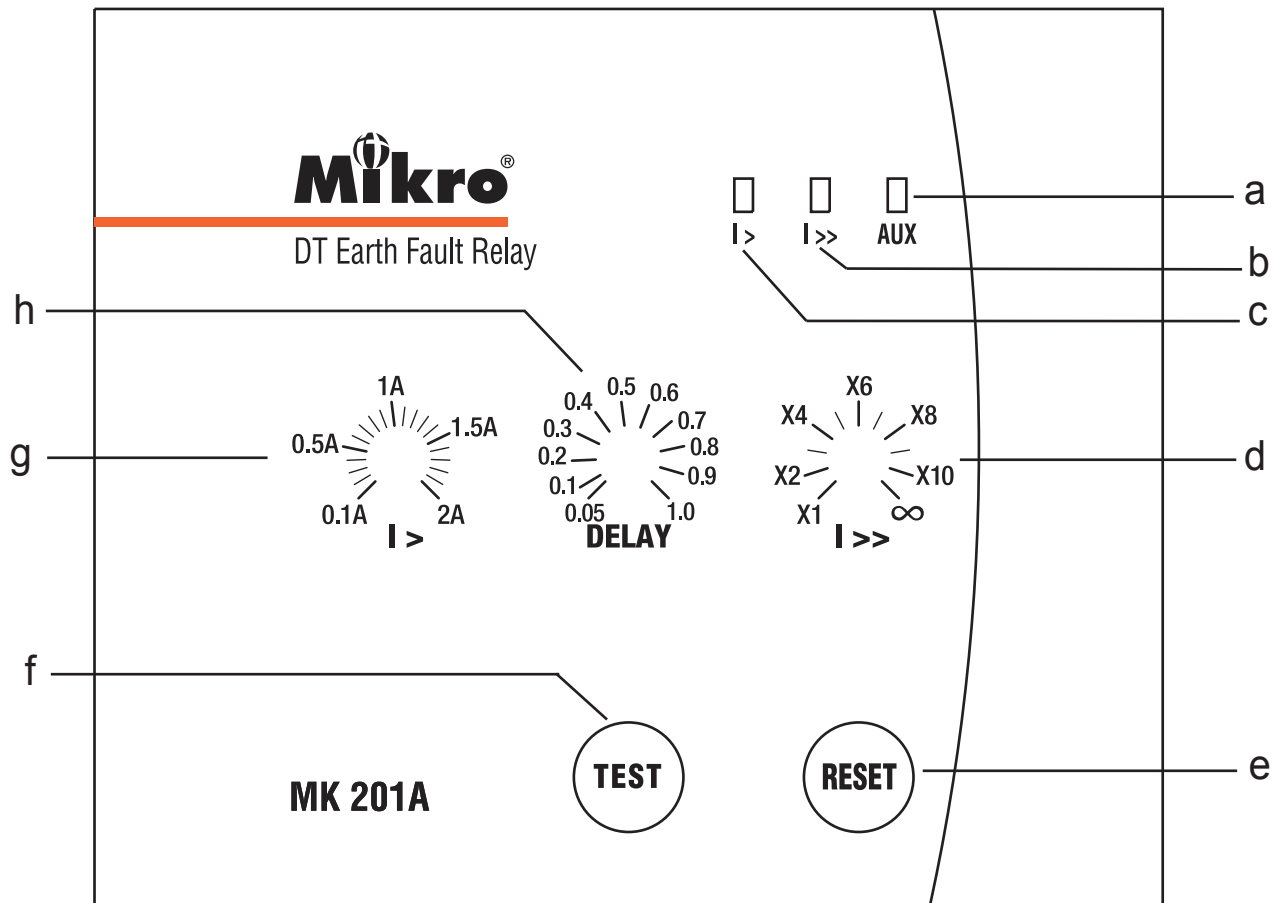


# MK201A DT Earth Fault Relay User's Guide

## A BRIEF OVERVIEW



- a - Auxiliary power supply indicator
- b - High-set start/trip status indicator
- c - Low-set start/trip status indicator
- d - Earth-fault high-set adjustment
- e - Trip reset button
- f - Test button
- g - Earth-fault low-set adjustment
- h - Delay time adjustment

# TECHNICAL DATA

## 1. Current and Time Adjustments

### Earth-fault Low-set Current ( $I>$ ) Adjustment

- This adjustment is for setting the minimum earth-fault current for tripping. If the measured current exceeds this threshold value, tripping starts. After a prefixed delay time determined by the DELAY adjustment, the trip contacts will be activated.
- The setting range is from 0.1A to 2A.

### Earth-fault High-set Current ( $I>>$ ) Adjustment

- This adjustment is for setting the instantaneous tripping current due to an earth-fault.
- The setting range is from 1x to 10x of the earth-fault low-set setting value.  
 $I>> = a \times I>$ ,  $a = 1 \text{ to } 10$
- This high-set feature can be disabled by setting the tripping current to infinity ( ' )

### Time Delay (DELAY) Adjustment

- This time delay setting is for setting the delay time from the start of the earth-fault low-set tripping to actual tripping of the relay contact.
- The setting range is from 0.05 sec to 1.0 sec.

