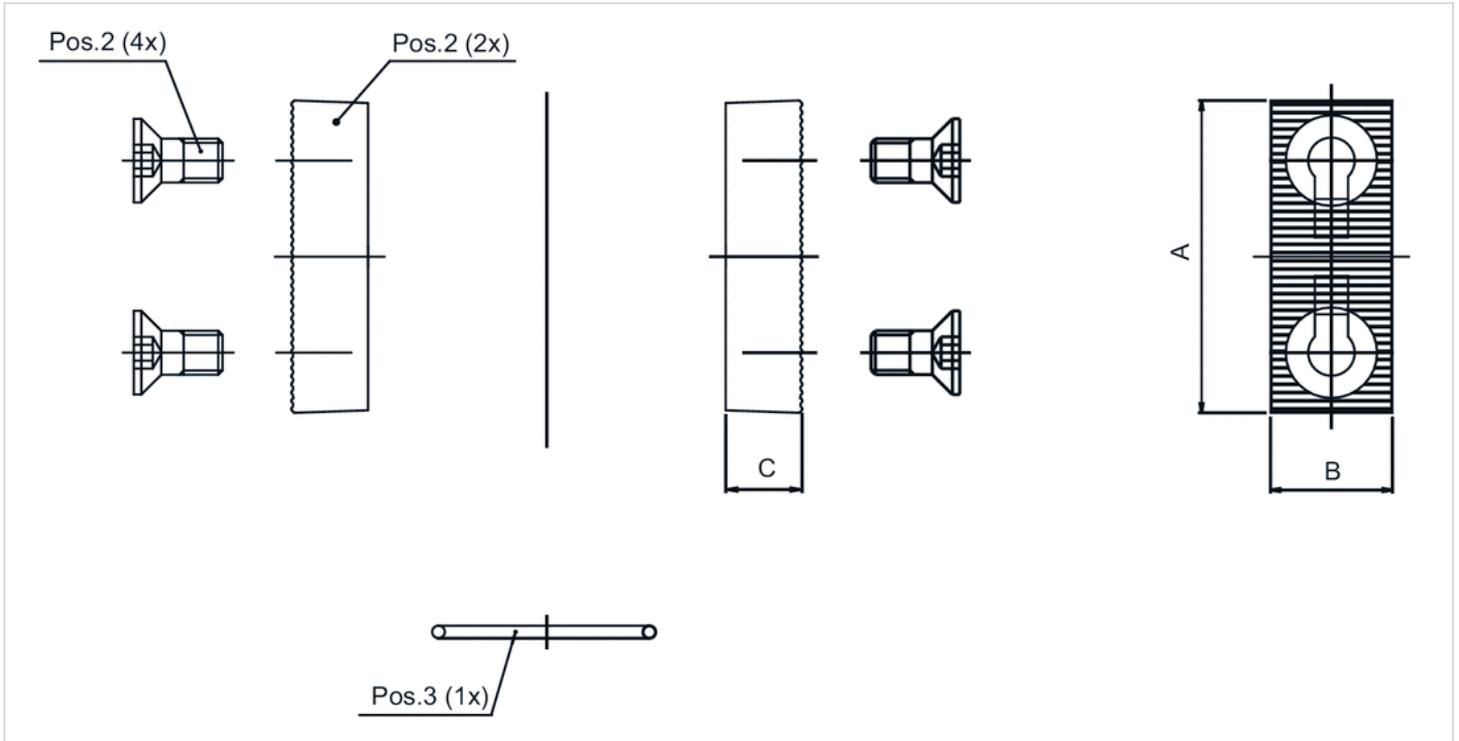
## Technical data

Part No.

1827009593

Scope of delivery: 2 clamp mountings, 4 screws ISO 10642 M8x16-8.8, 1 O-ring

## Dimensions



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

## Dimensions

Part No.	A	B	C
1827009593	56.9	22	13.8

# Stop plate with connection thread

- G 3/4 G 1

- NL6



Working pressure min./max.

0 ... 16 bar

Ambient temperature min./max.

-10 ... 60 °C

Weight

See table below

## Technical data

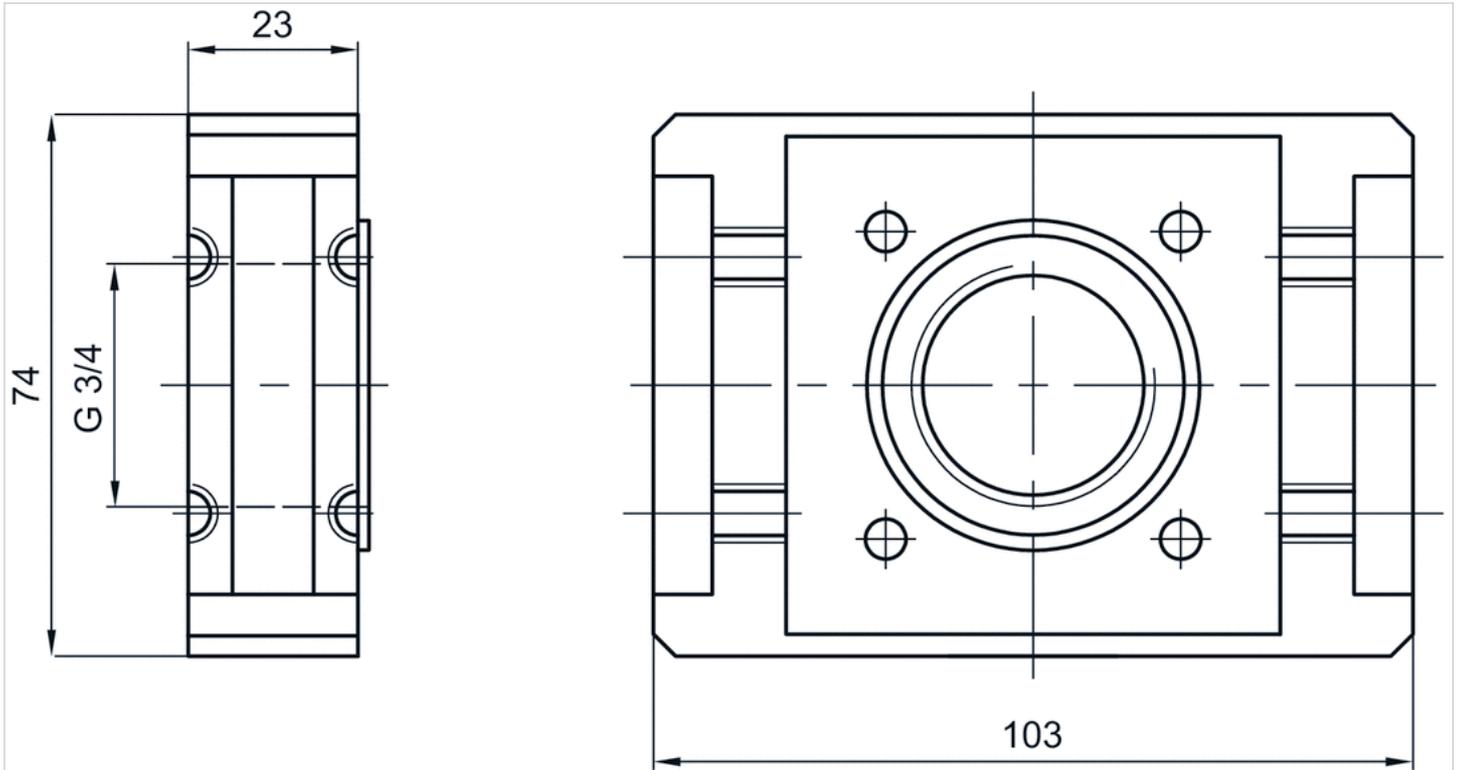
Part No.	Type	Port G	Weight	Fig.
1827009590	NL6	G 3/4	0.272 kg	Fig. 1
1827009591	NL6	G 1	0.25 kg	Fig. 2

## Technical information

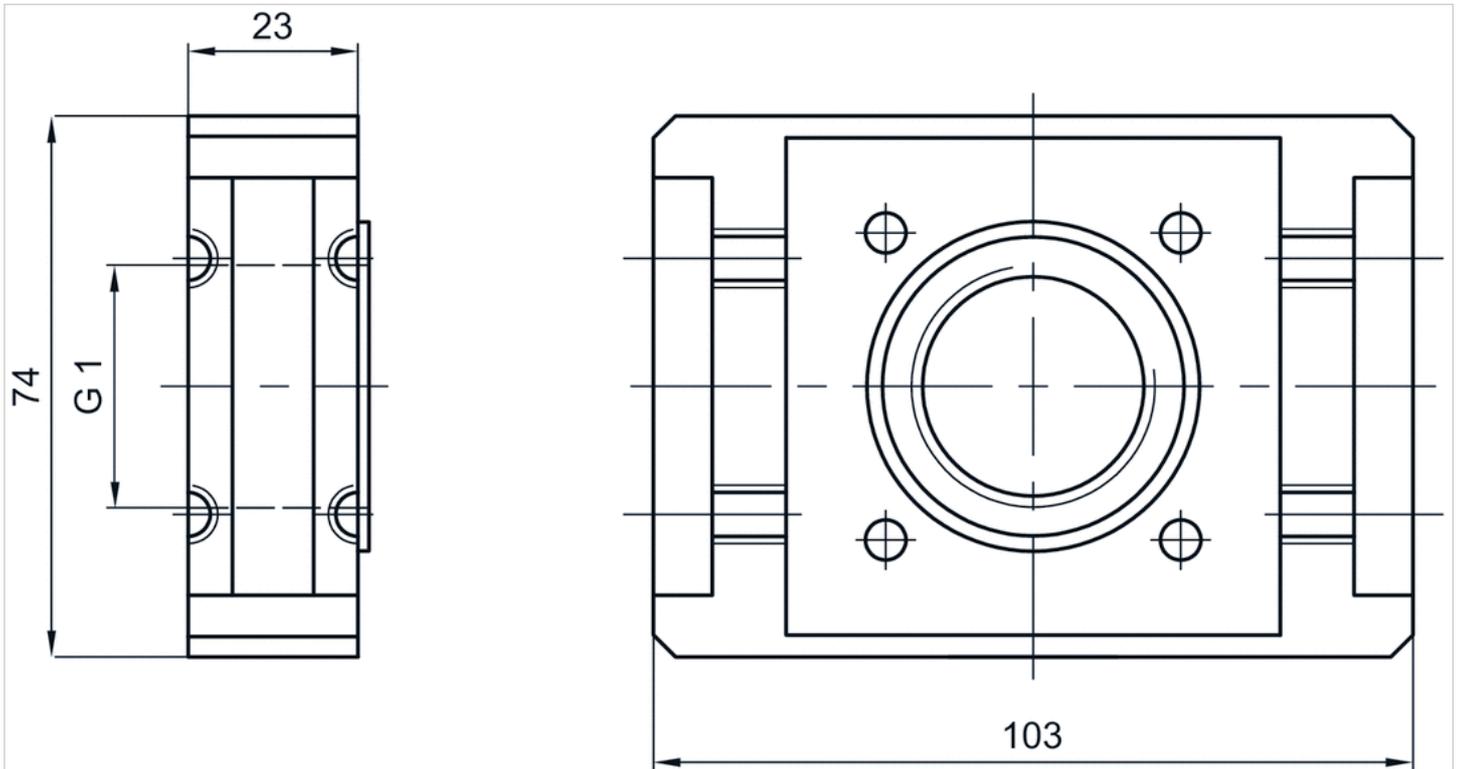
Material	
Material	Die cast zinc

## Dimensions

Dimensions in mm, Fig. 1

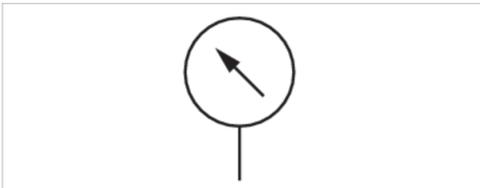


Dimensions in mm, Fig. 2



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

## Technical data

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

## Technical information

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

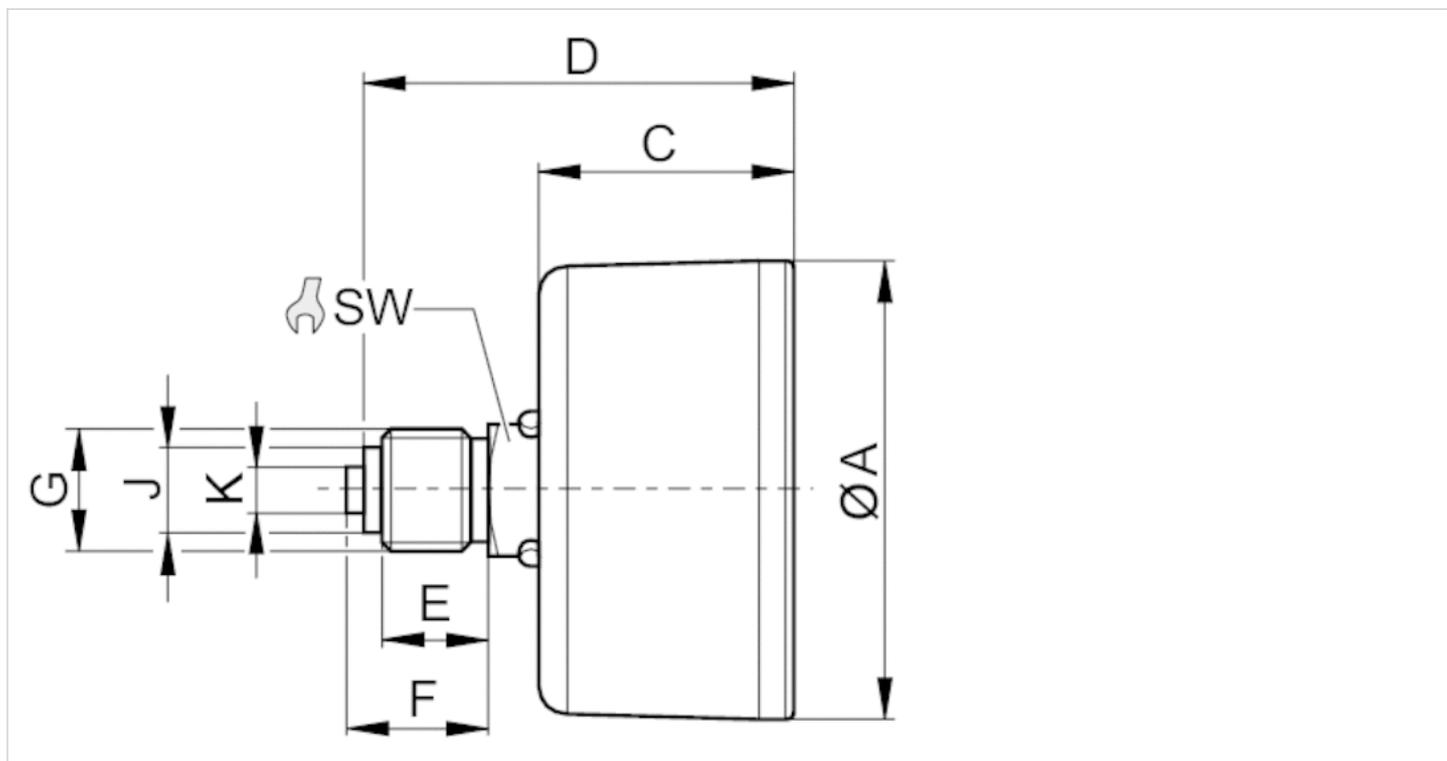
## Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass

Material	
Viewing window	Polystyrene

## Dimensions

### Dimensions

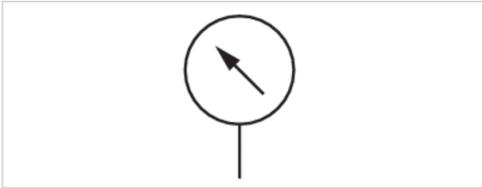


### Dimensions

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

# Pressure gauge, Series PG1-SNL

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



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

## Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value	Weight
1827231057	G 1/4	40 mm	-0.8 ... 0	-1 ... 0	-1 ... 0 bar	0.1	0.06 kg
1827231047	G 1/4	40 mm	0 ... 10	0 ... 16	0 ... 16 bar	0.5	0.06 kg
1827231059	G 1/4	40 mm	0 ... 4	0 ... 6	0 ... 6 bar	0.2	0.06 kg
1827231060	G 1/4	40 mm	0 ... 8	0 ... 10	0 ... 10 bar	0.5	0.06 kg
1827231054	G 1/4	50 mm	-0.8 ... 0	-1 ... 0	-1 ... 0 bar	0.1	0.09 kg
1827231012	G 1/4	50 mm	0 ... 2	0 ... 2.5	0 ... 2.5 bar	0.1	0.09 kg
1827231016	G 1/4	50 mm	0 ... 4	0 ... 6	0 ... 6 bar	0.2	0.09 kg
1827231015	G 1/4	50 mm	0 ... 8	0 ... 10	0 ... 10 bar	0.5	0.09 kg
1827231010	G 1/4	50 mm	0 ... 12	0 ... 16	0 ... 16 bar	0.5	0.09 kg
1827231055	G 1/4	63 mm	-0.8 ... 0	-1 ... 0	-1 ... 0 bar	0.1	0.1 kg
1827231011	G 1/4	63 mm	0 ... 12	0 ... 16	0 ... 16 bar	0.5	0.1 kg

Order seal 1829202004 separately

## Technical information

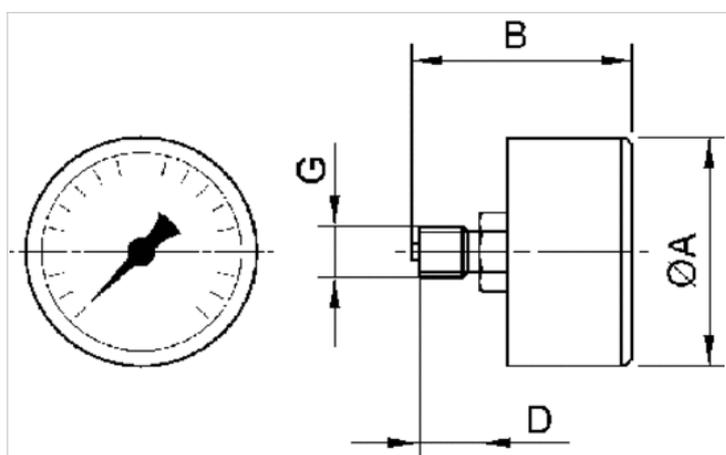
Order axial seal separately

## Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Polystyrene

## Dimensions

### Dimensions

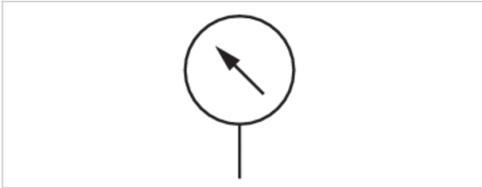


### Dimensions in mm

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

# Pressure gauge, Series PG1-SNL

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



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

## Technical data

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

## Technical information

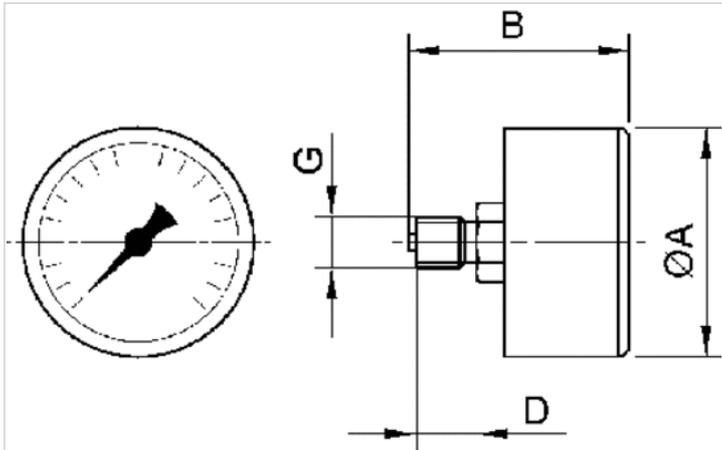
Suitable for use in Ex zones 1, 2, 21, 22.  
Order axial seal separately

## Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Mineral glass

## Dimensions

### Dimensions

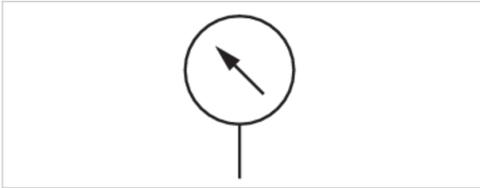


### Dimensions in mm

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

# Pressure gauge, Series PG1-SNL

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



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

## Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value	Weight
1827231032	G 1/4	50 mm	0 ... 2	0 ... 2.5	0 ... 2.5 bar	0.1	0.148 kg
1827231036	G 1/4	63 mm	0 ... 2	0 ... 2.5	0 ... 2.5 bar	0.1	0.19 kg
1827231033	G 1/4	50 mm	0 ... 4	0 ... 6	0 ... 6 bar	0.2	0.148 kg
1827231037	G 1/4	63 mm	0 ... 4	0 ... 6	0 ... 6 bar	0.2	0.19 kg
1827231034	G 1/4	50 mm	0 ... 8	0 ... 10	0 ... 10 bar	0.5	0.148 kg
1827231038	G 1/4	63 mm	0 ... 8	0 ... 10	0 ... 10 bar	0.5	0.19 kg
1827231035	G 1/4	50 mm	0 ... 12	0 ... 16	0 ... 16 bar	0.5	0.148 kg
1827231039	G 1/4	63 mm	0 ... 12	0 ... 16	0 ... 16 bar	0.5	0.19 kg

