



RELATIVE HUMIDITY SENSOR

FEATURES:

- **Inexpensive**
- **Excellent Long-Term Stability**
- **Wide Operating Temperature Range**
- **Contamination Resistant**
- **Linear Voltage Output**
- **Compact Size**
- **NIST traceable (certificate included)**

Climatronics' capacitive relative humidity sensor, P/N 102667 is specifically designed for meteorological monitoring systems. Very low power consumption makes this relative humidity sensor ideal for integration with data acquisition systems operating at remote locations. The output of the sensor is a linear 0 - 1 VDC output signal corresponding to 0 - 100% relative humidity.

The sensor requires a minimum of maintenance or calibration and features exceptional resistance to contaminants. Repeatability is also excellent, even after complete sensor saturation. The sensor maintains its accuracy over the full range of humidity, even in conditions close to condensation. This is accomplished by electronic temperature compensation of the humidity element and an IP65 (NEMA 4) protected probe.

Field calibration is easy. The probe head containing the sensor and electronics can be quickly removed from the probe body, a replacement installed and the measurements continued while the other sensor head is calibrated in a laboratory.



SPECIFICATIONS

PERFORMANCE

Relative Humidity:

Operating Range:	0.8 - 100 %
Accuracy:	<± 1% RH from 0.8 - 100%, at 20°C
Long Term Stability:	<±1% over 12 months
Repeatability:	±0.3% RH
Operating Temperature Range:	-40° to +60°C
Temperature Dependence:	±0.05 %RH/ °C (±0.03%RH/°F)
Response Time (without filter):	10 seconds

ELECTRICAL

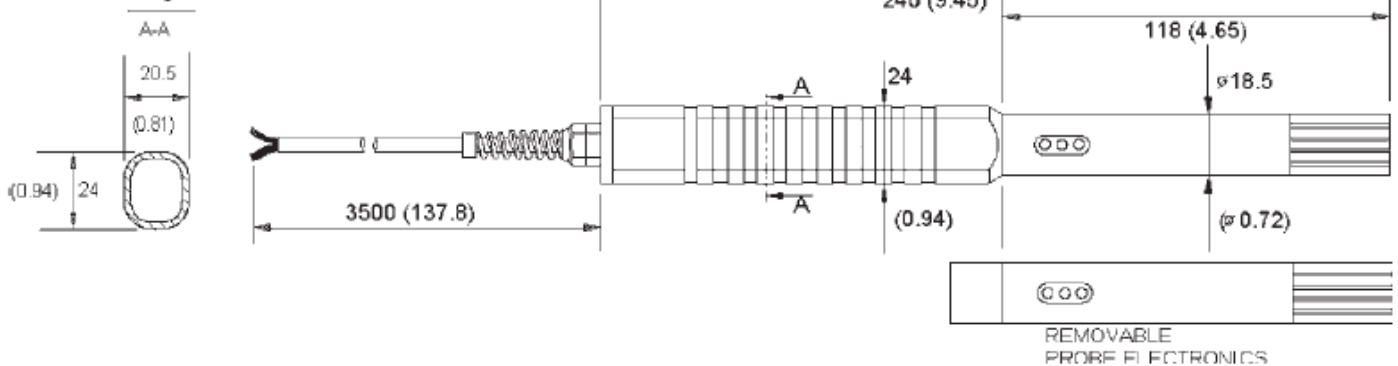
Relative Humidity

Excitation Power:	7.0 - 35 Vdc; 4 mA @ 12 Vdc
Output Range:	0 – 100% equals 0 – 1 VDC
Output Load:	>10K ohm to ground

PHYSICAL

Length:	9.45" (240 mm)
Transducer Diameter:	0.72" (18.5 mm)
Base Dimensions:	0.94" x 0.81" (oval) (24 mm x 20.5 mm)
Weight:	0.77 lb (350 g) including package

HMP45A/D probe



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