

- GSM/GPRS packet transmission
- Integral GSM 850/900/1800/1900 modem with automatic login onto GPRS network
- Isolated serial communication port for external devices (RS-232/422/485)
- Programmable functions for data processing
- Standard communication protocols (MODBUS RTU/ ASCII, M-BUS, NMEA 0183)
- Built-in Master and Slave functionality
- FlexSerial mode for program based protocol handling
- Data mirror of external resources and event triggered transmission (unsolicited messaging)



MT-202 module has been designed for easy, wireless integration via GPRS network of various remote intelligent devices (e.g. PLC controllers, I/O stations, measuring devices, operator panels) equipped with serial port RS-232/422/485.

MT-202 can be used as wireless, "transparent" serial port, but it can also play a role of a local Master querying periodically an external device for user defined resources (e.g. inputs, outputs, analog inputs, internal registers and flags). In such case MT-202 creates in memory a mirror of the external resources and detects alarms, state changes, analog value changes and fulfilled logic conditions incorporating raw and calculated values. Data are transmitted via GPRS according to user defined rules.

Industrial grade design, integral GSM/GPRS modem, user programming capabilities, attractive technical features and easy to use configuration tools - these are important advantages of MT-202 in applications of wireless telemetry, maintenance, diagnostic, control and automated meter reading (AMR).



**Resources**

- Isolated serial port RS-232/485/422
- User program accessible internal flags and registers:
  - 8192 internal 16-bit registers
  - 176 internal flags in binary output space
  - 256 internal retentive flags
  - 256 internal non-retentive flags
  - 12 independent internal timers
  - 32 special purpose flags for triggering alarm and event messages
- Firmware Flash memory with remote update capability
- Real Time Clock (RTC) with external synchronization functions
- Power backup detection input

**Functionality**

- Transmission modes:
  - GPRS - packet transmission
  - SMS
  - CSD - circuit switched data transmission (in modem mode only)
- Access to internal resources with standard MODBUS RTU protocol
- Intelligent packet routing and Multimaster operation in MODBUS mode
- Packet routing in transparent mode
- Wireless serial port capability in transparent mode
- Event triggered GPRS transmission (unsolicited messaging)
- Programmable logic functions using markers, timers, counters, diagnostic flags and registers for event triggering (data transmission, SMS and e-mail sending, setting values of markers and internal registers)
- Unsolicited messages triggered by change of marker state or fulfilled logic condition
- Time-based and event-based SMS messages
- Automatic update of dynamic fields in SMS message
- Functionality of local Master for slave devices connected to the serial communication port RS-232/422/485
- External resources mapping (mirroring) for event detection and triggering
- Programmable handling of non-standard communication protocols - FlexSerial mode
- MT2MT buffer for direct data sharing between MT-202, MT-101 and MT-102 telemetry modules.



DIN RAIL

RS-232

RS-232 /422/485

MT-202

- Built-in data integrity and frame delivery checking
- "Watchdog" circuitry - automatic reset in case of abnormal state
- Timers synchronized with RTC
- Local and remote (via GPRS) configuration, programming and firmware update
- Configurable security settings - list of authorized IP addresses and telephone numbers, access passwords
- DIN rail mounting
- Power supply 12/24V DC, 24 V AC
- Removable terminal blocks
- Diagnostic LEDs (module status, GSM transmission activity, GSM signal level, GPRS activity, serial communication activity)
- User-friendly configuration tools

**General**

Dimensions (length x width x height)	105 x 86 x 60 mm
Weight	300 g
Mounting	DIN Rail 35 mm
Operating temperature	-20 to +65 °C
Protection class	IP40
Max. voltage at all connectors relative to device's GND.	60 Vrms max