## Technical information

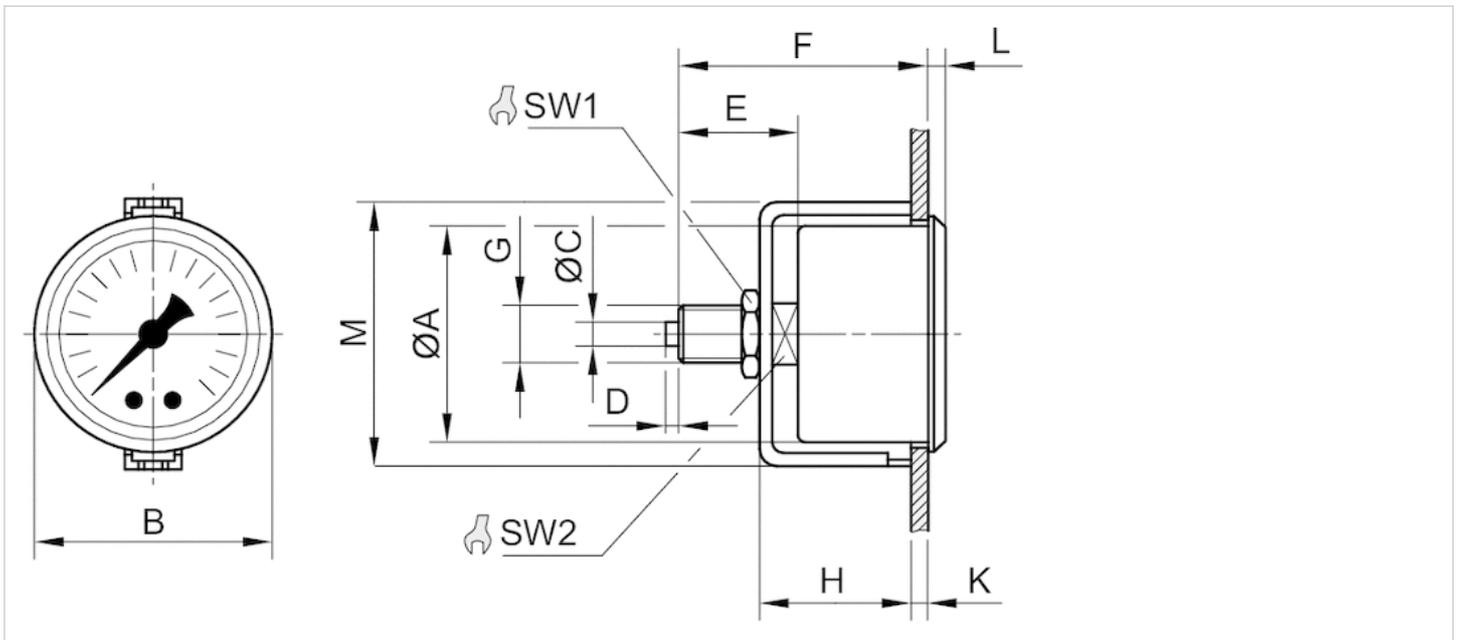
Order axial seal separately

## Technical information

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

## Dimensions

### Dimensions



### Dimensions in mm

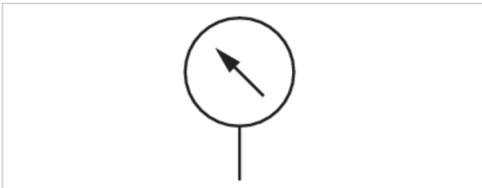
Compressed air connection	Nominal diameter	Ø A	B	C	D	E	F	H	K	L	M	SW1
G 1/4	50 mm	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	63 mm	62	67	5	3	27	53	36.3	4.2	5.5	75	17
G 1/4	50 mm	50	54	5	3	29.5	51.5	34.5	3	4.5	61	17
G 1/4	63 mm	62	67	5	3	27	53	36.3	4.2	5.5	75	17
G 1/4	50 mm	50	54	5	3	29.5	51.5	34.5	3	4.5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

SW2
14
14
14
14
14

	SW2
	14
	14
	14

# Pressure gauge, Series PG1-SNL

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



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

## Technical data

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

Order seal 1829202004 separately

## Technical information

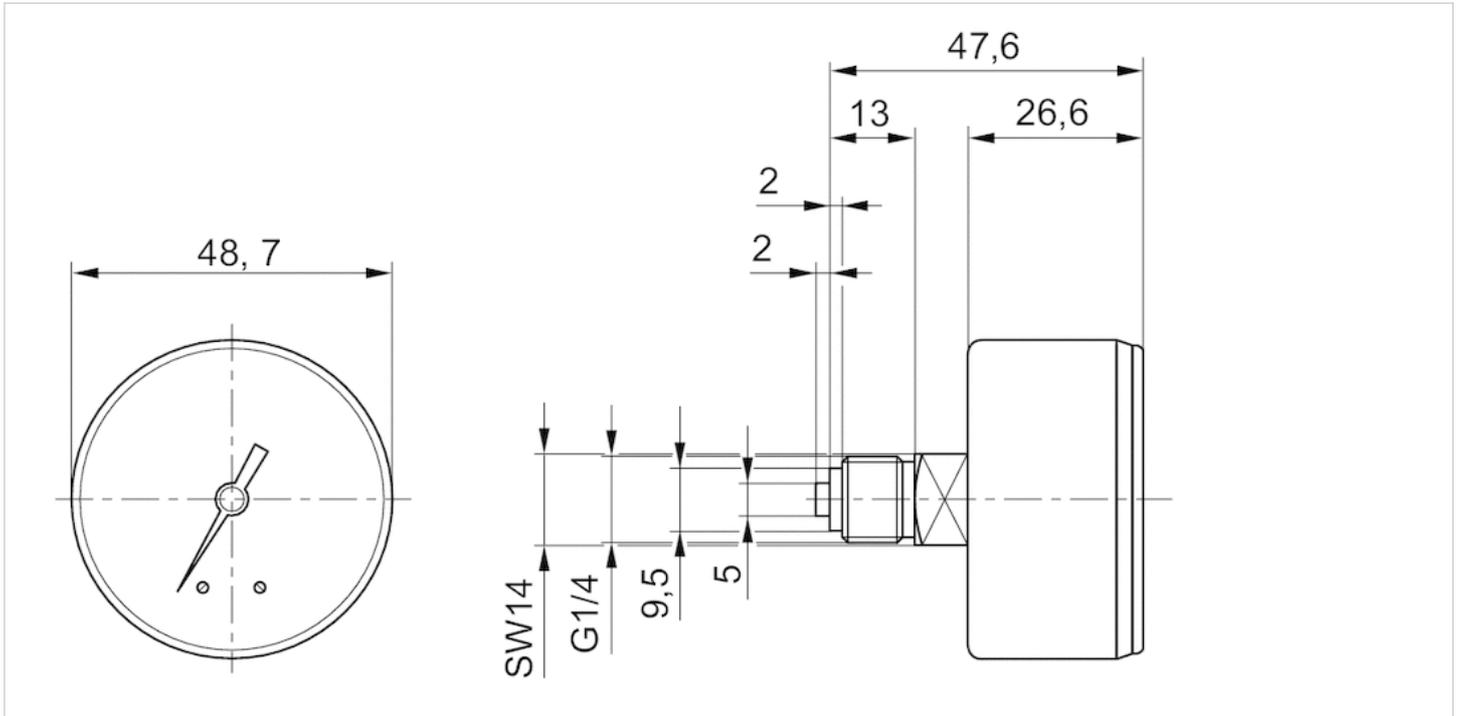
Order axial seal separately

## Technical information

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

## Dimensions

### Dimensions in mm

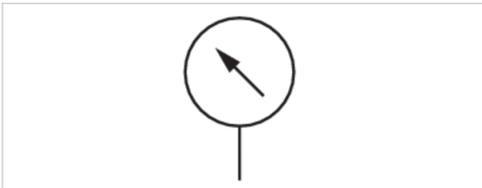


# Pressure gauge, Series PG1-DIM

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



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



## Technical data

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

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

## Technical information

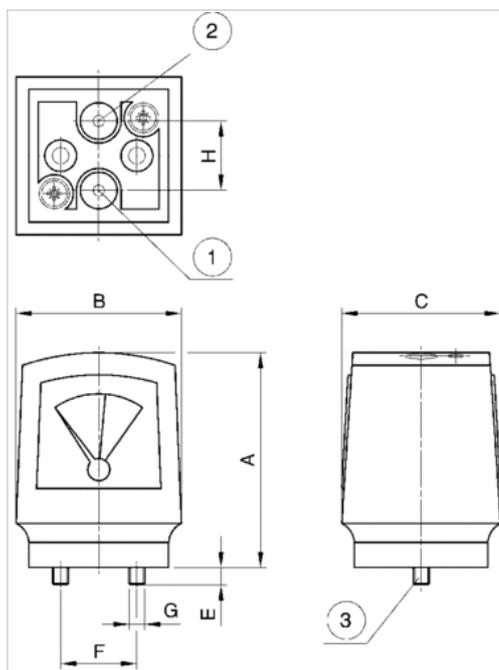
Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

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

## Dimensions

### Dimensions



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

### Dimensions in mm

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

# contamination display

- for prefilters and microfilters



Weight

0.025 kg

## Technical data

Part No.

R412006363

2 mounting screws and 2 O-rings supplied loose.

## Technical information

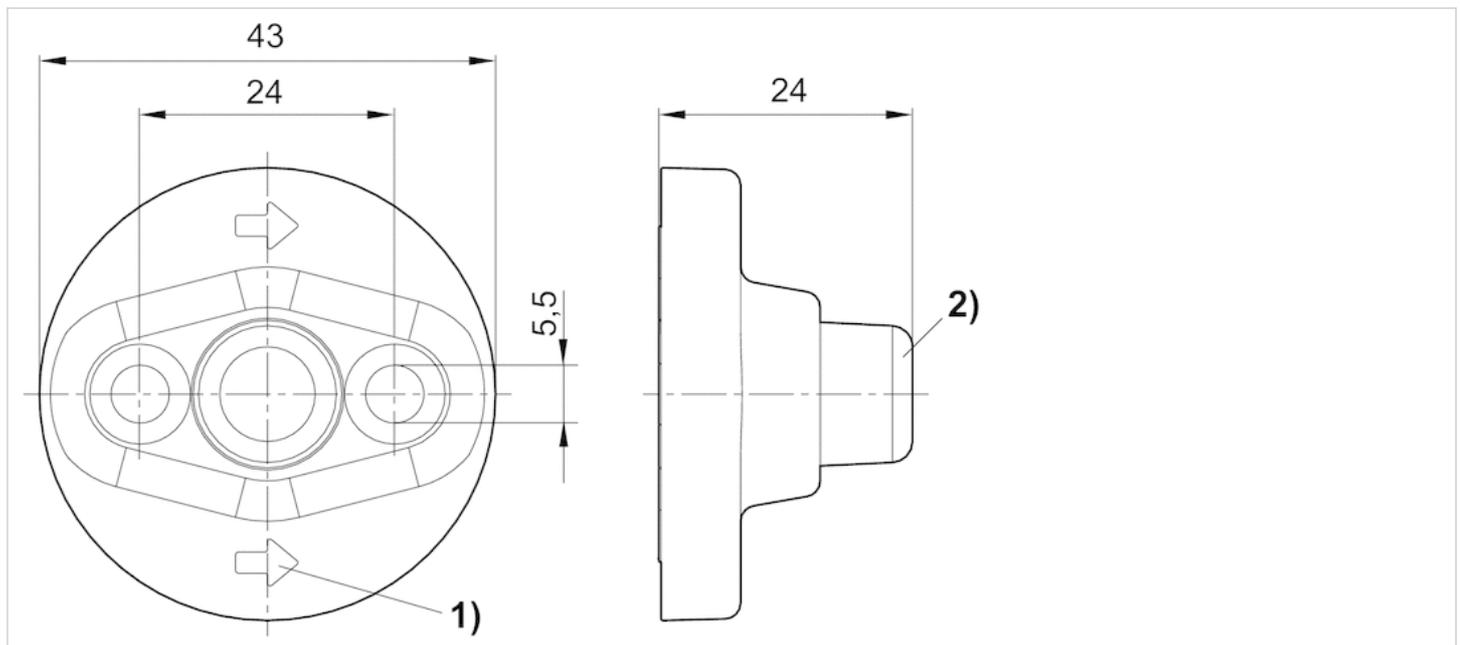
Material

Material

Polyamide

## Dimensions

### Dimensions in mm



1) Flow direction

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

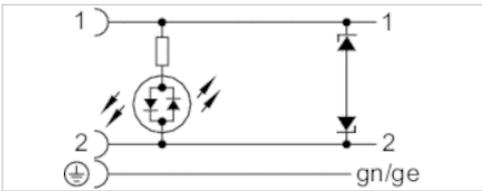
Display turns red on contamination of the filter element (=  $\Delta p \geq 0.35$  bar ).

# Valve plug connector, series CON-VP

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



Ambient temperature min./max.	-20 ... 80 °C
Operational voltage	24 V AC/DC
Protection class	IP67
Protective circuit	Z-diode
Wire cross-section	0.75 mm <sup>2</sup>
Mounting screw tightening torque	0.4 Nm
Weight	See table below



## Technical data

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

Scope of delivery incl. flat gasket

## Technical information

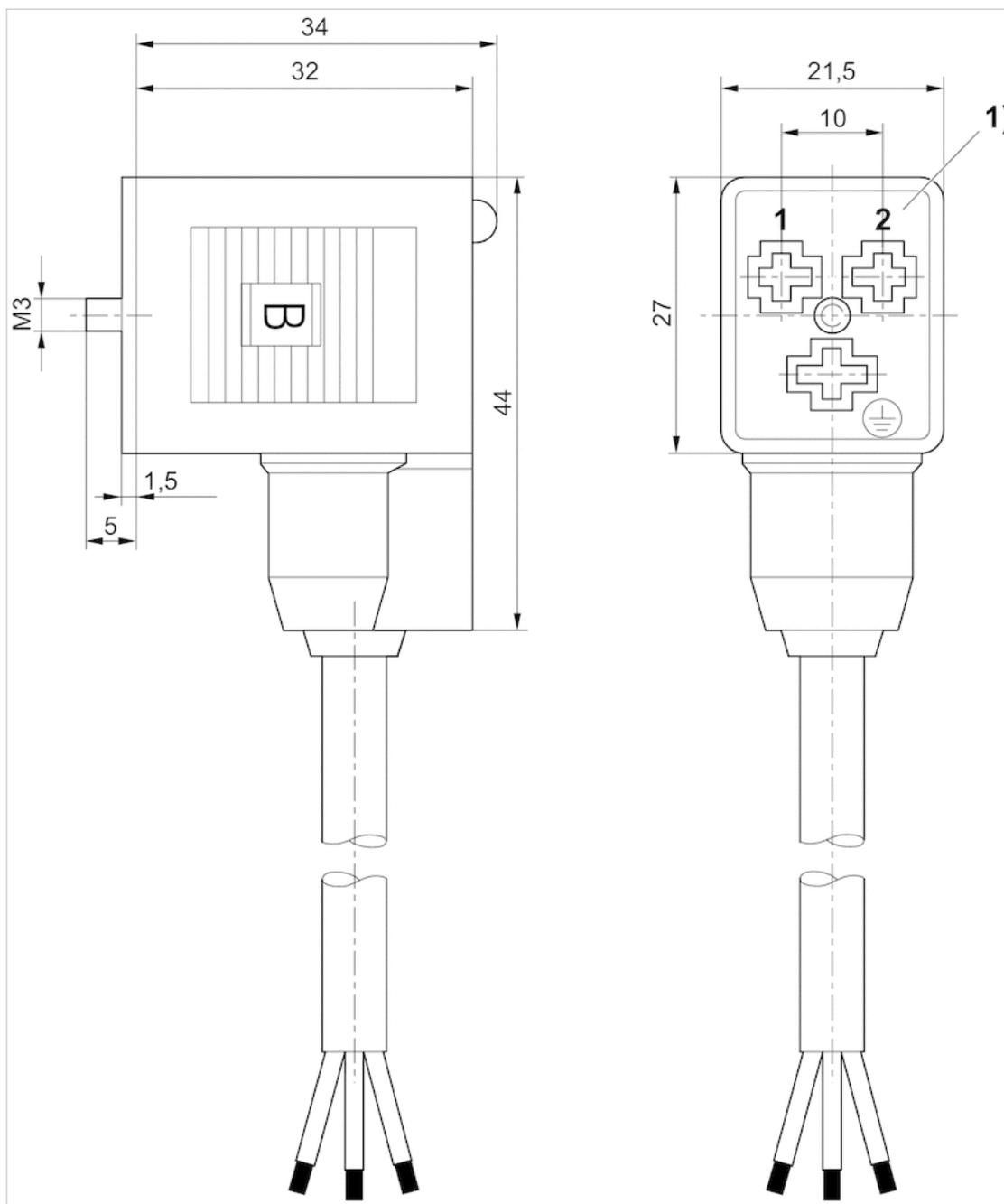
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc
Cable sheath	Polyvinyl chloride

