Terminal Protection to IP20
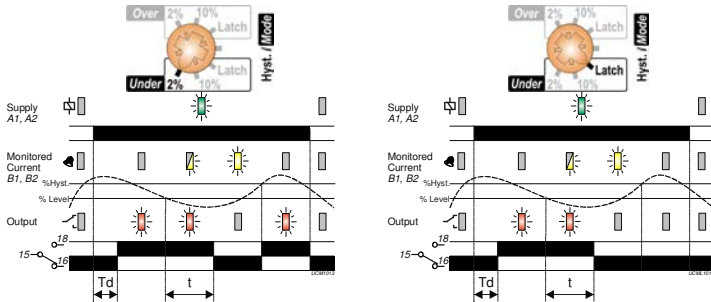
❑ ***NEW*** 17.5mm DIN rail housing
❑ **Microprocessor based**
❑ **True R.M.S. monitoring**
❑ **Monitoring input (0.2 – 10A) split in to 3 selectable ranges**
❑ **Selectable Under or Over current monitoring**
❑ **Selectable hysteresis or latch option**
❑ **Adjustable trip level and time delay**
❑ **Isolated 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**
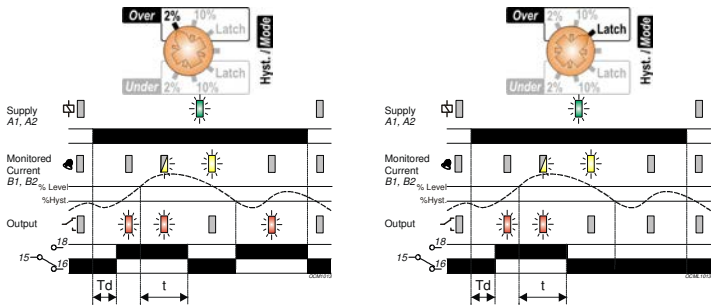❑ **Red LED indication for relay status**

Dims: to DIN 43880
W. 17.5mm

QMS ISO 9001 REGISTERED
ISO 9001:2015
Cert. No. 14125771

FUNCTION DIAGRAMS

Under Current Monitoring (with and without Latch enabled)

Over Current Monitoring (with and without Latch enabled)

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

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.
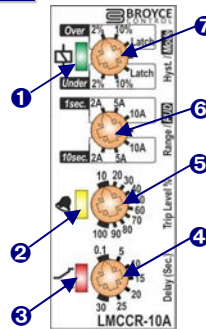*If Over current mode is selected:*
- Relay energises / red LED ❸ illuminate if the current is below the set "Trip Level". If the current rises above the "Trip Level", yellow LED ❷ flashes for the set "Delay" then remains lit. Red LED extinguishes / relay de-energises.
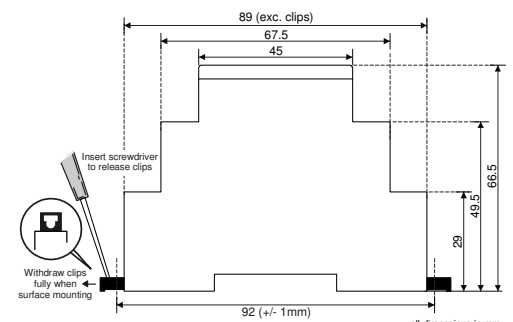
CONNECTION DIAGRAM
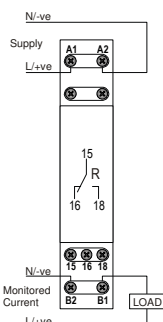
SETTING DETAILS

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

all dimensions in mm.

Broyce Control Ltd., Pool Street, Wolverhampton, West Midlands WV2 4HN. England
Tel: +44 (0) 1902 773746 Fax: +44 (0) 1902 420639 Email: sales@broycecontrol.com Web: www.broycecontrol.com
The Information provided in this literature is believed to be accurate (subject to change without prior notice); however, use of such information shall be entirely at the user's own risk.
LMCCR_10A-3-A.DOCX
1811