Mikro RX233 Overcurrent Relay User Guide

Contents

Mikro RX233 Overcurrent Relay

Specifications

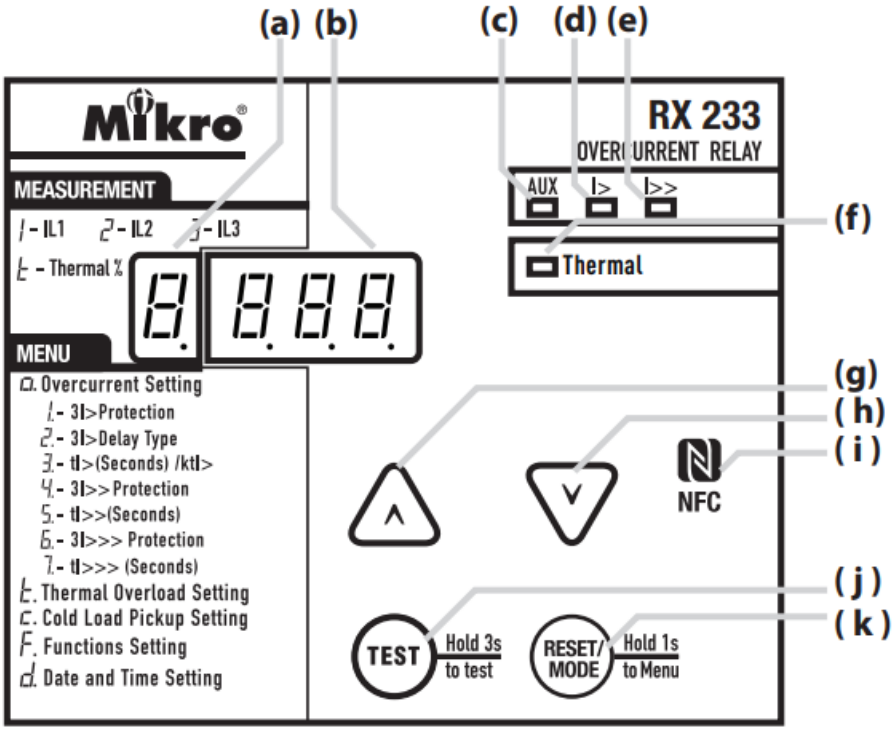
- Three-phase, three stages setting for phase overcurrent
- IDMT and definite time protection
- Thermal overload protection
- Cold load pickup protection
- Circuit breaker failure protection
- Selectable fundamental or true RMS
- Selectable 50 or 60 Hz frequency
- Programmable output contacts
- 30 fault, 30 pickup, and 120 event records with date & time stamp
- Built-in NFC for parameter reading and setting through mobile app
- Complies with IEC 60255 standard
- ANSI code: 50P, 51P, CLP, 50BF, 49RMS

FAQ

Q: How can I download the Mikro RX app for parameter reading and setting?

A: You can download the Mikro RX app by scanning the QR code or aligning your mobile phone’s NFC antenna with the NFC logo on the relay front panel to access the App store.

PRODUCT OVERVIEW



- Function indication
- Data indication
- Auxiliary power supply indicator
- Low-set start/trip status indicator
- High-set start/trip status indicator
- Thermal Overload start/trip status indicator
- Up button
- Down button
- NFC detection area
- Test button
- Reset/Mode button

