



Water



Gas

GWF



RCM[®]

GWFcoder[®] Wireless M-Bus Radio Module



Your benefits

- Performance driven design:
Up to 600 m range depending on environment
- Real Plug & Play:
Backward compatible, easy and fast on-site installation with auto interface-detection (no programming required)
- Use of Wireless M-Bus (OMS[®]):
Interoperability with different system partners
- Custom-tailored RF Mode:
Up to 15 years battery lifetime

Applications

- Simple readout of water and gas meters with GWFcoder[®] registers without necessity to access buildings
- Easy and comfortable readout of measuring points with difficult access and within harsh environments
- «Drive-by» and Fixnetwork (Smart Metering)

Properties

- Battery powered, wireless M-Bus radio module
- Radio transmission in license free 868 MHz frequency band
- Water proof design for pit installations (protection class IP68)
- Transmission of data protocol by wM-Bus acc. EN 13757-4 (OMS[®])
- Simple installation and automatic start-up after connecting to meter
- Transmission of latest register value as well as monthly key date value
- AES128 encrypted wireless protocol
- For all meter types with GWFcoder[®] register and SCR(IEC) interface
- Free route selection – no call-up required
- Additional information available (e.g. continuous flow, backflow, pipe burst, manipulation) available for MTKcoder[®] MP
- Migratable from walk-by/drive-by system to fixed network application
- CE approved

Options

- RCM[®] compact – radio builds one unit with water meter
- RCM[®] split – remote installation away from (flooded) water meter

Options

	Configuration 1: Walk-by / Drive-by	Configuration 2: Fix Network
Data actuality	24 h	15 min (MTKcoder® MP, BGZcoder® / MP / MP AE5) 24 h (MTKcoder® [≤ 2006] / Bulk gas [≤ 2012])
Transmission interval	15 s	1 min
Listening intervall (T2)	5 min	5 min
Warning continuous flow ¹⁾		■
Warning backflow ¹⁾ (optional)	■	■
Warning pipe burst ¹⁾ (optional)	■	■

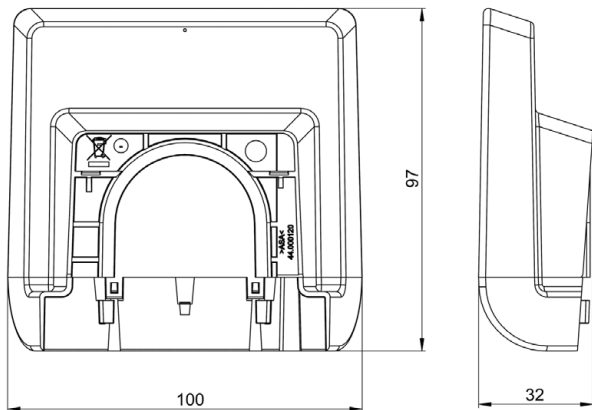
1) Available for MTKcoder® MP

Configurable parameters (by RF or IR)

Configuration interchangeable (Drive-by or Fix Network)

Alarm settings On/Off/Reset

Dimension Diagram



Radio-Start behavior

RCM® split: 3 min after the connection of the GWFcoder®-meter

RCM® compact: 3 min after the flow of 5 liters

Technical Data

Specifications	Radio module RCM®
Meter interface	SCR(IEC) Protocol 62056-21 / Multiprotocol MP
Frequency band	TX: 868,95 MHz (T1) RX: 868,30 MHz (T2)
Transfer protocol	Wireless M-Bus acc. EN 13757-4 (OMS®)
Modulation	FSK
Radiated power	10 mW
Range	Depending on environment (up to 600 m)
Compliance with standard	EN 300 220
Approval	CE
Protection class	IP68
Cable length	Standard 1,4 m
Cable extension	max. 25 m
Weight	300 g
Line of sight reading distance (LOS)	>1 km

Power supply	
Battery	2 x Lithium 3,6 V (not replaceable)
Typical battery lifetime	15 years (depending on environment)

Ambient conditions	
Operational temperature	-15 to +55 °C
Storage temperature	-15 to +55 °C
Relative humidity	0 to 100 % (submersible)

Information data package	Data Example
Manufacturer ¹⁾	GWF
Radio ID	30124789
Medium ¹⁾	Water
Version ¹⁾	6.0
Meter number ¹⁾	13215678
Absolute meter reading ¹⁾ (daily or 15 min values)	00359,768 m ³
Absolute meter reading (key date) ¹⁾	00343,417 m ³
Date-key date reading	30.04.2013
Remaining battery lifetime	Days / Semester

Information data package	Data Example
Warnings (available for MTKcoder® MP and support depending on the readout system)	Low battery, Continuous flow (leakage), Backflow, Broken pipe (burst)
Status ¹⁾	Manipulation

1) This data is read directly from the GWFCoder® register.

Applications

