

B82G - General purpose filter/regulator

Excelon® Plus Modular System



- > Port size: 1/4" ... 3/8" (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 (> 95%)
- > Double safety lock bowl
- > Push to lock adjusting knob with built in tamper resistant feature
- > Metal bowl with prismatic liquid level indicator lens
- > Light weight Polycarbonate bowl with guard
- > Easy to read flush mounted integrated pressure gauge
- > Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm) 6:8:4 (5µm)



Technical features

Medium:

Compressed air only
Maximum supply pressure:
 Polycarbonate bowl: 10 bar (145 psi)
 Metal bowl: 17 bar (246 psi)
Outlet pressure ranges:
 0.3 ... 10 bar (4 ... 145 psi),
 0.3 ... 4 bar (4 ... 58 psi) optional,
 0.7 ... 17 bar (2 ... 246 psi) optional

Filter element:

5 µm & 40 µm

Port size:

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

Gauge:

Integrated as standard
 Gauge port 1/8 as option

Flow:

37 dm³/s at port size 1/4",
 37 dm³/s at port size 3/8",
 inlet pressure 10 bar (145 psi) ,
 6.3 bar (91 psi) set pressure and
 a Δp: 1 bar (14.5 psi) droop from set.

Diaphragm Type:

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.

Ambient/Media temperature:

Polycarbonate bowl:
 -10 ... +60°C (+14 ... +140°F)
 Metal bowl:
 -20 ... +65°C (-4 ... +149°F)
 Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

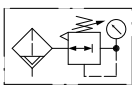
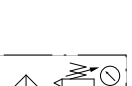

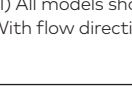
Atex:

Filter/regulators B82 are in conformity with Atex 2014/34/EU
 Ex II 2 GD
 Ex h IIC T6 Gb
 EX h IIIC T85°C Db

Materials:

Body: Die cast aluminum
 Body covers: ABS
 Bonnet: Acetal/ Aluminum
 Valve: PP
 Transparent Bowl : Polycarbonate with Polypropylene Guard.
 Metal Bowl: Die cast Zinc with PA liquid level indicator lens
 Filter element: sintered PP
 Bowl 'O'- ring: Chloroprene
 Elastomers: NBR

Technical data B82G—standard models

| Symbol | Port | Drain | Pressure range (bar) | Filter element (µm) | Bowl | Weight (kg) | Model *1) |
|---|------|--------|----------------------|---------------------|----------------------------|-------------|------------------|
|  | G1/4 | Auto | 0,3 ... 10 | 40 | Guarded polycarbonate | 0,30 | B82G-2GK-AP3-RMG |
| | G3/8 | Auto | 0,3 ... 10 | 40 | Guarded polycarbonate | 0,30 | B82G-3GK-AP3-RMG |
|  | G1/4 | Auto | 0,3 ... 10 | 40 | Metal with level indicator | 0,50 | B82G-2GK-AD3-RMG |
| | G3/8 | Auto | 0,3 ... 10 | 40 | Metal with level indicator | 0,50 | B82G-3GK-AD3-RMG |
|  | G1/4 | Manual | 0,3 ... 10 | 40 | Guarded polycarbonate | 0,30 | B82G-2GK-QP3-RMG |
| | G3/8 | Manual | 0,3 ... 10 | 40 | Guarded polycarbonate | 0,30 | B82G-3GK-QP3-RMG |
|  | G1/4 | Manual | 0,3 ... 10 | 40 | Metal with level indicator | 0,50 | B82G-2GK-QD3-RMG |
| | G3/8 | Manual | 0,3 ... 10 | 40 | Metal with level indicator | 0,50 | B82G-3GK-QD3-RMG |

