# MX-9 *Wireless M-Bus Data Logger* *433MHz/868MHz*

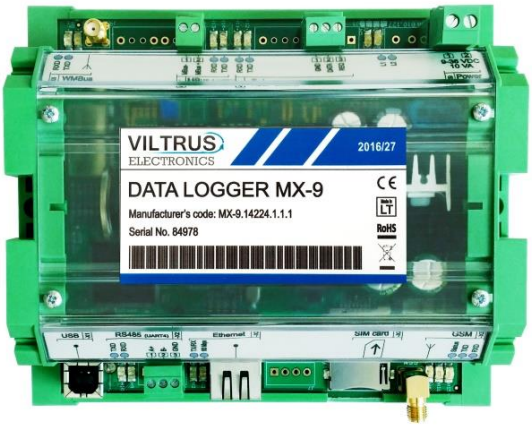
**INTERFACES**

- RS232
- RS485
- M-Bus
- Wireless M-Bus
- Data/Req
- Current Loop
- Ethernet
- GSM/GPRS
- USB

**Application**

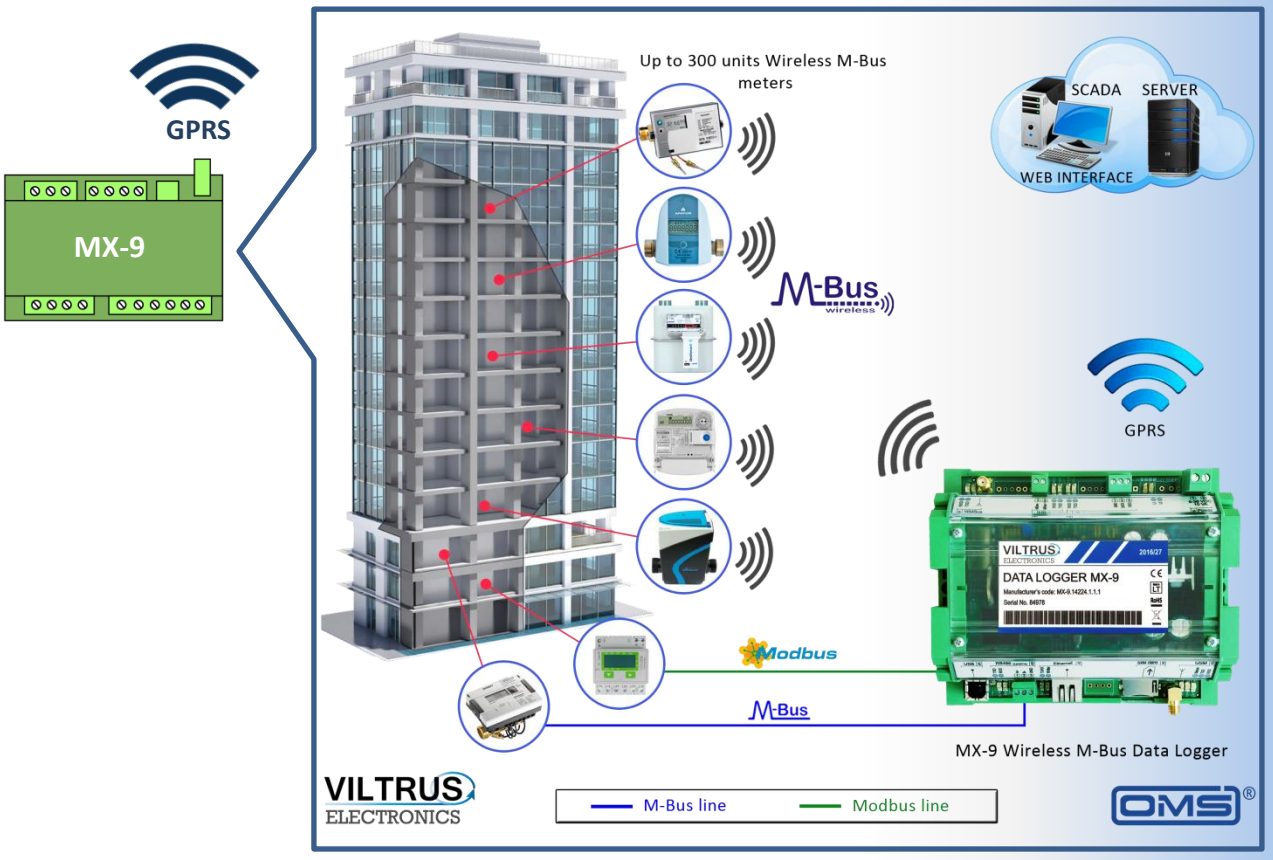
- Industrial monitoring
- Commercial monitoring
- Residential monitoring
- Water/Heat metering
- Electricity metering
- Gas metering
- Sensors monitoring
- Controllers

