

# ELR-4o | ELR-4mo | ELR-4v | ELR-4mv

EARTH LEAKAGE RELAY - FLUSH-MOUNT VERSION DIN 48x96 mm



## GENERAL CHARACTERISTICS

- Earth leakage relay type A
- External toroidal
- Green power LED indicator (ON)
- Red relay tripped LED indicator (TRIP)
- Front TEST and RESET buttons
- Configurable automatic or manual resetting
- Flag indicator (TRIP MEMORY) (ELR-m4o, ELR-m4v only)
- Flush mount 48x96mm housing with transparent cover
- Degree of protection: IP20 terminals, IP40 on front with cover

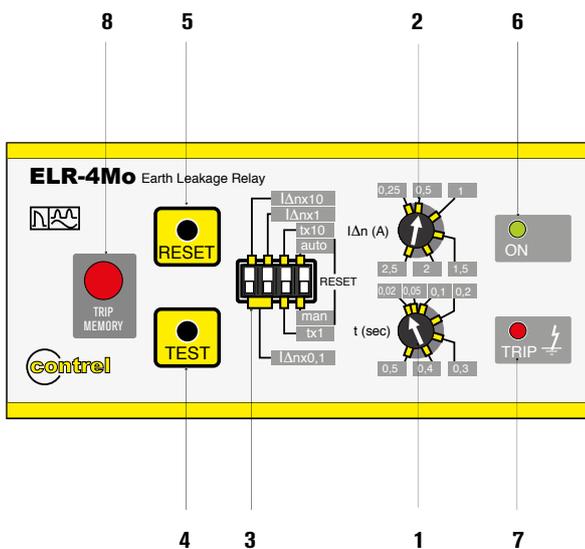
ORDER CODE	RATED AUXILIARY SUPPLY VOLTAGE	OUTPUTS CONTACTS	WT [kg]
ELR-4v 48	24-48 VAC/DC	2	0,390
ELR-4v 415	110 VAC/DC-240-415 VAC	2	0,390
ELR-4o 48	24-48 VAC/DC	2	0,390
ELR-4o 415	110 VAC/DC-240-415 VAC	2	0,390
ELR-m4v 48	24-48 VAC/DC	2	0,390
ELR-m4v 415	110 VAC/DC-240-415 VAC	2	0,390
ELR-m4o 48	24-48 VAC/DC	2	0,390
ELR-m4o 415	110 VAC/DC-240-415 VAC	2	0,390

OPTIONS	
T	Tropicalisation
F	Built-in filter for 3rd harmonic

ADJUSTMENTS	
Configurable tripping set-point ( $I_{\Delta n}$ )	0,025...0,25A 0,25...2,5A 2,5...25A 25...250A (with external multiplier CT1-M)
Configurable tripping delay time (t)	0,02...0,5s 0,2...5s.

