ILLUMRA™
SELF-POWERED WIRELESS CONTROLS

Temperature & Humidity Sensor

E9T-THS

The ILLUMRA Temperature & Humidity Sensor brings wireless, battery-free sensing in a discreet, low-maintenance package. The sensor is completely self-powered by harvesting ambient solar energy so there are no wires to run or batteries to replace, reducing installation time and eliminating the need for ongoing maintenance.

Use as part of a wireless control system to reduce energy consumption or to implement compliance with the latest energy regulations.

- Easily mounted to vertical walls using included adhesive pad, or use included stand to place on a horizontal surface
- Launch scenarios based on temperature and humidity
- Periodically measures temperature and humidity; Significant changes in readings are reported immediately

Typical Applications

The sensor is useful in any situation where automatic temperature and humidity control will save energy.

- Homes
- Offices
- Wine cellars
- Hospitality
- Bathrooms
- Storage rooms
- HRV
- ERV

- **Interoperable.** Communicates wirelessly with other devices using the EnOcean wireless standard.
- **Maintenance Free.** Integrated solar cell harvests indoor light to power the sensor and eliminates the needs for wires or batteries. Optional battery tray for dark area use.
- **Easy installation.** Adhesive mounting, optional stand, along with the wireless and discreet design allow for versatile placement of the sensor.

SPECIFICATIONS

Power supply	Primary: Indoor light energy harvesting via solar cell Backup: Optional battery (CR1225, not included)
RF Communications	EnOcean® Protocol 902 MHz
Transmission range	50-150 feet (typical)
EEP (EnOcean Equipment Profile)	EEP A5-04-03 / STM 350U
Temperature sensor performance	Measurement range: -4° to +140°F (-20° to +60°C) (10 bit resolution) Accuracy typ. ±0.3K
Humidity sensor performance	Measurement range: 0-100% rh (relative humidity), Accuracy typ. ±3% rh between 20% rh and 80% rh
Measurement cycle time	Once every 100s
Threshold for immediate transmission	Change by >±0.5K or >±1% rh versus last transmission
Sign-of-life with measurement data update	Once every 10-24 minutes (random)
Charge time before linking	Typ. 2.5 min @ 400 lux or 4 min @ 200 lux
Operation time in darkness	Typ. 4 days
Dimensions of housing (without stand)	2.99 x 0.83 x 0.55 inches (76 x 21 x 14 mm)
Dimensionsof stand	1.18 x 1.18 x 0.05 inches (30 x 30 x 1.2 mm) without side flap
Operating conditions	-4° to +140°F (-20° to +60°C) 0-93% rh, non-condensing IP 40, indoor use only
Storage conditions (recommended)	50° to 86°F (10° to 30°C), <60% rh, max. 36 months
Agency Compliance	FCC, ISED

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