## Kiona

**Technical Datasheet** 

# Edge Sense

### Edge Sense 908/908X

Edge Sense is our wireless sensors for Temperature and Humidity. They are easily installed in the apartments as well as in the heating station.

The sensors measure and distribute information about temperature and humidity levels in all apartments, as well as flow and return-temperature in the heating system. All this with high security encrypted communication through the standardize protocol Wireless M-Bus (OMS). This is something they do several times every hour, twenty-four seven.

Having reliable data is of great importance when working with energy optimizations and improving indoor climate.

\*Sense 908X has the possibility to attach external temperature probes (T1).









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#### FIELD OF USE

Apartment, housing co-operations and commercial buildings.

- Getting control of your indoor climate
- Management of delivered indoor comfort and climate
- Remote measurement in sensitive or difficult to reach
- Find deficiency in heating systems
- Optimization of heating systems

#### MAIN FUNCTIONS

- 15 min measurements of Temperature and Humidity
- Using standardize communication through Wireless M-bus
- High security with encrypted communication
- Connects directly over wM-Bus to Edge Hub, Edge Gateway or 3rd party Gateways using S and C mode.
- Long operating range and coverage without any need of repeaters.
- Dual antenna and high output radio to maximize range.
- Secure operation and Quality controlled plug and play activation with QR code
- Maintenance free with long battery life

#### WIRELESS M-BUS

Standards EN 13757-3/4:2013

OMS 4.0.2

Modes S-mode and C-mode.

S = 5 minutes. C = 60 seconds **Intervals** 

868.3 AND 868.95 MHz Frequency

RF-power < 14 dBm

Encryption AES128 according to mode 5 Dual Internal Diversity Antenna

**SENSOR INTERNAL** 

Temperature range -40°C to +85°C Every 15th minute Measure interval Resolution Two decimal

Typ.  $\pm 0.3$ °C (+5 °C to +60 °C) Accuracy

Humidity 5%rH to 95 %rH Typ. ±3% (20%- 80%RH) Accuracy

SENSOR EXTERNAL

Max devices 4pc external T1  $-40\,^{\circ}\text{C}$  to  $+125\,^{\circ}\text{C}$ **Temperature** 

Typ.  $\pm 0,5$ °C (-10 °C to +85 °C) Accuracy

**GENERAL** 

Power supply Battery Lithium Thionyl Chloride 3,6 VDC

Soldered ER14505/LS14500 Tvpe

Lifetime TYP 908: 14 years

908X: 1pc T1 = 12 years, 2pc T1 = 10 years

3pc T1 = 9 years, 4pc T1 = 7 years.

European directives

2014/53/EU Radio Equipment Directive. **CE** approval EN61000-1-1, EN61000-1-3

**ROHS** 2011/65/EU

**Enclosure** IP20 White plastic Self-extinguishing ABS

Contains no Bisphenol-A.

Weight 48g

Size (W x H x D) 65 x 43 x 25 mm

Article number

When disposed of, the Edge 908/90X shall be recycled and Disposal notes

not disposed with domestic waste.

#### PERFORMANCE

The 908/908X sensor device uses a high-performance wireless M-Bus transmitter that supports S1 and C1 mode. The fully differential antenna design gives ultra-long range in all direction, this even in this small enclosure.

#### MOUNTING

- Mount always on an interior wall or hallway, not on outer
- Place Edge sensor 908/908X 160 180 cm above floor
- Avoid mounting close to heating/cooling sources for example solar radiation, lamps, pipes or extensive airflow
- Adhesive or fixed mounted with a screw
- Keep out of water, do not cover or use force on any part of the device

#### **EXTERNAL INTERFACES**

The Edge Sense 908X can support 4pc of additional T1 external temperature probes. These probes can be attached on specific objects such as pipes. The data from these devices are transmitted simultaneous as the internal temperature and humidity.