

## Thermo Hygro Sensor



### Description

Precise low power sensor for the measurement of temperature and relative humidity of the ambient air.

A radiation shield protects the sensor against rain and solar radiation.

## Technical Data

### Sensor

#### Temperature

Sensing element .....	Pt 100, according to IEC 751
Transducer .....	Electronical transducer with voltage output
Output signal.....	-40..+60 °C = 0..5 V
Accuracy.....	± 0.2 °C at 20 °C, ± 0.5 °C at -40..+60 °C
Output load.....	> 10 kΩ

#### Relative Humidity

Sensing element .....	Capacitive sensor
Transducer .....	Electronical transducer with voltage output
Output signal.....	0..100% RH = 0..5 V
Accuracy.....	0..90% RH ± 2% RH 90..100% RH ± 3% RH
Output load.....	> 10 kΩ

### Power Supply

Supply voltage.....	7..30 VDC
Current consumption .....	typ. 1.3 mA max.

## Casing of Sensor

Material ..... Plastic  
 Protection class ..... IP 31  
 Dimensions .....  $\varnothing 12$  mm  
 Protection cap ..... PTFE filter

## Electrical Connection

Connector ..... 8 pin circular connector, M12x1  
 Cable ..... 4 x 0.5 mm<sup>2</sup>, shielded

## Wiring

8 Pin Connector	Wire	Function
8	white	(+) power supply
6	brown	ground
5	green	signal temperature
4	yellow	signal humidity
n.c.	yellow/green and shield	cable shield

## Radiation Shield

Type ..... Naturally aspirated multi-plate radiation shield  
 Material ..... White plastic  
 Dimensions .....  $\varnothing 120 \times 300$  mm  
 Mounting ..... Aluminium bracket for wall mounting, stainless steel  
 U-bolt for installation on a pipe with  $\varnothing 30..50$  mm outside diameter

## Environmental Conditions

Operating temperature .....  $-40..+80$  °C  
 Relative humidity ..... 0..100%



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