## FEATURES




- Reading data from meters (heat, water, gas, electricity...), sensors and controllers
- Supported interfaces: M-Bus, RS232, RS485, Current Loop, Data/Req, USB, Ethernet, GSM/GPRS
- Wireless M-Bus supports:
  - ✓ S, T, R, C modes (433MHz/868MHz)
  - ✓ OMS (Open metering system)
  - ✓ up to 300 Wireless M-Bus devices
- Remote communication over GSM/GPRS or Ethernet (RJ45)
- Galvanically isolated interfaces and power supply
- Power for external devices: 3,7; 5; 6; 8 or 10 VDC (20mA)
- Memory expansion: up to 8 GB using micro SD card

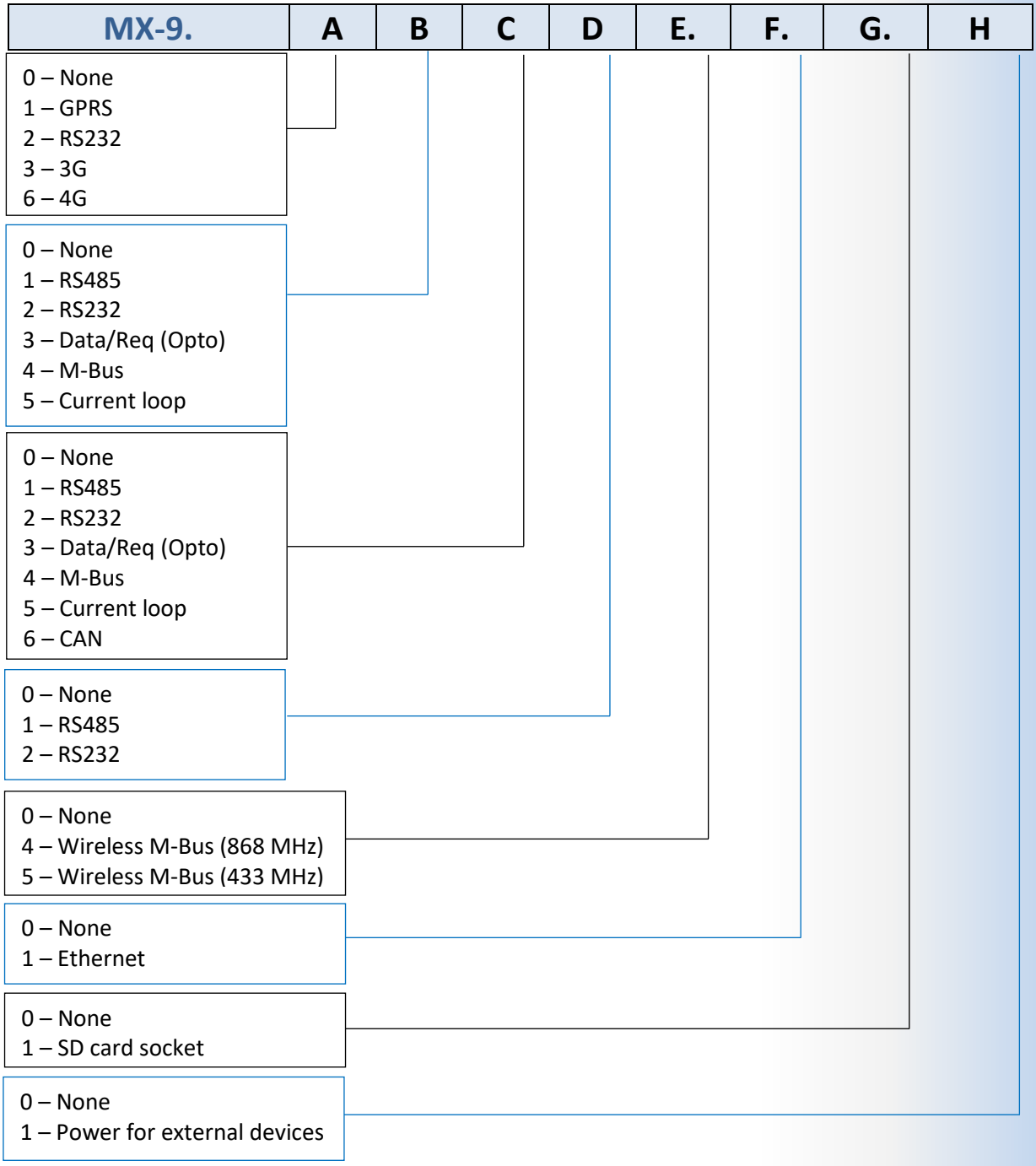
**MX-9** data logger is dedicated for collecting the data via Wireless M-Bus and real time logging, analyzing of data. Using GPRS/GSM or Ethernet, logger sends data to remote users / server. MX-9 can also communicate with other controllers and sensors. Device has wide range of optional interfaces and protocols and can read any kind of meters, controllers and sensors equipped with standard protocols. Perfect for telemetry/monitoring, control and smart metering.



