



Humidity-Temperature Indicating “Sword” Probe

PS1

- PAPER MILLS
- PAPER CONVERTERS
- PAPER WHOLESALERS
- PRINTERS
- High accuracy, fast response probes
- 0..100 %RH humidity measuring range
- Durable, stable sensors with low maintenance requirements
- Simple, accurate humidity field calibration
- Ideal for trouble-shooting and quality assurance



Specifications

Humidity Sensor	ROTRONIC HYGROMER® C94
Temperature Sensor.....	Pt 100 RTD
Temperature Limits.....	-5 to 55°C (20-130°F)
Measuring Range	0 to 100 %RH
	-5 to 55°C (20 to 130°F)
Humidity Accuracy.....	±2.0 %RH @25°C (77°F)
Temperature Accuracy	±0.3°C at 25°C (±0.5°F 77°F)
RH Sensor Hysteresis.....	±0.3 %RH, Max.
Typical Long Term Stability	1 %RH or better over one year
Sensors Time Constant	10 seconds or better
Display	LCD, 3-1/2 Digits
Resolution	0.1 %RH and 0.1°C or 0.1°F
Battery.....	Standard 9V Alkaline Battery
Calibration Adjustment.....	35, 80, 10 %RH
	T0 and T40
Calibration Device	EGS
Humidity Standards.....	EA00, 05, 10, 35, 50, 65, 80, 95%RH
Probe Dimension.....	PS1: 280 x 18 x 4 mm
Case Dimensions	17-1/2" x 8" x 2-1/2"
	(445mm x 200mm x 65mm)
Weight: PS1 set.....	1300g (2.9lbs)
PS1 only.....	360g (0.8lb)

Performance and Reliability

The PS1 features fast sensor response and high repeatability. Each PS1 factory calibrated at 35, 80% RH. Accuracy of humidity measurement is ±2.0 %RH at 77°F. Unique sensor compensation maintains the accuracy of humidity measurement to within a few %RH over the entire operating temperature range of the probe. Accuracy of temperature measurement is better than ±0.5°F. Sensor durability and resistance provide years of trouble free operation with low maintenance requirements. Calibration is typically maintained within 1% RH over a one-year period.

Configurations

The PS1 is available alone or as a set (PS1 Set) complete with carrying case, calibration device and a box of five 50 % RH humidity standards.

Options & Accessories

The PS1 is available with a temperature readout either in degrees Fahrenheit or in degrees Celsius.

Calibration consists of placing a humidity standard in the calibration device and tightly fitting the device over the probe. The humidity standard produces a reference humidity inside the calibration device. When the display stabilizes, the sensor is at equilibrium and any adjustments can be made "on the spot" with the potentiometers provided on the instrument. Humidity standards are available in boxes of ampules of the same value ranging from 0 to 95 %RH.

General Information

The PS1 is a battery operated portable instrument with an integral sword probe that measures temperature and relative humidity when inserted in a stack of paper. Relative humidity is measured with a HYGROMER® capacitive sensor and temperature is measured with a 100 ohm RTD. Both parameters are simultaneously displayed on an easy to read LC display. In addition to RH and temperature the display provides an indication of the status of the battery. An automatic cut-off of power after 2 minutes (except in HOLD) conserves the battery power.

The PS1 was designed with the paper and printing industries in mind. Its speed and reliability for measuring relative humidity and temperature in paper stacks is unparalleled. In contrast to the classical sword probe hygrometer, the PS1 measuring chamber is much smaller and therefore comes into equilibrium with the surrounding paper within a few minutes. This guarantees quick, reliable measurements. Our advanced technology stems from many years of collaboration with paper industry professionals. The PS1 is also used for measuring paper rolls. This is done by cutting through 3 or 4 layers of paper, over a length of 7 to 10 inches from one edge of the roll, to permit insertion of the probe.

When ordering, please specify degree F or degree C.