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PREMIUM
PARTNER

# Kamstrup LoRa Module

| Part Code | Name | Meter | Output |
|---|---|---|---|
| EL403LR | Kamstrup 403/603/803 LoRa Module CMi4140In | Kamstrup 403/603/803 | LoRa |

The rapid growth of IoT ("Internet of things") has resulted in new communication techniques, specifically developed to meet the growing demand of high energy-efficiency and long range. LoRaWAN is one such technique. CMi4140 is mounted inside a Kamstrup MULTICAL 403/603/803 to deliver meter data to a receiving server via a LoRaWAN network. The product has 11 years of battery life, is energy-efficient, has a long communication range and is easily retrofitted inside an already deployed meter. CMi4140 is easily configured through Elvaco OTC mobile app (via NFC). With CMi4140, Elvaco offers a meter communication module designed for customers that require a user-friendly and cost-effective solution.

**Managed Services**

Meter Data Management

Billing Solutions

PAYG Management

Online Account Management

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Features:

- Suitable for Kamstrup MULTICAL 403/603/803 meters

- LoRa Output

- Battery Powered – 11 Years

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## Technical Specification

### Mechanics

| | |
|---|---|
| Dimensions (w x h x d) | 90 x 35 x 12 mm |
| Mounting | Module slot in Kamstrup MULTICAL 403/603/803 |
| Weight | 33 g |
| External antenna connection | MCX |

### Electrical connections

| | |
|---|---|
| Supply voltage | Internal meter battery, life span up to 11 years |

### Electrical characteristics

| | |
|---|---|
| Nominal voltage | 3.6 VDC |
| Power consumption (max) | 50 mA |
| Power consumption (sleep mode) | ~2.5 $\mu$A |

### Environmental specifications

| | |
|---|---|
| Operating temperature | +5 °C to +55 °C |
| Operating humidity | 0 to 93 % RH, no condensation |
| Operating altitude | 0-2000 m |
| Pollution degree | 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 | DR0-DR5 (250-5470 bit/s) |

### User Interface

| | |
|---|---|
| Configuration | NFC via Elvaco OTC app or downlink data |

### Approvals

| | |
|---|---|
| LoRa Alliance® | LoRaWAN® Certified |
| EMC | EN 301489-1, EN 301489-3 |

**Data Collection**

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