TECHNICAL SPECIFICATIONS:

Product	CMU110
Supply Characteristics:	
Auxiliary Supply(⏚)	24-240 VAC/DC, -15% / +10%
Frequency (AC supply)	50/ 60 Hz, ± 10%
Power Consumption (Max.)	AC 3.5 VA, DC 1 W
Reverse polarity protection	Yes
Timing Characteristics:	
Power ON delay	500 ms
Reset time max.	200 ms
Measurement Characteristics:	
Function	Current monitoring relay
Input measurement range	2 - 20 A AC
Setting accuracy	± 10 % of full scale
Measuring error with drift temperature	0.05 %/°C
Measuring error with drift voltage	± 1 % across the whole range
Current sensing method	Built-in current transformer (CT)
Repeat accuracy	± 0.5 %
Permanent overload at 25 °C	100 A
Peak overload < 3s at 25 °C	300 A
Frequency of measured signal	40 to 70 Hz
Max. measuring cycle time	100 ms/True RMS measurement
Trip time	< 200ms
Current Threshold Hysteresis	15 % fixed of threshold
LED Indication:	
Power ON	Green LED ON
Over Load (OL)	RED LED ON
A1-B1 connection error in power ON	Power ON & OL LED: Flashing
Output Characteristics:	
Relay Output	1 C/O
Contact material	AgNi
Contact rating	10 A
Maximum breaking current	10 A AC 250 VAC resistive, 10 A DC 30 VDC resistive
Minimum breaking current	10 mA / 5 VDC
Utilization category	AC-15: 1A/ 250VAC, DC-13: 1A/24VDC
Relay Connection Configuration	Fail-Safe (A1-B1 short); Non-Fail-Safe (A1-B1 open)
Electrical life (operations)	1 x 10^5
Mechanical life (operations)	1 x 10^7
Mechanical Characteristics:	
Operating Position	Any
Dimensions in mm (W X H X D)	17.5 x 90 x 97
Mounting	Din rail Mounting (35mm)
Degree of Protection	Terminal block: IP20; Housing: IP30; Front fascia: IP50
Weight Approx. (Unpacked)	100 gm
Environmental Characteristics:	
Operating Temperature	-20° C to + 60° C
Storage Temperature	-40° C to + 70° C
Relative Humidity	95% RH (without condensation 55° C)
Maximum Operating Altitude	Upto 2000 m

Product	CMU110	
Product certification	CE, RoHS, REACH	
Product Standard	IEC 60255-26, IEC 60255-27	
Insulation:		
Rated Insulation Voltage U_i	250 V	
Over voltage category	III	
Pollution degree	3	
Insulation resistance	>500 Mohm at 500 VDC	
Dielectric strength	2 kV AC / 1min / 1mA / 50 Hz	
Rated Impulse withstand voltage U_{imp}	4 kV (wave 1.2 / 50 µs)	
EMC Compatibility		
ESD	IEC 61000-4-2	CD:6KV AD:8KV
Radiated Susceptibility	IEC 61000-4-3	80MHz to 2.7GHz @10 V/m 2.7GHz to 6GHz @3 V/m
Electrical Fast Transients	IEC 61000-4-4	4KV
Surge	IEC 61000-4-5	2KV for Line-Line 4KV for Line-Earth
Conducted Susceptibility	IEC 61000-4-6	150KHz to 80MHz 10V
Voltage Dips and interruptions	IEC 61000-4-11	
Power Frequency Magnetic Field	IEC 61000-4-8	30 A/m; 300 A/m
Conducted Emission	CISPR 32	
Radiated Emission	CISPR 11	
Environmental:		
Cold Heat	IEC 60068-2-1	
Dry Heat	IEC 60068-2-2	
Vibration	IEC 60255-21-1	10Hz to 150MHZ
Shock	IEC 60255-21-2	15gn(11ms) for not in operation 5gn(11ms) for in operation
Bump	IEC 60255-21-2	10gn 16ms
Seismic	IEC 60255-21-3	Horiz-1gn, Ver-0.5gn

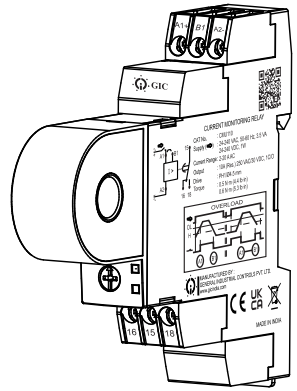
⚠CAUTION:

- Read and follow all instructions provided in the product leaflet before installation and operation.
- Ensure that the product specifications and ratings match the intended application before installation.
- Installation, wiring, and commissioning must be performed only by qualified electrical personnel.
- Maintain a minimum clearance of 10 mm on both sides of the device from adjacent equipment.
- Do not touch terminals while power is applied to the device.
- Tighten terminal screws to the specified torque to prevent loose connections and overheating.
- Provide suitable anti-vibration measures if the device is installed in environments subject to excessive vibration.
- Install the device in a clean environment, protected from water, moisture, dust, and excessive humidity.

⚠WARNING:

- This device shall be installed and serviced only by qualified personnel.
- Disconnect the power supply before installation, wiring, or maintenance.
- Ensure the rated supply voltage and current comply with the specifications on the product.
- Wiring shall be carried out in accordance with the provided connection diagram and applicable standards.
- Relay configuration must not be changed during power ON. Configure outputs only when power is OFF and reapply power afterward.
- Do not exceed the specified current ratings to avoid damage or malfunction.
- The device shall be mounted securely and used only within the specified environmental conditions.
- Do not open or modify the device. Unauthorized modifications may impair safety and void conformity.
- This device is not intended for use as a safety or emergency protection component.

