

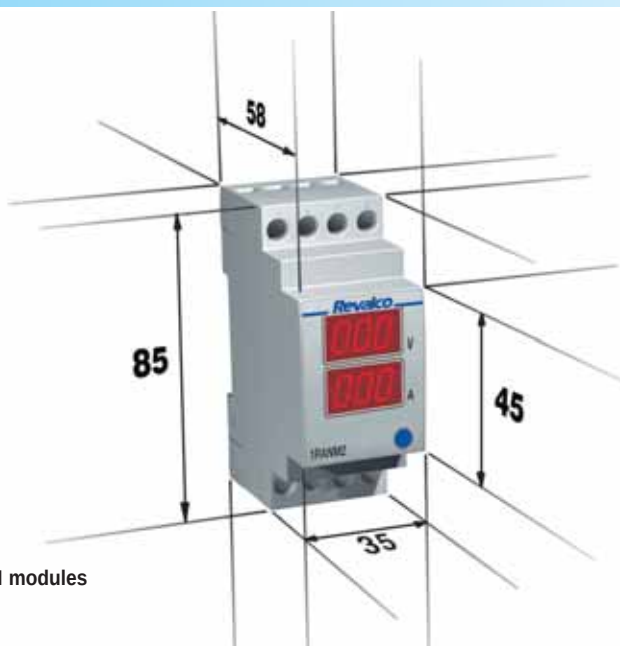
SINGLE PHASE MULTIFUNCTION METERS



GENERAL DESCRIPTION

- Two display 3 digit each
- Easy and immediate reading without possible incomprehensions or further elaborations.
- The use of one button only permits to change the measurements pages in natural way.
- During the program phase, the instrument shows the different possibilities present in the device, so it is not necessary to have in hands the user's manual all the time.
- The "power supply" page can be used in all the cases on which is important the information of "power supply loss" (e.g. in refrigerating machines and/or cold storage).
- The 2 modules dimension is the right compromise between the necessity to reduce the space and a good readability of measurements that it is one off the main scope in an electrical net.
- The possibility to reset the energy and contemporary the hour/minutes value permits, in easy way, to see the relative consumption in a fixed time.

DIMENSIONS in mm



- The 35 mm dimension correspond to 2 DIN modules
- Weight Kg.

TECHNICAL CHARACTERISTICS

	REFERENCES	1RANM2	1RANM2CT
■ MEASUREMENTS	- Ph-N voltage	•	•
	- Ph-Ph voltage	•	•
	- Current (direct connection)	•	
	- Current (connection by means of C.T.)		•
	- Power factor	•	•
	- Apparent power		•
	- Active power	•	•
	- Reactive power		•
	- Frequency		•
	- Active Energy *	•	•
	- Reactive Energy *		•
■ TWO ALARM OUTPUT RELAYS	- Partial working time *	•	•
	(contact NO 1000V-0,5A-20VA)	•	•

*resettable capacities

Auxiliary power supply

- nominal value U AUX 230V 50/60 Hz
- range 0.9...1.1 U_{AUX}
- max absorbed power 2 VA

Input voltmeter circuit

- direct insertion (Ph-N) Ph-Ph / Ph-N voltage max 300 V
- insertion by means of C.T. (Ph-Ph) max 500 V
- permanent overload 120%
- thermic overload (1 s) 150%
- input impedance of voltmeter circuit $\approx 2\text{M}\Omega$ Ph-Ph / Ph-N

Input ammeter circuit

- current: direct insertion max 32A
- insertion by means of C.T. 5A
- permanent overload 120%
- thermic overload (1 s) 200%
- range adjustment, CT ratio 5...999

Voltage measurement range

- VLN measurement range (voltage phase, direct insertion) 0...250 V
- measurement range insertion on CT 0...450 V
- accuracy class 0.5% f.s ± 2 digit

Current Measurement range:

- measurement range:
 - direct insertion 0,1...26A
 - accuracy class on range 0,1... 26A 0.5% f.s ± 2 digit
- measurement range:
 - insertion by means of C.T. 0,05...5A
 - accuracy class on range 0,05...5 A 0.5% f.s ± 2 digit

Frequency Measurement range:

- nominal value 50/60Hz
- range 45...65 Hz
- accuracy class 0.3% v.m ± 1 digit
- response time < 300ms

