# P82F 3/2 Soft Start/Dump Valve 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
- High forward flow capacity
- Fast Exhausting
- Variable Snap Adjustment
- Solenoid and air pilot options
- For use as components in safety-related systems according to DIN EN ISO13849 up to a Performance Level (PL)c Cat. 1
  Safety function: Safe Venting.
- Ex DoC in accordance with 2014/34/EU/ATEX

## Technical features

**Medium:**
Compressed air only

**Maximum supply pressure:**
10 bar (145 psi)

**Minimum operating pressure:**
3 bar (43 psi)

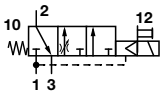
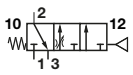
**Port size:**
G1/4, G3/8,
1/4 PTF, 3/8 PTF

**Flow:**
21 $dm^3/s$ at port size 1/4"
Full flow P1 to P2 at 6,3 bar (91 psi) inlet, with 0,5 bar (7 psi) pressure drop P2 to P3 at 18 $dm^3/s$

**Ambient/Media temperature:**
-20 ... +65°C (-4 ... +149°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

**Materials:**
Body: Aluminium
End Caps: Aluminum
Body covers: ABS
Elastomers: NBR
Valve: Brass
Air Pilot: Aluminium

## Technical data P82F

| Symbol | Port Size | Actuating/return | Voltage | Exhaust Port | Weight (kg) | Model |
|---|---|---|---|---|---|---|
|  | G1/4 | Solenoid/spring | 24 V d.c. | G1/4 | 0,45 | P82F-2GT-PFN |
| | G3/8 | Solenoid/spring | 24 V d.c. | G1/4 | 0,45 | P82F-3GT-PFN |
|  | G1/4 | Air/spring | N/A | G1/4 | 0,45 | P82F-2GA-NNN |
| | G3/8 | Air/spring | N/A | G1/4 | 0,45 | P82F-3GA-NNN |

## Electrical details for solenoid operators

| | |
|---|---|
| Voltage tolerance: | -10%/+15% |
| Rating: | 100% continuous duty |
| Inlet orifice: | 0,8mm |
| Electrical connection: | 15mm DIN EN 175301-803 (DIN 43650) Form C |
| Manual override: | Shrouded push button, spring return |
| Protection class: | IP65 |
| Materials: | PP5 (body), NBR (seals) |

## Option selector

P82F-★★★-★★N

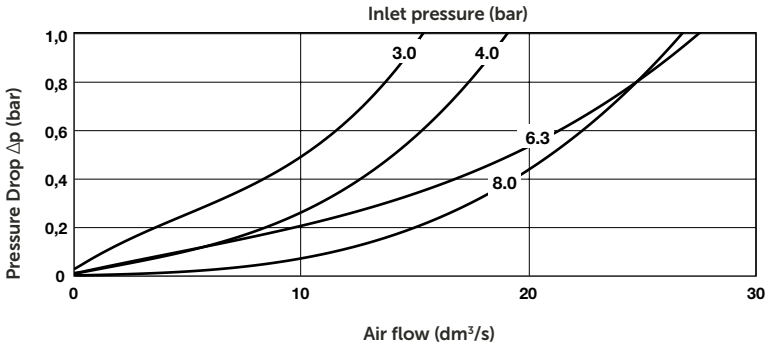
| Function | Substitute |
|---|---|
| 3/2 Soft Start | F |
| **Port Size** | **Substitute** |
| 1/4" | 2 |
| 3/8" | 3 |
| **Thread Form** | **Substitute** |
| PTF | A |
| ISO G | G |

| Voltage | Substitute |
|---|---|
| 24 V d.c. | F |
| 110 V a.c. | A |
| 220 V a.c. | B |
| Non | N |
| **Solendoid Operator** | **Substitute** |
| Non-Locking push button | P |
| Non | N |
| **Operator *2)** | **Substitute** |
| Air pilot*1) | A |
| Solenoid Operated | T |

