DESCRIPTION

The measuring unit for DC quantities is a module packed in a plastic housing intended for installation on a DIN mounting rail. The box is PHOENIX type ME MAX 22.5 U-U1 KMGY, width: 22.6 mm, height: 99 mm, depth: 113.65 mm. The unit enables the measurement of 3 voltages, 3 currents, 2 temperatures and an isolation resistance.
On the front of the box there are 2 connectors, one 6-pin with a contact spacing of 7.5 mm for the connection of measuring voltages and another 6-pin connector with a contact spacing of 3.5 mm for the connection of 3 current shunts. The insulation resistance can be measured via the second voltage input.
On the upper side of the box there are 4 two-position switches (DIP switch) and a signal led.
On the back side of the box, in addition to the acceptance for mechanical fastening, there are outputs on the PCB made so as to enable connection to the "DIN rail bus connector" (PHOENIX type ME 22.5 TBUS 1.5/ 5-ST-3.81 KM – 2713722) through which the power supply and CAN communication are realized.
On the bottom side of the box are two RJ11 connectors for CAN communication and one 4-pin connector for connecting 2 temperature probes.

Front side

Bottom side

Top side


Back side

Meaning of individual switches on the upper side of the box (DIP switch):

Switch 1: ON position - 120 ohm terminating resistance on, OFF - resistance off.
Switches 2 and 3 determine the CAN ID of the module, namely:
Switch2 = OFF, Switch3 = OFF – module 1, CAN ID = 0x50
Switch2 = ON, Switch3 = OFF – module 2, CAN ID = 0x51
Switch2 = OFF, Switch3 = ON – module 3, CAN ID = 0x52
Switch2 = ON, Switch3 = ON – module 4, CAN ID = 0x53
Switch 4: Not used.

Signaling of the signal led:

Constant lighting: Communication with the supervisor established and ongoing.
Blinking with a frequency of 1 Hz: Communication with the monitoring unit has been interrupted for more than 3 seconds.

Electrical characteristics:		
Supply voltage	8 – 12	V
Supply current max.	100	mA
Voltage range of voltage inputs	0 – 310	V
Accuracy of voltage channels	0.3	%
Current range of current inputs	+-60	mV
Accuracy of current channels	0.5	%
Probes for temperature inputs	KTY81-220	
Temperature measurement accuracy	2	%

CAN connector pins	Function
1,2	Power supply positive pole, +8 to +12 V
3	CANH
4	CANL
5,6	Power supply negative pole.