

MT39-L1-ver. R

PLC Communication module



Module MT39-L1-version R is an intelligent interface between PLC communication line and connected device with serial line (i.e. PC, programmable logic controller, intelligent e-meter, etc.)

Module receives data from connected device via serial line (RS232, or RS 485) and subsequently transmits received data to the PLC communication channel.

Module can operate in pair mode, i.e. two modules MT39-L1-ver.R across each other. Two devices can be thus connected through two modules.

Module can also operate in the network mode, i.e. one master module (for example MT34-A-ver.R) and a group of modules MT39-L1-ver.R).

In both modes, modules conduct transparent transmission of received data (data are not modified at all).

Module is set up via RSET software from PC over serial RS232 interface. The programming mode is activated if the jumper (situated at the interface board below LED "485") is short-circuited, as described at User manual.

Technical data

Power supply

230V +10% - 20%
Screwing terminal board

Frequency

48Hz ÷ 60Hz

Output

max. 1,8W / 15W reception / transmission

External interface

PLC single phase communication channel according to CENELEC 50065-1, excluding the "agreed" frequency 132,5 kHz

PLC communication

Carrier frequency: 60kHz ÷ 145 kHz

Modulation: D-BPSK

Carrier amplitude: 10V_{pp} (R_Z=10 Ω)

Min. S/N ration: 9dB

Reception sensitivity: 1mV

Transmission and reception: 1 phase, N

Transmission rate: 10k Bd

Indication:

CONTROL - green LED indicates general status of module – if lit, the module is in normal operating mode

PWR – green LED indicates power supply

PLC TX – green led indicates transmission to the PLC network

PLC RX – yellow LED indicates if there is a useful signal in PLC network

INPUT binary interface

Not used

OUTPUT binary interface

Not used

External interface

one serial communication channel RS232

Galvanic isolation: YES
Transmission rate: 300 ÷ 115 200 Bd
Data format: 8-N-1
Hardware control : YES (depends on settings)
Buffer for reception: 1024 byte
Connector: CANON 9 female

One serial communication channel RS485

Galvanic isolation: YES
Transmission rate: 300 ÷ 115 200 Bd
Buffer for reception: 1024 byte
Connector: screwing terminals

ATEENTION! Only one selected serial channel can be used. There is NO galvanic isolation between RS232 and RS485 serial channels.

Serial channel indication:

TX – green LED indicates data transmission over serial line from module to the connected device.

RX – yellow LED indicates data reception over serial line from connected device to the module.

485 – yellow LED indicates what interface is used. If lit, RS 485 is used, if idle, RS 232 is used.

IP Code

IP 00

If higher IP code is requested, it is necessary to insert module into proper box or switchboard.

Safety

Module is produced at the safety class No. 2
Dielectric strength between primary and secondary circuits: 4 kV 50Hz / 1min

EMC

Electrostatic resistance:
8kV according to IEC 61000-4-2
Radiofrequency resistance:
80 MHz ÷ 2 GHz:
10 ÷ 30 V/m according to IEC 61000-4-3
Burst test:
4kV according to IEC 61000-4-4

Size and mounting

w x h x d 162 x 98 x 60 mm

Weight: c. 600g

Mounting: module is embedded in the frame for DIN 35 bar mounting

Climate environment

Operation temperature: -40°C ÷ 70°C
Storage temperature: -40°C ÷ 70°C
Rel. humidity: 0 ÷ 80%