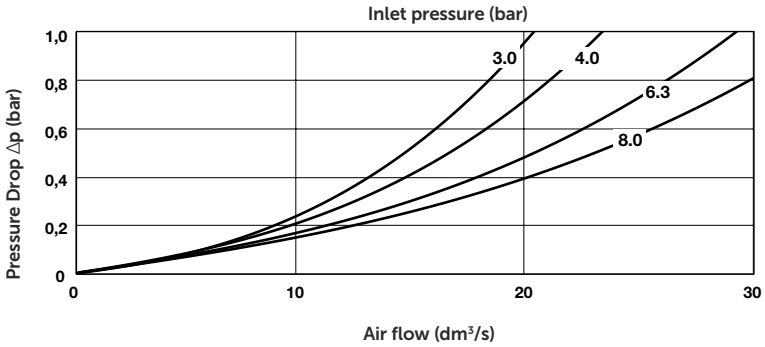
*1) To order air pilot models, select P82F-**A-NNN
*2) ATEX statement can be found online
https://cdn.norgren.com/pdf/IM_Excelon_Plus_EN_final.pdf

## Flow characteristics

Port 1 to 2
Port size: 1/4"




Port 1 to 2
Port size: 3/8"



## Accessories

### Connection cable with plug,LED and M12 Female

| Description | Cable length (m) | Model |
|---|---|---|
| PUR-Cable; M12/valve type C DIN connector | 0,6 | NC-DINCA-123MS-A |
| | 1 | NC-DINCA-123MS-1 |
| | 2 | NC-DINCA-123MS-2 |
| | 5 | NC-DINCA-123MS-5 |

### Plug with with moulded cable and indicator

| Voltage | Cable length (m) | Model |
|---|---|---|
| 12 - 24 V a.c. / d.c | 1 | V10014-D01 |
| 12 - 24 V a.c. / d.c | 3 | V10014-D03 |
| 110 V a.c. / d.c. | 1 | V10015-D01 |
| 110 V a.c. / d.c. | 3 | V10015-D03 |
| 220 V a.c. / d.c | 1 | V10016-D01 |
| 220 V a.c. / d.c | 3 | V10016-D03 |

### Plug with moulded cable

| Description | Cable length (m) | Model |
|---|---|---|
| 3 pin plug with moulded cable | 1 | V10013-D01 |
| 3 pin plug with moulded cable | 3 | V10013-D03 |

### Light Emitting Seals ,15mm form C

| Description | Model |
|---|---|
| Light Emitting Seals Circuit A (12 - 24 V d.c.) | V10037-E13 |
| Light Emitting Seals Circuit B (110 - 120 V a.c.) | V10037-E18 |
| Light Emitting Seals Circuit B (220 - 240 V a.c.) | V10037-E19 |

### Plug with cable gland and indicator

| Description | Model |
|---|---|
| Plug with cable gland and indicator 12-24 V a.c. / d.c., c/w LED / VDR | V10012-D13 |
| Plug with cable gland and indicator 110 V a.c. / d.c., c/w LED / VDR | V10012-D18 |
| Plug with cable gland and indicator 220 V a.c. / d.c., c/w LED / VDR | V10012-D19 |

### M12 Adaptor Top - MSUP Valve Plug Form C 8MM

V13981-E01

### M12 Adaptor Rear - MSUP Valve Plug Form C 8MM

V13980-E01

### Plug with cable gland

V10027-D00

## Accessories

Quikclamp

Page 5

820014-51KIT

Quikclamp
with bracket assembled

Page 5

820014-52KIT

Pressure sensing block
1/4 PTF

Page 5

820016-50KIT

Pressure sensing block
G1/4

Page 5

820016-51KIT

Full flow porting block
3/8" PTF

Page 5

820028-50KIT

Full flow porting block
G3/8

Page 5

820028-53KIT

Pressure switch interface block
(18D pressure switch)

Page 6

0523109000000000

Pneumatic pressure switch
18D (0,5 ... 8 bar) *1)

Page 6

0881300

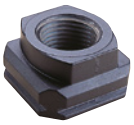
Digital pressure switch
51D (-1 ... 10 bar) *2)

