

- GSM/GPRS packet transmission
- Integral GSM 900 / 1800 modem with automatic login onto GPRS network
- Binary inputs and outputs (8/8IO)
- Analog inputs 4-20 mA (2)
- Serial communication port for external devices (RS 232/422/485), isolated
- Data logger with 0,1 sec. resolution
- RTC Real Time Clock
- Programmable logic controller (PLC)
- Standard communication protocols (MODBUS RTU, M-BUS)
- Removable terminal blocks
- Easy configuration software



Telemetry Module MT-101 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.

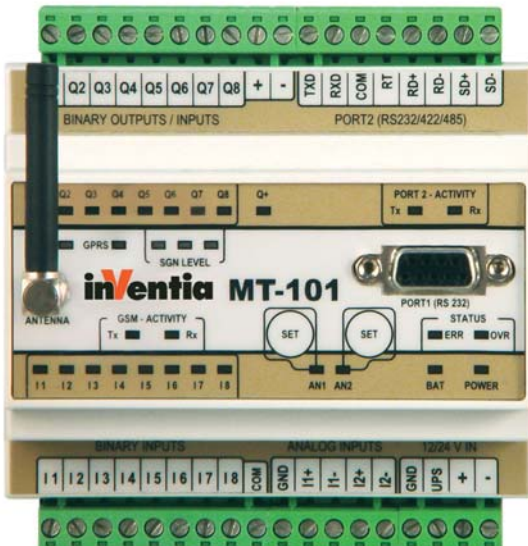
Compact, robust design, integral GSM modem, attractive technical features and easy to use configuration tools are important advantages of MT-101 in wireless, scalable, multinode systems for telemetry, control, diagnostic, surveillance and alarming.

**Resources**

- 8 optoisolated binary / counter inputs 24V DC (I1 - I8)
- 8 configurable binary outputs / inputs / counters 24V DC (Q1 - Q8)
- 2 optoisolated analog inputs 4-20 mA (8 bit acc. / 10 bit res.) with configurable hysteresis and filtration
- 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 binary inputs can be configured as counters or frequency-to-analog converters (0-2kHz)
- Programmable control functions using I/O's and configurable, event triggered flags (SMS sending, data sending / logging, output control, call in)
- Unsolicited messaging
- Event triggered Data Logger
- Dynamic SMS text insertion
- Simple, multipoint alarm configuration for both binary and analog inputs
- Additional manual alarm level setting capability for analog inputs A1, A2 (front panel push buttons)
- External, optoisolated RS 232/422/485 serial port for data transmission
- Serial port emulated protocols in GPRS mode:
  - MODBUS RTU (Master and Slave)
  - Transparent, intelligent modem
- Smart MODBUS RTU routing
- Multibroadcast for transparent mode
- Local or 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	Active	Max
	0,10	0,35	0,60
Input current (A) (for 24V DC)	Idle	Active	Max
	0,05	0,17	0,30

**Inputs I1...I8**

Input voltage range	-36 ... 36 V
Input resistance	5,4 kΩ
Input voltage ON (1)	> 9V lub < -9V
Input voltage OFF (0)	-3V ... 3V

**Inputs Q1...Q8**

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

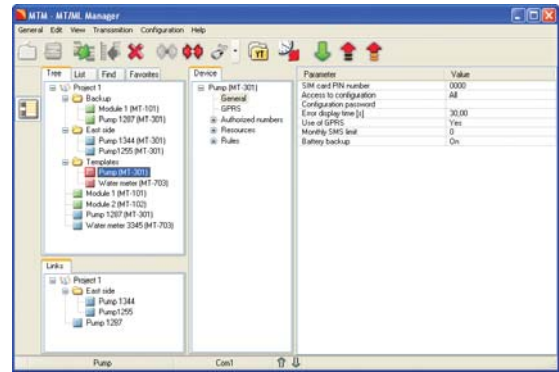
**Outputs Q1...Q8**

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.

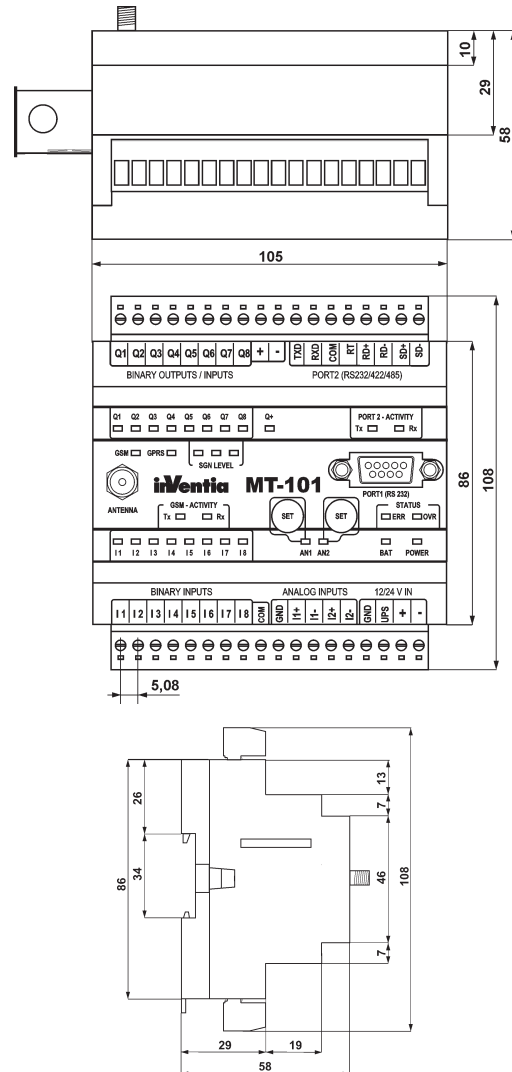
**Analog inputs A1, A2 (4...20 mA)**

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.

**Configuration utility**



**Drawings and dimensions (in millimeters)**



**Additional info:**



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