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

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

Option selector *1)
B82G-*-***-R****

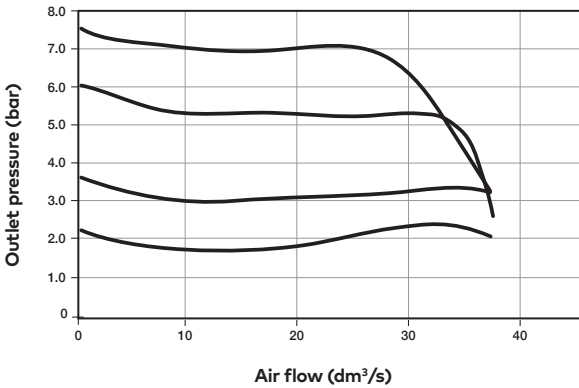
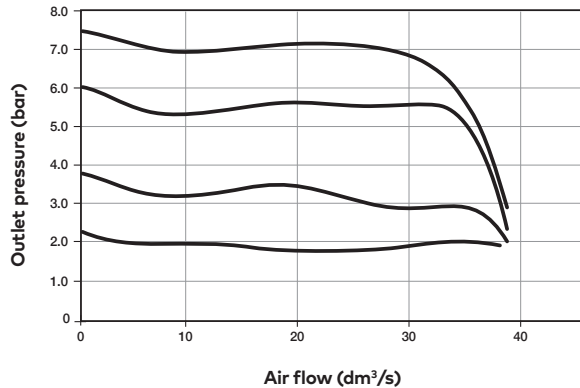
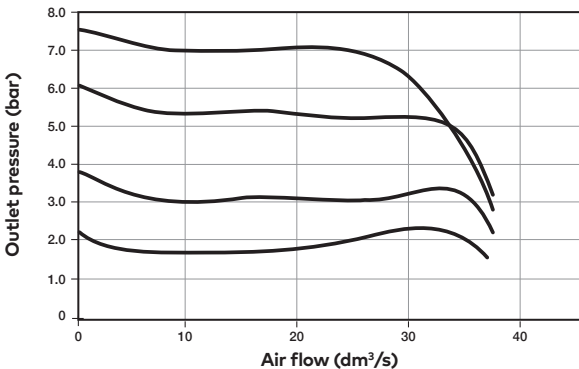
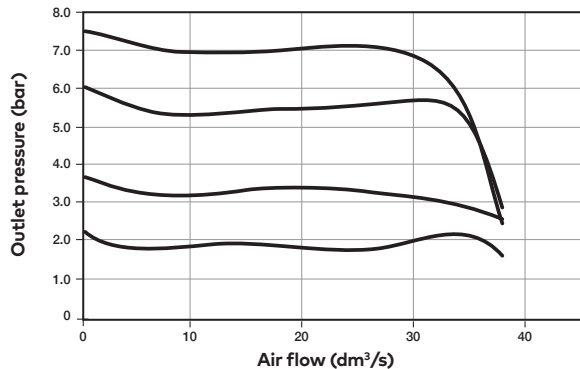
| Port size | Substitute |
|-----------------------------------|------------|
| 1/4" | 2 |
| 3/8" | 3 |
| Thread form | Substitute |
| PTF | A |
| ISO G (standard) | G |
| Adjustment | Substitute |
| Knob (standard) | K |
| T-bar | T*2) |
| Drain | Substitute |
| Manual (standard) | Q |
| Auto drain (standard) | A |
| Bowl | Substitute |
| Metal with liquid indicator | D |
| Transparent with guard (standard) | P |

| Gauge | Substitute |
|---|------------|
| With integrated gauge (standard) | G |
| Without integrated gauge but with gauge port 1/8" | N |
| Pressure range *3) | Substitute |
| 0.3 to 4 bar | F |
| 0.3 to 10 bar (standard) | M |
| 0.7 to 17 bar | S*2) |
| Element | Substitute |
| 40 µm (standard) | 3 |
| 5 µm | 1 |




















*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.

*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/air-preparation-configurator or contact Norgren

*2) Units with 246 psi (17 bar) outlet pressure range are available only with the T-bar adjustment; therefore substitute T at the 7th position and S at the 9th position. T-bar handle only available with 17 bar option.

