

Model 5720

Air/Water Temperature Sensor

- Low Power Usage
- Rugged Construction
- Signal Conditioning Available
- Submersible, Waterproof Enclosure



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DESCRIPTION:

The Model 5720-00 Temperature Sensor is a highly accurate, low power sensor for both water and air temperature measurement applications. It utilizes a thin film platinum RTD element that provides an accuracy of $\pm 0.36^\circ\text{F}$ (0.20°C) and a measuring range of -40° to 140°F (-40° to 60°C). The sensor's casing allows it to be mounted in an optional Model 5728-00 multi-plate radiation shield for mast mounts in air temperature monitoring.

The Model 5728-00 Solar Radiation Shield protects ambient temperature and relative humidity sensors from direct sunlight

and reflected solar radiation. The shield actually improves the sampling of air by promoting smooth air flow past the sensor. The sensor is enclosed within the plastic disks of the shield. A support arm and mounting hardware is included for easy field installation and attaches to any vertical pipe, up to 2 in (5.08 cm) diameter.

While not designed for deep water immersion, the 5720 is suitable for water temperature measurements in bogs, wetlands, wells, lakes, reservoirs, streams, and rivers. Maximum depth is estimated at 500 ft (152.4 m).

The Model 5720-00 can be used with Model 5720-11 through 5720-13 Signal Conditioning Module to convert the sensor's signal for use with telemetry systems, data loggers, recorders, etc. The 5720-1x Series converts the Model 5720-00 Temperature Sensor to either a 4-20 mA output or 0.3 to 1.5 volt output. It linearizes the sensor output and provides a second order correction to the RTD.

SPECIFICATIONS:

Operating Range	-40° to 140° F (-40° to 60° C)
Accuracy	$\pm 0.36^\circ\text{F}$ (0.20°C), (0.18°F (0.1°C) optional)
Output	Change in resistance
Sensor Type	Air or water temp probe PT100 3-wire (1/3 DIN meets IEC Class B)
Sensor Element	Platinum Resistance Temperature Detector (RTD)
TCR	0.00385
Operating Voltage	12 VDC
Cable	3-conductor, 24 AWG
Max Submersion Depth	500 ft (152.4 m)
Materials	Potted polyethylene thermoplastic
Sensor Housing	Stainless steel tube & Delrin
Operating Temp	-40° to 140° F (-40° to 60° C)
Dimensions	5 x 0.75 in (12.7 x 1.91 cm) (L x Dia.)
Weight	2 lb (1 kg)
Shipping Weight	3 lbs (1.4 kg)

02-5720-00(B)

Environmental Monitoring Solutions

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

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ORDERING GUIDE:

Model 5720-00.	Temperature Sensor; Includes Platinum Potted Sensor, 25 ft (7.62 m) cable with loose leads. <i>Signal Conditioning Module sold separately.</i>
Model 5720-09.	Temperature Sensor; Includes Platinum Potted Sensor, 25 ft cable (7.62 m) with loose leads and Model 5720-12 Signal Conditioning Module. <i>NOTE: Cable from Model 5720-12 to Transmitter not included. Specify output (4 to 20 mA or 0.3 to 1.5 V) at time of order</i>
Model 5720-10.	Temperature Sensor; Includes Platinum Potted, 25 ft (7.62 m) cable, 12 ft (3.7 m) signal cable with MS Connector, and Model 5720-12 Signal Conditioning Module. <i>Specify output (4 to 20 mA or 0.3 to 1.5 V) at time of order</i>

OPTIONS/SPARE PARTS:

Model 5101-00.	Signal Cable; 3 Conductor Shielded 24 AWG stranded
Model 5728-00.	Radiation Shield; Includes: 10 Plate Solar Radiation Shield, and Mounting Hardware
Model 5720-11.	Signal Conditioning Module; Includes: Module, and 3 in (7.62 cm) DIN-Rail. Temp Range 32° to 122° F (0° to 50° C)
Model 5720-12.	Signal Conditioning Module; Includes: Module, and 3 in (7.62 cm) DIN-Rail. Temp Range -40° to 140° F (-40° to 60° C)
Model 5720-13.	Signal Conditioning Module; Includes: Module, and 3 in (7.62 cm) DIN-Rail. Temp Range -40° to 158° F (-40° to 70° C)

See www.highsierraelectronics.com for more specifications and ordering details.