

RC12: Current

RV12: Voltage

- 3 metering inputs in each module
- Adjustments for setpoint, hysteresis
- Selectable relay inversion and AC/DC mode
- DC supply or AC supplies up to 230 VAC.



C-mac® RC12/RV12 are universal current monitoring relays and voltage monitoring relays. Both are equipped with 3 measuring ranges, and measure both DC and AC.

The input range is chosen by use of the appropriate input terminal, and the choice of AC- or DC-measuring is made by connecting terminal 8 to common terminal 7.

The output relay can either pull or drop off when the measuring current (RC12)/ measuring voltage (RV12) exceeds the set level. This function is chosen by connecting terminal 5 to terminal 7.

When the RC12 module measures AC current, the mean value of the actual current is measured, and the level adjustment is then calibrated to the effective value of a sinusoidal current.

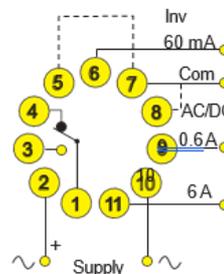
When the RV12 module measures AC voltage, the mean value of the actual voltage is measured, and the level adjustment is then calibrated to the R.M.S value of a sinusoidal voltage.

Technical data	
Supply voltage, AC	24, 120 and 230 VAC +/- 10%
Supply frequency:	40-70 Hz
Variable supply, :	12-60 VDC or 85-260 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 activated
	Red LED: Set-point exceeded
Accuracy, scale	5%
Temp. coefficient:	type 0,1 % / °C
Max. load, relay:	1-pole: 8A- 250 VAC Ohmic load

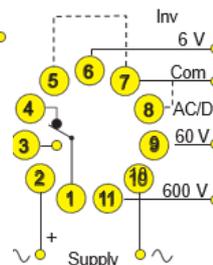
Metering ranges max. input signals and input impedances (R_{in}):

Module	Range	max. input	input res.
RC12	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
RV12	0.4 - 6 V	50V	11 kΩ
	4 - 60V	150V	111 kΩ
	40 - 600 V	650 V	1,11 kΩ

Connections

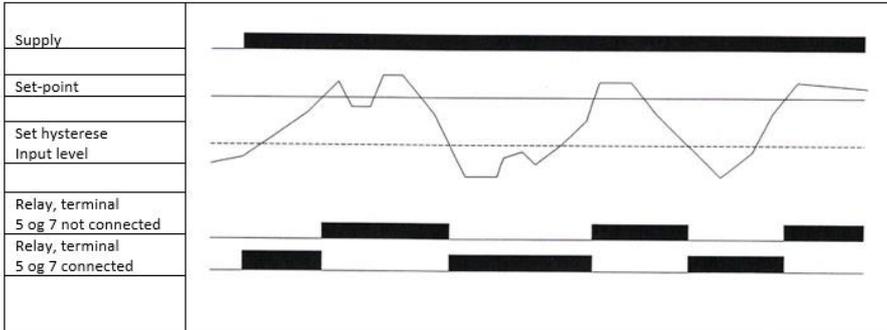


Connections RC12.
DC metering: 7-8 closed.
AC metering: 7-8 open

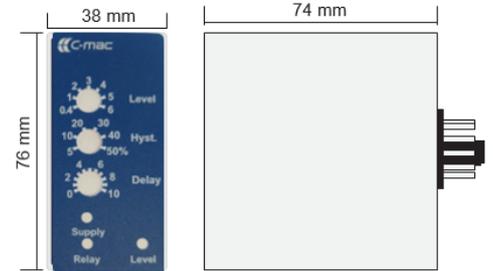


Connections RV12.
DC metering: 7-8 closed.
AC metering: 7-8 open

Functional diagram



Mechanical dimensions:



Ordering guide RC12			Ordering guide RV12		
Type	Relay	Supply	Type	Relay	Supply
RC12	1	0-024 = 24 VDC	RV12	1	0-024 = 24 VDC
		4-012 = 12 - 60 VDC			4-012 = 12 - 60 VDC
		1-024 = 24 VAC			1-024 = 24 VAC
		1-120 = 120 VAC			1-120 = 120 VAC
		1-230 = 230VAC			1-230 = 230VAC
		4-100 = 85 - 260 VAC/DC			4-100 = 85 - 260 VAC/DC
Eksempel:	RC12-1-0-024		RV12-1-4-012		

EMC and safety regulations

Emmision: EN50081-1
Immunity: EN50082-2
Safety: EN60730

Materials and weight:

Housing: NORYL-SE-1, grey, self-extinguishing
Housing bottom: NORYL SE-1, GFN-2, black
Terminals: Nickel-plated brass
Weight: 190 g

