

NDC-communication module with LoRaWAN® radio interface

Communication module to connect to ZENNER ultrasonic water meter series IUW / IUWS

The NDC communication module (Near Field Data Capture module) with LoRaWAN® interface is used for remote reading of the ZENNER ultrasonic water meter series IUW / IUWS. The NDC queries the consumption and status information via the NFC interface of the respective meter and transmits this wirelessly. The NDC forwards the data unchanged to the LoRaWAN gateways within range.

An NDC module is always required for radio reading of the IUW ultrasonic bulk water meters. It functions as an external radio module and has a cable length of three meters.

The IUWS ultrasonic water meter is equipped with an integrated radio module. Optionally, the NDC module can be used to optimize the radio range at difficult installation points.

Depending on the version, transmission interval and environmental conditions, the module can achieve a battery life of approx. 10 years.



Performance characteristics at a glance

- Composite housing with wall mounting bracket
- Battery operation (independent of the water meter)
- Flood-proof (protection class IP68)
- Optical interface (IrDA)

Variants

- Standard variant with a three meter cable length for connection to IUW / IUWS without breaking the meter's calibration seal

Smart Metering functions *

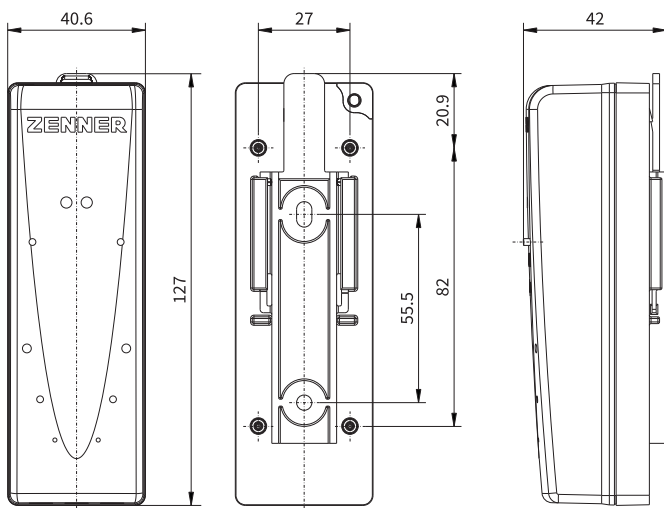
- Self-monitoring (battery)
- Dismounting detection of the module
- Reverse water flow detection
- Leakage detection
- Meter Stop detection
- Meter oversized detection
- Meter undersized respectively pipe burst detection

* depends on the meter configuration

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Technical data

Operating frequency	868MHz
Transmission power	approx. 14 dBm, 25 mW
Duration of transmission telegrams	Up to 1.5 s (depending on spreading factor)
Transmission interval	Depending on the respective meter configuration, e.g. Every day; optional: monthly or 8 telegrams with three hourly values each
Data transmission procedure	LoRaWAN class A (bi-directional communication)
Encryption of radio protocols	yes
Error detection	CRC
Optical interface	yes
Energy supply	Lithium battery, not exchangeable
Battery life	approx. 10 years + reserve, depending on the transmission scenario, spreading factor and environmental conditions
Battery status monitoring	yes
Display	no
Protection class	IP68
Ambient conditions	10 °C to +40 °C; -15 °C to +60 °C
CE conformity	according to directive 2014/53/EU (RED)
Activation of the radio interface:	<ul style="list-style-type: none"> • by illuminating the IR diodes with a light source • automatically as soon as connected to an activated IUW water meter • via the IrDA interface using the associated ZENNER opto head, MinoConnect and the MSS configuration software



Dimensions

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