

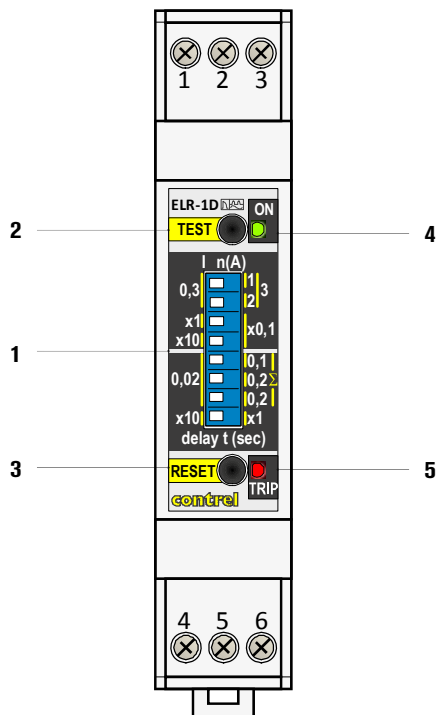
# ELR-1 D

## EARTH LEAKAGE RELAY - MODULAR VERSION 1 MODULE



ORDER CODE	RATED AUXILIARY SUPPLY VOLTAGE	OUTPUTS CONTACTS	WT [kg]
ELR-1D 24	24 VAC/DC	1	0,190
ELR-1D 48	48 VAC/DC	1	0,190
ELR-1D 110	110 VAC/DC	1	0,190
ELR-1D 230	230 VAC/DC	1	0,190

OPTIONS	
<b>T</b>	Tropicalisation



### GENERAL CHARACTERISTICS

- Earth leakage relay type A
- External toroidal
- Green power LED indicator (ON)
- Red relay tripped LED indicator (TRIP)
- Front TEST and RESET buttons
- Modular DIN housing, 1 module, with transparent cover, suitable for fixing on 35mm DIN rail (IEC/EN 60715)
- IEC degree of protection: IP20 terminals, IP40 on front with cover.

ADJUSTMENTS	
<b>Configurable tripping set-point (<math>I_{\Delta n}</math>)</b>	0,03...0,30A 0,3...3A 3...30A
<b>Configurable tripping delay time (t)</b>	0,02...0,5s 0,2...5s.

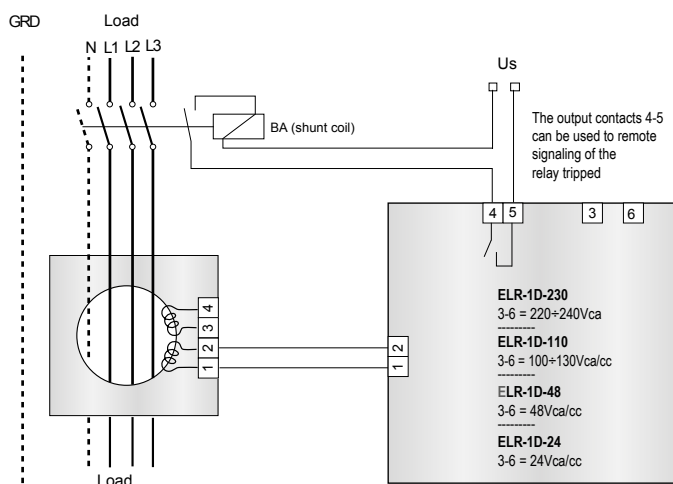
LEGENDA	
1	<p>Dip switches settings:</p> <p><b>1a</b> - 0.3 - 3 - selection of fault current to earth tripping threshold <math>I_{\Delta n}</math>. Positioning the dip switch on 0.3 we will have a tripping threshold <math>I_{\Delta n}</math> of 0.3A; in position 3 the threshold will be 3A.</p> <p><b>1b</b> - <math>I_{\Delta n} \times 0,1</math> - <math>I_{\Delta n} \times 1</math> - <math>I_{\Delta n} \times 10</math> constant selection for fault current to earth adjustment. The constants in relation to the position of the 2 dip switches are the following:</p> <ul style="list-style-type: none"> <li>• dip switch position <math>I_{\Delta n} \times 0,1</math> and <math>I_{\Delta n} \times 0,1</math> <math>K = 0,1</math></li> <li>• dip switch position <math>I_{\Delta n} \times 1</math> and <math>I_{\Delta n} \times 0,1</math> <math>K = 1</math></li> <li>• dip switch position <math>I_{\Delta n} \times 1</math> and <math>I_{\Delta n} \times 10</math> <math>K = 10</math></li> </ul> <p><b>1c</b> - 0.5(0.2+0.1+0.1) - 0.02 tripping delay time selection Positioning the dip switch on 0.2,0.2,0.1 we will have a tripping delay upon exceeding the <math>I_{\Delta n}</math> threshold of 0.5 sec; in the 0.02 position the delay will be 0.02sec</p> <p><b>1d</b> - tx10 - tx1 constant selection for tripping delay time adjustment. Examples: positioning the dip switch on tx10 and the potentiometer on 0.3 we will have a tripping delay upon exceeding the <math>I_{\Delta n}</math> threshold of <math>0.3 \times 10 = 3</math> seconds; positioning the dip switch on tx1 and the potentiometer on 0.3 we will have a tripping delay upon exceeding the <math>I_{\Delta n}</math> threshold of <math>0.3 \times 1 = 0.3</math> seconds</p>
2	TEST key. Causes tripping of the relay.
3	RESET key. To reset the relay after tripping. For remote reset, simply shut off the auxiliary supply for about 1 second.
4	ON LED. Indicates the presence of auxiliary voltage.
5	TRIP LED. Lighting up indicates the cutting in of the TRIP relay due to exceeding the $I_{\Delta n}$ set.

# ELR-1D

## EARTH LEAKAGE RELAY - MODULAR VERSION 1 MODULE

TECHNICAL CHARACTERISTICS	ELR-1D
<b>CONTROL CIRCUIT</b>	
Toroidal transformer	External
Adjustments tripping set-point ( $I\Delta$ )	0.03÷30A
Adjustments tripping time (t)	0.02÷5s
<b>AUXILIARY SUPPLY</b>	
Auxiliary voltage (Us)	24 VAC/DC   48 VAC/DC   110 VAC/DC   240-415 VAC
Rated frequency	50-60 Hz
Maximum power consumption	3 VA
<b>OUTPUT RELAYS</b>	
Contact arrangement	1 changeover (trip)
Rated contact capacity Ith	5 A (240 VAC)
<b>INDICATIONS</b>	
Auxiliary voltage available (ON)	Green LED
Relay tripping (TRIP)	Red LED
<b>INSULATION</b>	
Insulation test	2.5kV for 1 minute
<b>AMBIENT OPERATING CONDITIONS</b>	
Operating temperature	-10÷60 °C
Storage temperature	-20÷80 °C
Relative humidity	≤90%
<b>ENCLOSURE</b>	
Version	1 module DIN
Degree of protection	IP20 terminals   IP40 with protective cover
<b>CERTIFICATIONS AND COMPLIANCE</b>	
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



### MECHANICAL DIMENSIONS