Page 7

0860810

*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

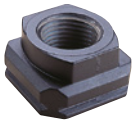
Port Adaptors
1/4 PTF



Page 6

820015-02KIT

Port Adaptors
3/8 PTF



Page 6

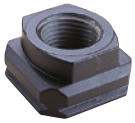
820015-03KIT

Port Adaptors
G1/4

Page 6

820015-08KIT

Port Adaptors
G3/8



Page 6

820015-09KIT

## Silencer

Heavy duty muffler, 1/4" NPT
male thread, brass wire element

MB002A

Heavy duty muffler, R1/4 male
thread, brass wire element

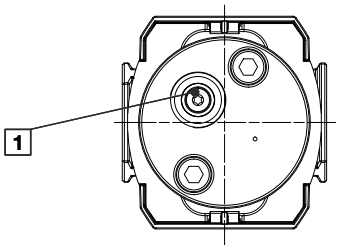
MB002B

## Voltage rating and spare coils

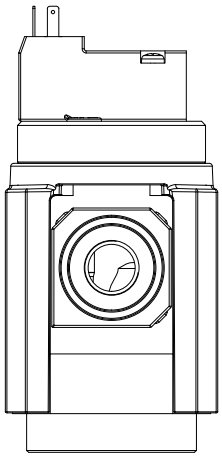
| | Voltage | Power | Replacement |
|---|---|---|---|
|  | 24 V d.c. | 1,2 W | 840650-50KIT |
|  | 110 V a.c. | 1,5 VA | 840650-51KIT |
|  | 220 V a.c. | 1,5 VA | 840650-52KIT |

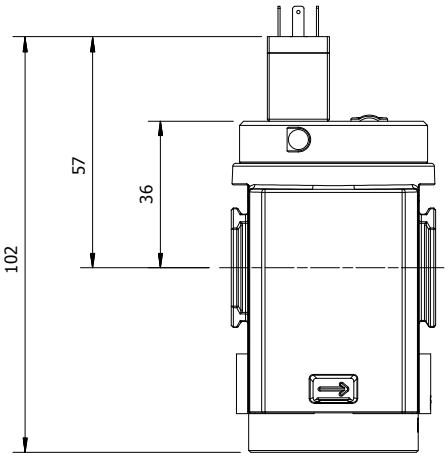
## Dimensions

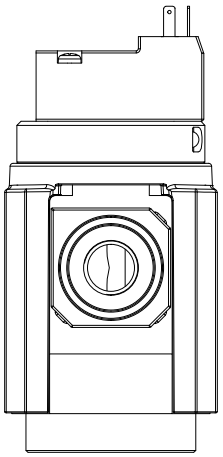
Dimensions in mm
Projection/First angle

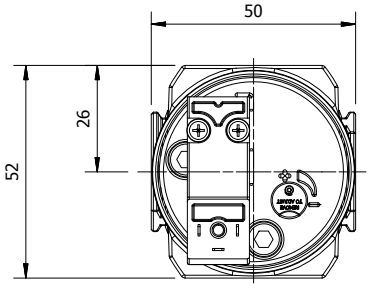



1 1/4" exhaust port (NPT or ISO G)





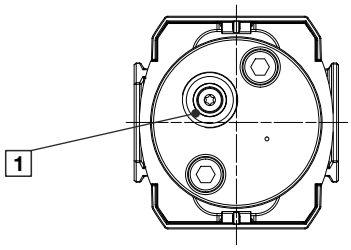





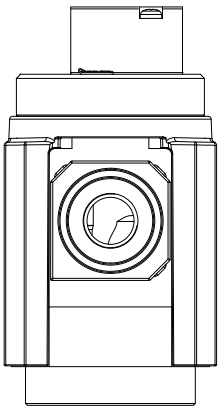
## Dimensions

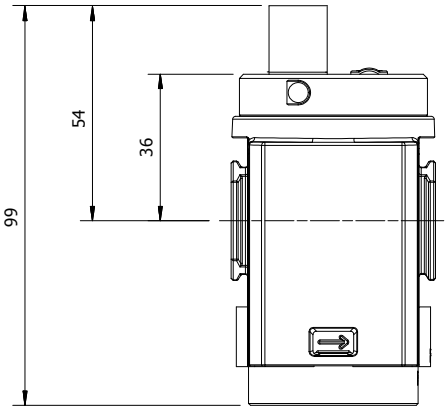
## Air Pilot Operator

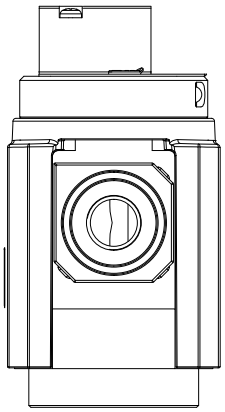
Dimensions in mm
Projection/First angle

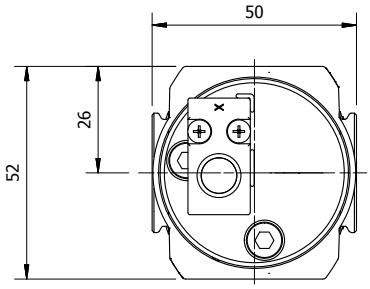



1 1/4" exhaust port (NPT or ISO G)





