

## 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 (lifespan up to 11 years) or PSU (Engelmann External PowerSupply)
----------------	---

### ***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
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 / switchoff 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