

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:

Modem interface (body + base socket)(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

■ POWER INPUT RATING & OPERATIONAL RANGE

- Locate the power input rating marked on the product and confirm its operational range as indicated below:
 85 – 132V AC rating: 85 – 132V, 47 – 66 Hz, approx. 4.5VA
 170 – 264V AC rating: 170 – 264V, 47 – 66 Hz, approx. 4.5VA
 12V DC rating: 12V ±10%, approx. 4W
 24V DC rating: 24V ±10%, approx. 4W

■ GENERAL PRECAUTIONS

- Before you remove the unit from its base socket 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 -5 to +50°C (23 to 122°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.

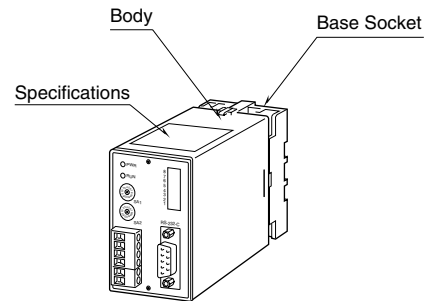
■ WIRING

- 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.

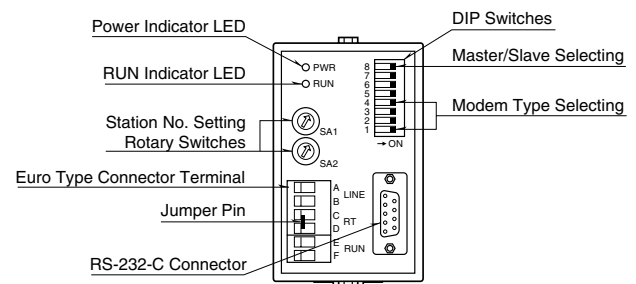
■ AND

- 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.

COMPONENT IDENTIFICATION



■ FRONT PANEL CONFIGURATION

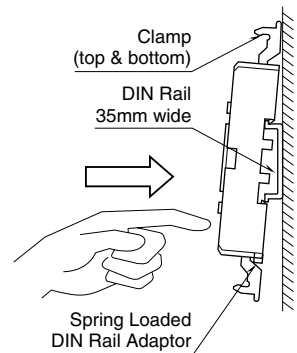


INSTALLATION

Detach the yellow clamps located at the top and bottom of the unit for separating the body from the base socket.

■ DIN RAIL MOUNTING

Set the base socket so that its DIN rail adaptor is at the bottom. Position the upper hook on the DIN rail and push in the lower. When removing the socket, push down the DIN rail adaptor utilizing a minus screwdriver and pull.



■ WALL MOUNTING

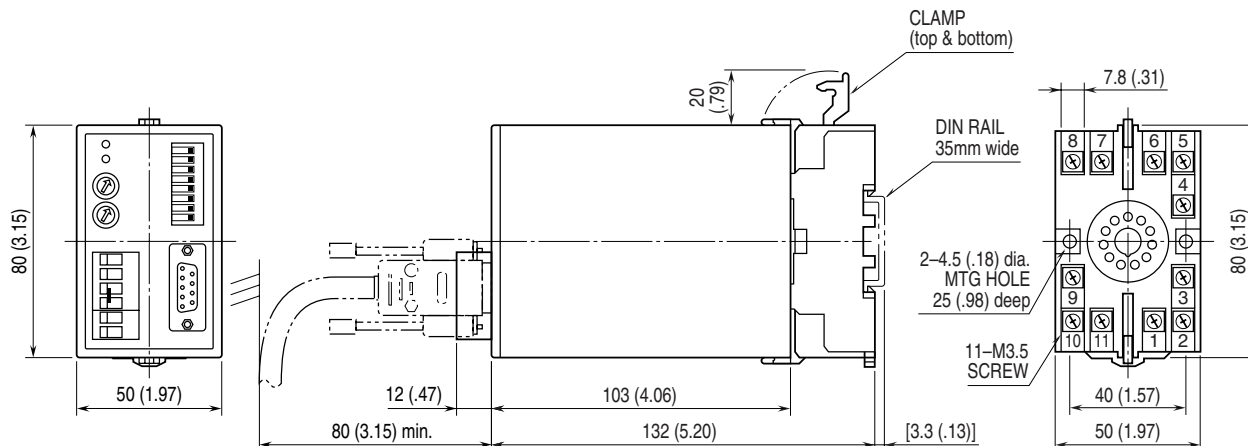
Refer to 'EXTERNAL DIMENSIONS.'

Shape and size of the base socket are slightly different with various socket types.

TERMINAL CONNECTIONS

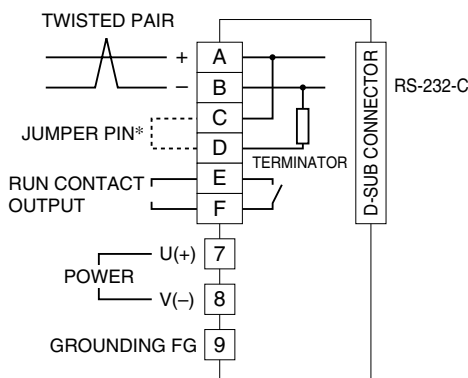
Connect the unit as in the diagram below.

