

RC12: Current monitoring RV12: Voltage monitoring

3 metering inputs in each module

Adjustments for setpoint and hysteresis

Selectable relay inversion and AC/DC mode

DC supply or AC supplies up to 230 VAC

Made in accordance with the **CE** and EMC regulations



C-mac[®] current monitoring relay, type RC12, and voltage monitoring relay, type RV12, are universal metering relays, each supplied with 3 metering ranges, from 4 mA to 6 A or 400 mV to 600 V AC or DC, respectively.

The input range is chosen by use of the appropriate input terminal, and the choice of AC/DC metering and relay inversion is made by connection/disconnection of terminal 5 and 8 to common (terminal 7).

When the module is AC metering, the average value is metered, and the level adjustment is then calibrated to the r.m.s. value of a sinusoidal signal.

Metering ranges, max. input signals and input impedances (R_{in}):

Module	Range	max. input	input res.
RC 12	4 - 60 mA	200 mA	3.5 Ω
	40 - 600 mA	800 mA	0.35 Ω
	0.4 - 6 A	8 A	0.033 Ω
RV 12	0.4 - 6 V	50 V	11 k Ω
	4 - 60 V	150 V	111 k Ω
	40 - 600 V	650 V	1.11 M Ω

Common technical data:

Supply voltage, AC: 24, 115 and 230 VAC +/- 10%

Supply frequency: 40-70 Hz

Variable supply: 12-50 VDC or 48-250 VDC

Isolation voltage: Supply - input - output: 3.75 kV

Supply voltage, DC: 24 VDC +/- 10%
Note: With this DC-supply there is no isolation between supply and internal electronics.

Power consumption: 2,5 VA

Operation temp.: -20°C to +60°C

Humidity: 0 - 90% RH, non-condensing

Adjustments:

Level: Potentiometer, scale 0.4 to 6
Hysteresis: Potentiometer, scale 5 to 50%

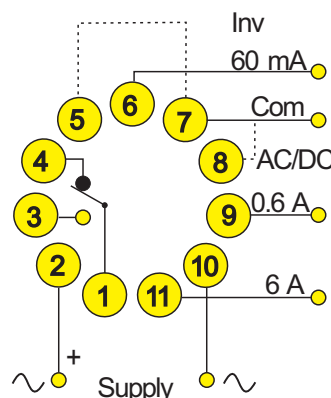
Indications:

Green LED: Supply voltage connected
Red LED: Relay active

Accuracy, scale: 5 %

Temp. coefficient: typ 0,1 % / °C

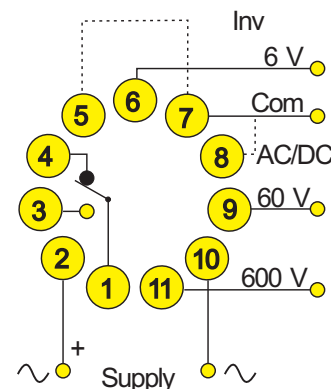
Max. load, relay: 1-pole: 8 A - 250 VAC
ohmic load



Connections RC12.

DC metering: 7-8 closed

AC metering: 7-8 open



Connections RV12.

DC metering: 7-8 closed

AC metering: 7-8 open

EMC and safety regulations.

Emmision: EN 50 081 - 1

Immunity: EN 50 082 - 2

Safety: EN 60 730

Approvals: The units are produced in accordance with the CE og low voltage regulations.

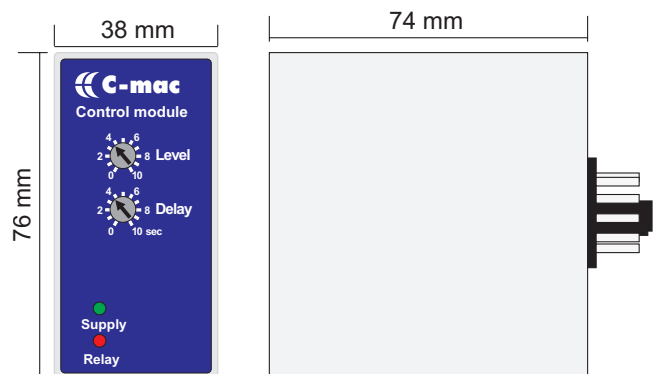
Ordering guide, RC12:

<u>supply</u>	<u>type number</u>
12-50 VDC	RC12-1-4-012
24 VDC	RC12-1-0-024
24 VAC	RC12-1-1-024
115 VAC	RC12-1-1-115
230 VAC	RC12-1-1-230

Ordering guide, RV12:

<u>Supply</u>	<u>type number</u>
12-50 VDC	RV12-1-4-012
24 VDC	RV12-1-0-024
24 VAC	RV12-1-1-024
115 VAC	RV12-1-1-115
230 VAC	RV12-1-1-230

Mechanical dimensions:



Materials and weight:

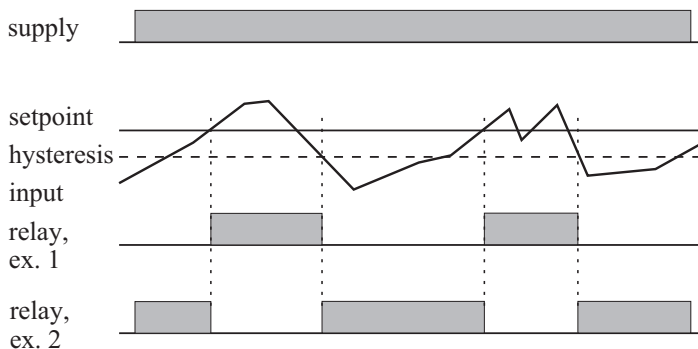
Housing: NORYL-SE-1, grey, self-extinguishing

Housing bottom: NORYL SE-1, GFN-2, black, self-extinguishing

Terminals: Nickel-plated brass

Weight: 170 g

Functional diagram:



Example 1, undercurrent/voltage monitoring
pin 6-7 not connected

Example 2, overcurrent/voltage monitoring
pin 6-7 connected