

ELR-7

Earth Leakage Relay Flush Mounting Version DIN 48x48mm



GENERAL

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 over all dimensions to a minimu, 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 ($25\text{mA} \div 25\text{A}$), the tripping time delay ($0,02 \div 5\text{sec.}$) and the working mode of the reset (automatic or manual), at its front plate.

The ELR-7 has a microswitch 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 removable wiring terminals rends it very easy to install.

MODELS:

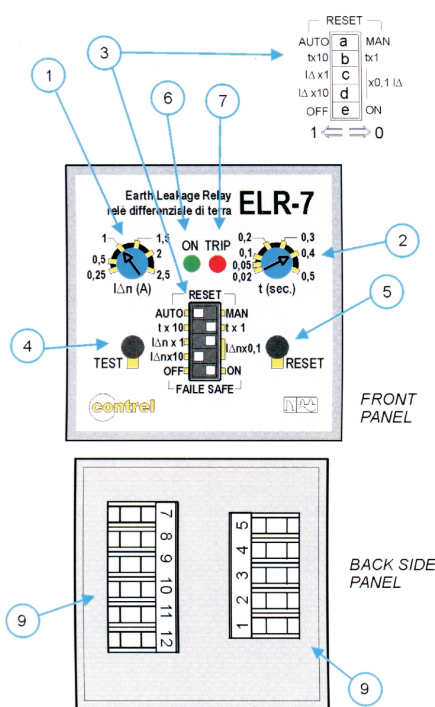
-ELR-7 110-230Vac 50-60 Hz 110 Vdc
-ELR-7 24-48Vac 50-60 Hz 24-48 Vdc

OPTIONS:

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

ACCESSORIES:

Under request, a special front cover could be supplied to achieve an IP55 protection degree.
There is also available a special front cover to fit the relay in DIN 72 x 72 mm drill.



DESCRIPTION

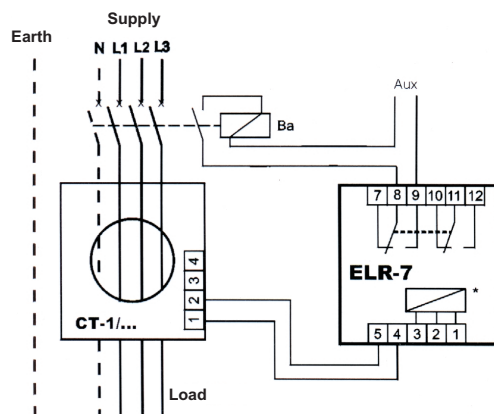
- 1) Current tripping setting potentiometer.
- 2) Tripping time setting potentiometer.
- 3) Microswitches for programming:
 - A In position 1 automatic reset, In position 0 manual reset
 - b Selection of the multiplying constant
Tripping time, in position 1 K=10
In position 0 K=1
 - c,d Selection of 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
 - 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)
- 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
- 8) Output terminals for end relays
- 9) Terminals for Aux. Supply and connection to the external toroidal transformer

ELECTRICAL CHARACTERISTICS

Auxiliary Voltage supply	24 - 48 Vac/dc / 110 Vac/dc - 230 Vac \pm 20%
Frequency	50 \pm 60 Hz
Maximum consumption	3 VA
Current tripping adjustment range $I_{\Delta N}$	0,025 \pm 0,25A K=0,1 - 0,25 \pm 2,5A K=1 - 2,5 \pm 25A K=10 25 \pm 250A*
Tripping time adjustment range t	0,02 \pm 0,5 sec K=1 - 0,2 \pm 5 sec K=10
Transformadores toroidales externos y accesorios	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
Electromagnetic Compatibility	CEI-EN 50081-1 CEI-EN 50082-2
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	Drawing out terminals for cross section wires 2,5 mm ²

* By means of external multiplier

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) connecto the BA the terminals 7 - 8 (contact NO in no tripped condition)

*auxiliary voltage
-terminals 1 - 3 = 220 - 240V ac
2 - 3 = 110 \pm 127Vac/dc
or otherwise
-terminals 1 - 3 = 48 Vac/dc
-terminals 2 - 3 = 24 Vac/dc

DIMENSIONS

