

- Integral 2G/4G modem
- Autonomous login into GSM/GPRS/LTE network
- 8 opto-isolated binary/counter inputs
- 2 opto-isolated binary outputs
- 1 relay output
- 1 voltage analog input
- AUDIO output for standard Intercom
- Capability of replaying recorded voice announcements
- Automatic alarm transmission upon activation of ALARM input (SMS/GPRS/GPRS/LTE)
- Automatic reception of incoming voice calls, callback function
- Automatic confirmation of performed voice connections
- Optional communication port for monitoring and diagnostics of peripheral equipment (RS-232, RS-485)
- USB-C port for module configuration
- Detachable terminals



The MT-513 Specialized Alarm Module for lifts and communication posts (e.g. on the motorway, bike road) is a dedicated device compliant with the standard PN-EN 81-28+AC:2019-04 „Remote alarm on passenger and goods passenger lifts“.

The module monitors 8 binary inputs, controls 3 outputs, can establish a voice connection with Service Center and reply recorded messages. Optionally, the module can be equipped with RS-232 or RS-485 communication port for monitoring and diagnostics of peripheral equipment. It also allows to monitor the status of the emergency power supply using the voltage analog input. Module has USB-C configuration port.

Thanks to employed wireless GPRS/LTE transmission the module is an ideal solution for applications where there are no phone landlines or where reliability optimization and cost reduction of monitoring systems is desired.

Compact design, integral GPRS/LTE modem, carefully selected technical parameters, interfacing elevator's standard Intercom make MT-513 an optimal choice for new installations as well as an upgrade during maintenance of existing elevators.

Resources:

- 1 dedicated, opto-isolated alarm input with adjustable delay of insensitivity for repetitive activations
- 7 opto-isolated binary/counter inputs
- 2 opto-isolated controlling outputs "high side", 1 relay output
- AUDIO output adapted for standard Intercom 4+n
- Optional RS-232 or RS-485 serial port for peripheral equipment (monitoring, diagnostics)
- Flash memory for configuration data, remotely updateable
- RTC real time clock

Functionality:

- Transmission modes
 - » GPRS/LTE – packet transmission
 - » SMS
 - » AUDIO
- Unsolicited messaging upon ALARM input activation, on state change on binary input or according to a schedule.
- Possibility to define alarm events as a result of activation of the alarm input, change of state on the binary input or output, exceeding the range on the counter input, device restart, logging into the GPRS/LTE network or dialling/activation the voice connection. Information can be made available to defined recipients via SMS messages or in the form of data frames generated on the basis of configured events directed to a customer remote service center
- Programmatically set insensitivity time for ALARM input in order to prevent sending multiple alarms on the same event by repetitive activation of ALARM button.
- Programmable filtration constant for binary inputs
- Automatic confirmation of performed voice connection
- Data transmission from/to devices connected to communication port (optional)
- Remote configuration of parameters
- Access control based on authorized IP and phone numbers list with optional password protection
- User friendly configuration tool
- Easy integration with Service Center software
- LED diagnostics (power supply, status of binary inputs and outputs, analog input, GSM communication activity, GSM signal strength, GPRS activity, USB port activity, additional communication port activity, active voice connection, error in operation)
- Detachable terminals
- Power supply 9 – 30 V DC
- DIN rail mounting



8DI/3DO

1AI

DIN RAIL

RS-232
option

RS-485
option

INTERCOM



General

Dimensions (length x width x height)	105 x 86 x 58 mm
Weight	300 g
Mounting mode	DIN Rail 35 mm
Operating temperature	-20 to +55 °C
Protection class	IP 20

GSM modem

Modem type 2G/4G Cat 1	SIMCom A7672E
Region	Europe, Asia
2G	900, 1800 MHz
4G LTE Cat 1	B1, B3, B5, B7, B8, B20
Antenna socket	50 Ω SMA-F

Power supply

Power voltage range DC (nom. 12 V/24 V)	9 – 30 V DC		
Input current @25°C	Idle	Active	Max
12 V DC	0,04 A	0,1 A	1,0 A
24 V DC	0,02 A	0,05 A	0,5 A

Binary Inputs I1 – I8/ALARM

Input type	Voltage, optoisolated
Signal voltage range	0 – 30 V
Input ON (1) voltage	> 9 V @ 1,5 mA
Input OFF (0) voltage	< 3 V @ 0,4 mA
Maximum pulse frequency	250 Hz
Minimum pulse duration	2 ms

Binary outputs Q1, Q2

Output type	Solid state, isolated, NO
Power supply range Q+	7 – 30 V
Recommended load current	0,2 A
Maximum load current	0,5 A
Current limiting (max.)	1,5 A
Voltage drop (VQ+ - IQX) @0,2 A @0,5 A	<1,9 V ; 1,25 V (typ.) <3,4 V ; 1,9 V (typ.)

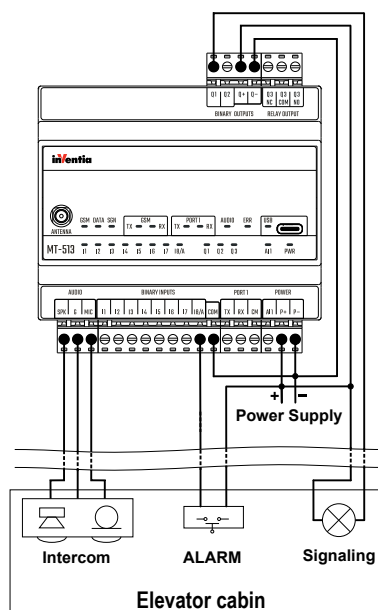
Relay output Q3

Output type	Relay, isolated, NO
Maximum voltage between contacts	125 V AC / 30 V DC
Load current	1 A (resistive) 0,3 A (inductive)
Resistance	< 80 mΩ

Analog input AN1

Input voltage range	0 – 15 V
Maximum input voltage	30 V
Input impedance	120 k Ω typ.
Accuracy	$\pm 1,5$ % max.
Nonlinearity	± 1 % max.

Application example



Drawings and dimensions (all dimensions in millimeters)

