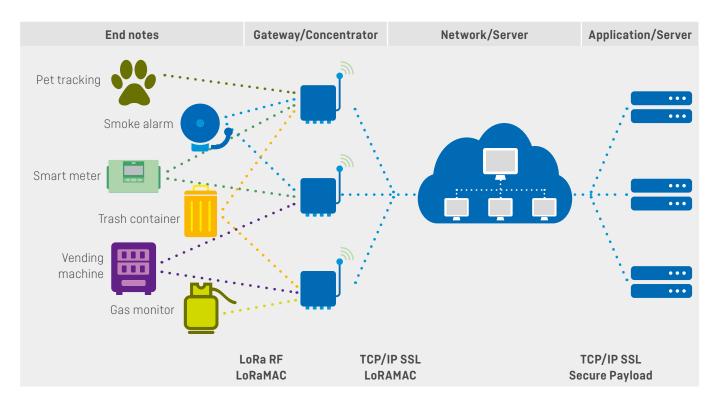


# LoRaWAN® – automatic meter reading of heat meters

IoT solution for MULTICAL® 403, MULTICAL® 603 and MULTICAL® 803



Long Range Wide Area Network – or LoRaWAN® – is an open technology with wide adaptation and as such not tied to a company. It can be rolled out as a public or a private network. The technology is ready and available and has the benefit of long range and low-cost hardware. Automatic meter reading using a LoRaWAN® network delivers frequent consumption data to your customers from the meters installed at their premises.

Elvaco AB has developed an MID-approved LoRaWAN® module especially for Kamstrup's heat/cooling meters MULTICAL® 403, MULTICAL® 603 and MULTICAL® 803.

Kamstrup has assisted Elvaco with the development and the result is a LoRaWAN® module able to run up to 11 years in a meter supplied by a single D-cell battery.

The LoRaWAN® module is now ready for sale and can be ordered at Elvaco AB.

## Frequent data enables:

Insight into consumption patterns
Even better customer

service

### Consider LoRaWAN®\_if...

- You want to set up and control your own private network
- You need to connect via a public and shared network in your local area
- You are looking for an open network technology
- · You want data on a daily basis
- · You want long battery life
- You just want readings for billing

### Technical specifications

#### **Mechanics**

Protection class IP65

Dimensions (w x h x d)  $90 \times 35 \times 12 \text{ mm}$ 

Mounting In MULTICAL® 403/603/803

Weight 22 g

#### **Environmental specifications**

Operating temperature +5 °C to +55 °C

Operating humidity 0 to 93 % RH, no condensation

Operating altitude 0-2000 m
Pollution Degree 1
Usage environment Indoors

Storage temperature -20 °C to +60 °C

#### Radio characteristics

Frequency 868 MHz
Output power 14 dBm
Receiver sensitivity -135 dBm

#### LoRaWAN® characteristics

Device class Class A, Bi-directional

LoRA version 1.0.2

Activation OTAA or ABP

Data rate DRO-DR5 (250-5470 bit/s)

#### User interface

Push button Start-up / reboot / switch off module Configuration NFC via Elvaco OTC app or downlink

data





### Think forward

#### Kamstrup A/S

Industrivej 28, Stilling DK-8660 Skanderborg T: +45 89 93 10 00 F: +45 89 93 10 01 info@kamstrup.com kamstrup.com