

ETHS is a wireless temperature & humidity sensor for EnOcean systems. Powered by a solar cell, it works absolutely maintenance-free. An integrated energy store allows operation for several days in total darkness. In dark surroundings, a coin cell battery can be retrofitted.

ETHS periodically measures temperature and humidity of its environment. Significant changes in readings are reported immediately. In addition, frequent updates (signs-of-life) are provided at regular intervals. The small housing can easily be mounted to walls or furniture using the included adhesive pad. Using the included metal stand the sensor can be positioned on horizontal surfaces. One end cap can be replaced by the enclosed triangle cap.



Type
ETHSA
ETHSU

Ordering Code
S3001-C350
S3051-C350

Primary power supply	Indoor light (solar, incandescent, fluorescent, LED), 50-100000 lx
Backup power supply	Optional battery (CR1225, not included)
Radio standard / frequency / transmission power	EnOcean / 868.300 MHz / 5 dBm (ETHSA) EnOcean / 902.875 MHz / 99 dBuV/m (ETHSU)
Antenna / transmission range	Helix / up to 300 m free field, up to 30 m indoor
EnOcean Equipment Profile (EEP)	A5-04-03
Supported security algorithms	VAES 128, CMAC, RLC counter
Temperature sensor performance	Measurement range -20..+60°C, Resolution 0.1K Accuracy ±0.5K across entire range
Humidity sensor performance	Measurement range 0-100% rh, Resolution 0.4% rh, Accuracy ±4.5% rh across entire range, ±3% rh between 20%...80% rh
Measurement cycle time	Once every 100s
Immediate transmission threshold	Change by >±0.5 K or >±3% rh versus last transmission
Sign-of-life transmission	Measurement data update once every 11-24 minutes (random)
Charge time before linking ⁽¹⁾	Typ. <5 min @ 400 lx ¹
Sustain condition for battery free operation	min. 1200 lxh per day (25°C)
Operation time in darkness ⁽²⁾	Typ. 4 days ²
Teach-in telegram trigger and indicator	Pushbutton and LED
Dimensions of housing (without stand, 2 square caps)	76 x 22 x 15 mm
Dimensions of housing adhesive	50 x 18 x 0.8 mm
Dimensions of stand	30 mm x 30 mm x 1.2 mm (without slide-flap)
Housing, color and material	White, similar to RAL 9010, PC/ABS
Operating conditions	-20...+60 °C, 0...93% r.h., non-condensing, IP 40, indoor use only
Storage conditions	Recommended: +10...30 °C, <60% r.h., max. 36 months ³
Approvals	CE/RED (ETHSA), FCC/ISED (ETHSU)
Single unit pack (sensor unit, stand, adhesive, t. cap, instructions)	Card box 32 x 32 x 99 mm
Minimum order quantity / shipping box	50 units / card box 232 x 176 x 174 mm, 2.09 kg

Note 1: Charge time at 25°C from empty energy store until a teach-in telegram can be sent

Note 2: Operation time from a fully charged energy store if telegrams are sent on average every 17.5 minutes (signs-of-life)

Note 3: To keep performance, recharge energy storage after 36 months in total darkness