

## RC10: Current

## RV10: Voltage

4 metering inputs in each module

Adjustments for setpoint, hysteresis and time delay

Selectable relay inversion, time delay and AC/DC mode

DC supply or AC supplies up to 230 VAC.



C-mac® RC10/RV10 are universal current monitoring relays and voltage monitoring relays. Both are equipped with 4 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 voltage exceeds the preset level. This function is chosen from a switch in the bottom of the module.

In addition to adjusting the setpoint for current/voltage and hysteresis it is possible to adjust the modul's reaction time from 0 to 10 sec., and at a switch in the bottom delayed relay activating or drop off can be chosen.

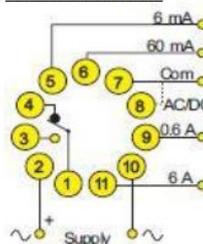
By AC-voltage measuring it is the average value, which is metered, and the level adjustment is calibrated to the r.m.s. value of a sinusoidal signal.

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%
	Time-delay: Potentiometer scale 0 to 10 sec.
Indications:	Green LED: Supply voltage connected
	Red LED: Relay active
	Red LED: Set-point exceeded
Accuracy, scale	5 %
Max. load, relay:	1-pole: 8A- 250 VAC Ohmic load

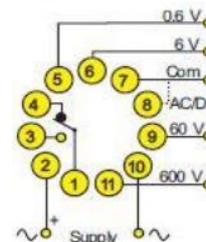
### Metering ranges max. input signals and input impedances (Rin):

Module	Range	max. input	input res.
RC 10	0.4 - 6 mA	80 mA	35 Ω
	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
RV10	40 - 600 mV	20 V	1 kΩ
	0.4 - 6 V	50V	11 kΩ
	4 - 60V	150V	111 kΩ
	40 - 600 V	650 V	1,11 kΩ

### Connections:



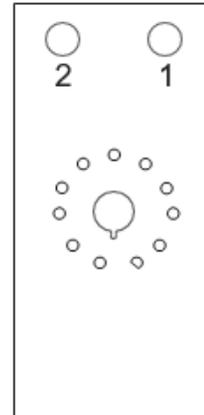
**Connections RC10.**  
DC metering: 7-8 open  
AC metering: 7-8 closed



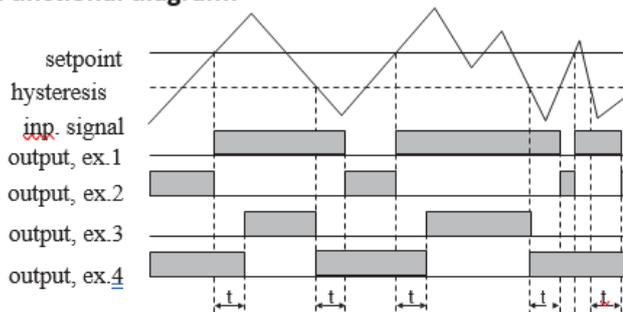
**Connections RV10.**  
DC metering: 7-8 open  
AC metering: 7-8 closed

Function selection:	
<b>Button 1:</b>	Delay on operate
	Delay on release
<b>Button 2:</b>	Relay inverted
<b>Ex.1:</b>	1 ON, 2 OFF
	Delay on operate, when level drops under setpoint.
<b>Ex.2:</b>	1 OFF, 2 ON
	Delay on operate, when level drops under setpoint
<b>Ex.3:</b>	1 OFF, 2 OFF
	Delay on operate when setpoint is exceeded
<b>Ex.4:</b>	1 ON, 2 ON
	Delay on release
	when setpoint is exceeded

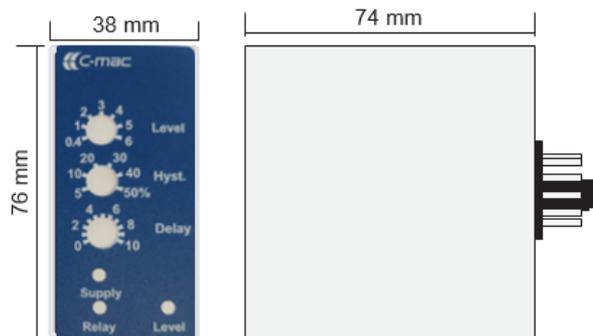
### Placement of function selection buttons



### Functional diagram:



### Mechanical dimensions:



Ordering guide RC10			Ordering guide RV10		
Type	Relay	Supply	Type	Relay	Supply
RC10	1	0-024 = 24 VDC	RV10	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:	RC10-1-0-024		RV10-1-4-012		

### EMC and safety regulations

Emmission: 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:** 210 g

