

ADCON TR1 Air Temperature & Relative Humidity Sensor

TR1 provides accurate and reliable measurements of air temperature and relative humidity. The fully sealed sensor body contains a pt1000 sensor, a capacitance humidity element and a signal amplifier. Calibration data is stored inside the sensors electronics. Power consumption is extremely low, with a stabilizing time of less than 2 seconds.

The sensor elements are protected from dust by a wire mesh screen cap. Other filters, such as sinter caps for corrosive environments and PTFE to protect against micro-particles are also available. The humidity sensor element is covered by a protective coating to extend its life and avoid erroneous readings due to build-up of dust or chemicals.

The sensor is mounted inside a 7-element radiation shield, made of durable thermoplastic. The radiation shield is coated black on the inside to avoid heat-buildup. It is fixed to an aluminum arm, fitted with a mast mounting bracket and clamps. A 3m 7-pin Binder cable supports direct connection to an Adcon RTU.

Applications

- ✓ Meteorological and hydrographical weather stations
- ✓ Livestock monitoring
- ✓ Industrial monitoring
- ✓ Storage and silo monitoring

Technical Data

Dimensions	L: 415 x H: 190 x \varnothing 102 mm Sensor only: 100mm x 12 mm \varnothing	Humidity sensor	HC101
Weight	615 g	Measuring range	0% ... 100%
Response Time	less than 2 sec.	Sensor accuracy at +20°C	\pm 1% from 0 ... 90% \pm 2% from 90 ... 100%
Storage Temperature	-40°C ... +80°C	Linearity, Hysteresis, Repeatability, calibration uncertainty	$<$ \pm 1% @ +20°C
Power Consumption	4,5 ... 15VDC / \sim 1mA	Cable; Connector	3 meter; 7-pin M9 male Binder
Temperature sensor	pt1000 (DIN A)	Mast mounting	Brackets for poles with \varnothing of 35-40mm, clamps included
Measuring range	-40°C ... +60°C	Ordering information:	
Sensor accuracy	$<$ \pm 0,1°C @ +20°C	200.733.031	Adcon TR1 Combisensor
Linearity, Hysteresis, Repeatability, calibration uncertainty	$<$ \pm 0,1°C @ +20°C	800.000.410	Sinter filter cap
Output Signal	2 x 0 ... 2.5VDC		



TR1 Sensor



TR1 Sensor Elements

