

ifm electronic



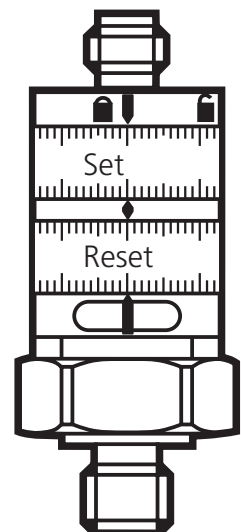
Installation Instructions
Electronic pressure monitor

efector500[®]

PK652X

UK

704443 / 00 08 / 2008



1 Safety instructions

- Read the product description before installing the unit. Ensure that the product is suitable for your application without any restrictions.
- Non-adherence to the operating instructions or technical data can lead to personal injury and/or damage to property.
- In all applications check compliance of the product materials (→ 6 Technical data) with the media to be measured.

2 Function and features

The pressure monitor detects the system pressure and switches the two complementary outputs OUT1 (pin 4) / OUT2 (pin 2):

- In case of increasing pressure OUT1 closes / OUT2 opens when the set Set value is reached.
- In case of decreasing pressure OUT1 opens / OUT2 closes when the set Reset value is reached.

Applications

Type of pressure: relative pressure

Order no.	Measuring range		Permissible overload pressure		Bursting pressure	
	bar	PSI	bar	PSI	bar	PSI
PK6520	0...400	0...5 800	600	8 700	1 600	23 200
PK6521	0...250	0...3 625	400	5 800	1 000	14 500
PK6522	0...100	0...1 450	200	2 900	1 000	14 500
PK6523	0...25	0...363	60	870	500	7253
PK6524	0...10	0...145	25	362	300	4 350



Avoid static and dynamic overpressure exceeding the given overload pressure.

Even if the bursting pressure is exceeded only for a short time the unit can be destroyed (danger of injuries)!

3 Installation



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

4 Electrical connection



The unit must be connected by a suitably qualified electrician.
The national and international regulations for the installation of electrical equipment must be observed.

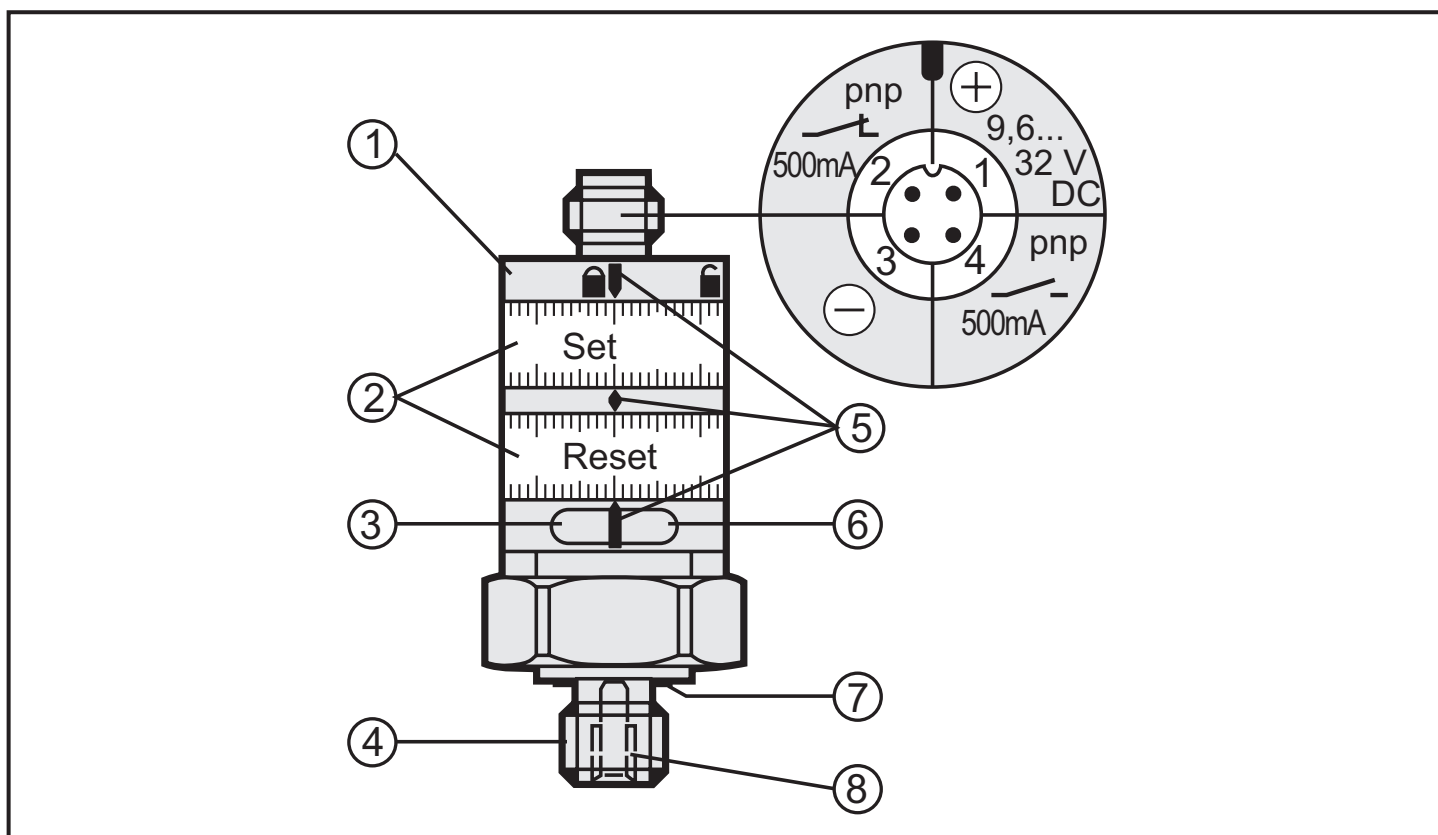
Voltage supply to EN50178, SELV, PELV.

