



METEOROLOGICAL INSTRUMENTS

**MODEL 41382LC/LF RELATIVE HUMIDITY/
TEMPERATURE PROBE, 4-20 mA OUTPUT**

INSTRUCTION MANUAL

WARRANTY AND ASSISTANCE

R.M. YOUNG PRODUCTS are warranted by CAMPBELL SCIENTIFIC (CANADA) CORP. ("CSC") to be free from defects in materials and workmanship under normal use and service for **twelve (12) months** from date of shipment unless specified otherwise. ******* Batteries are not warranted. ******* CSC's obligation under this warranty is limited to repairing or replacing (at CSC's option) defective products. The customer shall assume all costs of removing, reinstalling, and shipping defective products to CSC. CSC will return such products by surface carrier prepaid. This warranty shall not apply to any CSC products which have been subjected to modification, misuse, neglect, accidents of nature, or shipping damage. This warranty is in lieu of all other warranties, expressed or implied, including warranties of merchantability or fitness for a particular purpose. CSC is not liable for special, indirect, incidental, or consequential damages.

Products may not be returned without prior authorization. To obtain a Return Merchandise Authorization (RMA), contact CAMPBELL SCIENTIFIC (CANADA) CORP., at (780) 454-2505. An RMA number will be issued in order to facilitate Repair Personnel in identifying an instrument upon arrival. Please write this number clearly on the outside of the shipping container. Include description of symptoms and all pertinent details.

CAMPBELL SCIENTIFIC (CANADA) CORP. does not accept collect calls.

Non-warranty products returned for repair should be accompanied by a purchase order to cover repair costs.



CAMPBELL SCIENTIFIC
CANADA CORP.

11564 - 149 street - edmonton - alberta - T5M 1W7
tel 780.454.2505 fax 780.454.2655

www.campbellsci.ca



MODEL 41382LC/LF
RELATIVE HUMIDITY/TEMPERATURE PROBE, 4-20 mA OUTPUT

INSTRUCTION SHEET 41382L-90
REV A072804

INTRODUCTION

The Model 41382LC/LF Relative Humidity/Temperature Probe combines a high accuracy humidity sensor and temperature sensor in one probe. The probe is available in Celsius or Fahrenheit calibration. Output signal is 4-20 mA for both Relative Humidity and Temperature.

INSTALLATION

The Relative Humidity/Temperature probe should always be installed in a protective radiation shield to ensure accurate data. Use of the probe without a radiation shield may result in large errors. The probe installs easily in YOUNG naturally ventilated or motor aspirated shields. For best performance, the probe and shield should be placed in a location with good air circulation clear of large masses (buildings, pavement, solar panels...), exhaust vents, electrical machinery and motors, water fountains and sprinklers.

MAINTENANCE

The Relative Humidity/Temperature probe is designed to offer years of service with minimal maintenance. As with most humidity sensors, humidity calibration may drift slightly with time. Recalibration will restore probe to acceptable limits.

In areas of high dust or contamination (ie: smokestacks, seawater), periodic cleaning of the RH sensor protective filter is recommended. Soaking in clean water or a mild soap solution is recommended. **DO NOT USE SOLVENTS.**

CE COMPLIANCE

This product has been tested and shown to comply with European CE requirements for the EMC Directive. Please note that shielded cable must be used.

WARRANTY

This product is warranted to be free of defects in materials and construction for a period of 12 months from date of initial purchase. Liability is limited to repair or replacement of defective item. A copy of the warranty policy may be obtained from R. M. Young Company.

SPECIFICATIONS

| | |
|--------------------------------|---|
| Power Required: | 12-28 VDC, 40 mA |
| RELATIVE HUMIDITY: | |
| Measuring range: | 0-100% RH |
| Accuracy at 20-25°C: | ±2% |
| Stability: | Better than ±1%RH per year |
| Response Time: | 10 seconds (Without Filter) |
| Sensor type: | Rotronic Hygromer |
| Output signal: | 4-20 mA |
| TEMPERATURE: | |
| Calibrated measuring range: | -50 to +50°C (suffix C) -50 to +150°F (suffix F) |
| Accuracy at 20-25°C: | ±0.3°C |
| Time constant: | 10 seconds (Without Filter) |
| Sensor type: | 100 Ohm Platinum RTD |
| Output signal: | 4-20 mA |
| Recommended Cable: | 2 pair shielded, 22 AWG (#18723) |
| Recommended Radiation Shields: | |
| Model 43408P | Gill Aspirated Radiation Shield |
| Model 41003P | Gill Multi-Plate Radiation Shield |

Declaration of Conformity

| | |
|---|--|
| Application of Council Directives: | 89/336/EEC |
| Standards to which Conformity is Declared: | EN 50081-2 (IEC 801-2, 3, 4) EN 50082-2 |
| Manufacturer's Name and Address: | R. M. Young Company Traverse City, MI, 49686, USA |
| Importer's Name and Address: | See Shipper or Invoice |
| Type of Equipment: | Meteorological Instruments |
| Model Number / Year of Manufacture: | 41382 (V, L)/2004 |

I, the undersigned, hereby declare that the equipment specified conforms to the above Directives and Standards.

Date / Place: Traverse City, Michigan, USA July 28, 2004

David Poinsett

David Poinsett
R & D Manager, R. M. Young Company

