

GE Sensing

Benefits

- Automatic alarms give early warnings to potential moisture related problems in buildings
- Avoid costly job site visits and view data from your desktop
- Easy and professional job report presentations
- Use long term monitoring to help diagnose moisture problems in buildings

The Protimeter HygroTrac is a simple and cost-effective system for monitoring environmental conditions remotely in buildings.

The Protimeter HygroTrac system measures and logs data parameters such as relative humidity, temperature and moisture in materials.

Small HygroTrac wireless sensors are placed in a building and readings are sent to the data acquisition gateway. The data acquisition gateway is connected to a dedicated and secure web server via ethernet or phone line. The measurements can then be viewed from any internet connection using a secure password to access results.

Protimeter HygroTrac®

Wireless Environmental Monitoring

HygroTrac is a Protimeter product. Protimeter has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



GE Sensing

Wireless Sensors

Transmit data at user-selected intervals to central data acquisition gateway up to 150 ft (46 m) away.

Multiple sensors (up to 600 per gateway) can be installed—all transmitting back to one or more data acquisition gateways.

Frequency of reporting can be adjusted between 1 min to 24 hours.

HygroTrac Measures

- Relative humidity
- Air temperature
- % moisture content in wood and % WME in other building materials.

Built-in screw fasteners allow moisture measurement and attachment of the sensor to building materials such as wood, drywall and plaster.



Data Acquisition Gateway

Data collection point receives and stores data from all wireless measurement sensors. Information is then sent to a secure web server.

Data is sent via:

- Ethernet
- Telephone land line (*user dial out options)
- Up to 600 sensors can report to a gateway

**Use of dial up connections will require an ISP account.*



HygroTrac gateway rear view

Web Data Service*

- Live or near live access to data.
- Name individual sensors to specify location within the building
- Data view includes graphical display of readings
- Secure access with ability to create multiple users at different security levels
- Download data in text file format for use with spreadsheets and other applications
- Alarm settings. Warnings via email and cellular phone text message
- Customized report generation.

**Use of this service will encounter a data access fee automatically billed to a credit card. Contact GE for latest rates.*

Data Available

- Sensor ID + location
- Reading time and date
- % RH
- Temperature (°F/°C)
- Wood Moisture Equivalent (% WME)
- GPP (grains per pound) grams per kilogram (g/kg)
- Dewpoint temperature (°F/°C)



Applications

Permanent Installation into a Wide Range of Building Environments

Provides early warning of potential moisture-related problems that can lead to damaged property and potential health risk to building occupants.

- Heritage or historic buildings
- Museums
- Food storage
- Apartment buildings

HygroTrac Specifications

Wireless Sensor

- *Nominal transmission distance to gateway– 150 ft (46 m)
- Measures relative humidity and temperature
- % moisture content in wood
- Measures % WME in masonry, drywall and other materials of construction

**Transmission distance varies, based on many factors, including the presence of obstacles such as concrete walls and interference from other electronic equipment.*

Transmission Frequency

- US and Canada: 915 MHz unlicensed band
- Europe: 868 MHz unlicensed band

Size (l x w x h)

2.25 in x 1.5 in x 2.25 in (60 mm x 30 mm x 60 mm)

Weight

2.42 oz (68 g)

% RH/Temperature Sensor

% RH Range

0 to 100% (non condensing)

% RH Accuracy

10 to 90% $\pm 2.5\%$

Temperature Range

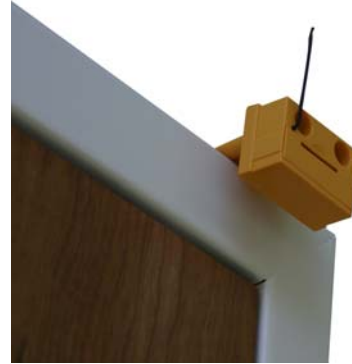
-40°F to 185°F (-40°C to 85°C)

Temperature Accuracy

$\pm 1^\circ\text{F}$ ($\pm 0.5^\circ\text{C}$) at 77°F (25°C)

Battery Life

15 years nominal, when reporting hourly



Moisture Sensor

Pin type resistance

Range

8 to 40%

Accuracy

$\pm 1\%$ in wood; 10 to 25% subject to adjustments for species and temperature

Calibration Temperature

68°F (20°C)

Data Acquisition Gateway

- Receives data from up to 600 sensors
- Transmits data to secure internet via
 - 10 Mbps ethernet output
 - Dial on demand phone modem
- Onboard back up data storage
 - 10 sensors reporting every 1 hour = ~ 1 year of data
- Addition storage on SD card up to 2 GB card not supplied

Size (l x w x h)

7.5 in x 4.9 in x 1.6 in (190 mm x 125 mm x 40 mm)

Weight

10.8 oz (305 g)

Power Requirement

3.3 V power supply (included)

HygroTrac Specifications

Packaging

HygroTrac Kit (P/N BLD9000, BLD9000-EU*)

- 10 wireless moisture sensors complete with screw moisture sensors and lithium battery
- One data acquisition gateway
- One power supply
- One ethernet cable
- One telephone cable
- Instruction manual
- Blow molded custom case with foam insert

Additional sensors (P/N BLD9050, BLD9050-EU*)

Additional gateways (P/N BLD9010, BLD9010-EU*)

**EU denotes European part number. Product configured to meet compliance as below:*

This product complies with FCC Part 15 Class B, ICES-003 Class B, European Union EMC and R&TTE Directive. Wireless devices require specific country approvals. Contact GE Sensing for the latest listing.



HygroTrac in carrying case



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