ZENNER

PDC-communication module

Communication module with LoRaWAN® interface to connect meters with pulse output

The Pulse Data Capture (PDC) communication module with LoRaWAN® interface integrates pulse output meters into LoRaWAN® readout systems.

This allows wireless transfer of consumption data from water, heat, gas, or electricity meters to LPWAN networks Depending on the version, transmission interval and ambient conditions, the module achieves a battery lifetime of up to 10 years.

Performance characteristics at a glance

- Composite housing with wall mounting bracket
- Battery powered
- Flood-proof IP68 (IP54 on request)
- Optical interface for configuration purposes

Variants

- Variant with two channels available for connection of two pulse output meters
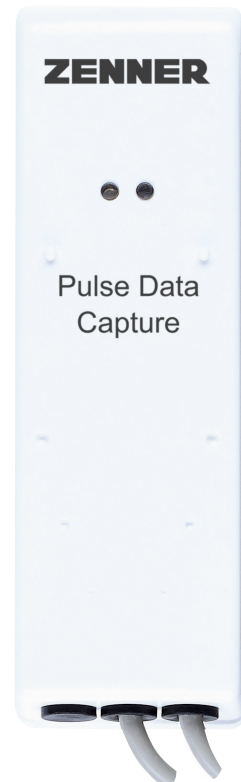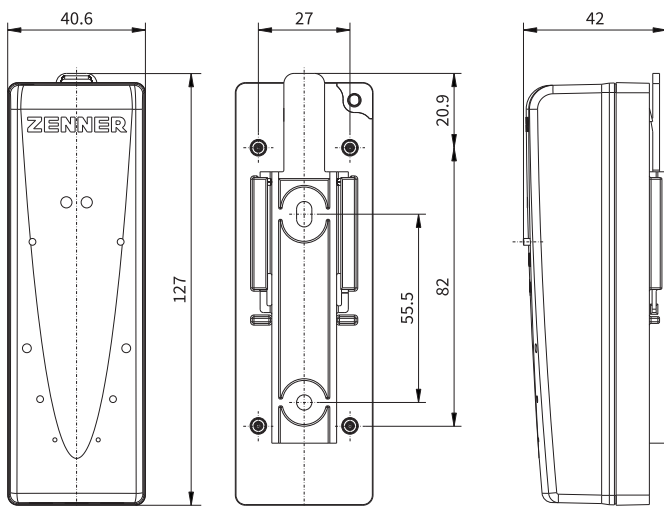
PDC-communication module

Technical data LoRaWAN® radio module	
Operating frequency	868MHz
Transmission power	approx. 14 dBm, 25 mW
Duration of transmission telegrams	Up to 1 s (depending on spreading factor)
Transmission interval	Standard: daily; optional: monthly
Data transmission procedure	LoRaWAN® class A (bi-directional communication)
Encoding of radio protocols	yes
Error detection	CRC
Optional interface	yes
Energy supply	Lithium battery
Battery life	10 years + reserve
Battery status monitoring	yes
Display	no
Protection class	IP68 (IP54 on request)
Ambient conditions	> 0 °C to + 55 °C
CE conformity	According to directive 2014/53/EU (RED)
Activation of the radio interface:	by illuminating the IR diodes with a light source or by ZENNER optical head via the IrDA interface

Datalogger (readable via optical IrDA interface)	
Annual due date values	2
Monthly values	18 plus 18 half-monthly values
Daily values	32

Dimensions PDC-communication module

PDC-communication module

LoRaWAN® radio telegram

Protocol content	Interval
Serial number (DevEUI)	once when logging into the LoRaWAN® network
Device specific information (firmware version, LoRaWAN® version, device type	six-monthly
Due date value and date	every year on due date
Medium of device at selected channel, serial number and possibly manufacturer of device at selected channel	second day after first commissioning and every six months

Szenario 1 (monthly)

Protocol content	Interval
Monthly value (previous month), actual date and time	monthly (beginning)
Monthly value (previous month), actual date and time	monthly (middle)

Scenario 2 (daily)

Protocol content	Interval
Daily values (previous day)	daily
Status information, actual date and time	monthly

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