

ifm electronic



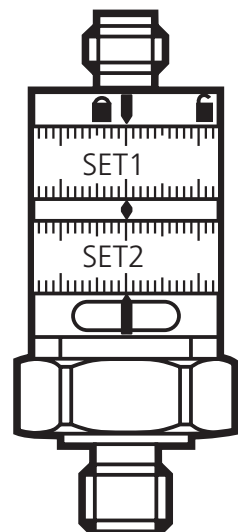
Installation Instructions
Electronic pressure monitor

efector500[®]

PK752x

UK

707882 / 00 08 / 2010



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 generates two output signals (2 NO with independently adjustable switch points:

- In case of increasing pressure OUT1 (OUT2) closes when the Set1 (Set2) value is reached.
- In case of decreasing pressure OUT1 (OUT2) opens when the value „Set1 (Set2) minus hysteresis“ is reached.

The hysteresis is fixed (2% of value of measuring range).

Applications

Type of pressure: relative pressure

Order no.	Measuring range		Permissible overload pressure		Bursting pressure	
	bar	PSI	bar	PSI	bar	PSI
PK7520	0...400	0...5 800	600	8 700	1 600	23 200
PK7521	0...250	0...3 625	400	5 800	1 000	14 500
PK7522	0...100	0...1 450	200	2 900	1 000	14 500
PK7523	0...25	0...363	60	870	500	7523
PK7524	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.

For the scope of validity cULus:

The device shall be supplied from an isolating transformer having a secondary Listed fuse rated either

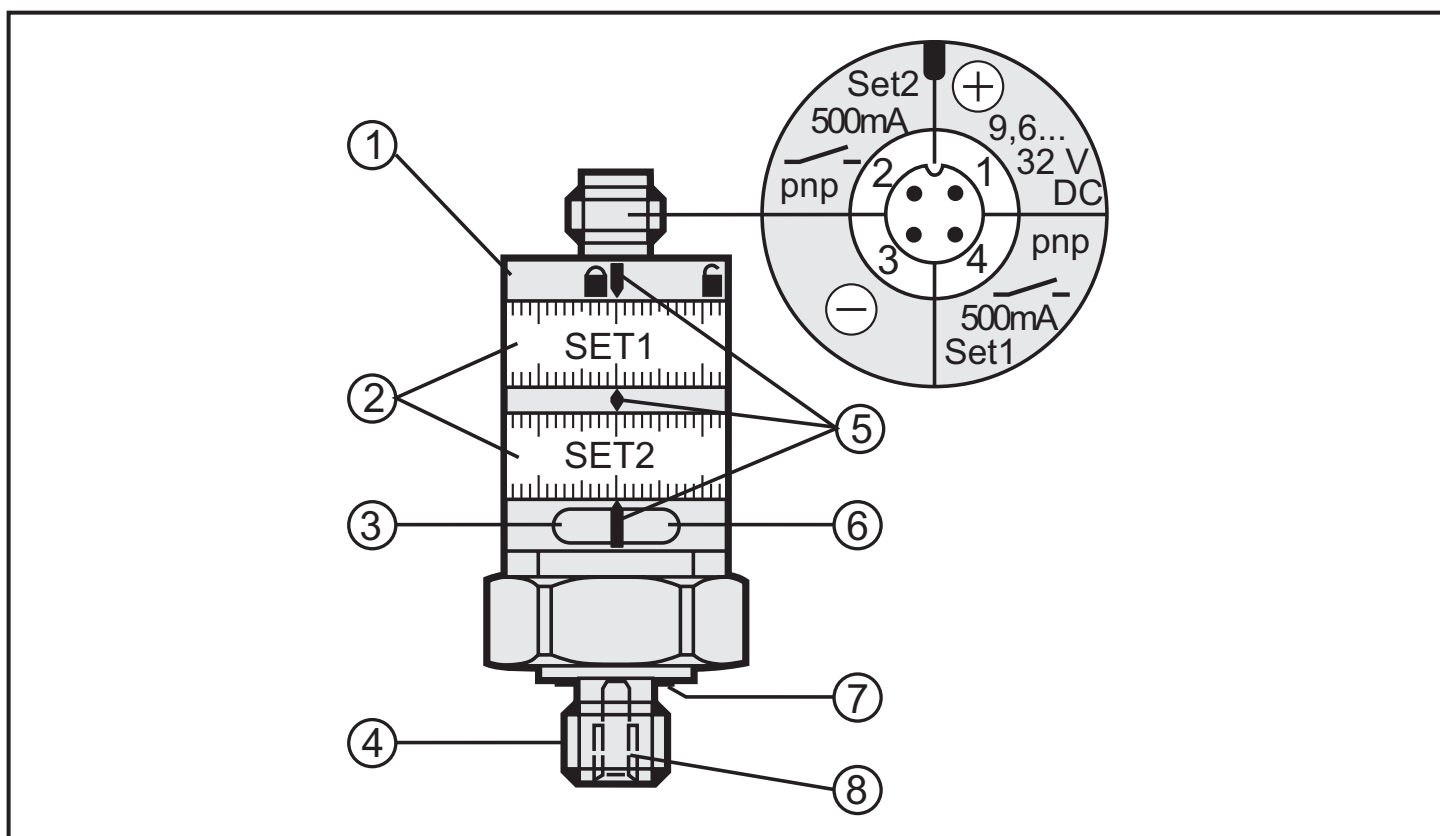
a) max 5 amps for voltages 0~20 Vrms (0~28.3 Vp) or

b) 100/Vp for voltages of 20~30 Vrms (28.3~42.4 Vp).

