

*Naturally Ventilated
Requires No Power*



Model 41003

Multi-Plate Radiation Shield

The Multi-Plate Radiation Shield protects temperature and relative humidity sensors from error-producing solar radiation and precipitation. Compact size and light weight make this shield useful for many applications.

The multiple discs have a unique profile that blocks direct and reflected solar radiation, yet permits easy passage of air. The disc material is specially formulated for high reflectivity, low thermal conductivity, and maximum weather resistance. The rugged U-bolt mounting clamp attaches easily to any vertical pipe up to 2 inches diameter.

The Model 41003 employs a universal adapter to securely hold sensors up to 12.5 mm diameter. The Model 41003P uses a special mounting adapter that can be custom sized to fit any sensor from 12.5 mm to 26 mm; specify the diameter when ordering.

The Temperature Probe is a 1000 Ω Platinum RTD encased in a stainless steel protective sheath. The sensing element is securely mounted in a convenient junction box that fits YOUNG radiation shields. For special applications, the temperature probe is available with various output options. The 4-20 mA current output is useful in high noise, industrial settings or for long cable lengths. The 0-1 VDC option provides a calibrated voltage output signal. Low power circuitry makes it ideal for field studies and remote data-logging applications.

The Relative Humidity/Temperature Probe combines a high accuracy humidity sensor and a 1000 Ω Platinum RTD. Available with 0-1 VDC or 4-20 mA outputs, sensors are mounted in a common junction box.



Specifications

Sensor Types:

Accommodates temperature and humidity sensors up to 26 mm (1 in) diameter

Radiation Error:

@ 1080 W/m² intensity- Dependent on wind speed
 0.4° C (0.7°F) RMS @ 3 m/s (6.7 mph)
 0.7° C (1.3°F) RMS @ 2 m/s (4.5 mph)
 1.5° C (2.7°F) RMS @ 1 m/s (2.2 mph)

Construction:

UV stabilized white thermoplastic plates
 Aluminum mounting bracket, white
 Stainless steel U-bolt clamp

Dimensions:

12 cm (4.7 in) diameter x 27 cm (10.6 in) high
 Mounting fits vertical pipe 25-50 mm (1-2 in) diameter

Weight:

Net weight- 0.7 kg (1.5 lb)
 Shipping weight- 1.4 kg (3 lb)

MODEL 41342 Platinum Temp. Probe

Sensor Type:

1000 Ω Platinum RTD

Accuracy:

±0.3° C at 0° C(standard)
 ±0.1° C at 0° C(optional)

Available Outputs: (Power Requirement)

4 wire RTD41342
 4-20 mA (12-30 VDC, 20 mA)41342L
 0-1 VDC (8-24 VDC, 5 mA)41342V

MODEL 41372 Rel. Humidity/Temp. Probe

Sensor Type:

Temperature:1000 Ω Platinum RTD
 Humidity:Capacitive Polymer

Accuracy:

Temperature:
 ±0.3° C at 0° C (standard)
 ±0.1° C at 0° C(optional)
 Humidity:3% from 10 to 90% RH
 4% from 0-10, 90-100%

Available Outputs: (Power Requirement)

4-20 mA (12-30 VDC, 40 mA)41372L
 0-1 VDC (8-24 VDC, 9 mA)41372V

*SPECIFY TEMPERATURE SCALING:

-50 to +50° C ADD SUFFIX C
 -50 to +150° F ADD SUFFIX F

Ordering Information

MODEL

MULTI-PLATE RADIATION SHIELD **41003**

Includes universal adapter for sensors to 12.5 mm diameter.

MULTI-PLATE RADIATION SHIELD **41003P**

With custom sensor adapter. Specify diameter from 12.5 mm to 26 mm.

TEMPERATURE PROBE- RTD OUTPUT **41342**

4-20 mA OUTPUT* **41342L***

0-1 VDC OUTPUT* **41342V***

RELATIVE HUMIDITY/TEMPERATURE PROBE:

4-20 mA OUTPUT* **41372L***

0-1 VDC OUTPUT* **41372V***

ACCESSORY JUNCTION BOX *Specify sensor diameter (6 mm max.)* **41390**