Active Power

- range
 - direct insertion 8 kW
 - insertion by means of C.T. 500 kW
- accuracy class 1% f.s ± 2 digit

Reactive Power

- range 500 kVAR
- accuracy class 1% f.s ± 2 digit

Apparent Power

- range 500 kVA
- accuracy class 1% f.s ± 2 digit

Active Energy (Wh)

- resettable visualization Two separate
- calculating period 15 minutes
- energy counting
 - direct insertion 999 / 9,99 kWh
 - insertion by means of C.T. 999 / 999 kWh
- accuracy class with current 0,05...1.0 In 2% fs ± 2 digit

Reactive Energy (VARh)

- energy counting resettable 999 / 999 kVARh
- calculating period 15 minutes
- accuracy class with current 0.05...1.0 In 2% fs ± 2 digit

Power Factor

- angle $\cos\phi$ -0,5...0...+0,5
- accuracy class with current 0.1...1.0 In and voltage 0.8...1.2 U_n 2% fs ± 2 digit

Working time

- Total working time hh:mm (in presence of aux power supply)
- Partial working time hh:mm (from previous reset)

Digital filter

- Average 1...15

Compatible current transformers

- Nominal current 5 A
- Ratio 1...200

Visualization

- display 2 numerical lines
- number of characters 6 on two lines
- colour RED

Mechanical characteristics

- mounting on DIN rail DIN50022/ encased DIN43700
- protection IP20/ frontal IP30

Electrical characteristics, options

- alarm relay coil-contact Galvanic insulation
- 3kV

Relay characteristics

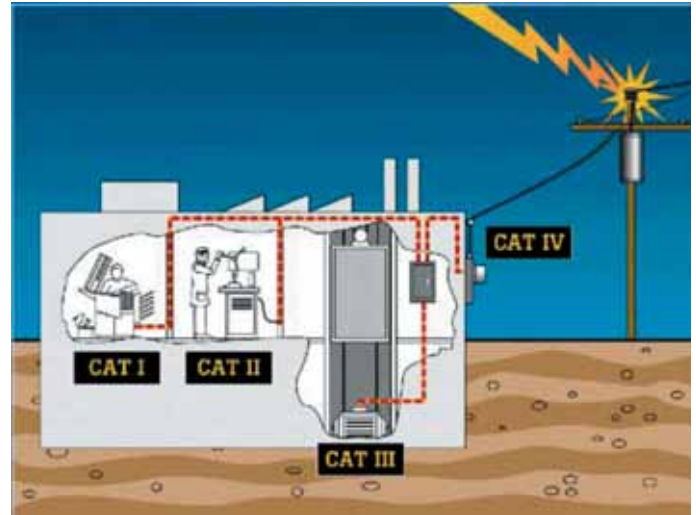
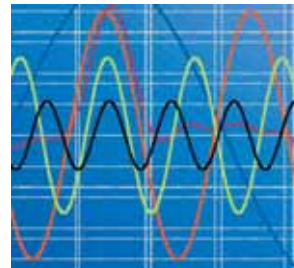
- N.O. contacts maxV...maxI...maxP 250V 10A 2500VA

Environment conditions

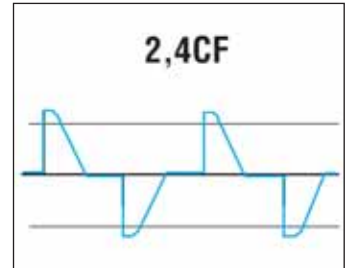
- Ambient temperature:
 - nominal temperature 0...+45 °C
 - range -5...+55 °C
 - storage temperature -10...+70 °C
 - humidity 10...95 %
 - atmospheric pressure 70...110 kPa

Standards CEI

- Safety CEI EN 61010-1 300V CLASS III
- Accuracy class CEI EN 60688
- Electromagnetic compatibility (immunity) CEI EN 61000-6-2 (ex EN 50082-2)
- Electromagnetic compatibility (emission) CEI EN 61000-6-4 (ex EN 50081-2)
- Protection IP CEI EN 60529

**MEASUREMENT'S TYPOLOGY**

True RMS up to the 20th harmonic wave



Crest factor up to 2,5 (Voltage and Current)

1RAEM2

OPERATION

CONFIGURATION SELECTION MENU

CONNECTION DIAGRAM

1RAEM2CT

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