

ELR-91 | ELR-92

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



GENERAL CHARACTERISTICS

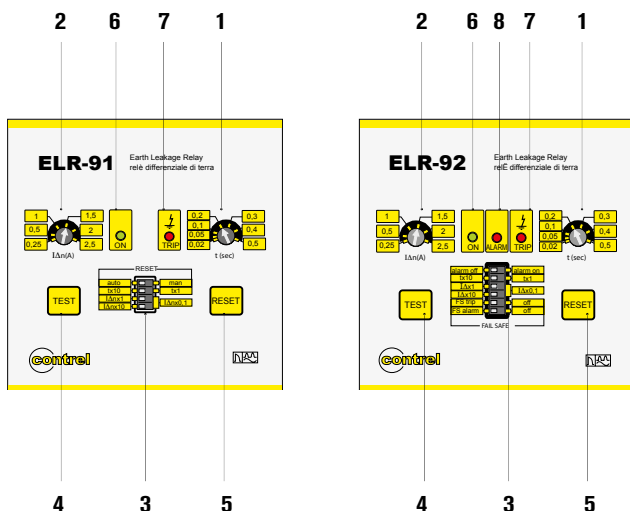
- Earth leakage relay type A
- Configurable fail safe prealarm and operation (ELR-92 only)
- Green power LED indicator (ON)
- Red relay tripped LED indicator (TRIP)
- Red tripping prealarm LED indicator (ALARM)
- Front TEST and RESET buttons
- Configurable automatic or manual resetting
- Flush mount 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 (IΔn)	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	<p>Dip switches settings:</p> <p>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 IΔn rate, LED ALARM lights up and signal contact changeover takes place. Upon exceeding the set IΔn rate LED TRIP will light up and the TRIP contacts will change over</p> <p>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 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</p> <p>3c - IΔnx0.1 - IΔnx1 - IΔnx10 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"> • dip switch position IΔnx0.1 and IΔnx0.1 K = 0.1 • dip switch position IΔnx1 and IΔnx0.1 K = 1 • dip switch position IΔnx1 and IΔnx10 K = 10 <p>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.</p> <p>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.</p>
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 Δ n set.
8	ALARM LED (versions ELR-92); lighting up depends on the dip switch programming; see the instructions of point 3a).

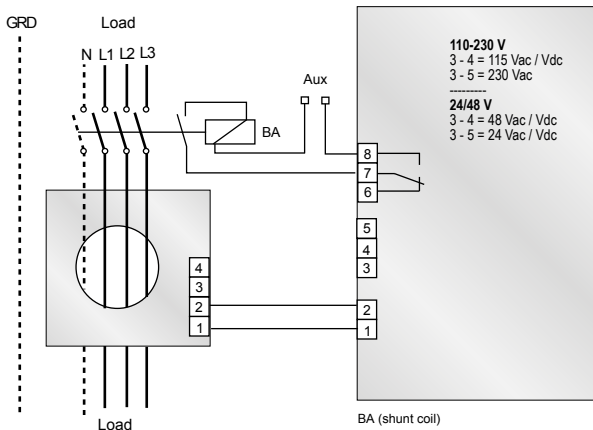


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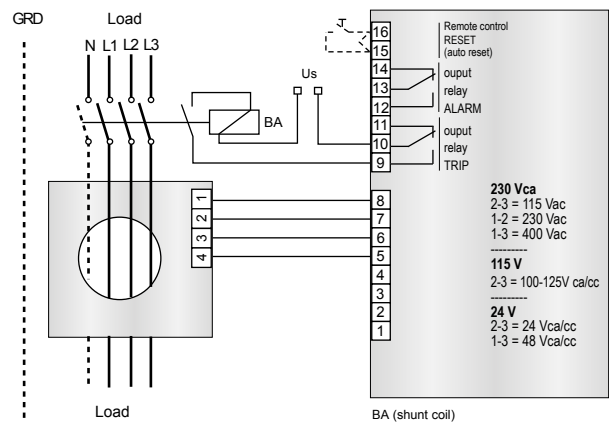
EARTH LEAKAGE RELAY - FLUSH-MOUNT VERSION **DIN 72x72 mm**

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