Features

- Three-phase, three stages setting for phase overcurrent
- IDMT and definite time
- Thermal overload protection
- Cold load pickup protection
- Circuit breaker failure protection
- Selectable fundamental or true RMS
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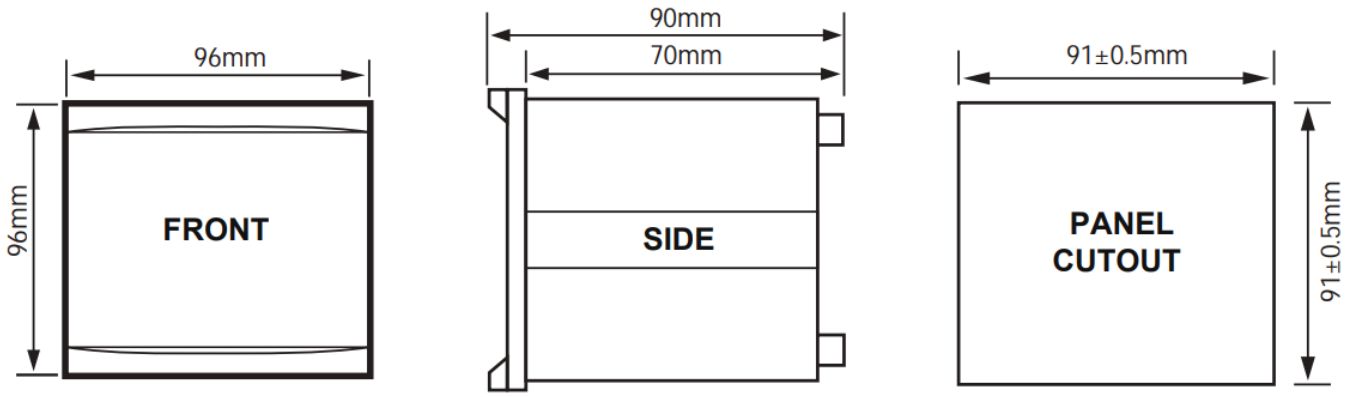
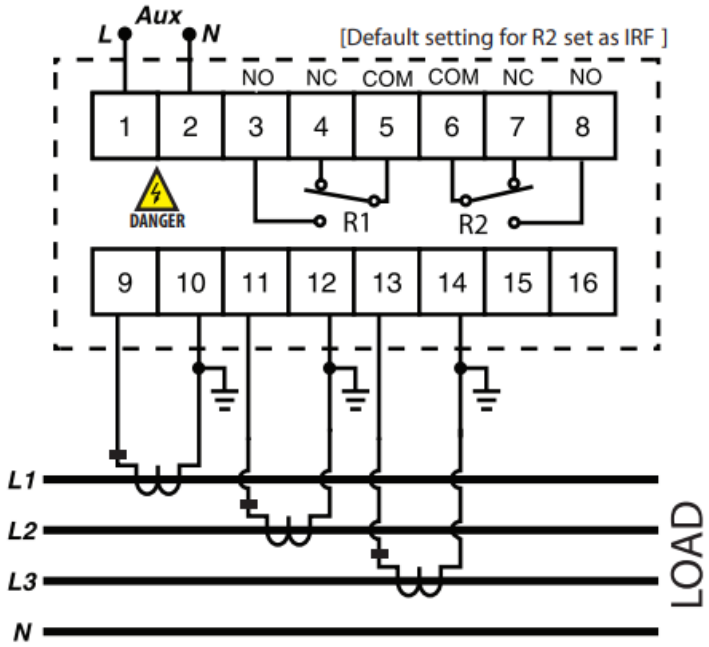
Case Dimensions



Typical Application Diagrams



NFC Communication

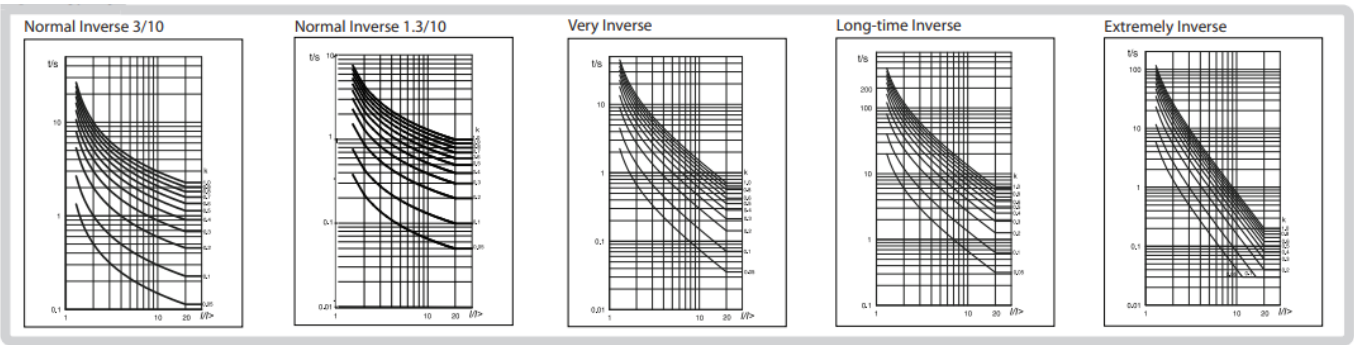
Relay provides NFC communication convenient for user to read parameter values or to change setting through Android phone with NFC feature. The Mikro RX app can be downloaded in the mobile with one of following Methods:

Make sure phone NFC function is turned on
Scan the QR code or align the mobile phone NFC antenna on the NFC logo at relay front panel. This will take you directly to App store.

