



X10

EARTH LEAKAGE RELAY



FEATURES

- Numerical earth leakage relay
- Programmable TRUE RMS or fundamental detection
- Programmable sensitivity and time delay setting
- Two independent group of protection settings
- Programmable pre-fault alarm threshold
- Programmable alarm setting
- Detection of no connection to ZCT
- 2 x 16 digits LCD Display
- Real-time leakage current display
- Event, fault and alarm records with timestamp, non-volatile
- Multifunction programmable digital input
- Multifunction programmable output contacts
- RS485 MODBUS-RTU Communication
- Protection against nuisance tripping
- Compatible with Mikrosafe Software

TECHNICAL DATA

AUXILIARY SUPPLY

X10-ELR-240AD
 Rated voltage : 100~240V AC or 140~340V DC
 Operating voltage : 85~265V AC or 110~370V DC
 Rated frequency : 50 or 60 Hz
 Power consumption : 6VA max

DIGITAL INPUTS

Input type : Optically isolated
 Rated voltage : 20~380V DC or 50~270V AC

OUTPUT CONTACTS

Trip Contact Relay R1, R2, IRF Contact Relay R3
 Rated voltage : 240V AC
 Contact arrangement : Change-over
 Continuous carry : 5A
 Expected electrical life : 100,000 operations at rated load
 Expected mechanical life : 10 x 10⁶ operations

INDICATORS

Display : 2 x 16 LCD Display
 Alarm : Yellow Indicator
 Trip : Red Indicator

RECORDS

Fault record : Up to 50 records, non-volatile
 Event record : Up to 250 records, non-volatile
 Alarm record : Up to 30 records, non-volatile

SETTING RANGES

Sensitivity setting : 30mA, 0.05-1.00 (Step=0.05A)
 : 1.00-10.0A (Step=0.25A)
 Time delay setting : Instantaneous, 0.1-3.0s (Step=0.1s)

ZERO-PHASE CURRENT TRANSFORMERS

To operate with Mikro's ZCT series of current transformer

ENVIRONMENTAL CONDITIONS

Pollution degree : 2
 Operating temperature : -10 °C to 55 °C
 Storage temperature : -20 °C to 70 °C
 Humidity : 5% to 95%, non-condensing

MECHANICAL

Mounting type : Panel mounting
 Dimension(mm) : 96(W) x 96(H) x 125(L)
 Enclosure protection : IP54 at panel
 Approximate weight : 0.6 kg (Excluding ZCT)

