

The Temperature/Humidity Sensors includes temperature and humidity sensors and a passive solar radiation shield (product number 6830), or a 24-Hour Fan-Aspirated Radiation Shield (product number 6832). The Temperature/Humidity Sensor measures relative humidity and air temperature. The passive solar radiation shield is made of a proprietary plastic designed for high thermal reflectance and low thermal conductivity. The 24-Hour Radiation Shield includes a solar- and battery-powered fan that pulls air up through the shield and over the sensors for highest temperature accuracy.

## General

Operating Temperature	-40° to +150° F (-40° to +65° C)
Storage Temperature	-40° to +158° F (-40° to +70° C)
Sensor Type:	
Temperature	PN junction silicone diode
Relative Humidity	Film capacitor element
Cable Length	25 feet (7.6 meters)
Dimensions	
6380:	.1" high x 9.5" wide x 7.8" deep (206 mm x 241 mm x 198 mm)
6382:	8.1" high x 9.5" wide x 7.8" deep (206 mm x 241 mm x 198 mm)
Weight	
6380:	3.5 lbs. (1.6 kg)
6382:	6.6 lbs. (3.0 kg)

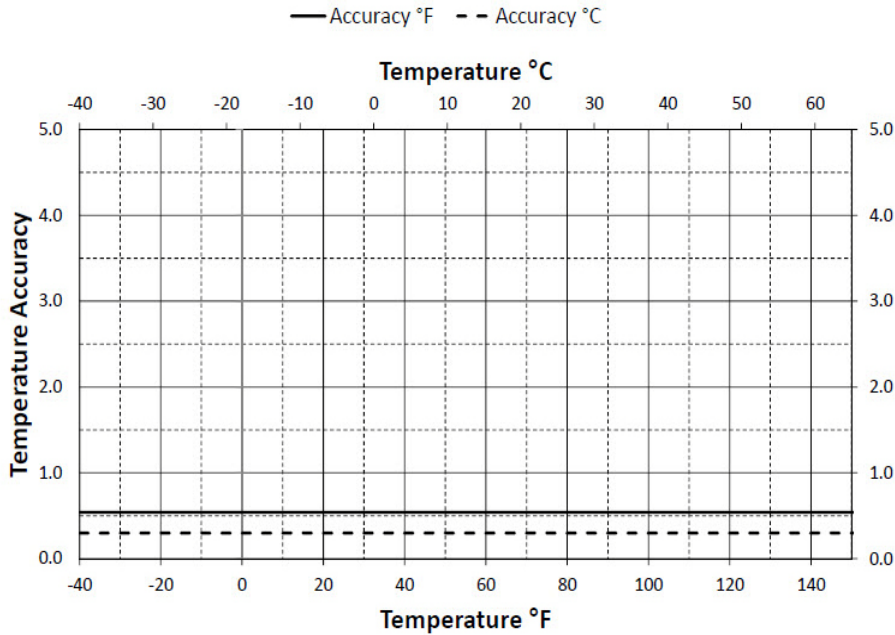
## Sensor Output

### Relative Humidity

Range	1 to 100% RH
Accuracy	±2%
Drift	<0.25% per year

**Temperature (Air only)**

Range ..... -40° to +150° F (-40° to +65° C)  
 Sensor Accuracy ..... ±0.5°F (±0.3°C) See Graph Below



Radiation Induced Error ..... +4°F (2°C) at solar noon (insolation = 1040 W/m2, avg. wind speed ≤2 mph (1 m/s)) (reference: RM Young Model 43408 Fan-Aspirated Radiation Shield)

**24-Hour Fan-Aspirated Radiation Shield**

Aspiration Rate  
 Solar-powered, full sun ..... 190 ft./min. (0.96m/s)  
 Battery only ..... 80 feet/min (0.4 m/s)  
 Radiation Induced Temperature Error ..... +0.6°F (0.3°C) at solar noon (insolation = 1040 W/m2, avg. wind speed ≤ 2 mph (1 m/s)) (reference: RM Young Model 43408 Fan-Aspirated Radiation Shield)  
 Battery Charge/Operating Temperature ..... 32° to +113°F (0° to +45°C)  
 Battery Discharge/Storage Temperature ..... 4° to +140°F (-20° to +60°C)  
 Fan Primary Power ..... Solar panel  
 Fan Secondary Power ..... One or two 1.2 v NiMH C-cells

**Package Dimensions**

Product #	Package Dimensions (Length x Width x Height)	Package Weight	UPC Codes
6830	8" x 5" x 10" (L x W x H) (203 mm x 127 mm x 254 mm)	4 lbs. 5 oz. (2 kg)	011698 01236 7
6832	11" x 10.25" x 16" (L x W x H) (279 mm x 260 mm x 406 mm)	6 lbs. 10 oz. (3 kg)	011698 01244 2