





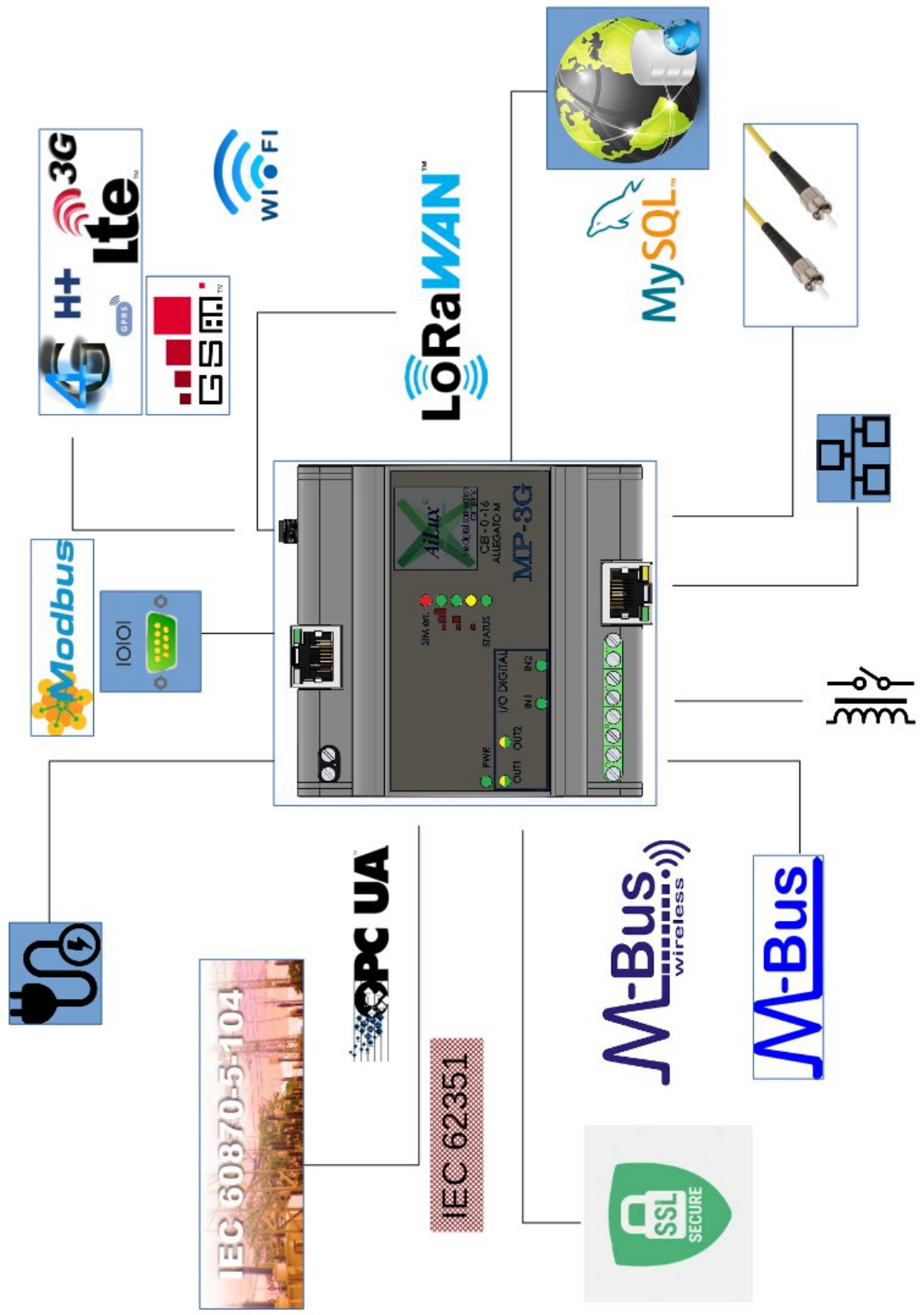
Gateway MP-EC



Gateway for connection between protocols M-BUS, LoRaWan, Modbus
ETHERNET WiFi e GSM/GPRS/UMTS/EDGE/HSPA+

