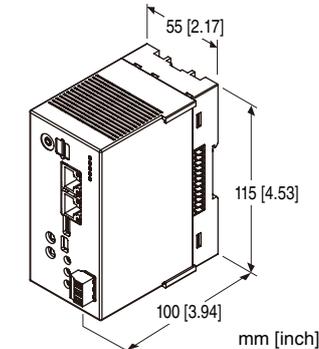


## Controller PLC8 Series

### PLC

#### Functions & Features

- Controller of PLC8 series
- Port for LAN (RJ-45)



## MODEL: PLC8-NE-[1][2][3][4]-R[5]

### ORDERING INFORMATION

- Code number: PLC8-NE-[1][2][3][4]-R[5]
- Specify a code from below for each of [1] through [5].  
(e.g. PLC8-NE-CIOP-R/Q)
- Specify the specification for option code /Q  
(e.g. /C01)
- \* 1. Do not specify duplicate protocols in PLC additional protocols 1 to 4.  
\* 2. When codes are specified in PLC additional protocols 1 to 4, specify the codes in the order of C, I, O, P, N.  
e.g.) When the codes C, O and P are specified:  
**PLC8-NE-POCN-R (cannot be specified)**  
**PLC8-NE-COPN-R (can be specified)**

### [1] PLC ADDITIONAL PROTOCOL 1

- C:** CODESYS EtherCAT Master  
**I:** CODESYS EtherNet/IP Scanner/Adapter  
**O:** CODESYS OPC UA Server/Client/PubSub  
**P:** CODESYS PROFINET Controller/Device  
**N:** None

### [2] PLC ADDITIONAL PROTOCOL 2

The selectable codes are the same as PLC additional protocol 1.

### [3] PLC ADDITIONAL PROTOCOL 3

The selectable codes are the same as PLC additional protocol 1.

### [4] PLC ADDITIONAL PROTOCOL 4

The selectable codes are the same as PLC additional protocol 1.

### POWER INPUT

#### DC Power

R: 24 V DC

(Operational voltage range 24 V  $\pm$ 10 %, ripple 10 %p-p max.)

### [5] OPTIONS

blank: none

/Q: With options (specify the specification)

### SPECIFICATIONS OF OPTION: Q

#### COATING (For the detail, refer to our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

### Functions & Features

PLC8-NE is used with interface module (model: PLC8-MD1 etc.) or I/O modules (model: PLC8-DAC4 etc.). Be sure to use an end module (model: PLC8-END).

#### ■ SYSTEM SETTING

The following settings can be configured on Web browser.

**Network setting:** IP address, Subnet mask, Default gateway, DHCP client, DHCP server, Network filter

**Time setting:** manual / PC / NTP

**System setting:** service control, software update, initialization / backup / restoring of setting, system control  
Equipped with CODESYS Runtime, Web Visualization

### RELATED PRODUCTS

- Remote I/O PLC8 Series
  - End module (model: PLC8-END)
  - EDS file
- EDS file is required to use the device with I/O modules.
- Programming tool (model: C-CDS35)
- EDS file and the programming tool are downloadable at our website.
- SD card
- An SD card is required to store the data.
- SC memory card 2.0 (SDHC card) is available
  - Format: FAT32
- Use the specified model number of SD card.
- Hagiwara Solutions MSDB-016GS(V01SLS)
- Available for purchase from us. Consult us.

## PACKAGE INCLUDES...

- Protective cover

## GENERAL SPECIFICATIONS

Connection:

- Power input:

Device side connector: MC1,5/3-G-5,08 (Phoenix Contact)

Cable side connector: MC1,5/3-ST1-5,08 (Phoenix Contact)

Applicable wire size: 0.08 - 1.5mm<sup>2</sup>, stripped length 7mm

- LAN1

Modular jack for 10BASE-T / 100BASE-TX (RJ-45)

- LAN2

Modular jack for 100BASE-TX / 1000BASE-TX (RJ-45)

- Internal bus, internal power, exc. supply: Connected to internal bus connector

Housing material: Flame-resistant resin (gray)

Number of connectable related devices: up to 8

Isolation: LAN1 to LAN2 to power to FE

Status indicator LED: RUN, ERR, SD, PLC, USR

## Ethernet PORT

Standard: IEEE 802.3u

Transmission type: 100BASE-T (LAN1 only) / 100BASE-TX/1000BASE-TX (LAN2 only)

Baud rate: 10/100/1000 Mbps (Auto Negotiation function, 10 Mbps is only LAN1, 1000 Mbps is only LAN2)

Transmission media: 10BASE-T (STP, Category 5), 100BASE-TX (STP, Category 5e), 1000BASE-TX (STP, Category 6)

Max. segment length: 100 meters

Status indicator LED: ACT, LNK

LAN1 IP address (factory setting): 192.168.1.200

LAN2 IP address (factory setting): 192.168.2.200

## SOFTWARE LOGIC PROGRAMMING

Standard: IEC 61131-3

Language: Function Block Diagram (FBD), Instruction List (IL), Ladder Diagram (LD), Structured Text (ST), Continuous Function Chart (CFC), Sequential Function Chart (SFC)

Usable IEC data type: BOOL, BYTE, WORD, DWORD, LWORD, SINT, USINT, INT, UINT, DINT, UDINT, LINT, ULINT, REAL, LREAL, STRING, WSTRING, Time, Array, Structure, etc.

Program capacity: program 32 MB max., data 128 MB max., source 32 MB max.

Nonvolatile memory area: 160 KB

(RETAIN 128 KB, persistent memory 32 KB)

## CODESYS EtherCAT SPECIFICATION

Port: LAN1

Standard: IEEE 802.3u

Transmission type: 100BASE-TX

Baud rate: 100 Mbps (Auto Negotiation function)

Transmission media: STP, Category 5e

Max. segment length: 100 meters

## CODESYS EtherNet/IP SPECIFICATION

Port: LAN1

Standard: IEEE 802.3u

Transmission type: 10BASE-T/100BASE-TX

Baud rate: 10/100 Mbps (Auto Negotiation function)

Transmission media: STP, Category 5 (10BASE-T), STP, Category 5e (100BASE-TX)

Max. segment length: 100 meters

## CODESYS OPC UA SPECIFICATION

Port: LAN1

Standard: IEEE 802.3u

Transmission type: 10BASE-T/100BASE-TX

Baud rate: 10/100 Mbps (Auto Negotiation function)

Transmission media: STP, Category 5 (10BASE-T), STP, Category 5e (100BASE-TX)

Max. segment length: 100 meters

## CODESYS PROFINET SPECIFICATION

Port: LAN1

Standard: IEEE 802.3u

Transmission type: 100BASE-TX

Baud rate: 100 Mbps (Auto Negotiation function)

Transmission media: STP, Category 5e

Max. segment length: 100 meters

## INSTALLATION

Power consumption

- DC at 24 V DC: approx. 38.4 W (at internal power max. current 1.4 A, at exc. supply max. current 1.1 A) ≤ 4.5 W (only the device)

Internal power

- DC power supply: 5 V DC
- Current capacity: 1.4 A (The internal power is generated from the power supply and distributes to I/O modules. The current consumption of the internal power must be within the current capacity.)

Excitation supply output

- DC: 24 V DC ±10 %
- Current capacity: 1.1 A

(I/O modules are provided through the internal bus connector from the power supply connector. The current consumption of the exc. supply must be within the current capacity.)

**Operating temperature:** -10 to +55°C (14 to 131°F)

**Operating humidity:** 10 to 90 %RH (non-condensing)

**Ambience:** No corrosive gas or heavy dust; no strong electric/magnetic field; no direct effect of vibration or physical impact

**Mounting:** DIN rail (Use a resin DIN rail mounting stopper for safety.)

**Weight:** 320 g (0.71 lb)

## PERFORMANCE

**RTC (Real time clock) module:** Monthly deviation of 60 sec. at 25°C or 77 °F

**Back up period:** Approx. 10 years

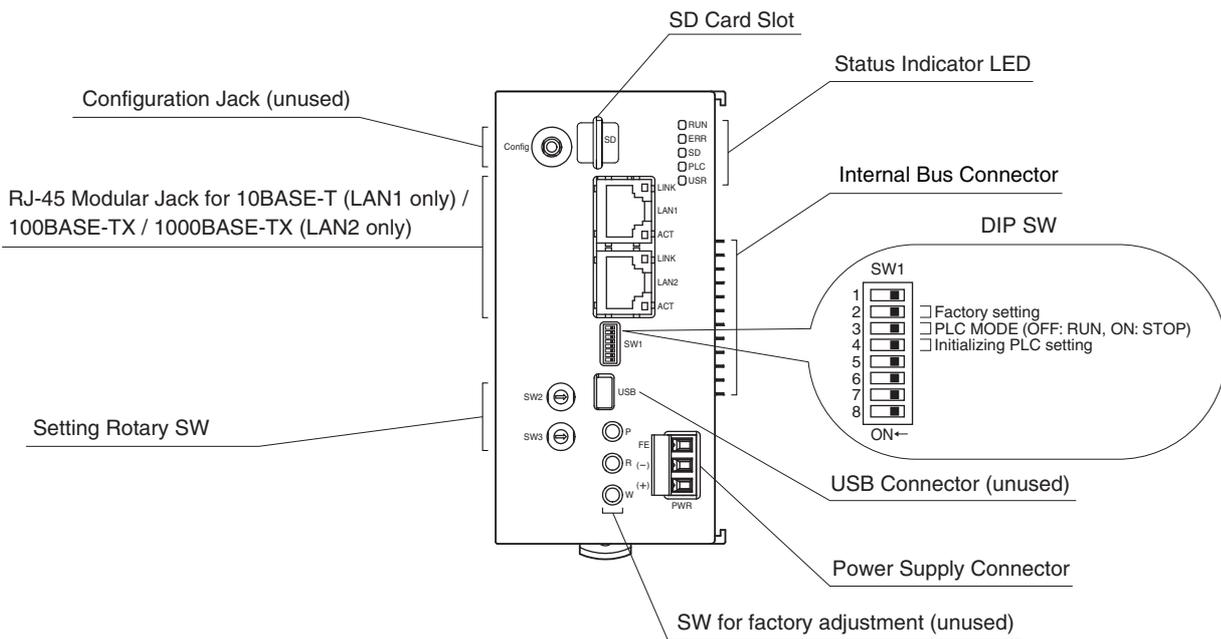
**Battery:** Primary lithium battery (non-removable)

**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:** 1500 V AC @ 1 minute

(LAN1 to LAN2 to power to FE)

## EXTERNAL VIEW



## CONNECTION DIAGRAMS

### POWER SUPPLY TERMINAL ASSIGNMENT

Device side connector: MC1,5/3-G-5,08

(Phoenix Contact)

Cable side connector: MC1,5/3-ST1-5,08

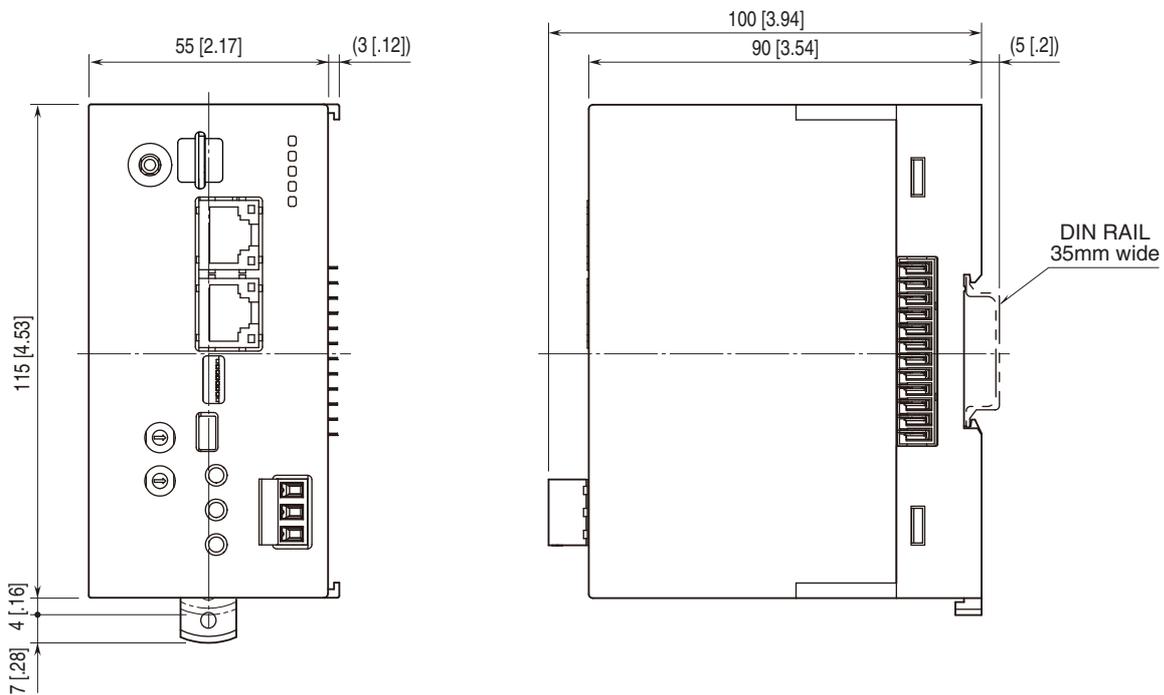
(Phoenix Contact)



