

Sensor Industrial

IQAROS Temperature and humidity sensor

Description

IQD-SE03-01 ([sensor Industrial](#)) is a temperature and relative humidity sensor intended for IQRF wireless 3D monitoring system [IQAROS](#). It observes the [IQRF Standard sensor](#) specification.

Key features

- Indoor, with internal sensors behind the semi-permeable membrane
- IQRF wireless Mesh connectivity
- Extra low power, battery operated. Battery lifetime 10 years typical.
- [Beaming sensor](#) supporting data collection by Aggregating repeaters

Purpose

- Temperature and humidity monitoring in an indoor industrial environment

Applications

- IQRF wireless 3D temperature and humidity monitoring system [IQAROS](#)
- Monitoring of buildings, warehouses, laboratory conditions, etc.
- Smart house, Internet of Things



Technical specifications

Typical values (until otherwise specified)

Power supply	Battery AA 3.6 V, 2400 mAh, lifetime 10 years typical, 7 years guaranteed (if the conditions for operating are observed).
RF connectivity	IQRF wireless Mesh
RF band	868 MHz (916 MHz on request)
RF range	Tens of meters in buildings (depends on the environment and obstacles) Up to 400 m in free space
Beaming period	The sensor transmits the measured values every minute.
Temperature and humidity sensor IC	SHT3x series by Sensirion, factory calibrated
Temperature	Without hoar-frost and condensation
Range	0 °C to +45 °C (battery lifetime 7 years guaranteed) -20 °C to +70 °C (battery lifetime not guaranteed)
Resolution	0.0625 °C
Accuracy	Typical ± 0.2 °C (0 °C to +70 °C), from ± 0.25 °C to ± 0.2 °C (-20 °C to 0 °C) Maximal ± 0.4 °C (-20 °C to +70 °C)
Relative humidity	Without hoar-frost and condensation
Range	0 % to 90 % (battery lifetime 7 years guaranteed) 0 % to 100 % (battery lifetime not guaranteed)
Resolution	0.5 %
Accuracy	± 2 %
Long term drift	0.25 % / year
Ingress protection	IP40
Main unit enclosure size	64 mm x 58 mm x 35 mm body, 94 mm x 58 mm x 35 mm total
Weight	105 g