

Model 5723-11 Temperature/Humidity Sensor

- Long term Calibration-Free Operation
- Filter Protects From Dust
- High Accuracy and Repeatability



PHONE: (800) 275-2080

HIGH SIERRA ELECTRONICS, INC.

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BENEFITS:

- Combine with Solar Radiation, Wind Speed & Direction, Barometric Pressure and Rain Sensors for a complete Weather Station.
- Combine with ALERT/ALERT2 System for Monitoring Ambient Temperature.

DESCRIPTION:

The Temperature Humidity Sensor - Model 5723-11 is designed for use outdoors as a stand-alone sensor or with data loggers, transmitters, or other remote processing units. The Temperature Humidity Sensor is a rugged, accurate temperature/RH probe that is ideal for long-term, unattended applications. It uses an advanced capacitive sensor to measure relative humidity (RH) and a 100 Ω platinum resistance thermometer (PRT) to measure temperature. For optimum results, the Temperature Humidity Sensor should be re-calibrated annually. The Temperature Humidity Sensor comes with a polyethylene filter that protects its sensor from fine dust and particles and minimizes water absorption and retention giving you superior performance and reliability.

The Temperature Humidity Sensor operates on 5 to 24 VDC. The operating range is 0 to 100% relative humidity and -40° to 140° F (-40° to 60° C). Standard factory calibration results in an accuracy of $\pm 0.8\%$ relative humidity and $\pm 0.18^\circ$ F ($\pm 0.1^\circ$ C) at 73.4° F (23° C).

When exposed to sunlight, the Temperature Humidity Sensor must be housed in a naturally aspirated radiation shield.

02-5723-11(A)

Environmental Monitoring Solutions

WEB SITE: www.highsierraelectronics.com E-MAIL: sales@highsierraelectronics.com

Model 5723-11 Temperature/Humidity Sensor

SPECIFICATIONS:

Air Temperature

Range	-40° to 140° F (-40° to 60° C)
Accuracy	± 0.18° F (± 0.1° C) at 73.4° F (23° C)
Reading Stability	< 0.18° F (0.1° C) per year
Sensor	T100 RTD, IEC 751 1/3 Class B
Time Constant	≤ 22 s (63% of step change (1 m/s air flow at sensor))
Output	0 to 1 VDC

Humidity

Range	0 to 100% RH, non-condensing
Accuracy	± 0.8% RH at 73.4° F (23° C)
Stability	< 1% RH per year
Sensor	ROTRONIC® Hygromer IN-1
Time Constant	≤ 22 s (63% of a 35 to 80% RH step change (1 m/s air flow at sensor))
Output	0 to 1 VDC

Operating Voltage

Current Draw < 4.3 mA @ 5 VDC; < 2.0 mA @ 12 VDC

Maximum Startup Current < 50 mA for 2 μS

Startup Time 1.5 s typical

Filter Polyethylene

Operating Temperature -40° to 212° F (-40° to 100° C)

Storage Temperature -58° to 212° F (-50° to 100° C)

Dimensions 0.6 x 7.25 inch (1.5 x 18.4 cm) (Dia. x L)

Weight 0.35 oz (10 g)

Shipping Weight 1 lb (0.5 kg)

ORDERING GUIDE:

Model 5723-11.....Temperature & Relative Humidity Sensor; include 15 ft (4.572 m) Signal Cable.

OPTIONS/SPARE PARTS:

Model 5720-00.....Temperature Sensor; with 25 ft (4.572 m) cable Platinum Potted 3/4 inch Diameter Housing.

Model 5728-00.....Solar Radiation Shield; Multiplate (10 plate) with mast mounting hardware.

See www.highsierraelectronics.com for more specification and ordering information.

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