

# MIVO CONNECT

## Meter Collection Cabinet IC2W

IC2W includes the MIVO Connect Data Gateway LTE (4G/5G) and a MIVO Wireless M-Bus Extender, enabling the collection of wireless M-Bus meters. The unit is made of impact-resistant ABS plastic and meets the IP65 standard. The central unit is installed with automatic fuse.

### **MIVO CONNECT DATA GATEWAY LTE**

MIVO Connect M-Bus Gateway LTE (4G/5G) for data collection from up to 2000 meters or sensors. The data is collected using internal or external interfaces which include M-Bus, M-Bus over IP or Modbus RTU/TCP.

The collected data can be communicated to one or more user defined services, these include cloud-based services and local building management systems.

To prevent data loss in case of network or power failures the device contains local storage. The device also features router functionality and a user-friendly web interface to simplify the administration and troubleshooting process.

### **MIVO WIRELESS M-BUS EXTENDER**

MIVO Wireless M-Bus Extender is an expansion module for MIVO Connect Data Gateway and extends the system with the ability to communicate via wireless M-Bus. The system is easily expanded with the included expansion cable and can be further connected with up to 10 expansion units for wired or wireless collection. The receiver has built-in filters and low noise amplifiers for longer range independent of other 4G or 5G infrastructure.



# TECHNICAL SPECIFICATION

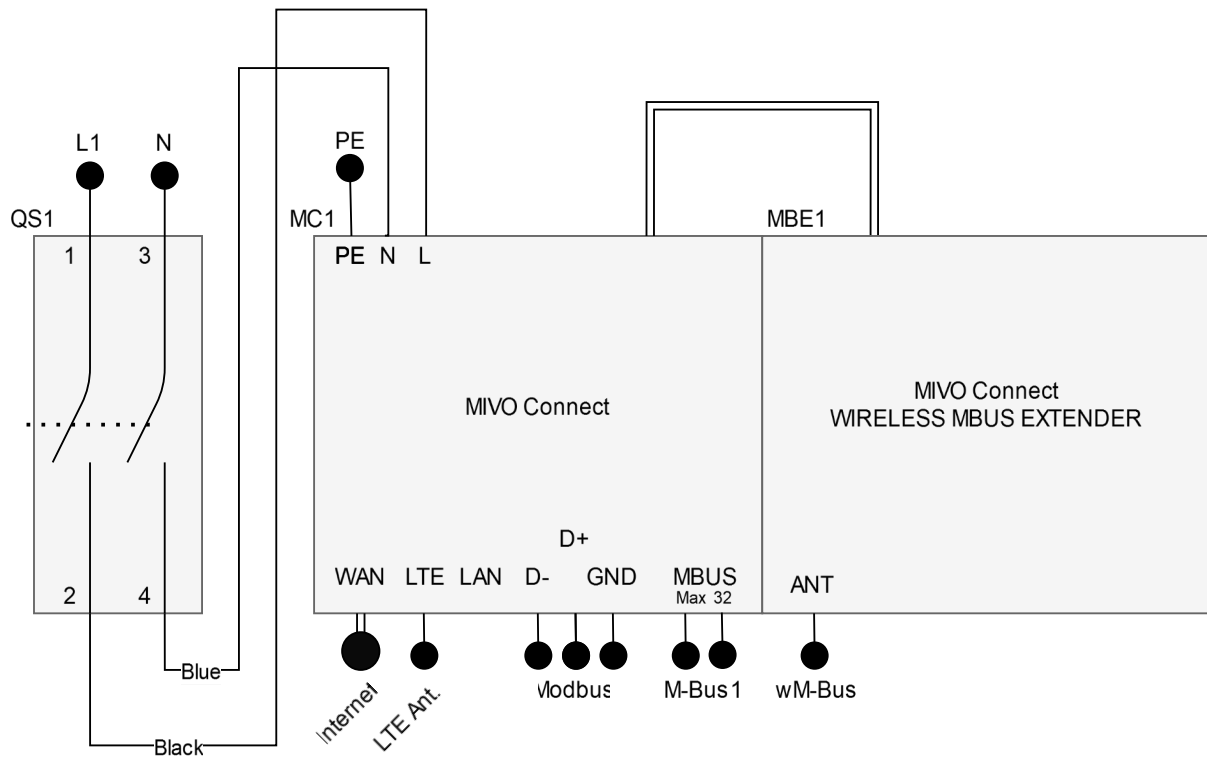
## MIVO CONNECT DATA GATEWAY LTE / MIVO WIRELESS M-BUS EXTENDER

See separate data sheet.

