

# ELRC-B

## EARTH LEAKAGE RELAY

### “COMPACT” VERSION WITH BUILT-IN TOROIDAL TRANSFORMER FOR DIN RAIL MOUNTING

#### GENERALITY



The **ELRC-B**, with all features and wide tripping current and time setting ranges of the ELR's family, has been manufactured in a compact design of 6 modules DIN (17.5 mm) with a built-in Toroidal Transformer of 28 mm inner diameter for the passage of the cables.

All this allows to reduce to the very minimum the wiring, the overall dimensions and to avoid the disturbances, due to the possible electromagnetic fields which could be coupled to the wiring between the T/T and the ELR.

#### MODELS

<b>ELRC-B</b>	110 Vac/dc - 230 - 400 Vac
<b>ELRC-B</b>	24-48 V ac/dc

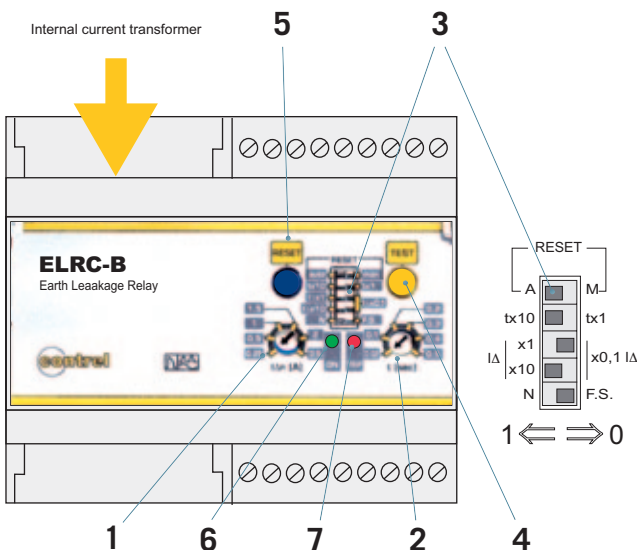
#### OPTIONS

<b>F</b>	built-in filter for 3rd harmonic
<b>T</b>	tropicalisation

It also has a micro switch, which allows the selection of the working method of the end relay. This could be as normally de-energized (non tripped) or normally energized (fail safe).

So as for the rest of the ELR's range, the preset ELR is fitted with the appropriated filters at the input circuits to make it immune to external disturbances and the electronically control of the internal circuits and the T/T.

#### LEGEND

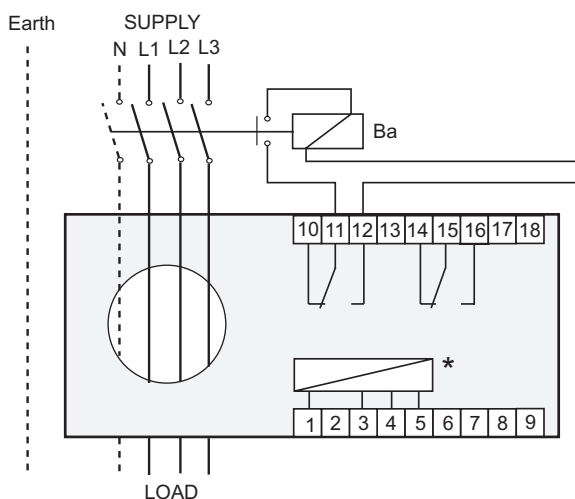


<b>1</b>	Current tripping setting potentiometer.
<b>2</b>	Tripping time setting potentiometer.
<b>3</b>	Micro switches for programming: <ul style="list-style-type: none"> <li>• <b>a</b> In position 1 automatic reset; In position 0 manual reset</li> <li>• <b>b</b> Selection of the multiplying constant Tripping time, in position 1 K=10 in position 0 K=1</li> <li>• <b>c,d</b> Selection of the multiplying constant of tripping current: With c d in position 0 K=0.1 With c in position 1, d in position 0 K=1 . With c, d in position 1 K=10</li> <li>• <b>e</b> In position 1 the output relays will be de-energized at rest, in position 0 the output relays will be energized at rest (fail safe).</li> </ul>
<b>4</b>	Push button for Test
<b>5</b>	Push button for manual reset
<b>6</b>	Signalling green LED for Aux. Supply presence
<b>7</b>	Signalling red LED for relay tripped

**ELECTRICAL CHARACTERISTICS**

models and value	ELRC-B	
Auxiliary Voltage supply	24-48Vac/dc	110 - 230 - 400 Vac (standard)
Frequency	50 ÷ 60 Hz	
Maximum consumption	3 VA	
Current tripping adjustment range IΔN	0,025÷0,25A K=0,1 - 0,25÷2,5A K=1 - 2,5÷25A K=10	
Tripping time setting range t	0,02 ÷ 0,5 sec. K=1 - 0,2 ÷ 5 sec. K=10	
Built in toroidal transformer's diameter	28 mm	
Output: 2 changeover contacts	5A 250V carico resistivo	
Working Temperature	-10 + 60°C	
Storing Temperature	-20 + 80°C	
Relative humidity	< 90%	
Insulation Test	2,5 kV 60 sec.	
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 wires 2,5 mm <sup>2</sup>	
Mounting DIN 50022	Snap on DIN rail 35 mm	
Protection degree	IP 40 front with closed cover - IP 20 enclosure	

**WIRING DIAGRAM**



Wiring diagram with shunt trip of the MCCB and excited end relay (N) for fail safe (F.S.)  
 Connect terminals 10 -11 to BA (NO contact under non tripped condition)

**LEGEND**

5 - 1 = 400 Vac  
 5 - 3 = 220 Vac  
 5 - 4 = 110 Vac/dc

5 - 4 = 24 Vac/dc  
 5 - 3 = 48 Vac/dc

\* Auxiliary supply Uaux.

**DIMENSIONS**

