

- GSM/GPRS packet transmission
- Integral GSM 900 / 1800 modem with automatic login onto GPRS network
- Binary inputs and outputs (8I/O)
- Analog inputs 4-20 mA (6)
- Serial communication port for external devices (RS232/422/485), isolated
- Support for standard transmission protocols (MODBUS RTU)
- Data logger with 0,1 sec. resolution
- Programmable logic controller (PLC)
- Standard communication protocols (MODBUS RTU, M-BUS)
- Removable terminal blocks
- Easy configuration software

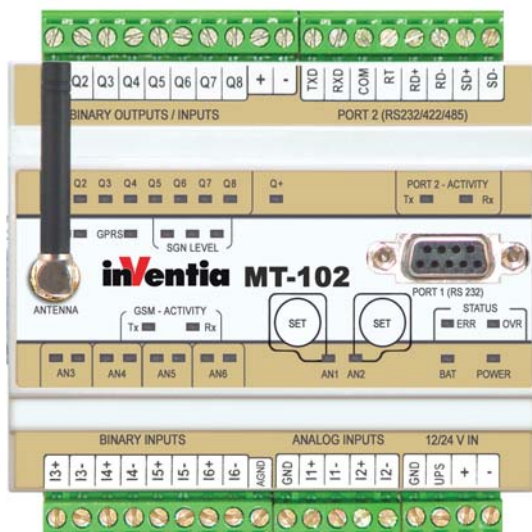


Telemetry Module MT-102 is a professional device combining functionality of programmable logic controller, data logger, protocol converter and wireless communication interface for GPRS packet transmission over GSM network.

Compact, robust design, integral GSM modem, attractive technical features and easy to use configuration tools are important advantages of MT-102 in wireless, scalable, multinode systems for telemetry, control, diagnostic, surveillance and alarming.

Resources

- 8 configurable binary outputs / inputs / counters 24V DC (Q1 - Q8)
- 2 optoisolated fast analog inputs 4-20 mA (1,5% acc./10 bit res.) with configurable hysteresis and filtration
- 4 optoisolated analog inputs 4-20mA with configurable hysteresis and conversion time (U/f conversion, accuracy 0,5%)
- Internal registers, flags and constants available to internal user program
- Isolated serial port RS232/485/422
- Firmware Flash memory with remote update capability
- RTC with external synchronization functions



Functionality

- Transmission modes
 - GPRS - packet transmission
 - SMS
 - CSD - circuit switched data transmission (in modem mode only)
- All internal resources accessible with standard Modbus RTU protocol
- Intelligent packet routing and Multimaster in Modbus RTU mode
- Packet broadcasting or intelligent routing in transparent mode
- All binary inputs configurable as counters or frequency-to-analog converters (0-2 kHz)
- Programmable control functions using I/O's and configurable, event triggered flags (SMS sending, data sending / logging, output control, call in)
- Unsolicited messaging on input/flag change, analog signal alarm level crossing or logical function evaluation.
- Event triggered Data Logger
- Dynamic SMS text insertion
- Simple, multipoint (4) alarm configuration for both binary and analog inputs
- Additional manual alarm level setting capability for analog inputs A1, A2 (front panel push buttons)
- Serial port emulated protocol in GPRS mode:
 - MODBUS RTU (Master and Slave)
 - Transparent, intelligent modem
- External module resource mapping to internal registers for data transmission improvement and event triggering
- Multibroadcast for transparent mode
- Remote (via GPRS) configuration and programming
- Configurable access security - IP and Tel# list, optional password
- DIN rail mounting
- Power supply 12/24V DC, 24 V AC
- Removable terminal blocks
- Diagnostic LED's (status, GSM transmission activity, GSM signal level, GPRS activity, serial communication activity, I/O status)

General

Dimensions (length x width x height)	105x86x60 mm
Weight	300 g
Fixing	DIN Rail 35mm
Operating temperature	-20 ... +55°C
Protection class	IP40
Maximum voltage between any contact and device ground	60Vrms max.

