

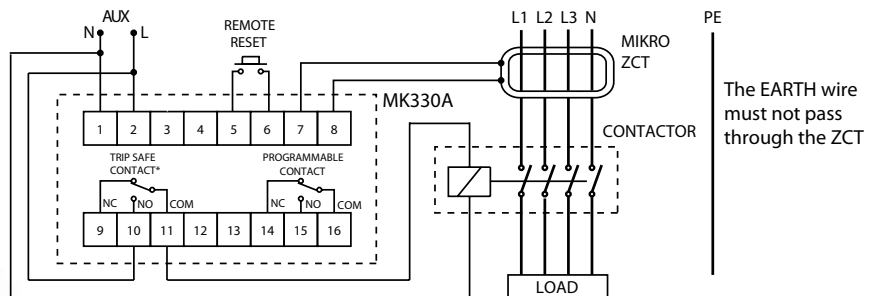


# MK330A

## Features

- Numerical auto-reclosing earth leakage relay
- Programmable current sensitivity and time delay
- Programmable dead time and number of shots
- Programmable persistent fault time and reclaim time
- Programmable lockout auto reset time
- Incorporated positive safety feature into trip contact
- One programmable contact for flexibility
- Detection of no connection to ZCT
- Relay trip indicator
- Relay alarm indicator
- Real-time leakage current display
- Leakage fault current recording
- Remote reset function
- Standard DIN 96x96mm panel mounting
- Protected against nuisance tripping

## TYPICAL APPLICATION DIAGRAM



\* The trip safe contact is activated (terminal 10-11 closed) when the relay is in normal power-up condition with the measured leakage current less than 0.85 IΔn.

## Technical Data

### AUXILIARY SUPPLY

Model MK330A-230A	: 184~276VAC
Model MK330A-110A	: 94~127VAC
Rated frequency	: 50Hz
VA rating	: 3VA typical

### PERFORMANCE

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

### SETTING

Sensitivity adjustment	: 30mA, 50mA, 0.10~1.00A (Step=50mA) 1.00~10.0A (Step=1.00A)
Time delay adjustment	: Instantaneous, 0.1~3.0sec (Step=0.1s)
Number of shots	: 0~30 (Step=1, 0=Disable auto re-close function)
Dead time	: 1~500sec (Step=1sec)
Persistent fault time	: 0~500sec (Step=1sec, 0=Disable function)
Reclaim time	: 0~500min (Step=1min, 0=Disable function)
Lockout auto reset time	: 0~200hour (Step=1Hr, 0=Disable function)
Programmable contact	: Option 0 = Disable Option 1 = All (Option 2 to 6) Option 2 = ZCT error Option 3 = Leakage trip, test trip, re-close lockout Option 4 = Re-close lockout Option 5 = Pre-fault alarm, leakage trip, test trip, re-close lockout Option 6 = Re-close lockout, ZCT error

### 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
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### OUTPUTS

Trip safe contact	: Activated when the relay is in normal power-up condition with the measured leakage current less than 0.85 I <sub>Δn</sub> .
Programmable contact	: Activated according to user setting

### CONTACTS

Contact arrangement	: Change-over
Contact rating	: 5A (NO) / 3A (NC) / 250V AC1
Expected electrical life	: 10,000 at rated current
Expected mechanical life	: 5 x 10 <sup>6</sup> operations

### INDICATORS

Pre-fault alarm	: Red indicator (Normal blink)
Time delay	: Red indicator (Fast blink)
Leakage trip	: 7-segment display and red indicator
Re-close lockout	: 7-segment display and red indicator
ZCT connection error	: 7-segment display and red indicator
Real-time leakage current	: 7-segment display

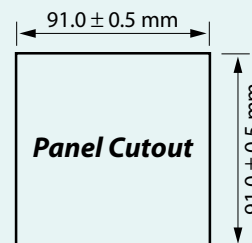
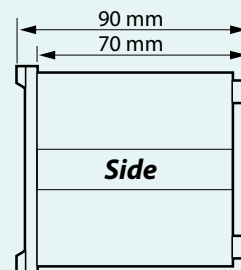
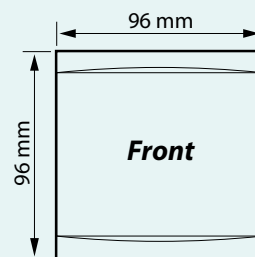
### ZERO-PHASE CURRENT TRANSFORMER

To operate with Mikro's ZCT series of current transformers

### MECHANICAL

Mounting method	: Panel mount
Front panel	: Standard DIN 96x96mm
Approximate weight	: 0.58kg (excluding ZCT)

## CASE DIMENSIONS



## Ordering Information

MODEL	DESCRIPTION
MK330A-230A	For 50Hz system, auxiliary voltage 184~276VAC
MK330A-110A	For 50Hz system, auxiliary voltage 94~127VAC

