VILTRUS ELECTRONICS

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**
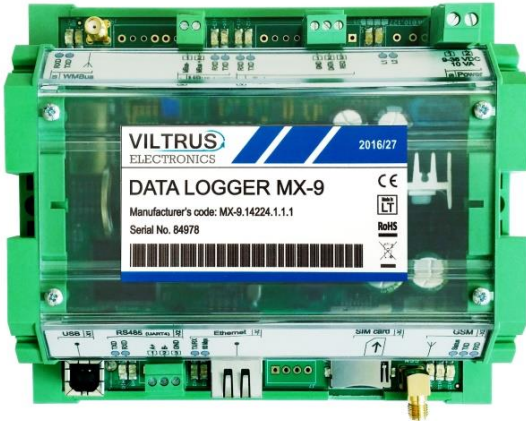- **Water/Heat metering**
- **Electricity metering**
- **Gas metering**
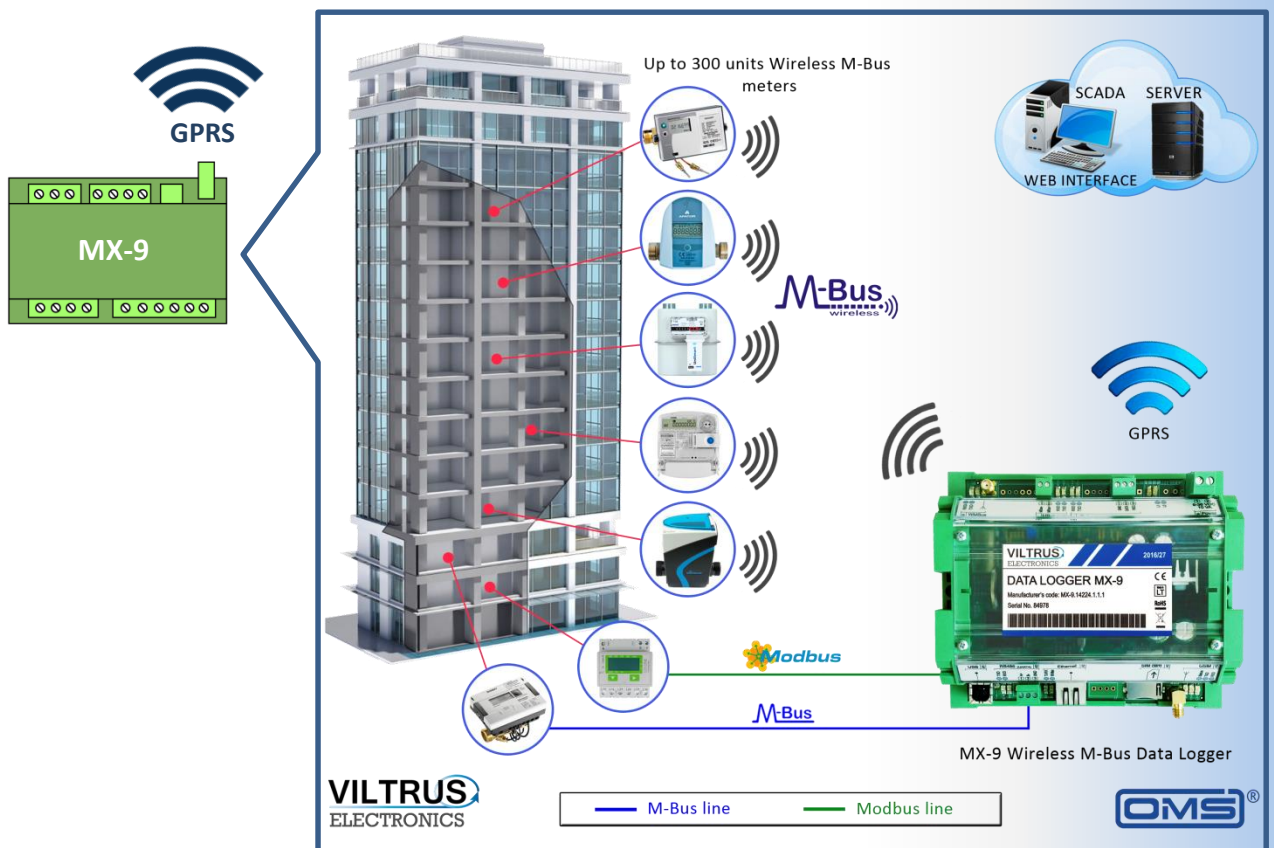- **Sensors monitoring**
- **Controllers**

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.

MX-9 Wireless M-Bus Data Logger

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
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 +60ºC
Storage temperature	-40 to +60ºC
Humidity range	5 – 95%, non-condensing
Programing and updating	
Remote	GSM/GPRS or Ethernet (RJ45)
Locally	RS232, RS485 or USB
LED indication	
Power	
Serial ports read/write for each port	
GSM/GPRS modem status	
Ethernet status	
Other features	
Real time clock	+
M-Bus auto setup	+
Warranty period	2 years

ORDERING CODE

MX-9.	A	B	C	D	E.	F.	G.	H

A:
- 0 – None
- 1 – GPRS/GSM
- 2 – RS232

B:
- 0 – None
- 1 – RS485
- 2 – RS232
- 3 – Data/Req (Opto)
- 4 – M-Bus
- 5 – Current loop

C:
- 0 – None
- 1 – RS485
- 2 – RS232
- 3 – Data/Req (Opto)
- 4 – M-Bus
- 5 – Current loop
- 6 – CAN

D:
- 0 – None
- 1 – RS485
- 2 – RS232

E:
- 0 – None
- 4 – Wireless M-Bus (868 MHz)
- 5 – Wireless M-Bus (433 MHz)

F:
- 0 – None
- 1 – Ethernet

G:
- 0 – None
- 1 – SD card socket

H:
- 0 – None
- 1 – Power for external devices

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