B82G–General purpose filter/regulator Excelon® Plus Modular System

– Port size: 1/4" to 3/8" (PTF/ISO G)

– 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

Technical features

Medium:
Compressed air only

Maximum supply pressure:
Polycarbonate bowl:
145 psi (10 bar)
Metal bowl: 246 psi (17 bar)

Outlet pressure ranges:
4 to 30 psi (0.3 to 2 bar),
4 to 58 psi (0.3 to 4 bar),
4 to 102 psi (0.3 to 7 bar),
4 to 145 psi (0.3 to 10 bar),
10 to 247 psi (0.7 to 17 bar)

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

Diaphragm Type:
Relieving or Non-relieving

Flow:
79 scfm (37 dm³/s) at port size 1/4",
79 scfm (37 dm³/s) at port size 3/8",
inlet pressure 145 psi (10 bar),
operating pressure 91 psi (6.3 bar)
and a Δp: 7.25 psi (0.5 bar) drop
from set. Filter element: 40 µm

Drain:
Manual or automatic

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

Ambient/Media temperature:
Polycarbonate bowl:
+14 to +140°F (-10 to +60°C)
Metal bowl:
-4 to +149°F (-20 to +65°C)

Air supply must be dry enough
to avoid ice formation at
temperatures below +35°F (+2°C).

Materials:
Body: Die cast aluminum
Body covers: ABS
Bonnet: Acetal/ Aluminum
Valve: PP
Bowl: Transparent PC with
PP guard or die cast zinc
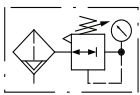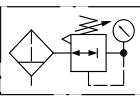Liquid level indicator lens
(metal bowl): PA
Filter element: sintered PP
Bowl 'o'- ring: Chloroprene
Elastomers: NBR

Technical data B82G

Symbol	Port Size (PTF)	Drain	Pressure range psi (bar)	Filter element (µm)	Bowl	Weight lb (kg)	Model *1)
	1/4	Auto	4 to 145 (0.3 to 10)	40	Guarded polycarbonate	0.6 (0.3)	B82G-2AK-AP3-RMG
	3/8	Auto	4 to 145 (0.3 to 10)	40	Guarded polycarbonate	0.6 (0.3)	B82G-3AK-AP3-RMG
	1/4	Auto	4 to 145 (0.3 to 10)	40	Metal with level indicator	1.1 (0.5)	B82G-2AK-AD3-RMG
	3/8	Auto	4 to 145 (0.3 to 10)	40	Metal with level indicator	1.1 (0.5)	B82G-3AK-AD3-RMG
	1/4	Manual	4 to 145 (0.3 to 10)	40	Guarded polycarbonate	0.6 (0.3)	B82G-2AK-QP3-RMG
	3/8	Manual	4 to 145 (0.3 to 10)	40	Guarded polycarbonate	0.6 (0.3)	B82G-3AK-QP3-RMG
	1/4	Manual	4 to 145 (0.3 to 10)	40	Metal with level indicator	1.1 (0.5)	B82G-2AK-QD3-RMG
	3/8	Manual	4 to 145 (0.3 to 10)	40	Metal with level indicator	1.1 (0.5)	B82G-3AK-QD3-RMG

Option selector

B82G– ★ ★ ★ – ★ ★ ★ – ★ ★ ★

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

Gauge	Substitute
With integrated gauge	G
Without integrated gauge but with gauge port 1/8"	N
Pressure range *2)	**Substitute**
4 to 30 psi (0.3 to 2 bar)	C
4 to 58 psi (0.3 to 4 bar)	F
4 to 102 psi (0.3 to 7 bar)	K
4 to 145 psi (0.3 to 10 bar)	M
10 to 247 psi (0.7 to 17 bar)	S*1)
Diaphragm type	**Substitute**
Relieving	R
Non-relieving	N
Element	**Substitute**
40 µm	3
5 µm	1

*1) Units with 246 psi (17 bar) outlet pressure range are available only with the T-bar adjustment and metal bowl.

