

ifm electronic



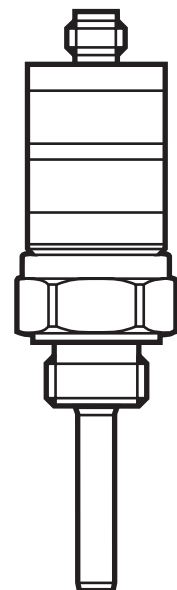
Operating instructions
Electronic temperature sensor

efector600[®]

TC7430

UK

704447 / 00 08 / 2008



1 Functions and features

The unit detects the system temperature in machines and installations.

2 Function

The unit generates 2 output signals: 1 x NO + 1 x NC with separately adjustable switch points [SET1] and [SET2].

OUT1	With rising temperature OUT1 closes when the set value [SET1] is reached.
	With falling temperature OUT1 opens, when the value [SET1] minus 2 K is reached.
OUT2	With rising temperature OUT2 opens when the set value [SET2] is reached.
	With falling temperature OUT2 closes, when the value [SET2] minus 5 K is reached.

- Measuring range: 0 ... 100 °C / 32 ... 212 °F.
- Measuring element: Pt 1000 according to DIN EN 60751, class B.

3 Mounting



Make sure that there is no medium flowing through the system before mounting and removing the unit.

- ▶ Insert the unit in a G $\frac{1}{2}$ process connection.
- ▶ Tighten firmly.

4 Electrical connection



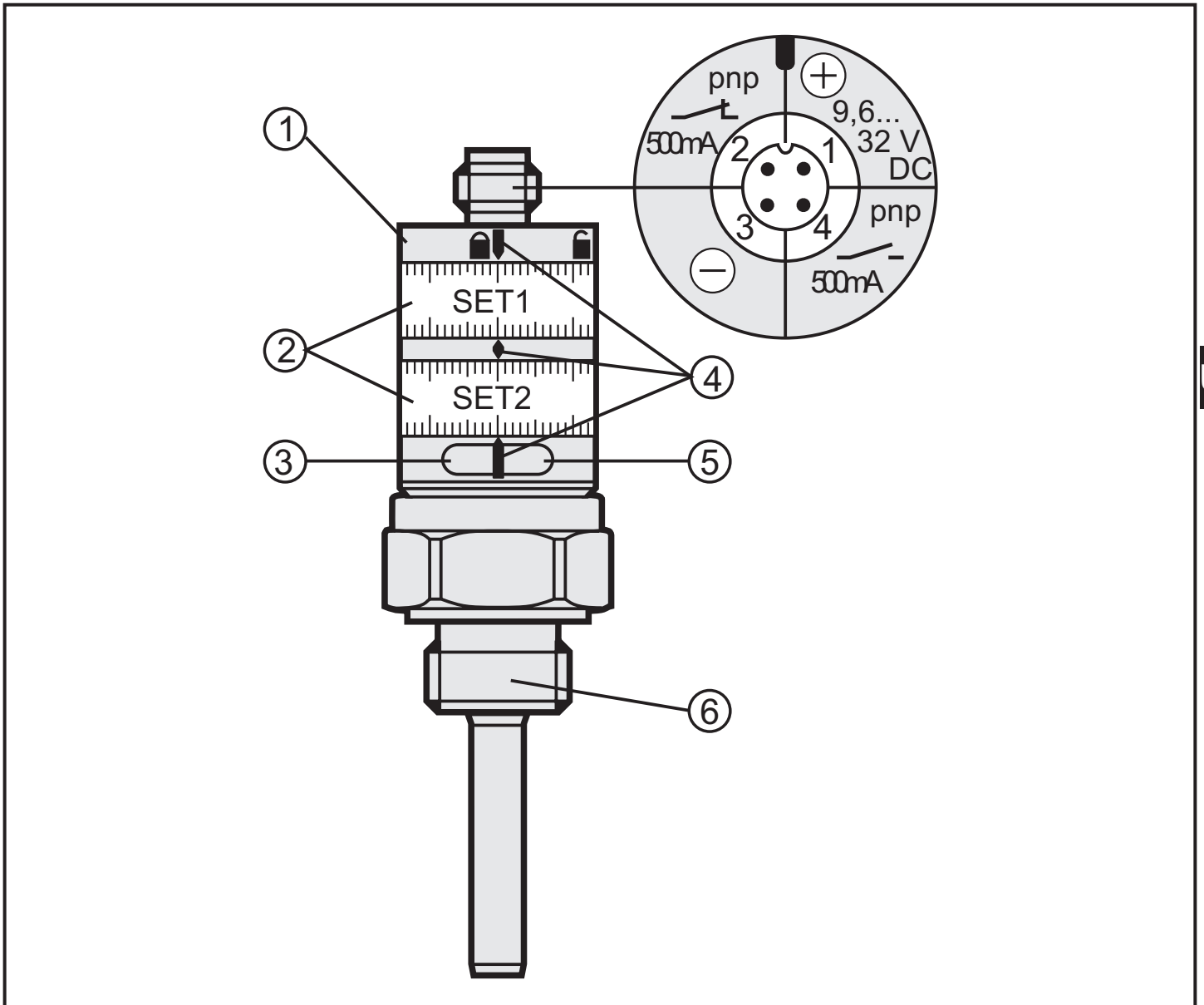
The unit must be connected by a qualified electrician.

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

Operating voltage „supply class 2“ to cULus.

