VILTRUS ELECTRONICS

MX-3 *GSM/GPRS Modbus Data Logger*

INTERFACES

- RS232
- RS485
- M-Bus
- Data/Req
- GSM/GPRS
- USB
- 3 x Analog IN
- 4 x Discrete IN

DATA LOGGER MX-3
Manufacturer's code: MX-3.1622.224.4
Serial No. 84978

M-Bus Modbus CE

FEATURES

➢ Reading data from meters (heat, water, gas, electricity...), sensors and controllers

➢ Independent data log with real time stamp (Real Time Clock)

➢ Possibility to choose interfaces: M-Bus, GSM/GPRS, RS232, RS485, Data/Req, USB, Analog and Discrete input ports

➢ Remote communication and updates through GSM/GPRS

➢ Galvanically isolated interfaces and power supply

➢ SMS sending for alarm events

➢ Batteries management. The remote monitoring devices can charge the battery and use it to power supply in the event of blackout

MX-3 data logger is dedicated for real time logging and analyzing of data. Using GPRS/GSM, logger sends data to remote users / server. MX-3 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.

Application

- Water/Heat metering
- Electricity metering
- Gas metering
- Heat substation metering
- Sensors monitoring
- Wind power plant monitoring
- Solar power plant monitoring
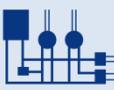
- Industrial monitoring
- Commercial monitoring
- Residential monitoring
- Environmental monitoring

GPRS

MX-3

SCADA   SERVER

WEB INTERFACE

M-Bus converter RS232/RS485

GPRS

DATA LOGGER MX-3

RS232/485

Up to 250 M-Bus devices

M-Bus

Pulse Output

Modbus

— M-Bus line   — RS232/485 line   — Pulse Output line   — Modbus line
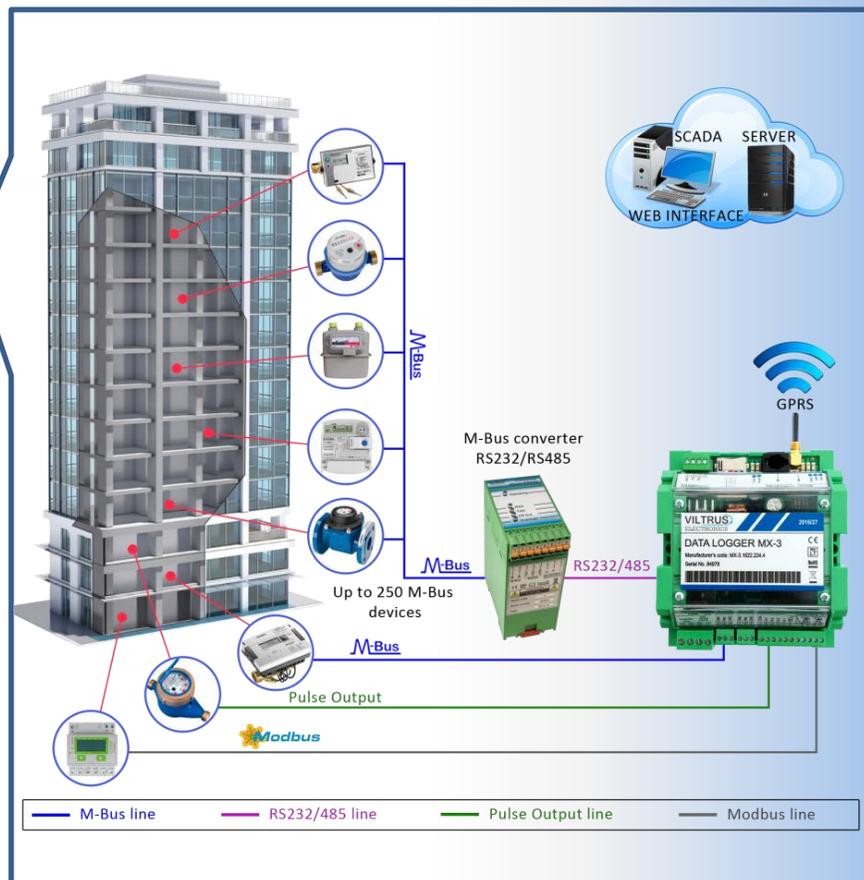
TECHNICAL SPECIFICATIONS

| Description	MX-3 data logger
CPU	ARM7
Flash	archive storage up to 8 MB, independent data storage without power about 5 years
Interfaces	
GSM/GPRS	4 band 850/900/1800/1900 MHz
USB	type B, ver. 2,0
RS232 *(3 ports)*	distance up to 15 m, speed up to 19,2 Kbit/s
RS485 *(2 ports)*	distance up to 1,2 km, max 32 transivers, speed up to 19,2 Kbits/s
M-Bus *(1 port)*	up to 8 M-Bus devices
Data/Req *(1 port)*	up to 2 devices, (KAMSTRUP) data transfer interface
Discrete Input	4 sink contacts
Analog Input	3 thermo-resistance (Pt100, Pt1000), voltage or current
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	15-36 VDC
Over-voltage protection	>1000V
Capacity	<5VA
Internal battery	3,7V 500 mAh
External battery	battery charging current up to 200mA, acid or gel 12V battery (battery is not supplied with device). With fully loaded 7Ah battery can operate about 72 hours
Certifications	
Electromagnetic compatibility	EN 55022:2010 EN 55024:2010 EN 61000-4-2:2009 EN61000-4-3:2006 EN61000-4-3:2006/A1:2008 EN 61000-4-3:2006/A2:2010 EN 61000-4-4:2004 EN 61000-4-4:2004/A1:2010 EN 61000-4-6:2009
Safety	EN 61010-1:2001
Physical characteristics	
Dimensions	107x128x50 mm
Weight	275 g
Mounting type	on DIN rail
Protection type	IP20
Climate conditions	
Operating temperature	-30 to +60°C
Storage temperature	-40 to +60°C
Humidity range	5 – 95%, non-condensing
LED indication	
Status of discrete input, for each port	
Serial ports read/write for each port	
GSM/GPRS modem status	
Other features	
Real time clock	+
M-Bus auto setup	+
Warranty period	2 years

ORDERING CODE

MX-3.	A	B	C	D.	E	F	G.	H.	I

A:
0 – None
1 – GPRS/GSM

B:
0 – None
1 – RS485
2 – RS232
3 – Opto
4 – M-Bus
6 – Double Opto

C:
0 – None
1 – RS485
2 – RS232

D:
0 – None
2 – RS232
4 – USB

E:
0 – None
1 – Current analog inputs
2 – Voltage analog inputs

F:
0 – None
1 – Current analog inputs
2 – Voltage analog inputs

G:
0 – None
4 – Thermoresistor (PT1000) analog IN
5 – Thermoresistor (PT100) analog IN

H:
0 – None
4 – 4 discrete inputs

I:
0 – 15-36V and 12V battery (with charging)
1 – 12VDC battery mode
2 – 12VDC battery mode with output voltage control

Example: **MX-3.**1614.005.0.0 (GPRS/GSM, double Opto, RS485, USB, Analog IN (PT100), 15-36VDC)