SOLVIMUS
METERING SOLUTIONS

DATA SHEET MUC.ONE W

1. Product

MUC.one W, Art. No. 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), max. 3 logical meters, 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
- Reporting with selected formats and protocols
- Extensive management of user access rights
- Configurable password directive
- Export and import of the configuration including certificate and key files
- Update via the web page (manually or semi-automatic via update server) or Netdiscover
- Print page for error analysis and documentation
- Logging function for error analysis

Data transmission to servers:

- TCP (unencrypted)
- TLS (encrypted)
- HTTP POST (encrypted and unencrypted)
- MQTT (encrypted and unencrypted)

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

7. General properties

- Dimensions: 80 x 113 x 60 mm (W x H x D, without cable entry)
- Installation: wall mounting
- Mass: 290 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 temperature); -20..70 °C (short-time)
- Transport and storage: -20..70 °C
- Air humidity: 0..95 %, non-condensing

10. Conformity and safety

- 2014/53/EU Radio Equipment Directive
- 2011/65/EU RoHS Directive (incl. amendment 2015/863)
- Overvoltage category II (EN 60664-1)
- Protection class II (IEC 61140)
- Degree of protection IP67 (IEC 60529)
- Recommended backup fuse for circuit protection: circuit breaker 6 A or 10 A, tripping characteristic B

11. Scope of delivery

- MUC.one W
- Individual packaging

12. Contact

solvimus GmbH
Ratsteichstr. 5
98693 Ilmenau
Germany
Phone: +49 3677 7613060
E-Mail: info@solvimus.de
www.solvimus.de

Sales:

Phone: +49 3677 7613066
E-Mail: sales@solvimus.de

Support:

Phone: +49 3677 7613065
E-Mail: support@solvimus.de

Further contacts can be found on our website at:
https://www.solvimus.de/en/homepage/

A comprehensive description of the device is provided in the manual that can be downloaded free of charge and without registration from our homepage:
https://www.solvimus.de/en/products/downloads-2/.
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