

HB84G - Filter/regulator

For Extreme Temperature applications

Excelon® Plus Modular System

- Port size: 3/8" ... 3/4" (ISO G/PTF)
- Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- 5 or 40 micron particle and high efficiency water removal (> 98%)
- Easy filter maintenance system. Element is removed together with the bowl for faster and cleaner servicing
- Double safety lock bowl
- Salt Spray compliant to ISO 9227
- Air purity classes in accordance to ISO8573-1:2010:
7:8:4 (40µm)
6:8:4 (5µm)
- ABS cover with High impact properties



Technical features filter/regulator

Medium:

Compressed air only

Maximum supply pressure:

20 bar (290 psi)

Outlet pressure ranges:

0.3 ...10 bar (4 ... 145 psi),
0.3 ... 4 bar (4 ... 58 psi) optional
0.7...17bar (10...247psi) optional

Filter element:

5 µm & 40 µm

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Gauge:

Gauge port as standard
(Rc 1/8 or 1/8 PTF)
Integrated gauge as option

Flow:

103 dm³/s at port size: 1/2",
Inlet pressure 10 bar (145 psi),
6.3 bar (91 psi) set pressure and
a Δp: 1 bar (14.5 psi) drop from
set.

Diaphragm Type:

Relieving & Non-Relieving


Drain:

Manual or automatic
Automatic drain operating
conditions (float operated):
Bowl pressure required to
close drain: > 0.35 bar (5 psi)
Bowl pressure required to
open drain: ≤ 0.2 bar (2.9 psi)
Minimum air flow required to
close drain: 1 dm³/s (2 scfm)

Ambient/Media temperature:

Unit with gauge port without
integrated gauge :
-40 ... +80°C (-40 ... +176°F)
Air supply must be dry enough to avoid
ice formation at temperatures below
+2°C (+35°F).

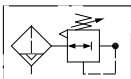
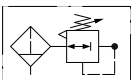
Atex:

Filter/regulators HB84 are in
conformity with Atex 2014/34/EU
 II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Materials:

Body: Die cast aluminium
Body covers:
ABS (Magnum 3904)
Bonnet: Die cast aluminium
Valve: Brass and
Low temperature Nitrile
Metal Bowl: Die cast Aluminium
Filter element: sintered
Polypropylene
Diaphragm: Low temperature
Silicone, polyester reinforced
Lower spring rest and
diaphragm retainer:
Aluminium
Bowl O-ring:
Low temperature Nitrile
Elastomers:
Low temperature Nitrile

Technical data HB84G - standard models with gauge port Rc1/8 (without gauge)

Symbol	Port size	Drain	Pressure range (bar)	Filter element (µm)	Bowl	Weight (kg)	Model *1)
	G3/8	Auto	0.3 ... 10	40	Metal with level indicator	0.95	HB84G-3GT-AD3-RMN
	G1/2	Auto	0.3 ... 10	40	Metal with level indicator	0.94	HB84G-4GT-AD3-RMN
	G3/4	Auto	0.3 ... 10	40	Metal with level indicator	0.92	HB84G-6GT-AD3-RMN
	G3/8	Manual	0.3 ... 10	40	Metal with level indicator	0.94	HB84G-3GT-MD3-RMN
	G1/2	Manual	0.3 ... 10	40	Metal with level indicator	0.93	HB84G-4GT-MD3-RMN
	G3/4	Manual	0.3 ... 10	40	Metal with level indicator	0.91	HB84G-6GT-MD3-RMN

*1) All models shown here are applicable for flow direction left to right.

With flow direction right to left please use the online configurator www.norgren.com/en/support/configurators/air-preparation-configurator or contact Norgren

Option selector *1)

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Thread form	Substitute
PTF	A
ISO G	G
Drain	Substitute
Manual (standard)	M
Auto drain (standard)	A
Open ended (with male thread adaptor)	N*2)

HB84G-★★T-★★★-★★★

Gauge	Substitute
Without integrated gauge but with gauge port 1/8"	N
With integrated gauge *4)	G
Pressure range *3)	Substitute
0.3 ... 4 bar	F
0.3 ... 10 bar	M
0.7 ... 17 bar	S
Diaphragm Type	Substitute
Relieving	R
Non-Relieving	N
Element	Substitute
5 µm	1
40 µm	3
Bowl	Substitute
Metal with liquid indicator	D
Metal	M

*1) All models shown here are applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/en/support/configurators/air-preparation-configurator or contact IMI Norgren

