INSTRUCTION MANUAL

SPE CONVERTER

MODEL **BA8NS-CONV**

BEFORE USE ....

Thank you for choosing us. 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 our sales office or representatives.

■ PACKAGE INCLUDES:

SPE Converter.....(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.

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.

  * For example, installation of noise filters and clamp filters for the power source, input and output connected to the unit, etc.

■ POWER INPUT RATING & OPERATIONAL RANGE

- Locate the power input rating marked on the product and confirm its operational range as indicated below:
  100 – 240V AC rating: 85 – 264V AC, 47 – 66 Hz
  100V AC: approx. 1.8VA
  200V AC: approx. 2.3VA
  264V AC: approx. 3VA
  24V DC rating: 24V DC±10%, approx. 0.8W

■ GENERAL PRECAUTIONS

- Before you remove the unit or mount it, 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 10 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.

LIGHTNING SURGE PROTECTION

We offer a series of lightning surge protector for protection against induced lightning surges. Please contact us to choose appropriate models.

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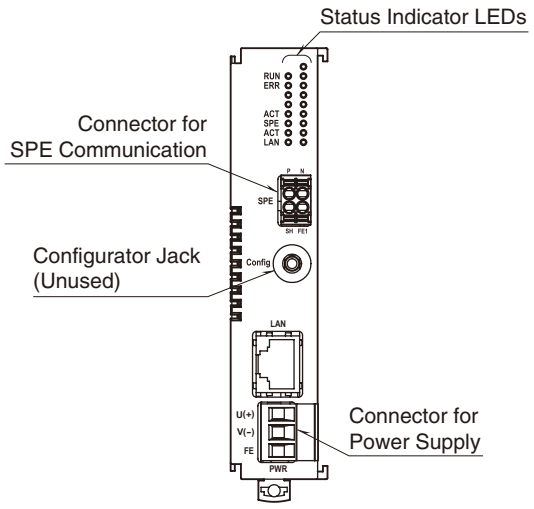
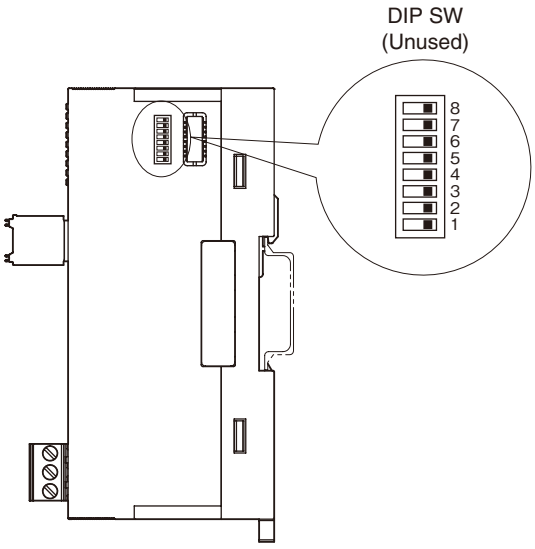
COMPONENT IDENTIFICATION

■ **FRONT VIEW**



■ **SIDE VIEW**

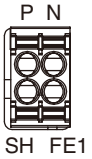


■ **STATUS INDICATOR LED**

ID	FUNCTION	STATUS	
RUN	Operation in progress	ON	Operation in progress
		OFF	In stopped state
ERR	Abnormality	ON	Hardware abnormality
		OFF	Normal
–	–	–	Unused
–	–	–	Unused
ACT	SPE communication in progress	ON	SPE communication in progress
		OFF	No SPE communication
SPE	SPE connection in place	ON	SPE link in place
		OFF	SPE in unconnected state
ACT	LAN communication in progress	ON	LAN communication in progress
		OFF	No LAN communication
LAN	LAN connection in place	ON	LAN link in place
		OFF	LAN in unconnected state

■ **SPE**

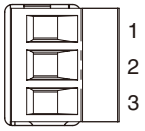
Unit side connector: in-house made
Cable side connector: DFMC1,5/2-ST-3,5
(Phoenix Contact)



ID	FUNCTION
P	Positive
N	Negative
SH	Shield
FE1	FE

■ **POWER SUPPLY**

Unit side connector: MSTB2,5/3-G (Phoenix Contact)
Cable side connector: MSTB2,5/3-ST (Phoenix Contact)