Available on the App Store

GET IT ON Google Play

IDMT Curve



Technical Data

- **Ratings**
  - Rate Current In…… 5A
  - Frequency…… 50 or 60Hz
  - Burden…… <0.3VA at In
  - Thermal Withstand…… 4 x In Continuous
- **Auxiliary Supply**
  - Supply Voltage…… 198 ~ 265VAC
  - Supply Frequency…… 50 or 60Hz
  - VA Rating…….. 3VA max
- **Accuracy**
  - Protection Thresholds……. ±3% or ±20mA
  - Time Delay…….. ±3% or ±40ms
- **Setting Ranges**

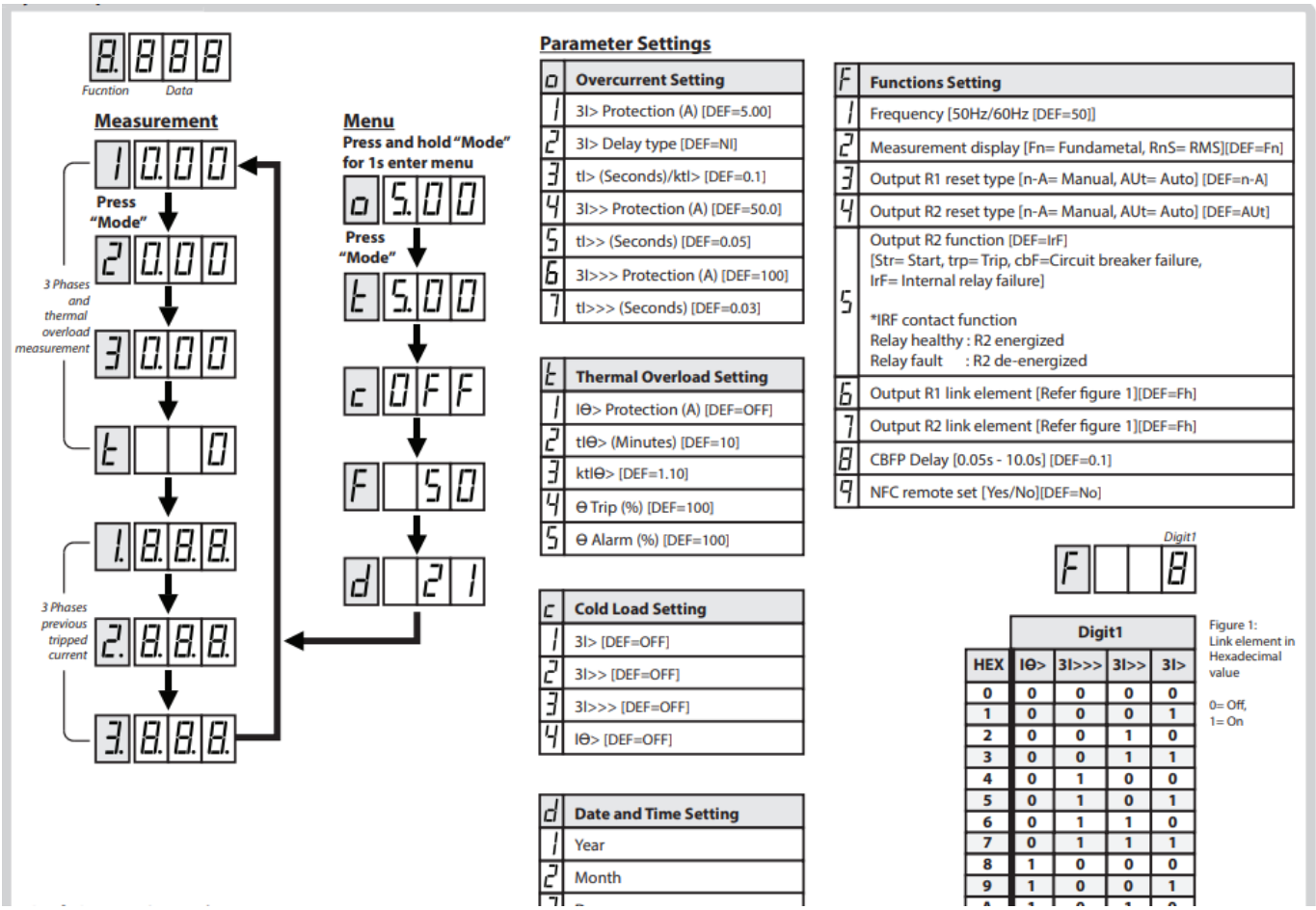
  (i)Overcurrent Setting
  - Low-set Setting 3I>…… 0.5A – 12.5A(10% – 250%)
  - Low-set time Multiplier ktI>……. 0.01 – 1.00
  - Low-set Definite Time tI>…… 0.03 – 100s
  - Delay Type…….. DT, NI3/10, NI1.3/10, VI, LI, EI
  - High-set Setting 3I>>…….. OFF/0.5 – 100A (10% – 2000%)
  - High-set Definite Time tI>>…….. 0.03 – 100s
  - Highest-set Setting 3I>>>…….. OFF/0.5 – 100A (10% – 2000%)
  - Highest-set Definite Time tI>>>… 0.03 – 100s