- ▶ Disconnect power.
- ▶ Connect the unit as indicated on the type label.

5 Setting



1: locking ring

2: setting rings (manually adjustable after unlocking)

3: LED yellow: lights if OUT1 = ON (temperature > [SET1])

4: setting marks

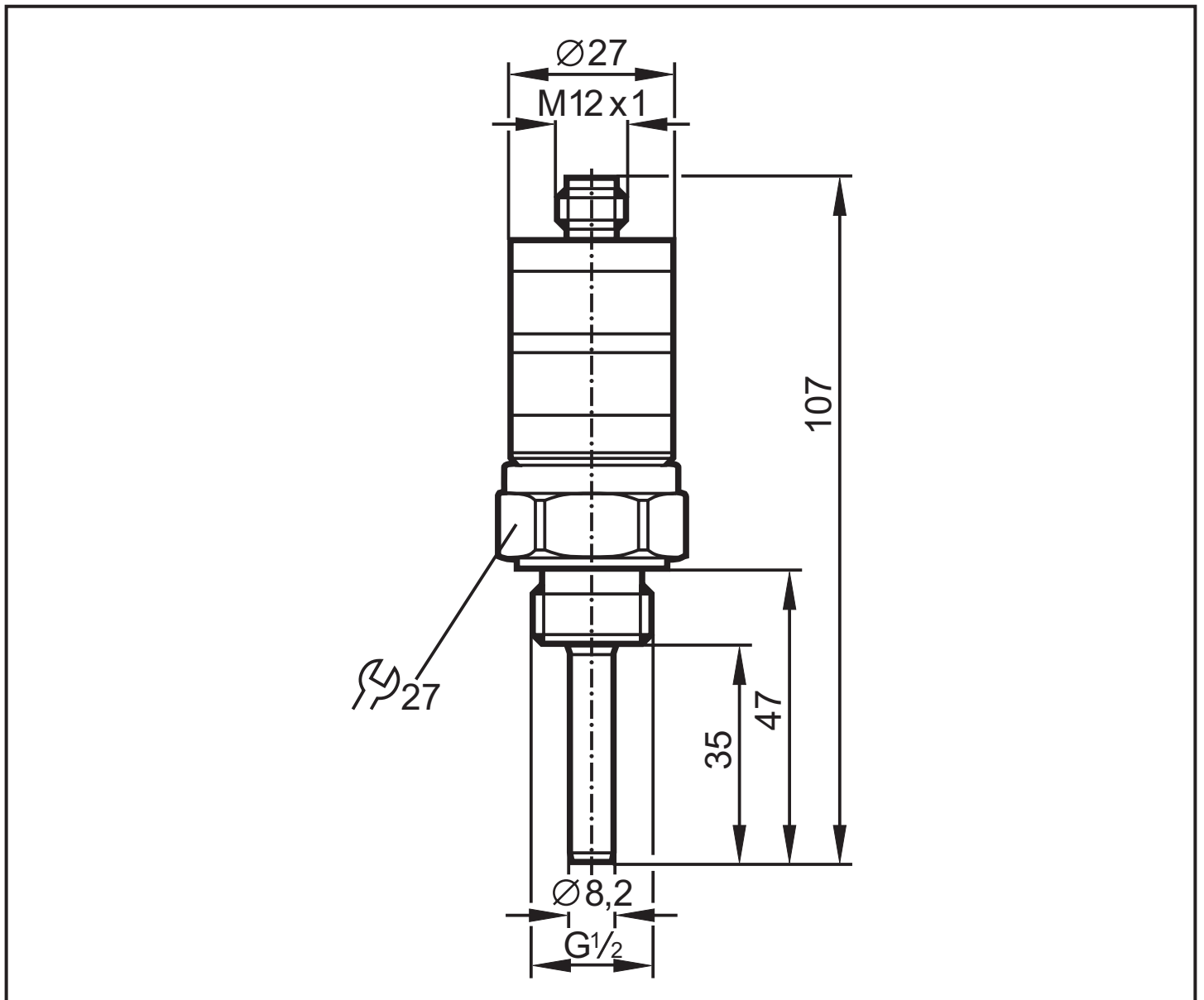
5: LED yellow: lights if OUT2 = ON (temperature < [SET2])

6: process connection G $\frac{1}{2}$ male

pin 4 = Out1 / pin 2 = Out2

To achieve the setting accuracy: first position the rings to the lower end stop value, then set the requested value.

6 Scale drawing



Dimensions are in millimeters

7 Technical data

Operating voltage [V]	9.6...32 DC
Current rating [mA]	500
Current consumption [mA]	< 30
Measuring range [°C / °F]	0...100 / 32...212
Measuring element	1 x Pt 1000 to DIN EN 60751, class B
Accuracy [K]	± 2 (setting accuracy)
Repeatability [K]	± 0,1
Response dynamics (to DIN EN 60751) [s]	T05 = 1 / T09 = 3
Housing materials	stainless steel (316S12); PC (Makrolon); PBT, (Pocan); FPM (Viton)
Material (wetted parts)	stainless steel (316S12)
Operating temperature [°C]	-25 ... +70
Storage temperature [°C]	-40 ... +100
Permissible overload pressure [bar]	300
Medium temperature [°C]	-25...125 (145 max. 1 h)
Protection rating	IP 67
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 / EN 68-2-6, 10 - 2000 Hz)
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

UK

Technical data and further information at
www.ifm.com → Select your country → Data sheet direct: