INSTRUCTION MANUAL

POWER/NETWORK MODULE
(CC-Link IE TSN)

MODEL **R80NCIT1**

BEFORE USE ....

Thank you for choosing M-System. Before use, please check contents of the package you received as outlined below.
If you have any problems or questions with the product, please contact M-System's Sales Office or representatives.

■ PACKAGE INCLUDES:

Power/network module ....(1)
Protective cover ....(1)

■ MODEL NO.

Confirm Model No. marking on the product to be exactly what you ordered.

■ INSTRUCTION MANUAL

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.
For detailed explanations to operate this product, please refer to Model R80NCIT1 Operating Manual (EM-7026-B). The operating manual (EM-7026-B) is downloadable at M-System's web site: https://www.m-system.co.jp

■ CSP+ file

CSP+ file is downloadable at M-System's web site (https://www.msystem.co.jp) or CC-Link Partner Association's web site (https://.cc-link.org).

POINTS OF CAUTION

■ CONFORMITY WITH EU DIRECTIVES

• The equipment must be mounted inside the instrument panel of a metal enclosure.
• The actual installation environments such as panel configurations, connected devices, connected wires, may affect the protection level of this unit when it is integrated in a panel system. The user may have to review the CE requirements in regard to the whole system and employ additional protective measures to ensure the CE conformity

■ POWER INPUT RATING & OPERATIONAL RANGE

• Locate the power input rating marked on the product and confirm its operational range as indicated below:
  DC Power supply: 24V DC rating
    24V DC ± 10%, approx. 12W
    (@ internal power max. current 1.6 A)
  Excitation supply (excitation for I/O module):
    24V DC ± 10%, operational current 10 A
  (From power supply/excitation supply connector, via connector for internal bus, supplied to each I/O module. Power output current consumption must be under operational current.)

■ GENERAL PRECAUTIONS

• Before you remove or mount the unit, turn off the power supply for safety.

■ ENVIRONMENT

• Indoor use.
• When heavy dust or metal particles are present in the air, install the unit inside proper housing with sufficient ventilation.
• Do not install the unit where it is subjected to continuous vibration. Do not subject the unit to physical impact.
• Environmental temperature must be within -10 to +55°C (14 to 131°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.

■ WIRING

• Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
• Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

■ AND ....

• The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.

INSTALLATION

Internal power supply/communication is connected via each module's connector, therefore no backplane base is required, however, hot-swapping of modules is not possible.

■ HOW TO MOUNT THE MODULE ON DIN RAIL

Hook
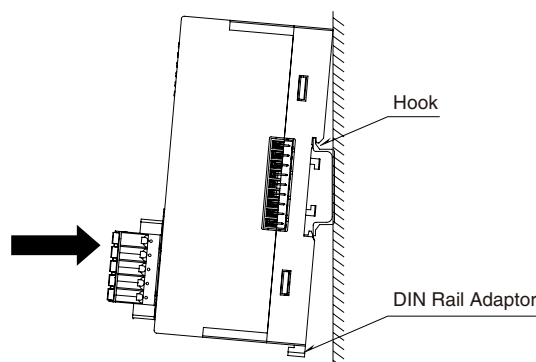
DIN Rail Adaptor

Position the upper hook at the rear on the DIN rail and push in the lower. When removing the module, push down the DIN rail adaptor utilizing a flat-blade screwdriver and pull.

COMPONENT IDENTIFICATION
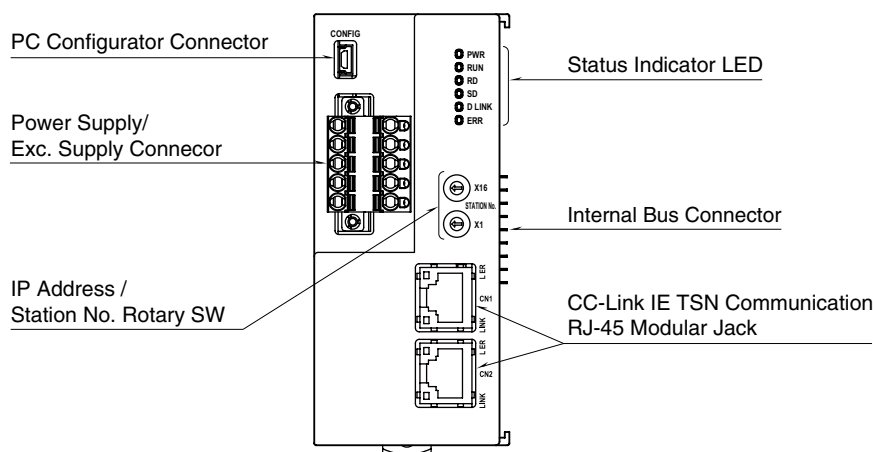
■ STATUS INDICATOR LED

