

INTERFACES

RS232

RS485

M-Bus

Data/Req

GSM/GPRS

USB

3 x Analog IN

4 x Discrete IN



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



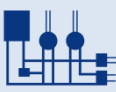
Electricity metering



Gas metering



Heat substation metering



Sensors monitoring



Wind power plant monitoring



Solar power plant monitoring

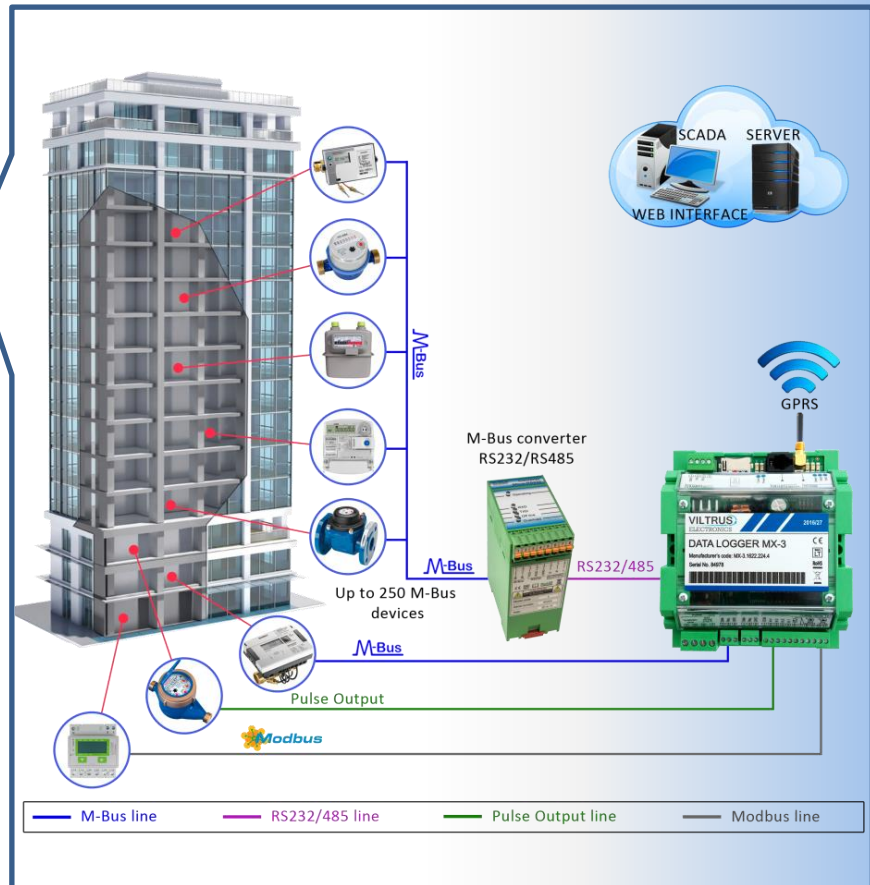
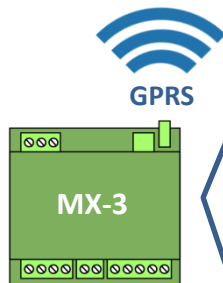


Industrial monitoring

Commercial monitoring

Residential monitoring

Environmental monitoring



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 (2 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 |
|--|---|---|---|----|---|---|----|----|---|
| 0 – None 1 – GPRS/GSM | | | | | | | | | |
| 0 – None 1 – RS485 2 – RS232 3 – Opto 4 – M-Bus 6 – Double Opto | | | | | | | | | |
| 0 – None 1 – RS485 2 – RS232 | | | | | | | | | |
| 0 – None 4 – USB | | | | | | | | | |
| 0 – None 1 – Current analog inputs 2 – Voltage analog inputs | | | | | | | | | |
| 0 – None 1 – Current analog inputs 2 – Voltage analog inputs | | | | | | | | | |
| 0 – None 4 – Thermoresistor (PT1000) analog IN 5 – Thermoresistor (PT100) analog IN | | | | | | | | | |
| 0 – None 4 – 4 discrete inputs | | | | | | | | | |
| 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)