

MED Measurement of AC Voltage and Intensity with Communications RS485

Description and Applications

The MED is designed to measure the voltage and current of an electrical installation. It has a channel of communications via RS485, with protocol MODBUS. This allows remote monitoring operation of an electrical installation.

In the version /D, the auxiliary contact is activated when the nominal voltage falls below 25% and the intensity is greater than 80% of the nominal, which is useful in photovoltaic systems to indicate incidents on the network (internal shorts inverter).

The figure shows an example of application in a photovoltaic system.



Functional characteristics

- Permanently it measures the current and the voltage.
- Models for AC and DC.
- The currents are measured by Hall Effect device external to MED
- Green LED indicates an auxiliary voltage 230 VAC.
- Green LED indicating voltage presence. (> 25% UN)
- Green LED lights up when there is current flow (> 40% In).
- Led orange if RS-485 communication is active.
- Potential free changeover contact is activated to detect any impacts (model / D)

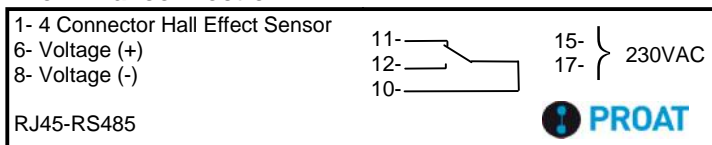
Construction Specifications

- Made with microcontroller.
- Plastic housing for rail installation.
- Screw on front cover.
- RJ45 connector for RS-485 output

Technical Data

- Auxiliary voltage: 230 VAC \pm 20%
- Consumption <3W.
- Communication speed: 1200-9600 bps
- Possibility of sending events if they fall in intensity. (change of level of intensity to > 0% to below 10%).
- Command format adaptable to each application. (Standard MODBus)
- Standards compliant:
 - Insulation test voltage or high-frequency disturbances
 - Fast transients
 - Surge
- Properties of relay contact
 - Continuous current: 3 A.
 - Max. switching: 230 VAC
 - Maximum switching power: 700 VA.

Terminal connection

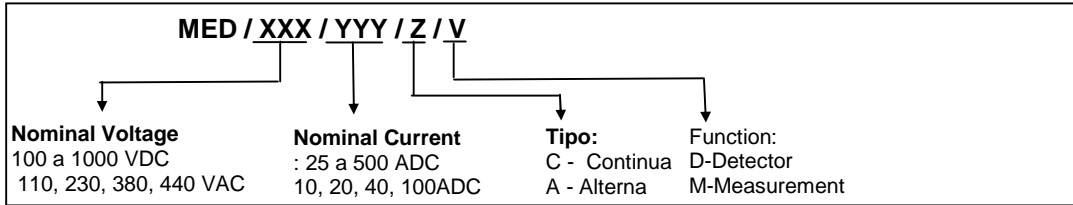


Output RS-485

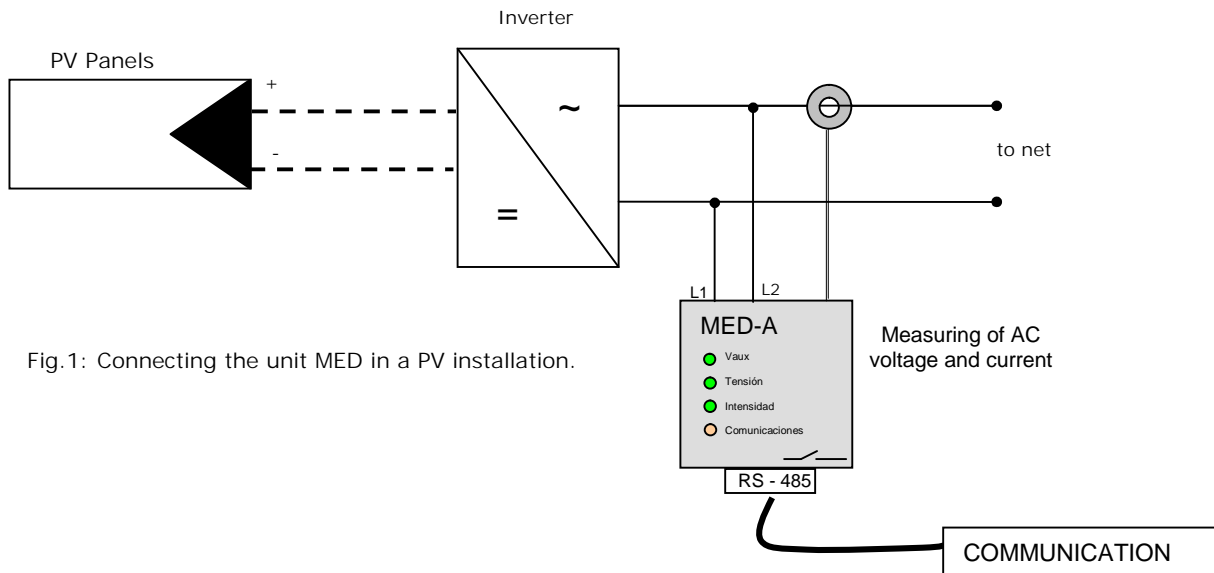


PROAT

Models

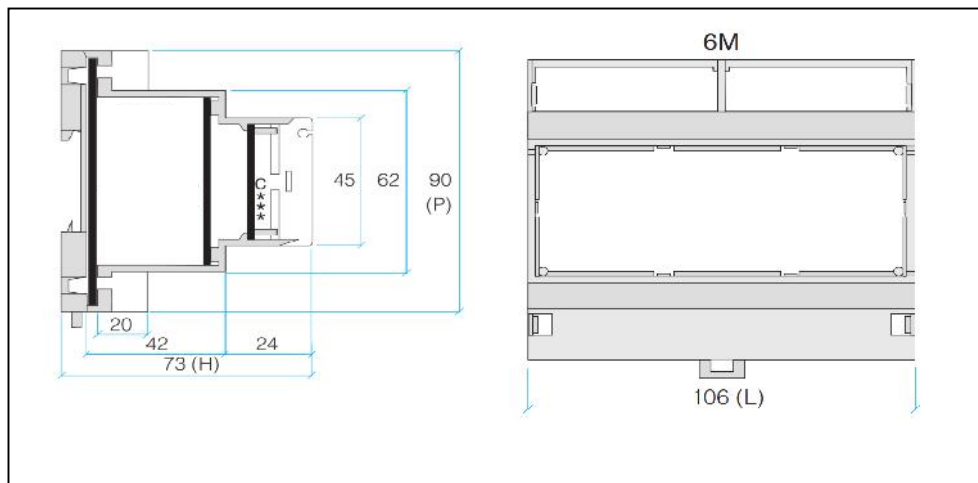


Example: In a PV system with solar panels voltage of 750 volts open circuit and short circuit current of 180 Amps would be chosen contact model MED/800/200/C/D



Box dimensions (mm)

Box for mounting into the bar OMEGA DIN EN 50022. Self-extinguishing plastic VO class



PROAT

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