

# ELR-3E

## EARTH LEAKAGE RELAY DIN RAIL MOUNTING VERSION

### GENERALITY



The **ELR-3E**, maintain all the basic characteristics of ELR-3C type, with reduced dimensions. It comes to complete the range of relays, built in a modular enclosure, according with DIN 43880 Standard, with a three modules width (module base 17.5 mm).

It has a wide setting ranges and the accurate tripping current selection (by means of dip switches), in order that the contact voltage values are maintained below 50V as required by the CEI 64-8Standard

This is also the suitable answer for a proper selectivity, whenever there are other ELR's or/and RCD's downstream or upstream in the line to be protected.

### MODELS

**ELR-3E** 110Vac/dc-230-400Vac  $I_{\Delta n}$  0,03-0,1-0,3-0,5-1  
 $\Delta t$  0,02-0,2-0,5-1-5 sec.

**ELR-3E** 24-48Vac/dc  $I_{\Delta n}$  0,03-0,1-0,3-0,5-1  $\Delta t$  0,02-0,2-0,5-1-5 sec.

### OPTIONS

**T** tropicalisation

An outstanding characteristic of the present relays, is the permanent control of the Toroidal - ELR circuit.

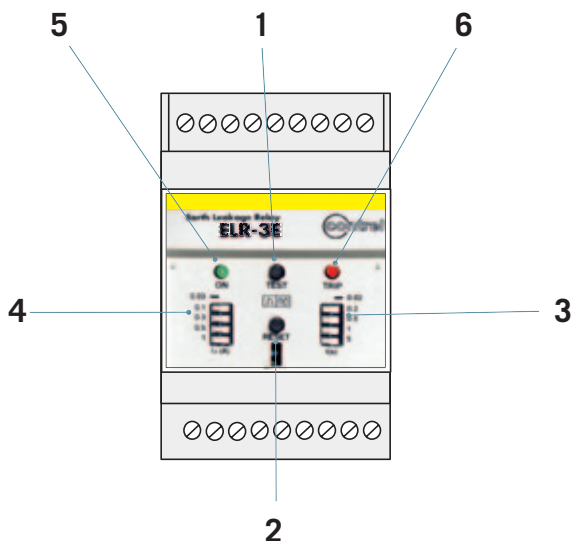
Its interruption brings along the immediate trip of the protection. This allows to identify the anomaly, without waiting to the periodical control, made with the Test push button. The instrument, fitted with filters at the input circuits, is practically immune to external disturbances, so as the pulse currents with dc components, complying with the requirements of VDE 0664 and project IEC 23 Standards.

The ELR-3E has a manual reset option only, in order to avoid unexpected reset, whilst undergoing repairs and maintenance works.

Its sealable front transparent cover may be used to avoid access to the settings to unauthorised persons.

It may also be coupled to any of our CT-1 Toroidal Transformers.

### LEGEND



1	Test push button
2	Reset push button
3	Dipswitches for tripping time setting.
4	Dipswitches for current tripping setting
5	Green LED ON - U aux
6	Red LED trip

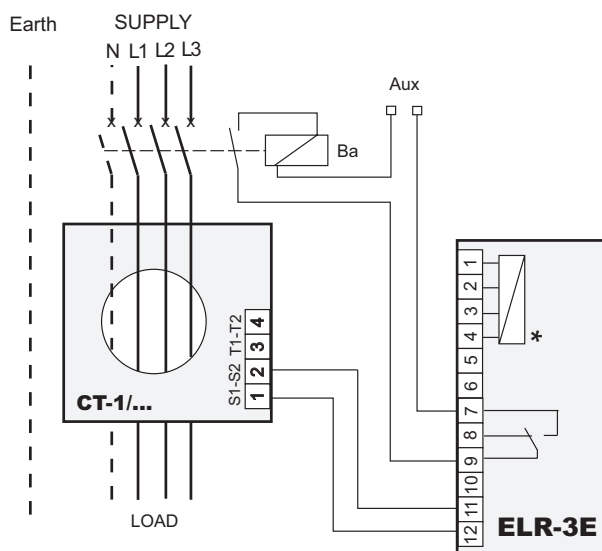
### SETTING TRIP AND DELAY

$I_{\Delta n}$	0,03	0,1	0,3	0,5	1
(A)					
t	0,02	0,2	0,5	1	5
(s)					

**ELECTRICAL CHARACTERISTICS**

models and value	ELR - 3E	
Auxiliary Voltage supply	24÷48 Vac/dc	110 Vac/dc 230 - 400 Vac ± 20% (standard)
Frequency	50 ÷ 60 Hz	
Maximum consumption	3 VA	
Current tripping adjustment range IΔN	0,03 - 0,1 - 0,3 - 0,5 - 1A	
Tripping time adjustment range t	0,02 - 0,2 - 0,5 - 1 - 5 sec.	
Output: 1 changeover contact	5A 250V	
Working Temperature	-10 + 60°C	
Storing Temperature	-20 + 80°C	
Relative humidity	<90%	
Insulation Test	2,5 kV 60 seg.	
Standards	CEI 41-1/IEC 255/VDE 0664/IEC 755/CEI 64.8/ EN 61008-1(1999-11)/EN 62020 (1999-09) / EN 61543 (1996-09) /EN61326-1(1998-04) / EN 61326/A1 (1999-05)-IEC 60947-2 ANNEX M	
Wiring method	Terminals for cross section cable of 2,5 mm <sup>2</sup>	
Mounting according DIN 50022	Quick mountin on a DIN rail of 35 mm	
Protection degree according DIN 40050	IP 20	

**WIRING DIAGRAM**



**LEGEND**

- 1-4 = 380-415 V ac
- 1-3 = 220-240 V ac
- 1-2 = 110-125 V ac / dc
- 1-3 = 48 V ac/dc
- 1-2 = 24 V ac/dc

\* Auxiliary supply Uaux:

**DIMENSIONS**

