Current control

➜ Single function current control relay with current transformer - 17.5 mm

- **Control of AC currents**
- **Built-in current transformer**
- **Measurement ranges from 2 A to 20 A**
- **Choice of output relay action**
- **True RMS measurement**

MIC

Crouzet

Part numbers

Type	Functions	Measurement range	Nominal voltage (V)	Code
MIC	Overcurrent (or undercurrent)	2 → 20 A	24 → 240 V ~	**84871122**

Product adaptations

custom'able

- **Customisable colours and labels**
- **Current range adjustable up to 50 A**
- **Adjustable fixed hysteresis**

General characteristics

Supply	
Supply voltage Un	24 V → 240 V ~
Voltage supply tolerance	-15% / +10%
Operating range	20.4 V → 264 V ~
Polarity with DC voltage	✓
~ supply voltage frequency	50 / 60 Hz ± 10%
Galvanic isolation of power supply/measurement	✓
Power consumption at Un	3 VA in ~ et 1 W in ⎓
Immunity from micro power cuts	10 ms
Inputs and measuring cicuit	
Measurement range	2 → 20 A
Permanent overload at 25°C	100 A
Pulse overload < 3 s → 25°C	300 A
Frequency of measured signal	40 → 70 Hz sinusoidal
Max. measuring cycle time	30 ms/True RMS measurement
Threshold adjustment	10 → 100% of the range
Fixed hysteresis	15% (fixed) of displayed threshold
Display precision	±10% of full scale
Repetition accuracy with constant parameters	± 0.5%
Measuring error with voltage drift	< 1%
Measuring error with temperature drift	± 0.05% / °C
Timing	
Response time	200 ms
Delay on pick-up	500 ms
Output	
Type of output	1 single pole changeover relay
Type of contacts	No cadmium
Maximum breaking voltage	250 V ~
Max. breaking current	5 A ~
Min. breaking current	10 mA / 5 V ⎓
Electrical life (number of operations)	1 x 10^5 manœuvres
Breaking capacity (resistive)	1250 VA ~
Maximum rate	360 operations/hour at full load
Operating categories acc. to IEC 60947-5-1	AC12, AC13, AC14, AC15, DC12, DC13, DC14
Mechanical life (operations)	30 x 10^6 manœuvres
Insulation	
Nominal insulation voltage IEC 60664-1	400 V
Insulation coordination (IEC 60664-1 / 60255-5)	Overvoltage category III: degree of pollution 3
Rated impulse withstand voltage IEC 60664-1/60255-5	4 KV (1.2 / 50 µs)
Dielectric strength IEC 60664-1/60255-5	2 KV AC 50 Hz 1 min.
Insulation resistance IEC 60664-1 / 60255-5	> 500 MΩ @ 500 V ⎓

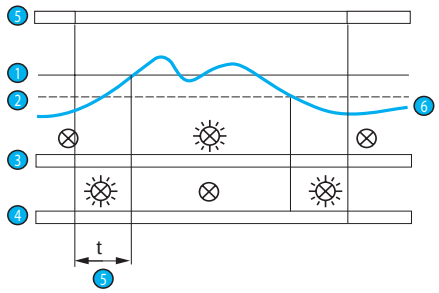
General characteristics

General characteristics	
Display power supply	Green LED
Display relay	Yellow LED
Casing	17.5 mm
Mounting	On 35 mm symmetrical DIN rail, IEC/EN 60715
Mounting position	All positions
Material: enclosure plastic type VO to UL94 standard	Incandescent wire test according to IEC 60695-2-11 & NF EN 60695-2-11
Protection (IEC 60529)	Terminal block: IP20 Casing: IP30
Weight	110 g
Connecting capacity IEC 60947-1	Rigid: 1 x 4^2 - 2 x 2.5^2 mm^2 1 x 11 AWG - 2 x 14 AWG Flexible with ferrules: 1 x 2.5^2 - 2 x 1.5^2 mm^2 1 x 14 AWG - 2 x 16 AWG
Max. tightening torques IEC 60947-1	0.6 → 1Nm / 5.3 → 8.8 Lbf.In
Operating temperature IEC 60068-2	-20 → +50°C
Storage temperature IEC 60068-2	-40 → +70°C
Humidity IEC 60068-2-30	2 x 24 hr cycle 95% RH max. without condensation 55°C
Vibrations according to IEC/EN60068-2-6	10 → 150 Hz, A = 0.035 mm
Shocks IEC 60068-2-6	5 g
Standards	
Marking	CE (LVD) 73/23/EEC - EMC 89/336/EEC
Product standard	NF EN 60255-6 / IEC 60255-6 / UL 508 / CSA C22.2 N°14
Electromagnetic compatibility	Immunity EN 61000-6-2/IEC 61000-6-2 Emission EN 61000-6-4/EN 61000-6-3 IEC 61000-6-4/IEC 61000-6-3 Emission EN 55022 class B
Certifications	UL, CSA, GL pending
Conformity with environmental directives	RoHS, WEEE

Principles

MIC
Overview
The MIC control relay is designed to control overcurrents (or undercurrents).
It has a built-in current transformer.

MIC - Overcurrent



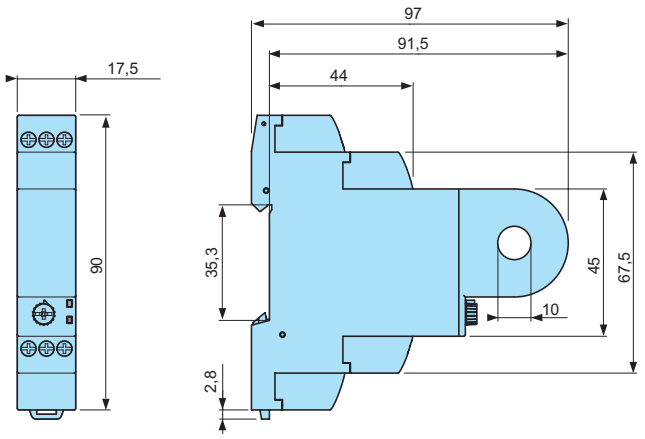
Operating principle
The MIC relay controls the overcurrent. The relay closes when the current exceeds the threshold displayed on the front face and opens when it falls below the threshold minus the hysteresis. When terminal Y1 is connected to A1 (+), the output is inverted. The relay opens when the current exceeds the threshold displayed on the front face and closes again when it falls back below the hysteresis (undercurrent).

Can be used for undercurrent control: ask your sales adviser.

1. Threshold
2. Hysteresis
3. Closing on threshold crossing mode (Y1 and A1 not connected)
4. Opening on threshold crossing mode (Y1 and A1 connected)
5. Unit power-up
6. Current control

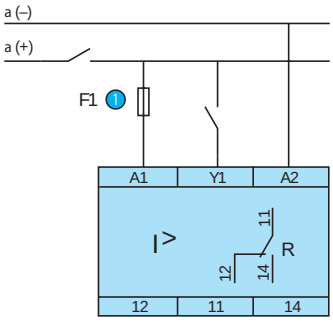
Dimensions (mm)

MIC



Connections

MIC



1. 100 mA fast-blow fuse or cut-out