*2) Available on request

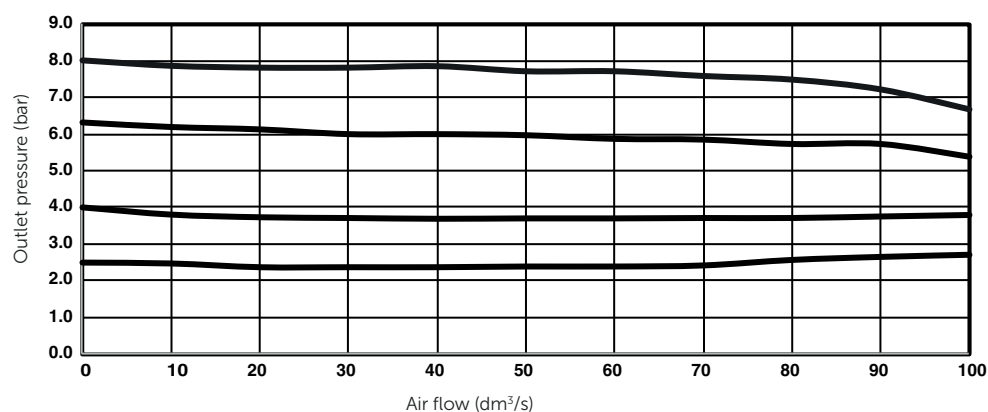
*3) Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

*4) Attention : With integrated gauge temperature range of the unit changes to -20°C ... +65°C

Flow characteristics

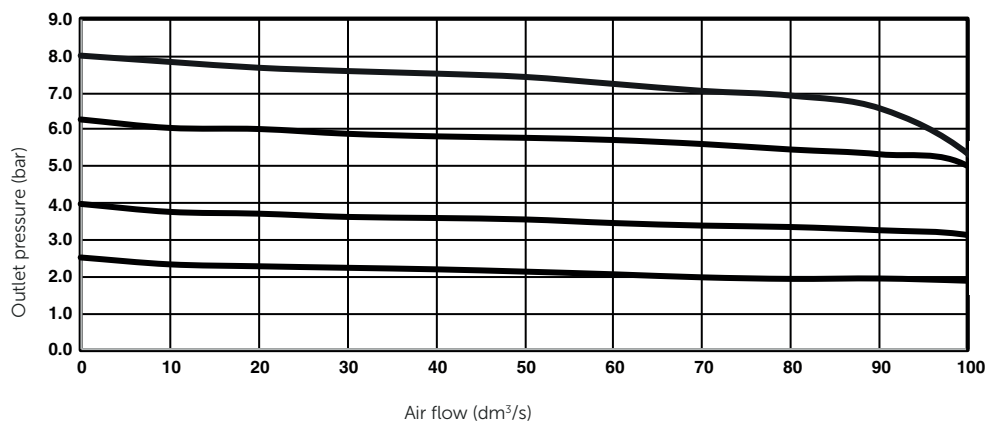
Inlet pressure: 10 bar (145 psi)

Port size: 1/2", 40 µm element












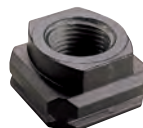







Inlet pressure: 10 bar (145 psi)