ITEM	ID	COLOR	FUNCTION	STATUS	DESCRIPTION
Status Indicator	RUN	Green	Device State	ON	Normal
				OFF	Device error
	RD	Green	Receiving Data	ON	Receiving
				OFF	Unreceived data
	SD	Green	Sending Data	ON	Sending
				OFF	Unsent
	D LINK	Green	Data link Transmitting	ON	In action (Cyclic transmitting)
				Blinking	In action (Stopping cyclic transmitting)*1
				OFF	Not complied with
	ERR	Red	Error	ON	Critical failure*2
				Blinking	Minor failure*3
				OFF	Normal
CN1	LINK	Green	CN1 Linking Up	ON	Linking up
				OFF	Link-down
	L ER	Red	CN1 Receiving Data	ON	Abnormality receiving data
				OFF	Normality receiving data
CN2	LINK	Green	CN2 Linking Up	ON	Linking up
				OFF	Link-down
	L ER	Red	CN2 Receiving Data	ON	Abnormality receiving data
				OFF	Normality receiving data

*1. Setting as reservation area, stop linking and etc..
*2. Host communication error, internal bus communication error, and etc..
*3. Non-volatile memory error, IP address / station No. setting rotary switch has been changed after turning on the module.

■ IP ADDRESS / STATION NO. SETTING ROTARY SW

Set the fourth octet of IP address and station No. with two rotary switches. The upper rotary SW sets the upper digits (MSB), and the lower rotary SW sets the lowest digit (LSB) with hexadecimal (configurable range is 1 to 254).
Turn off the power supply when setting IP address / Station No. setting Rotary SW, as the setting is activated when turning on the power supply.
Confirm available station numbers in the manual of the master unit (Factory default setting: 01H).
IP address: The first to third octet are common with the first to third octet of IP address for master station.

 For setting MSB of Station No. (×16)

 For setting LSB of Station No. (×1)

* Station No. setting example
IP address / Station No. setting rotary SW are set with hexadecimal.
For example, in the case of setting station No. 175, Set the Station MSB: A and LSB: F.

■**POWER SUPPLY, EXCITATION SUPPLY CONNECTOR ASSIGNMENT**

Printed-circuit board connector (Phoenix Contact)
  Unit side connector: MSTBV2,5/5-GF-5,08AU
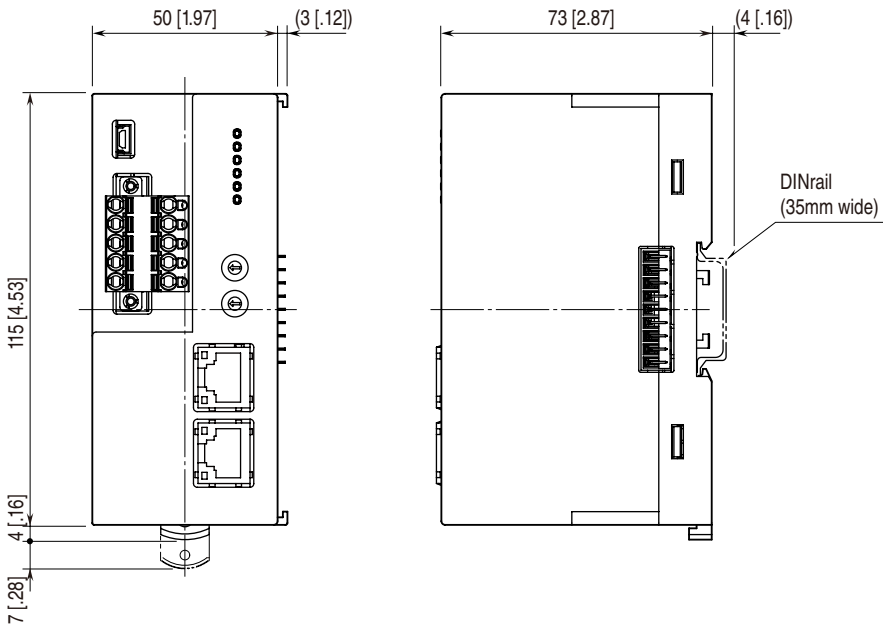 **Cable side connector**: TFKC2,5/5-STF-5,08AU