- ✓ Gateway for remote monitoring, telemetry, field readings:
 - ✓ M-BUS Master up to 60 Slave devices and Wireless M-BUS  
 - ✓ LoRaWan Class C 
 - ✓ ModBus RTU and/or TCP/IP Master or Slave 
 - ✓ Siemens S7 PDU Protocol
 - ✓ Opto-isolated digital outputs and inputs
- ✓ Protocols:
 - ✓ IEC-60870-5-104/101 IEC-61850
 - ✓ TLS 1.x **IEC-62351**
 - ✓ **MQTT OPC-UA**
 - ✓ Client MySQL/Maria DB

Hardware and connection



COMPLIANCE AEEGSI

- For photovoltaic site as expected from 421/2014/R/eel of AEEGSI, for Distributed Generation Reduction (RiGeDi).
- For site UCAC/UVAP/UVAM/UVANas expected by 300/2017/R/EEL for the dispatch service (MSD) or BSP.

INTERFACES

- Ethernet 10/100 with connector *RJ45*
- Isolated *RS232/RS485* serial on *RJ45* connector
- Time synchronization IEEE 1588
- GSM/GPRS/UMTS/EDGE/HSPA+ module with SIM slot and SMA connector (local or remote antenna) (option for MP-EC)
- Ethernet 10/100 with multimode optical fiber connection *ST* (option)
- WiFi 802.11/b/g/n module (option)
- LoRaWan (Tranceiver 868/915Mhz) with SMA connector (local or remote antenna) (option)
- M-BUS Master isolated for management up to 60 slaves (option)

Storage

- Connector for MicroSD card up to 128G

DIGITAL INPUTS / OUTPUTS

- 2 relay outputs 250V 3A (option with bistable relay)
- 2 digital inputs $12 \div 311 V_{DC}$ o $8 \div 250 V_{AC}$ (can also be used as an ES card interface for GME pulse counting)

POWER SUPPLY

- $10 \div 30 V_{AC}$, 15VA
- $10 \div 32 V_{DC}$, 15W

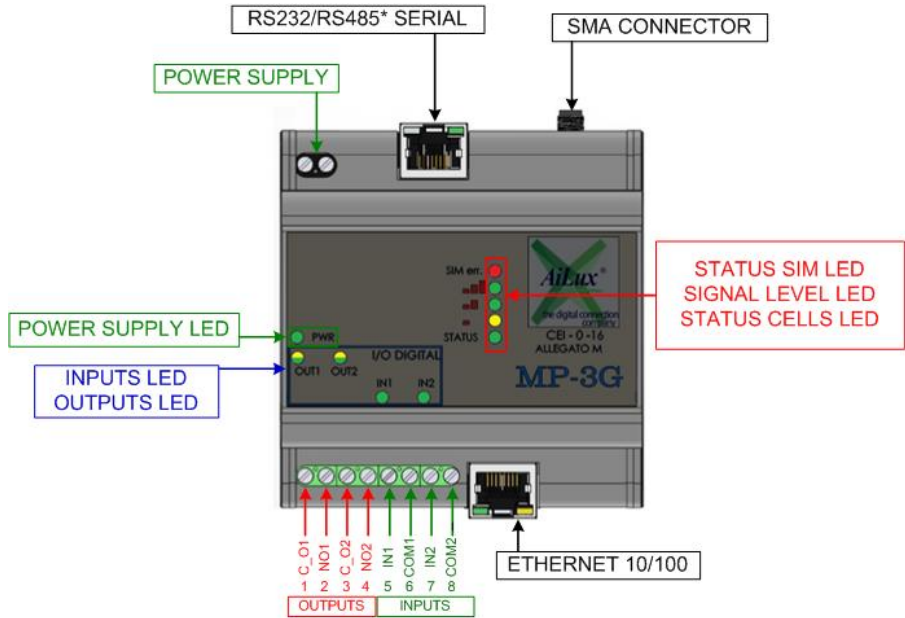
FUNCTIONAL CHARACTERISTICS

Web interface for local configuration and diagnostics including:

- ❑ Protocol connection IEC-60870-5-104, master/slave multiple sessions
- ❑ SMS protocol as CE-0-16 attachment-M
- ❑ Local alarm log or remotely via MySql and/or MQTT clients
- ❑ Setting APN and up to 10 phone numbers for SMS
- ❑ Diagnostic status communication/coverage GSM/GPRS
- ❑ Relay commands and status of inputs
- ❑ Automation task ladder (PLC) according to IEC 61131-3
- ❑ Time synchronization via mobile network or via IEEE 1588 (ethernet) or NTP
- ❑ Remote configuration/reconfiguration
- ❑ Cyber Security: (plus version)
 - ❑ TLS 1.0-1.2, SHA/RSA/MD functions and TRNG via CAU
 - ❑ Telecontrol standard IEC 62351-3/5/7/8/9
 - ❑ Access management model RBAC with authentication