Port size: 3/8", 40 µm element



Accessories

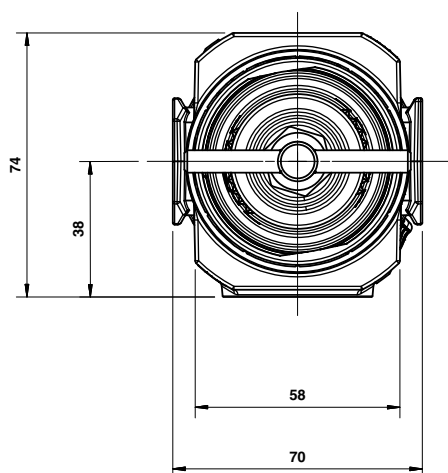
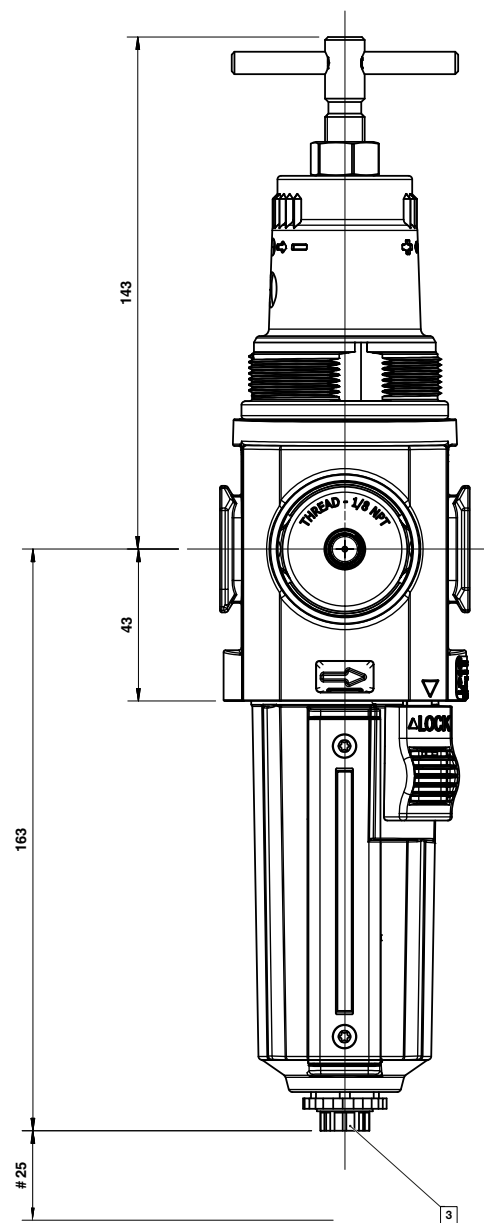
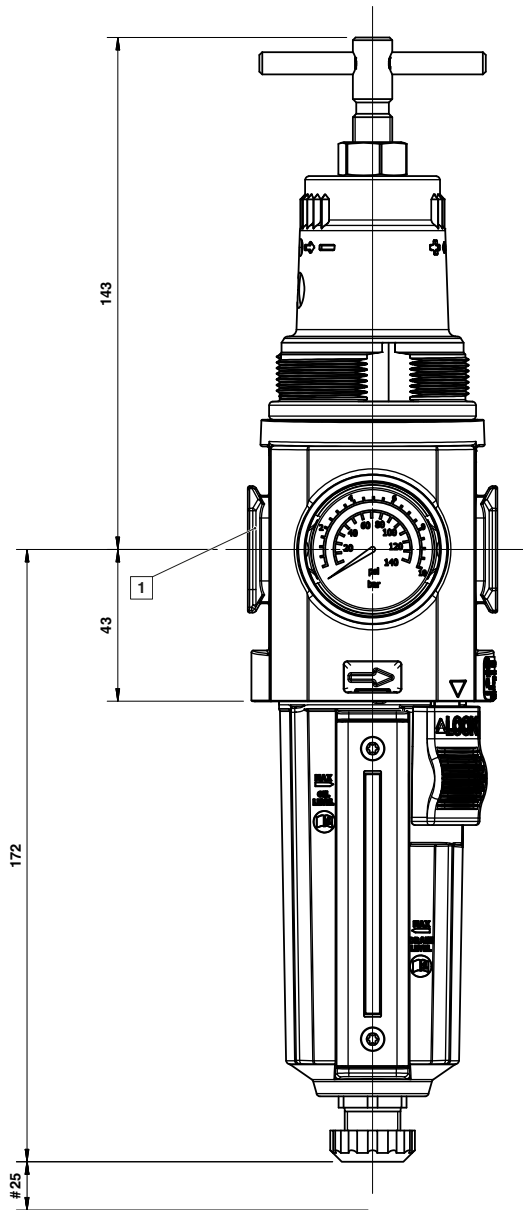
<div>Quickclamp</div> <div></div> <div>Page 6</div> <div>H840014-51KIT</div>	<div>Quickclamp with bracket assembled</div> <div></div> <div>Page 6</div> <div>H840014-52KIT</div>	<div>Neck mounting bracket and panel nut</div> <div></div> <div>Page 6</div> <div>840068-51KIT</div>	<div>Panel mounting nut</div> <div></div> <div>Page 6</div> <div>840048-89KIT</div>	<div>Mounting bracket</div> <div></div> <div>Page 6</div> <div>840024-50KIT</div>												
<div>Gauge adaptor kit 1/8 PTF</div> <div></div> <div>H840143-01KIT</div>	<div>Gauge adaptor kit R 1/8</div> <div></div> <div>H840143-02KIT</div>															
<div>Full flow porting block horizontal, 3/4 PTF</div> <div></div> <div>Page 7</div> <div>H840028-50KIT</div>	<div>Full flow porting block horizontal, G3/4</div> <div></div> <div>Page 7</div> <div>H840028-53KIT</div>	<div>Full flow porting block vertical, 3/4" PTF</div> <div></div> <div>Page 7</div> <div>H840028-68KIT</div>	<div>Full flow porting block vertical, G3/4"</div> <div></div> <div>Page 7</div> <div>H840028-69KIT</div>	