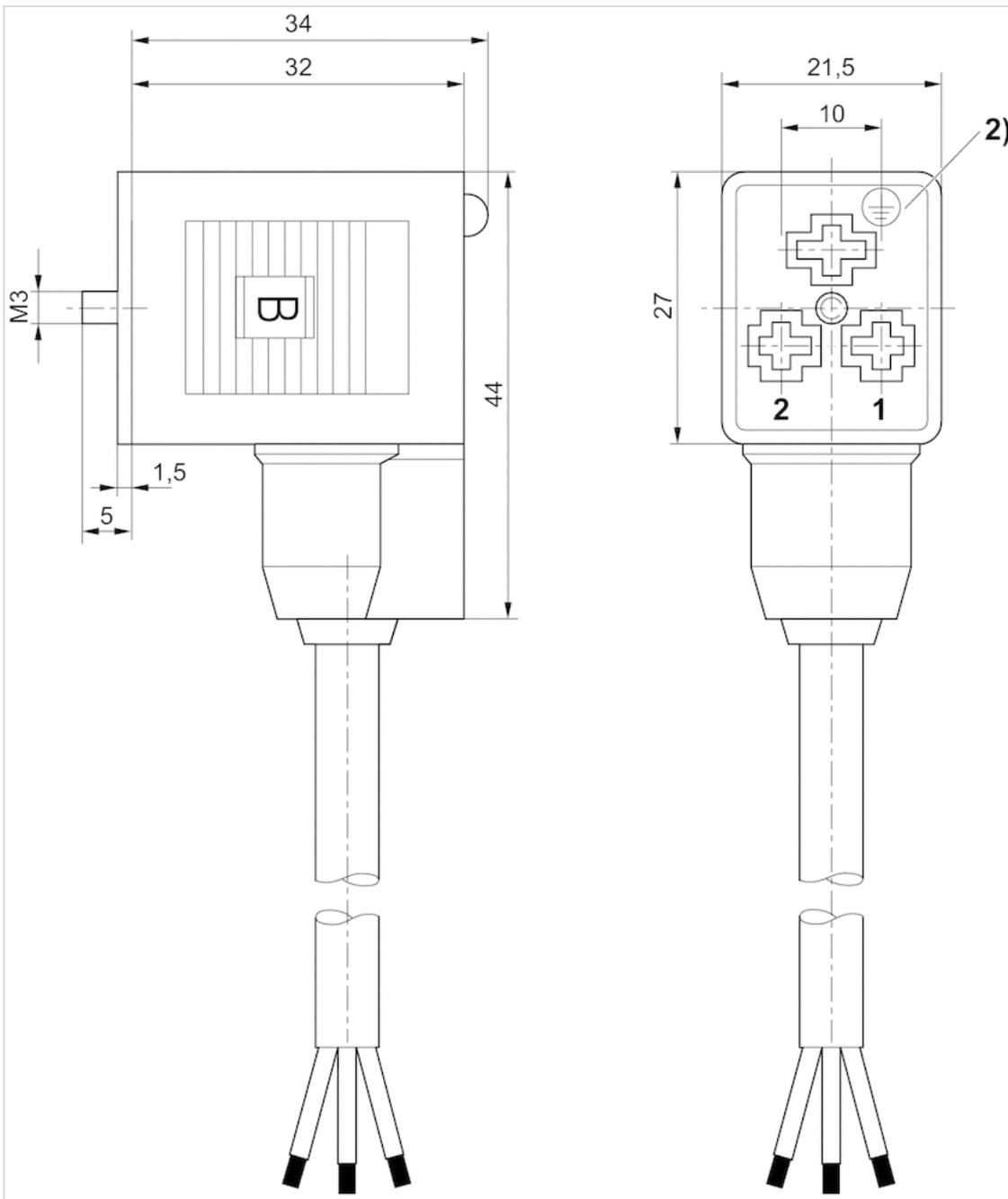
## Dimensions

Fig. 1



1) 0° female insert

Fig. 2



2) 180° female insert

# Valve plug connector, series CON-VP

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



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

## Technical data

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

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

Profile seal, Flat gasket

## Technical information

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

## Technical information

Material	
Seals	Silicone caoutchouc

# Dimensions

Fig. 1

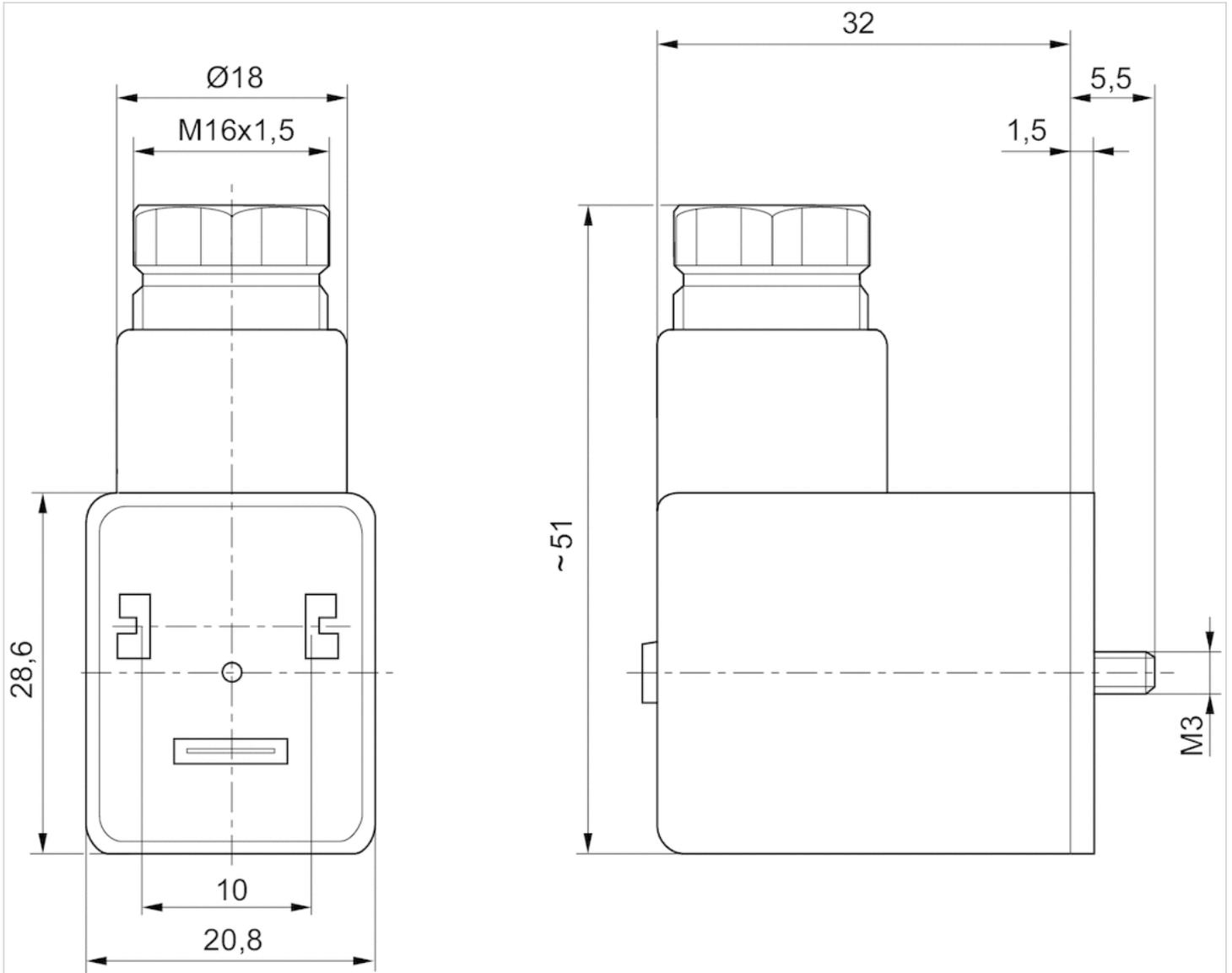
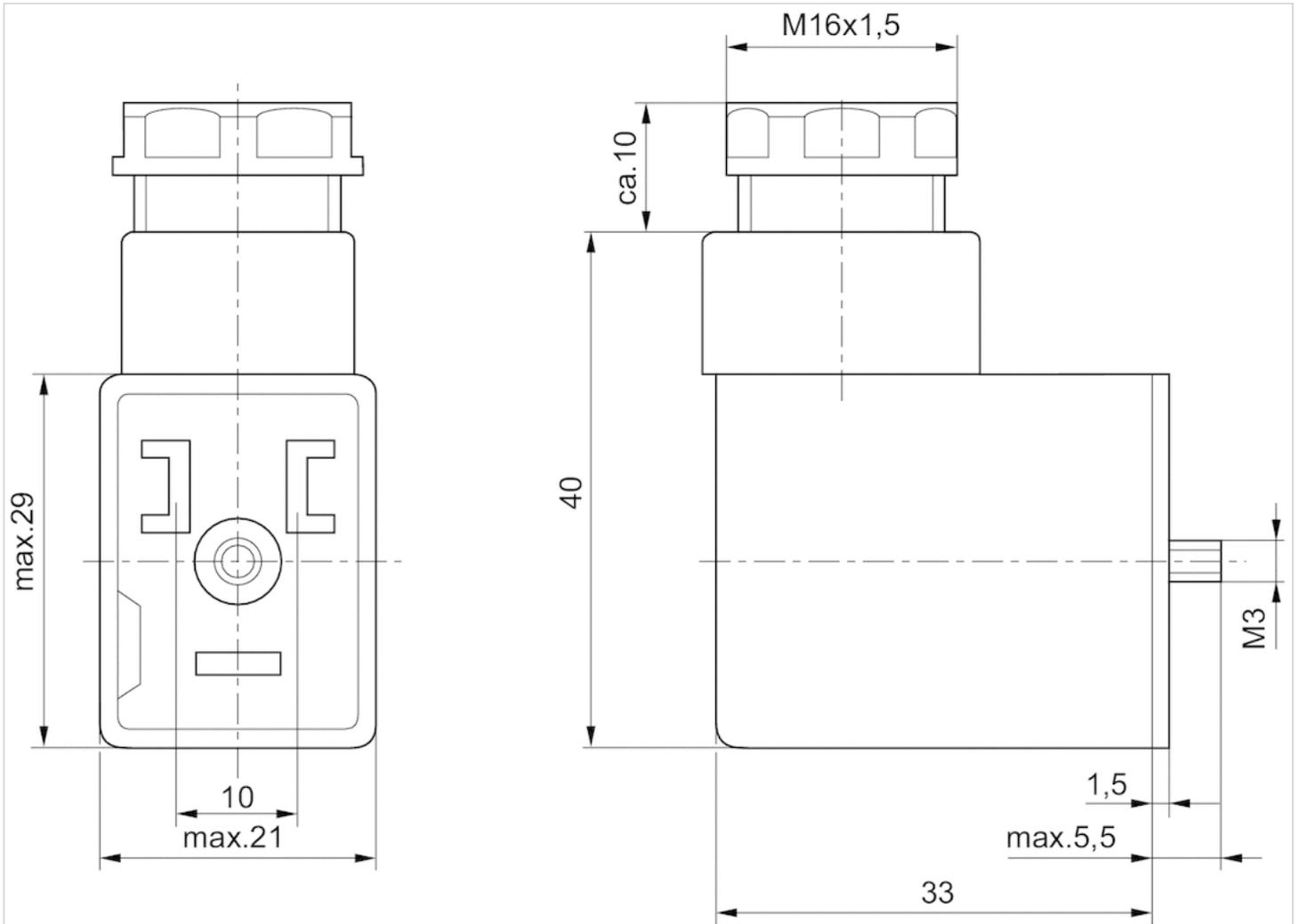


Fig. 2

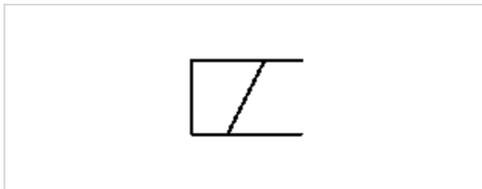


# Coil, Series C01

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



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



## Technical data

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

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

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

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

## Technical information

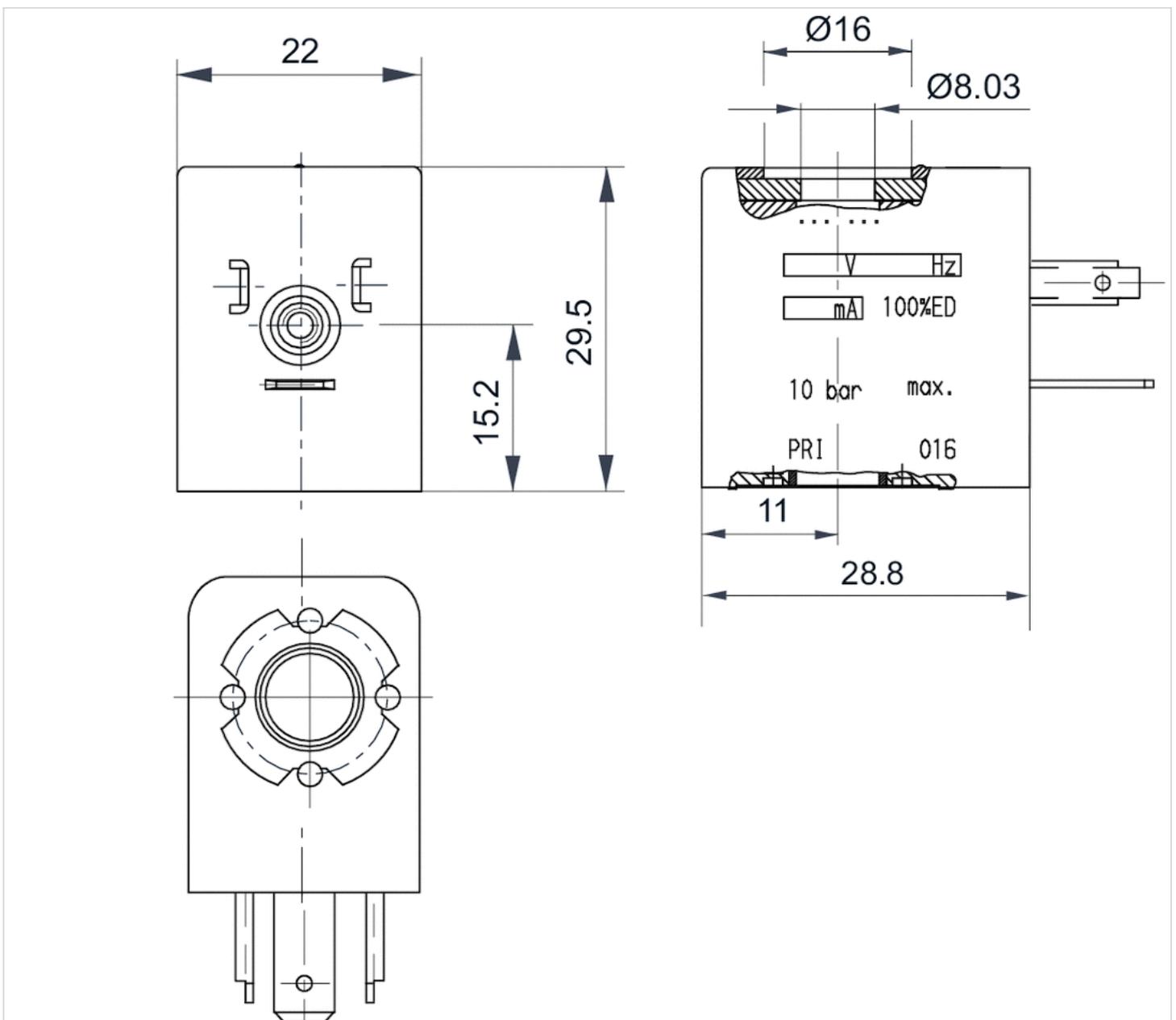
Material

Housing

Thermoplastic elastomer

## Dimensions

Dimensions



# Pressure sensor, Series PE5

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



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

## Technical data

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

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

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

## Technical information

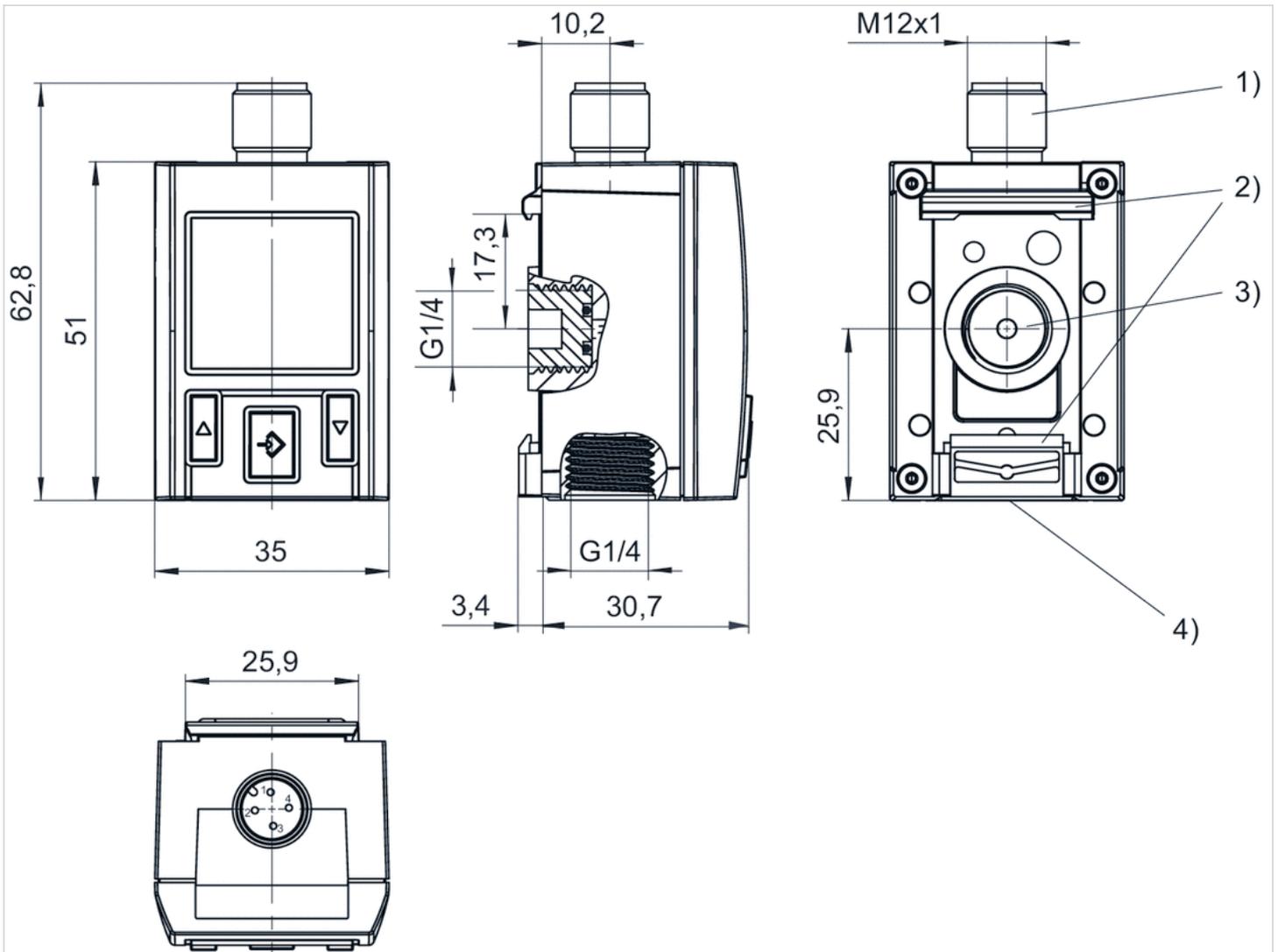
Alternative pressure connection (G1/4) on the rear side (closed with plug)  
Display color selectable, red or green

## Technical information

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

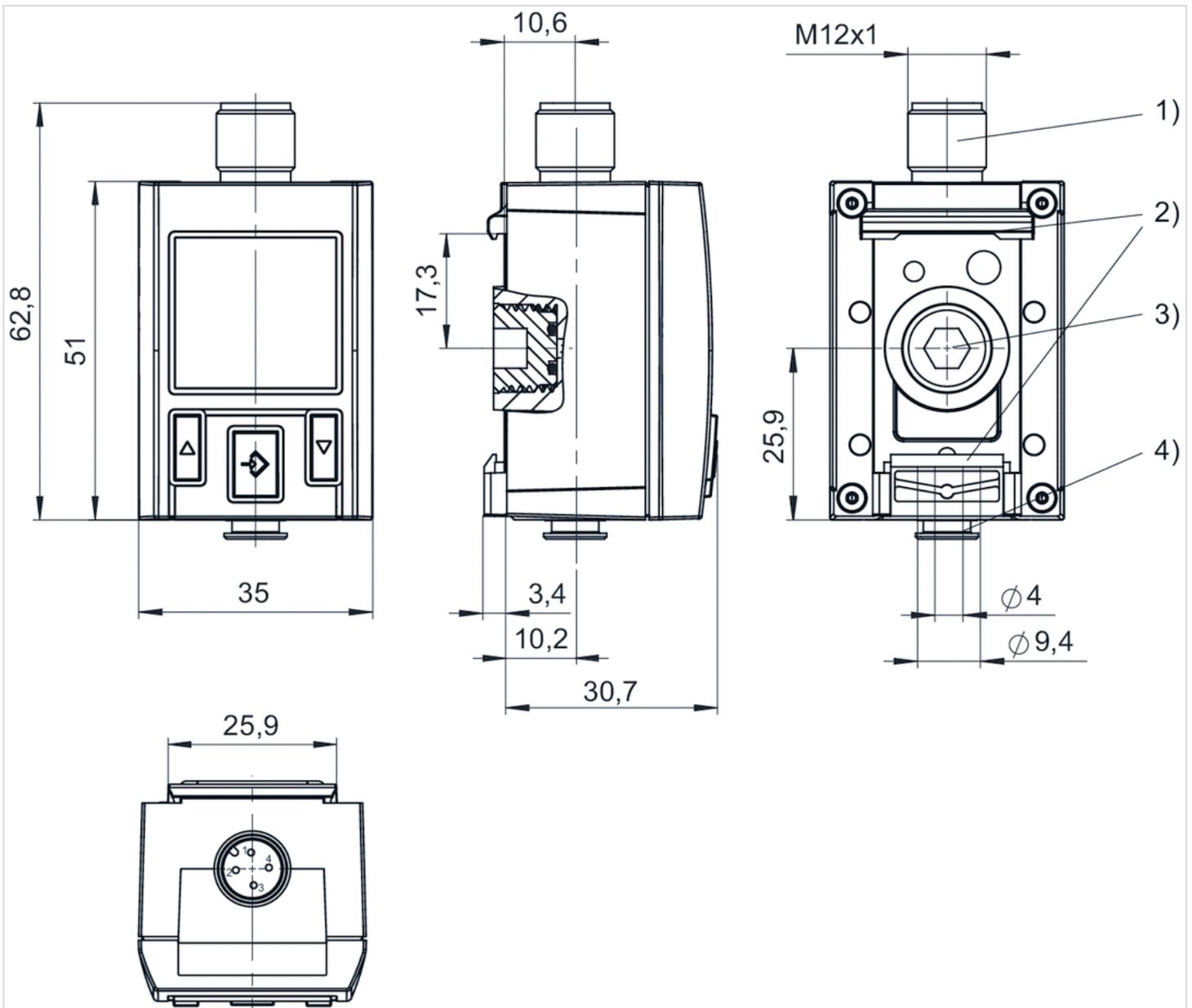
## Dimensions

Fig. 1



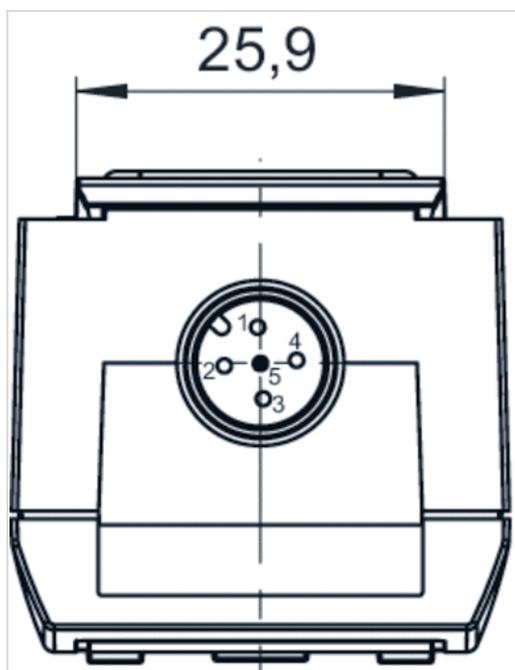
- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection G1/4

Fig. 2

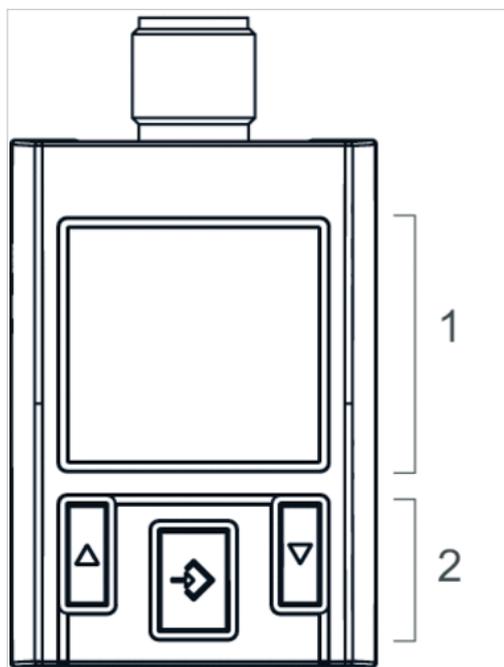


- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection, tubing  $\phi 4$  mm

Fig. 3, Electr. connection for leak test



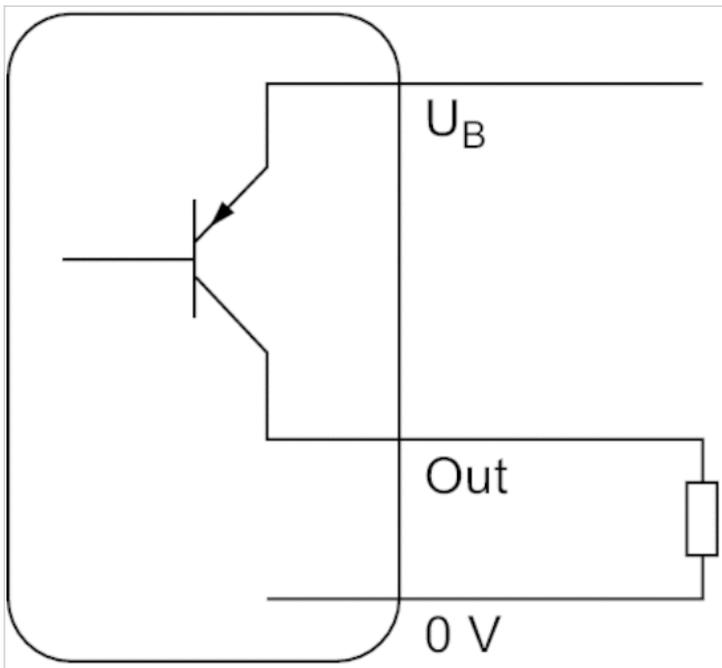
Display and operation area



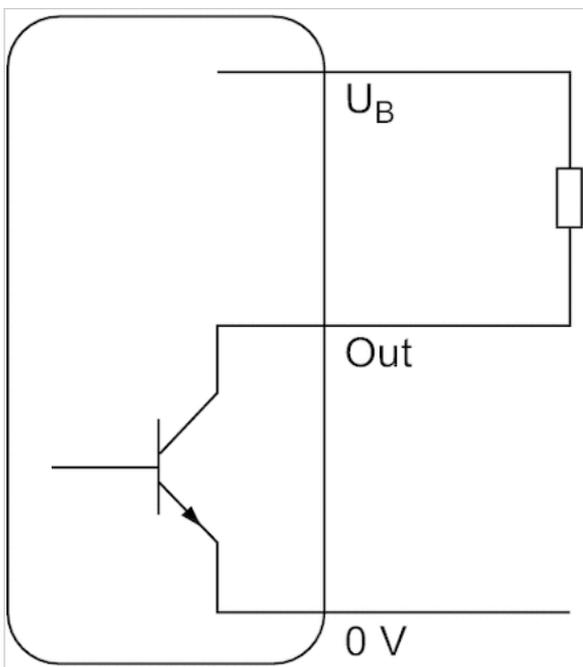
- 1) LCD display
- 2) Control panel with 3 buttons