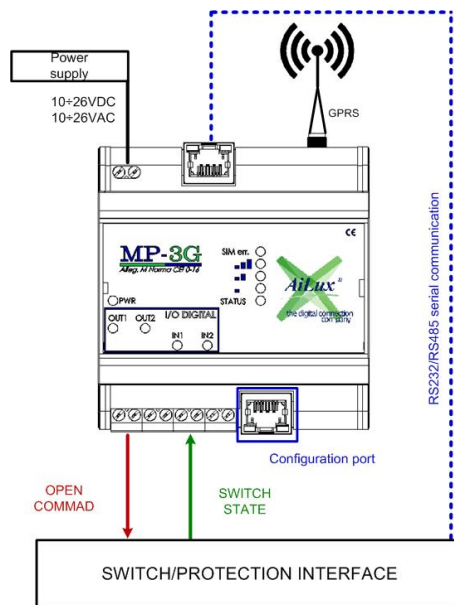
CONNECTIONS DETAIL

Connectors and LEDs

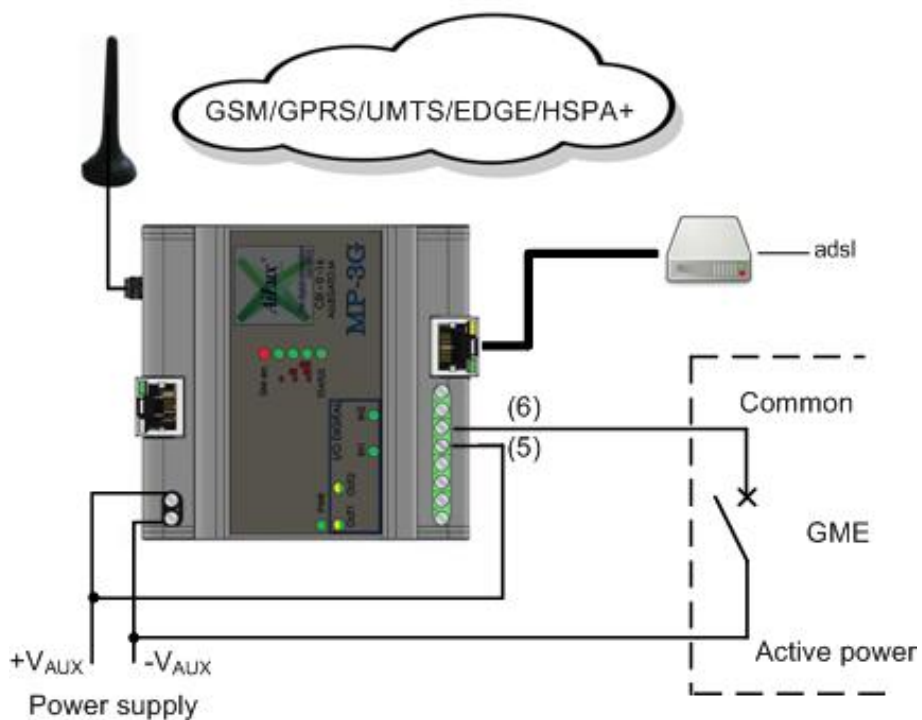


*If the serial connector is present