PIN No.	ID	FUNCTION
1	24V	Power supply 24V DC
2	0V	Power supply 0V DC
3	+	Excitation supply 24V DC
4	–	Excitation supply 0V DC
5	FE1	Grounding

TERMINAL CONNECTIONS

Connect the unit as in the diagram below.
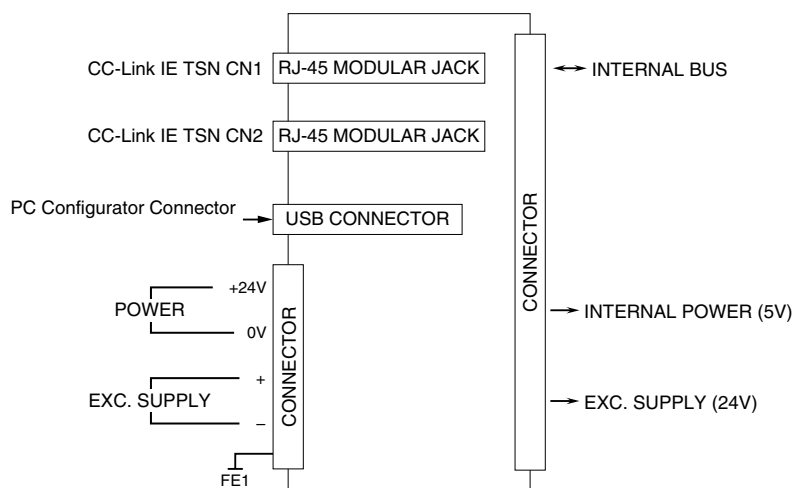
■**EXTERNAL DIMENSIONS unit: mm (inch)**

 • **UNIT**

• **PROTECTIVE COVER**

5 (.20)   50 (1.97)

115 (4.53)

■ **CONNECTION DIAGRAM**

CC-Link IE TSN CN1 | RJ-45 MODULAR JACK | ← → INTERNAL BUS

CC-Link IE TSN CN2 | RJ-45 MODULAR JACK |

PC Configurator Connector → | USB CONNECTOR |

CONNECTOR

POWER   +24V
         0V   → INTERNAL POWER (5V)

EXC. SUPPLY   +
               −   → EXC. SUPPLY (24V)

CONNECTOR

FE1
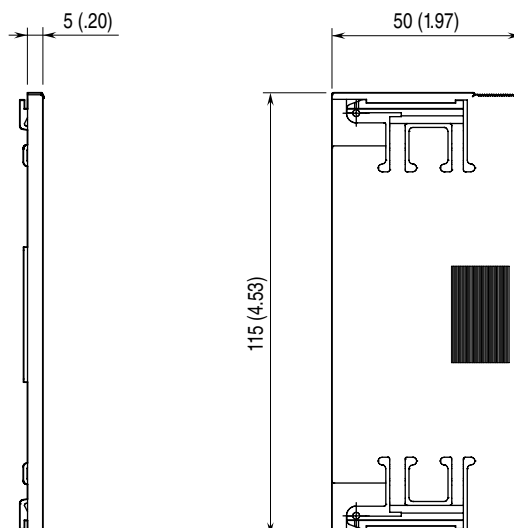
Regarding CN1 and CN2 of RJ-45 connector for CC-Link IE TSN network, there is no restriction for connection order

WIRING INSTRUCTIONS

■ **TENSION CLAMP TERMINAL**

Applicable wire size: $0.2 - 2.5 \ mm^2$
Stripped length: 10 mm
Recommended solderless terminal
AI0,25-10YE 0.25 mm^2 (Phoenix Contact)
AI0,34-10TQ 0.34 mm^2 (Phoenix Contact)
AI0,5-10WH 0.5 mm^2 (Phoenix Contact)
AI0,75-10GY 0.75 mm^2 (Phoenix Contact)
AI1-10RD 1.0 mm^2 (Phoenix Contact)
AI1,5-10BK 1.5 mm^2 (Phoenix Contact)
AI2,5-10BU 2.5 mm^2 (Phoenix Contact)