# TECHNICAL SPECIFICATIONS

| Description | MX-9 data logger |
|---|---|
| CPU | ARM7 |
| Flash | archive storage up to 8 MB, independent data storage without power about 5 years |
| External memory | up to 8 GB micro SD card |
| **Interfaces** | |
| RS232 *(4 ports)* | distance up to 15 m, speed up to 19,2 Kbit/s |
| RS485 *(3 ports)* | distance up to 1,2 km, max 32 transivers, speed up to 19,2 Kbits/s |
| M-Bus *(2 ports)* | up to 16 M-Bus devices (up to 8 M-Bus devices for each M-Bus port) |
| Wireless M-Bus *(1 port)* | up to 300 Wireless M-Bus ( T, S, R, C modes, 433MHz/868MHz) devices |
| Data/Req *(2 ports)* | (KAMSTRUP) data transfer interface |
| Current Loop *(2 ports)* | 25-27V, 14-20mA, up to 6 km, speed up to 19,2 Kbit/s |
| GSM/GPRS | 4 band 850/900/1800/1900 MHz |
| 4G | 800/900/1800/2100/2600 MHz<br>LTE-FDD or TLE-TDD and GSM frequencies depending on the region. |
| Ethernet | 10/100 Mbps, RJ45, distance up to 100 m |
| USB | ver. 2,0, type B |
| **Protocols** | |
| Modbus RTU, Modbus TCP/IP, IP, ICMP, UDP, TCP, DHCP, PPP, ARP, SNTP, IEC60870-5-104:2000, DynDNS, FTP server, FTP client, DNS client | |
| **General** | |
| Power supply | 9-36 VDC |
| Over-voltage protection | >1000V |
| Capacity | 300mA max |
| Power for external devices | 3,7/5/6/8/10 V (<20mA) |
| Interface galvanic isolation | 500V |
| **Physical characteristics** | |
| Dimensions | 147x128x50 mm |
| Weight | 400 g |
| Mounting type | on DIN rail |
| Protection type | IP20 |
| **Climate conditions** | |
| Operating temperature | -25 to +60°C |
| Storage temperature | -40 to +60°C |
| Humidity range | 5 – 95%, non-condensing |
| **Programing and updating** | |
| Remote | 4G/GPRS or Ethernet (RJ45) |
| Locally | RS232, RS485 or USB |
| **LED indication** | |
| Power | |
| Serial ports read/write for each port | |
| 3G/GPRS modem status | |
| Ethernet status | |
| **Other features** | |
| Real time clock | + |
| M-Bus auto setup | + |
| Warranty period | 2 years |

## ORDERING CODE




*Example:* **MX-9.**1000.4.0.1.0 (GPRS, Wireless M-Bus (868 MHz), Micro SD card)

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