

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

ETHS periodically measures temperature and humidity of its environment. Significant changes in the measured values are reported immediately. In addition, frequent updates (signs-of-life) are provided at regular intervals. The small housing can be easily attached to walls or furniture using the included adhesive pad. Single pack only: With the included metal stand, the sensor can be positioned on horizontal surfaces and the upper square cap can be replaced by additional included triangle cap.

**Type**

ETHSA

ETHSA

ETHSU

**Ordering Code****S3001-C350 (single packs)****S3001-T350 (tray pack)****S3051-C350 (single packs)**

<b>Primary power supply</b>	Indoor light (solar, incandescent, fluorescent, LED), 50-100000 lx
<b>Backup power supply</b>	Optional battery (CR1225, not included)
<b>Radio standard / frequency / transmission power</b>	ETHSA: EnOcean / 868.300 MHz / +5 dBm ETHSU: EnOcean / 902.875 MHz / +99 dBμV/m
<b>Antenna / transmission range</b>	Internal helix antenna / 300 m free field, typ. 30 m indoor
<b>EnOcean Equipment Profile (EEP)</b>	A5-04-03 (temperature & humidity measurement value), SIGNAL 0x06 (Energy Level Reporting), SIGNAL 0x0E (Entering Transport Mode)
<b>Supported security algorithms</b>	VAES 128, CMAC, RLC counter
<b>Temperature sensor performance</b>	Measurement range -20..+60°C, resolution 0.1K, accuracy ±0.5K across entire range
<b>Humidity sensor performance</b>	Measurement range 0-100% rh, resolution 0.4% rh, accuracy ±4.5% rh across entire range, ±3% rh between 20%...80% rh
<b>Measurement cycle time</b>	Once every 100s
<b>Immediate transmission threshold</b>	Change by >±0.5 K or >±3% rh versus last transmission
<b>Sign-of-life transmission</b>	Measurement data update once every 11-24 minutes (random)
<b>Start-up time with empty energy storage</b>	typ. <2.5 min @ 400 lx, 25°C
<b>Sustain condition for battery free operation</b>	min. 1200 lxh per day (25°C)
<b>Operation time in darkness</b>	> 10 days (energy storage fully charged, sign of life only, 25°C) <sup>(1)</sup>
<b>Teach-in telegram trigger and indicator</b>	Pushbutton and LED
<b>Dimensions of unit without wall plate</b> (no stand, 2 square caps)	76.2 x 22 x 15 mm
<b>Dimensions of unit with wall plate</b>	79 x 23.8 x 18.6 mm
<b>Dimensions of unit with stand and triangle cap</b> (single pack only)	85 mm x 30 mm x 30 mm
<b>Housing color</b>	White, similar to RAL 9010
<b>Operating conditions</b>	-20...+60 °C, 0...93% r.h., non-condensing, IP 40, indoor use only
<b>Storage conditions</b>	Recommended: +10...30 °C, <60% r.h., max. 36 months in transport mode <sup>(2)</sup>
<b>Approvals</b>	EU: CE/RED (ETHSA), US/CA: FCC/ISED (ETHSU)
<b>Single unit packaging</b>	50 single unit card boxes 32x32x99 mm (sensor unit, wall plate, stand, triangle cap, adhesive, instructions) in transport box 232x176x174 mm, total 2.3 kg
<b>Tray packaging</b>	56 units (sensor units, magnets, wall plates, adhesives, <b>NO stand, NO triangle cap</b> , NO instructions) in transport card box 232x176x174 mm, total 2.2 kg

*Note 1:* Following effects lead to shorter dark time operation: Long time exposure of the unit to temperatures higher 30°C will gradually degrade the energy storage performance over life time. Lower temperatures than 0°C will noticeable reduce capacity of energy store, but temporarily only

*Note 2:* Recharge energy storage after 36 months in total darkness to maintain its performance.