LOW PROFILE WIRELESS HUMIDITY & TEMPERATURE MONITOR

The ProofReader™

- Measures 0 to 99% RH with ± 2% accuracy
- Measures temperature from -40°C to 100°C (-40°F to 212°F) with ± 0.5°C (0.9°F) accuracy
- Water resistant polycarbonate case / tolerates condensation
- Easy-clean / food safe package with built-in mounting features
- Can be used as a wireless data logger
- Automatic low battery detection and battery life estimation
- Transmits up to 30m (100´)*
  (* under optimal environmental conditions)

ProofReader is a full featured relative humidity and temperature monitor designed for the foodservice industry. ProofReader is perfect for monitoring and certifying proofing oven performance. Powered by two "AA-style" batteries, ProofReader provides a convenient mobile solution enabling relative humidity and temperature monitoring virtually anywhere. When used with DataLink™ software from Magna, the ProofReader wirelessly reports and records relative humidity and temperature data from inside proofing ovens, cooling tunnels and freezer lines. Both humidity and temperature data are available immediately and may be monitored during process steps for real-time analysis and action. The system automatically alerts users to alarm conditions including weak battery conditions. Acquired data is easily manipulated using popular Windows™ programs such as Excel®, PowerPoint® and Word®.

Air Sampling Port
ProofReader uses a micro-machined polymer-based capacitive humidity sensor with integrated semiconductor temperature sensor. The sensor is protected from water, dust and other contaminants by a polypropylene mesh which has been designed to maintain rapid measurement response.

Sampling Rates
The ProofReader can be configured to sample at rates ranging from days to 5 Hz (200 ms intervals). Sensor response is usually on the order of 10 to 15 seconds depending on air flow.

Communications
ProofReader uses a proprietary wireless networking protocol operating in the ISM band and can be used simultaneously with other Magna Systems wireless measurement modules to give a complete process picture. Communication range can be extended by using one or more Barker™ modules.

Additional Required Equipment

ProofReader requires the use of:
1) GateWay™, wireless network access point
2) DataLink™ , data acquisition and display software

www.magnasystems.net
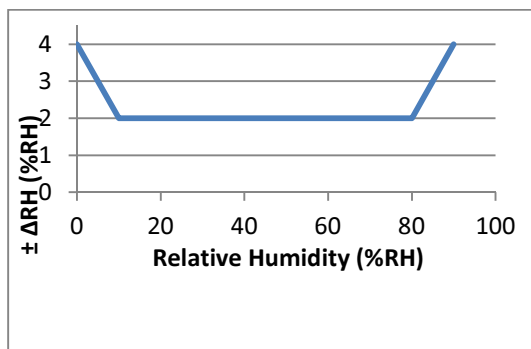☎ +1 408 246-4050

ProofReader Specifications

Relative Humidity-

Number of Channels: 1
Sensor Type: Polymer-based Capacitive
Typical Sensor Characteristics (@ 25°C) :

Resolution-	± 0.05%
Repeatability-	±0.10%
Hysteresis-	± 1%
Response time-	~ 8 sec. @ 1 m/s air flow
Long term drift-	< 0.5% / year

Relative Humidity Accuracy (@25°C)-

Temperature-

Number of Channels: 1
Sensor Type: semiconductor band gap type
Operating Temperature: -40°C to 100°C
(-40°F to 212°F)
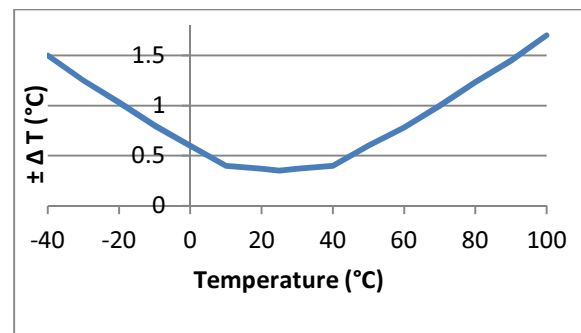
Resolution-	0.01°C
Repeatability-	±0.10°C
Response time-	< 30 sec. typ.
Long term drift-	< 0.04°C / year

Temperature Accuracy-

General Specifications-

Enclosure: Water resistant polycarbonate
& polypropylene mesh
Vibration: 10 g   (rms 20 Hz to 2000 Hz)
Shock: 3 foot drop
Power: Two AA style batteries
Battery Life: 1.5 yrs at 1 sample / min.
Time Accuracy: ± 1 min / month
Communications Interface†:
        ISM band radio (868 / 915 MHz)

†Changes or modifications to the ProofReader not approved by Magna Systems may void the user's authority to operate the equipment.

Storage Temperature Range: -40 to 120 ºC
Weight:
  ProofReader only: 150 gm (5.29 oz)
  ProofReader & batteries: 210 gm
(7.40 oz)

Monitoring & Data Recording-

Sampling rate user settable from days to 5 samples / second
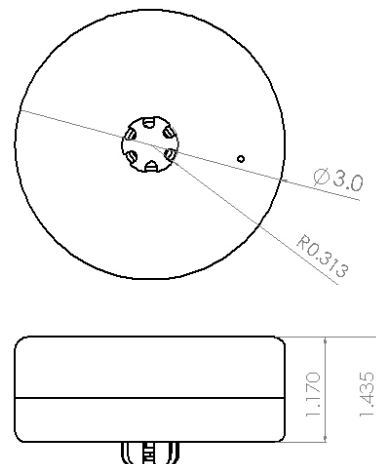All samples time stamped at acquisition
Programmable or manual start time
Programmable or manual end time
Data stored in on-board memory or relayed wirelessly in real-time

Dimensions:
(inches)