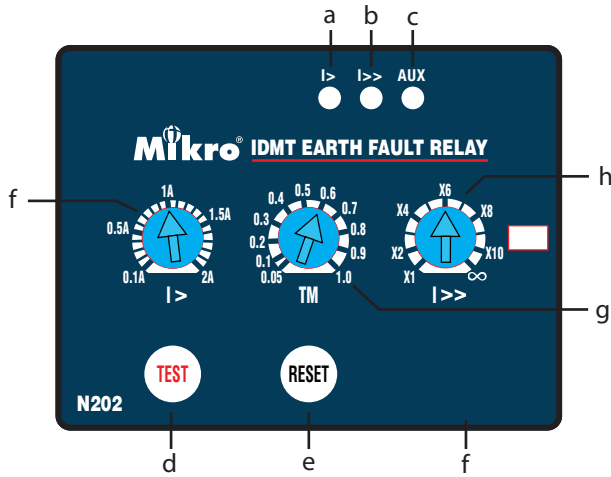


# N202 IDMT Earth-Fault Relay User's Guide



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

## TECHNICAL DATA

### 1. Current and Time Adjustments

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

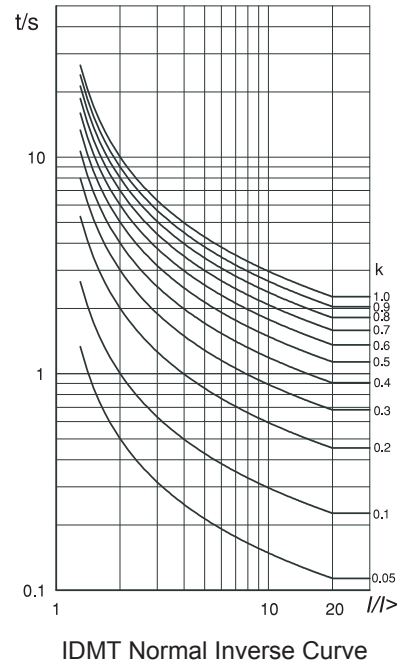
- This adjustment is for setting the minimum earth-fault current for tripping with time delay.
- The setting range is between 0.1A to 2A

#### 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 between 1x to 10x of the earth-fault low-set setting value.
- $I_{>>} = a \times I_{>}$  (a= 1 to 10)
- This high-set feature can be disabled by setting the tripping current to infinity ( $\infty$ ).

#### Time Delay (TM) Adjustment

- The time multiplier is for setting the normal inverse time/ current characteristic (IDMT) as according to BS142.
- The setting range between 0.05 to 1.0 .



### 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	Blink	Off	Earth-fault low-set start.
On	On	Off	Earth-fault low-set tripped.
On	Off	Blink	Earth-fault high-set start.
On	Off	On	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 and hold the test button, I> and I>> LEDs start blinking then LEDs turn On and relay contacts will be activated after 3s.

### 4. Trip Contacts

There are two set of tripping contacts namely, R1 and R2.

#### R1,R2 - Manual Reset Type

- These contacts 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

N202-240AD..... 85 ~ 265 VAC or 110 ~ 370 VDC  
 Supply frequency..... 50Hz or 60Hz  
 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 (2% to 40%)  
 Low-set delay time ( $T_M$ )..... 0.05 to 1.0  
 High-set ( $I_{>>}$ ).....  $I_{>}$  to  $10 \times I_{>}$  or disable  
 High-set delay time ( $t_{>>}$ )..... Instantaneous

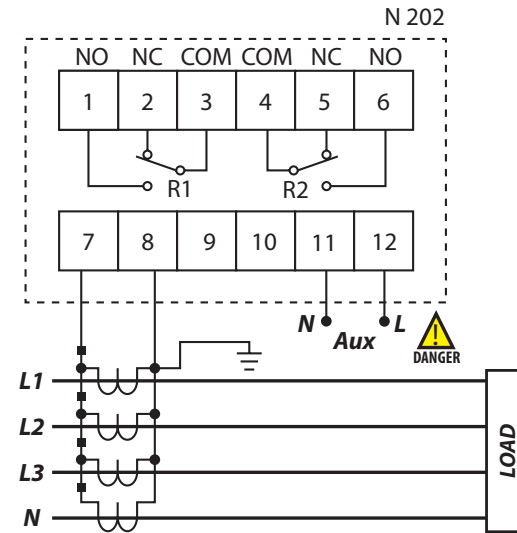
### Indicators

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

## 6. Mechanical

Mounting..... Panel mounting  
 Front panel..... 72x72 mm  
 Approximate weight..... 0.6 kg

## 7. Connection Diagram



## 8. Case Dimensions

