



## 1. Product

MUC.one W, Order Nr. 500382



## 2. Application

Data concentrator for readout of meters and data transmission to distant meter data management systems via NB-IoT (narrowband mobile radio communication).

## 3. Interfaces

### wM-Bus

Compliant to EN 13757-4/-3/-7 and OMS (modes: S, T, C, C/T), internal antenna, frequency: 868 MHz or 433 MHz or 169 MHz, Listen mode (automatic addition of meters), transparent mode, handling of keys, decryption of meters

### NB-IoT (WAN)

Mobile radio: NB-IoT modem, LTE Cat-NB, internal antenna, card holder for micro SIM card, bands: LTE B1, B3, B5, B8, B20, B28

### WLAN (WIFI)

Compliant to IEEE 802.11 b/g/n, centre frequency depending on channel: 2412-2484 MHz, internal antenna, function as access point

## 4. LED indicators

One LED each for status and accessibility of the access point

## 5. Software functions

The user interface of the software is available only in English.

As indicated for the firmware in the manual, update of the firmware incl. integrity check and authentication

### Configuration

- Complete configuration via browser
- Creation of the meter list
- Mass deployment with Netdiscover via HTTP
- Unequal readout intervals for meters
- Reporting with selected formats and protocols
- Usage of OBIS-Codes
- Extensive management of user access rights
- Export and import of the configuration including certificate and key files
- Update via the web page or Netdiscover
- Print page for error analysis and documentation
- Extensive logging function

### Data transmission to servers:

- TCP (unsecured)
- TLS (secured)
- HTTP POST (secured and unsecured)
- MQTT (secured and unsecured)

### File formats:

CSV (various variants), XML-8, JSON



## 6. Processing unit

The processing unit is a microprocessor system:

- CPU: 32 bit LX7, up to 240 MHz clock frequency
- Memory: 320 kB RAM, 4 MB Flash
- Operating system: FreeRTOS
- Integrated RTC: backed-up for up to 7 days

## 7. General properties

- Dimensions: 80 × 113 × 60 mm (W × H × D, without cable entry)
- Installation: wall mounting, arbitrary orientation
- Mass: 220 g

## 8. Power supply

- 90..260 VAC, 50..60 Hz, spring terminal
- Power consumption: 1 W (idle state), max. 3 W
- Peak inrush-current: <40 A
- Galvanic isolation of interfaces and mains: >3 kV

## 9. Environmental conditions

- Operation: 0..50°C (daily average)
- Transport and storage: -20..70°C (short-time)
- Air humidity: 0..95 %, non-condensing

## 10. Conformity and safety

- 2014/30/EU EMC Directive
- 2014/35/EU Low Voltage Directive
- 2011/65/EU RoHS Directive (incl. amendment 2015/863)
- 2014/53/EU Radio Equipment Directive

- 1907/2006/EC REACH Regulation (Annex XVII April 28 2020)
- Overvoltage category II (EN 60664-1)
- Protection class II (IEC 61140)
- Degree of protection IP67 (IEC 60529)

## 11. Scope of delivery

- MUC.one W
- Individual packaging

## 12. Contact

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