<div>Port Adaptors</div> <div></div> <div>Page 8</div> <div><table><tr><td>3/8 PTF</td><td>H840015-02KIT</td></tr><tr><td>1/2 PTF</td><td>H840015-03KIT</td></tr><tr><td>3/4 PTF</td><td>H840015-04KIT</td></tr><tr><td>G3/8</td><td>H840015-10KIT</td></tr><tr><td>G1/2</td><td>H840015-11KIT</td></tr><tr><td>G3/4</td><td>H840015-12KIT</td></tr></table></div>	3/8 PTF	H840015-02KIT	1/2 PTF	H840015-03KIT	3/4 PTF	H840015-04KIT	G3/8	H840015-10KIT	G1/2	H840015-11KIT	G3/4	H840015-12KIT
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G3/4	H840015-12KIT															
<div>Pressure sensing block 1/4 PTF</div> <div></div> <div>Page 7</div> <div>H840016-50KIT</div>	<div>Pressure sensing block G1/4</div> <div></div> <div>Page 7</div> <div>H840016-51KIT</div>	<div>Pressure switch interface block (18D pressure switch) G1/4</div> <div></div> <div>Page 6</div> <div>0337717000000000</div>														
<div>Pressure switch 18D (0,5 ... 8bar) *4</div> <div></div> <div>Page 8</div> <div>0881300</div> <div><div>*2) -20 ... +60°C (-4 ... +140°F)</div><div>*4) -10°... +85°C (-14° ...+185°F)</div></div>	<div>Digital pressure switch 51D (-1 ... 10 bar) *2</div> <div></div> <div>Page 8</div> <div>0860810</div>															