*2) 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.
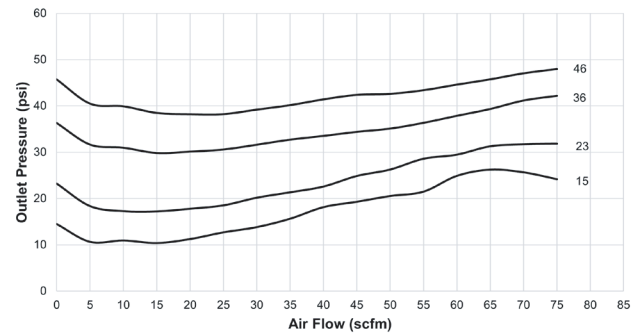
Flow characteristics

Inlet pressure: 145 psi
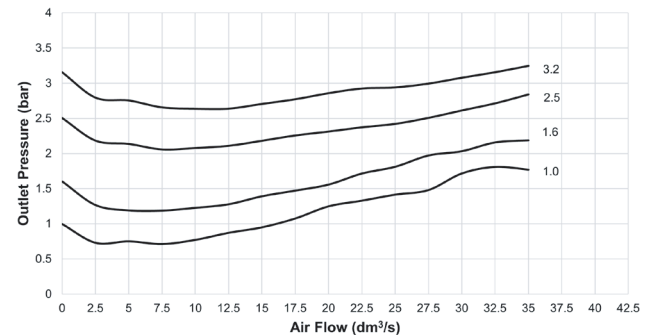**Range: 4 to 30 psi**
Port size: 1/4", 40 µm element
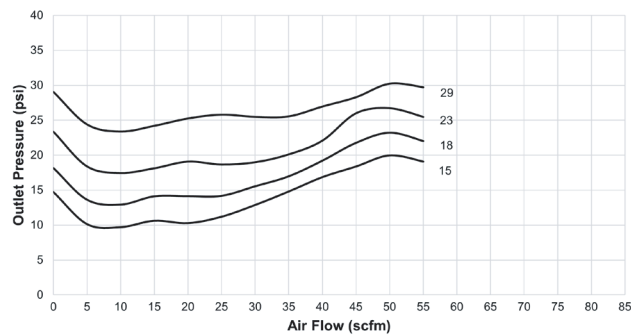
Inlet pressure: 10 bar
Range: 0.3 to 2 bar
Port size: 1/4", 40 µm element
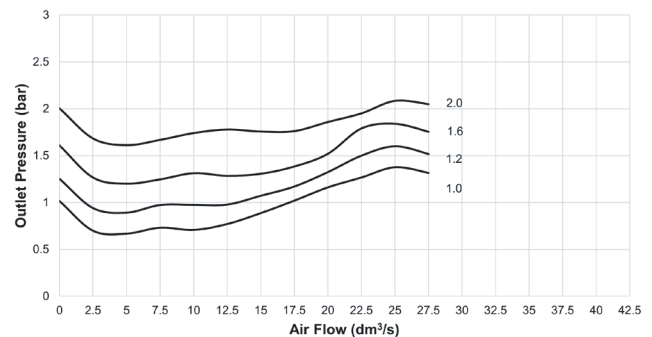
Inlet pressure: 145 psi
Range: 4 to 58 psi
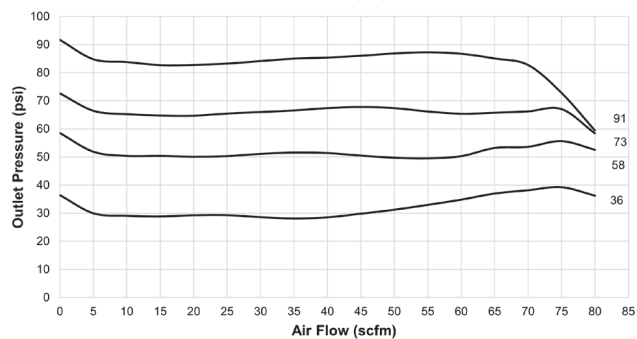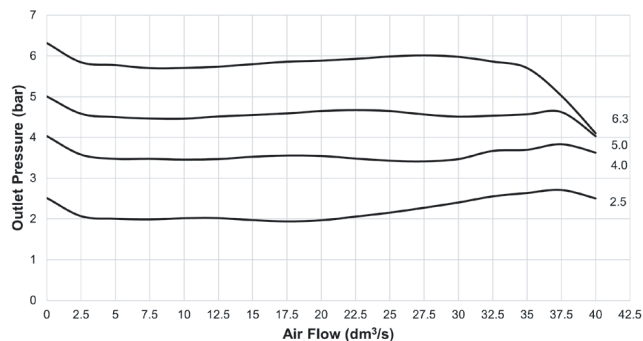**Port size: 1/4", 40 µm element**