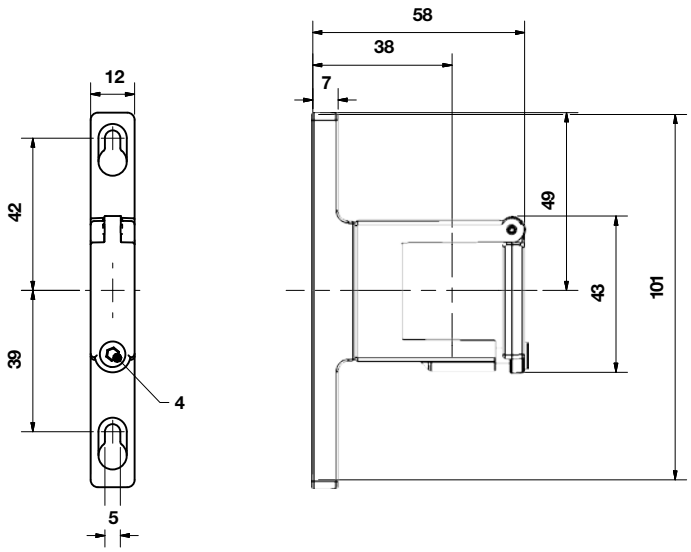





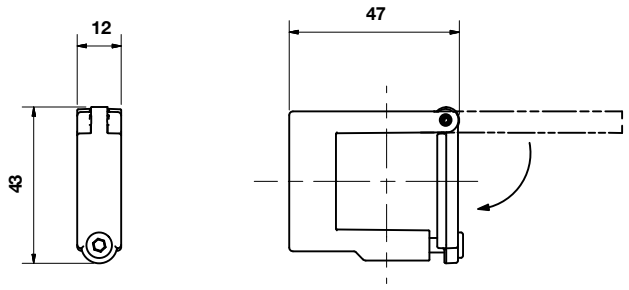
## Accessories

Dimensions in mm
Projection/First angle

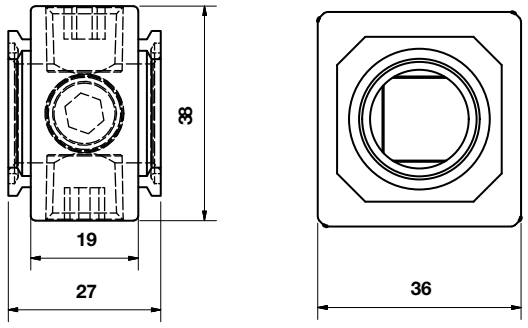
### Quikclamp with wall bracket



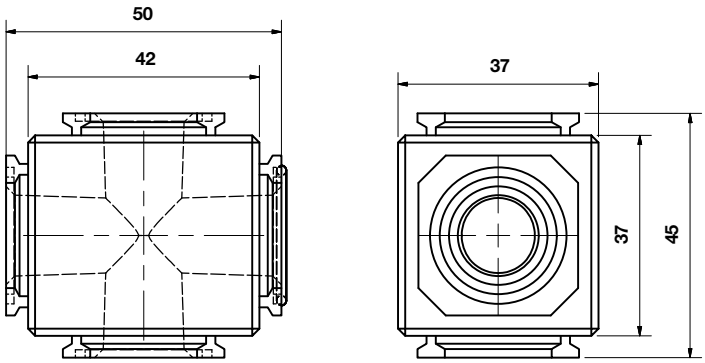

### Quikclamp



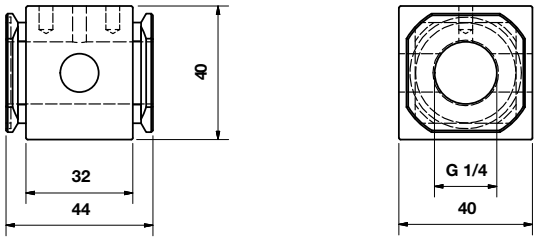

### Pressure sensing block




### Full flow porting block

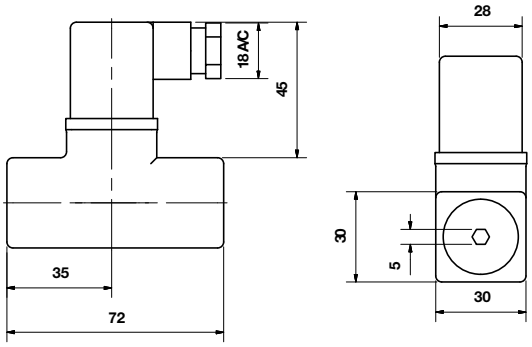


## Porting block for 18D pressure switch

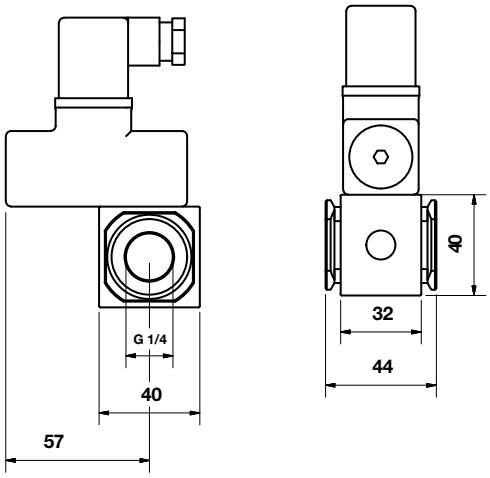