Flow characteristics
Inlet pressure: 10 bar (145 psi)
Range: 0.3...10 bar (4...145 psi)
Port size: 1/4", 5 µm element

Inlet pressure: 10 bar (145 psi)
Range: 0.3...10 bar (4...145 psi)
Port size: 3/8", 5 µm element

Inlet pressure: 10 bar (145 psi)
Range: 0.3...10 bar (4...145 psi)
Port size: 1/4", 40 µm element

Inlet pressure: 10 bar (145 psi)
Range: 0.3...10 bar (4...145 psi)
Port size: 3/8", 40 µm element


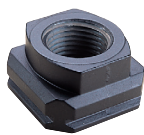

Accessories

| | | | | |
|---|--|--|--|--|
| Quikclamp®  Page 6 820014-51KIT | Quikclamp® with bracket assembled  Page 6 820014-52KIT | Neck mounting bracket and panel nut  Page 7 820068-51KIT | Panel mounting nut  Page 7 820048-89KIT | Mounting bracket  Page 7 820024-50KIT |
| Integrated gauge 10 bar gauge  820073-01KIT | Integrated gauge 20 bar gauge  820073-02KIT | Integrated gauge 4 bar gauge  820073-03KIT | Gauge adaptor kit 1/8 PTF  820100-01KIT | Gauge adaptor kit R 1/8  820100-02KIT |
| Pressure sensing block 1/4 PTF  Page 7 820016-50KIT | Pressure sensing block G1/4  Page 7 820016-51KIT | Porting block 3/8" PTF  Page 7 820028-50KIT | Porting block G3/8  Page 7 820028-53KIT | Pressure switch interface block (18D pressure switch) G1/4  Page 8 0523109000000000 |
| Pressure switch 18D (0,5 ... 8bar) *1  Page 8 0881300 | Digital pressure switch 51D (-1 ... 10 bar) *2  Page 8 0860810 | Padlock  840055-01KIT | Lockout device  840055-02KIT | |

*1) Flanged version. For other pressure ranges, please see data sheet 5.11.001

*2) For other pressure ranges, please see data sheet 5.11.385

Gauges (For regulators with gauge port instead of integrated port)

| Port Adaptors  Page 8 1/4 PTF 820015-02KIT 3/8 PTF 820015-03KIT G1/4 820015-08KIT G3/8 820015-09KIT | Center back connection, white face (for full technical specification see datasheet 8.900.900)  <table border="1"> <thead> <tr> <th>Pressure range (bar)*3</th> <th>(MPa)</th> <th>(psi)</th> <th>ø</th> <th>Thread size</th> <th>Model</th> </tr> </thead> <tbody> <tr> <td>0 ... 6</td> <td>0 ... 0,6</td> <td>0 ... 84</td> <td>40 mm</td> <td>R1/8</td> <td>18-015-885</td> </tr> <tr> <td>0 ... 10</td> <td>0 ... 1</td> <td>0 ... 145</td> <td>40 mm</td> <td>R1/8</td> <td>18-015-989</td> </tr> <tr> <td>0 ... 25</td> <td>0 ... 2,5</td> <td>0 ... 362</td> <td>40 mm</td> <td>R1/8</td> <td>18-015-908</td> </tr> </tbody> </table> | Pressure range (bar)*3 | (MPa) | (psi) | ø | Thread size | Model | 0 ... 6 | 0 ... 0,6 | 0 ... 84 | 40 mm | R1/8 | 18-015-885 | 0 ... 10 | 0 ... 1 | 0 ... 145 | 40 mm | R1/8 | 18-015-989 | 0 ... 25 | 0 ... 2,5 | 0 ... 362 | 40 mm | R1/8 | 18-015-908 |
|--|--|------------------------|-------|-------------|------------|-------------|-------|---------|-----------|----------|-------|------|------------|----------|---------|-----------|-------|------|------------|----------|-----------|-----------|-------|------|------------|
| Pressure range (bar)*3 | (MPa) | (psi) | ø | Thread size | Model | | | | | | | | | | | | | | | | | | | | |
| 0 ... 6 | 0 ... 0,6 | 0 ... 84 | 40 mm | R1/8 | 18-015-885 | | | | | | | | | | | | | | | | | | | | |
| 0 ... 10 | 0 ... 1 | 0 ... 145 | 40 mm | R1/8 | 18-015-989 | | | | | | | | | | | | | | | | | | | | |
| 0 ... 25 | 0 ... 2,5 | 0 ... 362 | 40 mm | R1/8 | 18-015-908 | | | | | | | | | | | | | | | | | | | | |

