Type: LMCCR-10A

Multifunction, Combined Current Relay

Terminal Protection to IP20



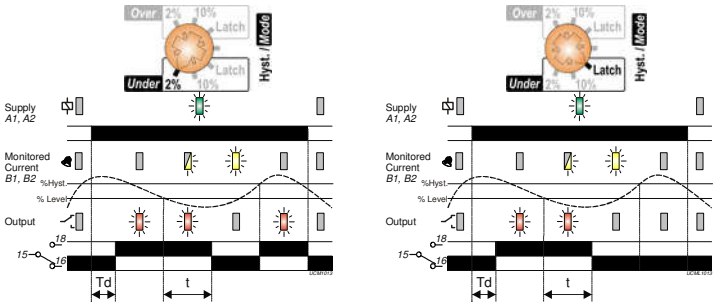
Dims: to DIN 43880
W. 17.5mm

- ❑ ***NEW*** **17.5mm DIN rail housing**
- ❑ **Microprocessor based**
- ❑ **True R.M.S. monitoring**
- ❑ **Monitoring input (0.2 – 10A) split in to 3 selectable ranges**
- ❑ **Selectable Under or Over current monitoring**
- ❑ **Selectable hysteresis or latch option**
- ❑ **Adjustable trip level and time delay**
- ❑ **Isolated Auxiliary supply (24 – 230V AC/DC) [1]**
- ❑ **1 x SPDT relay output 8A**
- ❑ **Green LED indication for supply status**
- ❑ **Yellow LED indication for alarm status**
- ❑ **Red LED indication for relay status**

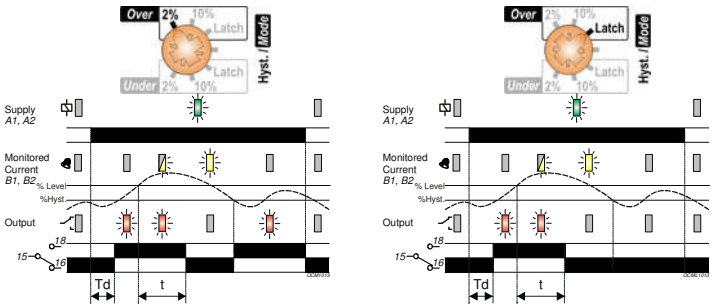
ISO 9001:2015
Cert. No. 14125771

FUNCTION DIAGRAMS

Under Current Monitoring (with and without Latch enabled)



Over Current Monitoring (with and without Latch enabled)



INSTALLATION AND SETTING

Installation work must be carried out by qualified personnel.

- BEFORE INSTALLATION, ISOLATE THE SUPPLY.
- Connect the Auxiliary and Monitored Inputs as required.

Setting the unit.

- Set the "Hyst. / Mode" selector ❼ to the required position depending whether under or over monitoring is required. Select either a suitable hysteresis setting of 2% or 10% or choose Latch if required.
- Set the "Range" ❻ to the required position (depending on monitored input current to be monitored). Set the "Power Up Delay" according to whether start up currents are likely in the application.
- Set the "Trip Level %" ❺ and "Delay" ❹ to suit the selected monitoring range and delay to tripping period.

Applying power.

- Apply power and the green LED ❶ will illuminate.

If Under current mode is selected:

- Relay energises / red LED ❸ illuminate if the current is above the set "Trip Level". If the current falls below the "Trip Level", yellow LED ❷ flashes for the set "Delay" then remains lit. Red LED extinguishes / relay de-energises.

If Over current mode is selected:

- Relay energises / red LED ❸ illuminate if the current is below the set "Trip Level". If the current rises above the "Trip Level", yellow LED ❷ flashes for the set "Delay" then remains lit. Red LED extinguishes / relay de-energises.