Inlet pressure: 10 bar
Range: 0.3 to 4 bar
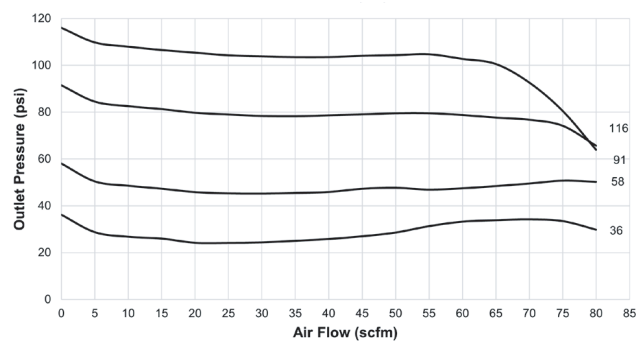**Port size: 1/4", 40 µm element**

Flow characteristics

Inlet pressure: 145 psi
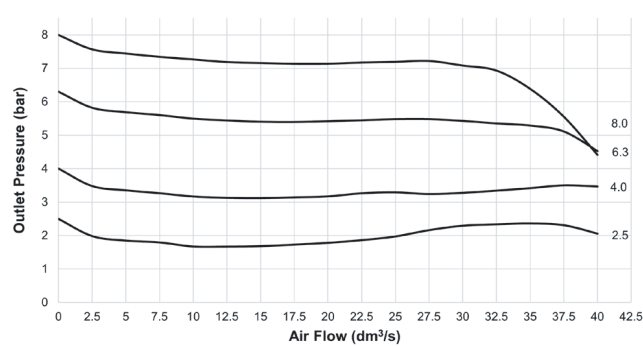**Range: 4 to 102 psi**
Port size: 1/4", 40 μm element

Inlet pressure: 10 bar
Range: 0.3 to 0.7 bar
Port size: 1/4", 40 μm element

Inlet pressure: 145 psi
Range: 4 to 145 psi
Port size: 1/4", 40 μm element

Inlet pressure: 10 bar
Range: 0.3 to 10 bar
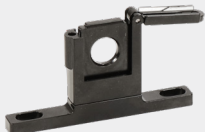**Port size: 1/4", 40 μm element**

Accessories

Quikclamp®	Quikclamp® with bracket assembled	Neck mounting bracket and panel nut	Panel mounting nut	Mounting bracket
page 3	page 3	page 4	page 4	page 4
820014-51KIT	820014-52KIT	820068-51KIT	820048-89KIT	820024-50KIT

Integrated gauge 10 bar gauge	Integrated gauge 20 bar gauge	Integrated gauge 4 bar gauge	Gauge adaptor kit 1/8 PTF	Gauge adaptor kit R 1/8
820073-01KIT	820073-02KIT	820073-03KIT	820143-01KIT	820143-02KIT

Pressure sensing block 1/4 PTF	Pressure sensing block G1/4	Full flow porting block 3/8 PTF	Full flow porting block G3/8	Pressure switch interface block (18D pressure switch) G1/4
page 4	page 4	page 4	page 4	page 5
820016-50KIT	820016-51KIT	820028-50KIT	820028-53KIT	0523109000000000

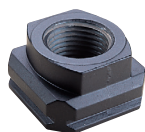| Pressure switch 18D (7 to 120 psi) *1	Digital pressure switch 54D (-14.5 to 145 psi) *2	Padlock	Lockout device	
0881300000000000	54D-V110G-DD0-AA	840055-01KIT	840055-02KIT	

*1) For other pressure ranges, please see 18D data sheet

*2) For other pressure ranges, please see 54D data sheet

Port Adaptors

Page 8

1/4 PTF	820015-02KIT
3/8 PTF	820015-03KIT
G1/4	820015-08KIT
G3/8	820015-09KIT

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

Center back connection, white face

Pressure range					
(psi)	(bar)*3	(MPa)	ø	Thread size	Model
0 to 84	0 to 6	0 to 0.6	2"	R1/8	18-015-012
0 to 145	0 to 10	0 to 1	2"	R1/8	18-015-013
0 to 362	0 to 25	0 to 2.5	2"	R1/8	18-015-014