### Meter Collection Cabinet IC2W

Dimension	214x303x118 mm
IP-class	IP65
IK-Class	IK08
Material	Plastic (ABS)
Nr of cable entries	12
DIN-Modules	13
Room for additional expansions	Yes (1)
Included accessories	Magnetic mount LTE Antenna, 5x cable rubber grommets

Circuit diagram:





## TECHNICAL SPECIFICATION

### Mechanics

Dimensions (w x h x d)	70 x 85 x 57 mm (4 DIN-modules)
Montage	35mm DIN
Weight	200g
Protection class	IP20

### Environmental

Storage temperature	-25 to +55 C
Operating temperature	-25 to +55 C
Operating humidity	5 till 90% Non-Condensing
Max. operating altitude	2000m
Pollution degree	2
Operating environment	Indoors

### Power

Input voltage	230 VAC (±10%), 50Hz
Power consumption (max)	<5W (20W)
Overvoltage category	CAT 3 (OVC III)
Connection terminals	Spring loaded terminals 0.75 - 1.5mm <sup>2</sup>

### Ethernet - 2st (WAN / LAN)

Connection	RJ45
Speed	10/100MBit
Router functionality	Yes

### LTE \*

Typ	LTE Cat-M
SIM	Mini-SIM (2FF)
Connection	SMA

### M-Bus Master

Standard	EN 13757
Speed	300/2400/9600 Baud
Nominal voltage	30V
Maximum output current	85mA
Unit loads	32**
Maximum cable length	1000m
Electrical isolation	1500V

### RS485 (Modbus RTU)

Type	Isolated
Speed	9600 to 115200 Baud
Termination	None
Biasing	Weak (1kOhm)
Maximum number of nodes	256
Connection	Spring Loaded Terminals (0.75 - 1.5 mm <sup>2</sup> )

### Other Connections

Expansion bus	MIVO-Link
USB Connection Front	USB-C
USB Connection Bottom	USB-A

### Other

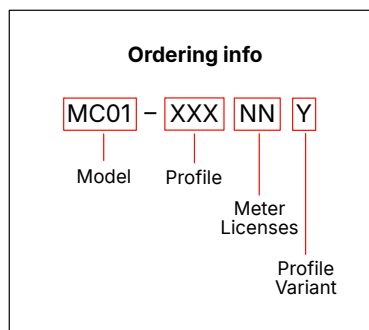
Maximum Number of Sensors	2000
Collecting Period	1min - 24h
Storage Examples **	
- 100 sensors, hourly values ->	20 years
- 1000 sensors, hourly values ->	2 years
- 2000 sensors, hourly values ->	1 year

### Approvals

EMC	EN 61000-6-2, EN 61000-6-3
RED	EN 301489-1, EN 301489-7
Safety	EN 62368-1 (OVC III)
Environment	RoHS, WEEE

\* Optional

\*\* Can be increased with expansion modules.



# MIVO CONNECT

## WIRELESS M-BUS EXTENDER

The expansion module adds the capability to communicate via wireless M-Bus to the system.

The system can easily be expanded using the included expansion cable and connected to up to 10 expansion units for M-Bus.

For optimal range, the receiver is equipped with built-in filters and a low-noise amplifier, enabling extended range regardless of other 4G or 5G infrastructure.



## TECHNICAL SPECIFICATION

### Mechanics

Dimensions (wxhxd)  
Montage  
Weight

70 × 85 × 57 mm (4 DIN-modul)  
35mm DIN  
100g

### Environmental

Storage temperature  
Operating temperature  
Operating humidity  
Max.operating altitude  
Pollution degree  
Operating environment

-25 to +55C  
-25 to +55 C  
5 to 90% non-condensing  
2000m  
2  
Indoors

### Power

Input voltage  
Power consumption (max)  
Overvoltage category  
Connection terminals

Via expansion port  
<5W (20W)  
CAT 3 (OVC III)  
Spring loaded terminals 0.75 - 1.5mm<sup>2</sup>

### Wireless M-Bus

Standard  
Mode  
Sensitivity (typ)  
Encryption modes  
Connection

EN 13757  
C&T or S Mode  
-109dBm  
OMS Mode 5 & 7, AES-128CTR  
SMA female connector

### Other

LED  
Maximum number of expansion modules

Status, Error, TX, RX  
10

### Approvals

EMC  
Safety  
Environment

EN 61000-6-2, EN 61000-6-3  
EN 62368-1 (OVC III)  
RoHS, WEEE