



## EARTH LEAKAGE (373-ELR) PROTECTION RELAYS

### KEY FEATURES

- Precision digital settings
- LED bar graph display  
10 selectable trip levels -  
30mA to 10A
- 16 selectable time delay -  
0ms to 10 seconds
- Less than 40ms response  
time 0-1mA analogue  
output
- 8 amp 250V rated relay  
contacts
- User selectable energize or  
de-energize link
- Double-pole change over  
relay
- Single-pole pre-alarm  
option

TE Connectivity's (TE) Crompton Instruments Earth Leakage Protection Relays (373-ELR) offer a standard DPCO version, incorporating a single set point, LED leakage level indicator, and double-pole change over relay contacts. An optional pre-alarm version is available, where the main setpoint relay has two single-pole change-over contacts, one which will de-energize on trip function and the other at 60% of the selected setting.

This protection relay does not check the continuity of any part of the earthing circuit.

The 373-ELR is designed for secondary protection due to the externally connected current transformer and contactor components. Life protection devices require an integral CT and mains contactor.

Residual current devices are used to detect potentially dangerous earth fault currents before damage is caused. An undetected fault current may lead to cables overheating, which could start a fire. If high fault currents are involved, hazardous voltages may also appear on earthed equipment, putting lives at risk. The 373-ELR earth leakage protection relays allow the fault current to be continuously monitored and compared with the user-selectable leakage level. Should the leakage exceed this level, the relay will trip to indicate a fault condition. With a very fast response time of under 40ms, the supply can be disconnected before serious damage can occur. This product is intended to provide a high degree of earth leakage protection and monitoring for any electrical equipment, specifically motors and their control gear, generator sets and transformers

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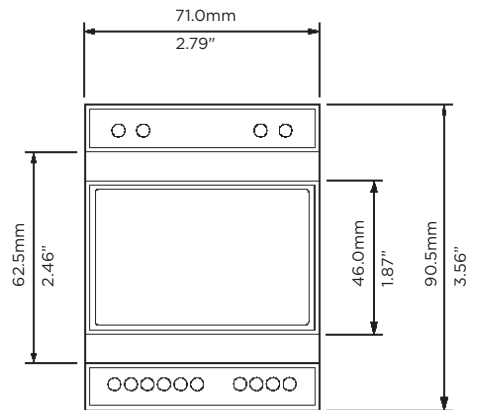
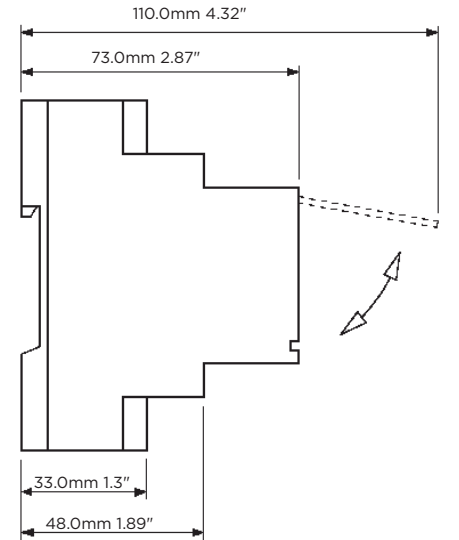
## Earth Leakage (373-ELR)



### PRODUCT SPECIFICATION

Measuring input	From core balanced current transformer
Overload	20 x nominal for 1 second
Frequency	50Hz or 60Hz +/-10%
Auxiliary voltage	12-48V DC, 24-48V AC and DC or 100-250V AC and DC
Auxiliary burden	Less than 1.5 Watts
Trip current settings	Selectable 30mA, 100mA, 200mA, 300mA, 500mA, 1A, 2A, 3A, 5A, 10A
Trip accuracy	50% < trip point current < 100% in accordance with IEC 1543
Trip response time	<40ms (at 5 x rated trip current, ignoring the selected time delay)
Time delay set points	Selectable 0ms, 50ms, 100ms, 150ms, 200ms, 300ms, 400ms, 500ms, 600ms, 700ms, 800ms, 900ms, 1 second, 2 seconds, 5 seconds, 10 seconds. When 30mA leakage is selected, the time delay is disabled
Indication	5 yellow LED bar graph for leakage levels. Red LED indicated trip function. Green LED indicated auxiliary power presence. Red LED pre-alarm indication (SPCO version only)
Relay contacts	Standard: 2-pole change over. Option: 2 1-pole change over (pre-alarm and main alarm)
Relay contact rating	8 amps at 250V AC. 8 amps at 30V DC resistive
Relay mechanical life	>100,000 operations
Analogue output	0 to 1mA = 0 to 100% of selected tripping level. Compliance IV, accuracy 10%
Enclosure style	DIN 43880, rail width 70mm
Material	Flame retardant UL94V0
Terminals	1 to 4mm <sup>2</sup> solid or stranded conductors. IP20 protection
Operating temperature	-10°C to +60°C
Storage temperature	-20°C to +70°C
Relative humidity	<95% non condensing
Weight	<250g
Dimensions	71mm widex90.5mm highx73mm deep 2.79" widex3.56" highx2.87" deep

### Dimensions



DIN 43880

### PRODUCT CODES - DOUBLE-POLE CHANGE OVER RELAY

50Hz	12-48V DC	373-ELRW-CBC5-A1-ST
50Hz	24-48V AC and DC	373-ELRW-CBC5-A2-ST
50Hz	100-250V AC and DC	373-ELRW-CBC5-A3-ST
60Hz	12-48V DC	373-ELRW-CBC6-A1-ST
60Hz	24-48V AC and DC	373-ELRW-CBC6-A2-ST
60Hz	100-250V AC and DC	373-ELRW-CBC6-A3-ST

### PRODUCT CODES - PRE-ALARM SINGLE-POLE CHANGE OVER RELAY

50Hz	12-48V DC	373-ELRW-CBC5-A1-PA
50Hz	24-48V AC and DC	373-ELRW-CBC5-A2-PA
50Hz	100-250V AC and DC	373-ELRW-CBC5-A3-PA
60Hz	12-48V DC	373-ELRW-CBC6-A1-PA
60Hz	24-48V AC and DC	373-ELRW-CBC6-A2-PA
60Hz	100-250V AC and DC	373-ELRW-CBC6-A3-PA

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### FOR MORE INFORMATION: TE Technical Support Centers

USA/Canada:	+1 800-327-6996
Brazil:	+55 11-2103-6023
Mexico:	+52 55-1106-0800
South America:	+57 1-319-8962
Benelux:	+32 16-508-695
France:	+33 (0) 38-058-3210
Germany/Switzerland:	+49 (0) 89-608-9903
Italy:	+39 335-834-3453
Middle East/Africa:	+971 4-211-7020
Russia:	+7 495-790-790-2-200
Spain/Portugal:	+34 912-681-885
UK:	+44 08708-707-500
China:	+86 400-820-6015