

ifm electronic



Installation Instructions  
Electronic pressure sensor

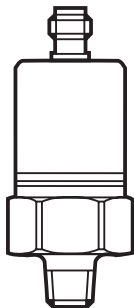
**efectorsoo**

**PX32xx**

**PX34xx**

**UK**

11450565 / 00 11 / 2010



# 1 Safety instructions

- Please read the product description prior to installing the unit. Ensure that the product is suitable for your application without any restrictions.
- If the operating instructions or the technical data are not adhered to, personal injury and/or damage to property may occur.
- Please check for all applications that the product materials (see Technical data) are compatible with the media to be measured.

For units with cULus approval and the scope of validity cULus: → 6 Technical data.

## 2 Function and features

The pressure sensor detects the system pressure and converts it into an analog output signal (4...20 mA).

### 2.1 Applications

- Type of pressure: relative pressure

Order no.	Measuring range	Permissible overload pressure	Bursting pressure
PX3233	0...250 PSI	2 175 PSI	5 075 PSI
PX3234	0...200 PSI	1 087 PSI	2 175 PSI
PX3254	0...100 PSI	1 087 PSI	2 175 PSI
PX3438	0...100 inH2O	4 015 inH2O	12 043 inH2O



Static and dynamic overpressures exceeding the indicated overload pressure are to be avoided by taking appropriate measures.

The indicated bursting pressure must not be exceeded. Even if the bursting pressure is exceeded only for a short time, the unit can be destroyed.

NOTE: Risk of injury!

## 3 Installation



Before mounting and removing the sensor, make sure that no pressure is applied to the system.

- ▶ Insert the unit in suitable process connection (see type label "Port Size").
- ▶ Tighten firmly. Tightening torque 25 Nm.

## 4 Electrical connection

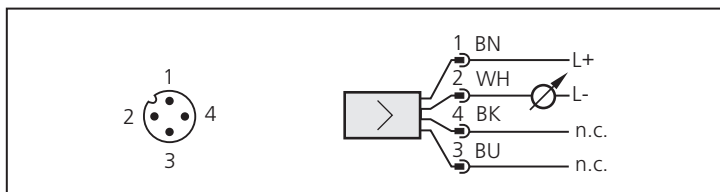


The unit must only be connected by an electrician.

The national and international regulations for the installation of electrical equipment must be observed.

Voltage supply to SELV, PELV.

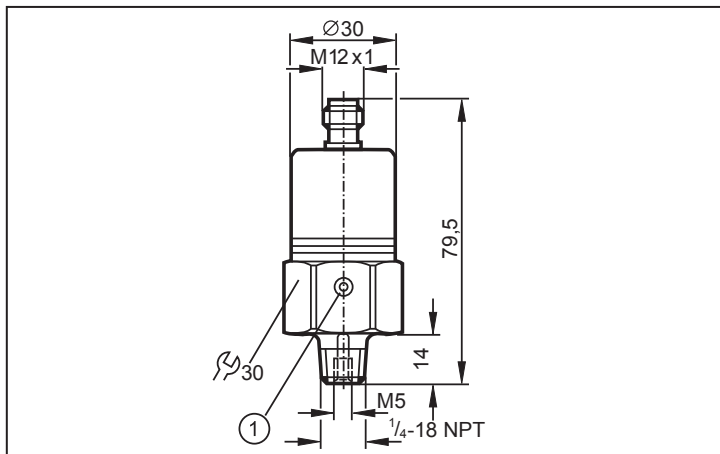
- ▶ Disconnect power.
- ▶ Connect the unit as follows:



Core colours of ifm sockets:

1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black), n.c. = not connected.

## 5 Scale drawing



Dimensions are in millimeters

1: ventilation

## 6 Technical data

Operating voltage [V].....	9.6 ... 32 DC <sup>1)</sup>
Analogue output .....	4 ... 20 mA
Load [ $\Omega$ ].....	max. (UB - 9.6) x 50; 720 at UB = 24 V

### Step response time analogue output [ms]

PX3233	PX3234	PX3254	PX3438
3	3	500	6

### Characteristics deviation [% of the span]

PX3233	PX3234	PX3254	PX3438
$< \pm 0.35$ (BFSL) / $< \pm 0.75$ (LS)			

### Repeatability [% of the span]

PX3233	PX3234	PX3254	PX3438
0.1	0.1	0.15	0.1

### Long-term stability [% of value of measuring range / 6 months]

PX3233	PX3234	PX3254	PX3438
$< \pm 0.05$			

### Temperature coefficients (TEMPCO) in the compensated temperature range 0 ... 80°C (in% of the span/10K)

	PX3233	PX3234	PX3254	PX3438
greatest TEMPCO of the zero point	0.2	0.15	0.2	0.2
greatest TEMPCO of the span	0.3	0.2	0.3	0.3

Housing material.....	stainless steel (316S12); FPM (Viton); PA; EPDM/X (Santoprene)
Materials (wetted parts).....	stainless steel (303S22); ceramics; FPM (Viton)
Operating temperature [°C] .....	-25 ... +80
Medium temperature [°C] .....	-25 ... +90
Storage temperature [°C].....	-40 ... +100
Protection .....	IP 65
Protection class .....	III
Insulation resistance [MΩ].....	> 100 (500 V DC)
Shock resistance [g] .....	50 (DIN / IEC 68-2-27, 11 ms)
Vibration resistance [g].....	20 (DIN / IEC 68-2-6, 10 - 2000 Hz)
EMC	
EN 61000-4-2 ESD:.....	4 kV CD / 8 kV AD
EN 61000-4-3 HF radiated: .....	30 V/m
EN 61000-4-4 Burst:.....	2 kV
EN 61000-4-6 HF conducted:.....	10 V
radiation of interference .....	according to the automotive directive 2004/104/EC / CISPR25
noise immunity.....	according to the automotive directive 2004/104/EC / ISO 11452-2
HF radiated.....	100 V/m
pulse resistance.....	according to ISO7637-2 / severity level 3

<sup>1)</sup> to EN50178, SELV, PELV

BFSL = Best Fit Straight Line / LS = Limit Value Setting

For units with cULus approval and the scope of validity cULus:

The device shall be supplied from an isolating transformer having a secondary Listed fuse rated as noted in the following table.

Overcurrent protection		
Control-circuit wire size		Maximum protective device rating Ampere
AWG	(mm <sup>2</sup> )	
26	(0.13)	1
24	(0.20)	2
22	(0.32)	3
20	(0.52)	5
18	(0.82)	7
16	(1.3)	10

The Sensor shall be connected only by using any R/C (CYJV2) cord, having suitable ratings.

More information at [www.ifm.com](http://www.ifm.com)