PIN No.	ID	FUNCTION
1	U (+)	Power supply
2	V (–)	Power supply
3	FE	Functional earth

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WIRING INSTRUCTIONS

■ EURO TYPE CONNECTOR TERMINAL (power supply)

Applicable connector: MSTB2,5/3-ST (Phoenix Contact) supplied with this product
Applicable wire: 0.2 – 2.5 mm^2
Stripped length: 7 mm
Recommended terminal:

- AI0, 25-6BU 0.25 mm^2 (Phoenix Contact)
- AI0, 34-6TQ 0.34 mm^2 (Phoenix Contact)
- AI0, 5-6WH 0.5 mm^2 (Phoenix Contact)
- AI0, 75-6GY 0.75 mm^2 (Phoenix Contact)
- AI1-6RD 1.0 mm^2 (Phoenix Contact)
- AI1, 5-6BK 1.5 mm^2 (Phoenix Contact)

■ TENSION CLAMP TERMINAL BLOCK (SPE)

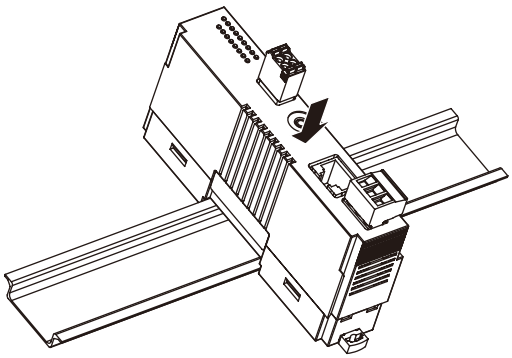
Applicable connector: DFMC 1,5/2-ST-3,5 (Phoenix Contact) supplied with this product
Applicable wire: 0.2 – 1.5 mm^2
Stripped length: 10 mm
Recommended terminal

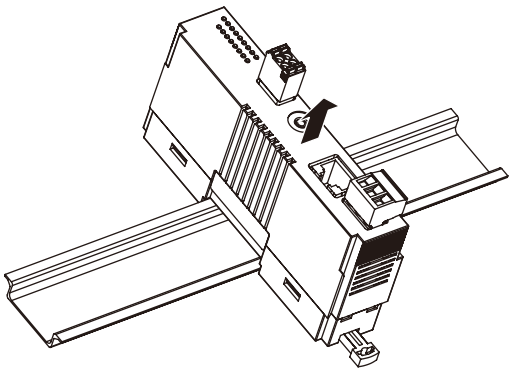
- AI0, 25-10YE 0.25 mm^2 (Phoenix Contact)
- AI0, 34-10TQ 0.34 mm^2 (Phoenix Contact)
- AI0, 5-10WH 0.5 mm^2 (Phoenix Contact)
- AI0, 75-10GY 0.75 mm^2 (Phoenix Contact)

INSTALLATION

■ INSTALLATION

- Hang the upper hook at the rear side of unit on the DIN rail, then push in the lower in keeping pressing the unit to the DIN rail
- Push down the DIN rail adaptor using a minus screwdriver, pull out the lower part of the unit, then remove the upper part from the DIN rail.





Use an end bracket to secure the connection on a DIN rail.

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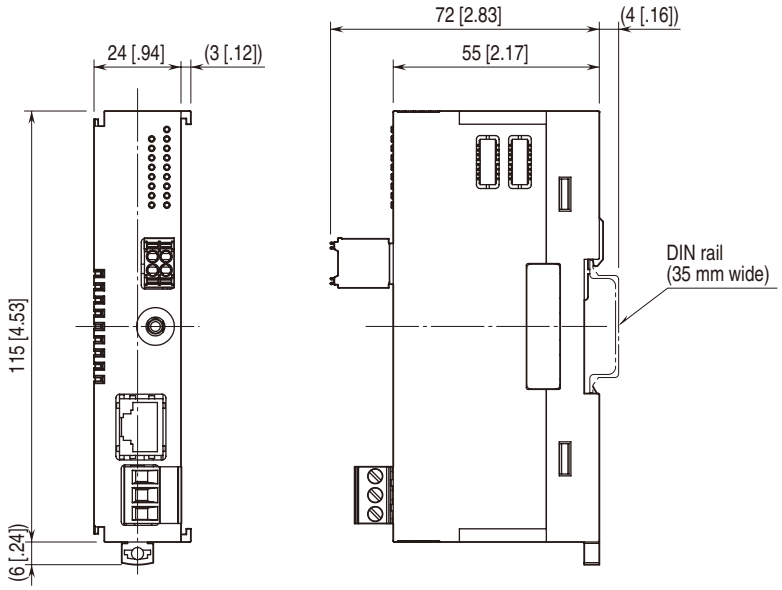
TERMINAL CONNECTIONS

