

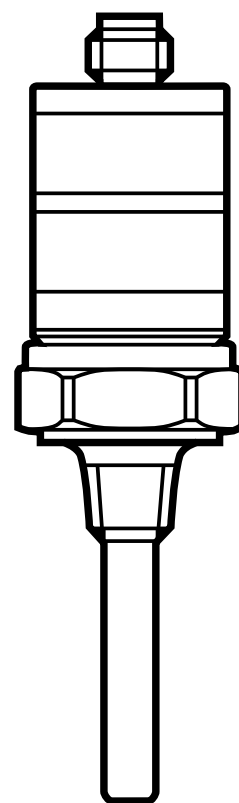
prosense™

by  AUTOMATIONDIRECT.com

Operating instructions
Electronic temperature sensor

TSD25N-0P-0284-H

704486 / 00 10 / 2008



1 Functions and features

The unit detects the system temperature in machines and installations.

2 Function

The unit switches the two complementary outputs OUT1 / OUT2:

- With rising temperature OUT1 closes and OUT2 opens when the set value [SET] is reached.
- With falling temperature OUT1 opens and OUT2 closes, when the set value [RESET] is reached.
- Measuring range: -25...140°C / -13...284°F.
- Measuring element: Pt1000 according to DIN EN 60751, class B.

3 Installation



Before mounting and removing the unit: ensure that no medium can leak at the process connection.

- ▶ Insert the unit in a 1/4" NPT process connection.
- ▶ Tighten firmly. Tightening torque: max. 25 Nm (18 ft-lbs).

4 Electrical connection

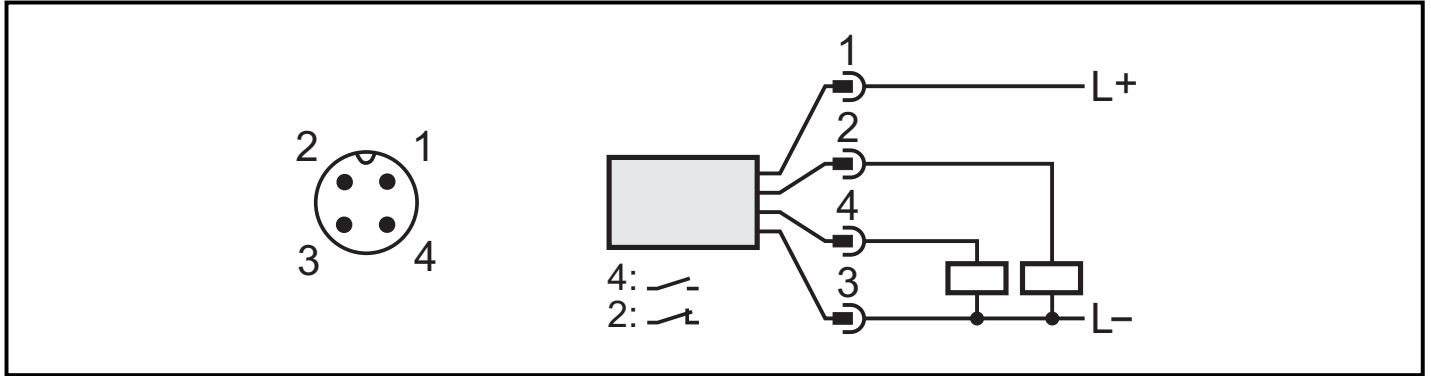


The unit must be connected by a qualified electrician.

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

Operating voltage „supply class 2“ to cULus.

Disconnect power before connecting the unit as follows:



Cable Assembly Wiring Colors:

