


TB82 - Filter-Regulator – Combination Excelon® Plus Modular System

- Port size: 1/4" & 3/8" (ISO G/PTF)
- Unique Quikclamp connection system offers full modularity
- 40 micron particle and high efficiency water removal (> 95%)
- Double safety lock on bowl
- Shut off valve & Filter-Regulator with tamper resistance feature
- Metal bowl with prismatic liquid level indicator
- Light weight polycarbonate bowl
- High Corrosion resistance: Body and Metal bowl with Electrophoretic Paint finish
- Easy to read flush mounted integrated pressure gauge as standard
-  DoC in accordance with 2014/34/EU/ATEX



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)

Filter element:
40 µm

Port size:
G1/4, G3/8, 1/4 PTF, 3/8 PTF

Gauge:

Integrated as standard

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:

Polycarbonat 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).

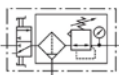
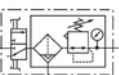
Atex:

T82 + B82 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 aluminum
Body covers: ABS
Bonnet: Acetal
Valve: PP with Geolast seals
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 TB82 - standard models

Symbol	Port Size	Shutoff Valve	Drain	Weight (kg)	Model *1)
	G1/4	With	Manual	0,7	TB82-221G
	G3/8	With	Manual	0,7	TB82-321G
	G1/4	With	Auto	0,7	TB82-201G
	G3/8	With	Auto	0,7	TB82-301G

*1) All models shown here are supplied with guarded transparent bowl, brackets and 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

In addition to the standard box set units shown on this data sheet, further combinations can be configured using our online Air Preparation configurator:

www.norgren.com/air-preparation-configurator



Option selector *1)

TB82-★★1★

Port size	Substitute
1/4"	2
3/8"	3
Units	Substitute
Filter-Regulator w. auto drain, polycarbonate bowls	0
Filter-Regulator w. manual drain, polycarbonate bowls	2
Filter-Regulator w. auto drain, metal bowls	5
Filter-Regulator w. manual drain, metal bowls	7

Thread form	Substitute
PTF	A
ISO G (standard)	G

*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

Excelon® Plus adheres to the following harmonised standard and technical specifications:

2014/34/EU Equipment and protective systems intended for use in potentially explosive atmospheres.
 The following harmonised standards and technical specifications have been applied ISO 4414:2010 – Pneumatic fluid power – General rules and safety requirements for systems and their components; ISO 80079-36:2016 – Explosive atmospheres – Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements; ISO 80079-37:2016 – Explosive atmospheres Part 37: Non-electrical equipment for explosive atmospheres – Non-electrical type of protection constructional safety “c”, control of ignition sources “b”, liquid immersion “k”.



II 2 GD

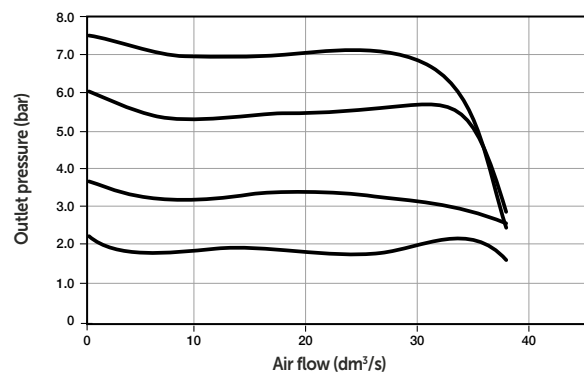
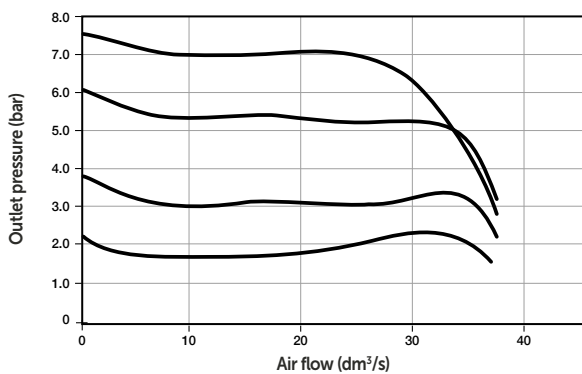
Ex h IIC T6 Gb
 Ex h IIIC T85°C Db
 N° de certification ATEX : NORGREN 18.0001X

