# ELRC-BL | ELRD-L | ELRD-L2m

**EARTH LEAKAGE RELAY** - MODULAR VERSION 6 MODULES (PUBLIC LIGHTING)




## GENERAL CHARACTERISTICS

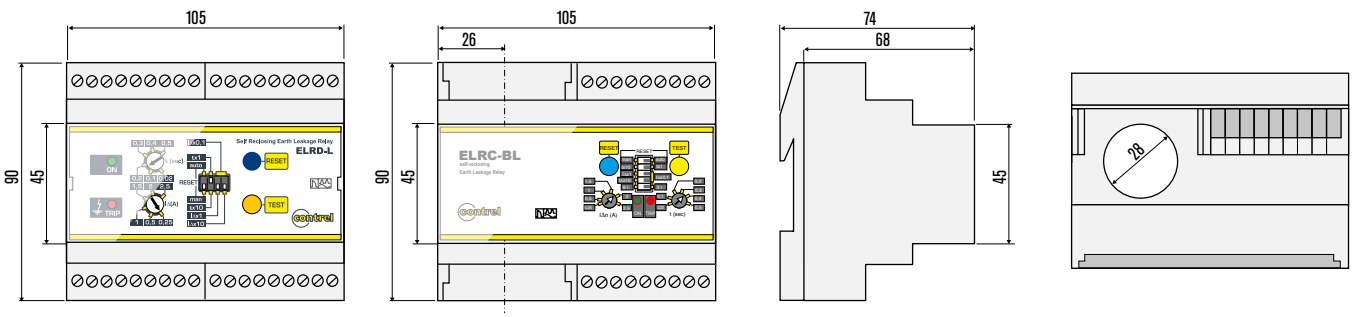
- Earth leakage relay type A
- Automatic trip and reclosing
- External toroidal (ELRD-L, ELRD-L2m only)
- Incorporated toroidal Ø28mm (ELRC-BL only)
- Green power LED indicator (ON)
- Red relay tripped LED indicator (TRIP)
- Red tripping prealarm LED indicator (ALARM) (ELRD-L2m only)
- Front TEST and RESET buttons
- Configurable automatic or manual resetting
- Flag indicator (TRIP MEMORY) (ELRD-L2m only)
- Modular DIN housing, 6 module, with transparent cover
- Degree of protection: IP20 terminals, IP40 on front with cover

| ORDER CODE | RATED AUXILIARY SUPPLY VOLTAGE | OUTPUTS CONTACTS | WT [kg] |
|---|---|---|---|
| **ELRC-BL** | 240 VAC | 2 | 0,370 |
| **ELRD-L** | 240 VAC | 2 | 0,390 |
| **ELRD-L2m** | 240 VAC | 2 | 0,390 |

| OPTIONS | |
|---|---|
| **T** | Tropicalisation |

| ADJUSTMENTS PER **ELRC-BL \| ELRD-L \| ELRD-L2m** | |
|---|---|
| **Configurable tripping set-point (IΔn)** | 0,025...0,25A<br>0,25...2,5A<br>2,5...25A<br>25...250A (with external multiplier CT1-M) |
| **Set-point preallarme** | fixed 70% (ELRD-L2m only) |
| **Configurable tripping delay time (t)** | 0,02...0,5s<br>0,2...5s. |
| **Self-closing attempts** | 3 or 6 consecutive (version ELRC-BL)<br>3 consecutive (version ELRD-L, ELRD-L2m) |