GSM/GPRS Modem

Modem type	WISMO Quick
GSM	Dual Band GSM/GPRS module EGSM900/1800
Frequency range (EGSM 900 MHz)	Transmitter: from 880 MHz to 915 MHz Receiver: from 925 MHz to 960 MHz
Output power (EGSM 900 MHz)	33 dBm (2W) - Class 4
Frequency range (EGSM 1800 MHz)	Transmitter: from 1710 MHz to 1785 MHz Receiver: from 1805 MHz to 1880 MHz
Output power (EGSM 1800 MHz)	30 dBm (1W) - Class 1
Modulation	0,3 GMSK
Channel spacing	200 kHz
Antenna	50Ω

Power supply

DC (12V, 24V)	10,8...36 V		
AC (24V)	18...26,4 Vrms		
Input current (A) (for 12V DC)	Idle 0,10	Active 0,35	Max 0,60
Input current (A) (for 24V DC)	Idle 0,05	Active 0,17	Max 0,30

Binary Inputs Q1...Q8

Maximum input voltage	36 V
Input resistance	5,4 kΩ typ.
Input voltage ON	> 9V min.
Input voltage OFF	< 3V max.

Binary Outputs Q1...Q8

Recommended mean current for a single output	50mA
Single output current	350mA max.
Mean current for all outputs	400mA max.
Voltage drop at 350mA	< 3,5V max.
Off state current	< 0,2mA max.

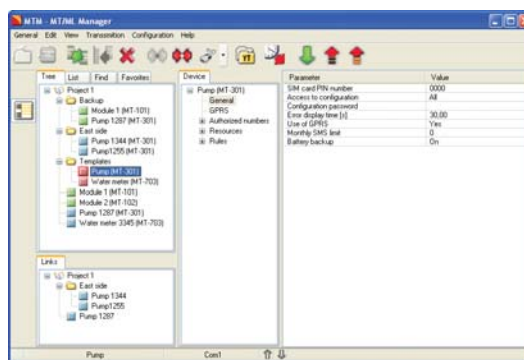
Analog inputs A1, A2 (4...20 mA)

Input current	4...20 mA
Maximum input current	50 mA max.
Dynamic input impedance	25Ω typ.
Voltage drop at 20mA	< 5V max.
A/D converter	10 bits
Accuracy	+/-1,5% max.
Nonlinearity	+/-1% max.

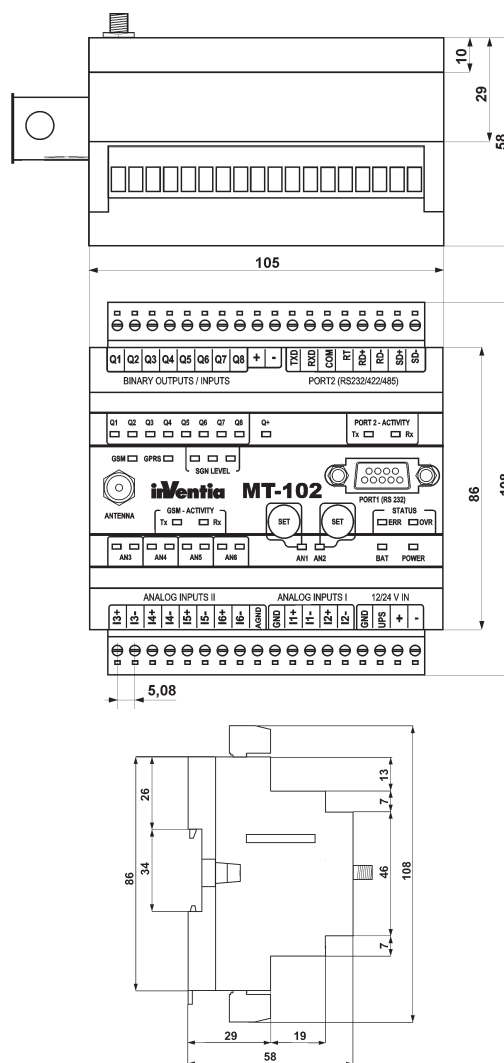
Analog inputs A3...A6 (4...20 mA)

Input current	4...20 mA
Maximum input current	50 mA max.
Dynamic input impedance	50Ω typ.
Voltage drop at 20mA	5,5V max.
A/D converter	U/f
Accuracy	+/-0,5% max.
Nonlinearity	+/-0,2% max.

Configuration utility



Drawings and dimensions (in millimeters)



Additional info:

inventia

580 route de Romans
01400 Châtillon/Chalaronne - FRANCE
Tel : 33 (0)4 74 55 52 52 - Fax : 33 (0)4 74 55 52 51



INVENTIA complies with ISO 9001:2000 certified Quality Management System!
This project is co-financed by EUROPEAN UNION from the European Regional Development Fund resources.