For a copy of the Declaration of Conformity (DoC) please use the link http://cdn.norgren.com/pdf/IM_Excelon_Plus_EN_final.pdf
















Flow characteristics

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

<p>Quikclamp</p>  <p>Page 6</p> <p>820014-51KIT</p>	<p>Quikclamp with bracket assembled</p>  <p>Page 6</p> <p>820014-52KIT</p>	<p>Pressure sensing block 1/4 PTF</p>  <p>Page 6</p> <p>820016-50KIT</p>	<p>Pressure sensing block G1/4</p>  <p>Page 6</p> <p>820016-51KIT</p>								
<p>Integrated gauge 10 bar gauge</p>  <p>820073-01KIT</p>	<p>Integrated gauge 20 bar gauge</p>  <p>820073-02KIT</p>	<p>Integrated gauge 4 bar gauge</p>  <p>820073-03KIT</p>	<p>Gauge adaptor kit 1/8 PTF</p>  <p>820100-01KIT</p>	<p>Gauge adaptor kit R 1/8</p>  <p>820100-02KIT</p>							
<p>Porting block 3/8" PTF</p>  <p>820028-50KIT</p>	<p>Porting block G3/8</p>  <p>820028-53KIT</p>	<p>Port Adaptors</p>  <p>Page 7</p> <table border="1"> <tbody> <tr> <td>1/4 PTF</td> <td>820015-02KIT</td> </tr> <tr> <td>3/8 PTF</td> <td>820015-03KIT</td> </tr> <tr> <td>G1/4</td> <td>820015-08KIT</td> </tr> <tr> <td>G3/8</td> <td>820015-09KIT</td> </tr> </tbody> </table>		1/4 PTF	820015-02KIT	3/8 PTF	820015-03KIT	G1/4	820015-08KIT	G3/8	820015-09KIT
1/4 PTF	820015-02KIT										
3/8 PTF	820015-03KIT										
G1/4	820015-08KIT										
G3/8	820015-09KIT										
<p>Pressure switch interface block (18D pressure switch) G1/4</p>  <p>0523109000000000</p>	<p>Pressure switch 18D (0,5 ... 8bar) *1</p>  <p>0881300</p>	<p>Digital pressure switch 51D (-1 ... 10 bar) *2</p>  <p>0860810</p>									




*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

Padlock

<p>Padlock</p>  <p>840055-01KIT</p>	<p>Lockout device</p>  <p>840055-02KIT</p>
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Silencer

<p>Porous plastic silencer *3) G1/4</p>  <p>M/S2</p>	<p>Porous plastic silencer *3) G1/4</p>  <p>0014600000000000</p>	<p>Sinter bronze silencer *3) 1/4 PTF</p>  <p>MS002A</p>	<p>Sinter bronze silencer *3) G1/4</p>  <p>T40C2800</p>
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*3) Max. pressure of silencers listed in this data sheet : 10 bar. For pressure higher than 10 bar please contact IMI Norgren