The device shall be supplied from an isolating source and protected by an overcurrent device in accordance with UL 248 such that the limited voltage/current requirements in accordance with UL 508 are met.

► Disconnect power before connecting the unit.

UK

5 Setting / Operation



- 1: locking ring
- 2: setting rings (manually adjustable after unlocking)
- 3: green LED: supply voltage O.K.
- 4: process connection G $\frac{1}{4}$ A; tightening torque 25 Nm
- 5: setting marks
- 6: yellow LED: Set value reached, OUT1 = ON / OUT2 = OFF
- 7: sealing FPM / DIN 3869-14
- 8: internal thread M5

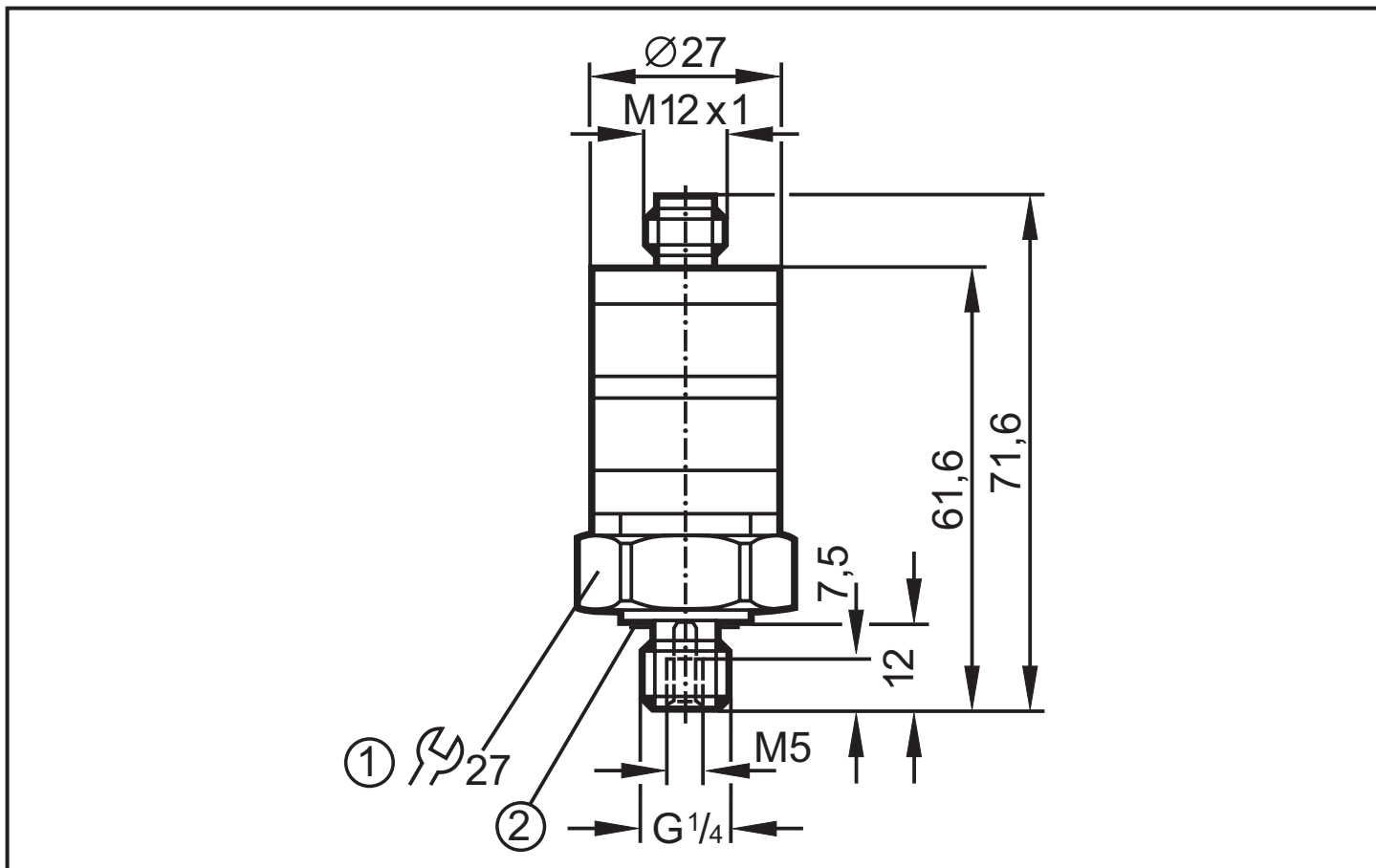
- Minimum distance between Set and Reset = 2% of the final value of the measuring range.
- To obtain the setting accuracy: Set the rings to the minimum value, then set the requested value.

6 Technical data

Operating voltage [V].....	9.6...32 DC
Current rating [mA]	500
Current consumption [mA].....	< 25
Switching frequency [Hz].....	100
Setting accuracy [% of the end value of the measuring range]	< ± 2.5
Characteristics deviation	
[% of the end value of the measuring range].....	< ± 1.5 (BFSL) / < ± 2.5 (LS)
Repeatability [% of the end value of the measuring range].....	< ± 0.5
Temperature drift [% of the end value of the measuring range/10 K].....	< ± 0.5
in the temperature range [°C]	0...80
Operating temperatur [°C]	-25...80
Medium temperature [°C]	-25...80
Protection	IP 67 / III
Insulation resistance [MΩ]	> 100 (500 V DC)
Shock resistance [g]	50 (DIN / IEC 68-2-27, 11ms)
Vibration resistance [g]	20 (DIN / IEC 68-2-6, 10 - 2000 Hz)
Housing material.....	Pocan; PC (Macrolon); FPM (Viton); stainless steel (316S12)
Materials (wetted parts).....	stainless steel (316S12); seal: FPM (Viton)
EMC EN 61000-4-2 ESD:	4 / 8 kV
EN 61000-4-3 HF radiated:.....	10 V/m
EN 61000-4-4 Burst:	2 kV
EN 61000-4-6 HF conducted:	10 V

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

7 Scale drawing



Dimensions are in millimeters (25.4 mm = 1 inch)

1: tightening torque 25 Nm

2: sealing FPM / DIN 3869-14