EXTERNAL DIMENSIONS unit: mm (inch)



•When mounting, no extra space is needed between units.

CONNECTION DIAGRAM



*When the unit is located at the end of transmission line via twisted-pair cable (= no cross-wiring), short across the terminals C - D with the jumper pin (or wire) provided with the unit. Remove the jumper pin for the one not located at the end.

RS-232-C INTERFACE



ABBR.	PIN NO.	EXPLANATION OF FUNCTION
CF (CD)	1	Received Line Signal Detector
BB (RD)	2	Received Data
BA (SD)	3	Transmitted Data
CD (ER)	4	DTE Ready
AB (SG)	5	Signal Common
CC (DR)	6	DCE Ready
CA (RS)	7	Request to Send
CB (CS)	8	Clear to Send
(RI)	9	(Not Used)

INSTALLATION PROCEDURE

- 1) Assign and set station address.
- 2) Set modem type configuration.
- 3) Set Master/Slave configuration.
- 4) Connect power supply.
- 5) Connect transmission cables.
- 6) Connect RS-232-C cable.

STATION ADDRESSES (SA)

1) How to set an SA.

The 2-digit SA number is set at the front with two 16-position rotary switches (SA1 and SA2) for values from 00H up to FFH for a total of 256 different combinations. The upper switch (SA1) adjusts the first digit of an SA number.



[Example]
SA = 40H

2) How to assign SA for each unit.

Assign to the pair of 22LS1 a number remote from those for 22LA1 or DLA1 units (such like FF, FE).

3) Euro type connector terminal block

Transmission lines (twisted-pair cables) and RUN contact output lines are all connected with DIN terminals.

Standard leadwire size

Multi-strand : AWG #14
Solid : 1.4 mm dia.

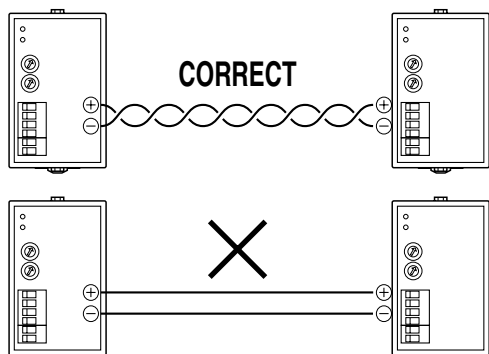
When using multi-strand cables, do not solder their core cables.

4) Transmission (Twisted-pair) Cables

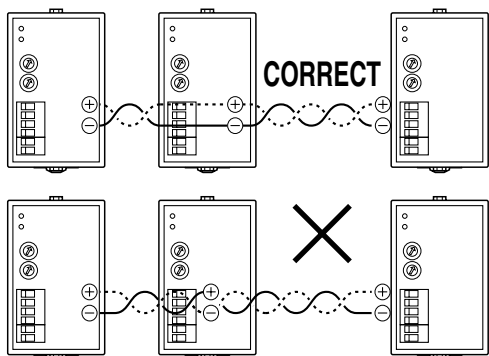
Use wires of 0.9 mm dia. or larger. (CPEV 0.9 dia. recommended)

Connect line terminals (+) to (+) and (-) to (-) between units. Transmission will be impossible with as little as one unit's transmission lines reversed.

[Example 1]



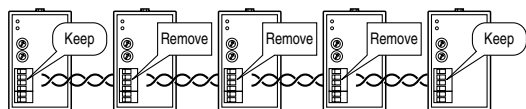
[Example 2]



5) Jumper Connections

The unit is factory-equipped with a jumper across the terminator jumper connection terminals in order to close the circuit and thereby prevent transmission-line waveform reflections. With systems of 3 or more units, remove these jumpers from all units except those at the end of a transmission line.

[Example]



6) Modem Type and Master/Slave Settings

Set SW1 – 4 and 8 according to the table below.

■ MASTER/SLAVE SELECTING SW

SW No.	MASTER	SLAVE
8	ON	OFF

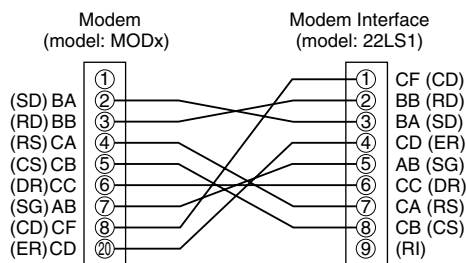
■ MODEM TYPE SELECTING SW

SW No.	MOD1 50 bps	MOD2 300 bps	MOD3x 1200 bps	MOD4 MOD7 300 bps	MOD5 MOD8 1200 bps	MOD6 2400 bps
1	OFF	ON	OFF	ON	OFF	ON
2	OFF	OFF	ON	ON	OFF	ON
3	OFF	OFF	OFF	OFF	ON	OFF
4	OFF	OFF	OFF	OFF	OFF	ON

7) Connecting to the Modem

Use a reverse cable as shown below. For models MODx, RS Cable (model: DCN5) is available.

• RS-232-C Connection Example



Use a cross-type cable as shown above.

LIGHTNING SURGE PROTECTION

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