## MECHANICAL DIMENSIONS

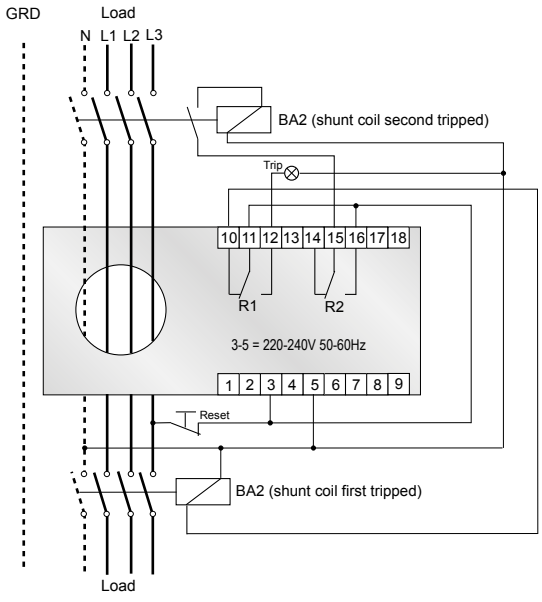


# ELRC-BL | ELRD-L | ELRD-L2m

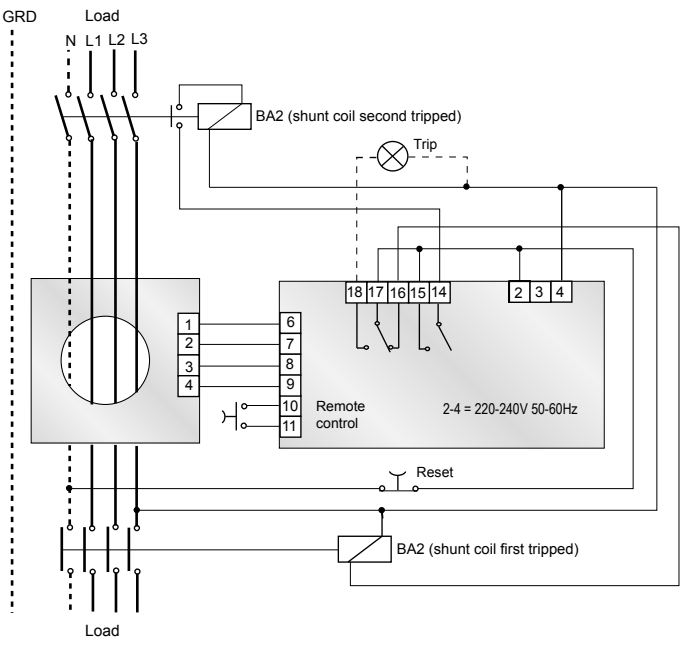
**EARTH LEAKAGE RELAY** - MODULAR VERSION 6 MODULES (PUBLIC LIGHTING)

| TECHNICAL CHARACTERISTICS | ELRC-BL | ELRD-L | ELRD-L2m |
|---|---|---|---|
| **CONTROL CIRCUIT** | | | |
| Toroidal transformer | External (version ELRC-BL Incorporated Ø 28 mm) | | |
| Adjustments tripping set-point (I$\Delta$) | 0.025÷25A | | |
| Adjustments tripping time (t) | 0.02÷5s | | |
| Set-point prellarme | 70% I$\Delta$n (fixed) (version ELRD-L2m) | | |
| Numero tentativi di ripristino | 3 o 6 consecutive | 3 consecutive | 3 consecutive |
| **AUXILIARY SUPPLY** | | | |
| Auxiliary voltage (Us) | 240 VAC | | |
| Rated frequency | 50-60 Hz | | |
| Maximum power consumption | 4 VA | | |
| **OUTPUT RELAYS** | | | |
| Contact arrangement | 2 changeovers (both trip) | 2 changeovers (1 trip, 1 alarm) | 2 changeovers (1 trip, 1 alarm) |
| Rated contact capacity Ith | 5 A (240 VAC) | | |
| **INDICATIONS** | | | |
| Auxiliary voltage available (ON) | Green LED | | |
| Relay tripping (TRIP) | Red LED | | |
| Alarm advance (ALARM) | red LED (versions ELRD-L, ELRD-L2m) | | |
| Mechanical flag (TRIP) | Flag indicator (version ELRD-L2m) | | |
| **INSULATION** | | | |
| Insulation test | 2.5kV for 1 minute | | |
| **AMBIENT OPERATING CONDITIONS** | | | |
| Operating temperature | -10÷60 °C | | |
| Storage temperature | -20÷80 °C | | |
| Relative humidity | ≤90% | | |
| **ENCLOSURE** | | | |
| Version | 6 modules DIN | | |
| Degree of protection | IP20 terminals \| IP40 with protective cover | | |
| **CERTIFICATIONS AND COMPLIANCE** | | | |
| 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 ELRC-BL




## WIRING CONNECTION ELRD-L | ELRD-L2m



# ELRC-BL | ELRD-L | ELRD-L2m

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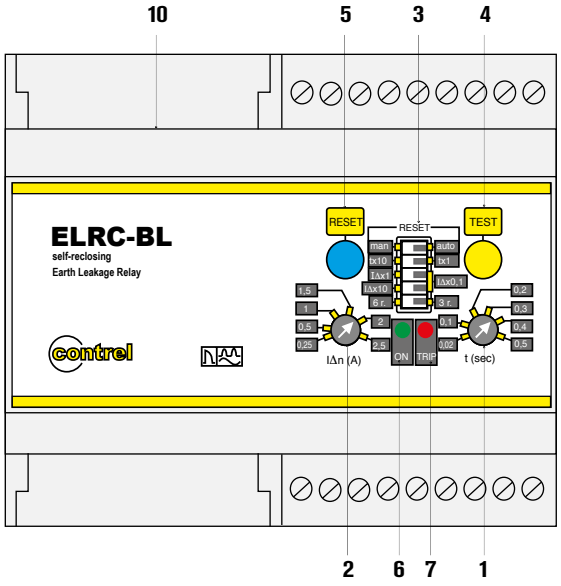


