

Thank you very much for purchasing Panasonic products. Read this Instruction Manual carefully and thoroughly for the correct and optimum use of this product.

Kindly keep this manual in a convenient place for quick reference.

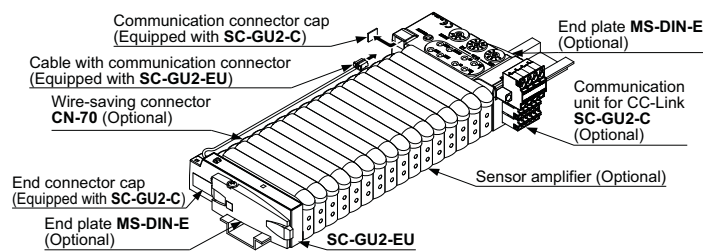
**WARNING**

- Never use this product in a device for personnel protection.
- In case of using devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

- Make sure to use this product with the communication unit for CC-Link **SC-GU2-C** (optional). For details of **SC-GU2-C**, refer to the instruction manual enclosed with **SC-GU2-C**. For details of the communication commands, etc., refer to "Product specification" or "Communication command specification."

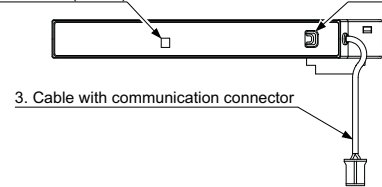
**1 OUTLINE**

- This product enables to set and control the optically communicationable sensor amplifier that is connected between this product and the communication unit for CC-Link **SC-GU2-C** (optional).
- Length of the cable with communication connector of this product can be adjusted according to the number of connected sensor amplifiers between the communication unit and the end unit.



**2 FUNCTIONAL DESCRIPTION**

1. Power indicator (Green)
2. Cable length adjusting button

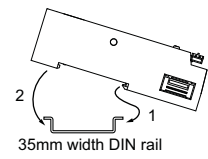


Designation	Function
1 Power indicator (Green)	Lights up when power is ON.
2 Cable length adjusting button	To adjust cable length of the cable with communication connector of the product. The cable length can be adjusted in the range of 30 to 180mm. For details of the cable length adjustment, refer to "4 LENGTH ADJUSTMENT OF CABLE WITH COMMUNICATION CONNECTOR."
3 Cable with communication connector	To connect to the communication connector area of the communication unit for CC-Link <b>SC-GU2-C</b> (optional).

**3 MOUNTING AND CONNECTION**

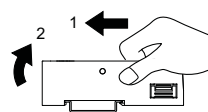
**How to mount**

1. Fit the rear part of the mounting section of the unit on a 35mm width DIN rail.
2. Press down the rear part of the mounting section of the unit on the 35mm width DIN rail and fit the front part of the mounting section to the DIN rail.



**How to remove**

1. Push the unit forward.
2. Lift up the front part of the unit to remove it.

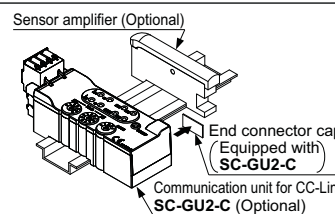


Note: Take care that if the front part is lifted without pushing the unit forward, the hook on the rear portion of the mounting section is likely to break.

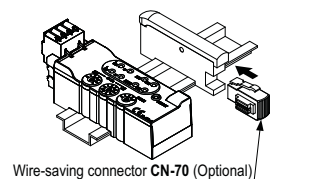
**How to connect**

- Be sure that the power supply is OFF while adding / removing the units or mounting / removing the wire-saving connector **CN-70** (optional).
- When the units are mounted in cascade, mount the end plates **MS-DIN-E** (optional) at both ends of the units to hold them between the flat sides of the plates.
- Only optically communicationable sensor amplifier can be connected in cascade between the communication unit and the end unit.
- Sensor amplifiers can also be connected in cascade after the end unit. However, optical communication cannot be performed.
- Maximum 16 units of sensor amplifiers can be connected in cascade per communication unit.
- In case two different models of sensor amplifier are mounted in cascade, be sure to mount identical models together.
- For the cautions of the sensor amplifiers, refer to the instruction manuals enclosed with the amplifiers.

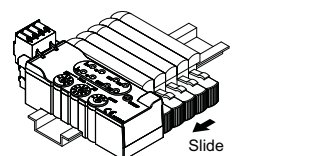
1. Mount the communication unit for CC-Link **SC-GU2-C** (optional) and sensor amplifiers (optional), one by one, on the 35mm width DIN rail. When mounting, remove the end connector cap which is attached to the cascading connector area of the communication unit.



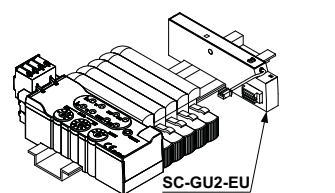
2. Insert the wire-saving connector (optional) to the sensor amplifier.



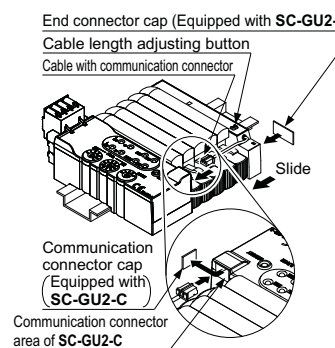
3. Slide the sensor amplifier in the step 2 to the unit side and insert the wire-saving connector to the cascading connector area of the communication unit, then set them close to each other.



