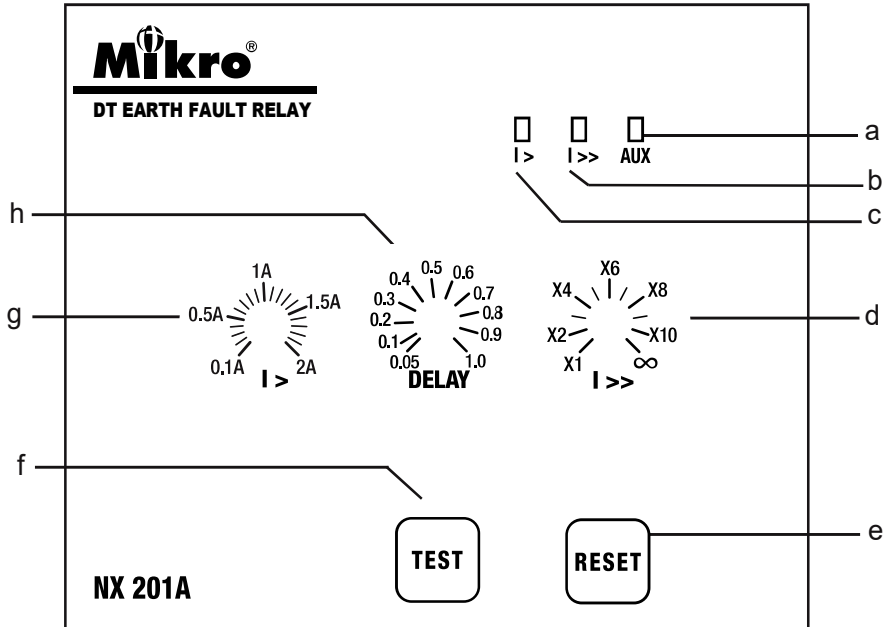


# NX201A DT Earth Fault Relay User's Guide

## 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 for tripping with time delay.
- The setting range is from 0.1A to 2A.

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

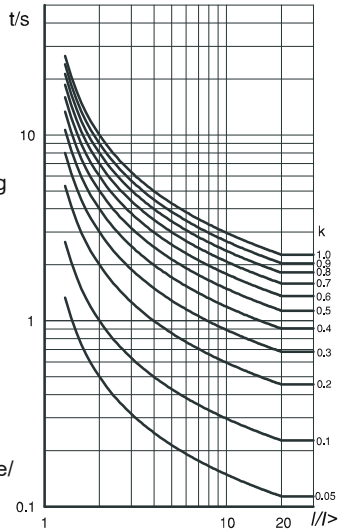
- This adjustment is for setting the instantaneous tripping current due to an earth-fault.
- The setting range is from 1x to 10x of the earth-fault low-set setting value.

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

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

### Time Multiplier (TM) Adjustment

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



IDMT Normal Inverse Curve

## 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.
- Press and hold test button for 3 seconds to simulate an earth-fault low-set and high-set trip condition.
- Relay will trip and indicators I> and I>> turn ON when the test button is pressed.
- To reset, press the reset button once.

### 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	
NX201A-240A.....	198~265 VAC
NX201A-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
	2% to 40%
Low-set delay time (DELAY).....	0.05 sec to 1.0 sec
High-set (I>>).....	I > to 10x I> or disable
High-set delay time (t>>).....	instantaneous

#### Indicators

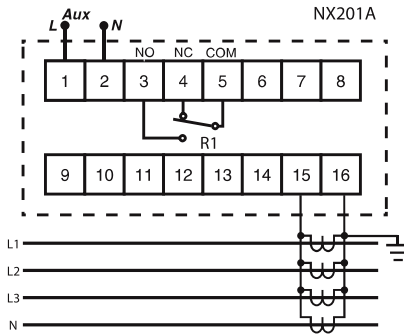
Auxiliary supply.....	Green LED indicator
Pick-up.....	Red LED indicator
Trip.....	Red LED indicator

### 6. Mechanical

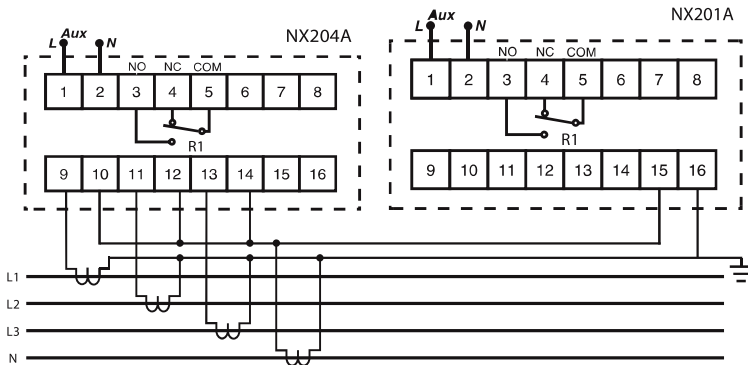
Mounting.....	Panel mounting
Front panel.....	Standard DIN 96x96 mm
Approximate weight.....	0.6 kg

# 7. Connection Diagram

## a) Earth fault relay



## a) Combined overcurrent and earth fault relays



# 8. Case Dimensions

