

Temperature monitoring relay for PT100 sensor

4 metering ranges in one module

Adjustments for setpoint and time delay

Selectable range, relay inversion and time delay

Cable resistance compensation

1- or 2-pole relay output

DC supply or AC supplies up to 230VAC



C-mac® monitoring relay, type RM34, is used for temperature metering in conjunction with Pt100 temperature sensors according to DIN 43760. a 3-wire metering principle is used, which means that the module compensates for the external cable resistance. The cable monitoring circuit also ensures that the relay will release in case of short-circuit or cable breakage. By means of a DIP-switch in the bottom of the unit you can select between 4 metering ranges and 4 different combinations of relay inversion and reaction delay.

With the relay inversion you can select, if the module unit is used for heating or cooling. The time-delay is adjustable between 0 and 10 sec. The module is available with either 1-or 2-pole relay output.

On the front of the module, you can adjust the setpoint and reaction-delay

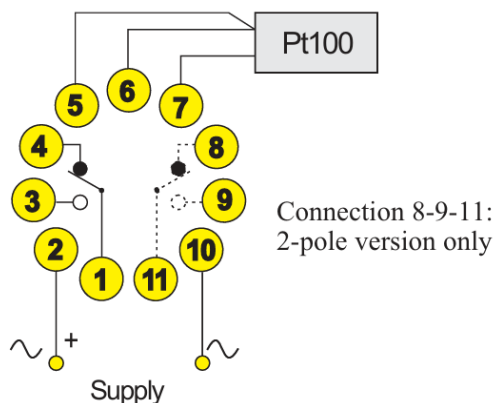
The module supplied for 24, 120 or 230 VAC supply or see the DC supply overview.

Function and range selection:

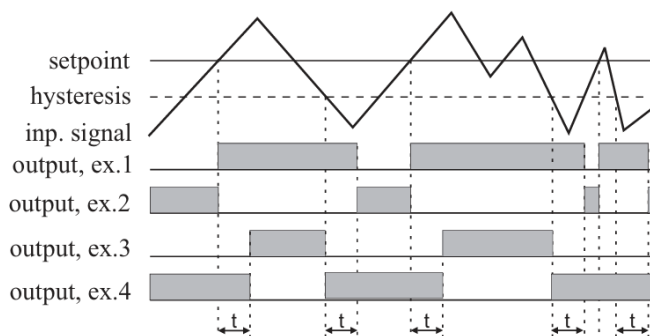
SW 1	SW 2	Eks. No	function
OFF	OFF	1	Relay activates, when setpoint is exceeded delay on release
ON	OFF	2	Relay releases, when setpoint is exceeded, delay on activate
OFF	ON	3	Delay on activate, when setpoint is exceeded
ON	ON	4	Delay on release, when setpoint is exceeded
SW 3	SW 4	Metering range	
OFF	OFF	-50 - + 50°C	
ON	OFF	0 - 100°C	
OFF	ON	50 - 150°C	
ON	ON	100 - 200°C	

Teknical data			
Supply, AC:	24, 120 og 230 VAC +/- 10%		
Supply frequency:	40-70 Hz		
Supply, DC:	12-60 VDC eller 85-260 VDC		
Isolation voltage:	Supply- input-output: 3.75 kV		
Power consumption:	3 VA		
Operation temp.:	-20°C to +60°C		
Humidity:	0 - 90% RH, non-condensing		
Temp coefficient:	< 0,01% / °C		
Indications:	Green LED:	Active:	Supply ON and input OK
		flashing:	Supply On and input signal outside the metering range or cable fault
	Red LED	Relay active	
Selection of function:	S1 - S2:	Relay inversion and reaction delay, see table and functional diagram	
	S3 – S4:	Selection of metering range, see table	
Adjustments:	Potentiometer 1:	setpoint, 0-100% of range	
	Potentiometer 2:	Reaction delay, 0-10 seconds	
Hysteresis:	1,5°		
Sensor connections:	Pin 5-6-7		
	Pin 5	Cable compensation	
	Pin 6-7:	PT100 sensor	
Max.load, relay:	1-pole	8 A – 250 VAC, ohmic load	
	2-pole	5 A – 250 VAC, ohmic load	

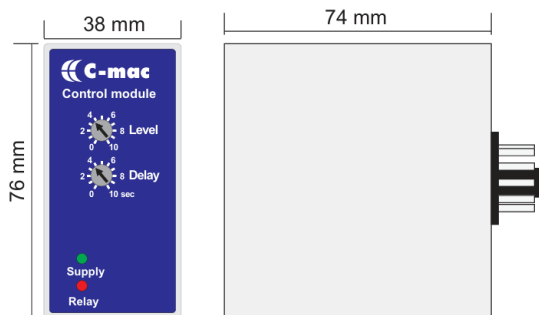
Connection diagram:



Functional diagram:



Mechanical dimensions:



Bestillingsvejledning		
Type	Relay	Supply
RM34	1 = 1-pole	4-012 = 12 - 60 VDC
	2 = 2-pole	4-100 = 85 - 260 VAC/DC
		1-024 = 24 VAC
		1-120 = 120 VAC
		1-230 = 230VAC
Eksempel:	RM34-1-230	

EMCog safety regulations

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



Materials and weight

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