## 18D Pressure switch

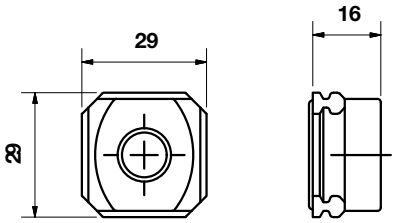
Dimensions in mm
Projection/First angle



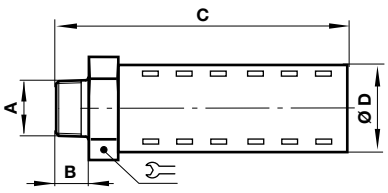

## 18D Porting block and 18D assembled




## Pipe adaptor



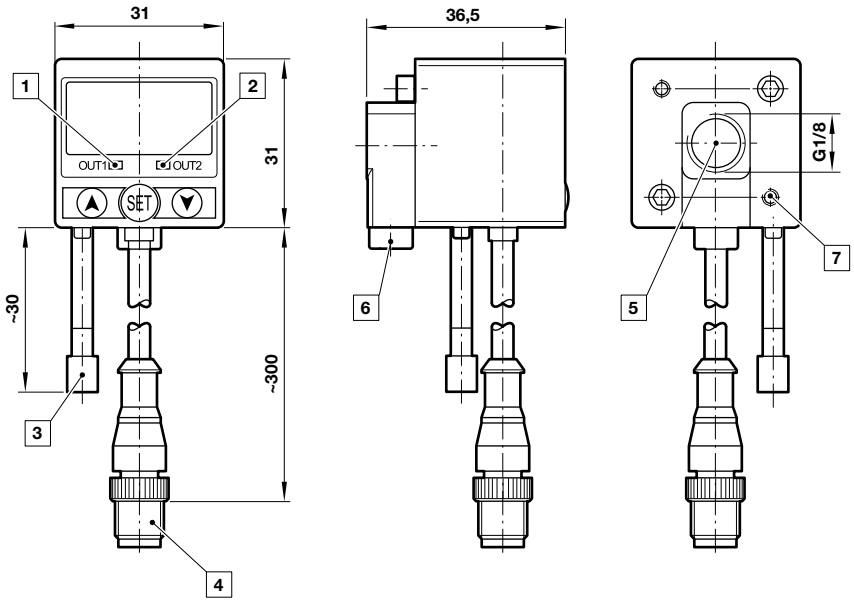

## Silencer




| A | B | C | D | ⌀ | Model |
|---|---|---|---|---|---|
| R1/4 | 17 | 92 | 32 | 32 | MB002B |
| 1/ 4 NPT | 17 | 92 | 32 | 32 | MB002A |

## 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.