*3) primary scale

Maintenance/Service

**Filter cartridge
5 micron**



820038-50KIT

**Filter cartridge
40 micron**



820038-51KIT

**Auto drain kit with
metal Nut - Imperial**




6000-61KIT

**Auto drain kit with
metal Nut - Metric**



6000-60KIT

**R82 / B82
Elastomer Kit**



FRLB82-KIT

Spare parts

**Filter Bowl (Guarded Poly bowl
with auto drain 6 mm PIF)**



820025-51KIT

**Filter Bowl (Guarded Poly
bowl with manual drain)**



820025-50KIT

**Filter Bowl (Metal with S/
Glass & auto drain, 6 mm PIF)**



820003-51KIT

**Filter Bowl (Metal with S/
Glass & manual drain)**



820003-50KIT

**Filter Bowl (Guarded Poly
bowl with auto drain, 1/4 PIF)**



820025-53KIT

**Filter Bowl (Metal with S/
Glass & auto drain, 1/4 PIF)**

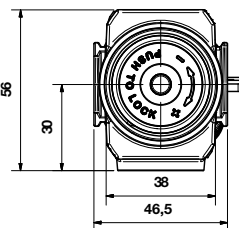
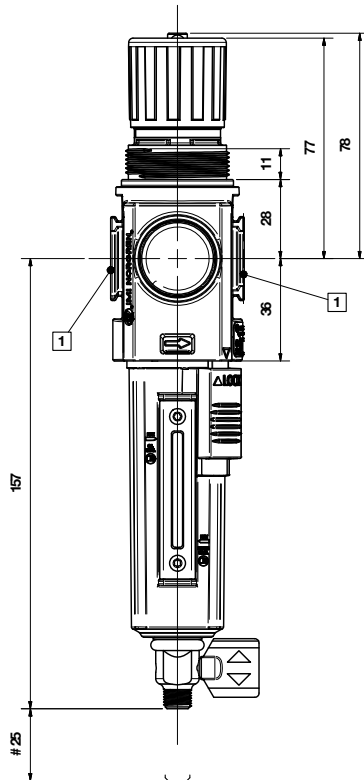


820003-56KIT

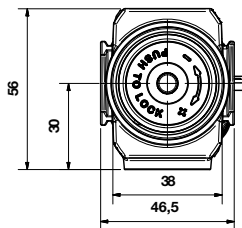
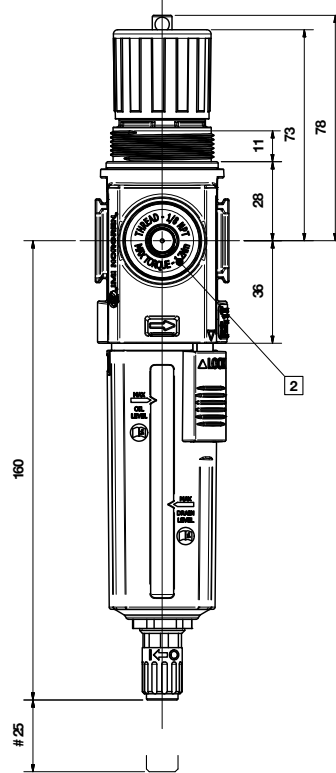
Dimensions

