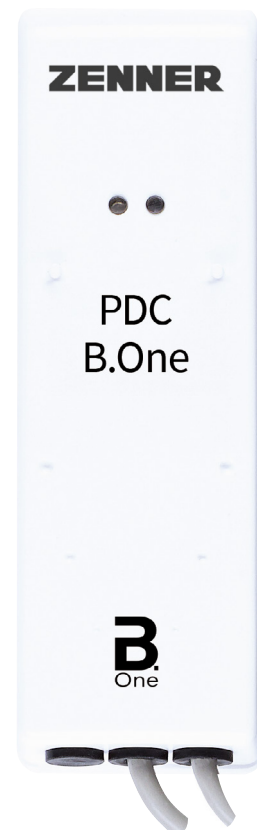


# PDC B.One communication module

to connect ZENNER meters with pulse output PDC B.One-communication module with LoRaWAN® or wireless M-Bus interface

The Pulse Data Capture (PDC B.One) communication module with LoRaWAN®- or wireless M-Bus- interface integrates pulse output meters into LoRaWAN® or wireless M-Bus readout systems. This allows wireless transfer of consumption data from water, heat, gas, or electricity meters to wireless M-Bus or LPWAN networks.

Depending on the version, transmission interval and ambient conditions, the module achieves a battery lifetime of up to 10 years for LoRaWAN® and up to 12 years for wireless M-Bus.



**B.**  
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## Performance characteristics in overview

- 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

## Smart Metering functions (only for the wM-Bus variant)

- Self monitoring
- Leakage detection
- Meter Stop detection
- Meter oversized detection
- Meter undersized respectively pipe burst detection

## PDC B.One-communication module with LoRaWAN® or wireless M-Bus interface

Technical data LoRaWAN® or wireless M-Bus radio module *		
Operating frequency	868 MHz	
Transmission power	max. 25 mW	
Error detection	CRC	
Protection class radio module	IP68 (IP54 on request)	
Optical interface	yes	
Display; LED	no; red LED to indicate operating status	
Energy supply	Lithium battery (A-Cell)	
Ambient conditions	>0 °C to + 55 °C	
CE conformity	according to directive 2014/53/EU (RED)	
Battery status monitoring	yes	
Input channels	max. 2	
Battery life	LoRaWAN®	wM-Bus
	10 years + reserve	depending on the mode (number of channels used, wM-Bus package type, transmission frequency. up to 12 years + reserve is possible)
Data transmission procedure	LoRaWAN® class A (bi-directional communication)	wireless M-Bus T1 mode
Telegram contents	Telegram contents depend on the communication scenario. Contents can be, for example: Daily, monthly, half-monthly, key date value, date, time, status information (alarms), firmware version, identification number	Telegram contents depend on the communication scenario. Contents can be, for example: Serial number, date, current meter reading, previous month (max. 15), status information radio module
Duration of transmission telegram	up to 1.5 s (depending on spreading factor)	approx. 10-15 ms
Transmission interval	Standard: daily (on request: monthly)	40 seconds (standard), others on request
Encryption of radio protocols	yes	yes (Standard Security Profile A, Encryption Mode 5)
Radio activation	- by means of illuminating the infrared interface > 8 seconds (illuminant should not be an LED); - by means of a laptop and ZENNER infrared optical head IrCombi-Head, the universal interface MinoConnect (USB or Bluetooth) and the MSS configuration software or the ZENNER Device Manager Basic app.	- by means of illuminating the infrared interface > 8 seconds (illuminant should not be an LED); - by means of a laptop and ZENNER infrared optical head IrCombiHead, the universal interface MinoConnect (USB or Bluetooth) and the MSS configuration software or the ZENNER Device Manager Basic app. - Autostart after receiving 10 pulses

\*Please note: Both the potential-free contact (reed) and the electronic pulse output can be connected to the PDC B.One module. When connecting the PDC B.One module to meters with electronic pulse output, however, we recommend that you carry out a compatibility test in case of doubt, as it can sometimes happen that the compatibility is not guaranteed.

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

## PDC B. One-communication module with LoRaWAN® radio interface

### LoRaWAN® radio telegram

Protocol content	Interval
Serial number (DevEUI)	one-time upon registration in the LoRaWAN® network
Device-specific information (Firmware version, LoRaWAN version, device type)	six-monthly
Key value and Key date [01.01.]	every year on due date
Unit of the medium, serial number and if necessary manufacturer of the connected pulse meter per input channel	2nd day after first commissioning and every six months

### Scenario 201 (monthly)

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

### Scenario 202 (daily)

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

## PDC B.One communication module with wireless M-Bus radio interface

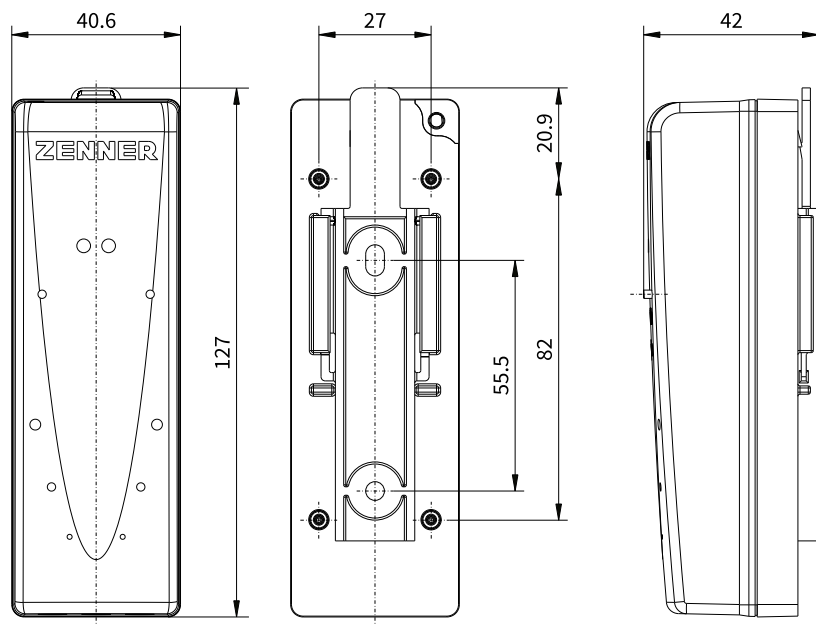
### Datalogger (readable via optical IrDA interface) IrDA-Interface

Annual due date values	4
Monthly values	18 plus 18 half-monthly values
Daily values	96
Quarter-hour values	96

Telegram content	Type A*	Type B*	Type C**
Current value	✓	✓	✓
Current date	✓	✓	
Due date values		✓	✓
Current monthly value	✓	✓	✓
Another 11 monthly values	✓		
Status information 1	✓	✓	✓
Status information 2	✓	✓	✓

\* Data telegram according DIN EN 13757-4

\*\* wM-Bus, manufacturer specific data telegram



### Dimensions

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