

# ELR - 7

EARTH LEAKAGE RELAY - FLUSH-MOUNT VERSION DIN 48x48 mm



## GENERAL CHARACTERISTICS

- Earth leakage relay type A
- Configurable fail safe operation
- Green power LED indicator (ON)
- Red relay tripped LED indicator (TRIP)
- Front TEST and RESET buttons
- Configurable automatic or manual resetting
- Flush mount 96x96mm housing with transparent cover
- Degree of protection: IP20 terminals, IP40 on front with cover.

ORDER CODE	RATED AUXILIARY SUPPLY VOLTAGE	OUTPUTS CONTACTS	WT [kg]
<b>ELR-7 48</b>	24-48 VAC/DC	2	0,112
<b>ELR-7 240</b>	110 VAC/DC-240 VAC	2	0,112

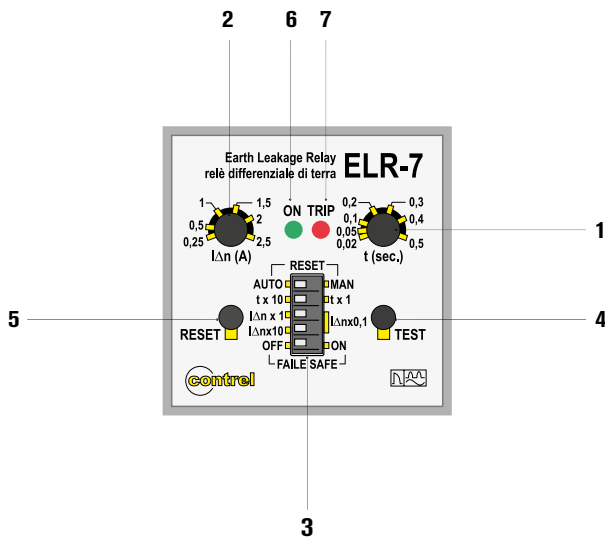
  

OPTIONS	
<b>T</b>	Tropicalisation
<b>F</b>	Built-in filter for 3rd harmonic

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

## LEGENDA

<b>1</b>	Tripping delay time adjustment
<b>2</b>	Fault current to earth adjustment
<b>3</b>	<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> <p><b>3d</b> - fail safe off - fail safe on Fail safe off = positive safety deactivated. Output relay normally deenergised Fail safe on = positive safety activated; in this condition the output relay is normally energised; therefore in the event of the lack of auxiliary voltage the output contacts move to the tripping condition.</p>
<b>4</b>	TEST key. Causes tripping of the relay.
<b>5</b>	RESET key. To reset the relay after tripping. For remote reset, simply shut off the auxiliary supply for about 1 second.
<b>6</b>	ON LED. Indicates the presence of auxiliary voltage.
<b>7</b>	TRIP LED. Lighting up indicates the cutting in of the TRIP relay due to exceeding the $I_{\Delta n}$ set.

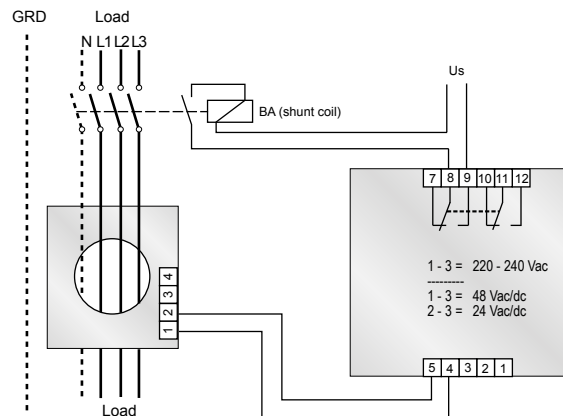


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EARTH LEAKAGE RELAY - FLUSH-MOUNT VERSION **DIN 48x48** mm

TECHNICAL CHARACTERISTICS	ELR-7
<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 VAC
Rated frequency	50-60 Hz
Maximum power consumption	3 VA
<b>OUTPUT RELAYS</b>	
Contact arrangement	2 changeovers (both trip)
Rated contact capacity Ith	5 A (240 VAC)
<b>INDICATIONS</b>	
Auxiliary voltage available (ON)	Green LED
Relay tripping (TRIP)	Red LED
<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 48x48mm
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

