CMi4170

Integrated meter module for Engelmann Sensostar S3/S3C, LoRaWAN

CMi4170 is mounted inside an Engelmann Sensostar S3/S3C to deliver meter data to a receiving server via a LoRaWAN network. The product can achieve up to 10+1 years of battery life, and can also be powered via PSU. It is energy-efficient, has a long communication range and can be retrofitted inside an already deployed meter. CMi4170 is easily configured through Elvaco OTC app (via NFC). With CMi4170, Elvaco offers a meter communication module designed for customers that require a user-friendly and cost-effective solution.

Technical specification

Mechanics

Dimensions	29 x 56 x 12 mm
Mounting	In module slot of Engelmann Sensostar S3/S3C
Weight	9 g

Electrical connections

Supply voltage	Internal meter battery (life span up to 10+1 years) or PSU (Engelmann External Power Supply)

Electrical characteristics

Nominal voltage	3.0 VDC
Power consumption (max)	50 mA
Power consumption (sleep mode)	~2.5 μA

Environmental specifications

Operating temperature	+5 °C to +55 °C
Operating humidity	0 to 93 % RH, no condensation
Operating altitude	0-2000 m
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 Rev B
Activation	OTAA or ABP
Data rate	DR0-DR5 (250-5470 bit/s)

User interface

Green LED & Red LED	Indication for start-up / reboot / switch-off
Push Button	Start-up / reboot / switch off module
Configuration	Elvaco OTC app, Downlink or Engelmann optical configuration tool "Device Monitor"

Approvals

LoRa Alliance®	LoRaWAN® Certified
EMC	EN 301 489-1, EN 301 489-3

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