*3) primary scale

Center back connection, black face

Pressure range					
(psi) *3	(bar)	(MPa)	ø	Thread size	Model
0 to 60	0 to 4	0 to 0.4	2"	1/8" NPT	18-015-202
0 to 160	0 to 11	0 to 1.1	2"	1/8" NPT	18-015-204
0 to 300	0 to 20	0 to 2.1	2"	1/8" NPT	18-015-205

![IMI logo]

Maintenance/Service

Filter cartridges 5 micron	**Filter cartridges 40 micron**	**Auto drain kit with metal Nut - Inch**	**Auto drain kit with metal Nut - Metric**	**R82 / B82 Elastomer Kit**
820038-50KIT	820038-51KIT	6000-61KIT	6000-60KIT	FRLB82-KIT

Spare Parts

Filter Bowl (Guarded Poly bowl with auto drain 6 mm PIF)	**Filter Bowl (Guarded Poly bowl with manual drain)**	**Filter Bowl (Metal with S/Glass & auto drain, 6 mm PIF)**	**Filter Bowl (Metal with S/Glass & manual drain)**
820025-51KIT	820025-50KIT	820003-51KIT	820003-50KIT

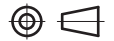|	
Filter Bowl (Guarded Poly bowl with auto drain, 1/4 PIF)	**Filter Bowl (Metal with S/Glass & auto drain, 1/4 PIF)**
820025-53KIT	820003-56KIT

IMI

Dimensions

2.2 (56.13)

1.8 (46.50)

2.2 (56.13)

1.8 (46.50)

3.1 (78.45) Adjusting Knob

1.0 (24.95)

1.4 (35.65)

6.3 (159.78) Autodrain

THREAD - 1/8 NPT
MAX TORQUE - 1 Nm

⚠ LOCK

#1.0 (24.95)

