

HD9008.03



HD9008.03 – DIRECT Pt100 AIR TEMPERATURE SENSOR

The HD9008.03 is a direct air temperature sensor equipped with a thin-film Pt100 sensing element. With 1/3 DIN accuracy according to IEC 60751 and a measurement range of -40...+80 °C, it is suitable for indoor and outdoor environmental monitoring applications.

The probe provides a direct 3- or 4-wire connection through screw terminals and can be connected to compatible data loggers and measurement systems. The ASA housing provides IP65 protection. For outdoor measurements, the probe should be installed inside a suitable radiation shield.

RELIABLE AIR TEMPERATURE MEASUREMENT

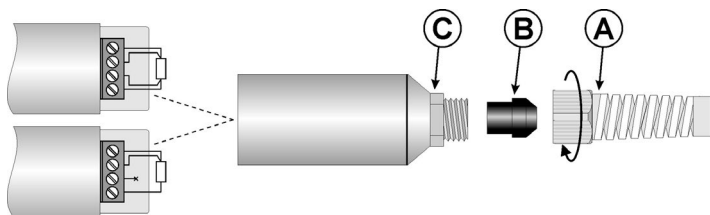
The HD9008.03 combines long-term stability of less than 0.1 °C/year with response times of 6 seconds at $T_{0.5}$ and 20 seconds at $T_{0.9}$, measured at an air velocity of 1 m/s.

A measuring current below 1 mA is recommended to minimize sensor self-heating. The final measurement resolution depends on the connected data logger or measuring instrument.

CONNECTION

To access the terminal block, unscrew cable gland "A", remove rubber seal "B" and unscrew bottom section "C". Feed the cable through elements A, B and C, then connect it to the screw terminal block using the required 3- or 4-wire configuration.

Hold the cable firmly while tightening cable gland "A" to prevent the cable from twisting.



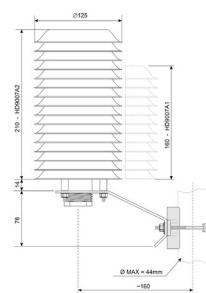
Technical specifications	
Sensor	Thin film Pt100
Temperature coefficient	0.00385 °C ⁻¹
Accuracy	1/3 DIN (IEC 60751)
Measuring range	-40...+80 °C
Connection	3 or 4 wires (screw terminals)
Resolution	Depends on data logger
Recommended current	< 1 mA
Long-term stability	< 0.1 °C / year
Response time	$T_{0.5} = 6 \text{ s}$, $T_{0.9} = 20 \text{ s}$ ($v_{\text{air}} = 1 \text{ m/s}$)
Protection degree	IP 65
Dimensions	Ø 26 x 185 mm (probe body, excluding cable gland)
Material	ASA
Operating temperature/Humidity (*)	-40...+80 °C / 0...100% RH

(*)The probe operating temperature may be limited by the operating temperature of the connecting cable.

INSTALLATION

For wall-mounted installations, use the HD9008.21.1 or HD9008.21.2 support, depending on the required distance between the probe and the wall.

For outdoor installations, use the HD9007A-1 or HD9007A-2 radiation shield to protect the probe from solar radiation, rain and wind.



ORDERING CODES

HD9008.03 - Direct Pt100 air temperature sensor with 1/3 DIN accuracy, 3- or 4-wire connection and IP65 protection.

Fixing accessories	
HD9008.21.1	Wall-mounting support providing a distance of 250 mm between the probe and the wall.
HD9008.21.2	Wall-mounting support providing a distance of 125 mm between the probe and the wall.
HD9007A-1	12-ring radiation shield for outdoor installation, protecting the probe from solar radiation, rain and wind.
HD9007A-2	16-ring radiation shield for outdoor installation, protecting the probe from solar radiation, rain and wind.