

DC voltage monitoring relay

Adjustment of setpoint and hysteresis

Selectable activation or release of relay

DC supply or AC supplies up to 230 VAC

1- or 2-pole relay output

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



The C-mac[®] module, type RV20 is a simple voltage monitoring relay for DC input signals.

The module is available for several different metering ranges, but the range must be specified at ordering, since each unit has only got one metering range.

By means of a connection at the relay base you can select, if the output relay should activate or release, when the setpoint is exceeded, in this way, the module can be used for both over- and under current monitoring.

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

Relay inversion: pin 6-7
Open: Relay releases at undervoltage
Closed: Relay releases at overvoltage

Adjustments:
Level: Potentiometer, scale 5 to 100%
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
2-pole: 5 A - 250 VAC,
ohmic load

EMC and safety regulations.

Emmision: EN 50 081 - 1

Immunity: EN 50 082 - 2

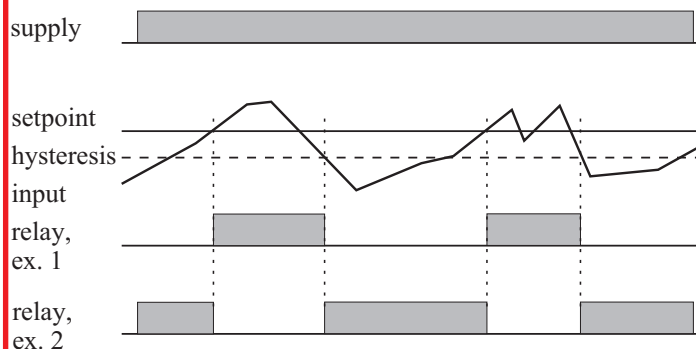
Safety: EN 60 730

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

Metering ranges RV20:

range	inp. resist.	max voltage
3 - 60 mV	150 Ω	1 V
7,5 - 150 mV	150 Ω	2 V
0,05 - 1 V	1 kΩ	10 V
0,25 - 5 V	3 kΩ	30 V
0,5 - 10 V	10 kΩ	50 V
1 - 20 V	20 kΩ	100 V
2,5 - 50 V	50 kΩ	150 V

Functional diagram:



Example 1, undervoltage monitoring
pin 6-7 not connected

Example 2, overvoltage monitoring
pin 6-7 connected

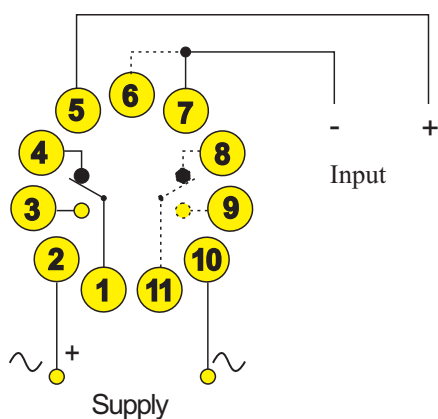
Ordering guide, RV20:

Supply	Type number.
12- 50 VDC	RV20-x-4-012-yyy
48-250 VDC	RV20-x-4-048-yyy
24 VDC	RV20-x-0-024-yyy
24 VAC	RV20-x-1-024-yyy
115 VAC	RV20-x-1-115-yyy
230 VAC	RV20-x-1-230-yyy

x = output relay: 1 = 1-pole
 2 = 2-pole

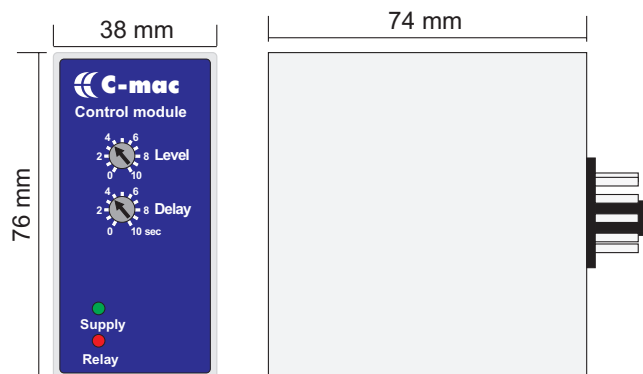
yyy = metering range: 60M = 3 - 60 mV
 150M = 7,5 - 150 mV
 1V = 0,05 - 1 V
 5V = 0,25 - 5 V
 10V = 0,5 - 10 V
 20V = 1 - 20 V
 50V = 2,5 - 50 V

Connections, RV20:



Connections 8-9-11: 2-pole version only.

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:	180 g