Maintenance/Service

Auto drain kit with metal Nut - Imperial



6000-61KIT

Auto drain kit with metal Nut - Metric



6000-60KIT

Filter cartridges 40 micron



820038-51KIT

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

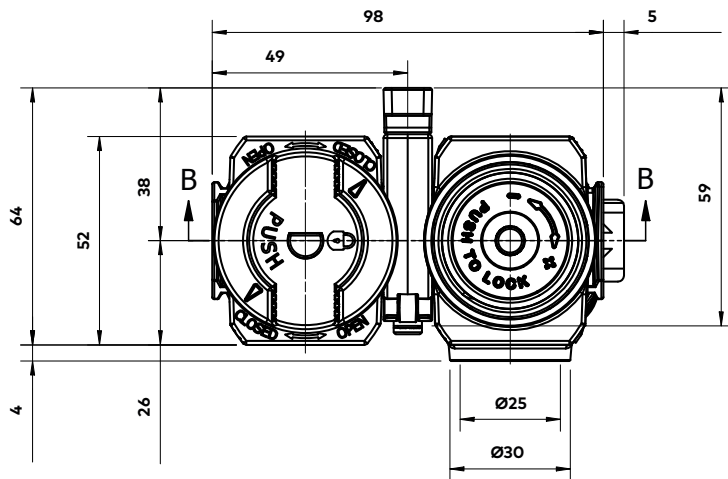
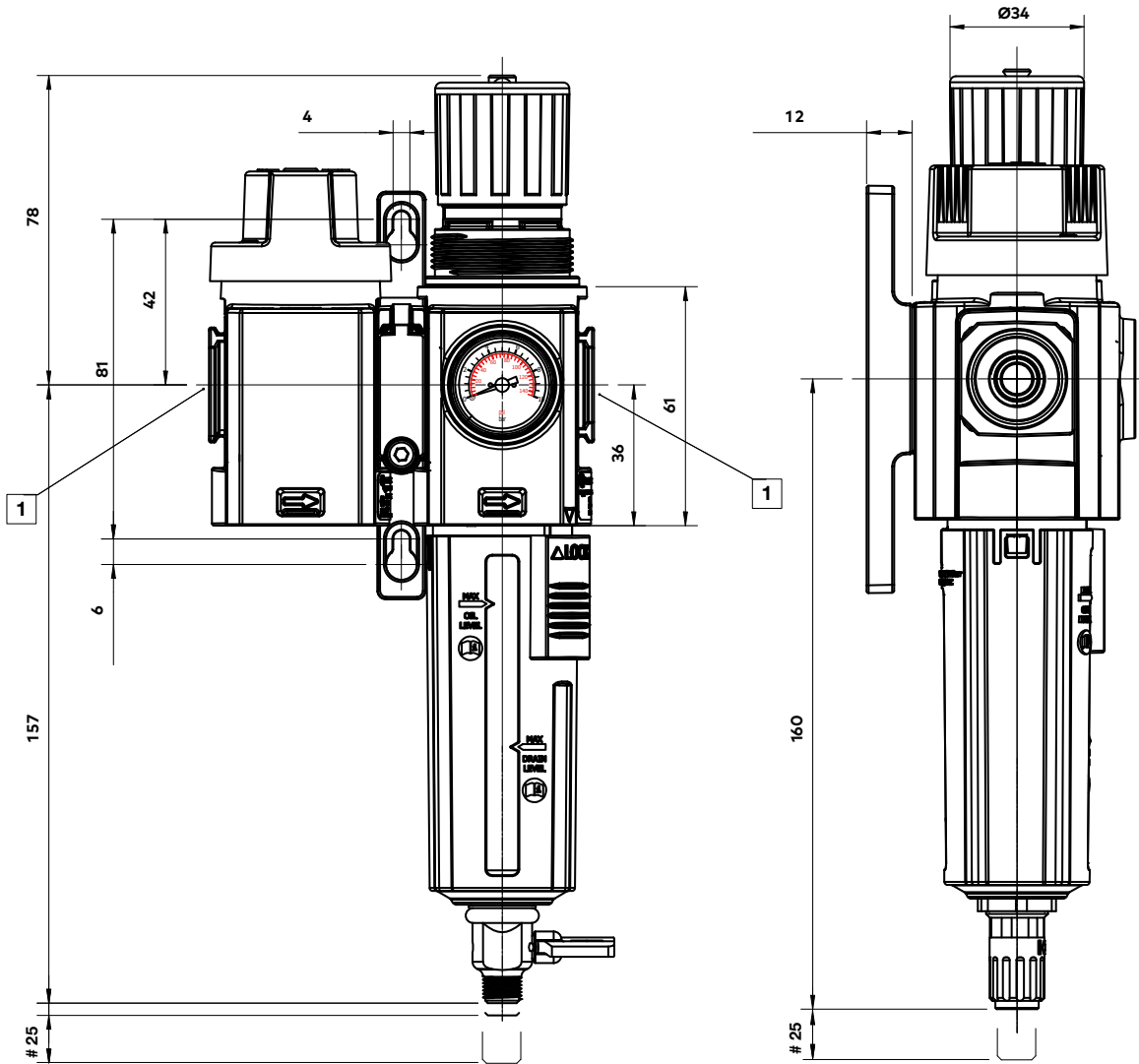
Filter Bowl (Metal with S/Glass & manual drain)