**GSM/GPRS Modem**

Modem type	CINTERION
GSM	QuadBand (850/900/1800/1900)
Frequency range:	
GSM 850	Transmitter: 824MHz – 849 MHz Receiver: 869 – 894 MHz
EGSM 900	Transmitter: 880MHz – 915 MHz Receiver: 925 – 960 MHz
DCS 1800	Transmitter: 1710MHz – 1785 MHz Receiver: 1805 – 1880 MHz
PCS 1900	Transmitter: 1850 – 1910 MHz Receiver: 1930 – 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	50 Ω

**Power supply**

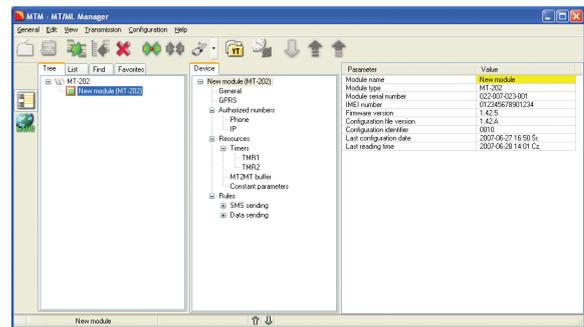
Voltage range (DC) 12,24V	10,8 – 36 V		
AC (24V)	18 – 26,4 Vrms		
Input current (A) (for 12V DC)	Idle	Active	Max
	0,10	0,60	1,90
Input current (A) (for 24V DC)	Idle	Active	Max
	0,06	0,25	1,00

**Supplementary information:**

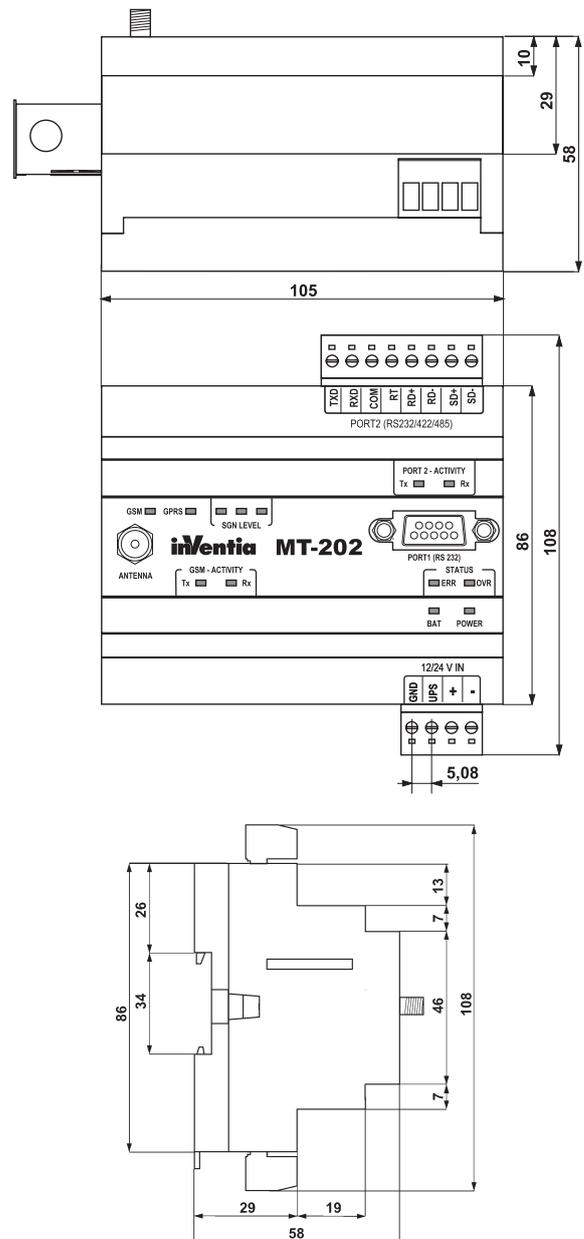


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**Configuration utility**



**Drawings and dimensions (in millimeters)**



MT-202



INVENTIA complies with ISO 9001:2015 certified Quality Management System!  
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