

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

Inductive communication module with wireless M-Bus interface for ZENNER water meters with modulator discavec disque de modulation

The EDC-communication module (Electronic data capture module) with wireless M-Bus interface is a clip-on module for secure remote reading to integrate watermeters into wireless M-Bus readout systems.

The Electronic Data Capture (EDC) module is designed for non reactive, electronic pulse detection of all the ZENNER water meters with modulator disc.



## Performance characteristics at a glance

- Battery powered
- Tampering detection
- Protection class IP68
- Retrofittable without destroying seals
- Detection of water flow direction
- Secure data collection without the use of reed switches
- Optical interface for configuration purposes

## The EDC module was developed for

- Single-jet dry dial meters ETKD/ETWD
- Multi-jet dry dial meters MTKD/MTWD
- Positive displacement meters RTKD
- Bulk meters WPD / WPHD / WSD

## Smart Metering function

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

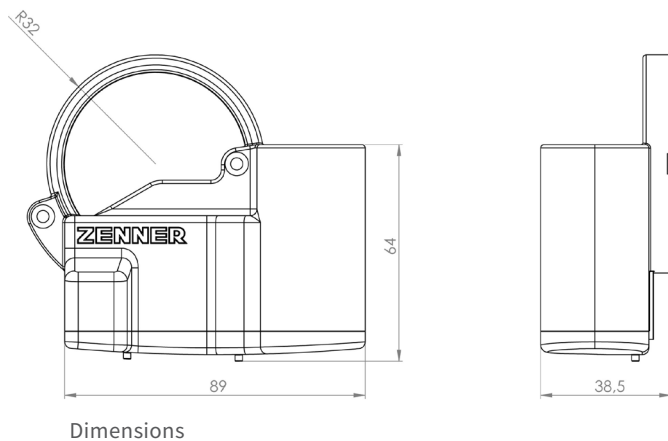
## EDC-communication module with wireless M-Bus radio interface

### Technical data radio module

Operating frequency	868 MHz
Transmission power	approx. 14 dBm, 25 mW
Duration of transmission telegrams	approx. 10-15 ms
Transmission interval	Standard: 20s; other scenarios on request
Data transmission procedure	wireless M-Bus (standard : C1-mode), from firmware 1.78: C1 or T1 depending on the scenario
Encryption of radio protocols	yes, standard: Encryption mode 5; Encryption mode 7 possible
Error detection	CRC
Optical interface	yes
Energy supply	Lithium battery
Battery life	10 years + reserve; for scenario 322: up to 15 years
Battery status monitoring	yes
Display	no
Reverse flow detection	yes
Protection class	IP68
Ambient conditions	> 0 °C to + 55 °C
CE conformity	According to directive 2014/53/EU (RED)
Activation* of radio in case of subsequent retrofitting	using Zenner opto head and MSS configuration software ; Illuminating > 8 s (valid for EDC wM-Bus V2)
Activation* of radio for pre-installed module	Illuminating > 8 s; Autostart after flow of 30 l for impeller meters and 3 l for piston meters; using Zenner opto head and MSS software or ZENNER Device Manager Basic app

\* After activation, the red LED flashes for a duration of one minute on EDC modules with firmware 1.78 or higher.

Datalogger (readable via optical IrDA interface)	Firmware > 1.78	Firmware < 1.78
Annual due date values	max. 2	max. 16
Monthly values	18 plus 18 half-monthly values	18 plus 18 half-monthly values
Daily values	32	96
Quarter hourly values	0	96



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### Possible sending scenarios and related telegram content

Scenario No.:	320	321	322*	323	324
Frequency (MHz)	868	868	868	868	868
Transmission interval	20s	20s	16s	20s	20s
Radio pause	no	no	no	no	no
Telegram content	320	321	322*	323	324
Current value	x	x	x	x	x
Current date	x	x		x	x
Due date value		x	x		x
Monthly value of previous month	x	x	x	x	x
Previous monthly value-2	x			x	
Previous monthly value-3	x			x	
Previous monthly value-4	x			x	
Previous monthly value-5	x			x	
Previous monthly value-6	x			x	
Previous monthly value-7	x			x	
Previous monthly value-8	x			x	
Previous monthly value-9	x			x	
Previous monthly value-10	x			x	
Previous monthly value-11	x			x	
Previous monthly value-12	x			x	
Status information	x	x	x	x	x
wM-Bus mode	C1	C1	C1	T1	T1
Encryption mode	5	5	5	7	7

\* Manufacturer specific telegram

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