

ELR-91 | ELR-92

EARTH LEAKAGE RELAY - FLUSH-MOUNT VERSION DIN 72x72 mm



GENERAL CHARACTERISTICS

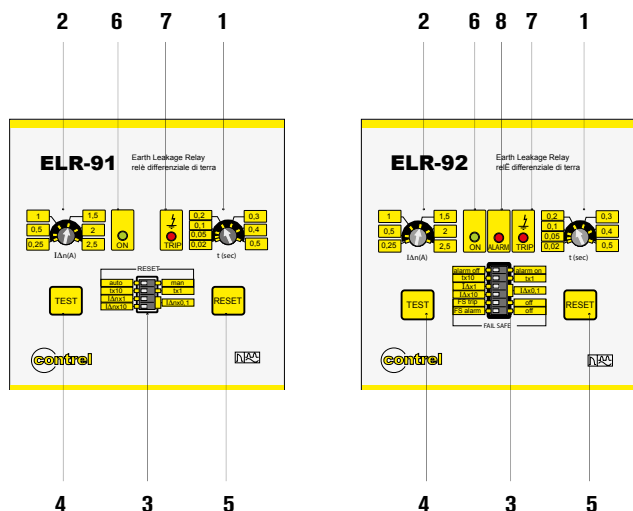
- Earth leakage relay type A
- Configurable fail safe prealarm and operation (ELR-92 only)
- Green power LED indicator (ON)
- Red relay tripped LED indicator (TRIP)
- Red tripping prealarm LED indicator (ALARM)
- Front TEST and RESET buttons
- Configurable automatic or manual resetting
- Flush mount 72x72mm housing with transparent cover
- Degree of protection: IP20 terminals, IP40 on front with cover

ORDER CODE	RATED AUXILIARY SUPPLY VOLTAGE	OUTPUTS CONTACTS	WT [kg]
ELR-91 48	24-48 VAC/DC	1	0,322
ELR-91 240	110 VAC/DC-240VAC	1	0,322
ELR-92 48	24-48 VAC/DC	2	0,322
ELR-92 110	110 VDC	2	0,322
ELR-92 415	110-240-415 VAC	2	0,322

OPTIONS	
T	Tropicalisation
F	Built-in filter for 3rd harmonic (ELR-92 only)

ADJUSTMENTS	
Configurable tripping set-point ($I_{\Delta n}$)	0,025...0,25A 0,25...2,5A 2,5...25A 25...250A ((with external multiplier GT1-M)
Configurable tripping delay time (t)	0,02...0,5s 0,2...5s.
Prealarm set-point	70% fisso (ELR-92 only)

LEGENDA	
1	Tripping delay time adjustment
2	Fault current to earth adjustment
3	Dip switches settings: 3a - Version ELR-92 auto reset (A) - man reset (M) auto reset = automatic reset man reset = manual reset through RESET key on the front. For remote resetting, simply shut off the auxiliary supply for about 1 second Version ELR-91 alarm off - alarm on alarm on = trip prealarm activated; upon reaching 70% of the set $I_{\Delta n}$ rate, LED ALARM lights up and signal contact changeover takes place. Upon exceeding the set $I_{\Delta n}$ rate LED TRIP will light up and the TRIP contacts will change over 3b - 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 $I_{\Delta n}$ threshold of $0.3 \times 10 = 3$ seconds; positioning the dip switch on tx1 and the potentiometer on 0.3 we will have a tripping delay upon exceeding the $I_{\Delta n}$ threshold of $0.3 \times 1 = 0.3$ seconds 3c - $I_{\Delta n} \times 0,1$ - $I_{\Delta n} \times 1$ - $I_{\Delta n} \times 10$ constant selection for fault current to earth adjustment. The constants in relation to the position of the 2 dip switches are the following: • dip switch position $I_{\Delta n} \times 0,1$ and $I_{\Delta n} \times 0,1$ K = 0.1 • dip switch position $I_{\Delta n} \times 1$ and $I_{\Delta n} \times 0,1$ K = 1 • dip switch position $I_{\Delta n} \times 1$ and $I_{\Delta n} \times 10$ K = 10 3d - Version ELR-92 FS trip - off FS trip = positive safety activated on TRIP relay; in this condition the TRIP relay (terminals 7-8-9) is normally energised; therefore in the event of the lack of auxiliary voltage the output contacts move to the tripping condition (TRIP). Off = positive safety deactivated. TRIP relay normally deenergised. 3e - Version ELR-92 FS alarm- off FS alarm = positive safety activated on ALARM relay, in this condition the prealarm relay ALARM is normally energised; therefore in the event of the lack of auxiliary voltage the output contacts move to the trip condition (TRIP). Off = positive safety deactivated. ALARM relay normally deenergised.
4	TEST key. Causes tripping of the relay.
5	RESET key. To reset the relay after tripping. For remote reset, simply shut off the auxiliary supply for about 1 second.
6	ON LED. Indicates the presence of auxiliary voltage.
7	TRIP LED. Lighting up indicates the cutting in of the TRIP relay due to exceeding the $I_{\Delta n}$ set.
8	ALARM LED (versions ELR-92); lighting up depends on the dip switch programming; see the instructions of point 3a).

