MD22-AEF

serreco MESSTECHNIK

RMS CURRENT TRANSDUCER

Application:

The transducer is suitable to convert the AC true RMS current input to an analog DC voltage/current or a digital RS485 output.

Important features:

- Full digital operation (Icom System).
- Preset delivery or connecting to external device can be set (monIcom option).
- Automatic zero calibration.
- Plug in terminal blocks with screw.
- DIN rail case.
- EMC compliance.

Illustration only.

Technical specifications:

Input:

- Current input range (nominal sinusoidal): ... from 0…0.06 A to 0…5 A AC
- Input drop out voltage: ……. 60 mV (at nominal current, max. 0.3 VA)
- Input frequency range: ..... 45…440 Hz
- Crest factor (Ipeak/Irms): ..... max. 2.0
- Input insulation voltage: ..... Cat. III. 1 kV (Test: 4300 V_{eff} 1 min)
- Input measuring range: ……..... up to 120 %

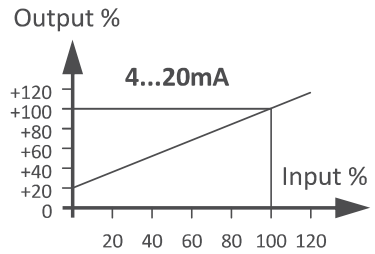
Output:

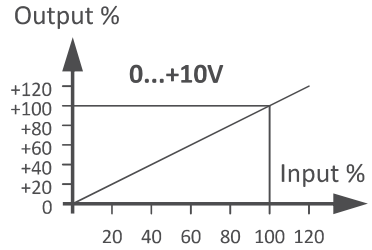
- Analog output range: .... 0..20 mA, ±20 mA, 4..20 mA, 0..10 V, ±10 V DC
- Output load: ..... for current: max. 500 ohm, for voltage: min. 2 kohm
- Output limits: ……..... max. 20 V, or 30 mA
- Output response time: ..... max. 300 ms
- Digital output: ……..…. RS485, Modbus-RTU, 9.6 / 19.2 kBaud
  Readable data: ……... instantaneous RMS current
- Accuracy (EN 60688): Class 0.5 or Class 0.2 (20 %..120 % input range)
  For ±20 mA and ±10 V output only ±0.5 % accuracy can be ordered.
- Temperature coefficient: ..... max. 200 ppm/ºC

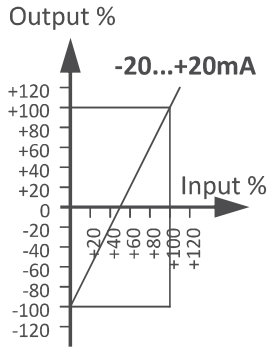
Other:

- Standards applied: ..... IEC/EN 61010-1, IEC/EN 61326, IEC/EN 60688
- Consumption: ..... max. 2 W
- Wire cross-section of terminals: ..... max. 2.5 mm^2
- Working temperature: ..... -10…+25…+60 ºC
- Storage temperature: ..... -40…+80 ºC
- Humidity: ..... max. 85 %
- Vibration (acceleration): ..... max. 2 g
- Dimension (HxWxD): ..... 101 mm x 22.5 mm x 80 mm
- Case protection: ..... IP 20
- Case material: ..... PC-GF
- Weight (with converter): ..... approx. 0.25 kg

Typical transfer characteristics:







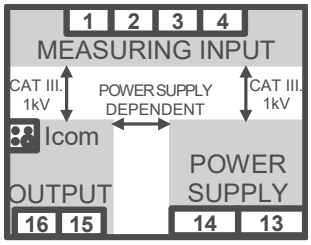
MD22-AEF

RMS CURRENT TRANSDUCER

Auxiliary Supply variations:

	(Voltage / Insulation)
5 V, 12 V, 24 V, 48 V DC ±50 %, **converter**	/ 1 kV
55…264 V, 47…440 Hz, and **72…370 V** DC, **converter**	/ 3 kV

Isolation scheme:

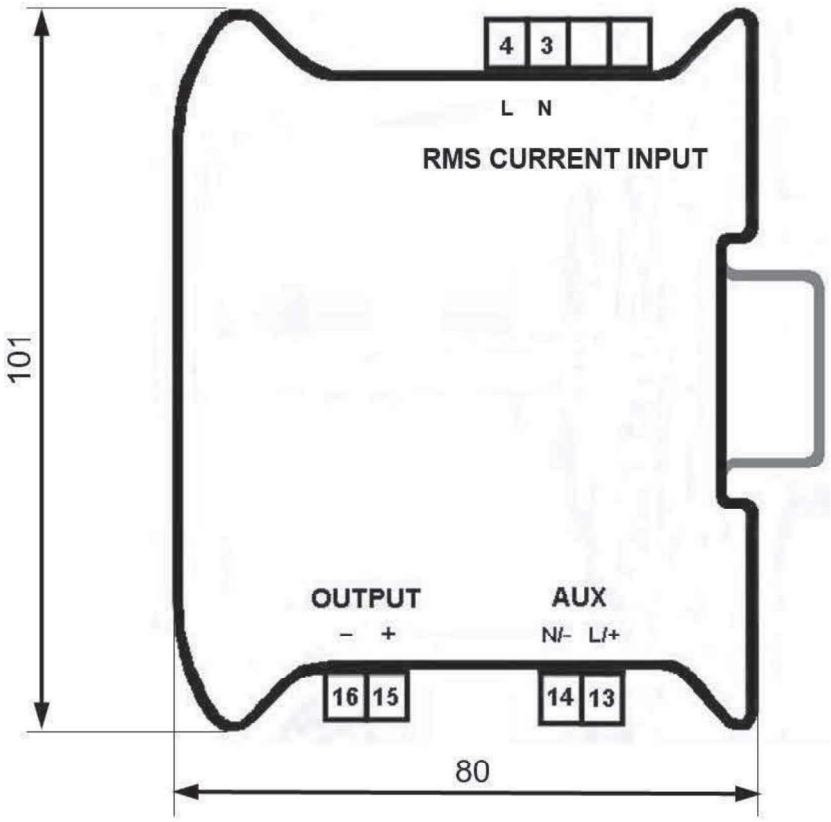


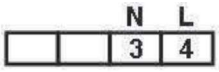
Ordering examples:

MD22-AEF _ Input: 0…5 A AC RMS **_ Output:** 4…20 mA DC, ±0.2 % **_ Aux:** 55..264 V AC converter
MD22-AEF _ Input: 0…1 A AC RMS **_ Output:** RS485 Modbus **_ Aux:** 24 V DC converter

On request for extra charge special ranges (Input, Output, Auxiliary Supply) are possible.

Outline dimensions and connection diagrams:





19-4983-07-1744-EN