



MODEL 41382LC/LF

RELATIVE HUMIDITY/TEMPERATURE PROBE, 4-20 mA OUTPUT

INSTRUCTION SHEET 41382L-90
REV C062309

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

R. M. Young Company
2801 Aero Park Drive
Traverse City, MI 49686 USA

Model 41382L TEMP/RH PROBE (4-20mA)

The undersigned hereby declares on behalf of R. M. Young Company that the above-referenced product, to which this declaration relates, is in conformity with the provisions of:

Council Directive 2004/108/EC (December 15, 2004)
on Electromagnetic Compatibility

David Poinsett
R&D Manager