Pin 1 - Brown

Pin 2 - White

Pin 3 - Blue

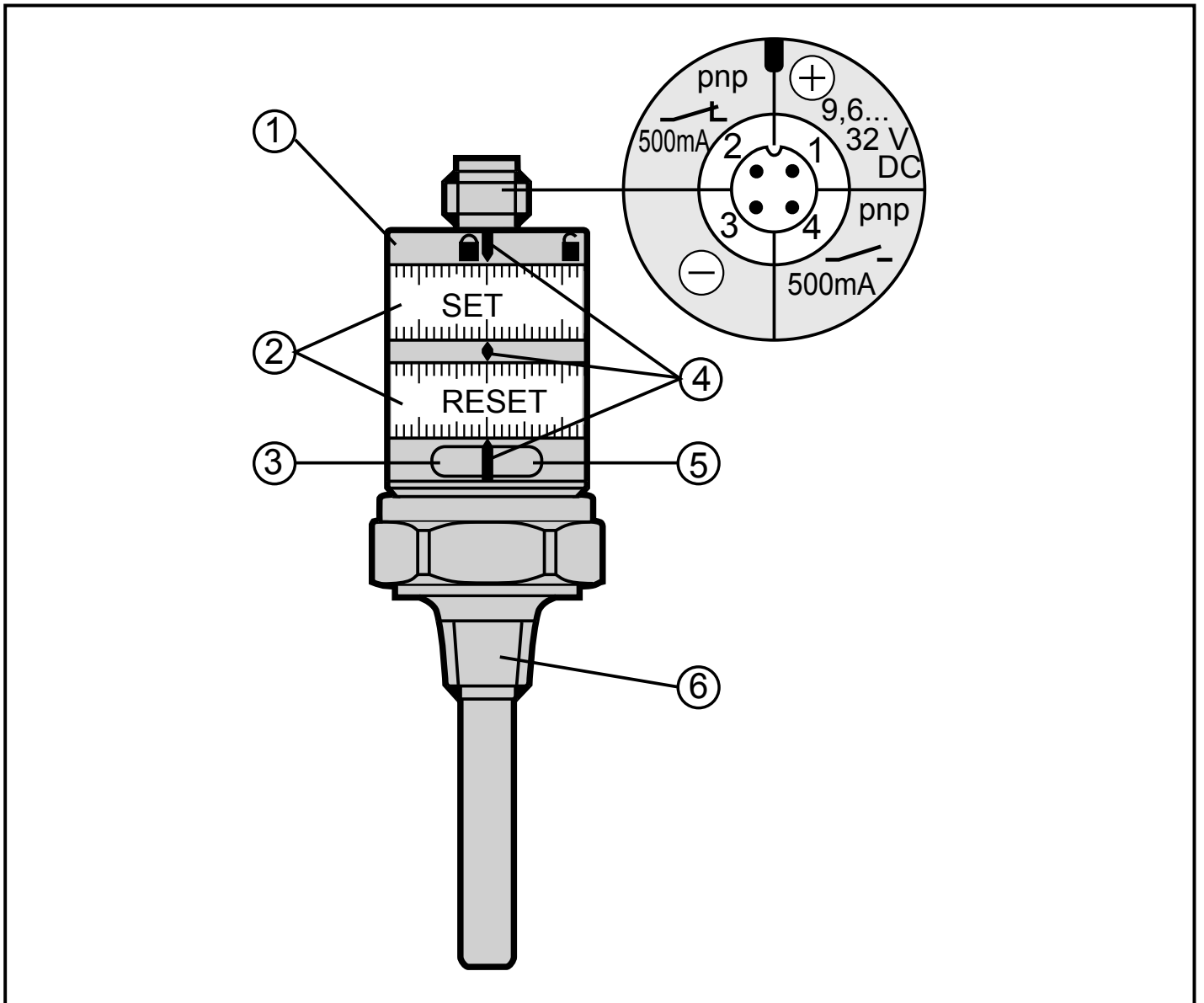
Pin 4 - Black

Note: wiring colors are based on AutomationDirect CD12L and CD12M 4-pole cable assemblies.

Available cable assemblies:

- CD12L-0B-020-A0
- CD12L-0B-020-C0
- CD12M-0B-070-A1
- CD12M-0B-070-C1
- CDP12-0B-010-AA
- CDP12-0B-030-AA
- CDP12-0B-010-BB
- CDP12-0B-030-BB