Maintenance/Service

Filter cartridge 5 micron  H840038-50KIT	Filter cartridge 40 micron  H840038-51KIT	Auto drain kit with metal Nut  3000-40	HR84 / HB84 Elastomer Kit, relieving  HFRLB84-KIT	HR84 / HB84 Elastomer kit, Non-relieving  FRLB84NR-KIT
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Dimensions

Dimensions in mm
Projection/First angle



Minimum clearance for bowl removal

1 Main ports 3/8", 1/2" or 3/4"(ISO G/PTF)

2 Gauge port Rc 1/8 for ISO G and 1/8 PTF for PTF main ports

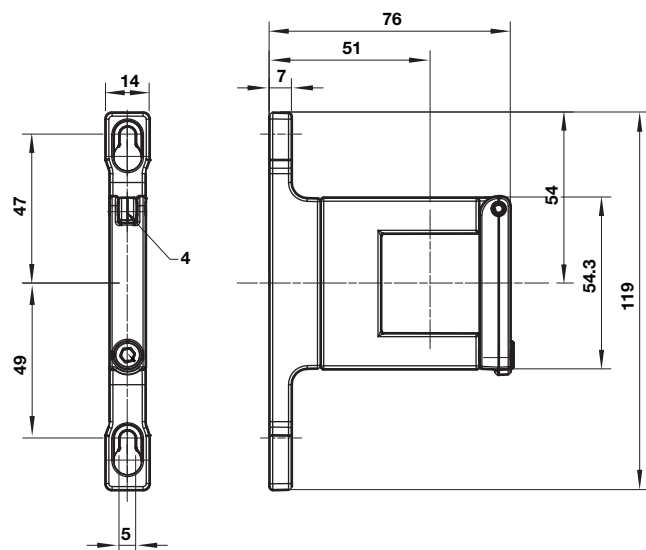
3 Port size automatic drain: G1/8

Accessories

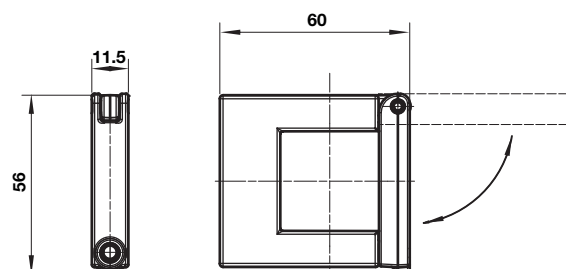
Dimensions in mm
Projection/First angle



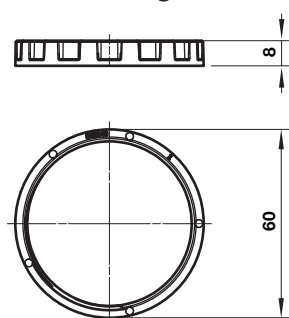
Quikclamp with wall bracket



Quikclamp

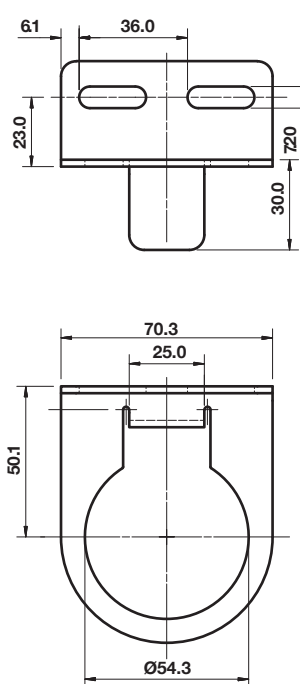


Panel mounting nut

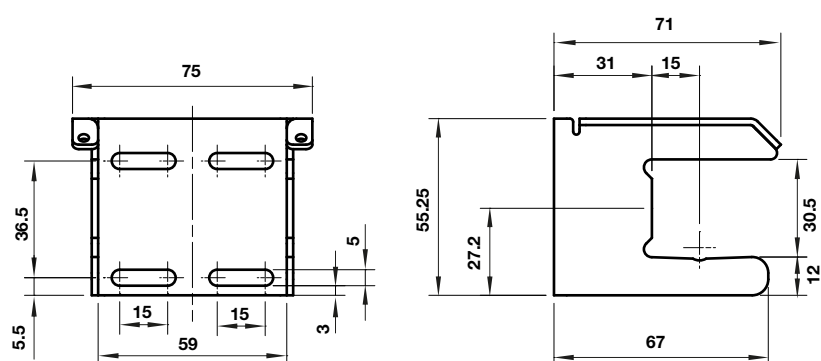


Recommended panel hole size:
Ø 55 mm ... 57 mm
Panel thickness:
2 ... 6 mm

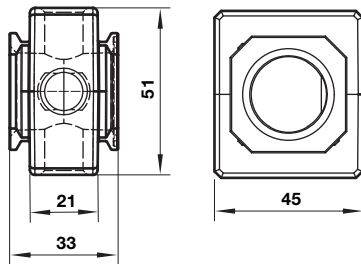
Neck mounting bracket



Mounting bracket

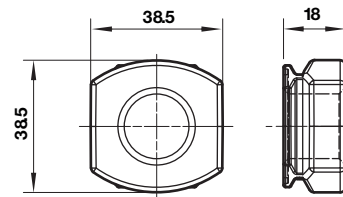


Pressure sensing block

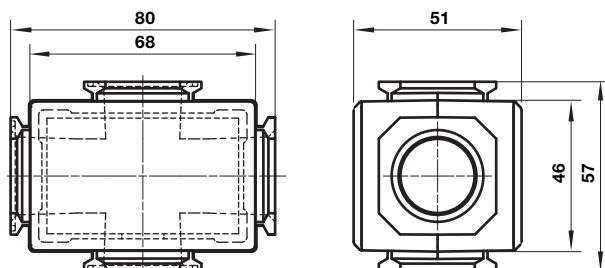


Pipe adaptor

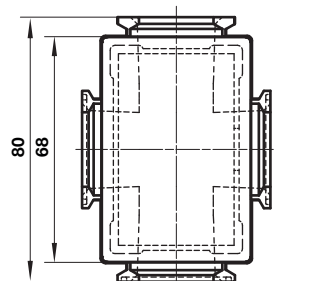
Dimensions in mm
Projection/First angle



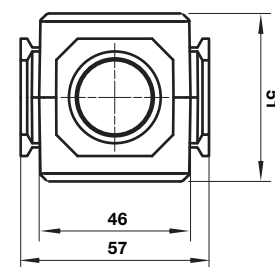
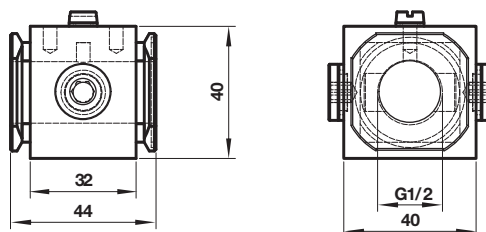
Full flow porting block horizontal



