1. Product

- MUC500 W1, Art. No. 500406
- MUC500 W2, Art. No. 500407
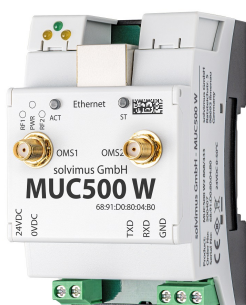
2. Application

Data concentrator for readout of meters and data transmission to distant meter data management systems via Ethernet.

3. Interfaces

wM-Bus

Compliant to EN 13757-4/-3/-7 and OMS (modes: S, T, C, C/T), SMA connector for external antenna(s), frequency(-ies):

- 868 MHz (MUC500 W1, Art. No. 500406)
- 868 MHz and 433 MHz (MUC500 W2, Art. No. 500407)
- or frequency upon request

Listen mode (automatic creation of meters), transparent mode, handling of keys, decryption of meters

Ethernet

Compliant to IEEE 802.3, 10/100-Base-TX, RJ45 connector incl. status LEDs, Auto-MDIX

Modbus

Readout of meters via Modbus TCP, compliant to IEC 61158, using the Ethernet interface

RS-232

Compliant to ANSI EIA/TIA-232-F-1997, screw terminals

4. LED indicators

2 status LEDs and 3 LEDs signalling power supply and reception on the wM-Bus

5. Software functions

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

As indicated for the firmware in the manal, update of the firmware via Ethernet incl. integrity check and authentication

Configuration

- Complete configuration via browser: HTTP and HTTPS
- Creation of the meter list
- Mass deployment with Netdiscover via HTTP and HTTPS
- Unequal readout intervals for meters
- Multi Channel Reporting with 10 independent Report instances
- Usage of OBIS codes
- Integrated OpenVPN client
- 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 (unencrypted)
- TLS (encrypted)
- SMTP (encrypted and unencrypted)
- FTP (encrypted and unencrypted)

- MQTT (encrypted and unencrypted)
- Local file storage (local file)
- User-specific scripts, for instance with usage of cURL

Data transmission to clients:

- Modbus TCP[1]
- BACnet/IP or BACnet/SC[1]

File formats:

CSV (various variants), XML (various variants), JSON, user-specific formats (by transformation language XSLT)

6. Processing unit

The processing unit is a microprocessor system:

- CPU: ARM9 architecture, 454 MHz clock frequency
- Memory: 128 MB RAM, 4 GB internal eMMC Flash
- Operating system: Linux
- Integrated RTC: backed-up for up to 7 days

7. General properties

- Dimensions: 54 x 90 x 60 mm (W x H x D, without antenna socket), 3 modules wide
- Installation: DIN rail 35 mm (IEC 60715), arbitrary orientation
- Mass: MUC500 W1 approx. 100 g, MUC500 W2 approx. 110 g

8. Power supply

- 12..36 VDC, screw terminals
- Power consumption: 2 W (idle state), max. 3 W
- Peak inrush-current: approx. 4 A

9. Environmental conditions

- Operation: 0..50 °C (daily average); -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 protection (transient)
- Protection class III (IEC 61140)
- Degree of protection IP30 (IEC 60529)

11. Scope of delivery

- MUC500 W1 (Art. No. 500406) or MUC500 W2 (Art. No. 500407)
- 1 antenna for wM-Bus for MUC500 W1 (Art. No. 500406) or 2 antennas for wM-Bus for MUC500 W2 (Art. No. 500407)
- Quick Start Guide (print, in the packaging)
- Individual packaging with solvimus logo
- Dimensions: 150 x 77 x 140 mm (W x H x D)

12. Contact

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

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

Our Quick Start Guide is also available upon request.

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[1] Separate licence can be acquired.