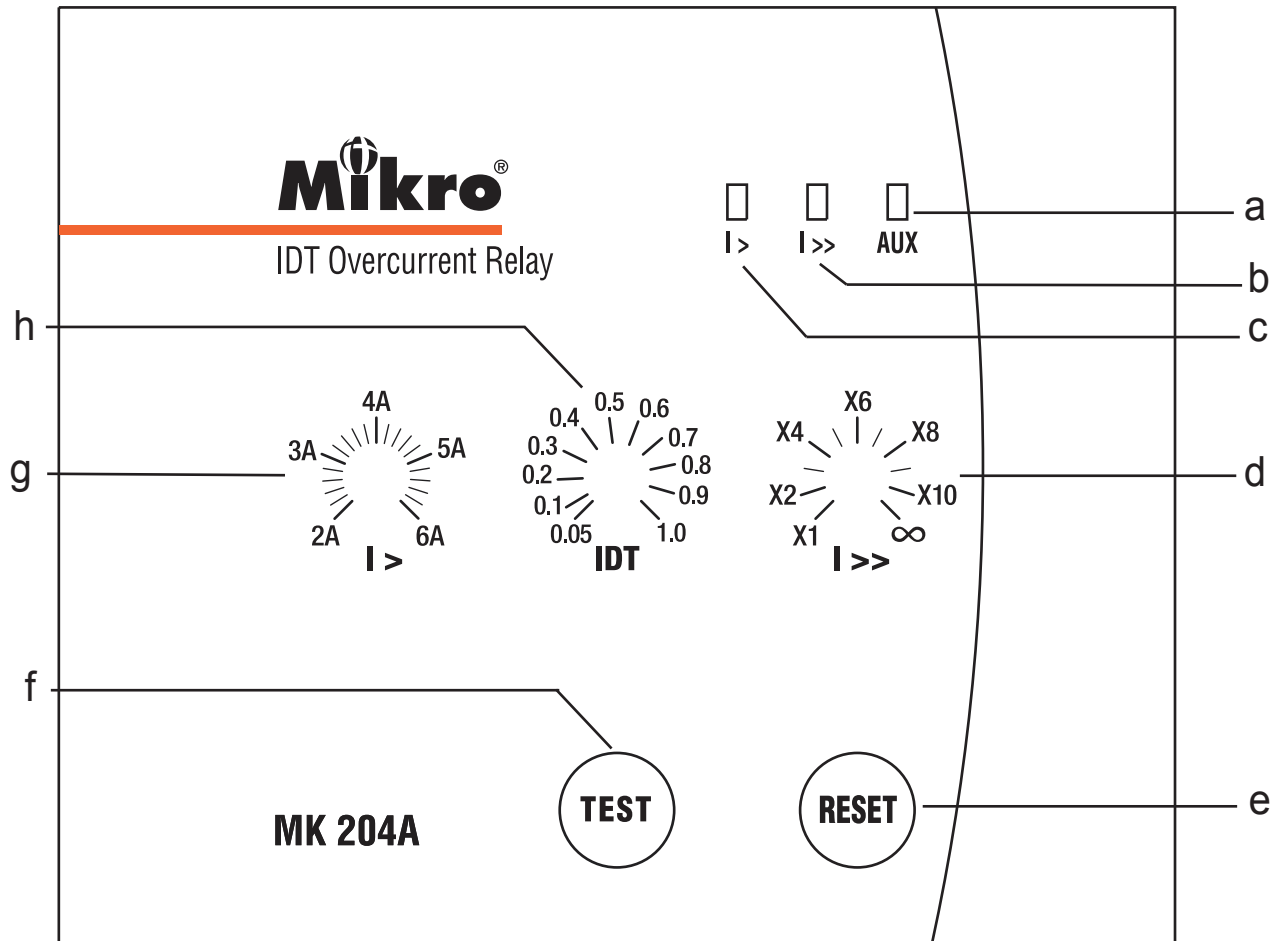


MK204A IDT Overcurrent Relay User's Guide

A BRIEF OVERVIEW



- a - Auxiliary power supply indicator
- b - High-set start/trip status indicator
- c - Low-set start/trip status indicator
- d - Overcurrent high-set adjustment
- e - Trip reset button
- f - Test button
- g - Overcurrent low-set adjustment
- h - Time multiplier adjustment

TECHNICAL DATA

1. Current and Time Adjustments

Overcurrent Low-set Current ($I_{>}$) Adjustment

- This adjustment is for setting the minimum overcurrent for tripping with time delay.
- The setting range is from 2A to 6A.

Overcurrent High-set Current ($I_{>>}$) Adjustment

- This adjustment is for setting the instantaneous tripping current due to an overcurrent.
- The setting range is from 1x to 10x of the overcurrent low-set setting value.

$$I_{>>} = a \times I_{>}, \quad a = 1 \text{ to } 10$$

- This high-set feature can be disabled by setting the tripping current to infinity (∞)

Time Multiplier (IDT) Adjustment

- The delay timing adjustment is for selecting different delay curve as shown in figure 1.
- The setting range is from 0.05 to 1.0.

