Proposal of a new “management and setting” method for sensors

Control and settings can be carried out remotely

Setting and checking incident light intensity for digital sensors (FX-301/305) that are scattered inside and outside equipment can be carried out remotely for all sensors by using the SC-GU1-485, which greatly improves ease of operations such as monitoring equipment that is running and also equipment starting and maintenance.

High general applicability so that any type of PLC can be used

RS-485 communication provides a high level of general compatibility so that any type of PLC can be used. Integration with existing systems is possible without the need to change PLCs.

Note: Used when the output signal is sent via a SC-GU1-485 to the PLC. If the output signal is sent directly to the PLC, a quick-connection cable (CN-72-C□, CN-71-C□) should be used.

Compatible with all PLCs equipped with RS-485 compatible units

System Configuration

Digital sensor (Optional) (Max. 16 units can be connected)

End unit SC-GU1-EU (Accessory)

Wire-saving connector CN-701 (Optional) (Note 2)

Main unit SC-GU1-485

Link cable SC-GU1-C02 (Accessory)

Quick-connection cable CN-73-C2 (Accessory)

To PLC or PC (RS-485 communication)

24 V DC power supply

End plate MS-DIN-E (Optional) (Note 1)

Notes: 1) End plate is not supplied with SC-GU1-485. Please order it separately.
       2) This is used to control the output signal via signal transmission.
### OPTIONS

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<th>Model No.</th>
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<td>Wire-saving connector</td>
<td>CN-701</td>
<td>Used when the output signal is sent via a SC-GU1-485 to the PLC, etc.</td>
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### SPECIFICATIONS

#### Main unit

- **Type**: SC-GU1-485
- **Applicable sensor**: FX-301(P) (Note 2), FX-305(P)
- **Connectable units**: Max. 16 units of digital sensor per SC-GU1-485
- **Connectable nodes**: Max. 31 nodes
- **Supply voltage**: 24 V DC ± 10 %, Ripple P-P 10 % or less
- **Current consumption**: 45 mA or less (SC-GU1-EU: 10 mA or less)
- **Communication method**: 2 wire half duplex method
- **Communication speed**: 57,600 bps / 38,400 bps / 19,200 bps / 9,600 bps, Selectable by DIP switch
- **Synchronization method**: Asynchronous communication method
- **Electrical characteristic**: Conforming to EIA RS-485
- **Total extension length**: Communication cable: 100 m 328.084 ft or less [SC-GU1-485 (termination) to PLC]
  
- **Power supply cable**: Less than 10 m 32.808 ft

#### Indicators

- **Power (POWER)**: Green LED (Lights up when the power is ON)
- **Communication (COMM)**: Green LED (Lights up during communication)
- **Upper communication error (C.Err)**: Red LED [Blinks when communication error between PLC (Programmable Logic Controller) and Master or Master and Slave, or command error occurs]
- **Lower communication error (S.Err)**: Red LED (Blinks when communication error between the main unit and digital sensors occur)

#### Ambient temperature

- −10 to +55 °C × +14 to +131 °F (If 4 to 7 digital sensors are connected in cascade: −10 to +50 °C × +14 to +122 °F, if 8 to 16 digital sensors are connected in cascade: −10 to +45 °C × +14 to +113 °F) (No dew condensation or icing allowed)
- Storage: −20 to +70 °C –4 to +158 °F

#### Material

- **Enclosure**: Heat-resistant ABS, Connector cap: silicone rubber

#### Weight

- **Net weight**: 35 g approx. (SC-GU1-EU: 10 g approx.), Gross weight: 120 g approx.

#### Dimensions

- **SC-GU1-485**: W25 × H41.7 × D64.5 mm W0.984 × H1.642 × D2.539 in
- **SC-GU1-EU**: W10 × H27 × D68.5 mm W0.394 × H1.063 × D2.697 in

#### Accessories

- SC-GU1-EU (End unit): 1 pc.
- CN-73-C2 (Quick-connection cable (cable length 2 m 6.562 ft)): 1 pc.
- SC-GU1-CC02 (Link cable (cable length 0.2 m 0.656 ft)): 1 pc.

#### Notes:

1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C × +68 °F.
2) Applicable units are for the FX-301(P) after version update. Do not use the previous version of FX-301(P). The updated version of FX-301(P) has the "NAVI" printed only on single side. (See the right figure.)