CURRENT MONITORING RELAY SERIES CMR



Product Description:

The Current Monitoring Relay is a compact, DIN-rail–mounted solution for dependable over-current monitoring and protection in electrical and industrial systems. It continuously measures load current using an in-built current transformer (CT), eliminating the need for external CTs and simplifying installation. Adjustable trip settings, selectable fail-safe or non-fail-safe operation, and clear LED status indications ensure flexible configuration and easy system monitoring.

Functional Description:

The current Monitoring relay monitors overload conditions using an integrated current transformer. When the measured current exceeds the adjustable threshold, the relay output changes state within a typical response time of < 200 ms, indicating a fault condition.

The relay resets automatically when the current falls below the threshold minus a fixed hysteresis of 15% of the set value, ensuring stable operation.

The Relay output logic can be inverted by connecting terminal B1 to A1 (+). A fault LED illuminates whenever an overload condition is present and turns off after the fault is cleared.

Key features:

- True RMS measurement.
- Wide operating voltage 24-240V AC/DC
- Inbuilt CT
- Measuring range 2 – 20A
- LED indication for healthy and faulty status
- 1 C/O relay output configurable as fail safe or non-fail safe
- CE & RoHS compliant

Application:

- Motor protection and monitoring.
- Pump and compressor control
- Heater and resistive load protection
- Conveyor and machinery load supervision
- Industrial control and automation panels

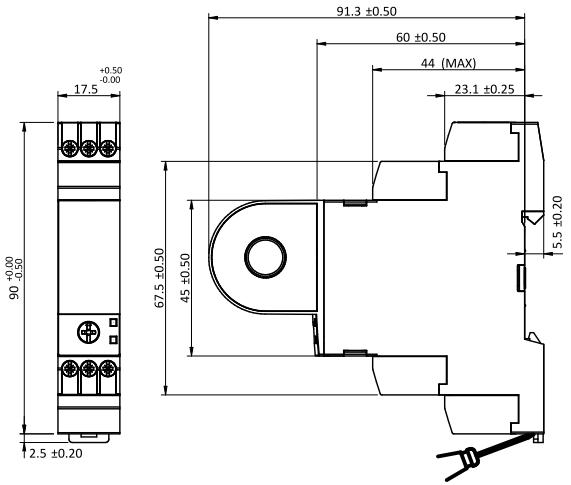
Ordering Information:

CMU110	24–240 VAC/DC, Current monitoring 2-20A, 1 C/O

In case of complaint, Contact:
GENERAL INDUSTRIAL CONTROLS PVT. LTD.
T-107, MIDC, BHOSARI, PUNE - 411 026, MAHARASHTRA, INDIA.
Contact No.: +91 20 46232323, Email: service@gicindia.com
For Technical Assistance:
Email: App.engg@gicindia.com

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Mounting Dimensions:



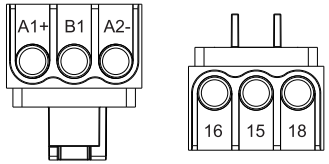
INSERT SCREW DRIVER
TO RELEASE DIN RAIL CLIP

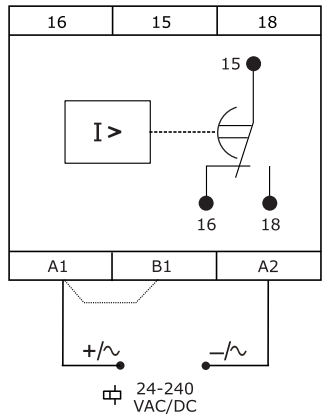
Note: All dimensions are in mm

Terminal Details:

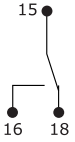
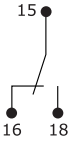
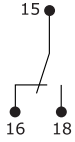
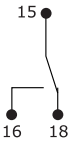
PH1/ Ø4.5 mm	0.5 - 0.6 N.m (4.4 - 5.3 lb.in) Terminal screw - M3
	1 X 0.5 ....2.5mm² Solid/Stranded Wire
AWG	1 X 20 to 14

Connection Diagram:

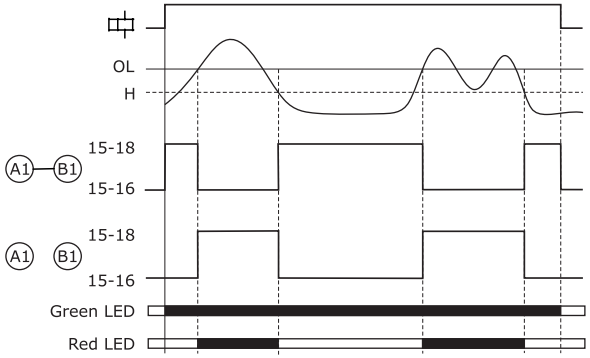




Relay Configuration:

Device status	Relay Configuration		LED Indication
	Fail Safe	Non-Fail Safe	OL LED (Red)
	A1—B1	A1 B1	
Healthy condition (<I)			OFF
Overload (>I)			ON

Function Diagram:



Green & Red LED flashing: If the relay output configuration(A1,B1 connections) is changed during power ON, both Power and Fault LEDs flash, indicating an invalid configuration. The relay configuration does not change and remains in its last operational set state.

Note: To change the relay Configuration, power OFF the device, make the A1, B1 connections, then reapply the power.

Note:

- This device is only for indoor use.
- The technical information provided in this document was correct at the time of publish.
- Product innovation being a continuous process, we reserve the right to alter specifications without any prior notice.

E-Waste Regulatory notice:
Kindly treat, recycle or dispose of this equipment in an environmentally sound manner after End of Life, as per WEEE (Waste Electrical and Electronic Equipment) regulations or as per local norms or hand it over to General Industrial Controls Pvt. Ltd, through website https://www.gicindia.com/get-in-touch/

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