

Earth Leakage Relay - Analogue Din



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

- Din mount
- 25 selectable sensitivity settings: 30 mA to 30 A
- 9 selectable time delays: 0ms to 3s
- Earth leakage level indicators
- Detection of missing ME-T
- Relay tripped indicator
- Trip starting indicator
- Protected against nuisance tripping
- 24VDC AND 110VAC options available
- 50% pre-fault output contact
- Remote test and remote reset functions

ORDERING INFORMATION

| PART NUMBER | DESCRIPTION |
|----------------|---|
| ME-ELR-AD-24D | For 50/60 Hz system, auxiliary voltage 21~28V DC |
| ME-ELR-AD-110A | For 50/60 Hz system, auxiliary voltage 94~127V AC |

*See Price List or Catalogue for Toroid to suit

TECHNICAL DATA

AUXILIARY SUPPLY

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

SETTING RANGES

| | |
|---------------------|--|
| Sensitivity setting | : 30 mA, 50 mA, 75 mA, 100 mA, 125 mA, 150 mA, 200 mA, 250 mA, 300 mA, 500 mA, 750 mA, 1 A, 1.25 A, 1.5 A, 2 A, 2.5 A, 3 A, 5 A, 7.5 A, 10 A, 12.5 A, 15 A, 20 A, 25 A, 30 A |
| Time delay setting | : Instantaneous, 50 ms, 100 ms, 150 ms, 250 ms, 350 ms, 500 ms, 1 s, 3 s |

PERFORMANCE

| | |
|------------------|---------------|
| Current accuracy | : -15% to +0% |
| Timing accuracy | : ±5% |

INPUT

Remote test / Reset inputs : N.O. dry contact

OUTPUT CONTACTS

| | |
|-----------------------------------|---------------------------------------|
| Contacts (Trip / 50% pre-fault) | |
| Rated voltage | : 250 V AC |
| Contact rating | : 5 A |
| Expected electrical life | : 100,000 operations at rated current |
| Expected mechanical life | : 5 x 10 ⁶ operations |

INDICATORS

| | |
|------------------|---------------------------------------|
| Auxiliary supply | : Green indicator |
| Time delay | : Red indicator |
| Trip | : Red indicator |
| Leakage current | : 5 red indicators for leakage levels |

ZERO - PHASE CURRENT TRANSFORMER

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

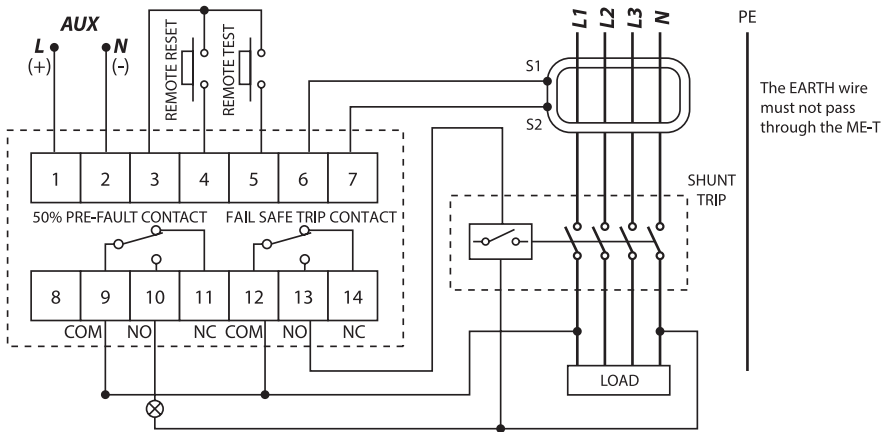
MECHANICAL

| | |
|----------------------|---------------------------|
| Mounting | : DIN rail mounting |
| Dimension (mm) | : 71(w) x 85(h) x 70(d) |
| Enclosure protection | : IP54 at the panel |
| Approximate weight | : 0.4 kg (excluding ME-T) |

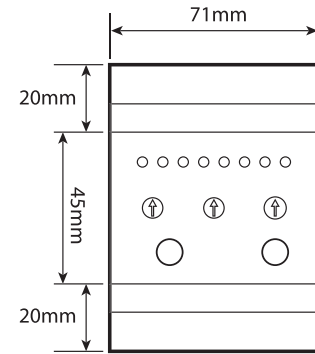
ENVIRONMENTAL CONDITIONS

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

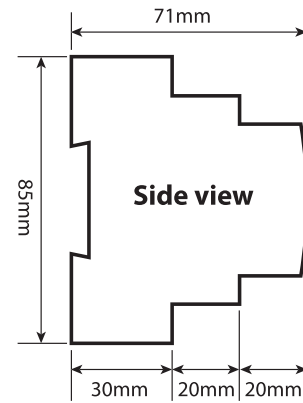
TYPICAL APPLICATIONS DIAGRAM



CASE DIMENSIONS



Front view



Side view