Ligno-Tec RH

The Ligno-Tec RH measures and indicates:

RH:	relative humidity
Temp:	temperature
GPP:	grains per pound
DewP:	dew point temperature
#:	individual 3-digit RH probe number

Applications:

- Meter can be used as thermo-hygrometer with RH BluePeg probe.
- Meter can be used for in-situ RH concrete testing with probes, cable, sleeves. Complies with ASTM F2170 standard.

The Ligno-Tec RH meter has a 3.5mm connector mounted in the top of the meter case, where the RH probe is plugged in. The connection is made via the RH adapter or a 3.5mm stereo cable for remote measurements. If the reach of the probe has to be extended further, the RH depth-adapter can be used, see photo on page 2.

RH, T, DPT and GPP indicated on easy-to-read display. The 3-digit number is an individual probe number, which allows easy tracking of the RH BluePeg probes.

Order as package RH-B.

Thermo-Hygrometer with Ligno-Tec RH

The RH BluePeg probe needs to be connected to the meter to be able to measure RH, Temp. DTP and GPP. The RH BluePeg probe uses a precision, fast respondong sensing element, giving you an out-standing Thermo-Hyrometer. When accuracy in RH measurements count, the Ligno-Tec RH is the right choice.

Knowing the relative humidity is important when dealing with wood and after any water damage, when high RH conditions exist.

Wood: See EMC chart on page 2. Wood will acclimate to the moisture and humidity values given in the EMC chart. For wood moisture and the corresponding RH and temp values listed in the chart, wood will be stable and not move.

Building Envelope: To protect the integrity of a building the relative humidity should be kept below 60%. That is the humidity level at which mold starts to grow at moderate comfortable in-door temperatures. Mold also threatens the health of the people living in buildings.

Mold can only be avoided by keeping the relative humidity low. Measuring ambient conditions is a first step.

All accessories for in-situ probe testing of concrete are available form Lignomat, complying with ASTM F2170.

In-situ RH concrete testing with Ligno-Tec RH

Our engineering team is proud to present Lignomat's reliable and accurate RH BluePeg system for in-situ moisture testing in concrete. In addition to implementing the latest sensing technology, we have designed RH probes, sleeves, cables and meter to allow for fast, simple and fail-proof testing. Lignomat's RH system has retrievable, multi-use probes. The system complies to ASTM F 2170.

The Ligno-Tec RH serve as a reader for in-situ RH probes. Readings can be taken in seconds with easy-to-use, fail-proof cable connections. Once the Ligno-Tec is connected to probe and cable, the meter instantly gives RH and Temp values. No pin arrangements on the cable need to be fitted. No-set up procedure is necessary. After the initial investment, only the sleeves are disposable. RH probes can be used time and time again. See ASTM standard F2170 for interim calibration testing of RH probes.

The ASTM standard F2170 sets the time limit for all in-situ probe testing. Nevertheless, shortly after the probes are inserted, measurements can be taken to evaluate moisture conditions for being low or too high.

During the first year we offer to test the calibration of RH BluePeg probes three times without a charge. You can also perform on-site calibration testing with the calibration test bottle.

Package RH-KS includes meter and accessories for in-situ RH testing, ideal for concrete contractor, installer and inspector. Order as RH-KS.

Specifications for RH BluePeg Probe:

Size of RH BluePeg probe: Ø 0.5" (1.3cm), length 1.35" (3.3cm)
The RH BluePeg probe uses a single microchip, factory calibrated to NIST standard.
Applications include: Measuring ambient conditions and in-situ moisture testing in concrete.

Measuring range for relative humidity: 0-99.9%
Accuracy for RH:
± 2% for 10% - 90%
± 3% for below 10% and above 90%.

Measuring range for temperature: 5^{0}F to 160^{0}F (-15^{0}C to 70^{0}C).
Accuracy for Temperature:
+/-0.5^{0}F for 32^{0}F to 120^{0}F (+/-0.3^{0}C for 0^{0}C - 50^{0}C)
+/-1^{0}F for below 32^{0}F and above 120^0 F (+/-0.5^{0}C for below 0^0 C and above 50^0 C).

Measuring range for DPT: -17.8°F to 160°F (0°F to 70°F)
Measuring range for GPP: 0-99.9.
3-digit individusl RH probe number for keeping track of RH probes

Resolution for all indicated values is 0.1.

Order Thermo-Hygrometer as package: RH-B

Lignomat offers 3 RH meters and data-logger:

Ligno-Tec RH: measures RH only
Ligno-DuoTec BW: measures RH and is a pinless meter for wood, bamboo...
Ligno-VersaTec: Measures RH and is a pin and pinless meter for wood, bamboo...

Datalogger BL2 for recordeing RH and Temp over time.
Interval can be set from 30 seconds to 24 hours.

Cable extension to measure relative humidity in hard to reach, remote places.

RH depth-adapters make RH probe longer to reach in crevices and behind walls with extended RH probe. Add RH depth-adapters #RH-DA.
Also used to read probes in sleeves over 2.4" deep.

EMC Table

Temp °C	Temp °F	Relative Humidity 5	10	15	20	25	**30**	**35**	**40**	**45**	**50**	55	60	65	70	75	80	85	90	95	98
-1	30	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
4	40	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.8	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
10	50	1.4	2.6	3.6	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.3	11.2	12.3	13.4	14.8	16.4	18.4	20.9	24.3	26.9
16	**60**	1.3	2.5	3.6	4.6	5.4	6.2	7.0	7.8	8.6	9.4	10.2	11.1	12.1	13.3	14.6	16.2	18.2	20.7	24.1	26.8
21	**70**	1.3	2.5	3.5	4.5	5.4	6.2	6.9	7.7	8.5	9.2	10.1	11.0	12.0	13.1	14.4	16.0	17.9	20.5	23.9	26.6
27	**80**	1.3	2.4	3.5	4.4	5.3	6.1	6.8	7.6	8.3	9.1	9.9	10.8	11.7	12.9	14.2	15.7	17.7	20.2	23.6	26.3
32	90	1.2	2.3	3.4	4.3	5.1	5.9	6.7	7.4	8.1	8.9	9.7	10.5	11.5	12.6	13.9	15.4	17.3	19.8	23.3	26.0
38	100	1.2	2.3	3.3	4.2	5.0	5.8	6.5	7.2	7.9	8.7	9.5	10.3	11.2	12.3	13.6	15.1	17.0	19.5	22.9	25.6
43	110	1.1	2.2	3.2	4.0	4.9	5.6	6.3	7.0	7.7	8.2	9.2	10.0	11.0	12.0	13.2	14.7	16.6	19.1	22.5	25.2
49	120	1.1	2.1	3.0	3.9	4.7	5.4	6.1	6.8	7.5	8.2	8.9	9.8	10.7	11.7	12.9	14.4	16.2	18.6	22.0	24.7

Example: For a relative humidity of 35% and a temperature of 70^{0}F, the EMC is 6.9%. A wood floor at 6.9% moisture content is stable, if the surrounding air has a relative humidity of 35% and a temperature of 70^{0}F. In short a floor is stable, when MC and EMC are the same.

Lignomat moisture measurement

Specifications are subject to change without notice.
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