 Dimensions in mm
 Projection/First angle

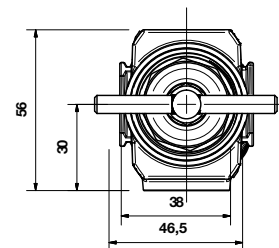
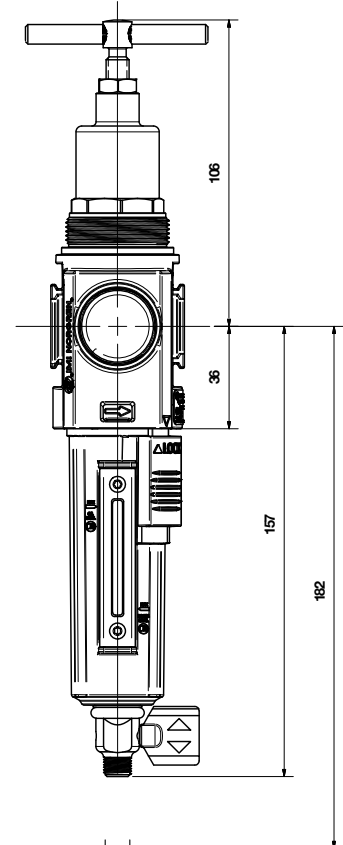

1/4 Turn Manual Drain



Automatic Drain



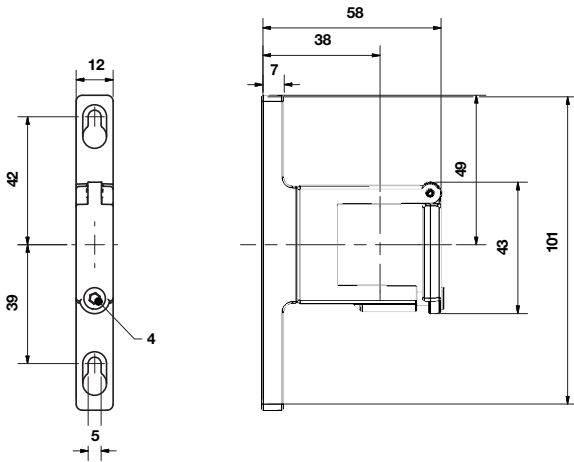
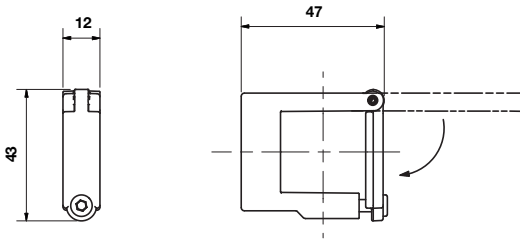
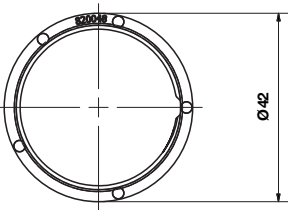
T-bar adjustment



Minimum clearance for bowl removal

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

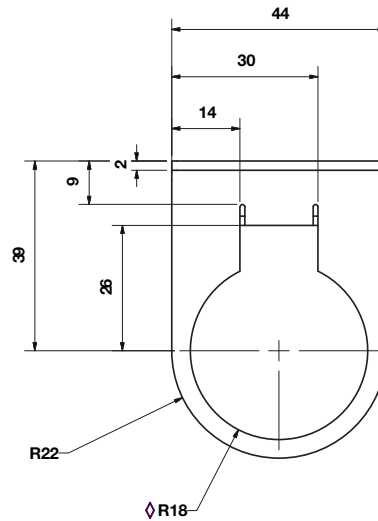
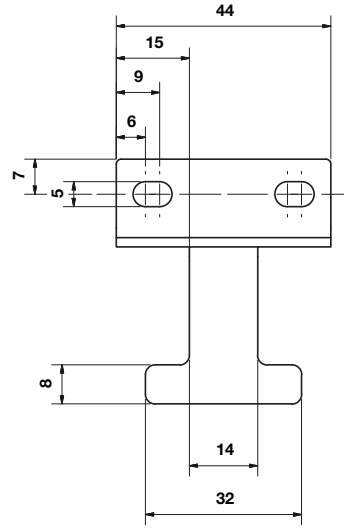
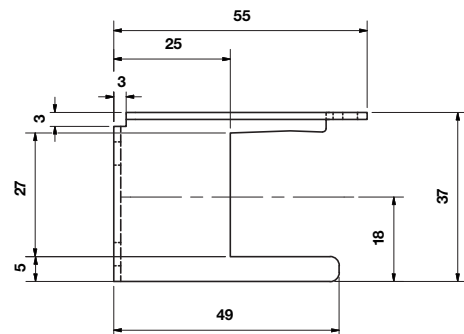
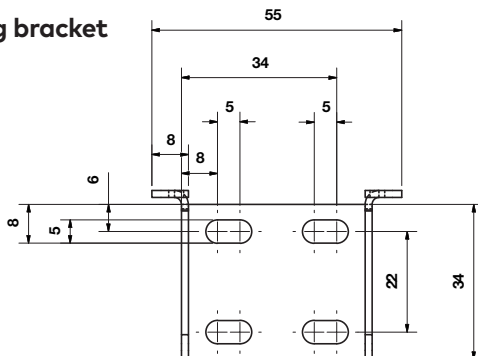
2 Gauge port Rc 1/8 for ISO G and 1/8 PTF for PTF main ports