## Diagrams

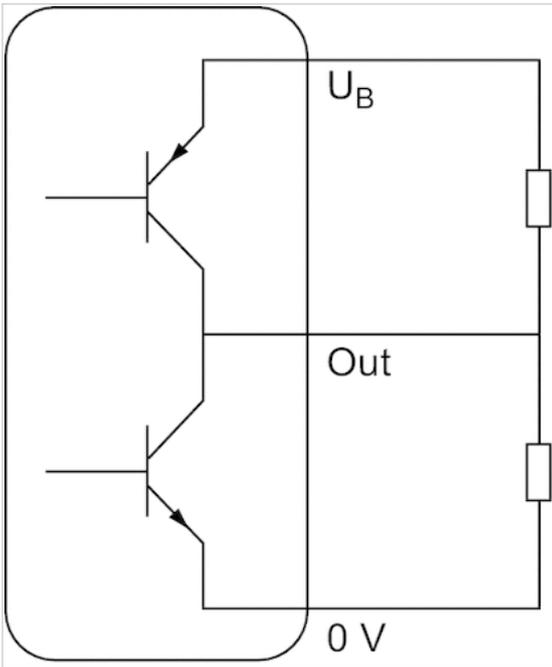
## Operating mode, PNP



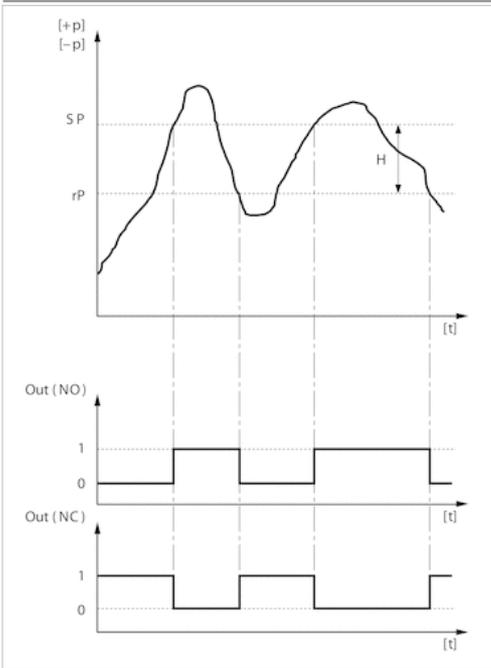
## Operating mode, NPN



Operating mode, Push-pull

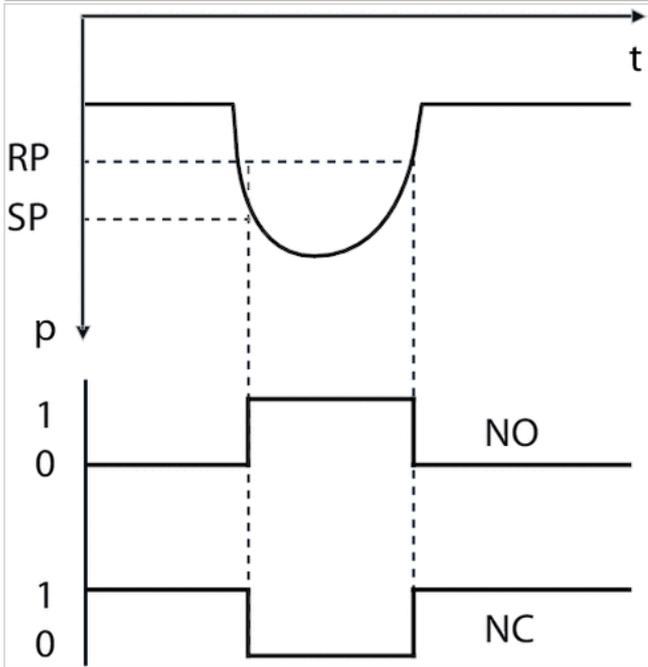


Hysteresis function: switching and resetting behavior dependent on pressure p and time t, in case of overpressure

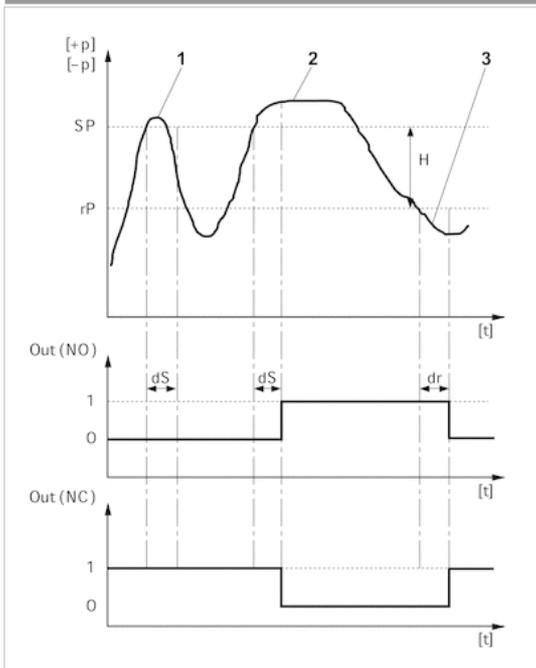


- H: Hysteresis
- SP = switching point
- RP = resetting point
- Out (NC): switch output, break contact
- Out (NO): switch output, make contact

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



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



H: Hysteresis

SP = switching point

RP = resetting point

Out (NC): switch output, break contact

Out (NO): switch output, make contact

$dS$ : switching delay

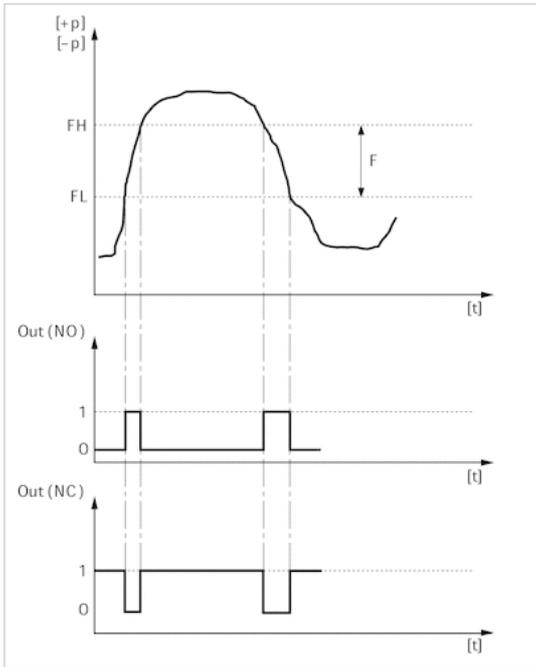
$dR$  = reset delay

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

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

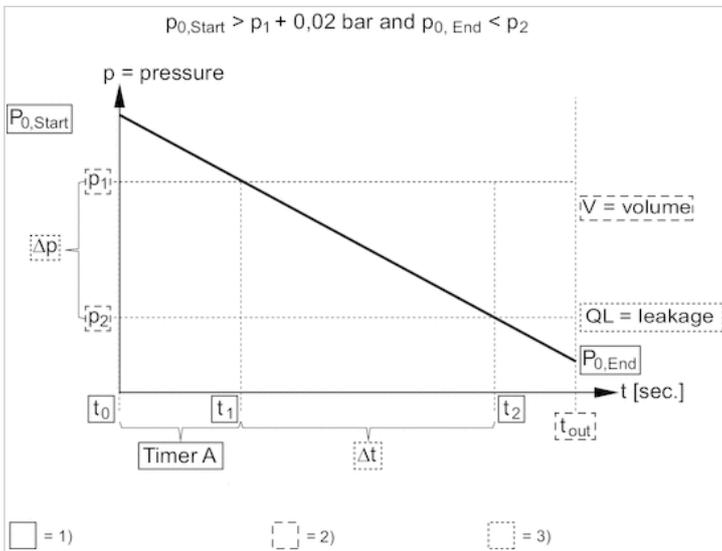
3) Period of pressure under the resetting point  $> dR$ : pressure sensor switches

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



FH: pressure band, upper value  
 FL: pressure band, lower value  
 Out (NC): switch output, break contact  
 Out (NO): switch output, make contact

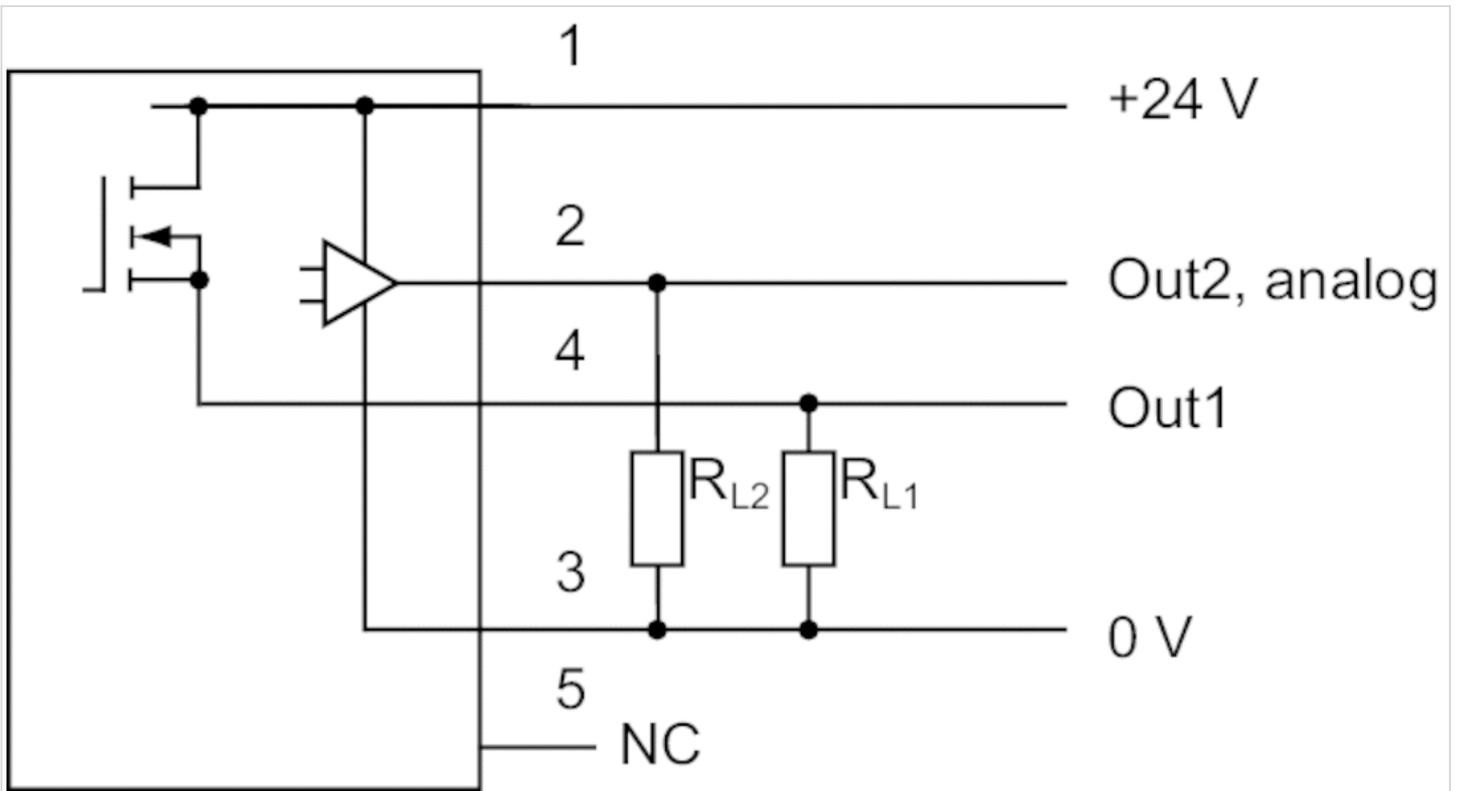
Leakage characteristic



- 1) Internally stored parameter
- 2) Adjustable parameter
- 3) Output value

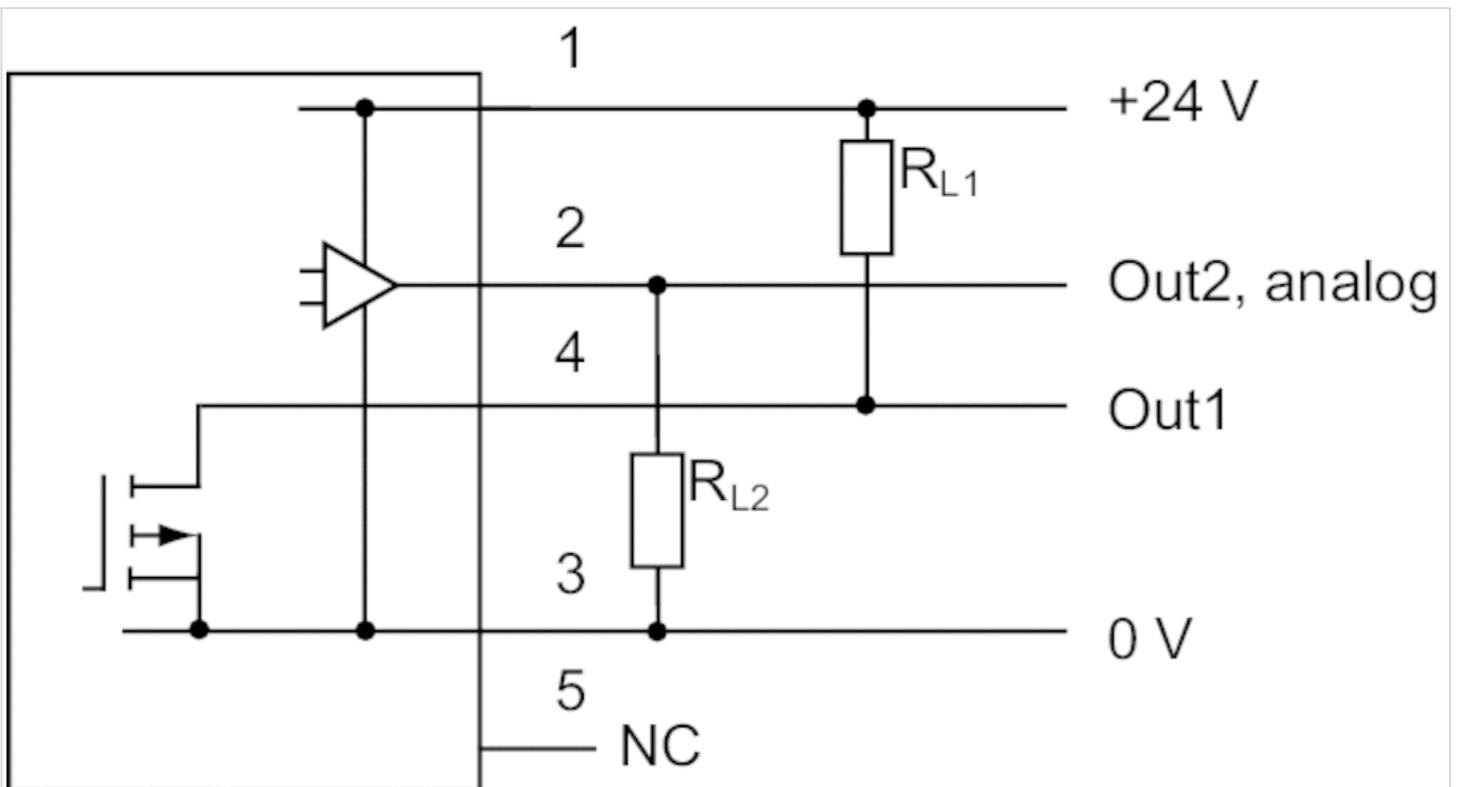
Circuit diagram

Block diagram, 1x PNP and 1x analog



RL = storable position

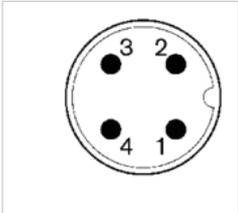
Block diagram, 1x NPN and 1x analog



RL = storable position

## Pin assignments

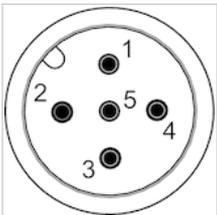
### Pin assignments, M12x1, 4-pin



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

## Pin assignments

### Pin assignments, M12x1, 5-pin



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

# Pressure sensor, Series PE2

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



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

## Technical data

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

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

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

## Technical information

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

## Technical information

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

## Dimensions

Fig. 1

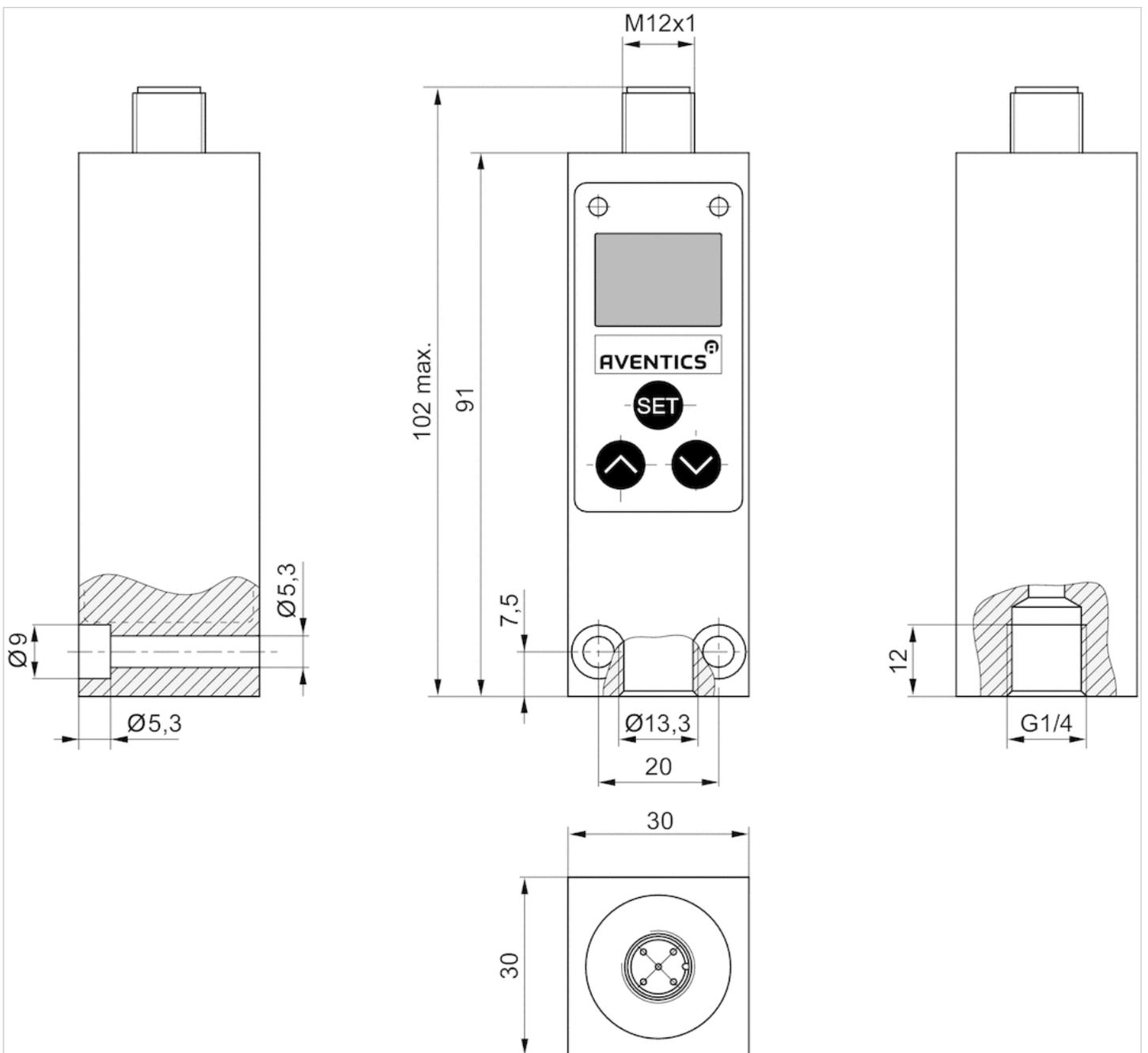
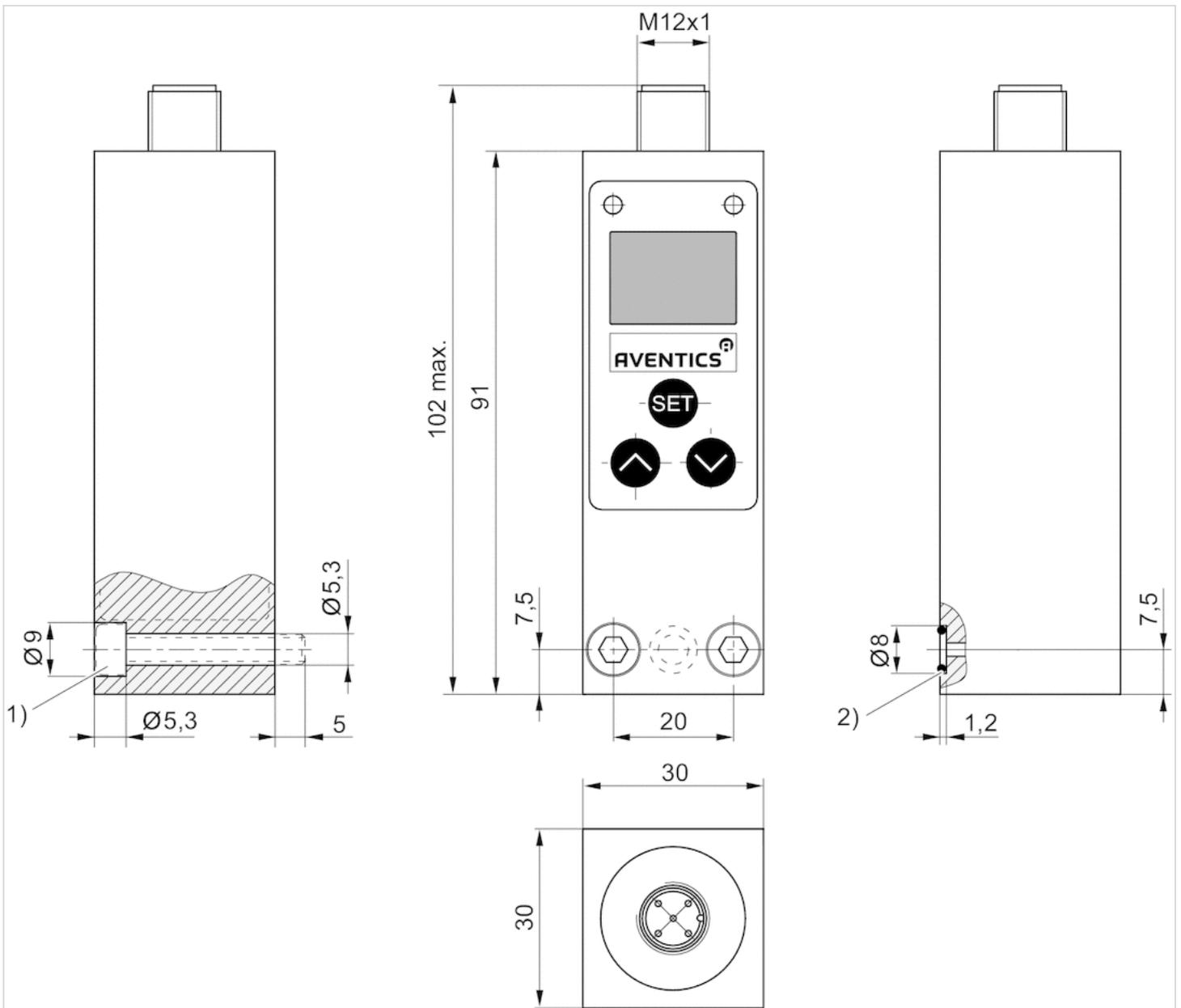
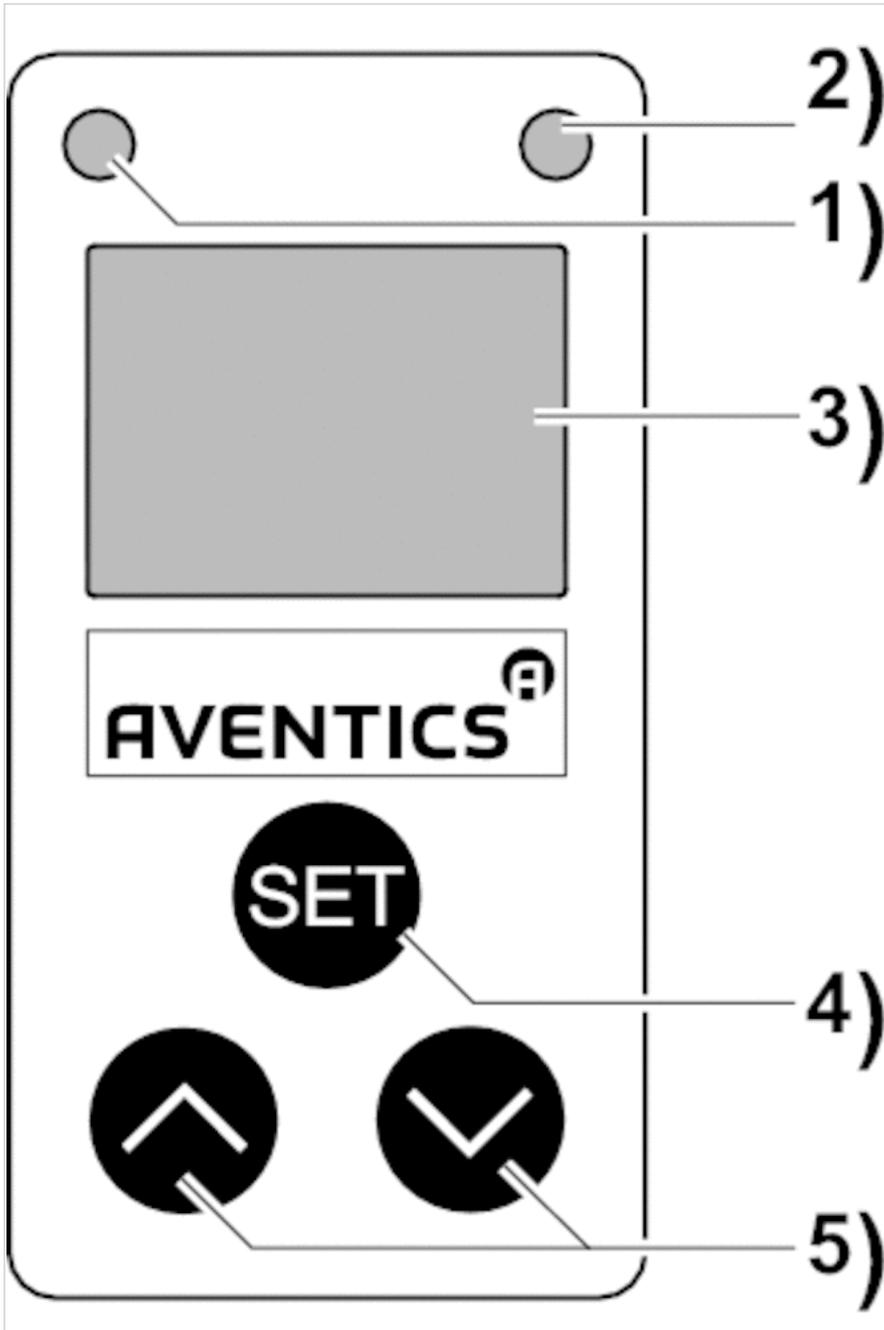


