

Earth Leakage Relay - Digital Din



PRODUCT OVERVIEW

Microprocessor based digital 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_{Δn}).

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

FEATURES

- Din mount
- Digital earth leakage relay
- Programmable current sensitivity and time delay
- Detection of missing ME-T
- Relay trip indicator
- Relay alarm indicator
- Real-time leakage current display
- Leakage fault current recording
- 50% pre-fault indicator
- Standard DIN rail mounting
- Protection against nuisance tripping
- Positive safety output contact
- 50% pre-fault output contact
- Remote reset function

ORDERING INFORMATION

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

*See Price List or Catalogue for Toroid to suit

TECHNICAL DATA

AUXILIARY SUPPLY

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

SETTING

Sensitivity setting	:30mA, 50mA, 0.1A to 1.0A (step=50mA), 1.0A to 5.0A (step=1.0A)
Time delay setting	:0.05s to 0.50s (step=0.05s)

PERFORMANCE

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

RECORD

Fault record	:3 latest tripped fault currents or "tSt" for manual test trip
Storage	:Non-volatile memory

INPUT

Remote Reset : N.O. dry contact

OUTPUTS

Trip Contact	: Activated if relay tripped or ME-T fault
Positive safety contact	: Activated when ME-T is connected properly to the relay
Pre-fault alarm contact	: Activated when leakage current exceeded 50% of sensitivity setting

INDICATORS

50% pre-fault alarm	: Red indicator
Time delay	: Red indicator
Leakage trip	: 7-segment display and red indicator
ME-T fault	: 7-segment display and red indicator
Real time leakage current	: 7-segment display

ZERO - PHASE CURRENT TRANSFORMER

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

MECHANICAL

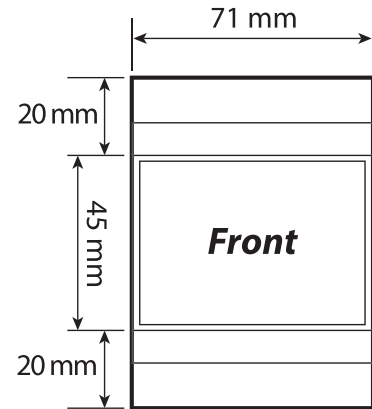
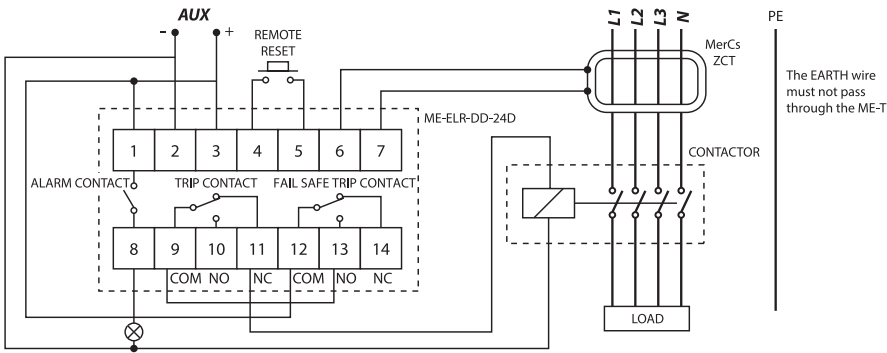
Mounting	: Panel mounting
Dimension (mm)	: 71(w) x 85(h) x 70(d)
Approximate weight	: 0.4 kg (excluding ME-T)
Enclosure protection	: IP20 at the panel

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-DD-24D

CASE DIMENSIONS



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

