

# DS 150B 1-WIRE CONTACT TEMPERATURE SENSOR WITH CABLE

## DESCRIPTION AND APPLICATION

This temperature sensor with a cable is designed for contact temperature measurements. The device is delivered with a fastening band and a locking clamp, and is suitable for measuring pipeline surface temperature. The sensor's dimensions also allow for placement under pipeline insulation. The standard temperature range of the sensor is -40 to +105°C. The sensing element itself is insulated from the ambient environment. The sensor can be used in any control system compatible with the DS18B20 1-Wire sensor.

The sensor is designed for non-aggressive environment.

## DECLARATION, CERTIFICATION, CALIBRATION

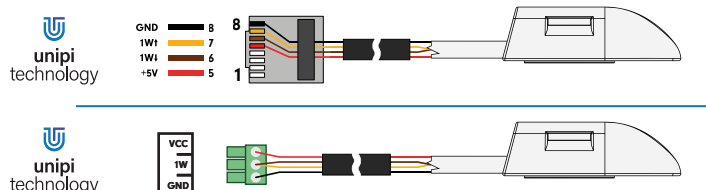
The manufacturer issues an **EU Declaration of conformity**.

**Calibration** – All the products are subject to a final metrologic inspection performed by a comparison with etalons or working instruments. Continuity of etalons and working instruments is amended by Section 5 of Act no. 505/1990 on metrology. The manufacturer offers an option to deliver sensors calibrated in the SENSIT s.r.o. company laboratory (according to the requirements of the EN ISO/IEC 17025 standard as amended), or in an accredited laboratory.

## SPECIFICATIONS

Sensor type	DS 150B			
Sensing element type	1-Wire / DS18B20			
Measuring range	-40 to 105 °C			
Consumption/power current	1 mA			
Sensing element accuracy	±0.5 °C in range of -10 to 80 °C ± 2°C in range of -30 to 100°C			
Connection	according to the wiring scheme			
Response time	$T_{0,5} \leq 13$ s (on a smooth surface without paste)			
Insulation resistance	> 200 MΩ at 500 V <sub>DC</sub> , 25 ± 3 °C; humidity < 85 %			
Ingress protection	IP 65 according to EN 60529 as amended			
Case material	brass			
Input cable	unshielded PVC, 2 x AWG26 (temperature around the cable: -30 to 105°C)			
U power voltage	3 to 5 V DC			
Standard cable length	3 m			
Case material	POLYAMIDE			
Standard band length	40 cm			
Minimum pipeline diameter	20 mm			
Working conditions	ambient temperature: -30 to 105 °C relative humidity: max. 85 % (at 25 °C ambient temperature) atmospheric pressure: 87 to 107 kPa			
Weight approx.	0.05 kg / 1m			

## WIRING SCHEME



## DIMENSIONAL DRAFT