820003-50KIT

Dimensions
Shut-off valve and Filter-Regulator

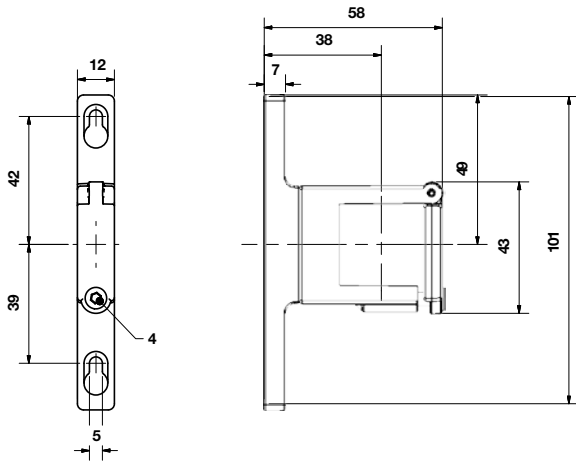
Dimensions in mm
 Projection/First angle



Minimum clearance for bowl removal
 1 Main ports 1/4", 3/8" (ISO G/PTF)

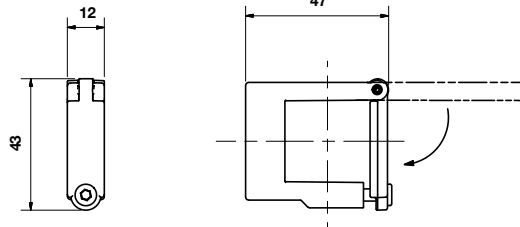
Accessories

Quikclamp with wall bracket

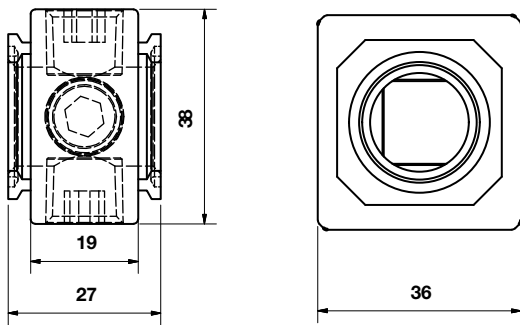


Quikclamp

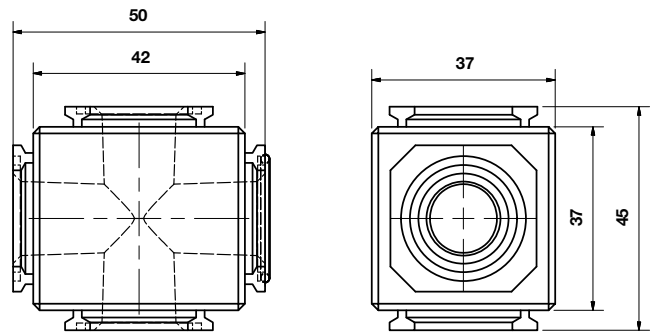
Dimensions in mm
Projection/First angle



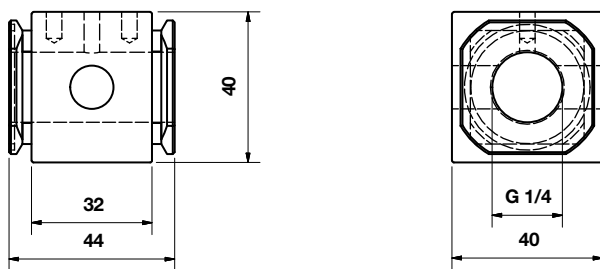