Fig. 2



- 1) cylinder screw M5x35 (included in scope of delivery)
- 2) O-ring  $\varnothing 5 \times 1,5$  (included)

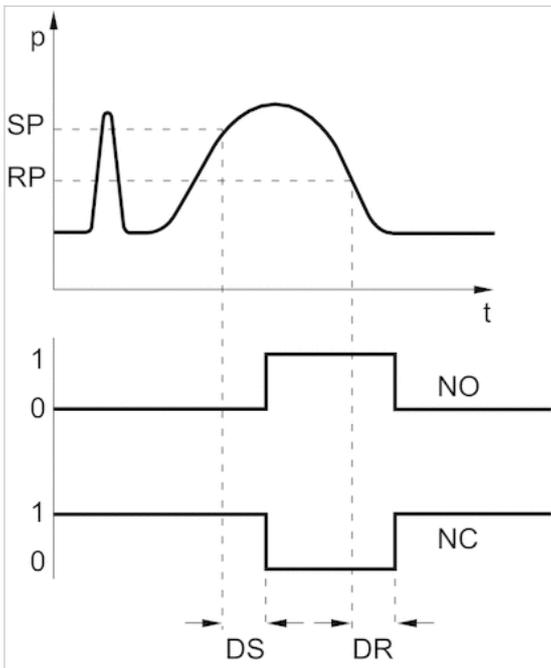
Display and operation area



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

## Diagrams

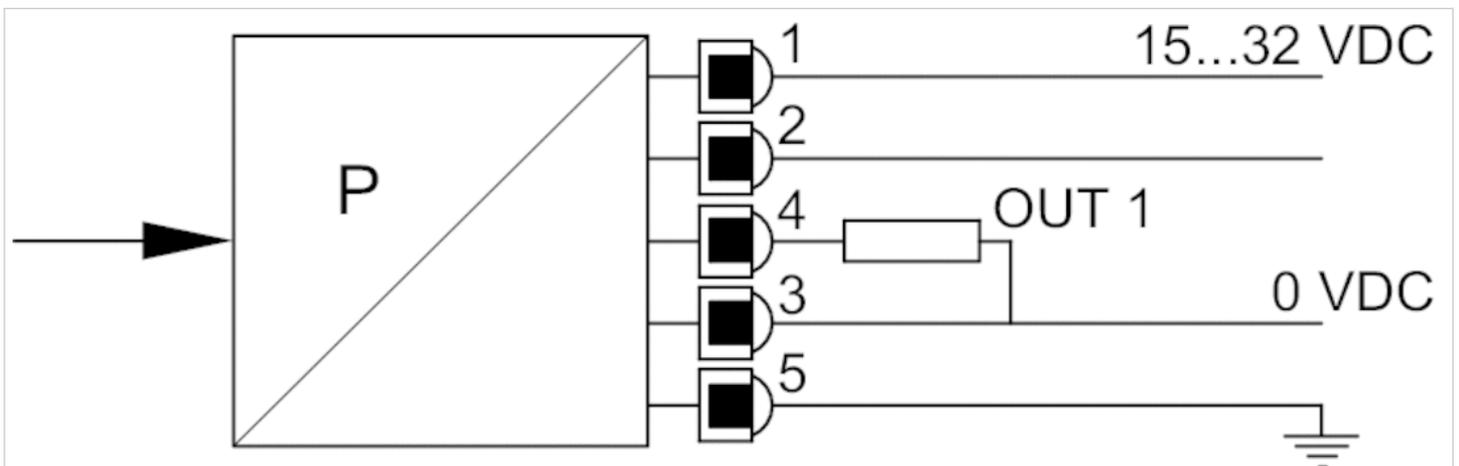
### Pressure-voltage characteristics curve



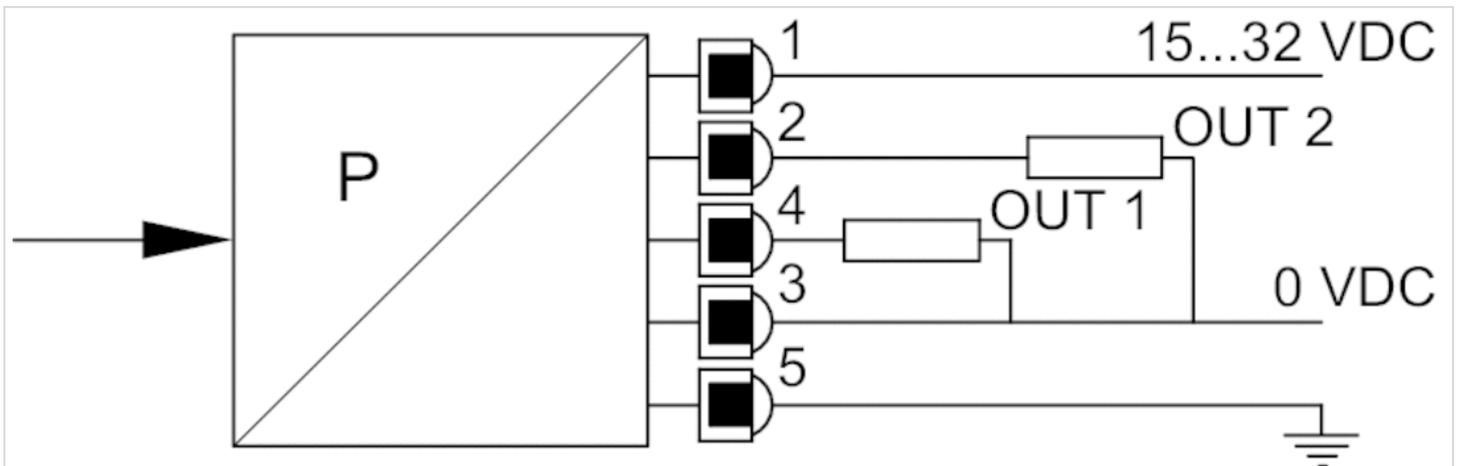
- SP = switching point
- RP = resetting point
- NO = Switching function open
- NC = Switching function closed without current
- DS = Delay for the switching point
- DR = Delay for the resetting point

## Circuit diagram

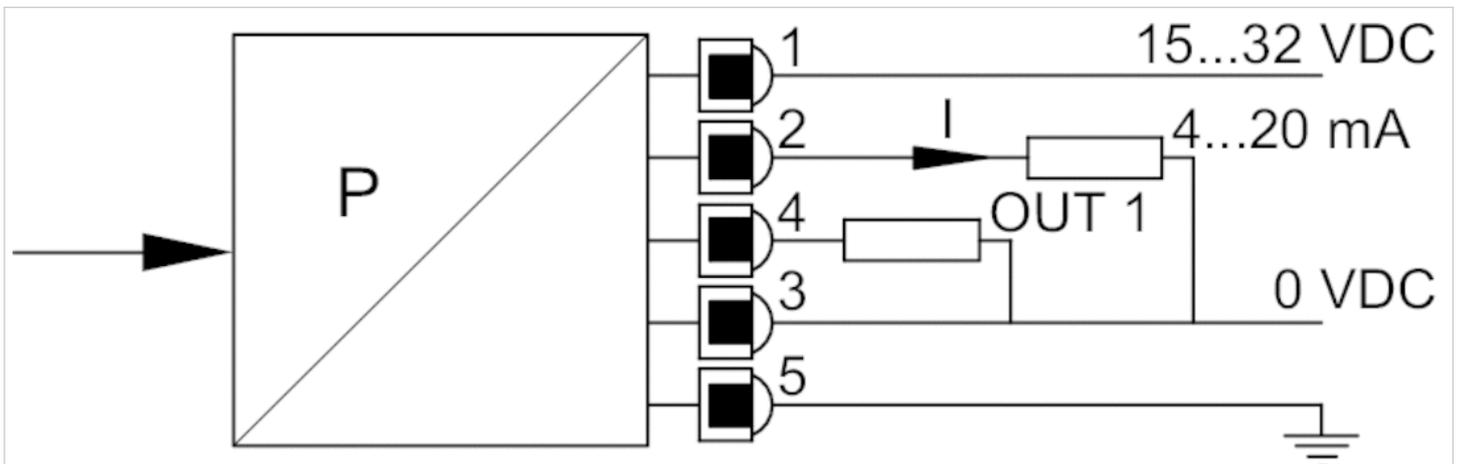
### Block diagram, 1 x PNP



Block diagram, 2 x PNP

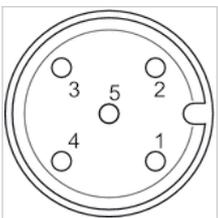


Block diagram, 1x PNP and 1x analog



Pin assignments

Pin assignments



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

# Pressure Switches, Series PM1

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



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

## Technical data

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

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

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

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

## Technical information

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

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

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

The microswitch has silver-plated contacts.

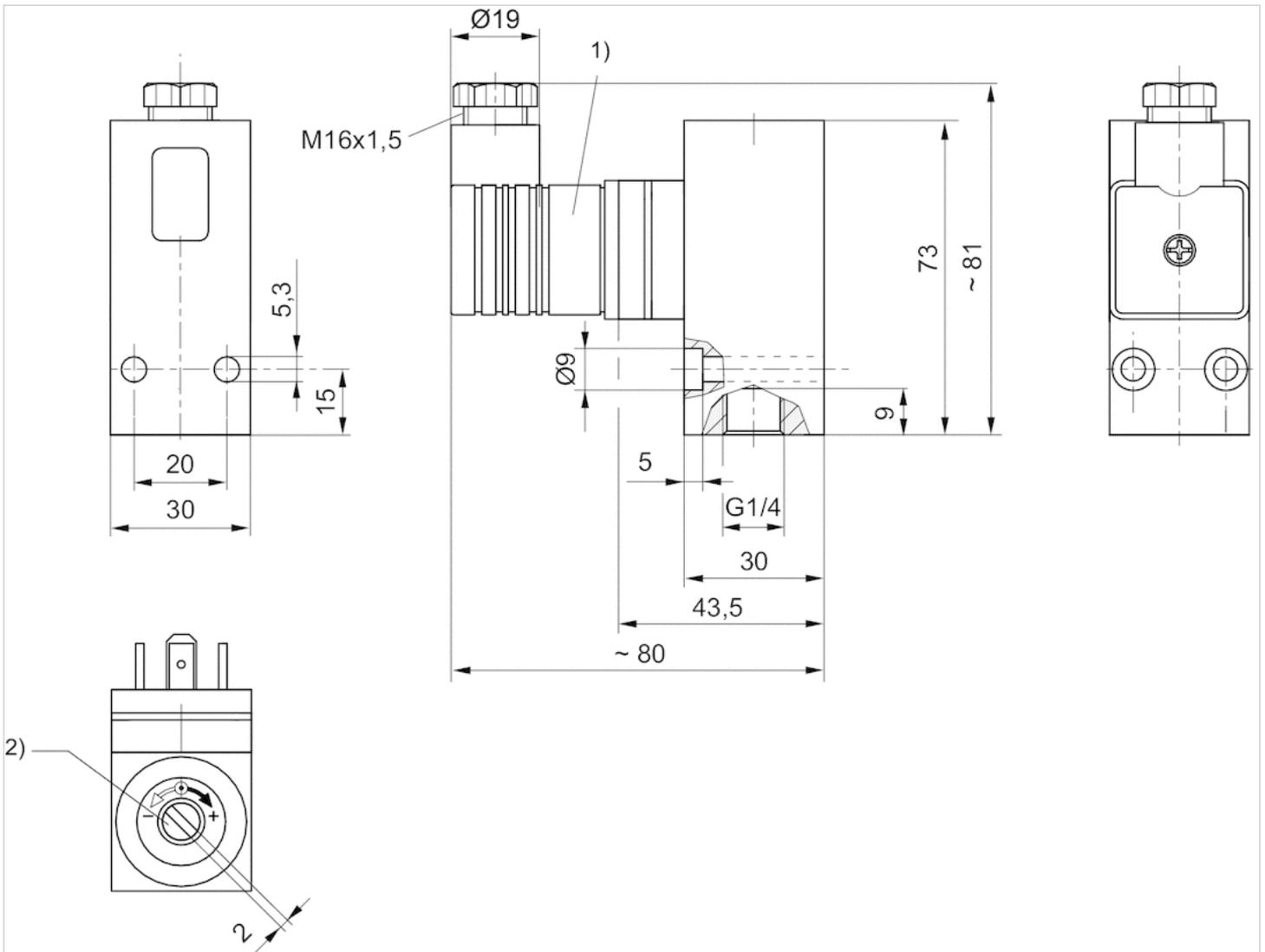
Please observe the pin assignment when selecting plug connectors.

## Technical information

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

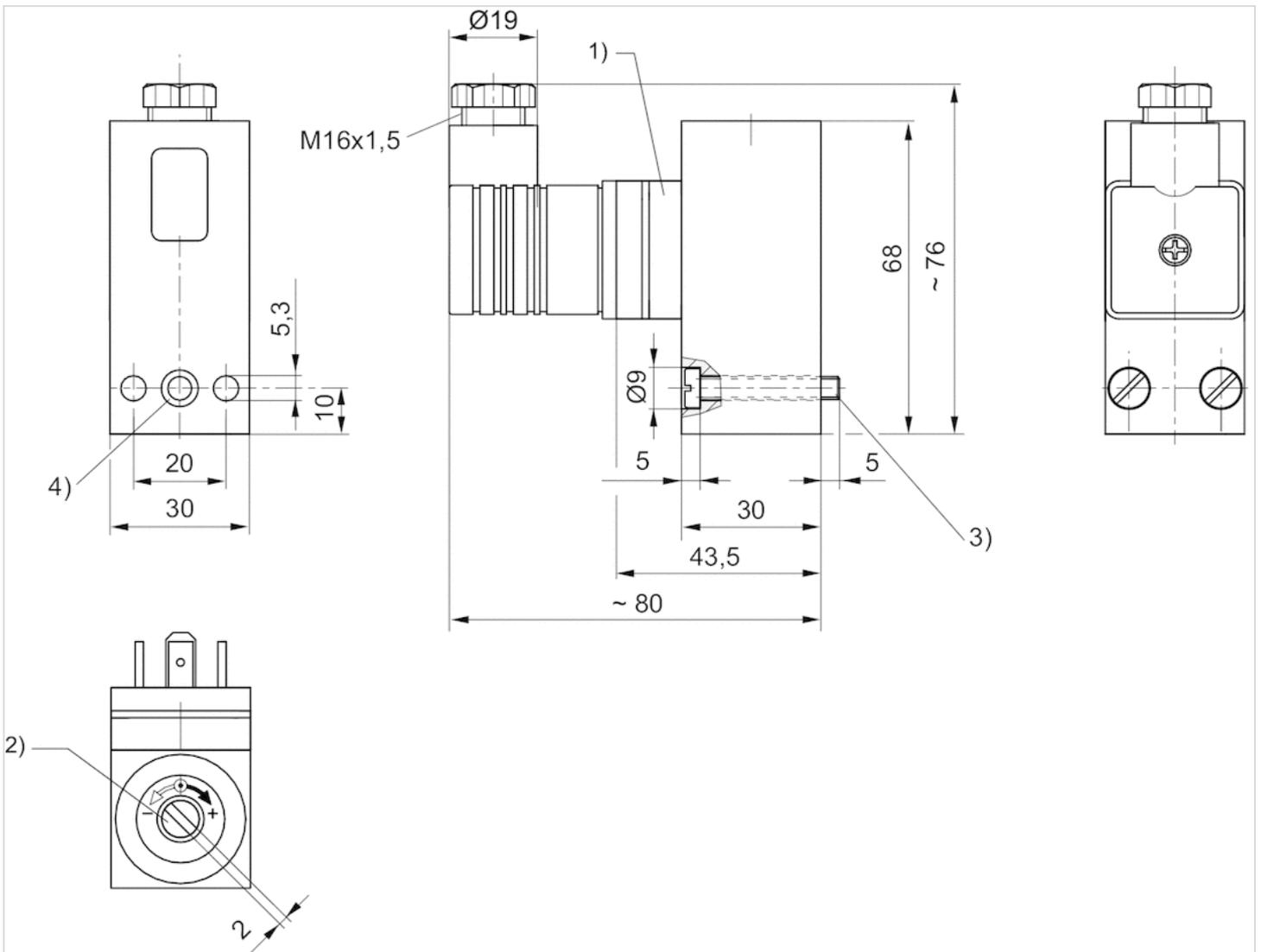
## Dimensions

Fig. 1



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

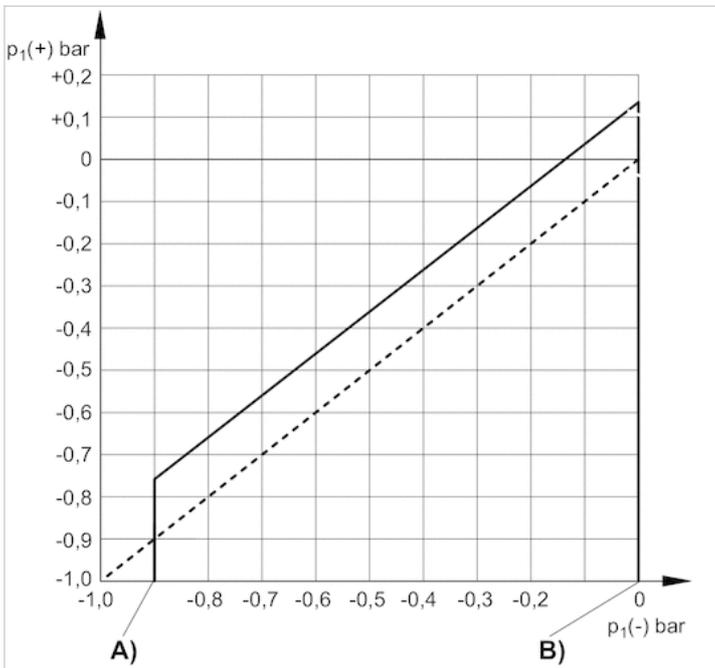
Fig. 2



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

## Diagrams

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



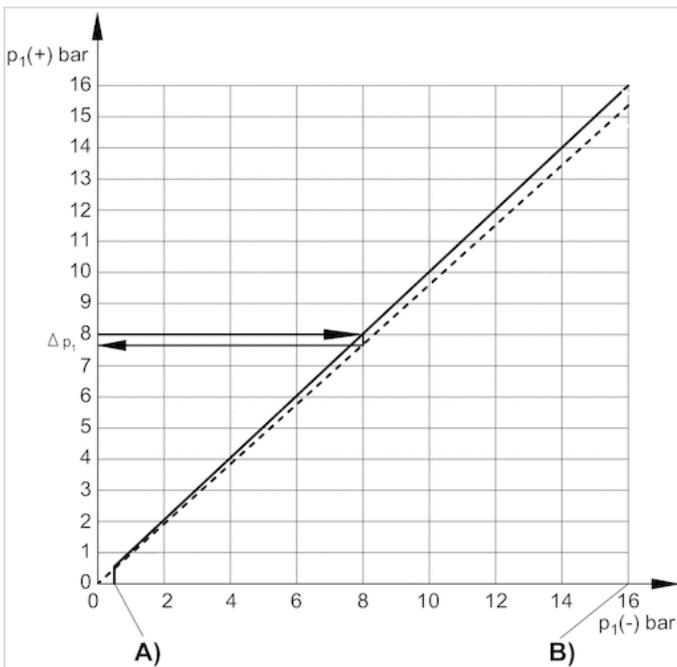
A)  $p_1(-)$ , min.