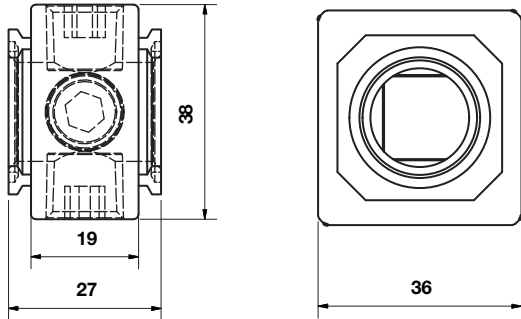
Accessories
Quikclamp® with wall bracket

Quikclamp®

Panel mounting nut


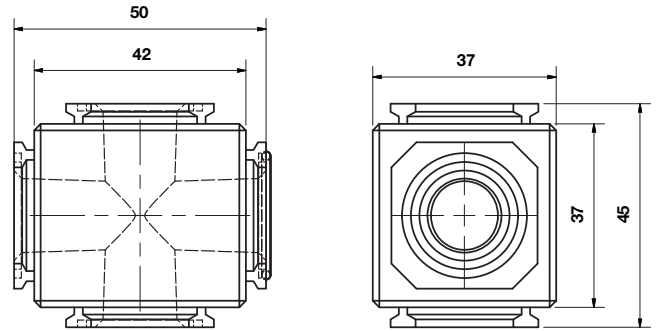
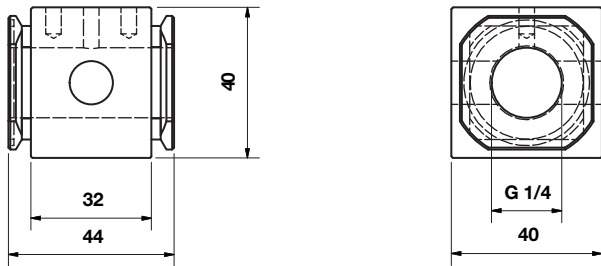
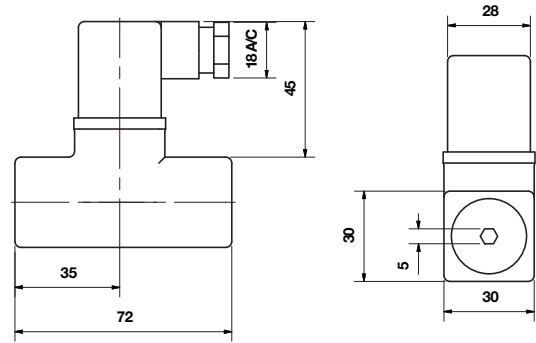
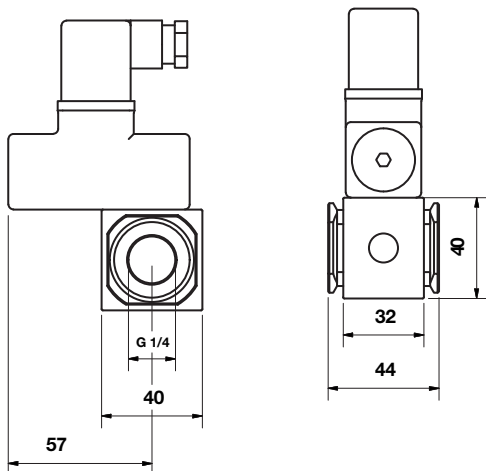
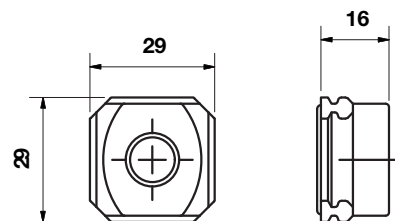
Recommended panel hole size:
 $\text{Ø} 36.25 \dots 36.75 \text{ mm}$
 Panel thickness:
 up to 4mm

