



## RCM<sup>®</sup>-H200 915MHz

LoRaWAN<sup>™</sup> GWFcoder<sup>®</sup> MP Radio Module



### Your benefits

- Backwards compatible:  
**No meter change required when migrating water and gas meters with GWFcoder<sup>®</sup> MP interface into a Low Power Wide Area Network (LPWAN)**
- Performance driven design:  
**Range up to 40 km (line of sight)**
- Plug & Play:  
**Easy and fast on-site installation and activation in LoRaWAN (no programming required)**
- LoRa Alliance Certified:  
**Interoperable with different LoRaWAN network providers**
- Integrated monitoring of connectivity and reconnecting mechanisms:  
**Robust operation with automatic repair options, e.g. with gateway failures**
- Custom-tailored RF Mode:  
**Up to 15 years battery lifetime**

### Applications

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

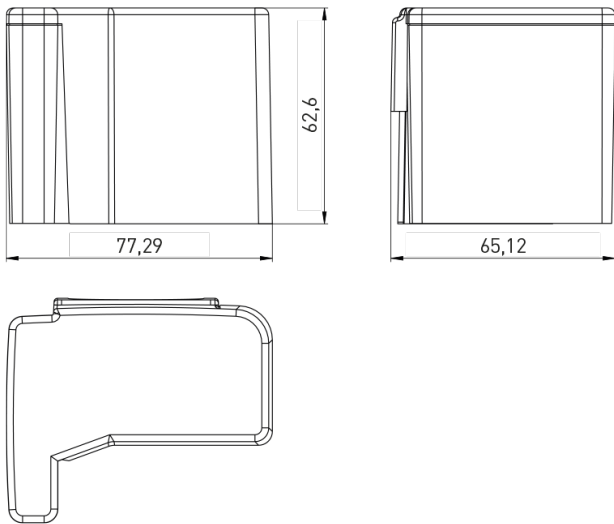
### Properties

- Battery powered, LoRaWAN radio module
- Radio transmission in license free 915 MHz frequency band
- Split execution: Water proof design for pit installations (protection class IP68)
- Compact execution: IP67
- Transmission of latest register value and further information
- For all meter types with GWFcoder<sup>®</sup> MP register with ECO interface (gas / water, domestic and industrial meters)
- Split-connection (cable) to the meter – remote installation
- Data transmission in accordance with LoRaWAN 1.0.4 specification
- Data security via AES-128-bit end-to-end encryption over 2 independent security layers
- ADR (adaptive data rate) support gives higher transmission intervals with consistent battery life
- Real-time clock synchronization with the LoRaWAN-Network –DeviceTimeReq
- Contactless NFC configuration and commissioning interface
- Approvals: FCC, IC and ACMA

### Options

- LoRaWAN Transmission interval: 15 minutes (depends on the to be used LoRaWAN data rate), 60 minutes or daily
- Warnings (continuous flow / leak, backflow, pipe burst, no usage over a period) enabled or disabled

## Dimension Diagram



## Radio-Start behaviour

- Split execution: 3 minutes after the connection of the GWFcoder® MP meter
- Compact execution: 3 minutes after the flow of 5 liters

## Technical data

Specifications	Radio module RCM®-H200
Meter interface	Meter with GWFcoder® MP register with ECO interface
Regional Parameters (Frequency band)	US902-928 MHz ISM Band (902 – 928 MHz) AU915-928 MHz Band (915 – 928 MHz)
Transfer protocol (payload)	GWf specific
Radiated power	max. 20 dBm (100 mW)
LoRaWAN class	A
ADR	Yes
Activation type	OTAA
Approval	FCC, IC and ACMA
Protection class	Split execution: IP68, Compact execution: IP67
Cable length	Split execution: 1 m Compact execution: no cable
Cable extension (only split)	max. 20 m

### Power supply

Battery	1 x Lithium 3,0 V (not replaceable)
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

Information data package	Data (example) MTKcoder® MP
DevEUI RCM®-H200	70B3D538700000AB
Meter manufacturer <sup>1)</sup>	GWF
Medium <sup>1)</sup>	Water
Meter number <sup>1)</sup>	18215678
Absolute meter reading <sup>1)</sup> (up to 15 min. values)	359,768 m <sup>3</sup>
Remaining battery life	Semester
Warnings	Battery, LoRaWAN™ link error, continuous flow / leak, backflow, pipe burst, no usage
Status <sup>1)</sup>	Manipulation

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