Pressure sensing block



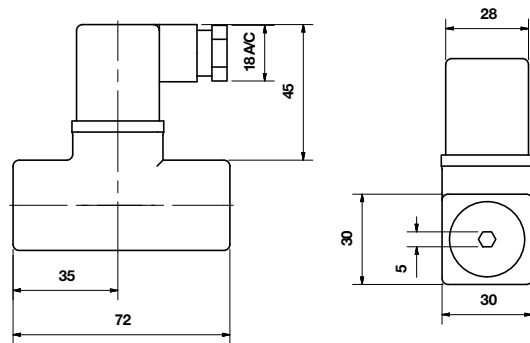
Full flow porting block



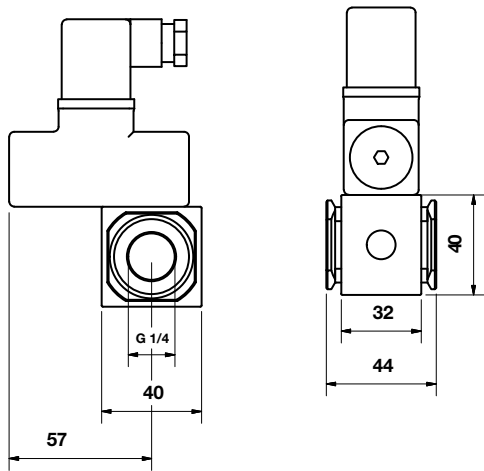
Porting block for 18D pressure switch



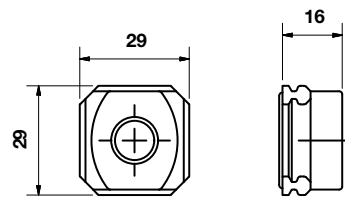
18D Pressure switch



18D Porting block and 18D assembled



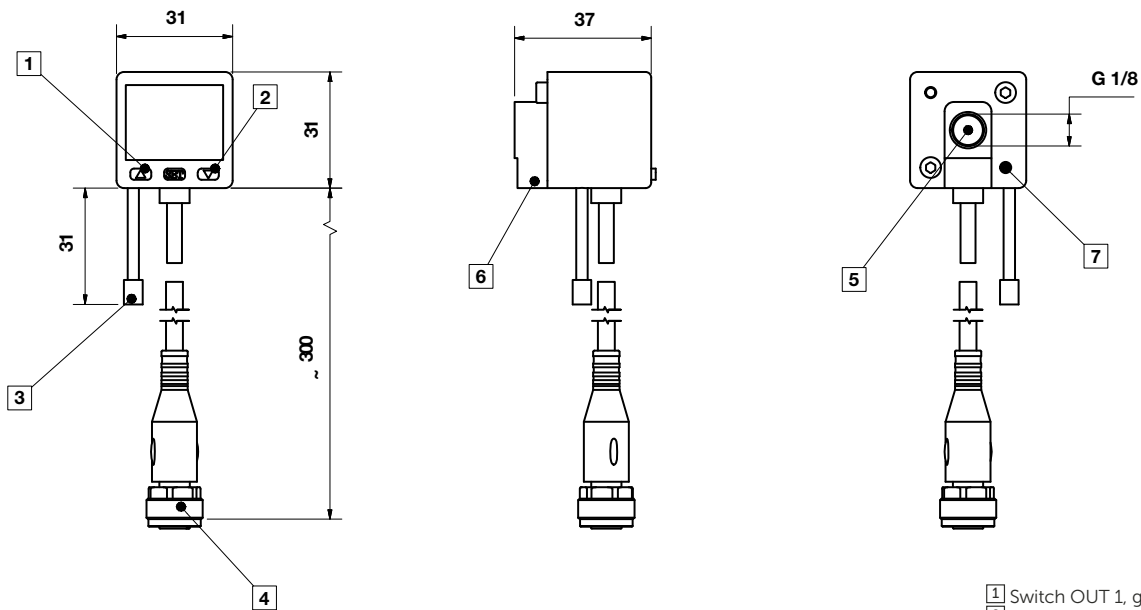
Pipe adaptor



Dimensions in mm
Projection/First angle



51D Pressure switch - digital



- 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.