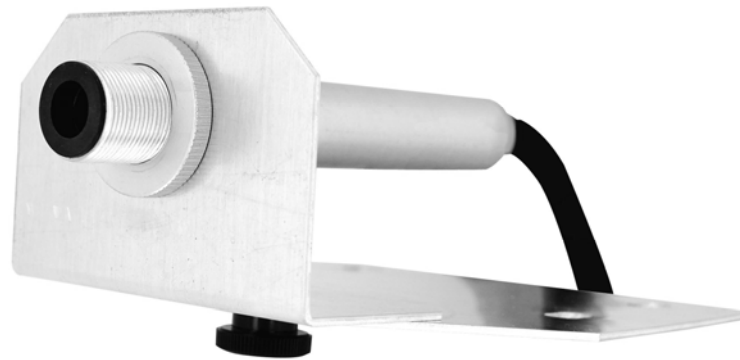


INFRARED TEMPERATURE SENSOR

CATALOG #S 3676S,
3676B



Spectrum
Technologies, Inc.

2

Thank you for purchasing an Infrared Temperature Sensor to use with your WatchDog Weather Station. This manual covers the 3676B, which requires a customer-provided 12VDC power source, and the 3676S, which includes a solar charging power supply.

This manual will aid you in installation and operation of the sensor. Read it thoroughly to insure proper and effective use.

Specifications

Spectral band	8-14 μ m
Field of View	4:1 (1m target at 4m distance)
Emissivity	0.95
Temperature	
- Ambient	-20 to 60°C
- Measurement	0 to 150°C
Accuracy	\pm 1°C (0 to 50°C)
Resolution	0.1°C
Sensor Output	0-1500 mV Linear: 1mV = 0.1°C
Power Supply	
- 3676B (required)	12VDC, (<2.5% ripple at 20mA)
- 3676S (included)	1W Solar, 1000mAh NiCad
Current Draw	5mA

USING THE SENSOR

The IR Temperature Sensor Basic Model, 3676B, requires a 12V power supply to be connected to the two wires (marked "PS+" and "PS-") in the middle of the sensor cable.

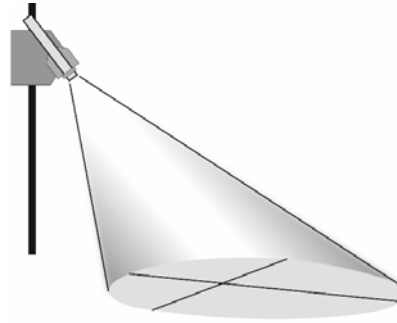
Mount the IR Temperature Sensor to a 1" to 1¼" mast or pipe using the included U-bolts. For the Solar Power Model, 3676S, also mount the battery/panel assembly to maximize incident light.

The sensor has a field of view of 4:1, so if the target is 4m away, the target diameter (assuming a perpendicular target) will be 1m (or 4ft distance for a 1ft target, etc.). If

the target is at a different angle to the sensor, then the target will be an ellipse (see image at right).

Using the same 4m target distance, the target size will range from 1.4x2m for 45° to 2x4m

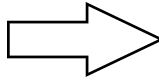
for 60°, so care must be taken when aligning the sensor.



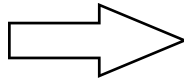
Once positioned, the data cable (6 ft or 2m) is plugged into an available external port on a WatchDog Weather or Mini Station to log the temperature data.

Use **SpecWare** software to program the WatchDog to log IR Temperature on the desired port. Refer to the **SpecWare Instruction Manual** for detailed launch and/or readout instructions.

For the 3676S, point the solar panel in a direction to maximize light collection.



Point the sensor toward the target.



WARRANTY

This product is warranted to be free from defects in material or workmanship for 1 year from the date of purchase. During the warranty period Spectrum will, at its option, either repair or replace products that prove to be defective. This warranty is void if the Spectrum products have been damaged by customer error or negligence or if there has been an unauthorized modification.

Returning Products to Spectrum

Before returning a failed unit, you must obtain a Returned Goods Authorization (RGA) number from Spectrum. You must ship the product(s), properly packaged against further damage, back to Spectrum (at your expense) with the RGA number marked clearly on the outside of the package. Spectrum is not responsible for any package that is returned without a valid RGA number or for the loss of the package by any shipping company.

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