1

2

4.2 (106.12) T-Handle

6.2 (156.68) 1/4 turn

⚠ LOCK

3

3.67 [93.2] T-HANDLE W/ PLASTIC BONNET

6.2 (156.68) 1/4 turn

⚠ LOCK
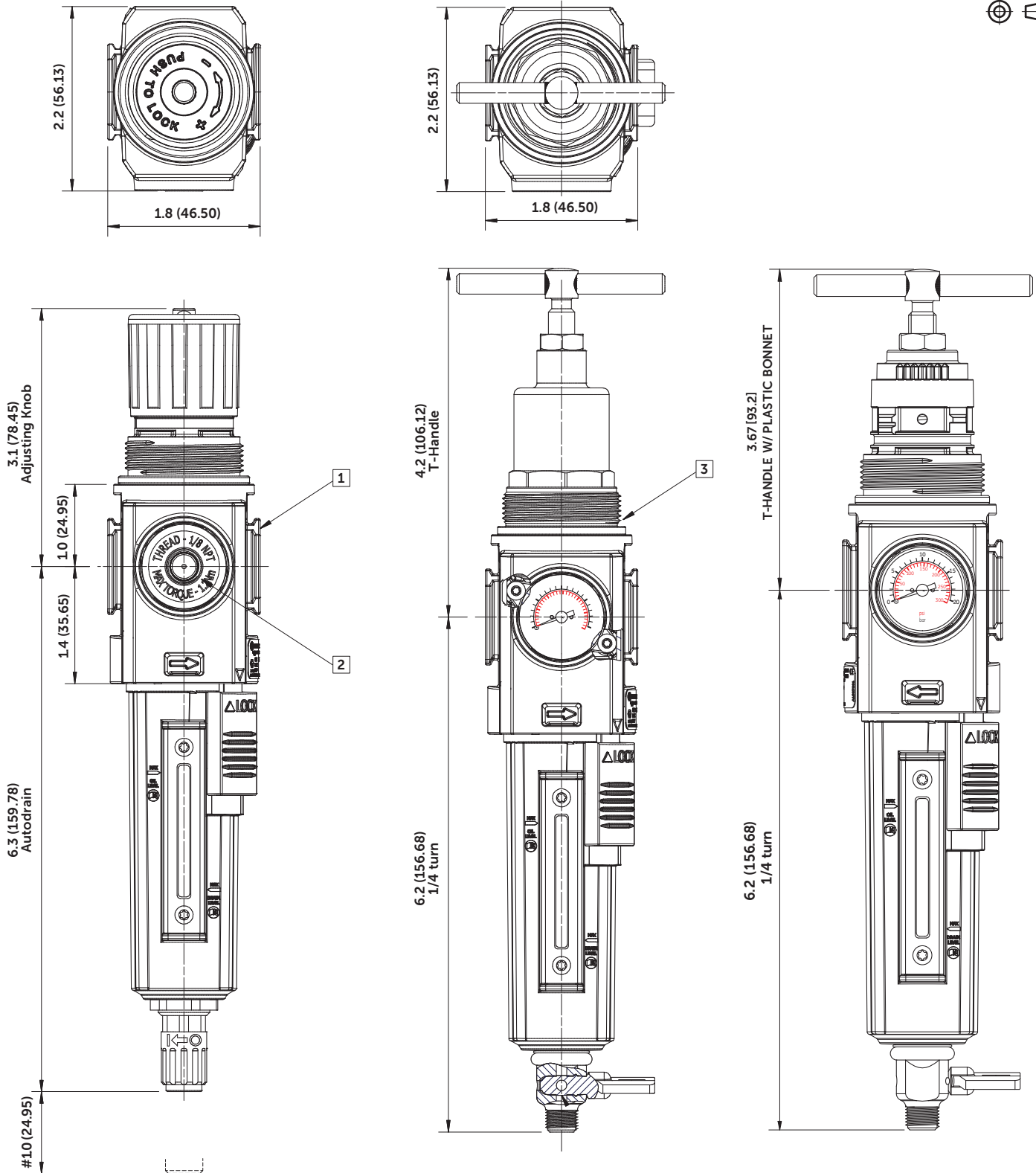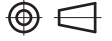
\# Minimum clearance for bowl removal
1 Main ports 1/4", 3/8" (ISO G/PTF)
2 Gauge port Rc 1/8 for ISO G and 1/8 PTF for PTF main ports
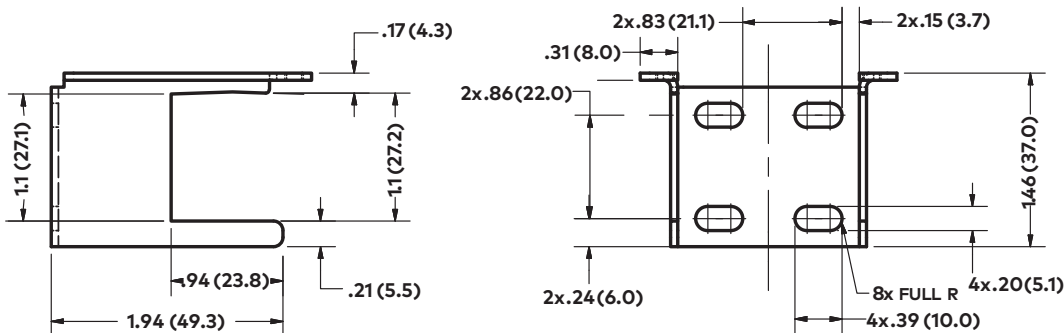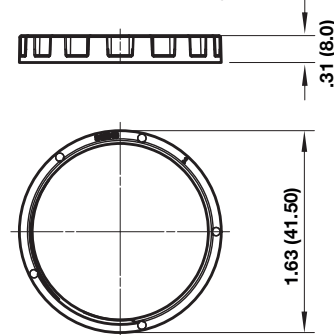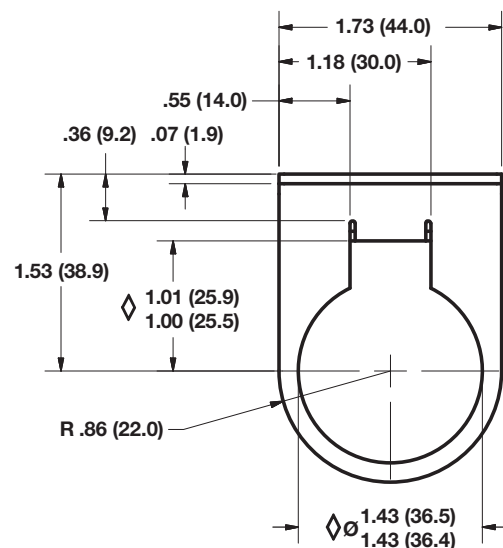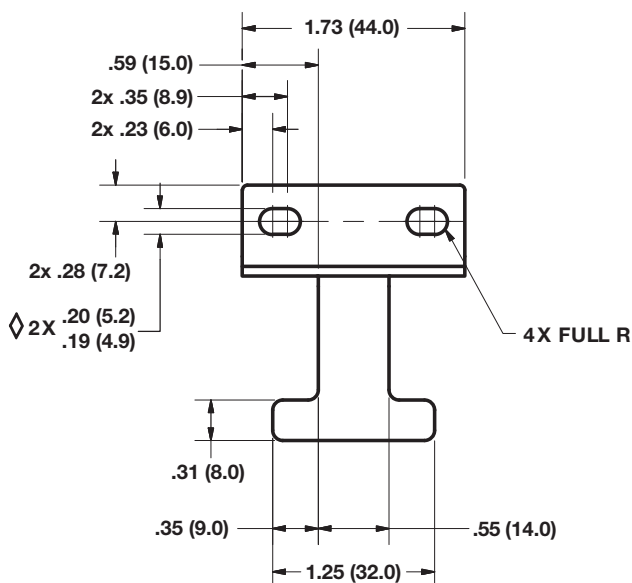3 Bonnet for 10 to 247 psi pressure range option