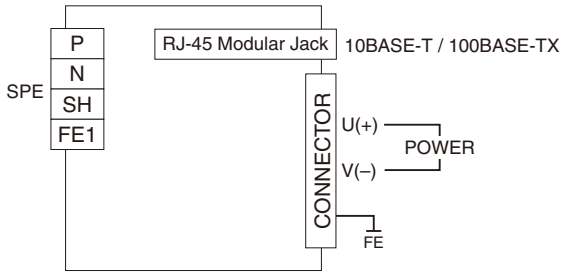
Connect the unit as in the diagram below.

■ EXTERNAL DIMENSIONS unit: mm [inch]

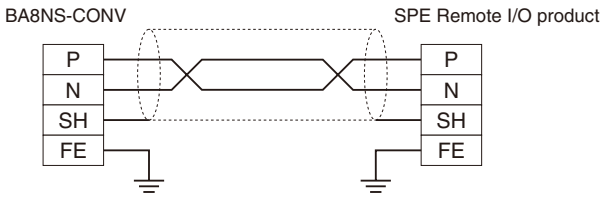


■ CONNECTION DIAGRAM

Note: In order to improve EMC performance, bond the FE terminal to ground.
Caution: FE terminal is NOT a protective conductor terminal.



COMMUNICATION CABLE CONNECTIONS



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COMMUNICATION SPECIFICATIONS

■ **Ethernet**

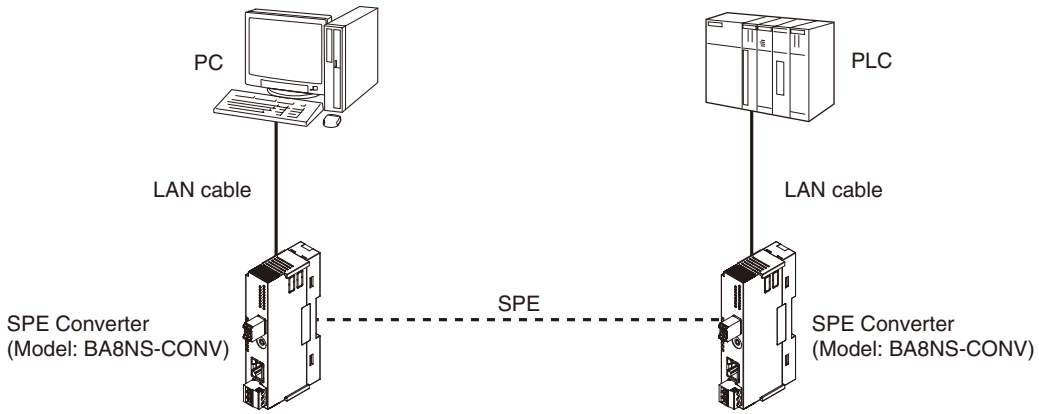
Communications standard: IEEE 802.3u
Transmission: 10BASE-T, 100BASE-TX
Baud rate: 10, 100 Mbps (with Auto Negotiation function)
Transmission cable: 10BASE-T (STP cable category 5), 100BASE-TX (STP cable category 5e)
Maximum segment length: 100 meters

■ **10BASE-T1L**

Communications standard: IEEE 802.3cg
Baud rate: 10 Mbps
Transmission cable: CAT5 two-wire twisted pair cable
Maximum segment length: 1000 meters (standard value)

SYSTEM CONFIGURATION EXAMPLES

Devices other than the BA8NS-CONV in below provided by the user.



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