

# ELR-7

## EARTH LEAKAGE RELAY FLUSH MOUNTING VERSION DIN 48X48 mm

### GENERALITY



MODELS	
ELR-7	110Vac/dc-230Vac 50-60Hz
ELR-7	24-48Vac/dc 50-60Hz

OPTIONS	
F	built-in filter for the third harmonic
T	tropicalisation

ACCESSORIES	
	front cover could be supplied to achieve an IP55 protection degree.

The **ELR-7** is an earth leakage protection device, which maintaining its ample scope of settings, both for current and time delay, it has been built in a flush mounting enclosure DIN 48x48mm with a reduced depth of 72mm, including wiring terminals.

This allows to reduce the overall dimensions to a minimum, in those applications in which the space is critical, like in MCC's.

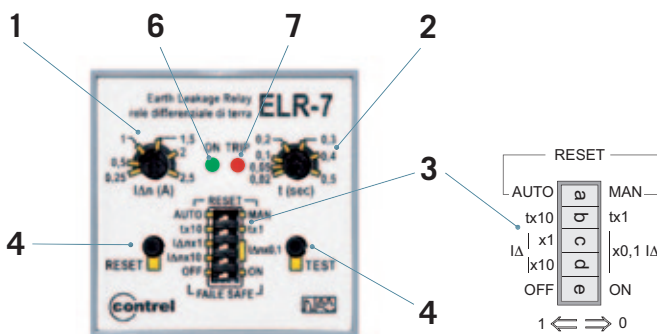
The present ELR, so as the others of the ELR's families, has a built-in filter, at the input circuits, which brings it practically immune to external distortions.

It is possible to program the tripping current (25mA ÷ 25 A), the tripping time delay (0,02 ÷ 5 sec.) and the working mode of the reset (automatic or manual), at its front plate.

The ELR-7 has a micro switch to select the working mode of the end relay, normally de-energized, whilst at rest (no tripped condition) or normally energized (fail safe).

On top of the above, it also has 2 change-over separated contacts and a transparent front cover for protection. Its draw-out wiring terminals rends it very easy to install.

### LEGEND



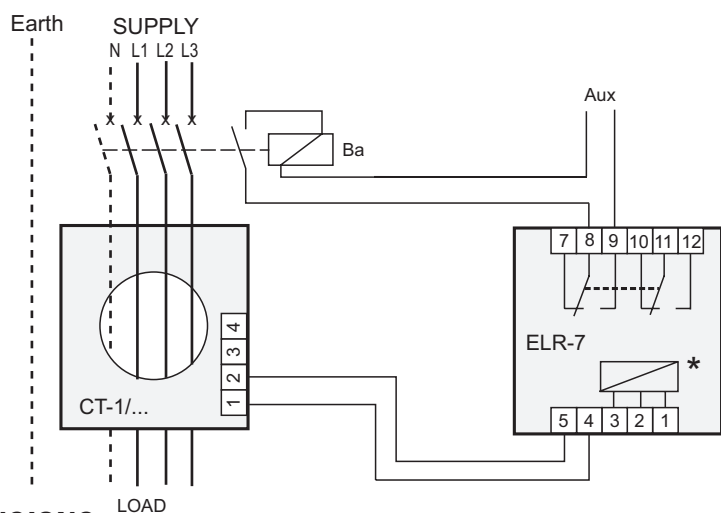
1	Current tripping setting potentiometer
2	Tripping time setting potentiometer
3	Microswitches for programming: <ul style="list-style-type: none"> <li>• a In position 1 automatic reset, In position 0 manual reset</li> <li>• b Selection of the multiplying constant Tripping time, in position 1 K=10 in position 0 K=1</li> <li>• c,d 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>• e 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>
4	Push button for Test
5	Push button for manual reset
6	Signalling green LED for Aux. Supply presence
7	Signalling red LED for relay tripped

**ELECTRICAL CHARACTERISTICS**

models and value	ELR-7
Auxiliary Voltage supply	24 - 48 Vac/dc / 110 Vac/dc - 230 Vac ± 20% (standard)
Frequency	50 ÷ 60 Hz
Maximum consumption	3 VA
Current tripping setting range IΔN	0,025÷0,25A K=0,1 - 0,25÷2,5A K=1 - 2,5÷25A K=10 25÷250A*
Tripping time setting range t	0,02÷0,5 sec K=1 - 0,2÷5 sec K=10
External Toroidal Transformers and accessories	Ct1/...serie - setting multiplier, adaptor CT
Output: 2 voltage free contacts	2 changeover contacts NO-C-NC 5A 250V resistive load
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
Protection degree according DIN 40050	IP40 front with cover (opt. Ip55) - IP 20 enclosure
Mounting according DIN 43700	Flush mounting DIN 48x48mm, depth 72mm
Wiring method	Draw out terminals for cross section wires 2,5 mm <sup>2</sup>

\* By means of an external multiplier ( see pag. 40 )

**WIRING DIAGRAM**



Wiring diagram for MCCB with shunt trip and energized end relay to the trip (FAIL SAFE OFF) for using de-energized (FAIL SAFE ON) connect to the BA the terminals 7 - 8 (contact NO in no tripped condition)

**LEGEND**

- 1 - 3 = 220 - 240 Vac
- 2 - 3 = 110 - 125 Vac/dc
- 1 - 3 = 48 Vac/dc
- 2 - 3 = 24 Vac/dc

\* Auxiliary supply Uaux

**DIMENSIONS**