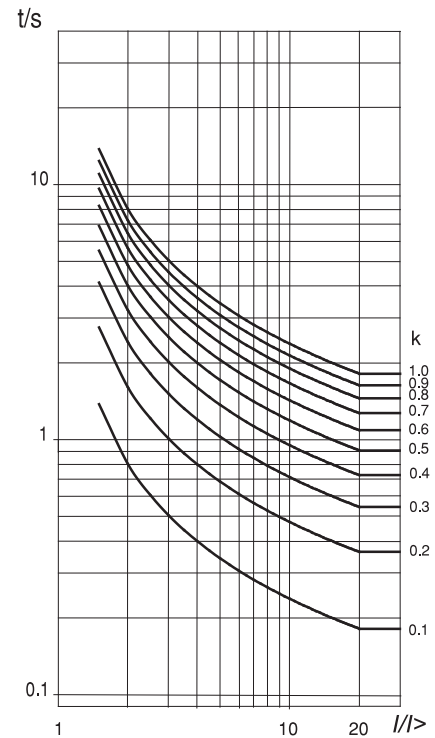


Figure 1: IDT Inverse

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	Overcurrent low-set start.
On	Blink	Off	Overcurrent low-set tripped.
On	Off	On	Overcurrent high-set start.
On	Off	Blink	Overcurrent high-set tripped.

3. Push Buttons

Reset Button

- The reset button is for resetting the light indicators ($I>$ or $I>>$) after an overcurrent 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 overcurrent low-set and high-set trip condition.

4. Trip Contacts

There is one set of tripping contacts namely, R1.

R 1 - Manual Reset Type

- This contact (R1) is activated during an overcurrent 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

MK204A-240A.....	198~265 VAC
MK204A-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 ($I>$).....	Green LED indicator 40% to 120%
Time multiplier(TM).....	0.05 to 1.0
High-set ($I>>$).....	$I>$ to 10 $I>$ or disable
High-set delay time($t>>$).....	instantaneous

Indicators

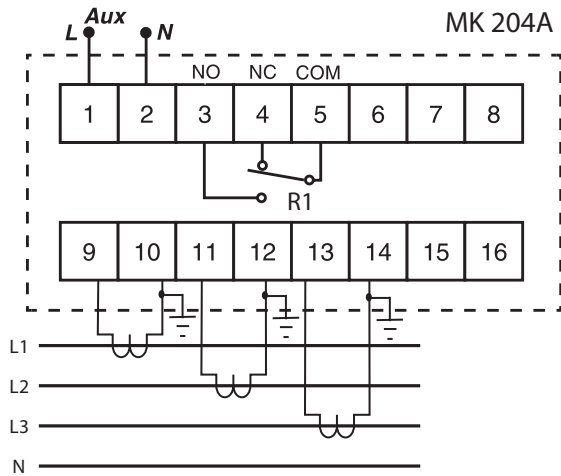
Auxiliary supply.....	Green LED indicator
Pick-up.....	Red LED indicator
Trip.....	Red LED indicator

6. Mechanical

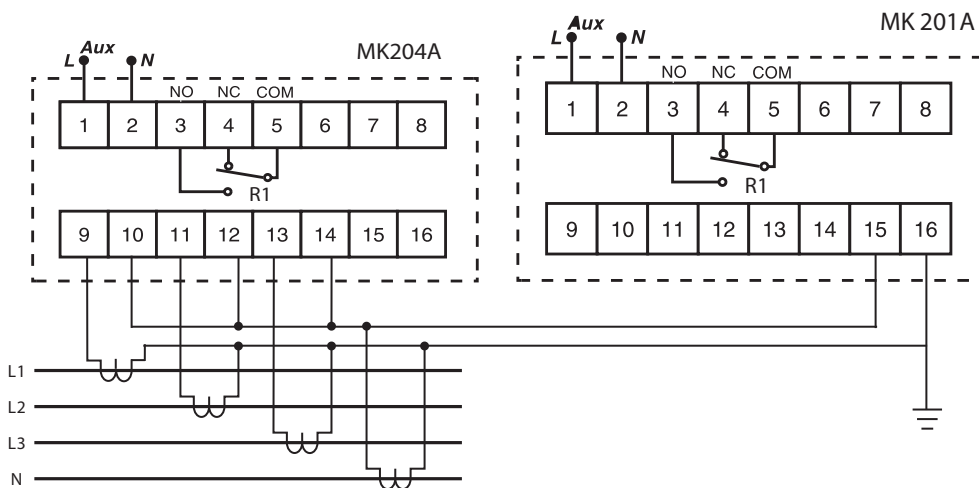
Mounting.....	Panel mounting
Front panel.....	Standard DIN 96x96 mm
Approximate weight.....	0.7 kg

7. Connection Diagram

a) Overcurrent relay



a) Combined overcurrent and earth fault relays



8. Case Dimensions