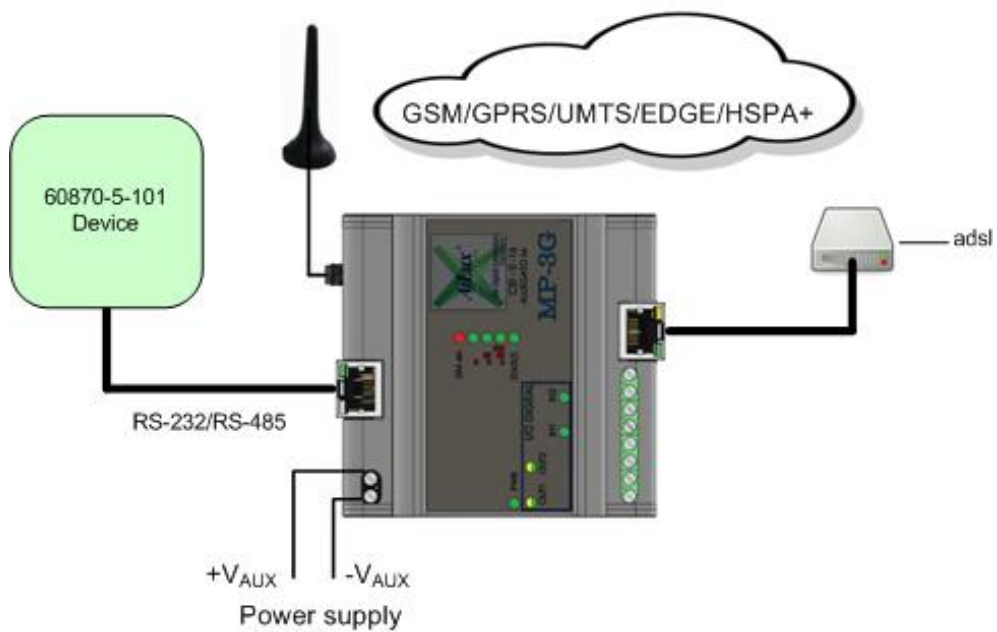
CEI-016 Annex M



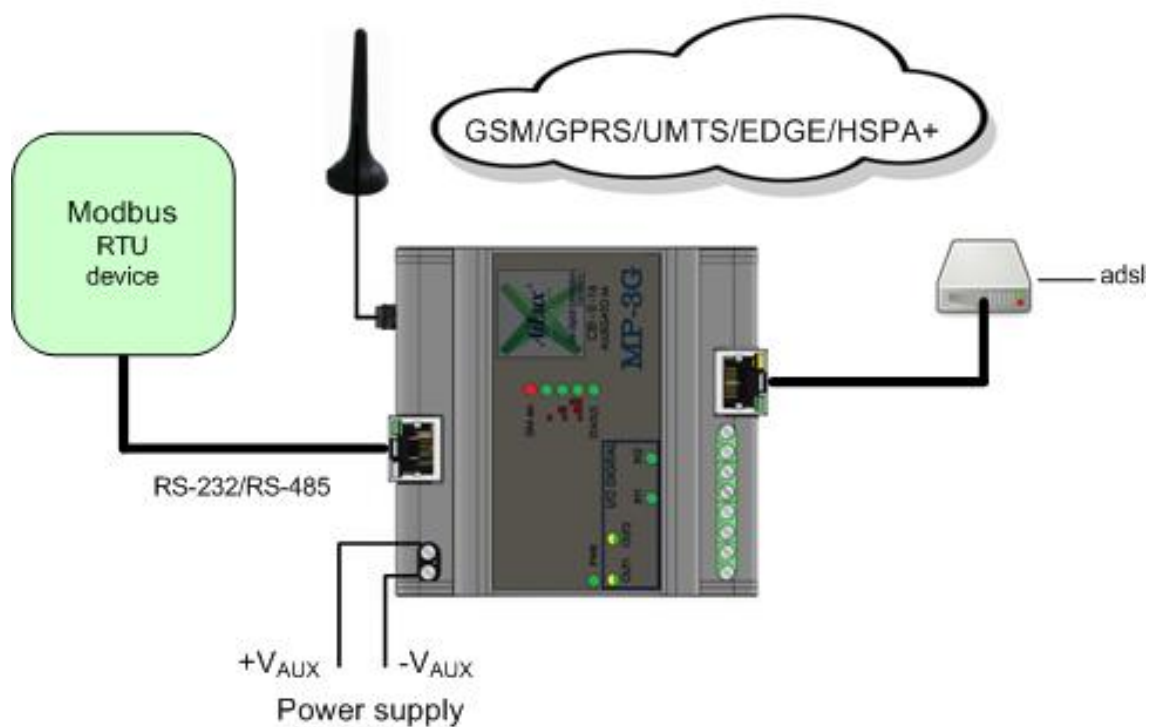
GME connection



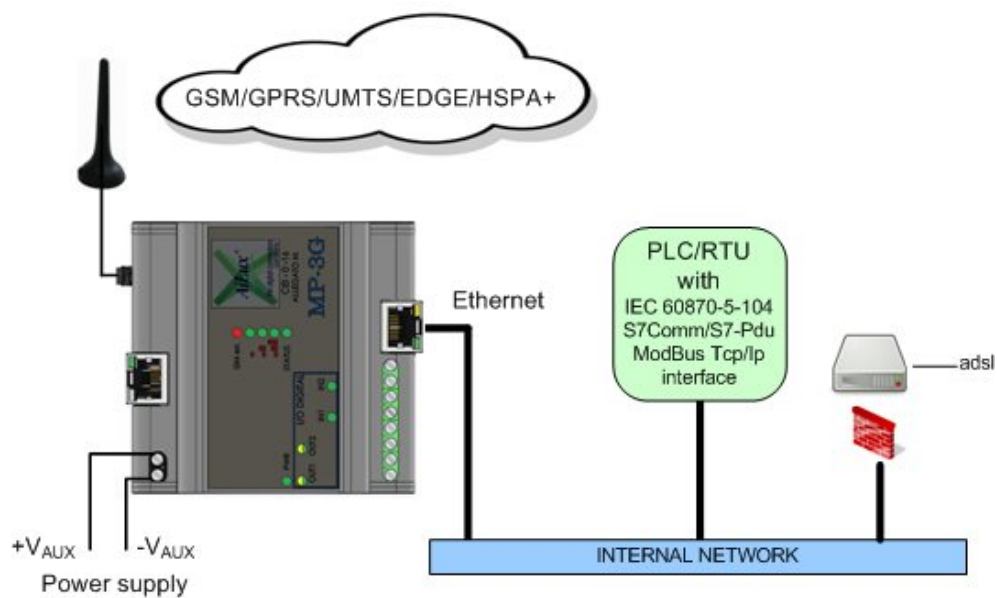
Modbus-RTU connection