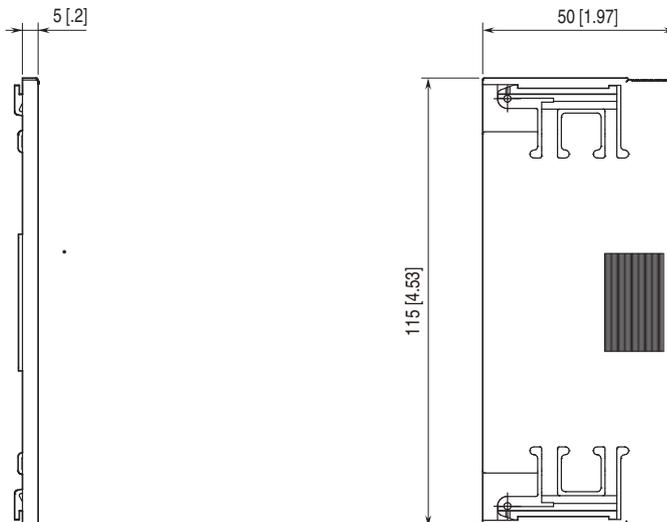
PIN NO.	ID	FUNCTION
1	FE	Functional earth
2	(-)	Power input (0V DC)
3	(+)	Power input (24V DC)

## EXTERNAL DIMENSIONS unit: mm [inch]

### DEVICE

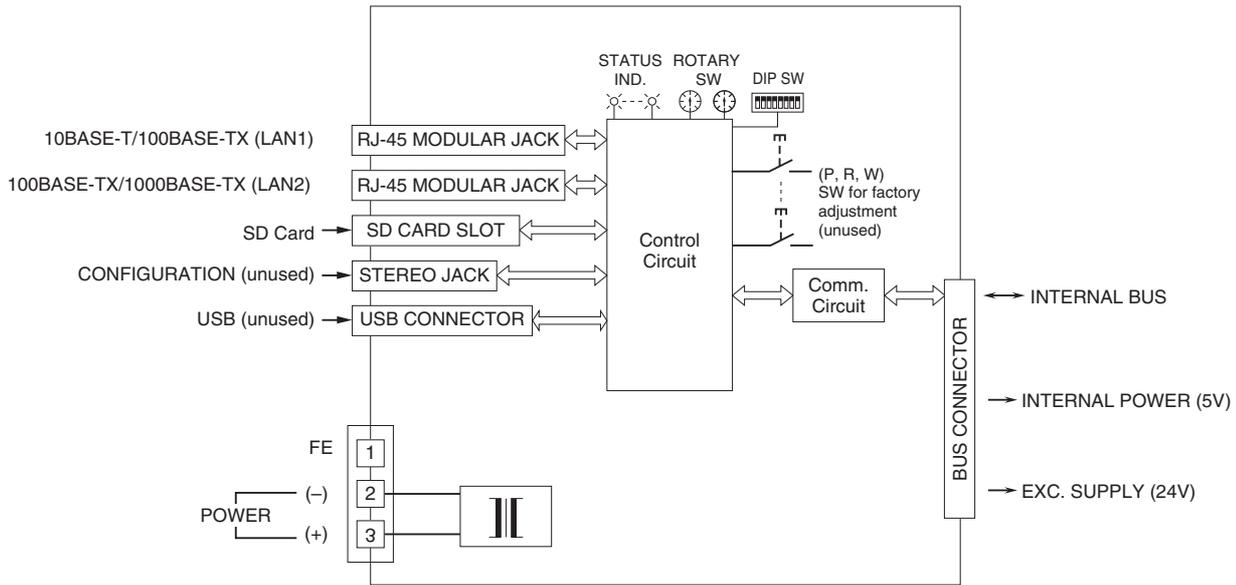


### PROTECTIVE COVER



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

Caution: FE terminal is NOT a protective conductor terminal.



Specifications are subject to change without notice.