## 2. Light Indicators

The light indicators display the status of the system.

Indicator			Status
AUX	$I>$	$I>>$	
Off	Off	Off	No auxiliary power supply.
On	Off	Off	System normal mode. No tripping.
On	On	Off	Earth-fault low-set start.
On	Blink	Off	Earth-fault low-set tripped.
On	Off	On	Earth-fault high-set start.
On	Off	Blink	Earth-fault high-set tripped.

## 3. Push Buttons

### Reset Button

- The reset button is for resetting the light indicators ( $I>$  or  $I>>$ ) after an earth-fault tripping has occurred.
- To reset, press the reset button once.

### Test Button

- Test button is for checking the relay operation.
- Push on the test button to simulate an earth-fault low-set and high-set trip condition.

## 4. Trip Contacts

There is one set of tripping contacts namely, R1.

### R1 - Manual Reset Type

- This contact (R1) is activated during an earth-fault trip. the contacts remain activated regardless of the removal of fault current. This relay can only be reset by pressing the “RESET” button.

## 5. Electrical Specification

### Auxiliary Supply

MK201A-240A.....	198~265 VAC
MK201A-110A.....	94~127 VAC
Supply frequency.....	50Hz
VA rating.....	3 VA typical

### Trip Contact

Rated Voltage.....	250 VAC
Continuous carry.....	5A ( $\cos \phi = 1.0$ )
Expected electrical life.....	100,000 operations
Expected mechanical life.....	5 million operations

### Setting Ranges

Low-set ( $I>$ ).....	0.1A to 2.0A
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	2% to 40%
Low-set delay time (DELAY).....	0.05 sec to 1.0 sec
High-set ( $I>>$ ).....	$I >$ to $10 \times I >$ or disable
High-set delay time ( $t>>$ ).....	instantaneous

### Indicators

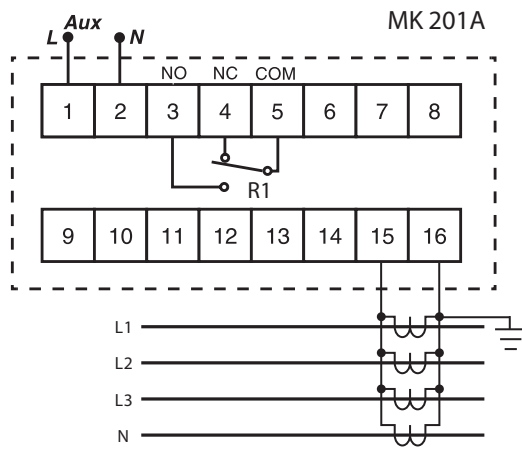
Auxiliary supply.....	Green LED indicator
Pick-up.....	Red LED indicator
Trip.....	Red LED indicator

## 6. Mechanical

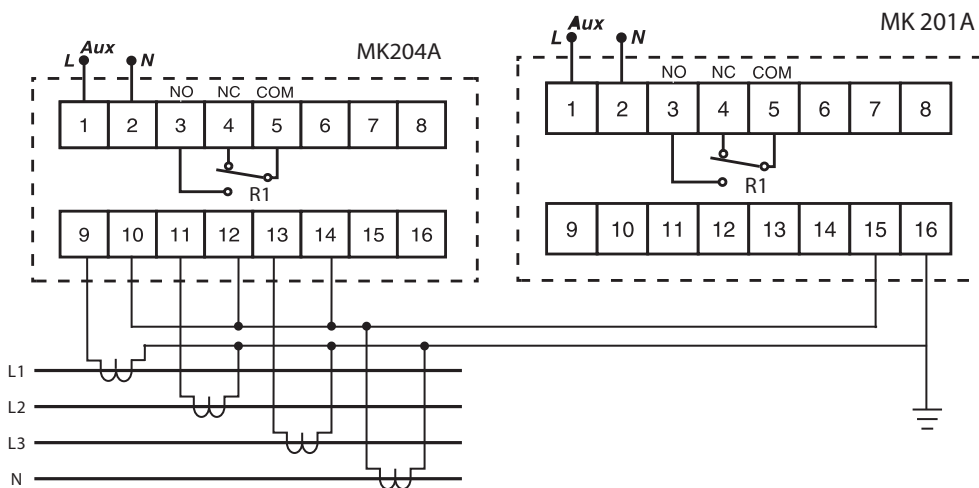
Mounting.....	Panel mounting
Front panel.....	Standard DIN 96x96 mm
Approximate weight.....	0.6 kg

## 7. Connection Diagram

### a) Earth fault relay



### a) Combined overcurrent and earth fault relays



## 8. Case Dimensions

