

AIR TEMPERATURE, RELATIVE HUMIDITY AND PRESSURE SENSOR TPR 159



Highlights:

TPR 159 is non-aspirated sensor designed to measure air temperature, relative humidity and pressure. As a sensing element for temperature, Pt100 element is used. For RH measurements, there is compensated solid-state capacitive sensor. For pressure measurements, there is piezoresistive pressure transducer used. All sensing elements are protected from the solar radiation and precipitation by a shield, made of UV resistant plastics. On the bottom side of the sensor there are mounting element and six pin waterproof connector to connect the sensor with the measuring system. Sensor has to be mounted upright and should be overvoltage protected. To provide connection between the sensor and the measuring system a four wire shielded cable should be used (Max. length can be up to several hundreds meters, depending on the wire resistance and the communication protocol).

TECHNICAL DATA:

GENERAL	
Temp. sensor:	Pt100
Temp. meas. range:	-40°C to +60°C
Temp. accuracy:	± 0.15°C
RH sensor	Semiconductor, capacitive
RH meas. range:	0 – 100% RH
RH accuracy	± 2%
Pressure sensor:	Piezoresistive pressure transducer
Pressure sensor meas. range:	300 – 1100 mbar
Pressure sensor meas. accuracy:	+/- 1 mbar
Material:	Stainless steel, aluminium and UV resistant plastics
Connector:	4 pin Souriau connector
Dimensions:	φ 110 mm by 170 mm
Weight:	160g
Communication:	RS232 (up to 20m), RS485(up to 1000m, SDI-12 (up to 50m)