Accessories

Mounting bracket

2.1 (52.7)

.05 (1.52)

2x 1.0 (26.2)

2x M4x 0.7

2x .1 (2.68)

2.15 (54.6)

1.52 (38.7)

2x .12 (3.0)

.17 (4.3)

1.1 (27.1)

1.11 (27.2)

.94 (23.8)

.21 (5.5)

1.94 (49.3)

2x .83 (21.1)

2x .15 (3.7)

.31 (8.0)

2x .86 (22.0)

1.46 (37.0)

2x .24 (6.0)

8x FULL R

4x .20 (5.1)

4x .39 (10.0)

Panel mounting nut

.31 (8.0)

1.63 (41.50)

Neck mounting bracket

1.73 (44.0)

.59 (15.0)

2x .35 (8.9)

2x .23 (6.0)

2x .28 (7.2)

◊ 2X .20 (5.2)
.19 (4.9)

4X FULL R

.31 (8.0)

.35 (9.0)

.55 (14.0)

1.25 (32.0)

1.73 (44.0)

1.18 (30.0)

.55 (14.0)

.36 (9.2) .07 (1.9)

1.53 (38.9)

◊ 1.01 (25.9)
1.00 (25.5)

R .86 (22.0)

◊ Ø 1.43 (36.5)
1.43 (36.4)

IMI
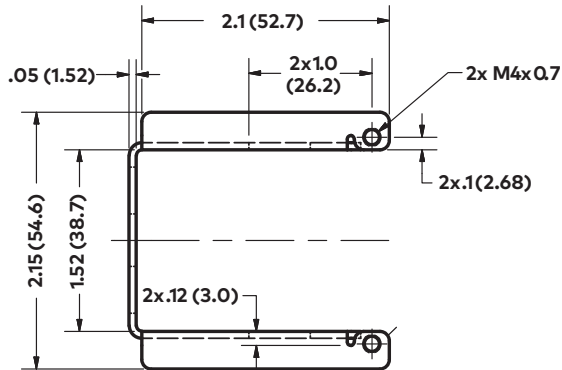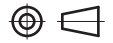
Quikclamp® with wall bracket

2.3 (58.5)
1.5 (38.1)
2.14 (54.5)
1.7 (43.0)
4.07 (103.3)
1.53 (39.0)
1.65 (42.0)
.47 (12.1)

Quikclamp®

1.85 (46.9)
.47 (12.1)
1.7 (43.1)

Pressure sensing block

1.42 (36.0)
.75 (19.0)
1.12 (28.6)
1.5 (38.0)