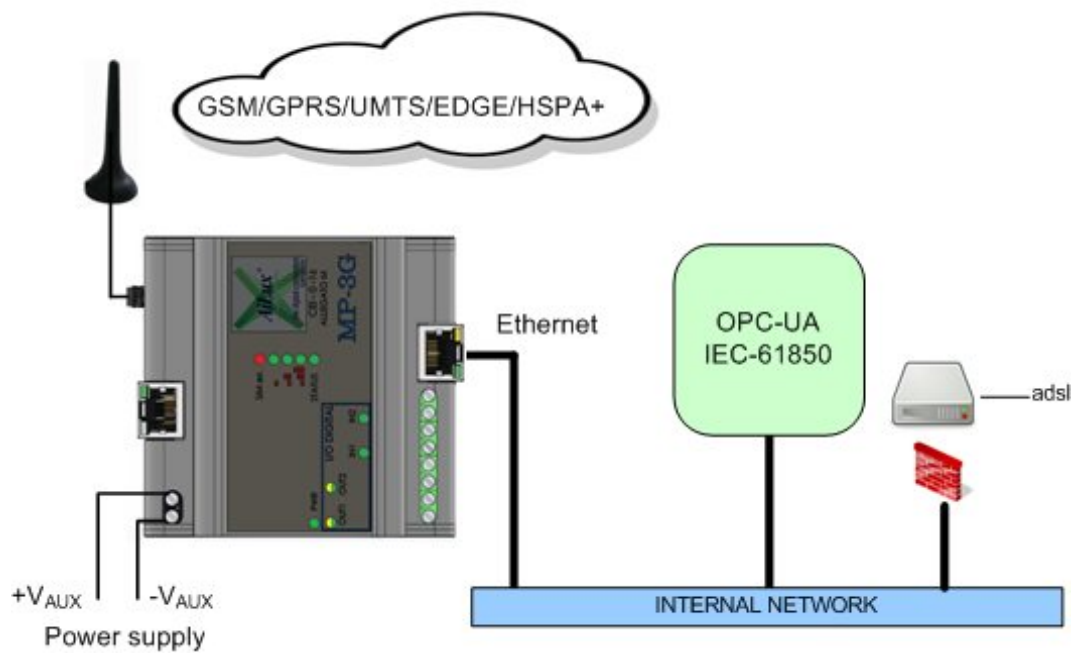
IEC-60870-5-101 connection



IEC-60870-5-104/S7Comm/S7-PDU/Modbus-TCP connection



OPC-UA/IEC 61850 connection



MECHANICAL DIMENSIONS (without antennas)