  (ii)Thermal Overload Setting
  - Low-set Setting I0>…….. OFF/0.5A – 10.0A(10% – 200%)
  - Low-set T 0…….. 1 to 200 minutes
  - Low-set time Multiplier ktI 0>……. 1.00 – 1.50
  - Trip…… 50 to 200%
  - Alarm…….. 50 to 200%
- **Output Contacts**
  - Rated Voltage…….. 250VAC
  - Continuous Carry……. 5A(Cos = 1.0)
  - Expected Electrical Life…….. 105 operations

- Expected Mechanical Life……. 5 x 106 operations

- **Enviromental Conditions**
  - Temperature…….. -10°C to 55°C
  - Humidity…… 5% to 95% non-condensing
- **Mechanical**
  - Mounting…….. Panel mounting
  - Dimension (mm) …….. 96(w) x 96(h) x 90(d)
  - Enclosure Protection…….. IP54 at the panel
  - IP20 at the body
  - Approximate Weight…….. 0.8kg

System Operation



Push Button Operation

Trip Test	Press and hold "TEST" button for 3.5 seconds
Trip Reset	Press "RESET" button
Scroll Display	Press "MODE" button
Enter Menu Mode	Press and hold "MODE" button for 1second
Set/Save Setting	Press "UP" and "DOWN" button simultaneously
Adjust Setting	Press "UP" or "DOWN" button
Auto Scroll Reading	Press and hold "UP" and "DOWN" button simultaneously for 2 seconds on Measurement mode
Clear Thermal %	Press and hold "UP" and "DOWN" button simultaneously for 1.5 seconds on Thermal page
Display Off Mode	Press "RESET" button for 10 seconds to toggle display off mode. The display will switch off after 6 minutes if no key is pressed.

LED Indicator

LED				Status
AUX	I>	I>>	Thermal	
0	0	0	0	No Auxiliary power suppply
1	0	0	0	Normal condition, no tripping
1	1	0	X	Low-set pickup
1	0	1	X	High-set pickup
1	B	0	X	Low-set tripped
1	X	B	X	High-set tripped
1	X	X	1	Thermal overload pickup
1	X	X	B	Thermal overload tripped

1 = ON 0 = OFF B = Blinking X = don't care

3	Day
4	Hour
5	Minute
6	Second

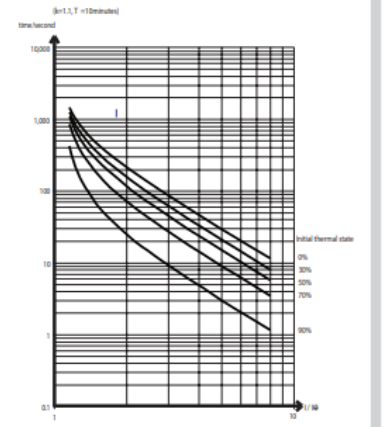
[DEF=Default setting]

A	1	0	1	0
B	1	0	1	1
C	1	1	0	0
D	1	1	0	1
E	1	1	1	0
F	1	1	1	1

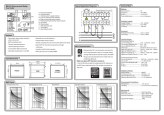
	Digit1			
User's setting				
User's setting hexadecimal value				

* Not applicable when output R2 function set as cbF or lrF

Thermal Overload Curve



Documents / Resources

	Mikro RX233 Overcurrent Relay [pdf] User Guide RX233 Overcurrent Relay, RX233, Overcurrent Relay, Relay

References

- User Manual