Water Gas

RCM®-H200 868 MHz

LoRaWAN™ and wireless M-Bus GWFcoder®
MP radio module

Your benefits

- 2 communication technologies in one radio module (Dual-mode):
  Investment security and efficient meter reading all the time with fall back to wireless M-Bus if LoRaWAN is not accessible
- Plug & Play:
  Backward compatible for all meter types with GWFcoder® MP. Easy and fast on-site installation with auto interface-detection (no programming required)
- Performance driven design:
  Range up to several km (LoRaWAN) and up to 600 m (wireless M-Bus)
- Integrated monitoring of connectivity and reconnecting mechanisms (LoRaWAN):
  Robust operation with automatic repair options, e. g. due to gateway failures
- Custom-tailored RF mode:
  Up to 15 years battery lifetime

Applications

- Simple readout of water and gas meters with GWFcoder® MP registers without necessity to access buildings
- Migration of installed meters with GWFcoder® MP registers to a smart metering system via LoRaWAN or wireless M-Bus
- Energy monitoring, energy reporting and consumption accounting with any cloud solution
- Integration of water and gas meters with GWFcoder® MP registers in smart city projects

Properties

- Battery powered radio module with radio transmission in license free 868 MHz frequency band
- As a split version with cable to the meter:
  Waterproof design for pit installations (protection class IP68)
- Data transmission in accordance with LoRaWAN (v1.0.4) and wireless M-Bus acc. EN 13757-4 (OMS® Gen. 4, Issue 4.2.1)
- Transmission of latest register value and further information
- For all meter types with GWFcoder® MP register and ECO interface
- Contactless NFC configuration interface
- Warnings, all enabled:
  Continuous flow / Leak (only medium water), Backflow, Burst Pipe (only if meter size will be configured on site), No Usage over a period of 30 days, Tampering, Connection alarm
- CE, UKCA and ICASA approval
- Migratable (wireless M-Bus):
  From drive-by system to fixed network application

Options

- RCM®-H200 compact (protection class IP67) – radio module builds compact on a water meter
- Only LoRaWAN or only wireless M-Bus
- Warnings, all disabled

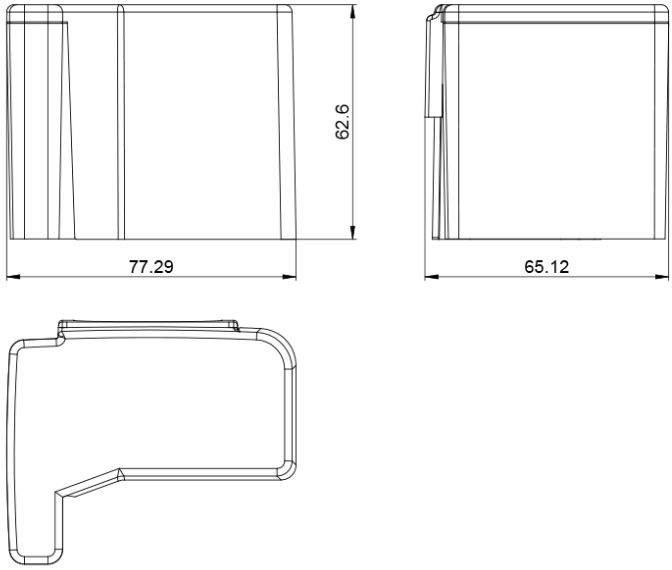
GWF AG
Obergrundstrasse 119
6005 Lucerne, Switzerland

T +41 41 319 50 50
info@gwf.ch, www.gwf.ch

Technical support:
T +41 41 319 52 00, support@gwf.ch

Last updated: 29.09.2026

Dimension Diagram



How it works

Radio-Start behaviour	
RCM®-H200 split:	3 min after the connection of the GWFcoder® MP meter
RCM®-H200 compact:	3 min after the flow of 5 liters

Technical Data

Specification	Radio module RCM®-H200
Meter interface	Multiprotocol MP (ECO)
Supported meters	Water meter: All with GWFcoder® MP register, sonico® EDGE with ECO E1 or E2 module Gas meter: BGZcoder® MP, BGZcoder® MP AE5 and Ac (requires connection module ACM 5.1.1 ECO) Heat meter: Q-Heat 5.5 US
Frequency band	868 MHz
Radiated power	max. 14 dBm (25 mW)
Protection class	Split execution: IP68 Compact execution: IP67
Directives	CE: 2014/53/EU / UKCA: Radio Equipment Regulations 2017 No. 1206
Approvals	CE, UKCA and ICASA
Cable length	1 m
Cable extension	max. 20 m
Weight	180 g

Specification	LoRaWAN
Class	A
ADR	Yes (gives higher transmission intervals with consistent battery life)
Activation type	OTAA
Transfer protocol (payload)	GWF specific
Data security	AES-128-bit end-to-end encryption over two independent security layers
Range	Depending on environment (up to several km)
Real-time clock synchronization	Over the LoRaWAN network
Certification	LoRa Alliance Certified (v1.0.4)

Specifications	Wireless M-Bus
Frequency band	Tx: 868,95 MHz
Mode	C1
Modulation	FSK
Transfer protocol	EN 13757-4 (OMS® Gen. 4, Issue 4.2.1)
Range	Depending on environment (up to 600 m)
Data security	AES128 encrypted wireless protocol, security mode 5 (security profile A) or 7 (security profile B)

Configuration Wireless M-Bus	Drive-by	Drive-by Privacy	Fixnetwork
Data actuality	1 h	Monthly key date value	15 min
Transmission interval	During day: 20 s During night: 2 min	During day: 20 s During night: 2 min	1 min

Power supply	
Battery	1 x Lithium 3,0 V (not replacable)
Typical battery lifetime	Up to 15 years (depending on environment and configuration conditions)

Ambient conditions	
Operational temperature	-15 to + 55 °C
Storage temperature	-15 to + 65 °C
Relative humidity (only split)	0 to 100 %

Information data package LoRaWAN	Data Example MTKcoder® MP
DevEUI RCM®-H200	70B3D538700000AB
Meter manufacturer[1]	GWF
Medium[1]	Water
Meter number[1]	26215678
Absolute meter reading[1] (up to 15 min values)	359,768 m^3
Remaining battery life	Semester
Warnings	Low Battery, LoRaWAN link error, continuous flow / leak, backflow, burst pipe, no usage
Status[1]	Manipulation

1] This data is read directly from the GWFcoder® MP register

Information data package wireless M-Bus	Data Example MTKcoder® MP
Meter manufacturer[1]	GWF
Radio ID	30124789
Medium[1]	Water
Version[1]	6.0
Meter number[1]	26215678
Current absolute meter reading[1] Drive-by: Hourly value Fixnetwork: 15 minute value Drive-by Privacy: Will not be transmitted	359,768 m^3
Absolute meter reading (key date)[1]	343,417 m^3
Date-key date reading	01.05.2026
Remaining battery lifetime	Days/Semester
Warnings	Low battery, continuous flow / leak, backflow, burst pipe, no usage, day or night mode
Status[1]	Manipulation

1] This data is read directly from the GWFcoder® MP register

Applications