► Disconnect power before connecting the unit.

UK

5 Setting / Operation



Pin 4 = OUT1 / Pin 2 = OUT2

- 1: locking ring
- 2: setting rings (manually adjustable after unlocking)
- 3: yellow LED: Set1 value reached, OUT1 = ON
- 4: process connection G $\frac{1}{4}$ A; tightening torque 25 Nm
- 5: setting marks
- 6: yellow LED: Set2 value reached, OUT2 = ON
- 7: sealing FPM / DIN 3869-14
- 8: internal thread M5

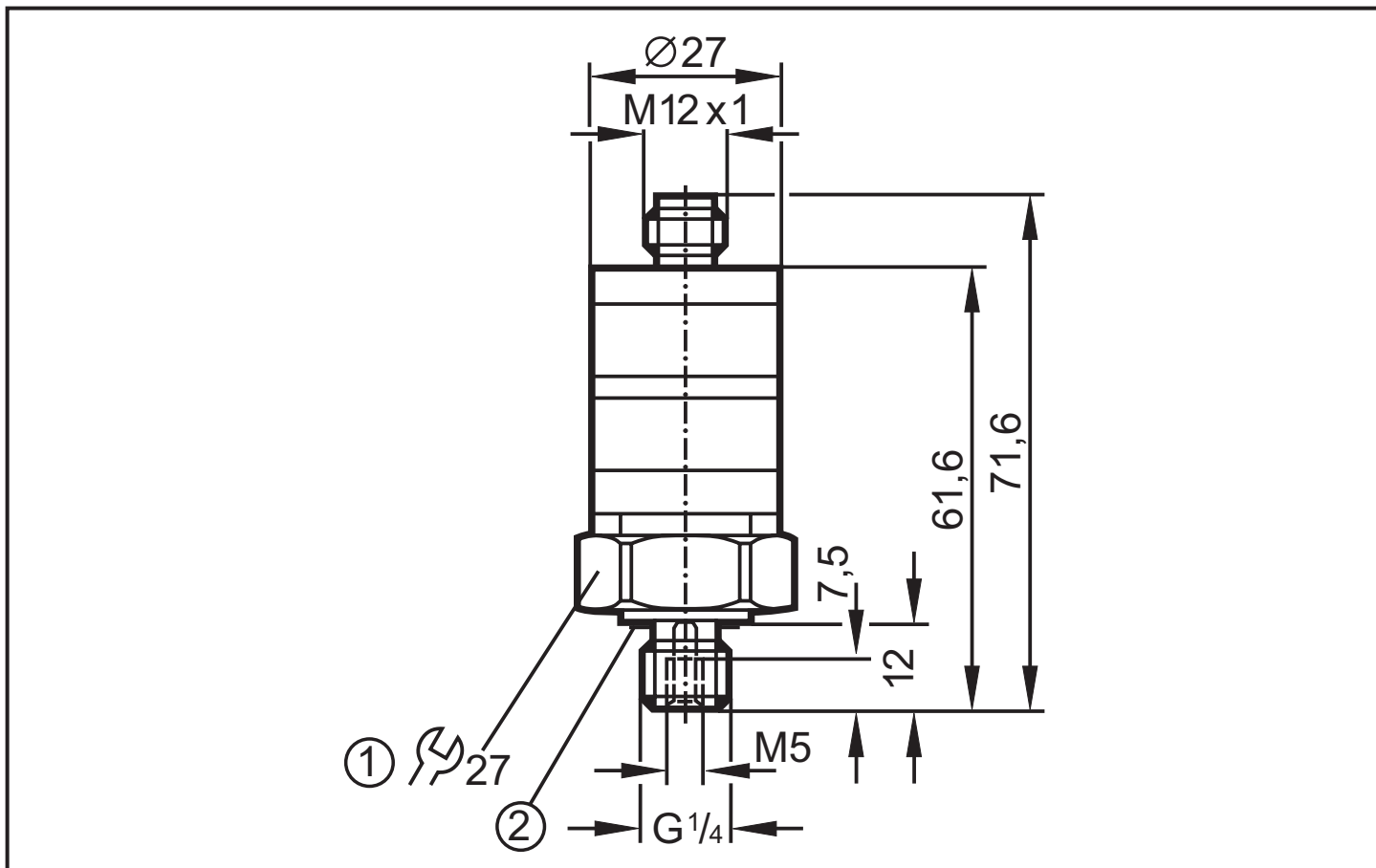
- To obtain the setting accuracy: Set the rings to the minimum value, then set the requested value.

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