

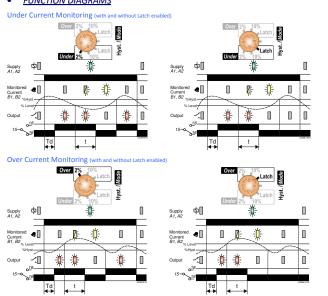
Type: LMCCR-2A

Multifunction. Combined Current Relay



- *NEW* 17.5mm DIN rail housing
- Microprocessor based
 - True R.M.S. monitoring
- Monitoring input (0.02 2A) 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

<u>FUNCTION DIAGRAMS</u>



INSTALLATION AND SETTING

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

Setting the unit.

- Set the "Hyst. / Mode" selector ② 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" 10 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 %" 10 and "Delay" 10 to suit the selected monitoring range and delay to tripping period.

Applying power.

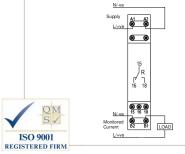
Apply power and the green LED 1 will illuminate.

If Under current mode is selected

- Relay energises / red LED 10 illuminate if the current is above the set "Trip Level". If the current falls below the "Trip Level", vellow LED 🥝 flashes for the set "Delay" then remains lit. Red LED extinguishes / relay de-energises.
- Relay energises / red LED 3 illuminate if the current is below the set "Trip Level". If the current rises above the "Trip Level", yellow LED 2 flashes for the set "Delay" then remains lit. Red LED extinguishes / relay de-energises

 <u>TECHNICAL SPECIFICA</u> 	<u>ATION</u>					
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.): AC:	24V	48V	115V	230V		
		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 C	ver current (sele	ectable)			
Hysteresis:		2 or 10% (selectable)				
Latch:	Enabled us	ing Mode select	or switch			
Monitoring ranges:		A, 0.1 – 1A, 0.2 –				
Trip level:		of selected mon				
Time delay (t):		from fault occur	ring to relay de	e-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	± 0.2% / V				
Monitoring input (B1, B2):	0.01 to 2.4	0.01 to 2.4A AC/DC				
Frequency:	DC, 48 – 70	DC, 48 – 70Hz				
Maximum input rating:	1.4 x 5A	1.4 x 5A				
Overload:	5A for 1s	5A for 1s				
Overvoltage category:		III (IEC 60664)				
Rated impulse withstand voltage:	4kV (1.2/5	4kV (1.2/50μS) IEC 60664				
Power on indication:	Green LED	Green LED				
Alarm status indication:	Yellow LED	Yellow LED				
Relay status indication:	Red LED	Red LED				
Ambient temp:	-20 to +60°	-20 to +60°C				
Relative humidity:	+95%					
Output (15, 16, 18):	SPDT relay					
Output rating:	AC1		250V 104	(2500VA)		
	AC15			(no), 3A (nc)		
	DC1		25V 10A	(250W)		
Electrical life:		ops at rated load	25V 10A	(250W)		
Electrical life: Dielectric voltage:	≥ 150,000	ops at rated load		(250W)		
	≥ 150,000 2kV AC (rm			(250W)		
Dielectric voltage: Rated impulse withstand voltage:	≥ 150,000 2kV AC (rm 4kV (1.2/5	ns) IEC 60947-1 0µS) IEC 60664	d	(250W)		
Dielectric voltage: Rated impulse withstand voltage: Housing:	≥ 150,000 2kV AC (rm 4kV (1.2/5 Orange fla	ns) IEC 60947-1	d	(250W)		
Dielectric voltage: Rated impulse withstand voltage: Housing: Weight:	≥ 150,000 2kV AC (rm 4kV (1.2/5) Orange fla ≈ 63g	ns) IEC 60947-1 0μS) IEC 60664 me retardant UL	94 VO			
Dielectric voltage: Rated impulse withstand voltage: Housing:	≥ 150,000 2kV AC (rm 4kV (1.2/5) Orange fla ≈ 63g On to 35m or direct so	ns) IEC 60947-1 0µS) IEC 60664	.94 V0 N rail to BS EN via 2 x M3.5 o	60715 r 4BA screws		

CONNECTION DIAGRAM



SETTING DETAILS

Installation work must be carried out by qualified personnel.

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

Approvals:

DIMENSIONS 92 (+/- 1mm)

CE and RoHS Compliant.

Emissions: EN 61000-6-4

EMC: Immunity: EN 61000-6-2 (EN 61000-4-3 10V/m 80MHz - 2.7GHz)

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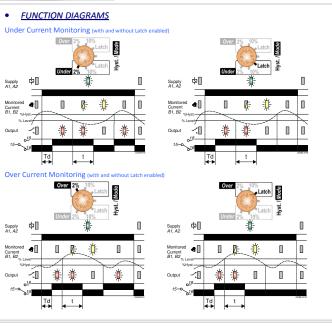


Type: LMCCR-10A

Multifunction, Combined Current Relay



- *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



INSTALLATION AND SETTING

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

- Set the "Hyst. / Mode" selector 7 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" 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 %" and "Delay" to suit the selected monitoring range and delay to tripping period.

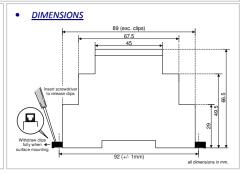
- Apply power and the green LED 1 will illuminate.
- Relay energises / red LED @ illuminate if the current is above the set "Trip Level". If the current falls below the "Trip Level", yellow LED @ flashes for the set "Delay" then remains lit. Red LED extinguishes / relay de-energises. If Over current mode is selected:
- Relay energises / red LED **3** illuminate if the current is below the set "Trip Level". If the current rises above the "Trip Level", yellow LED 🥹 flashes for the set "Delay" then remains lit. Red LED extinguishes / relay de-energises

Auxiliary supply voltage U (A1, A2):		24 – 230V AC/DC ¹ (12 – 60V AC/ DC also available)					
Frequency range:		48 - 63Hz (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.): AC:		24V	48V	115V	230V		
		0.84 VA	0.82 VA	1.1 VA	1.4 VA		
[OC:	0.6 W	0.47 W	0.46 W	0.53 W		
Monitoring mode:		Under or Over current (selectable)					
Hysteresis:		2 or 10% (s	electable)				
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 (f	rom fault occur	ring to relay de	energising)		
Power up delay (Td):		1 or 10 seconds					
Reset time:		100mS	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 - 70					
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 LFD	• •				
Alarm status indication:	Yellow LFD						
Relay status indication:		Red LED					
			_				
Ambient temp:		-20 to +60°	С				
Relative humidity:		+95%					
Output (15, 16, 18):		SPDT relay					
Output rating:		AC1		250V 10A	(2500VA)		
		AC15			no), 3A (nc)		
		DC1		25V 10A (250W)		
Electrical life:			ops at rated load	t			
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:		CE and RoHS Compliant. EMC: Immunity: EN 61000-6-2 (EN 61000-4-3 10V/m 80MHz - 2.7GHz) Fmissions: EN 61000-6-4					

CONNECTION DIAGRAM ISO 9001 REGISTERED FIRM

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

Installation work must be carried out by qualified personnel.



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