



## PRODUCT OVERVIEW

Analogue based earth leakage relays measuring low-level leakage or unbalanced currents due to insulation loss in conductors or equipment to be protected. A zero phase current transformer (toroid) is used to sense the leakage current with all protected conductors passing through the toroid.

Pre-fault alarm contact and a fail safe trip contact provide better fault prevention control of the system or equipment. The pre-fault alarm contact is energised whenever the leakage current exceeds 50% of the sensitivity setting ( $I\Delta n$ ).

The fail safe trip contact will become energised when the relay is powered up and healthy.

## FEATURES

- Fascia mount
- Pre-fault alarm indicator
- Detection of missing ME-T
- Relay tripped indicator
- High immunity to electrical interference
- Positive safety output contact
- Earth leakage level indicators
- Remote reset and remote test functions

## ORDERING INFORMATION

### PART NUMBER

ME-ELR-AF-24D

ME-ELR-AF-110A

\*See Price List or Catalogue for Toroid to suit

### DESCRIPTION

For 50/60 Hz system, auxiliary voltage 21~28V DC

For 50/60 Hz system, auxiliary voltage 94~127V AC

## TECHNICAL DATA

### AUXILIARY SUPPLY

Model ME-ELR-AF-24D : 21~28V DC  
 Model ME-ELR-AF-110A : 94~127V AC  
 Rated frequency : 50/60 Hz  
 VA Rating : 3 VA typical

### SETTING RANGES

Sensitivity adjustment : 0.03 A to 30 A  
 Delay time adjustment : 0 sec to 3.0 sec

### PERFORMANCE

Current accuracy : -15% to +0%  
 Timing accuracy :  $\pm 5\%$

### INPUT

Remote Test / Reset Inputs : N.O. dry contact

### OUTPUT CONTACTS

Contact arrangement : 1 x manual reset type  
 : 1 x safety contact  
 : NC and NO contacts available  
 Rated voltage : 250 V AC  
 Contact rating : 5 A  
 Expected electrical life : 100,000 operations at rated current  
 Expected mechanical life :  $5 \times 10^6$  operations

### INDICATORS

Auxiliary supply : Green indicator  
 Time delay : Red indicator  
 Trip : Red indicator  
 Real-time leakage current : Red indicator

### ZERO - PHASE CURRENT TRANSFORMER

To operate with MerCs' ME-T series of current transformers

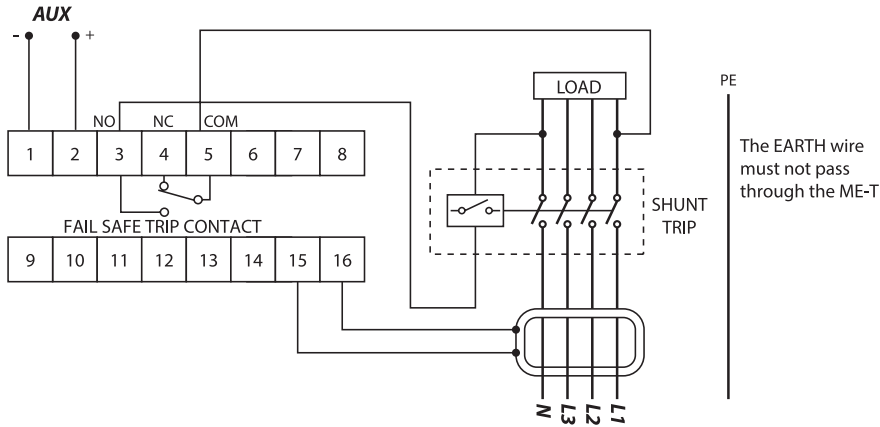
### MECHANICAL

Mounting : Panel mounting  
 Dimension (mm) : 96(w) x 96(h) x 90(d)  
 Approximate weight : 0.6 kg (excluding ME-T)  
 Enclosure protection : IP21 at the panel

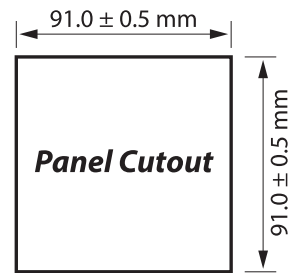
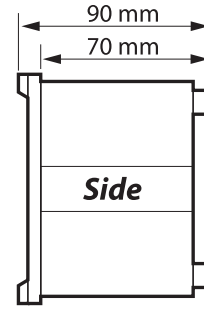
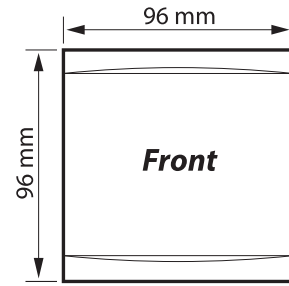
### ENVIRONMENTAL CONDITIONS

Temperature : -5°C to +55°C  
 Humidity : 56 days at 93% RH and 40°C non-condensing

TYPICAL APPLICATIONS DIAGRAM FOR ME-ELR-AF-24D



CASE DIMENSIONS



TYPICAL APPLICATIONS DIAGRAM FOR ME-ELR-AF-110A

