

- Integral GSM 850/900/1800/1900 modem
- Binary inputs and outputs (4/4)
- Analog inputs (2)
- USB port
- 1-Wire inputs (2)
- Direct Pt100 and NTC sensors reading
- DIN rail mounting
- Configurable via SMS – no PC needed
- E-mail messaging via GPRS



Telemetry Module MT-021 with built-in GSM modem is a device dedicated for remote monitoring, diagnostics and control of objects via short text messages (SMS/e-mail) or CLIP calls. Configurable messages send from device with static (text) or dynamic (text and measured values) content are a convenient way of passing important information to the monitoring center, or directly to the defined phone numbers. SMS and e-mail messages sending can be triggered by change of binary input state, reaching alarm thresholds, marker state change, counters and clocks. Industrial design, practical set of I/O resources, easy to use software tools as well as the ability to configure the module from remote via SMS commands are significant advantages of MT-021 in the wireless telemetry systems. Direct connection of temperature sensors lowers the cost of building system. 1-Wire inputs can be used for reading typical Dallas pellets for the purpose of identification and authentication. The module can work with humidity sensors, water level sensor, pressure transducers, flow sensors, smoke, gas, motion, shock and noise detectors, etc.

Typical applications:

- Alarm systems
- Access control
- Preventive diagnostic
- Remote meter reading (AMR)
- Remote control of various devices by CLIP call or SMS (gates, pumps, heating, lighting, etc.)

Resources

- 4 optoisolated binary inputs
- 4 relay – potential less outputs
- Dedicated Pt100 input (2- or 3-wire) that can be configured to operate as voltage (0 – 10 V/0 – 5 V) or current (4 – 20 mA) analog input
- Dedicated NTC sensor input that can be configured to operate as voltage (0 – 10 V/0 – 5 V) or current (4 – 20 mA) analog input
- Two 1-Wire inputs that can operate also as serial ports
- A USB port for configuration and diagnostic equipment
- Real Time Clock (RTC) with the possibility of external synchronization

Functionality

- Two-way communication via SMS and e-mail alarming
- Possibility to send SMS and e-mail messages on raise of alarm or according to schedule
- User-defined rules triggering communication (SMS, CLIP calls, e-mail) on binary inputs, timers flags, counters flags or registers, and internal markers state change
- Binary inputs functionality:
 - configurable input filtering;
 - possibility of counting pulses in a user-specified range (max. 2 147 483 647) and direction (increase/decrease counter value)
- Analog values measurement:
 - temperature measurement with Pt100, NTC or 1-Wire sensors;
 - voltage measurement in 0 – 10 V or 0 – 5 V range;
 - current measurement in 4 – 20 mA range;
 - possibility of linear scaling results of the measurements to engineering units;
 - 4 alarm levels, alarm hysteresis, filtration and deadband parameters defined exclusively for each analog input
- Control outputs functionality:
 - bistable or monostable output with user-defined pulse duration time;
 - local control – control output state is changed by events;
 - remote control – output state is changed by writing via SMS/ingoing CLIP call value to module's register
- Universal Timers functionality:
 - synchronization with internal RTC clock;
 - user-defined counted time range
- Configuration via USB port or from remote using SMS commands
- Dynamic insertion of the variables (e.g. temperature measurement, binary input state) into SMS text messages
- DTMF codes support
- Possibility of setting limits for SMS transmission
- Internal logger – records the history of device operation; capacity up to 48 000 entries
- 9 – 30 V DC accepted power supply
- DIN rail mounting
- SMA antenna connector
- Reach diagnostic LED set (module status, GSM communication activity, GSM signal strength, binary I/O's state)
- User-friendly configuration tools



4DI / 4DO

2AI



DIN RAIL

MT-021

GSM Modem

Power

Binary inputs I1 – I4

Outputs Q1 – Q4

Analog/Pt100 input AN1 – temperature measurement

Analog/NTC input AN2 – temperature measurement

Analog inputs AN1, AN2 – voltage measurement

Analog inputs AN1, AN2 – current measurement

Configuration environment



INVENTIA Sp. z o.o.

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