LEGENDA	
1	Tripping delay time adjustment
2	Fault current to earth adjustment
3	<p>Dip switches settings:</p> <p><b>3a</b> - auto reset (A) - man reset (M) auto reset = automatic reset man reset = manual reset through RESET key on the front. For remote resetting, simply shut off the auxiliary supply for about 1 second</p> <p><b>3b</b> - tx10 - tx1 constant selection for tripping delay time adjustment. Examples: positioning the dip switch on tx10 and the potentiometer on 0.3 we will have a tripping delay upon exceeding the <math>I_{\Delta n}</math> threshold of <math>0.3 \times 10 = 3</math> seconds; positioning the dip switch on tx1 and the potentiometer on 0.3 we will have a tripping delay upon exceeding the <math>I_{\Delta n}</math> threshold of <math>0.3 \times 1 = 0.3</math> seconds</p> <p><b>3c</b> - <math>I_{\Delta n} \times 0,1</math> - <math>I_{\Delta n} \times 1</math> - <math>I_{\Delta n} \times 10</math> constant selection for fault current to earth adjustment. The constants in relation to the position of the 2 dip switches are the following:</p> <ul style="list-style-type: none"> <li>• dip switch position <math>I_{\Delta n} \times 0,1</math> and <math>I_{\Delta n} \times 0,1</math> K = 0.1</li> <li>• dip switch position <math>I_{\Delta n} \times 1</math> and <math>I_{\Delta n} \times 0,1</math> K = 1</li> <li>• dip switch position <math>I_{\Delta n} \times 1</math> and <math>I_{\Delta n} \times 10</math> K = 10</li> </ul>
4	TEST key. Causes tripping of the relay.
5	RESET key. To reset the relay after tripping. For remote reset, simply shut off the auxiliary supply for about 1 second.
6	ON LED. Indicates the presence of auxiliary voltage.
7	TRIP LED. Lighting up indicates the cutting in of the TRIP relay due to exceeding the $I_{\Delta n}$ set.
8	TRIP MEMORY (versions ELR-m4o, ELR-m4v) Mechanical trip relay indicator for exceeding the $I_{\Delta n}$ set. It stores the indication also in the lack of auxiliary voltage. The flag indicator resetting can only be made with the RESET button.

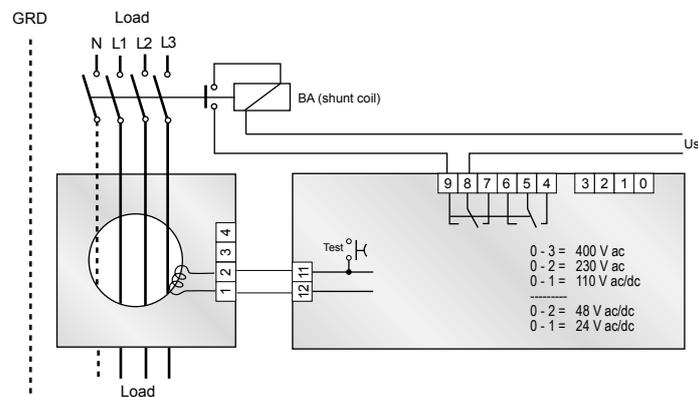


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EARTH LEAKAGE RELAY - FLUSH-MOUNT VERSION DIN 48x96 mm

TECHNICAL CHARACTERISTICS		ELR-4 / ELR-m4	
<b>CONTROL CIRCUIT</b>			
Toroidal transformer		External	
Adjustments tripping set-point (I $\Delta$ )		0.025÷25A (25÷250A with external multiplier)	
Adjustments tripping time (t)		0.02÷5s	
<b>AUXILIARY SUPPLY</b>			
Auxiliary voltage (Us)		24-48 VAC/DC	110 VAC/DC-240-415 VAC
Rated frequency		50-60 Hz	
Maximum power consumption		4 VA	
<b>OUTPUT RELAYS</b>			
Contact arrangement		1 changeover (trip)	
Rated contact capacity Ith		5 A (240 VAC)	
<b>INDICATIONS</b>			
Auxiliary voltage available (ON)		Green LED	
Relay tripping (TRIP)		Red LED	
Mechanical flag (TRIP)		Flag indicator (versioni ELR-m4)	
<b>INSULATION</b>			
Insulation test		2.5kV for 1 minute	
<b>AMBIENT OPERATING CONDITIONS</b>			
Operating temperature		-10÷60 °C	
Storage temperature		-20÷80 °C	
Relative humidity		≤90%	
<b>ENCLOSURE</b>			
Version		Flush mount 48x96mm	
Degree of protection		IP20 terminals   IP40 with protective cover	
<b>CERTIFICATIONS AND COMPLIANCE</b>			
Reference standards		IEC/EN 61010, IEC/EN 61000-6-2	IEC/EN 61000-6-3, IEC/TR 60755   CEI EN 60947-2 Annex M

## WIRING CONNECTION



## MECHANICAL DIMENSIONS

