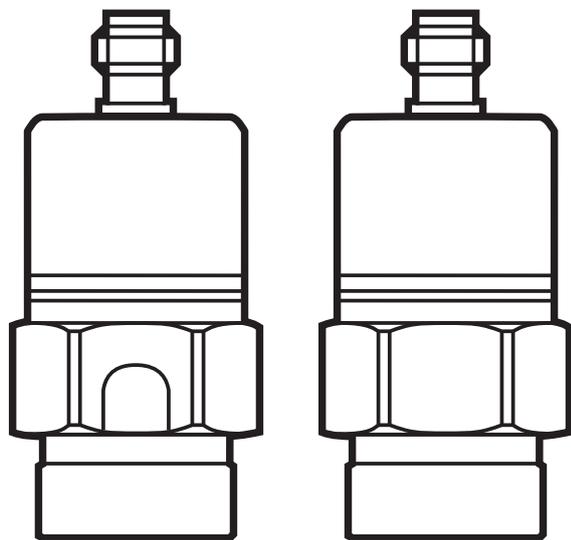


Installation Instructions  
Electronic pressure sensor  
**PA30xx / PA90xx**

**UK**

11450525 / 00 06 / 2019



# 1 Symbols used

▶ Instruction



Important note

Non-compliance can result in malfunction or interference.



Information

Supplementary note.

## 2 Safety instructions

- The device described is a subcomponent for integration into a system.
  - The manufacturer of the system is responsible for the safety of the system.
  - The system manufacturer undertakes to perform a risk assessment and to create a documentation in accordance with legal and normative requirements to be provided to the operator and user of the system. This documentation must contain all necessary information and safety instructions for the operator, the user and, if applicable, for any service personnel authorised by the manufacturer of the system.
- Read this document before setting up the product and keep it during the entire service life.
- The product must be suitable for the corresponding applications and environmental conditions without any restrictions.
- Only use the product for its intended purpose (→ Functions and features).
- Only use the product for permissible media (→ Technical data).
- If the operating instructions or the technical data are not adhered to, personal injury and/or damage to property may occur.
- The manufacturer assumes no liability or warranty for any consequences caused by tampering with the product or incorrect use by the operator.
- Installation, electrical connection, set-up, operation and maintenance of the unit must be carried out by qualified personnel authorised by the machine operator.
- Protect units and cables against damage.

### 3 Function and features

The pressure sensor detects the system pressure and converts it into an analog output signal.

- 4 ... 20 mA (PA30xx) / 0 ... 10 V (PA90xx)

#### 3.1 Applications

- Type of pressure: relative pressure

Order no.	Measuring range		Permissible overload pressure		Bursting pressure	
	bar	PSI	bar	PSI	bar	PSI
PAxx20	0...400	0...5 800	600	8 700	1 000	14 500
PAxx21*	0...250	0...3 625	400	5 800	850	12 300
PAxx22	0...100	0...1 450	300	4 350	650	9 400
PAxx23	0...25	0...363	150	2 175	350	5 075
PAxx24	0...10	0...145	75	1 087	150	2 175
PAxx26	0..2.5	0...36.3	20	290	50	725
PAxx27	0...1	0...14.5	10	145	30	450
PAxx28	0...0.25	0...3.63	6	84	30	450
PAxx29	-1...0	-14.5...0	10	145	30	450
PAxx60	0...600	0...8 700	800	11 600	1 200	17 400

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$$\text{MPa} = \text{bar} \div 10 / \text{kPa} = \text{bar} \times 100$$

\*Values for PA3221:

Permissible overload pressure = 600 bar; bursting pressure = 1000 bar.



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!

Use in gases at pressures > 25 bar only after contacting the manufacturer ifm.



The versions 250 bar and 400 bar are supplied with a pressure relief mechanism and an integrated damping device to avoid any risk of injury in case of bursting when the bursting pressure is exceeded.

## 4 Installation



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

- ▶ Insert the unit in a G $\frac{1}{4}$  process connection.
- ▶ Tighten firmly.



If the damping device must be removed ensure that it is not damaged. Do not reuse a damaged damping device. If you have any questions, please contact ifm electronic's sales specialists.

## 5 Electrical connection



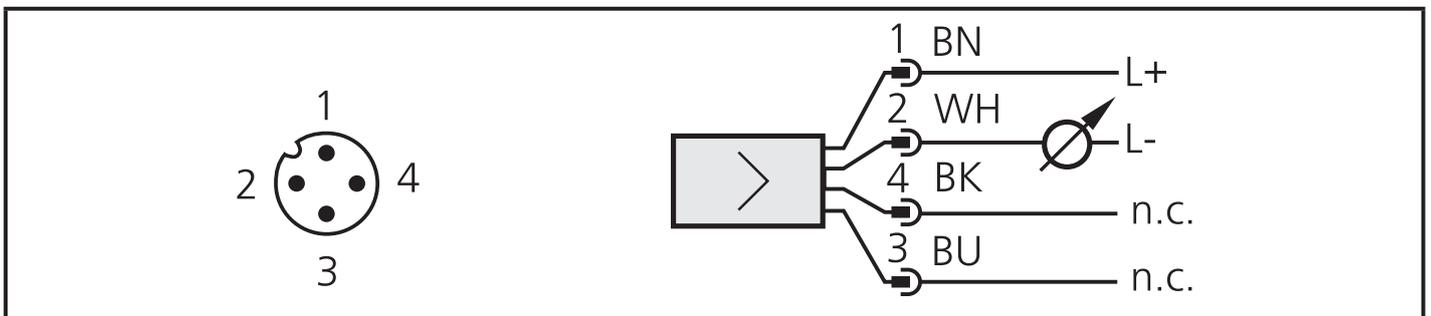
The unit must only be connected by an electrician.

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:

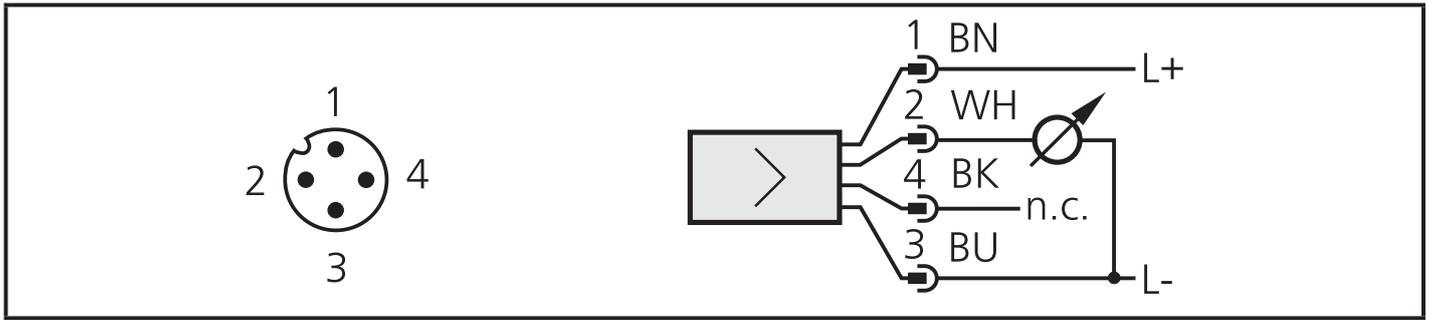
### PA30xx (4 ... 20 mA analogue)



Core colours of ifm sockets:

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

## PA90xx (0 ... 10 V analogue)



Core colours of ifm sockets:

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

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