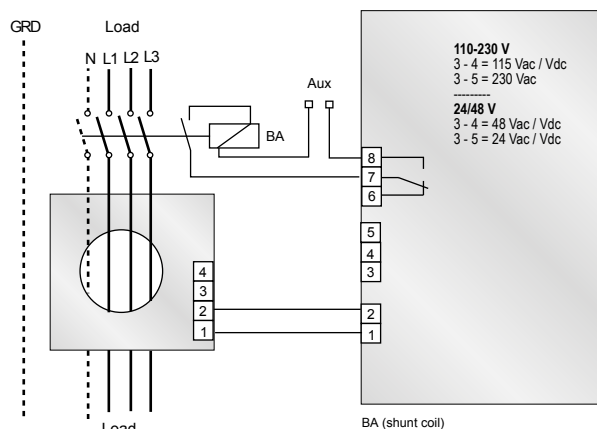


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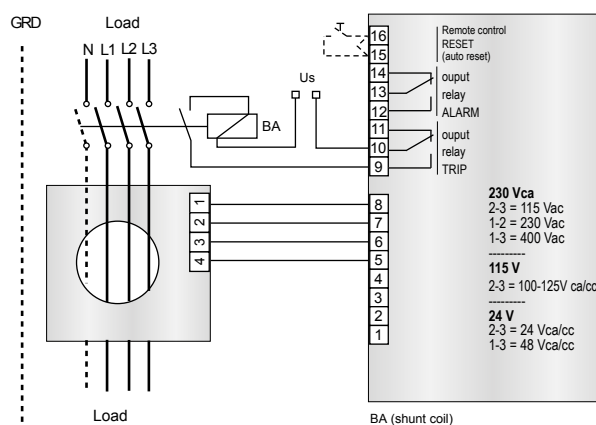
EARTH LEAKAGE RELAY - FLUSH-MOUNT VERSION DIN 72x72 mm

TECHNICAL CHARACTERISTICS	ELR-91	ELR-92
CONTROL CIRCUIT		
Toroidal transformer	External	External
Adjustments tripping set-point (I Δ)	0.025÷25A (25÷250A with external multiplier)	0.025÷25A (25÷250A with external multiplier)
Adjustments tripping time (t)	0.02÷5s	0.02÷5s
AUXILIARY SUPPLY		
Auxiliary voltage (Us)	24-48 VAC/DC 110 VAC/DC-240-415 VAC	24-48 VAC/DC 110 VDC 110-240-415 VAC/DC
Rated frequency	50-60 Hz	50-60 Hz
Maximum power consumption	3 VA	3 VA
OUTPUT RELAYS		
Contact arrangement	1 changeover (trip)	2 changeovers (1 trip, 1 alarm)
Rated contact capacity Ith	5 A (240 VAC)	5 A (240 VAC)
INDICATIONS		
Auxiliary voltage available (ON)	Green LED	Green LED
Relay tripping (TRIP)	Red LED	Red LED
Alarm advance (ALARM)	-	Red LED (versione ELR-92)
INSULATION		
Insulation test	2.5kV for 1 minute	2.5kV for 1 minute
AMBIENT OPERATING CONDITIONS		
Operating temperature	-10÷60 °C	-10÷60 °C
Storage temperature	-20÷80 °C	-20÷80 °C
Relative humidity	≤90%	≤90%
ENCLOSURE		
Version	Flush mount 72x72mm	Flush mount 72x72mm
Degree of protection	IP20 terminals IP40 with protective cover	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 ELR-91



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MECHANICAL DIMENSIONS ELR-91 | ELR-92