Neck mounting bracket

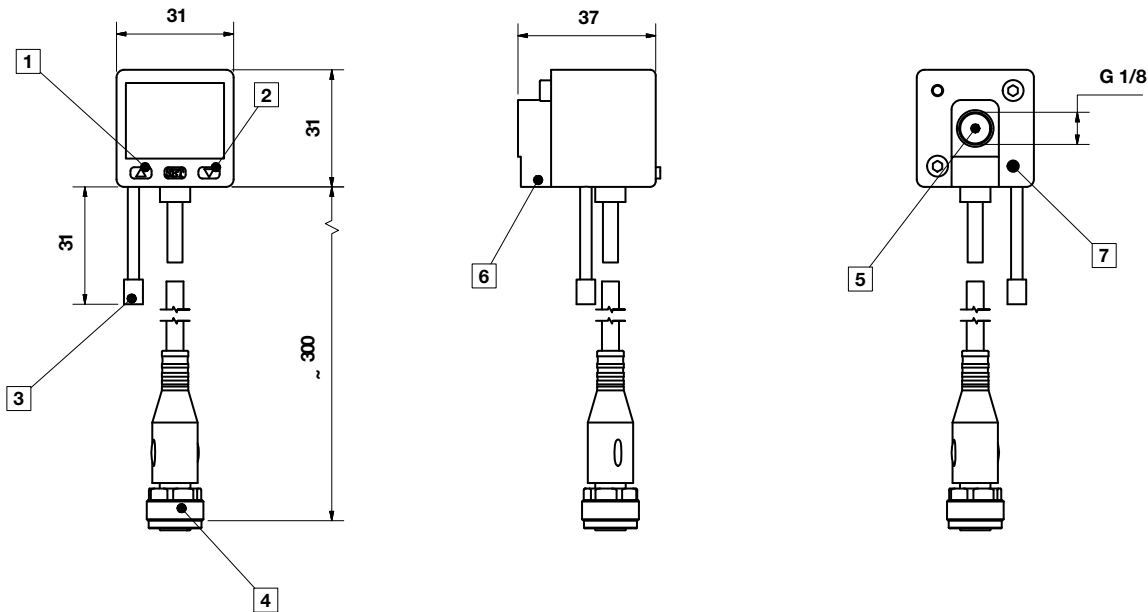
Dimensions in mm
 Projection/First angle


Universal Mounting bracket


Pressure sensing block

Full flow porting block

 Dimensions in mm
 Projection/First angle

Porting block for 18D pressure switch

18D Pressure switch

18D Porting block and 18D assembled

Pipe adaptor


51D Pressure switch - digital

 Dimensions in mm
 Projection/First angle


- 1 Switch OUT 1, green LED
- 2 Switch OUT 2, red LED
- 3 Dustproof protector
- 4 Connector M12 x 1
- 5 Inlet port
- 6 Alternative inlet port G1/8 plugged
- 7 Thread for mounting screw

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.