Engelmann Integrated meter module

LoRa Module

For SensoStar S3/S3C, LoRaWAN

LoRa Module 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 11 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. LoRa Module is easily configured through Elvaco OTC app (via NFC). With LoRa Module, Engelmann offers a meter communication module designed for customers that require a user-friendly and cost-effective solution.

Technical data

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 11 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