

# Sensor Industrial X

## IQAROS Temperature sensor

### Description

IQD-SE03-03 ([sensor Industrial X](#)) is a temperature sensor intended for IQRF wireless 3D temperature monitoring system [IQAROS](#). It observes the [IQRF Standard sensor](#) specification.

### Key features

- Outdoor, with the sensor unit connected via a cable
- IQRF wireless Mesh connectivity
- Extra low power, battery operated. Battery lifetime 10 years typical.
- [Beaming sensor](#) supporting data collection by Aggregating repeaters

### Purpose

- Temperature monitoring in an outdoor industrial environment

### Applications

- IQRF wireless 3D temperature 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
Temperature sensor (internal IC)	
Range	-40 °C to +85 °C.
Resolution	0.0625 °C
Accuracy	Typical $\pm 0.2$ °C (0 °C to +85 °C), from $\pm 0.3$ °C to $\pm 0.2$ °C (-40 °C to 0 °C) Maximal $\pm 0.4$ °C (-40 °C to +85 °C)
Long-term drift	0.03 °C / year max.
Ambient temperature	
Main unit	Without hoar-frost and condensation 0 °C to +45 °C (battery lifetime 7 years guaranteed) -20 °C to +70 °C (battery lifetime not guaranteed)
Sensor unit (on the cable)	-40 °C to +85 °C (fixed cable installation) -20 °C to +85 °C (flexible cable installation)
Ingress protection	IP67
Main unit	Enclosure size 64 mm x 58 mm x 35 mm body, 94 mm x 68.5 mm x 35 mm total
Sensor unit	Metallic case stainless steel DIN 1.4571, diameter 5.7 mm, length 50 mm. Total length 1.5 m.
Weight	175 g (including the sensor unit on the cable)