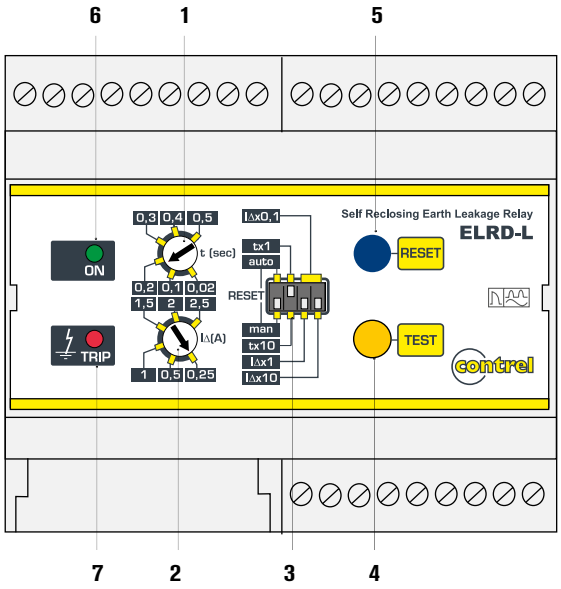


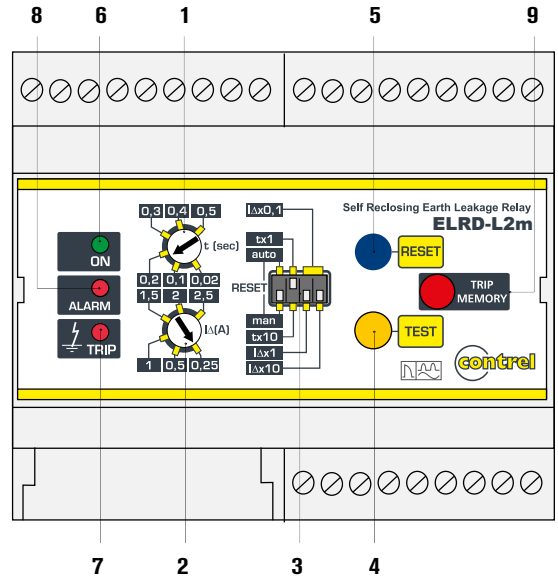


| LEGENDA | |
|---|---|
| **1** | Tripping delay time adjustment |
| **2** | Fault current to earth adjustment |
| **3** | Dip switches settings:<br>**3a** - auto reset (A) - man reset (M)<br>auto reset = automatic reset<br>man reset = manual reset through RESET key on the front. For remote resetting, simply shut off the auxiliary supply for about 1 second<br>**3B** - tx10 - tx1 constant selection for tripping delay time adjustment.<br>Examples: positioning the dip switch on tx10 and the potentiometer on 0.3 we will have a tripping delay upon exceeding the IΔn threshold of 0.3x10 = 3 seconds; positioning the dip switch on tx1 and the potentiometer on 0.3 we will have a tripping delay upon exceeding the IΔn threshold of 0.3x1 = 0.3 seconds<br>**3C** - IΔnx0,1 - IΔnx1 - IΔnx10 constant selection for fault current to earth adjustment. The constants in<br>relation to the position of the 2 dip switches are the following:<br>– dip switch position IΔnx0.1 and IΔnx0.1 K = 0.1<br>– dip switch position IΔnx1 and IΔnx0.1 K = 1<br>– dip switch position IΔnx1 and IΔnx10 K = 10<br>**3D** - Version ELRC-BL 6r - 3r selection for self-reclosing attempts<br>6r = 6 self-reclosing attempts<br>3r = 3 self-reclosing attempts |
| **4** | TEST key. Causes tripping of the relay. |
| **5** | RESET key. To reset the relay after tripping.<br>For remote reset, simply shut off the auxiliary supply for about 1 second. |
| **6** | ON LED.<br>Indicates the presence of auxiliary voltage. |
| **7** | TRIP LED.<br>Lighting up indicates the cutting in of the TRIP relay<br>due to exceeding the IΔn set. |
| **8** | ALARM LED (**version ELRD-L2m**)<br>Lighting up depends on the dip switch programming;<br>see the instructions of point 3a) |
| **9** | TRIP MEMORY (**version ELRD-L2m**) Mechanical trip relay indicator for exceeding the IΔn set. It stores the indication also in the lack of auxiliary voltage.<br>The flag indicator resetting can only be made with the RESET button. |
| **10** | Built-in current transformer.<br>Hole diameter 28mm. It must be crossed by the cables of the line to be controlled; insert the phases and neutral if present.<br>The earth cable must NOT cross the current transformer |