



<b>Identification</b>	Type	LCR-I-1-5-2U-24-240
	Part-No.	750631
<b>Description</b>	Current control in 3-phase networks 1-phase, AC 5 A	
<b>Function</b>	Current monitoring of AC and DC voltages in 1-phase networks with adjustable thresholds separately adjustable start-up suppression and trigger delay function selection via rotary switch <b>Over:</b> Over-current monitoring <b>Over + Latch:</b> Over-current monitoring with error memory <b>Under:</b> Under-current monitoring <b>Under + Latch:</b> Under-current monitoring with error memory <b>WIN:</b> Monitoring the range between thresholds Min and Max <b>WIN + Latch:</b> Monitoring the range between Min and Max thresholds with error memory	
<b>Time range</b>	Start-up suppression, settable 0 – 10 s trigger delay, settable 0.1 – 10 s	
<b>Status indication</b>		

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Part-No. 750631

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Supply status	LED green
Start bridge status	LED green flashing
Output relay status	LED yellow
Threshold error status	LED red
Trigger delay status	LED red flashing

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### Housing

Dimensions (w × h × d)	22.5 × 90.0 × 105.0 mm
Colour of the housing	light grey
Housing material	PA
Protection class	IP40
Connection cross-section	1×0.5 to 2.5 mm <sup>2</sup> with AE 1×4 mm <sup>2</sup> without AE 2×0.5 to 1.5 mm <sup>2</sup> with AE 2×2.5 mm <sup>2</sup> without AE
Installation position	any
Weight	0.200 kg/piece
Approvals	cULus

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### Supply circuit

Rated voltage range	AC/DC 24 V – 240 V
Tolerance	AC: -15 %/+10 %, DC: -20 %/+25 %
Rated frequency	16 Hz – 48 Hz @ AC 48 – 240 V, 48 Hz – 400 Hz @ AC 24 V – 240 V
Power consumption	4.5 VA (1 W)
Operating time	100 % ED
Recovery time	500 ms
Waveform AC	Sinus
Residual ripple	10 %
Voltage drop	>15 % of the power supply
Measurement surge voltage	4 kV

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### Output circuit

Number of channels	2
Switching element	Relays
Contact type	Change over contact
Measurement voltage	AC 250 V
Switching voltage	AC 250 V
Switching current max.	5A (3A)
Protection device	5 A, quick-acting
Mechanical service life	20 × 10 <sup>6</sup> (1000 VA)
Electrical service life	2 × 10 <sup>5</sup> (1000 VA)
Switching frequency	60/min @100 VA, 6/min @ 1000 VA

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Over voltage category	III acc. IEC 60664-1
Measurement surge voltage	4 kV

### Accuracy

Basic accuracy	$\leq 3\%$ (end of scale)
Frequency response	-10 %/+5 % (16.6 – 400 Hz)
Tolerance of setting	$\leq 5\%$ (end of scale)
Repeat accuracy	$\leq 2\%$
Voltage influence	N/A
Temperature error	$\leq 0.05\%/^{\circ}\text{C}$

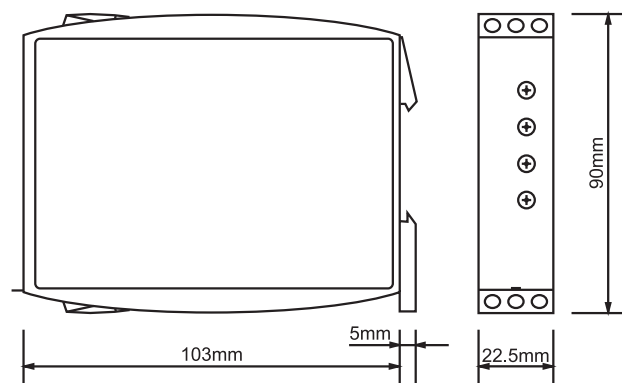
### Measuring circuit

Measuring variable	DC, AC (16.6 – 400 Hz)
Measuring range	AC/DC 20 mA, AC/DC 1 A, AC/DC 5 A
Overload capability	250 mA @ 20 mA, 3 A @ 1 A, 10 A @ 5 A
Input resistance	2.7 $\Omega$ @ 20 mA, 47 m $\Omega$ @ 1 A, 10 m $\Omega$ @ 5 A
Switching threshold min.	5 % – 95 % $I_N$
Switching threshold max.	10 % – 100 % $I_N$
Over voltage category	III acc. IEC 60664-1
Measurement surge voltage	4 kV

### Environmental conditions

Temperature range according to UL	-25 $^{\circ}\text{C}$ ... +40 $^{\circ}\text{C}$
Temperature range	-25 $^{\circ}\text{C}$ ... +55 $^{\circ}\text{C}$
Storage temperature range	-25 $^{\circ}\text{C}$ ... +70 $^{\circ}\text{C}$
Relative air humidity	15 % to 85 % acc. IEC 60721-3-3 Class 3K3
Degree of pollution	3 acc. IEC 60664-1
Vibration resistance	10 – 55 Hz 0.35 mm acc. IEC60068-2-6
Impact resistance	15 g 11 ms acc. IEC 60068-2-27

### Dimensions



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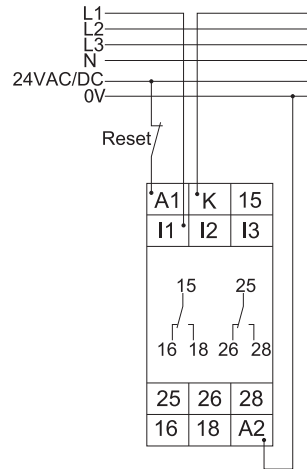
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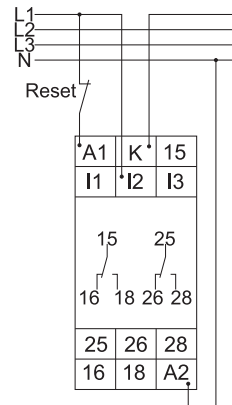
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## PIN assignment

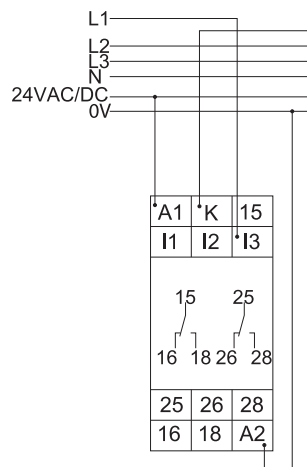
Measuring range: 20mA  
 Voltage supply: 24V  
 With error memory



Measuring range: 1A  
 Voltage supply: 230V  
 With error memory



Measuring range: 5A  
 Voltage supply: 24V  
 Without error memory



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