

# NDC-communication module with wireless M-Bus radio interface

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

The NDC communication module (**N**ear **F**ield **D**ata **C**apture module) with WM-bus 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 \*

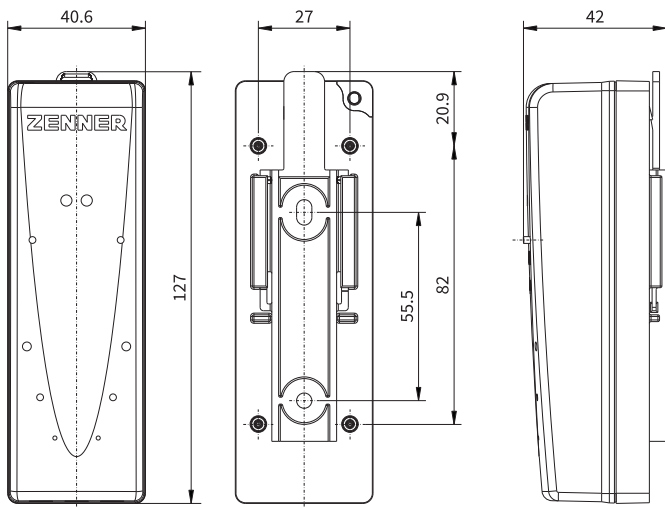
- Self-monitoring (Battery)
- Leakage detection
- Meter Stop detection
- Meter oversized detection
- Meter undersized respectively pipe burst detection

\* depends on the meter configuration

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Technical data	
Operating frequency	868 MHz
Transmission power	~ 14 dBm
Duration of transmission telegram	~ 10-15 ms
Sending interval	Depending on the meter configuration *
Data transmission procedure	Wireless M-Bus (standard C1 mode, T1 mode on request)
Encryption of radio protocols	Depending on the meter configuration; Standard Security Profile A, Encryption Mode 5; Security profile B, mode 7 on request
Error detection	CRC
Telegram content	Serial number, date, meter index, half-month value, previous month (max. 15), status information radio module
Optional IR interface	yes (IrDA)
Battery capacity	approx. 10 years plus reserve, depending on the telegram content, transmission interval and ambient conditions
Display	no
Energy supply	Lithium battery, not exchangeable
Protection class	IP68
Ambient conditions	> 0 °C to + 55 °C
CE conformity	according to directive 2014/53/EU (RED)
Activation of the radio interface	<ul style="list-style-type: none"> <li>by illuminating the IR diodes with a light source</li> <li>automatically as soon as connected to an activated IUW water meter</li> <li>via the IrDA interface using the associated ZENNER opto head, MinoConnect and the MSS configuration software</li> </ul>

\*After activation, the module transmits for a period of one hour with a quicker transmission interval of 20 s (commissioning scenario).



Dimensions

## ZENNER International GmbH & Co. KG

Heinrich-Barth-Straße 29 | 66115 Saarbrücken | Germany

Phone +49 681 99 676-30  
 Fax +49 681 99 676-3100

E-Mail  
 Internet

info@zenner.com  
 www.zenner.com