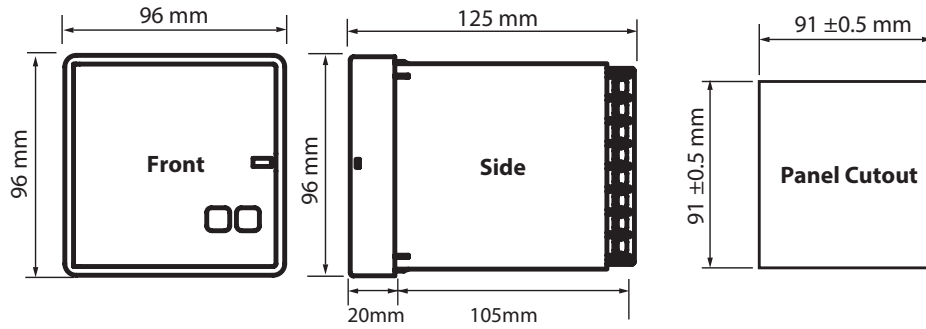
STANDARDS

IEC 60947-2 Annex M

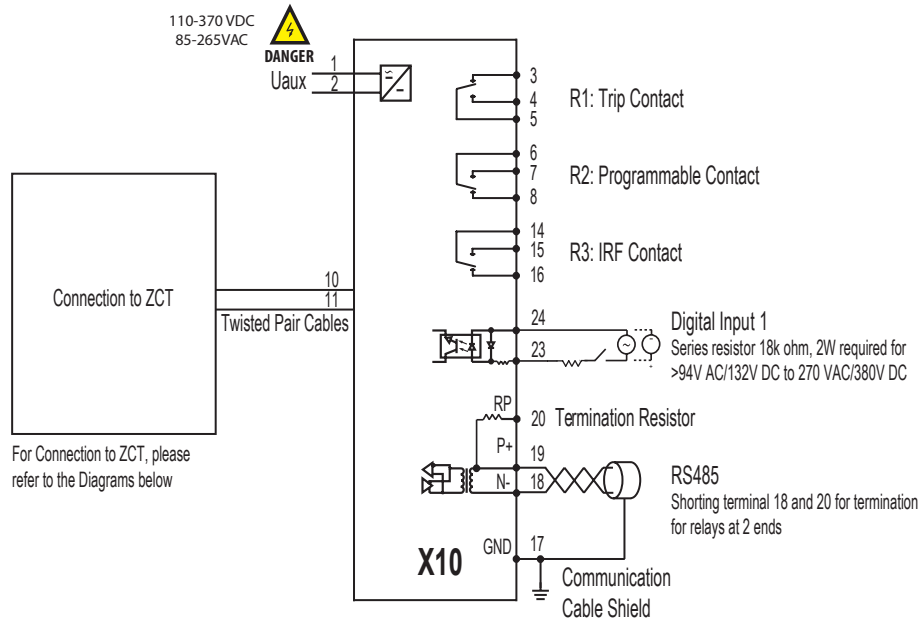
ACCURACY

Sensitivity accuracy : -15% to 0%
 Timing accuracy : ± 5%

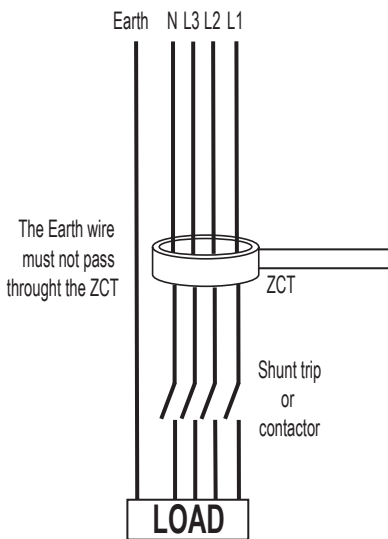
CASE DIMENSION



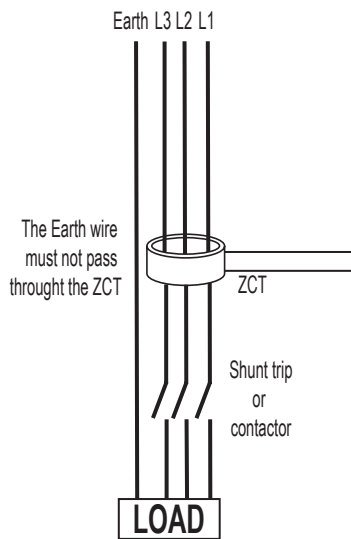
TYPICAL APPLICATION DIAGRAM



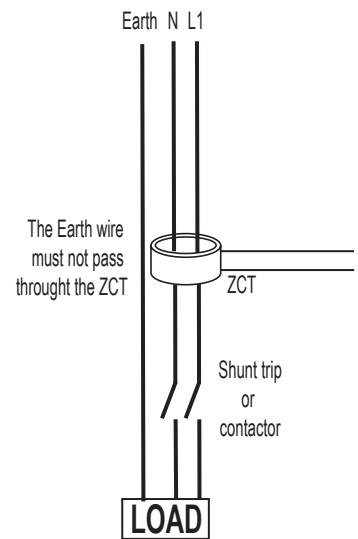
For 3-Phase 4-Wire System



For 3-Phase 3-Wire System



For Single Phase System



ORDERING INFORMATION

MODEL
X10-ELR-240AD

DESCRIPTION
For 50/60 Hz, auxiliary voltage 85 ~ 265V AC or 110 ~ 370V DC