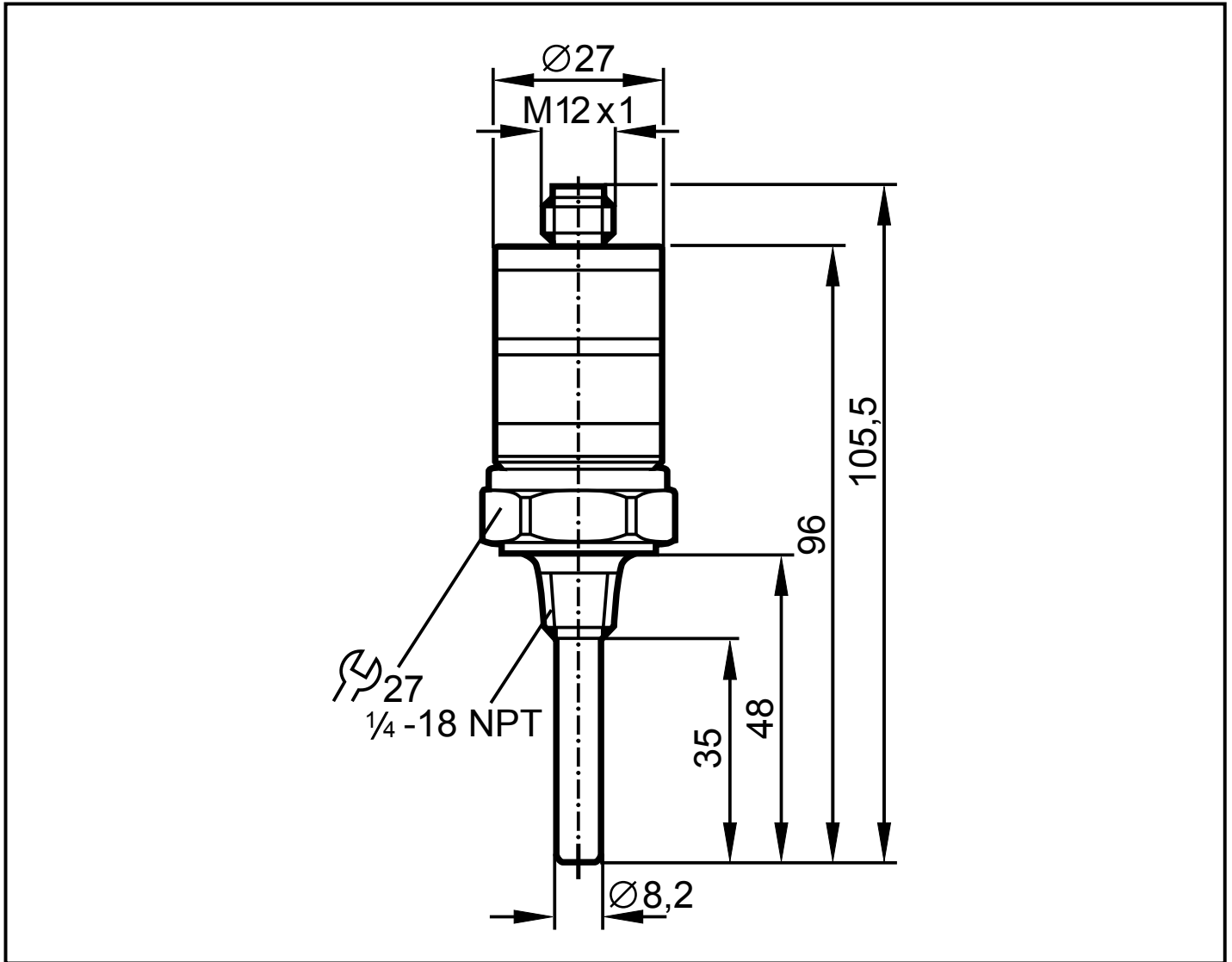
5 Setting



- 1: locking ring
 - 2: setting rings (manually adjustable after unlocking)
 - 3: LED green: supply voltage O.K.
 - 4: setting marks
 - 5: LED yellow: value [SET] reached, OUT1 = ON / OUT2 = OFF]
 - 6: process connection 1/4" NPT
- pin 4 = OUT1 / pin 2 = OUT2

- Minimum distance between [SET] and [RESET] = 3 °C / 5.4 °F.
- To obtain the setting accuracy: Set both rings to the minimum value, then set the requested values.

6 Scale drawing



Dimensions are in millimeters (25.4 mm = 1 inch)

7 Technical data

Operating voltage [V]	9.6...32 DC
Current rating [mA]	500
Current consumption [mA]	< 30
Measuring range [°C / °F]	-25...140 / -13...284
Measuring element	1 x Pt1000 to DIN EN 60751, class B
Setting accuracy	± 3 °C / 5.4 °F
Repeatability	± 0.1 °C / 0.18 °F
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)
Ambient temperature [°C/°F]	-25...70/-13...158
Storage temperature [°C/°F]	-40..100/-40...212
Permissible overload pressure [bar]	300
Medium temperature [°C/°F]	-25...125 (145 max. 1 h)/ -13...257 (293 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

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