Full flow porting block

1.66 (42.25)
1.76 (44.6)
.88 (22.3)
.72 (18.3)
2X 1.44 (36.6)
.98 (25.12)
1.97 (50.125)
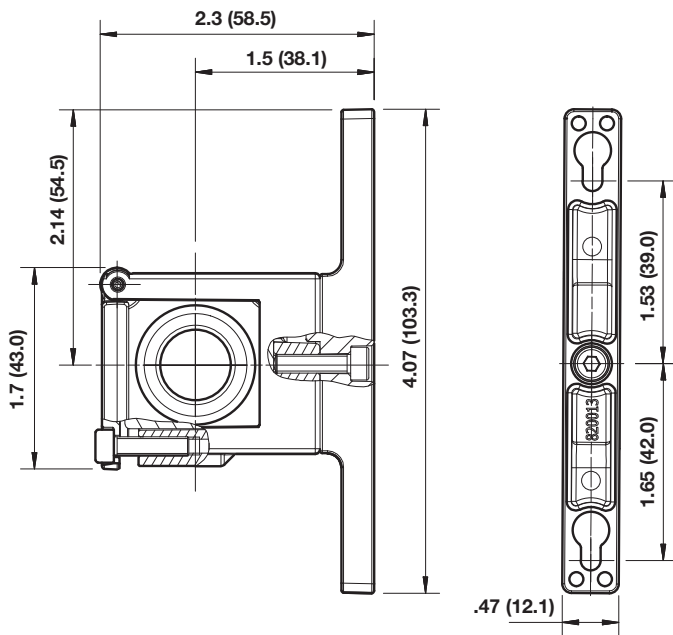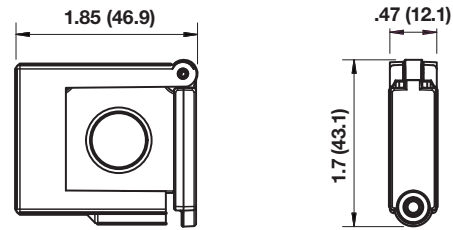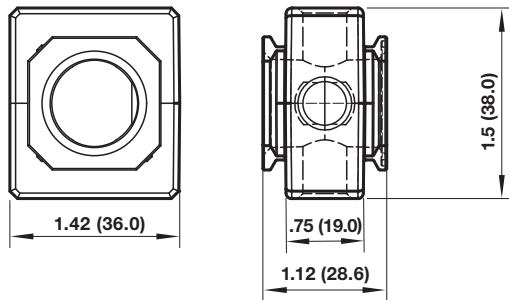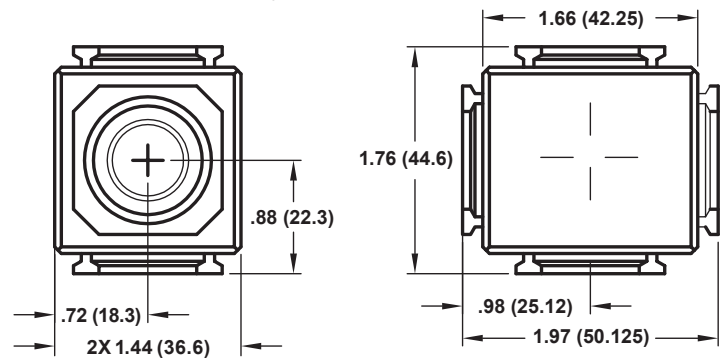
Porting block for 18D pressure switch

1.57 (40)
1.25 (32)
1.73 (44)
G1/4
1.57 (40)

18D Pressure switch

1.08 (27.5)
.19 (5)
1.18 (30)
18A/C
1.77 (45)
1.18 (30)
1.38 (35)
2.83 (72)

![IMI logo]
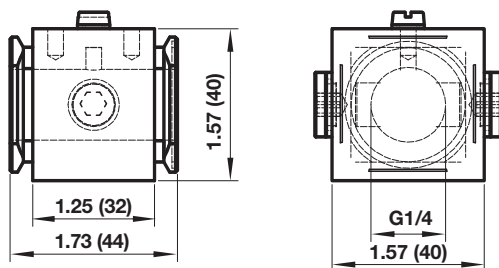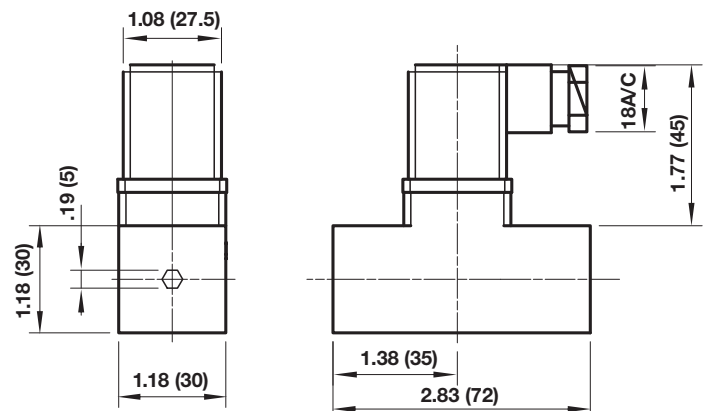
18D Porting block and 18D assembled