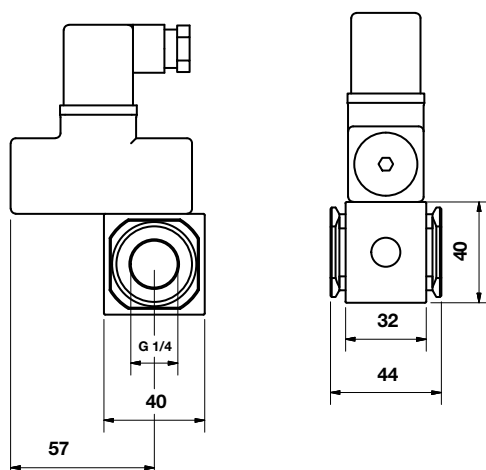
Full flow porting block vertical



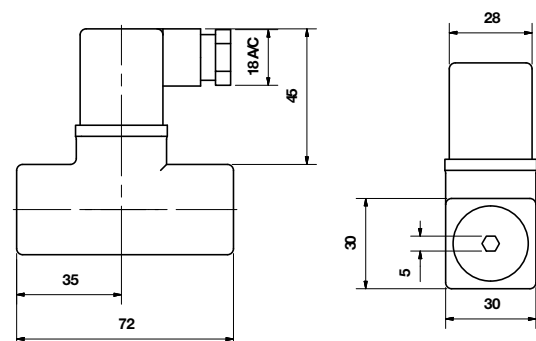
Porting block for 18D pressure switch



18D Porting block and 18D assembled

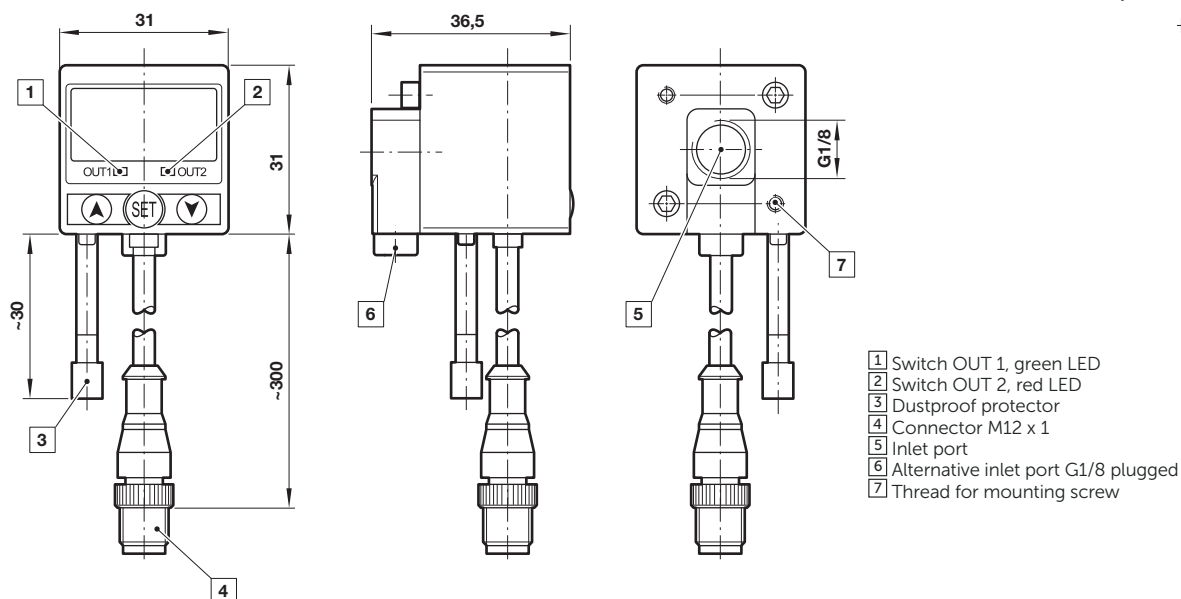


18D Pressure switch



51D Pressure switch - digital

Dimensions in mm
Projection/First angle



Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.