



HygroVUE5

DIGITAL TEMPERATURE & RELATIVE HUMIDITY SENSOR



Benefits and Features:

- Uses a combined, pre-calibrated digital humidity & temperature element
- Field-changeable element for fast, on-site recalibration
- Digital SDI-12 output, allowing long cables with no added errors
- Simple data logger programming
- Low power consumption
- Wide operating voltage
- Rugged design with potted electronics
- Compact size for smaller radiation shields.

Product Description

The HygroVUE5 Temperature and Relative Humidity Sensor is designed for general meteorological and environmental monitoring applications. It utilizes the SDI-12 communications protocol to communicate with any SDI-12 recorder, simplifying installation and programming. The sensing element is easily changed in the field, reducing downtime and calibration costs. It is the entry-level sensor in the HygroVUE line of relative humidity and temperature sensors.

Technical Specifications

Sensor Element	SHT35 derivative (specially coated for reliability)
Calibration Traceability	NIST and NPL standards
Supply Voltage	7 to 28 Vdc
Warm-up Time	Sensor is normally powered all the time. If power is switched off, allow 1.8 s for sensor to power up.
Main Housing Material	White PET-P
Housing Classification	IP67 (electronics housing)
Sensor Protection	Outer glass-filled polypropylene cap fitted with a stainless-steel mesh dust filter with nominal pore size of < 30 µm. The sensor element is fitted with a PTFE protective film with a filtration efficiency of > 99.99% for particles of 200 nm or larger size.
EMC Compliance	Tested and conforms to IEC61326:2013
Calibration	The sensor element is individually calibrated during manufacture.
Diameter	12.5mm (0.49 in) at sensor tip, max. 16mm (0.63 in) at the cable end
Length	115 mm (4.52 in) sensor only, without cable
MAXIMUM CURRENT DRAIN	
Quiescent	50 µA typical
During Measurement	0.6 mA (takes 0.5 s) typical
TEMPERATURE MEASUREMENT	
Operating Range	-40 to +70°C
Accuracy	±0.4°C(over the range -40 to +70°C) ±0.3°C(over the range -20 to +60°C)
Long-Term Drift	< ±0.03°C per year
Reported Resolution	0.001°C
Repeatability	0.04°C Values are 3 standard deviations of 25 measurements at constant temp.
Response Time	130 s (63% response time in air moving at 1 m/s)