Automatic Measuring Systems for the Environment
Technology Park Ljubljana

MOTOR ASPIRATED AIR TEMPERATURE SENSOR DTA 32

- Designed to measure ambient air temperature with high accuracy
- Dual concentric radiation shield
- Low sensitivity to the solar radiation
- Motor aspirated
- Low voltage motor excitation
- Digital status of aspiration

The aspirated air temperature sensor DTA 32 is, due to the motor forced aspiration, much less sensitive to the influence of other meteorological parameters on the measurements of ambient temperature.

However, it requires an auxiliary power to drive the motor. Therefore it is less suitable for the applications, where low power consumption is essential.

Sensing element of DTA 32 is thermolinear thermistor, protected by a stainless steel capsule and mounted on a support, made of thermoisolating material. It is located in the centre of the lower section of the double stainless steel tube. Tube protects the thermistor from being influenced by solar radiation and precipitation, or mechanically damaged.

Head of the sensor contains a motor driven ventilator, which forces a current of air past the sensor along the tube and then out through the apertures at the bottom of the head. Hall element, located in the head of DTA 32, detects the rotation of the ventilator and gives the digital status on the functioning of the aspiration system.

TECHNICAL DATA

Sensor:	YSI 44203
Measuring range:	- 30 ºC to + 50 ºC
Accuracy:	+/- 0.15 ºC
Air flow:	approx. 4 m/s
Motor power:	12 V DC, 1 VA
Motor life:	3000 h
Size:.	390 x 330 x 150 mm
Mass:	approx. 4 kg
Material:	Stainless steel, aluminium, plastics

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