4. Mount this product on the 35mm width DIN rail.

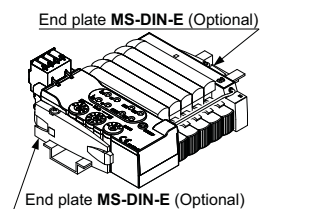


5. Slide the product to the communication unit side and insert the cascading connector part of the product to the wire-saving connector, then set them close to each other. In doing so, attach the end connector cap which is removed in the step 1 to the cascading connector area of the product.



6. Remove the connector cap which is attached to the communication connector area of the communication unit, and insert the cable with connector of this product to the communication connector area of the communication unit. In doing so, adjust the cable length by pressing the cable length adjusting button.

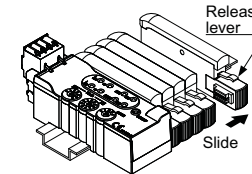
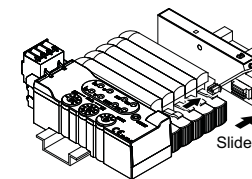
Note: Keep the connector cap which is attached to the communication connector area of the communication unit in order not to lose it.



7. Mount the end plates (optional) at both ends to hold the amplifiers between their flat sides.
8. Tighten the screws to fix the end plates.

**How to remove**

1. Loosen the screws of the end plates.
2. Remove the end plates.
3. Holding the connector part of the cable with connector of this product, pull it out from the communication connector area of the communication unit. (Note 1)
4. Slide this product and remove it.
5. Slide the sensor amplifiers and remove them one by one.
6. Pressing the release lever of the wire-saving connector, pull out the connector. (Note 2)



Notes: 1) Take care that if the cable with communication connector is pulled out without pressing the connector part, the cable may break.  
2) When removing the wire-saving connector, take care that if the connector is pulled out without pressing the release lever, the release lever can break. Do not use a wire-saving connector whose release lever has broken.

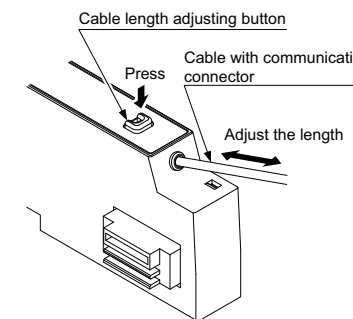
**4 LENGTH ADJUSTMENT OF CABLE WITH COMMUNICATION CONNECTOR**

- Length of the cable with communication connector of this product can be adjusted according to the number of connected sensor amplifiers between the communication unit and the end unit.
- The cable length can be adjusted in the range of 30 to 180mm.

**<In case of making the cable with communication connector longer>**  
• Pull out the cable by pressing the cable length adjusting button.

Note: Pull out the cable slowly. If the cable is pulled out strongly, the cable may break due to the strain on the cable.

**<In case of making the cable with communication connector shorter>**  
• Push the cable into the product by pressing the cable length adjusting button.



**5 SPECIFICATIONS**

Designation	Communication end unit for CC-Link
Item	Model No.
	<b>SC-GU2-EU</b>
Applicable unit	• Communication unit for CC-Link <b>SC-GU2-C</b> (optional) • Between <b>SC-GU2-C</b> and <b>SC-GU2-EU</b> : Only optically communicationable sensor amplifier ( <b>FX-301</b> or <b>FX-305</b> ) • After <b>SC-GU2-EU</b> : Sensor amplifier (NPN output type) that can connect the wire-saving connector <b>CN-70</b> (optional)
Number of connectable units	Max. 1 unit per <b>SC-GU2-C</b>
Supply voltage	24V DC <sup>+10</sup> / <sub>-15</sub> % Ripple P-P10% or less
Current consumption	10mA or less
Ambient temperature	-10 to +55°C (If 4 to 7 units are connected in cascade: -10 to +50°C, if 8 to 16 units are connected in cascade: -10 to +45°C) (No dew condensation or icing allowed), Storage: -20 to +70°C
Ambient humidity	35 to 85% RH, Storage: 35 to 85% RH
Material	Heat-resistant ABS
Cable with communication connector	Adjustable in the range of 30 to 180mm
Weight	Approx. 20g

Note: When using digital fiber amplifier **FX-301** as a combination amplifier, the updated version of **FX-301** can only be optically communicated.

**6 CAUTIONS**

- This product has been developed / produced for industrial use only.
- Make sure that the power supply is OFF while wiring and adding the units.
- Take care that wrong wiring will damage the product.
- Verify that the supply voltage variation is within the rating including the sensor amplifier.
- In case noise generating equipment (switching regulator, inverter motor, etc.) is used in the vicinity of this product, connect the frame ground (F.G.) terminal of the equipment to an actual ground.
- Do not use during the initial transient time (1 sec.) after the power supply is switched on.
- This product is suitable for indoor use only.
- This product cannot be used in an environment containing inflammable or explosive gases.
- Never disassemble or modify the product.
- For details of CC-Link, refer to "CC-Link Manual" prepared by Mitsubishi Electric Corporation.
- Any protective devices or safety circuits against system malfunction should be designed to be external to the system.
- In case the EMC Directive is to be satisfied with this product being incorporated into your system, install this product in a conducting box as per User's Manual (issued by Mitsubishi Electric Corporation) of the PLC.

**7 INTENDED PRODUCTS FOR CE MARKING**

- The models listed under "5 SPECIFICATIONS" come with CE Marking. As for all other models, please contact our office.
- Contact for CE  
<Until June 30 ,2013>  
Panasonic Electric Works Europe AG  
Rudolf-Diesel-Ring 2, D-83607 Holzkirchen, Germany  
<From July 1 ,2013>  
Panasonic Marketing Europe GmbH Panasonic Testing Center  
Winsbergring 15, 22525 Hamburg, Germany