B)  $p_1(-)$ , max.

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

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

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



A)  $p_1(-)$ , min.

B)  $p_1(-)$ , max.

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

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

$\Delta p_1$  = max. operating pressure difference or hysteresis

Example:

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

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

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

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

- 1) AC
- 2) DC

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

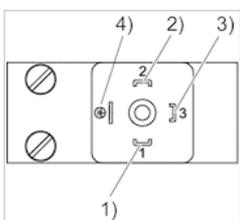
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	–

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

- 1) AC
- 2) DC
- 3)  $\cos \approx 0,7^\circ$
- 4)  $L/R \approx 10 \text{ ms}$

## Pin assignments

PIN assignment for valve plug connectors



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

# Pressure Switches, Series PM1

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



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

## Technical data

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

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

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

## Technical information

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

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

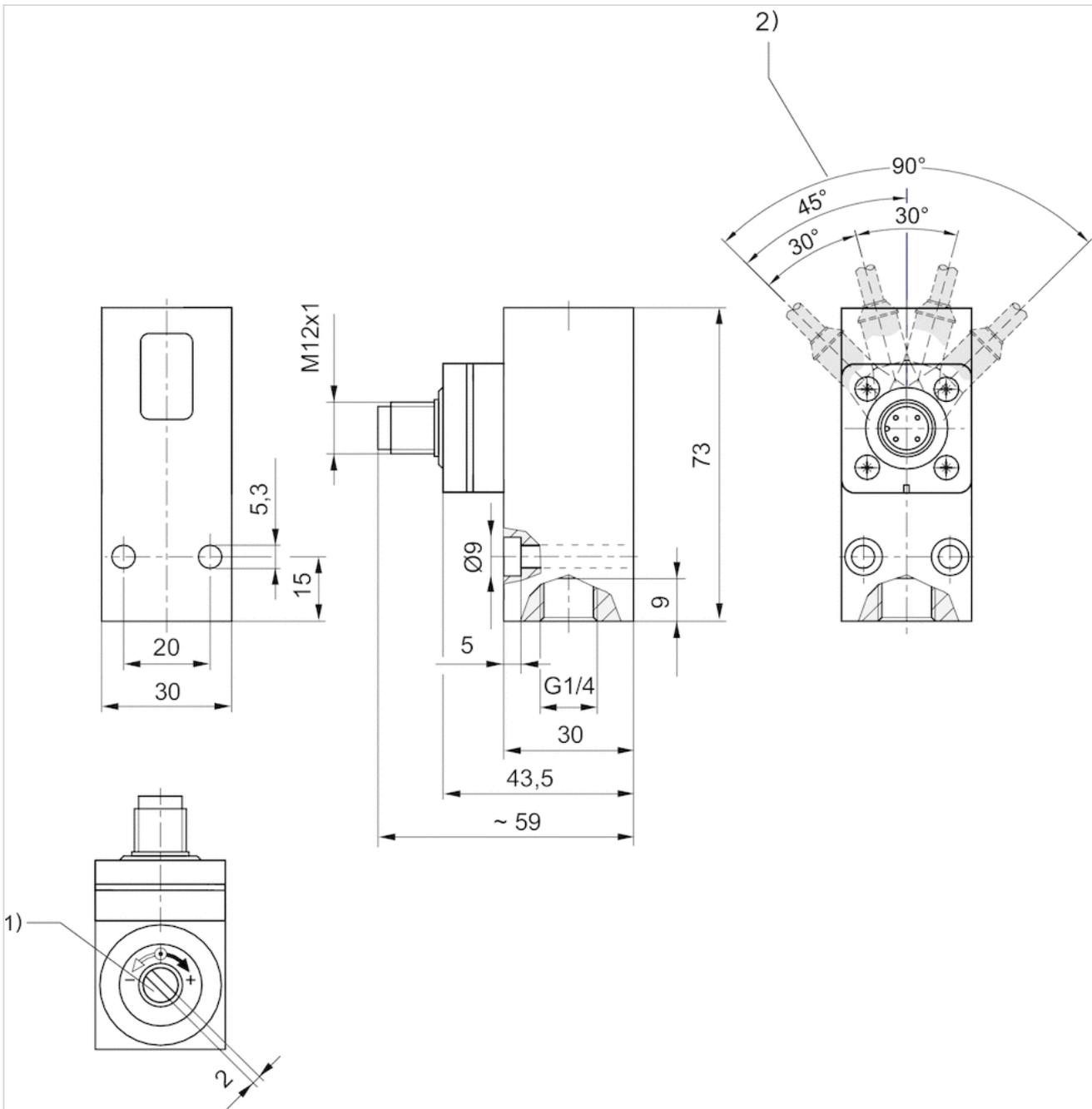
Notice: Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!  
The microswitch has silver-plated contacts.

## Technical information

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

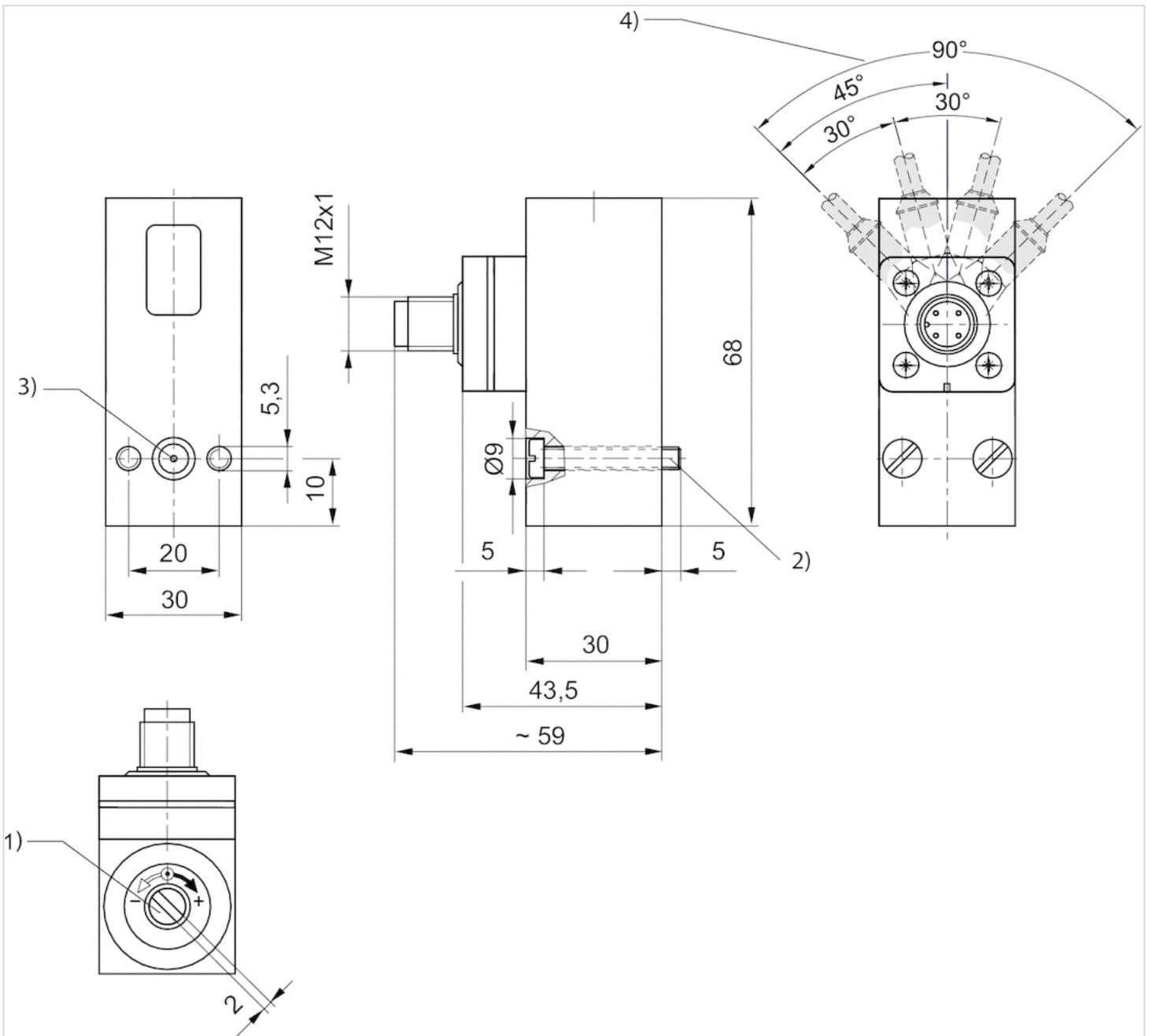
# Dimensions

Fig. 1



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

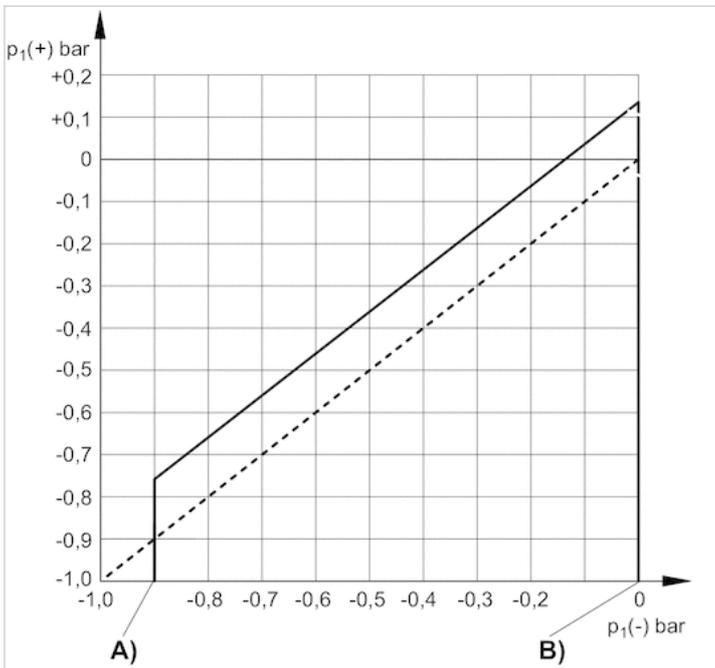
Fig. 2



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

## Diagrams

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



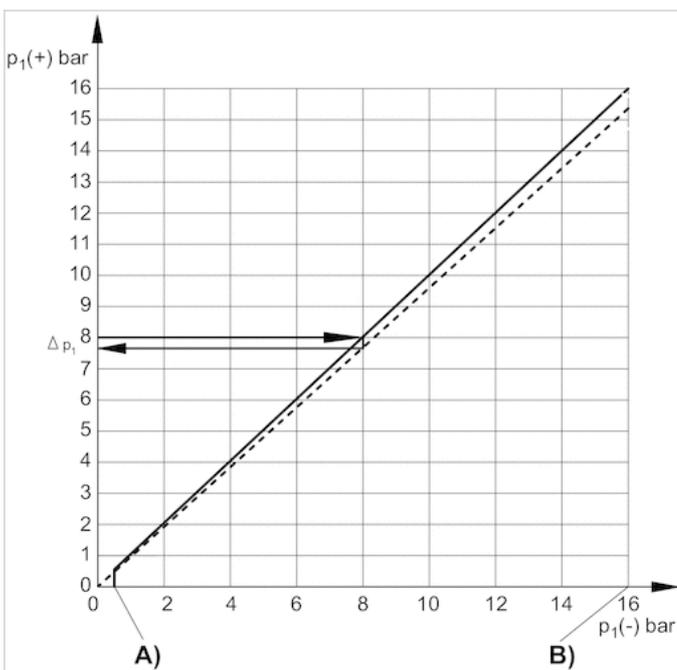
A)  $p_1(-)$ , min.

B)  $p_1(-)$ , max.

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

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

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



A)  $p_1(-)$ , min.

B)  $p_1(-)$ , max.

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

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

$\Delta p_1$  = max. operating pressure difference or hysteresis

Example:

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

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

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

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

- 1) AC
- 2) DC

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

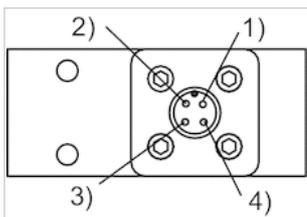
U [V]	I [A] 1) 3)	I [A] 2) 4)
30-250	3A	
30 / 48 / 60 / 125		2 / 0,55 / 0,4 / 0,2

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

- 1) AC
- 2) DC
- 3)  $\cos \approx 0,7^\circ$
- 4)  $L/R \approx 10 \text{ ms}$

Pin assignments

Pin assignments



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

## QR1-S-RPN standard series

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



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	0 ... 60 °C
Weight per piece	See table below

### Technical data

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

### Technical information

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

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

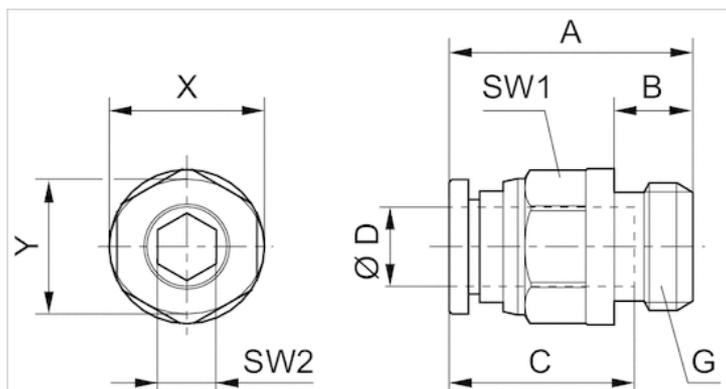
### Technical information

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

Material	
Thread	Brass, nickel-plated

## Dimensions

### Dimensions



## Dimensions

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

## QR1-S-RVT standard series

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



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	0 ... 60 °C
Weight per piece	See table below

### Technical data

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

### Technical information

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

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

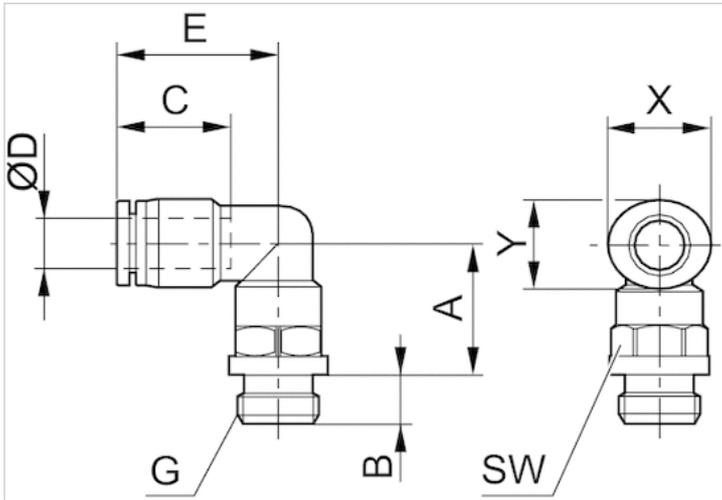
### Technical information

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

Material	
Thread	Brass, nickel-plated

## Dimensions

### Dimensions



### Dimensions

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

## Series QR2-S-RPN standard

- Straight fitting
- External thread
- G 1/2
- push-in fitting
- Ø 12 Ø 14 Ø16
- QR2-S-RPN



Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-20 ... 80 °C
Weight per piece	See table below

### Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece	Fig.
1823373054	G 1/2	Ø 12	5 piece	0.048 kg	Fig. 1
1823373055	G 1/2	Ø 14	5 piece	0.064 kg	Fig. 1
R412007955	G 1/2	Ø16	1 piece	0.072 kg	Fig. 1

### Technical information

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

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

### Technical information

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

## Dimensions

Fig. 1

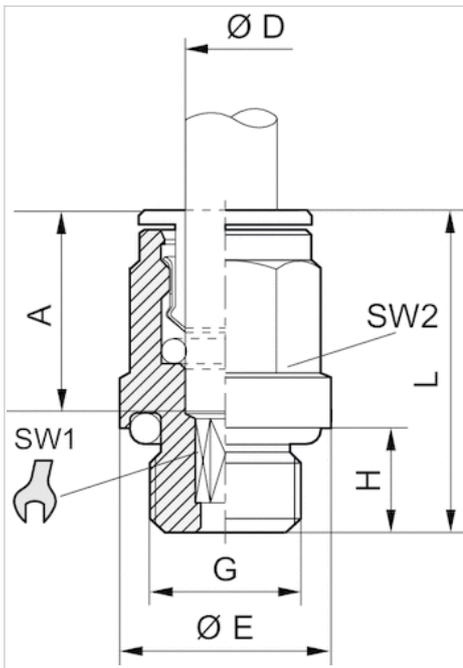
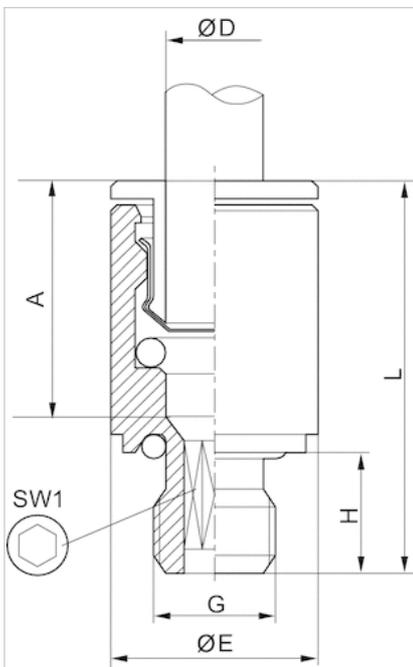


Fig. 2



## Dimensions

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

# Series QR2-S-RVT standard

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



Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-20 ... 80 °C
Weight per piece	See table below

## Technical data

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

## Technical information

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

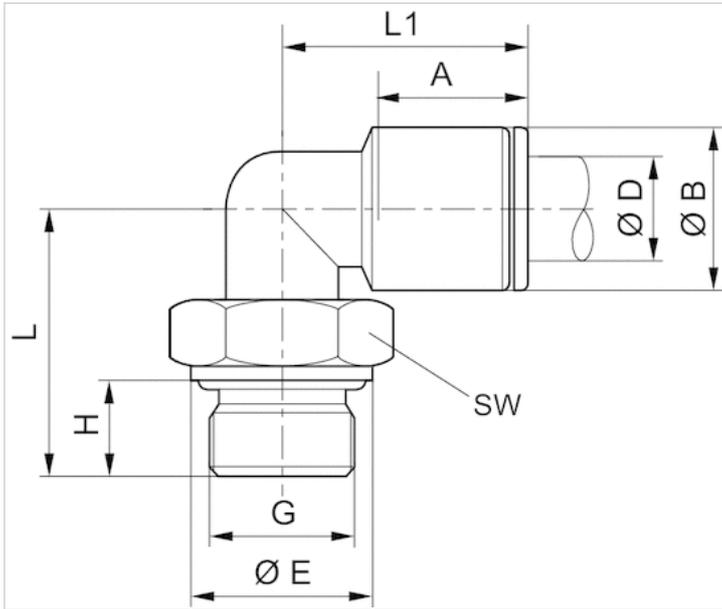
Thread seal with captive O-ring

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

## Technical information

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

## Dimensions



## Dimensions

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

## Series NU2

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



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-10 ... 60 °C
Weight per piece	See table below

### Technical data

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

### Technical information

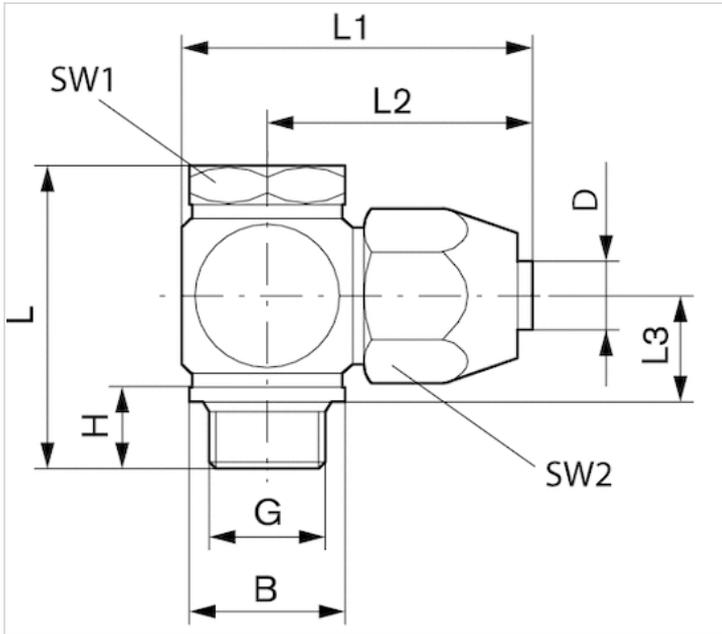
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

### Technical information

Material	
Housing	Aluminum, anodized
Seal	Polyvinyl chloride

## Dimensions

### Dimensions



for fabric-reinforced plastic tubing

## Dimensions

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

Connection D = inside diameter of the tubing to be used

# Double nipple, Series PE5

- External thread



Weight per piece

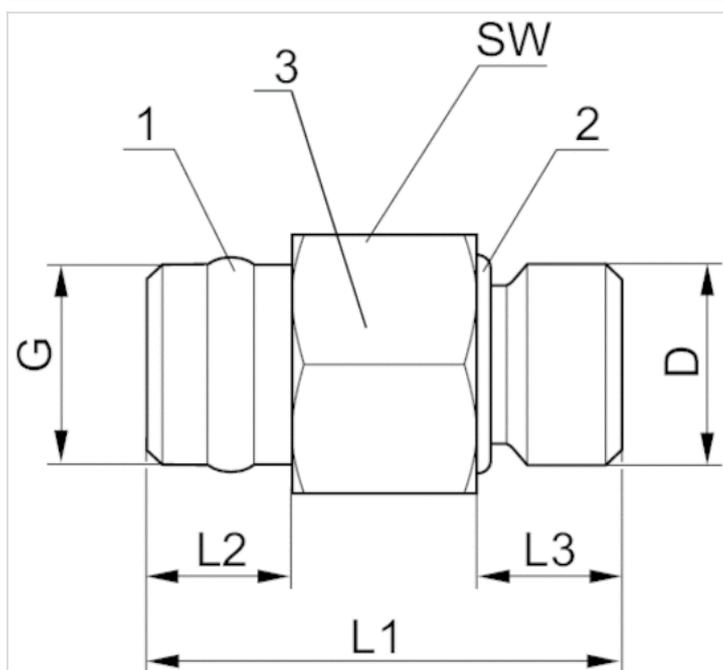
0.04 kg

## Technical data

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

## Dimensions

### Dimensions



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

## Dimensions

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

# Blanking screw

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



Working pressure min./max.

