

Data sheet



Introduction

Elvaco's new ground-breaking gateway brings versatile power supply options with best-in-class battery-driven gateway for wired and wireless meters. Elvaco Edge has the potential to read, convert and deliver meter values from all types of M-Bus meters, regardless of manufacturer. This makes the device quick and easy to integrate into an existing M-Bus system. The key features of the product include:

- Integrated M-Bus Master for up to 4 meters (4T).
- Connect an external M-Bus Master for up to 256 meters (256T)
- Over 1000 wireless meters
- Firmware over the air (FOTA)
- Connectivity on board (LTE-M and NB-IoT)

Technical specification

Mechanics

Type	Value
Casing material	ABS
Protection class	IP55
Dimensions (w x h x d)	165x166x54 mm
Weight	~550-600 g (depending on variant)

Type	Value
Mounting	Wall mounted, direct or bayonet mount (screws)
Screws (not included)	Max diameter: 4.5 mm Max diameter screw head: 9 mm (if mounting the tray of Elvaco Edge on the wall)
Antenna for mobile networks	MCX-f
Antenna for wireless M-Bus	SMA-f

Electrical connections

Type	Value
M-Bus master port	Screw terminal (cable area 0.25 -1.5 mm ²)
Network	Mobile network (LTE-M and NB-IoT)

Electrical characteristics, PSU

Type	Value
Nominal voltage	100-240 VAC (+/- 10%)
Frequency	50/60 Hz
Power consumption (Max)	3.8 W
Power consumption (Nom)	1 W
Protection class PSU	IP68
Overvoltage category	CAT 2 (PSU)

Electrical characteristics, Battery

Type	Value
Supply voltage	38000 mAh 3.6 V
Battery lifetime	Up to 16 years
Mounting	Inside, replaceable

Environmental specifications

Type	Value
Operating temperature	+5 °C to +55 °C
Operating humidity max.	5 % to 90 %, non-condensing
Operating altitude	0-2000 m
Pollution degree	3
Storage temperature	-20°C to +60°C

User interface

Type	Value
LEDs	6 RGB LEDs

Type	Value
Push button	Activation, deactivation, reg update, re-start device
Configuration	LwM2M, NFC

Wired M-Bus

Type	Value
Interfaces	Internal M-Bus Master
M-Bus standard	EN 13757
Maximum unit loads (internal M-Bus master)	4T/6mA (can be extended using CMeX20 with CMeX10-13S series)
Maximum number of wired M-Bus devices	256
M-Bus baud rate	300, 2400, 9600 bit/s
Nominal voltage	26.5 V
M-Bus search modes	Primary, secondary
Maximum cable length	50 m

Wireless M-Bus

Type	Value
M-Bus standard	EN 13757-4
Supported modes	T1, C1, S1
Frequency bands	868 Mhz
Maximum number of wireless M-Bus devices	Over 1000 meters

General

Type	Value
Real time clock backup	24 h
Real time clock accuracy	<2 s/day*
	*Requires network time support
Firmware update	FOTA (Firmware-over-the-air)
Meter data delivery	MQTT-SN

Compliance

Type	Value
RoHS Directive	2011/65/EU
Electromagnetic Compatibility Directive (EMC)	2014/30/EU
Low Voltage Directive (LVD)	2014/35/EU
Radio Equipment Directive (RED)	2014/53/EU
Environmental	IEC 60529:2013 (Ed 2.2)
	EN 60529:2014
	IEC 62368-1
	EN 60950-22:2017