

- GSM/GPRS packet transmission and SMS
- Integral GSM 850/900/1800/1900 with system for autonomic login to GPRS network
- 5 binary/counter inputs accepting potential free contacts (pulse outputs of flowmeters)
- 3 analogue 0-5 V DC inputs with configurable alarm thresholds and hysteresis
- 2 controlling outputs
- Keyed power supply 0-5 V DC for external analogue converters
- Lid opening sensor (tampering protection)
- Optional measuring of temperature and humidity
- Optional LCD display with touch keys
- Intelligent data logger (4MB Flash RAM with min. write interval of 1 sec.)
- Configurable schedules and events initiating measurements and data transmission
- RTC real time clock
- Battery power supply (alkali or lithium batteries), replaceable
- Optional external supply 12/24 V DC
- Intelligent power management
- USB port for local configuration
- Optional communication interface (RS-232, RS-485, M-BUS)
- Optional GPS receiver
- IP-67 enclosure (optional IP-68)
- SMA antenna socket
- Operating temperature range -20°... +55°C
- User friendly communication and configuration application
- GPRS based application for remote management
- Remote firmware upgrade



MT-713 is a last generation of battery powered measuring, logging and transmitting device. Like other modules of MT family the module is a cutting edge design characterized by advanced innovative solutions, easy to configure and integrate with data gathering and processing systems. The spontaneous on event or scheduled data transmission helps minimize energy consumption and transmission costs extending battery life time. Simple compact design in plastic enclosure with IP-67 protection makes the module ideal for harsh environment with no power lines (f.e. water supply control wells and chambers). Integrated replaceable battery set may endure even for 10 years of service (lithium batteries in conjunction with power saving configuration). Battery voltage is continuously monitored and reported along with measurement data. MT-713 is equipped with 5 binary/counter inputs (adopted to work with potential free contacts) and 3 analogue inputs allowing measuring of parameters like pressure, temperature, level e.t.c. Keyed power supply powering analogue outputs for measurement time may control external power supply of sensors which in

conjunction with deactivation of GSM/GPRS modem when not transmitting reduces energy consumption to absolute minimum. Measurement data may be registered with precise time stamp in non volatile Flash memory according to schedule or on event. Besides measurements the module can report multiple alerts tampering with enclosure, unauthorized opening of the chamber, long period of missing flow, crossing of predefined level or temperature threshold etc. MT-713 module's resources and functionality may be optimized for particular appliances due to many available options (internal temperature and humidity measuring, LCD display with touch buttons, 3 or 6* lithium or alkali battery packs, internal antenna, opaque cover, communication interface for external devices, GPS receiver) User friendly environment for configuration, communication with open interfaces for OPC/ODBC/CSV and remote management comes along with the purchased module, free of charge. The user may fully benefit from new versions of firmware thanks to remote firmware upgrade functionality.

* in MT-713 HC with deeper enclosure

General

Dimensions (HxWxD)	122x120x65(95)* mm
Weight (with batteries)	1030 (1430)* g
Mounting type	4 holes
Operating temperature	-20 ... +55°C
Protection class	IP67 (IP68 optional)

GSM/GPRS modem

Modem type	WAVECOM WIRELESS CPU
GSM	QuadBand (850/900/1800/1900)
Frequency range:	
GSM 850	Sender: 824 MHz – 849 MHz Receiver: 869 MHz– 894 MHz
EGSM 900	Sender: 880 MHz – 915 MHz Receiver: 925 MHz– 960 MHz
DCS 1800	Sender: 1710 MHz – 1785 MHz Receiver: 1805 MHz– 1880 MHz
PCS 1900	Sender: 1850 MHz– 1910 MHz Receiver: 1930 MHz– 1990 MHz
Sender's peak power GSM850/EGSM900	33 dBm (2W) – class 4 station
Sender's peak power DCS1800/PCS1900	30 dBm (1W) – class 1 station
Modulation	0,3 GMSK
Channel spacing	200 kHz
Antenna	50Ω

Power supply

Battery pack: - 3 alkali batteries or - 3 lithium batteries	4,5 V / 16 Ah 3,6 V / 39 Ah
Mean modem sleep current (μA)	< 250 μA
Mean GSM modem active current	50 mA

Analogue inputs AN1...AN3 (potential, differential)

Measuring range	0 ... 5,0 V
Input resistance	> 600kΩ typ.
Resolution	12 bit
Accuracy	± 0,5 %

Binary/counter inputs I1...I5

Contact polarization	3 V
Counting frequency	1 kHz max.
Minimum pulse length	0,5 ms

NMOS Q1, Q2 outputs

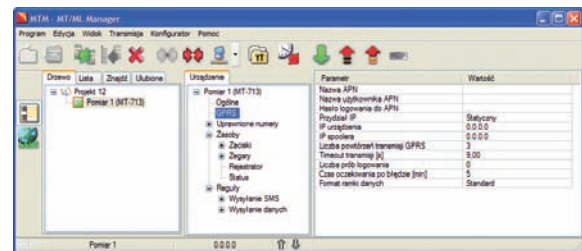
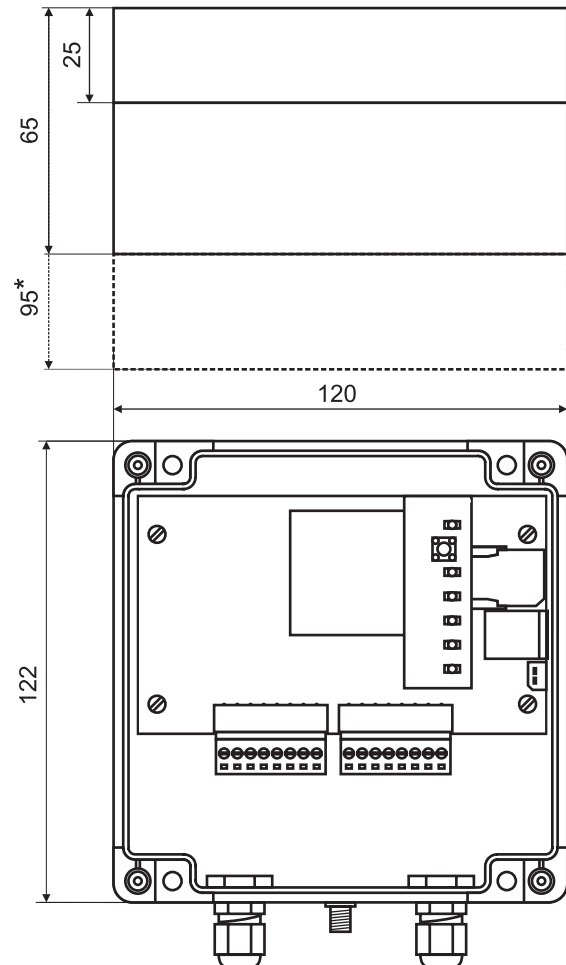
Maximum voltage	30 V
Maximum current	250 mA
Switch off current	< 50 μA
Resistance	1Ω

Configurable voltage output

Voltage range	0 ... 5,0 V
Resolution	0,1 V
Accuracy	2 %
Maximum current	50 mA

Logger

Memory type	FLASH
Memory capacity	4 MB
Minimum recording interval	1 s

Configuration environment**Drawings and dimensions (all dimensions in millimetres)**

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Supplementary information:

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