0 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

## Technical data

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

## Technical information

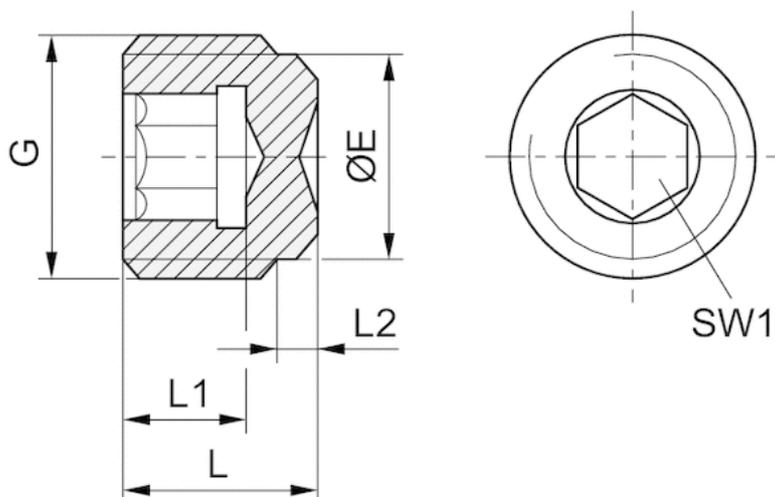
Material

Material

Brass

## Dimensions

### Dimensions



## Dimensions in mm

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

# plugs



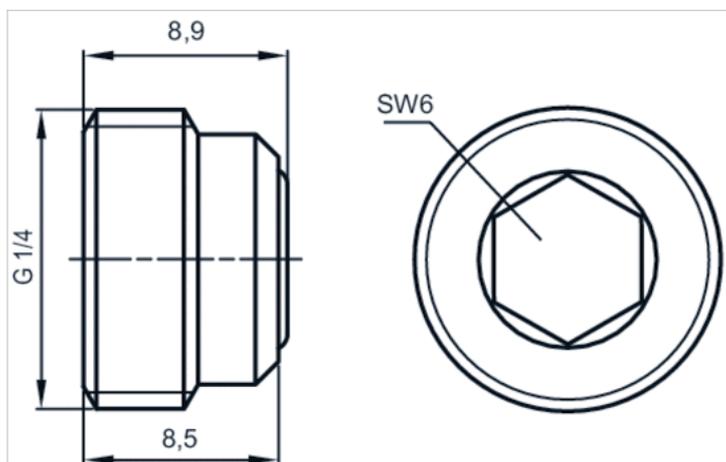
## Technical data

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

## Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

## Dimensions



# Reducing nipple

- External thread
- G 1/2 G 3/4 G 1
- Internal thread
- G 1/4 G 3/8 G 1/2
- FPT-S-RDZ



Working pressure min./max.

0 ... 60 bar

Ambient temperature min./max.

-20 ... 70 °C

## Technical data

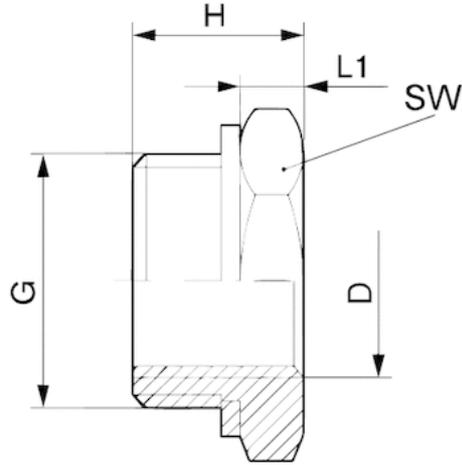
Part No.	Port G	Port D	Delivery unit
1823391300	G 1/2	G 1/4	5 piece
1823391014	G 1/2	G 3/8	5 piece
1823391028	G 3/4	G 1/2	5 piece
1823391304	G 1	G 1/2	2 piece

## Technical information

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

## Dimensions

### Dimensions



## Dimensions

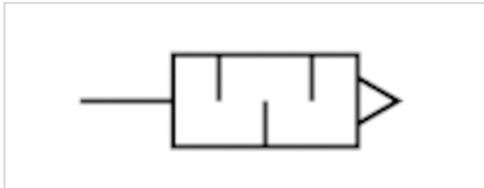
Part No.	Port D	Port G	H	L1	SW
1823391300	G 1/4	G 1/2	15.5	5.5	24
1823391014	G 3/8	G 1/2	15.5	5.5	24
1823391028	G 1/2	G 3/4	19	7	32
1823391304	G 1/2	G 1	23	8	41

# Silencers, series SI1

- G 1/2
- Sintered bronze



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



## Technical data

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

Weight per piece

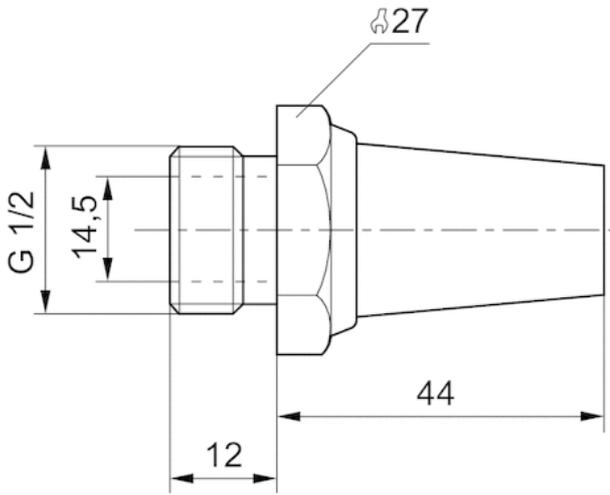
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

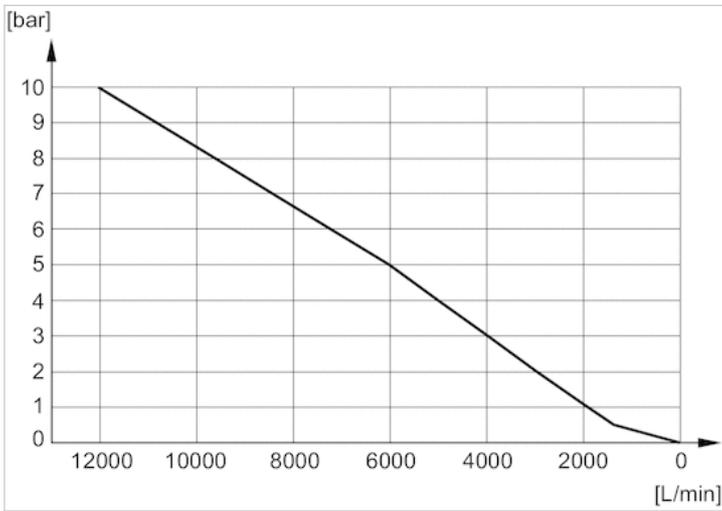
## Dimensions

### Dimensions in mm



## Diagrams

### Flow diagram, 1827000003

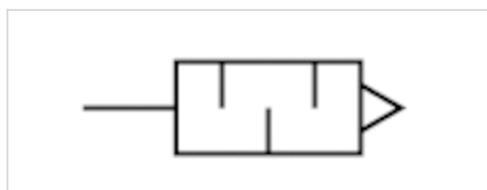


# Silencers, series SI1

- G 1/2
- Stainless steel



Working pressure min./max.	0 ... 12 bar
Ambient temperature min./max.	-20 ... 150 °C
Medium	Compressed air
Sound pressure level	95 dB
Weight	0.048 kg
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
R412010084	G 1/2	5649 l/min	1 piece

Weight per piece

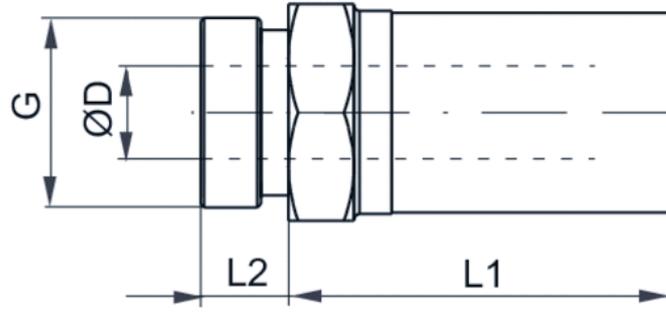
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Stainless steel
Thread	Stainless steel

## Dimensions

### Dimensions

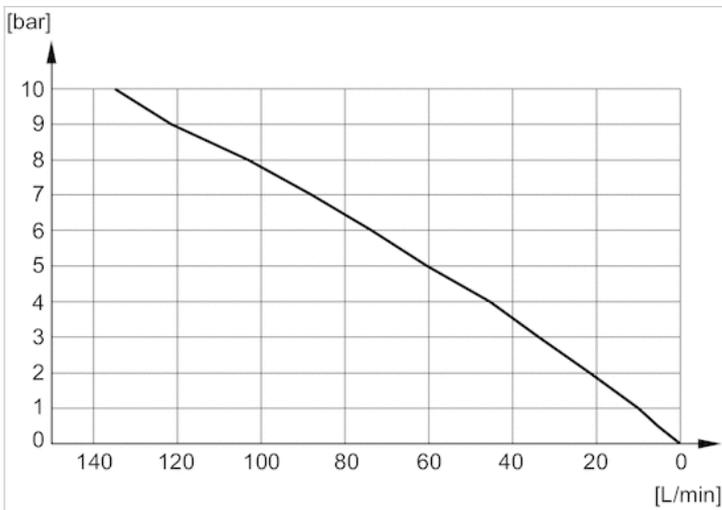


## Dimensions

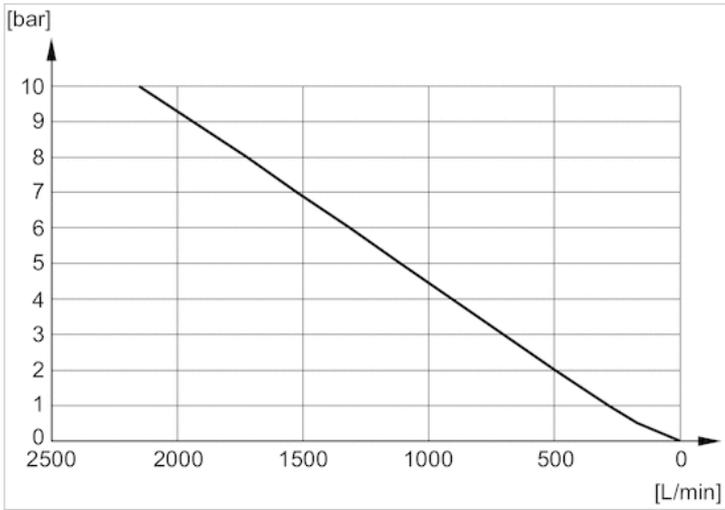
Part No.	Port G	SW	Ø D	L1	L2
R412010084	G 1/2	24	15.3	39.5	9.5

## Diagrams

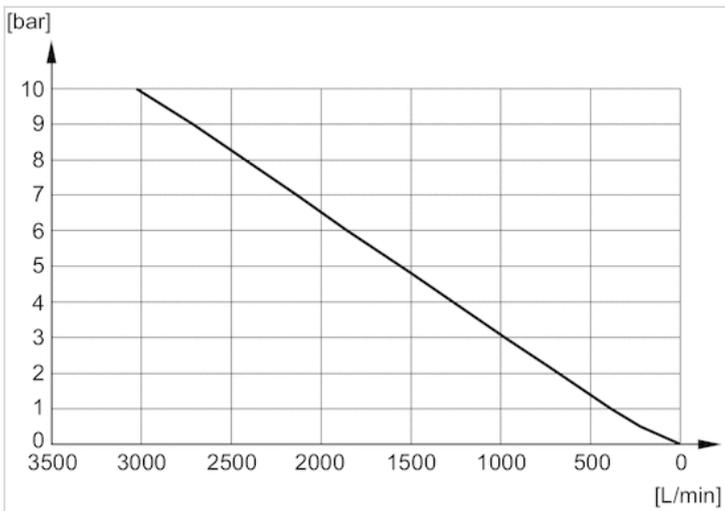
### Flow diagram, R412010090



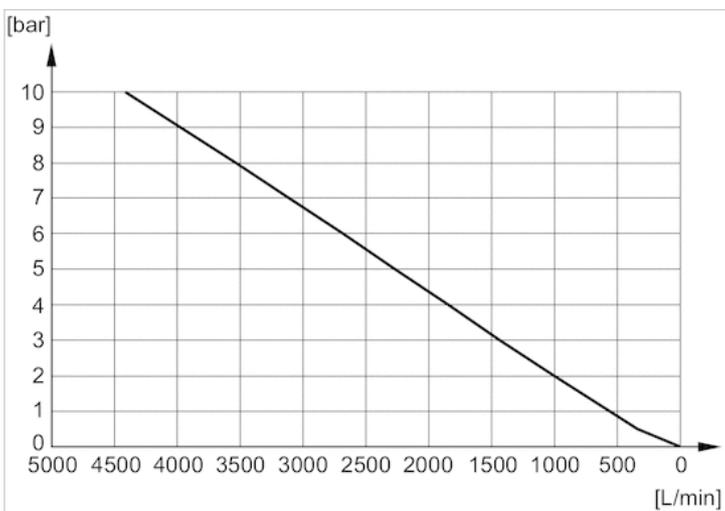
Flow diagram, R412010081



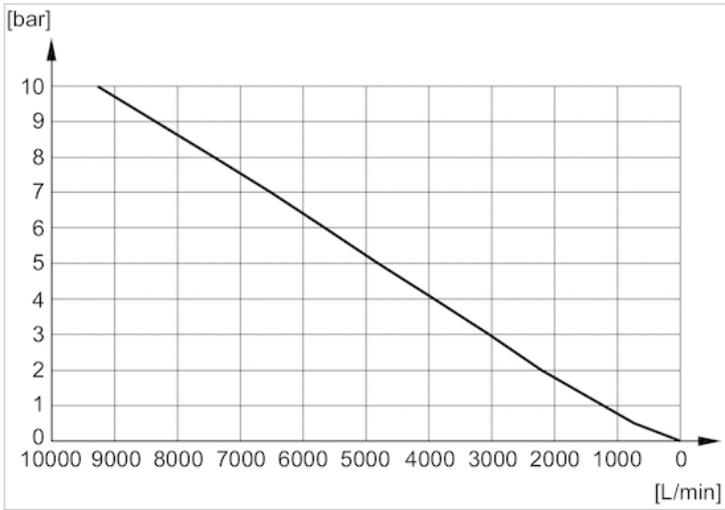
Flow diagram, R412010082



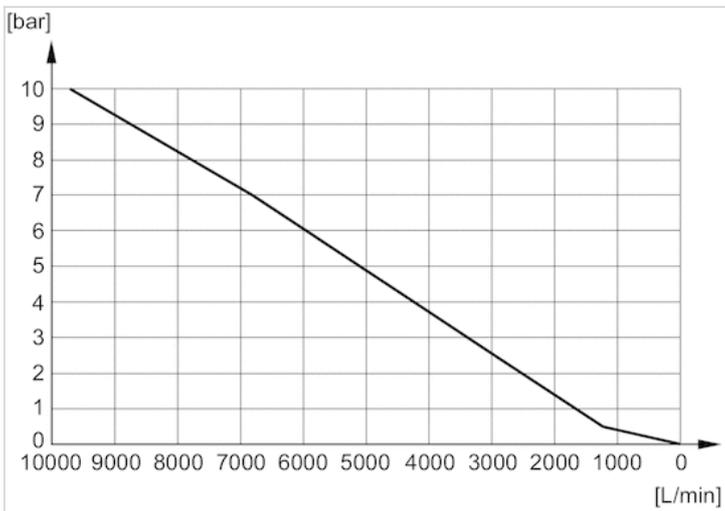
Flow diagram, R412010083



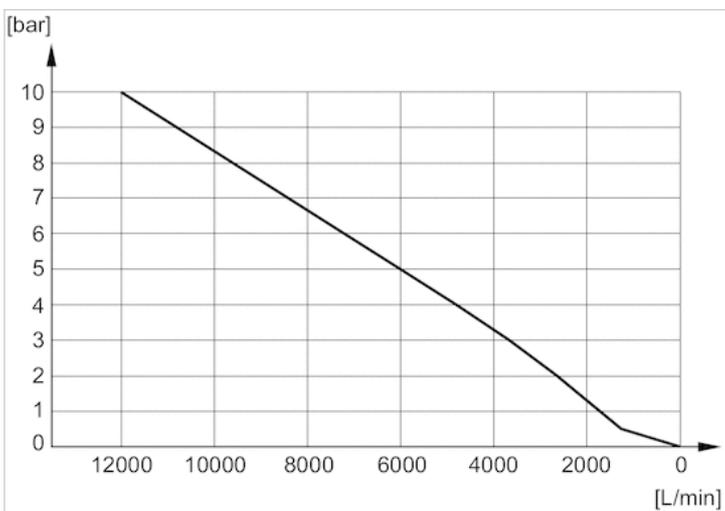
Flow diagram, R412010084



Flow diagram, R412010085



Flow diagram, R412010086



# Silencers, series SI1

- G 1/2

- Sintered bronze



Working pressure min./max.

0 ... 10 bar

Ambient temperature min./max.

-25 ... 80 °C

Medium

Compressed air

Sound pressure level

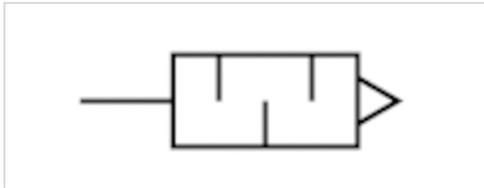
85 dB

Weight

0.035 kg

Comment

Flow characteristic curves can be found under "Diagrams".