1.57 (40)

1.26 (32)
1.73 (44)

G1/4
1.57 (40)
2.24 (57)

Pipe adaptor

.46 (11.90)

.90 (23.00)
.45 (11.50)

1.03 (26.20)
.51 (13.10)

.54 (13.85)
.33 (8.40)
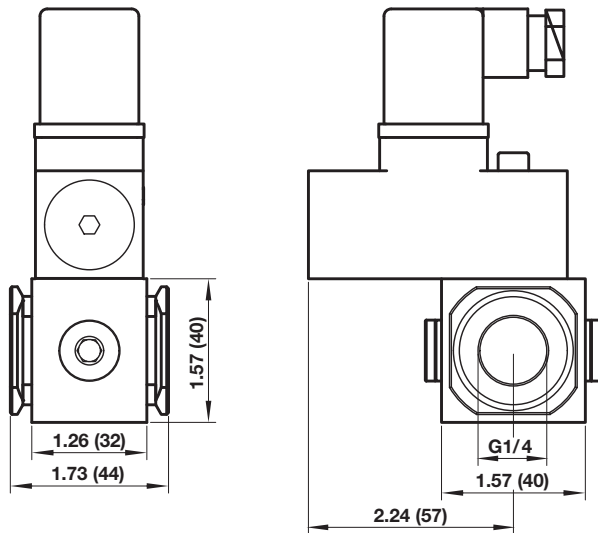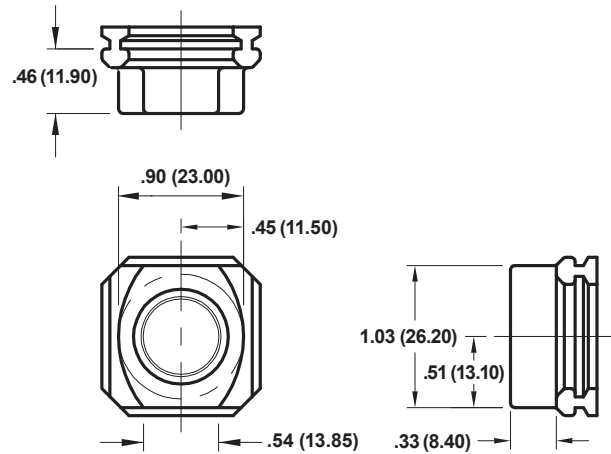
54D Pressure switch - digital

.44 (11.3)
0.8 (20.7)

1

2

1.4 (35)
1.7 (42)

0.8 (20)
ø.16 (ø4.2)

0.2 (4.75)

1.25 (32)

1.25 (32)

1.2 (30)
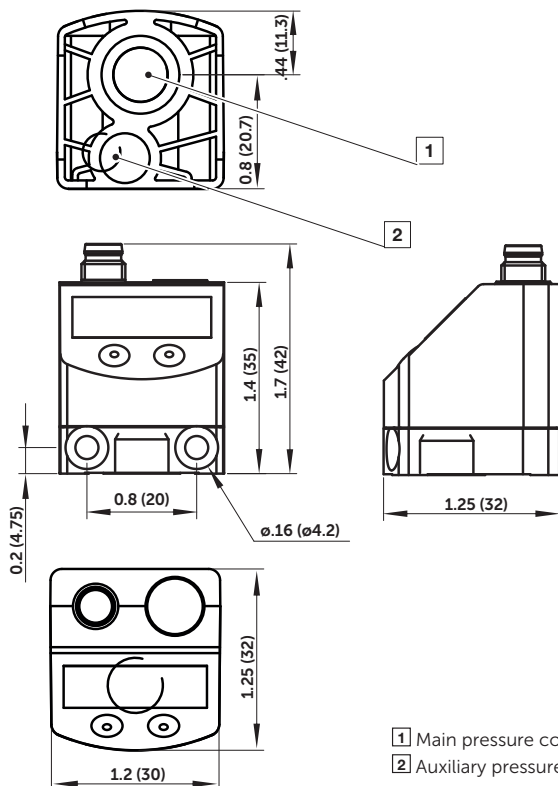
1 Main pressure connection (PTF 1/8)
2 Auxiliary pressure connection for differential pressure sensing (M5)

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 IMI Precision Engineering, 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.