TECHNICAL SPECIFICATION

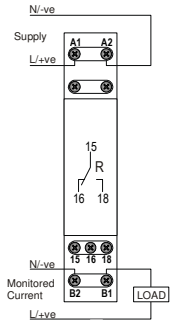
Auxiliary supply voltage U **(A1, A2)**:	24 – 230V AC/DC [1](12 – 60V AC/ DC also available)			
Frequency range:	48 - 63Hz (AC supplies)			
Supply variation:	+15%/ - 10%			
Overvoltage category:	III (IEC 60664)			
Rated impulse withstand voltage:	4kV (1.2/50µS) IEC 60664			
Power consumption (max.):	24V	48V	115V	230V
AC:	0.84 VA	0.82 VA	1.1 VA	1.4 VA
DC:	0.6 W	0.47 W	0.46 W	0.53 W
Monitoring mode:	Under or Over current (selectable)			
Hysteresis:	2 or 10% (selectable)			
Latch:	Enabled using Mode selector switch			
Monitoring ranges:	0.2 – 2A, 0.5 – 5A, 1 – 10A			
Trip level:	10 – 100% of selected monitoring range			
Time delay (t):	0.1 – 30S (from fault occurring to relay de-energising)			
Power up delay (Td):	1 or 10 seconds			
Reset time:	100mS			
Accuracy:	± 1% of maximum full scale			
Adjustment accuracy:	< 5% of maximum full scale			
Repeat accuracy:	± 0.5% at constant conditions			
Drift with temperature:	± 0.05% / °C			
Drift with voltage:	± 0.2% / V			
Monitoring input **(B1, B2)**:	0.01 to 12A AC/DC			
Frequency:	DC, 48 – 70Hz			
Maximum input rating:	1.2 x 10A			
Overload:	20A for 1s			
Overvoltage category:	III (IEC 60664)			
Rated impulse withstand voltage:	4kV (1.2/50µS) IEC 60664			
Power on indication:	Green LED			
Alarm status indication:	Yellow LED			
Relay status indication:	Red LED			
Ambient temp:	-20 to +60°C			
Relative humidity:	+95%			
Output **(15, 16, 18)**:	SPDT relay			
Output rating:	AC1	250V 10A (2500VA)		
	AC15	250V 5A (no), 3A (nc)		
	DC1	25V 10A (250W)		
Electrical life:	≥ 150,000 ops at rated load			
Dielectric voltage:	2kV AC (rms) IEC 60947-1			
Rated impulse withstand voltage:	4kV (1.2/50µS) IEC 60664			
Housing:	Orange flame retardant UL94			
Weight:	≈ 63g			
Mounting option:	On to 35mm symmetric DIN rail to BS EN 60715 or direct surface mounting via 2 x M3.5 or 4BA screws using the black clips provided on the rear of the unit			
Terminal conductor size	≤ 2 x 2.5mm² solid or stranded			

Approvals:

c UL us LISTED IND. CONT. EQ. E111187

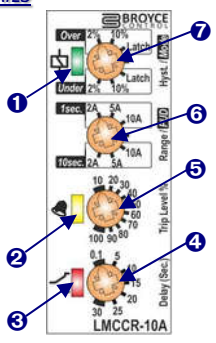
CE and RoHS Compliant.
EMC: Immunity: EN 61000-6-2 (EN 61000-4-3 10V/m 80MHz - 2.7GHz)
Emissions: EN 61000-6-4

CONNECTION DIAGRAM

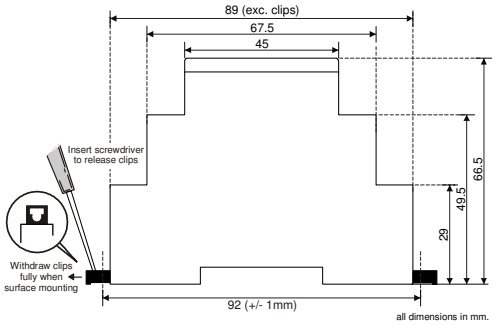


SETTING DETAILS

1. Power supply status (Green) LED
2. Alarm status (Yellow) LED
3. Relay output status (Red) LED
4. Time delay adjustment
5. Trip level adjustment
6. Power up delay / Monitoring range selector
7. Hysteresis / Mode selector



DIMENSIONS



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