## Technical data

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

Weight per piece

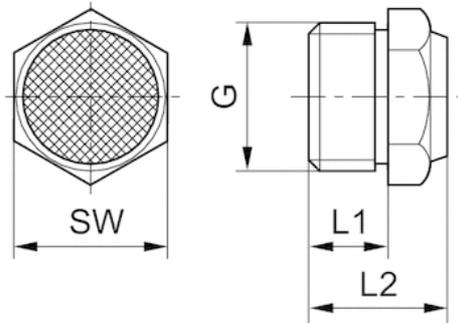
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

## Dimensions

### Dimensions



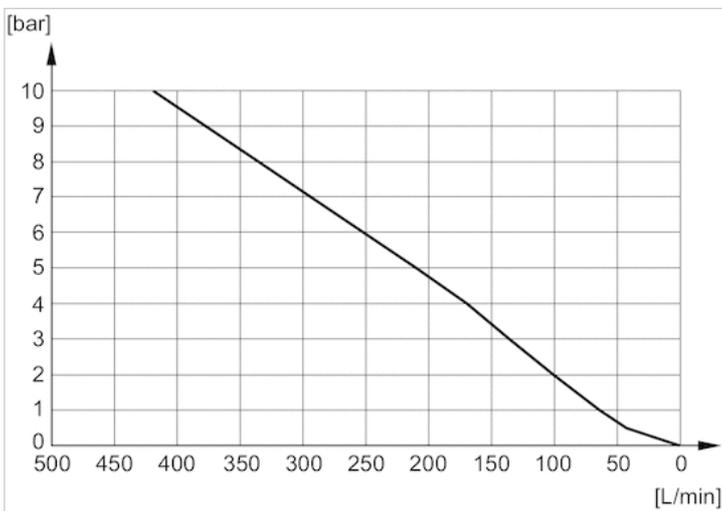
## Dimensions

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

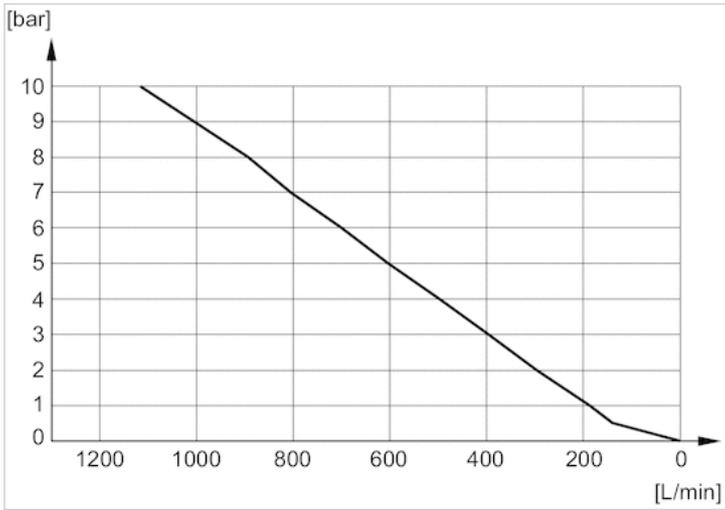
Sound pressure level measured at 6 bar at 1 m distance

## Diagrams

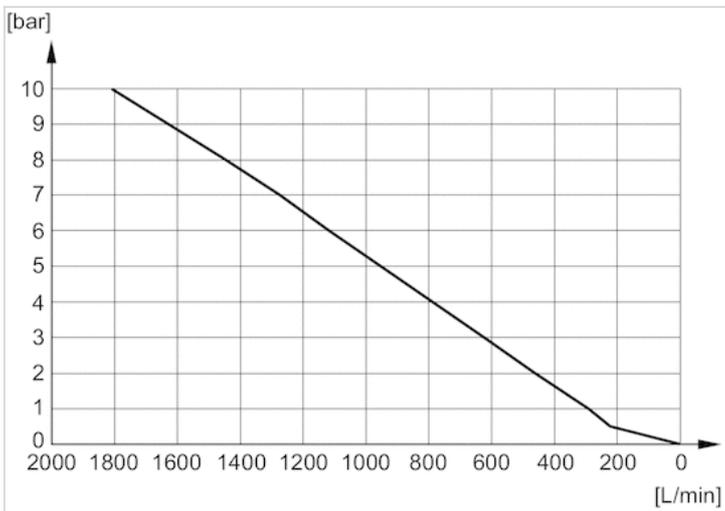
### Flow diagram, 1827000032



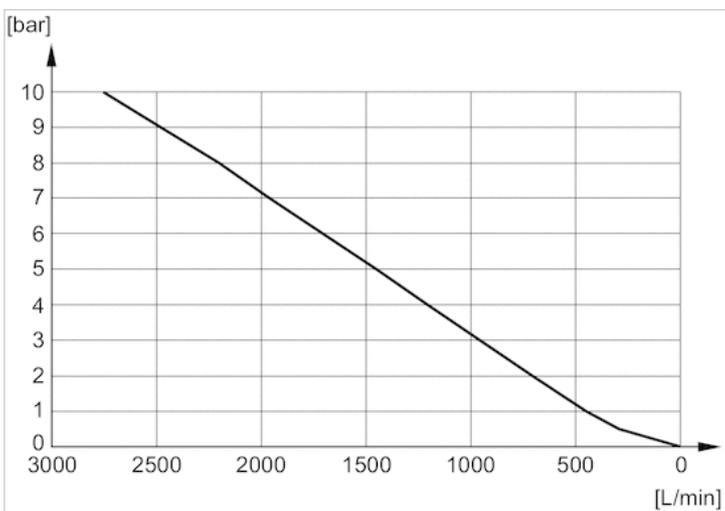
Flow diagram, 1827000031



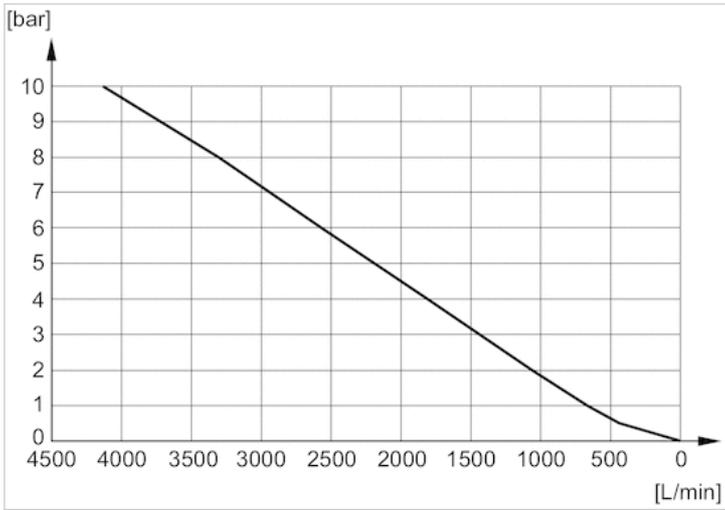
Flow diagram, 1827000033



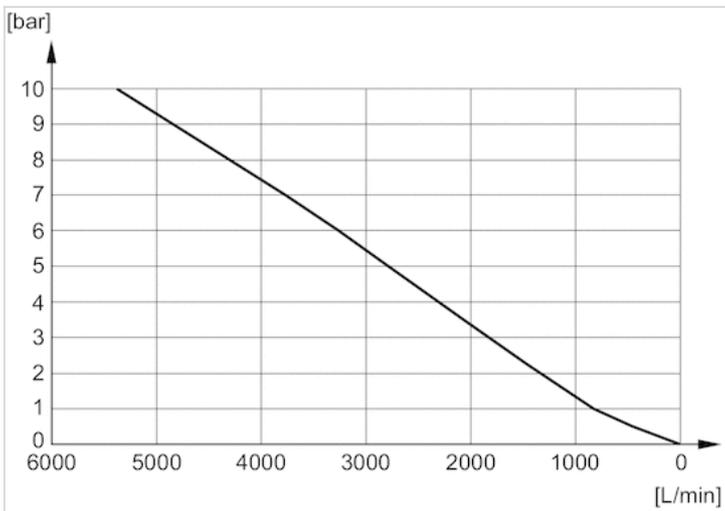
Flow diagram, 1827000034



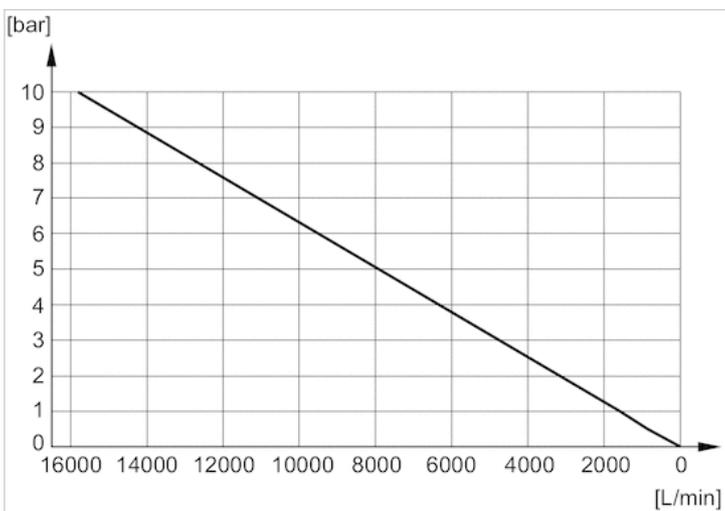
Flow diagram, 1827000035



Flow diagram, 8145003400



Flow diagram, 8145001000

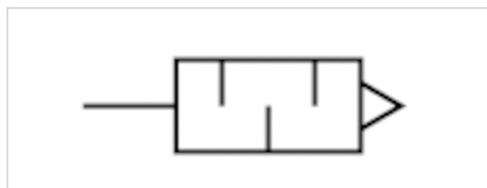


# Silencers, series SI1

- G 1/2
- Polyethylene



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



## Technical data

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

Weight per piece

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

## Technical information

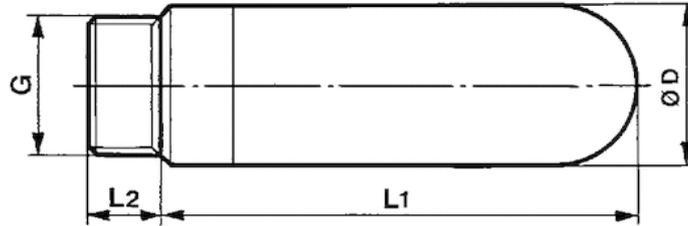
Flow characteristic curves can be found under "Diagrams".

## Technical information

Material	
Silencer	Polyethylene
Thread	Polyethylene

## Dimensions

### Dimensions

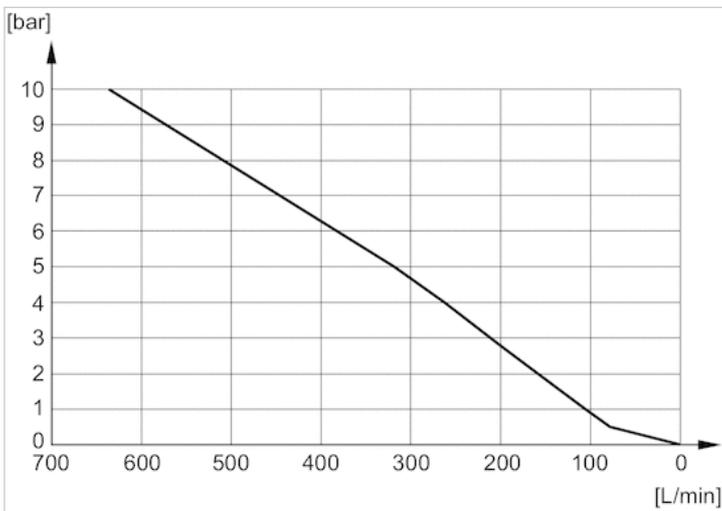


## Dimensions

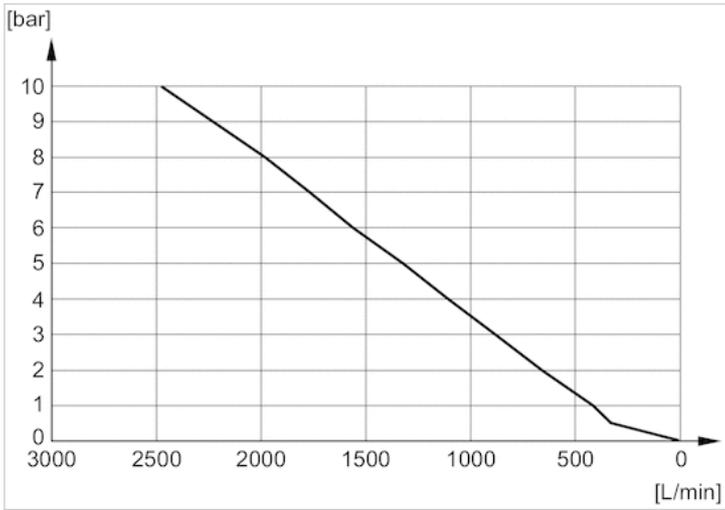
Part No.	Port G	$\varnothing D$	L1	L2
1827000022	G 1/2	23.3	66.5	11

## Diagrams

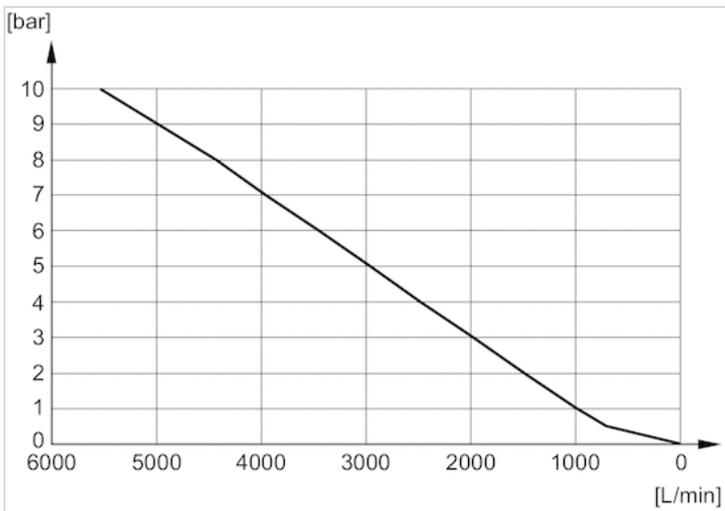
### Flow diagram, 1827000018



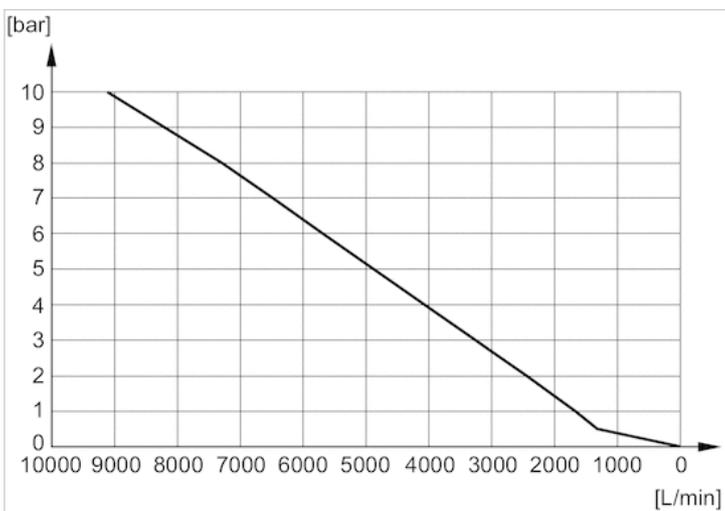
Flow diagram, 1827000019



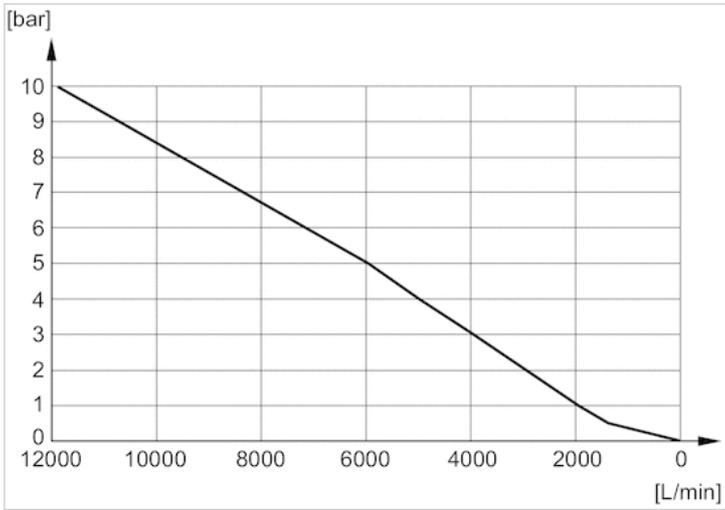
Flow diagram, 1827000020



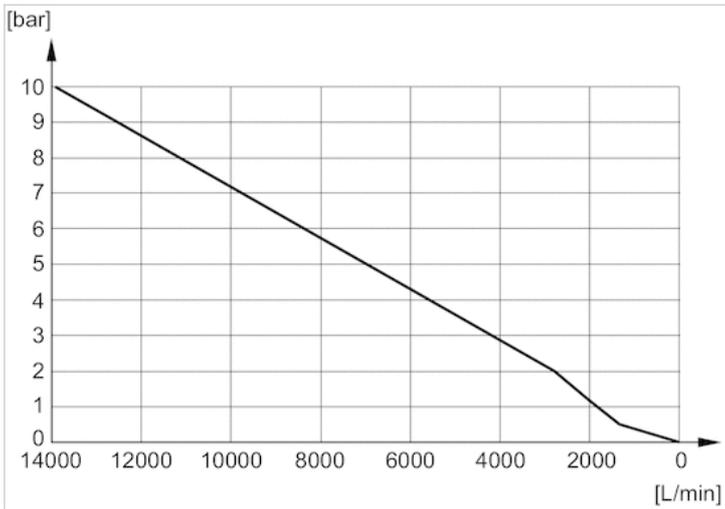
Flow diagram, 1827000021



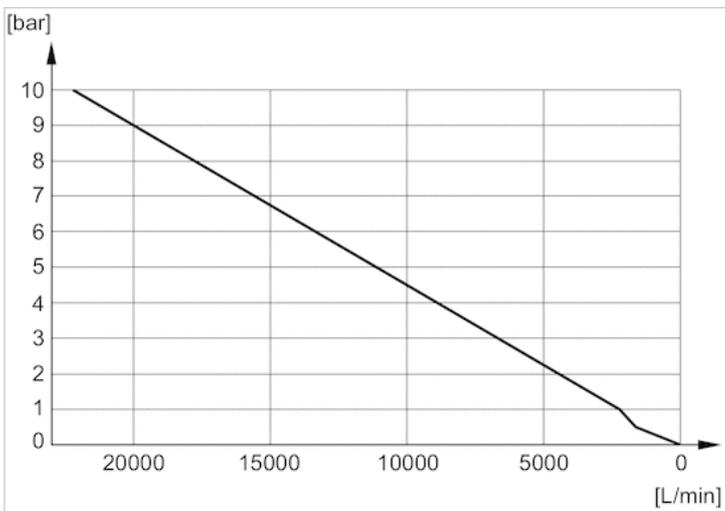
Flow diagram, 1827000022



Flow diagram, 1827000023



Flow diagram, 1827000024



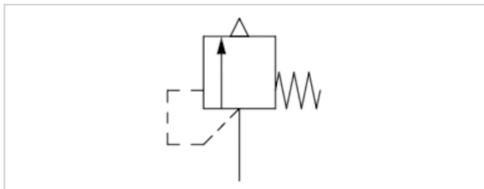
# Series RV1

- Qn 1►2 = 1115-16037 l/min
- thread-in
- External thread
- G 1/2
- Uncollected



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

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



## Technical data

Part No.	Port 1	Opening pressure of valve	Flow
			Qn 1►2
R412007542	G 1/2	0.4 bar	1115 l/min
R412007720	G 1/2	2.9 bar	3613 l/min
R412007690	G 1/2	3.5 bar	4182 l/min
R412007691	G 1/2	4 bar	4656 l/min
R412007692	G 1/2	5 bar	5604 l/min
R412007699	G 1/2	5.5 bar	6142 l/min
R412007696	G 1/2	6 bar	6553 l/min
R412007702	G 1/2	6.5 bar	7101 l/min
R412007698	G 1/2	7 bar	7501 l/min
R412007697	G 1/2	8 bar	8449 l/min
R412007693	G 1/2	8.5 bar	9018 l/min
R412007694	G 1/2	9 bar	9398 l/min
R412007700	G 1/2	10 bar	10346 l/min
R412007701	G 1/2	10.5 bar	10934 l/min
R412007695	G 1/2	11 bar	11295 l/min
R412007703	G 1/2	12 bar	12243 l/min
R412007543	G 1/2	16 bar	16037 l/min

## Technical information

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

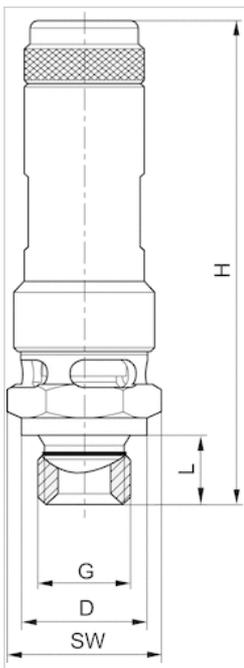
## Technical information

### Material

Housing	Brass
Seals	Fluorocaoutchouc

## Dimensions

### Dimensions



G = connection 1

## Dimensions

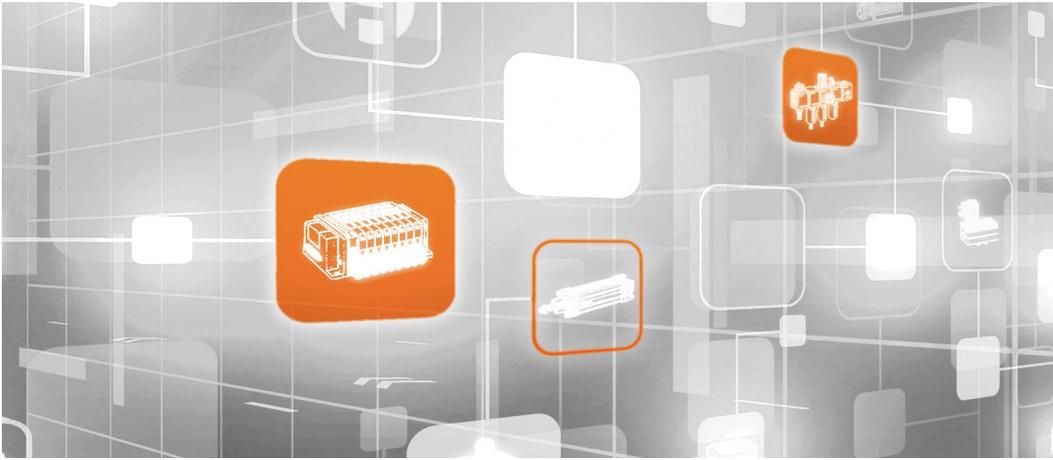
Part No.	Port G	Ø D	H	L	SW	T [Nm]	NW
R412007542	G 1/2	26	78	12	27	50	15
R412007720	G 1/2	26	78	12	27	50	15
R412007690	G 1/2	26	78	12	27	50	15
R412007691	G 1/2	26	78	12	27	50	15
R412007692	G 1/2	26	78	12	27	50	15
R412007699	G 1/2	26	78	12	27	50	15
R412007696	G 1/2	26	78	12	27	50	15
R412007702	G 1/2	26	78	12	27	50	15
R412007698	G 1/2	26	78	12	27	50	15

Part No.	Port G	Ø D	H	L	SW	T [Nm]	NW
R412007697	G 1/2	26	77.5	12	27	50	15
R412007693	G 1/2	26	91	12	27	50	15
R412007694	G 1/2	26	91	12	27	50	15
R412007700	G 1/2	26	91	12	27	50	15
R412007701	G 1/2	26	91	12	27	50	15
R412007695	G 1/2	26	91	12	27	50	15
R412007703	G 1/2	26	91	12	27	50	15
R412007543	G 1/2	26	91	12	27	50	15

T = maximum torque

NW = nominal width

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