

Direct Connection to High-Speed EtherCAT

Acquires various numeric data from thru-beam type digital displacement sensor **HG-T** series and contact-type digital displacement sensor **HG-S** series and allows change of their settings.

EtherCAT®

NEW

EtherCAT Communication Unit
for Digital Displacement
Sensor HG-T / HG-S Series

SC-HG1-ETC

Thru-beam Type Digital
Displacement Sensor

HG-T series



Contact-Type Digital
Displacement Sensor

HG-S series



High-accuracy
measurement data



EtherCAT®

PLC

Connects **HG-T / HG-S** series digital displacement sensors **directly to EtherCAT!**


Enables **change of various settings all at once.**
Allows **switching of controller's internal banks.**

Obtains high-accuracy measurement data **without a program.**


* EtherCAT® is a registered trademark patent-protected technology, licensed by Beckhoff Automation GmbH of Germany.

ORDER GUIDE

Communication unit for digital displacement sensors

| Type | Appearance | Model No. | Description |
|-----------------------------|---|---------------------------------|---|
| EtherCAT communication unit |  | NEW SC-HG1-ETC | Can directly send high-accuracy measurement values to EtherCAT Master. <ul style="list-style-type: none"> Communication protocol: EtherCAT Number of connectable controllers for HG-T / HG-S series Controller: Up to 15 units (1 master unit, 14 slave units) per SC-HG1-ETC unit |

End plates

| Type | Appearance | Model No. | Description |
|------------|---|-----------------------------------|--|
| End plates |  | MS-DIN-E 2 pcs. per set | After connecting the HG-T / HG-S series controller to the digital displacement sensor communication unit on the DIN rail, install the end plates to both ends and clamp the unit securely in place. Be sure to use the end plates when connecting units. |

SPECIFICATIONS

| Designation | EtherCAT communication unit |
|---|--|
| Item Model No. | SC-HG1-ETC |
| Regulatory compliance | EMC Directive, RoHS Directive |
| Compatible controllers | HG-TC , HG-SC |
| Maximum number of connectable controllers | Maximum of 15 controllers (one master, 14 slaves) per SC-HG1-ETC unit |
| Supply voltage (Note 2) | 24 V DC $\pm 10\%$, including ripple 0.5 V (P-P) |
| Current consumption | 100 mA or less |
| Communication protocol | EtherCAT |
| Compliance | IEEE 802.3u (100BASE-TX) |
| Communication speed | 100 Mbps (100BASE-TX) |
| Communication connector | RJ-45 $\times 2$ |
| Node-to-node distance | 100 m 328.084 ft or less |
| Supported functions | Process data object communication (cyclic communication) Mailbox communication (message communication) CoE Explicit Device Identification Station Alias |
| Pollution degree | 2 |
| Operating altitude (Note 3) | 2,000 m 6,561.68 ft or less |
| Ambient temperature | -10 to +45 °C +14 to +113 °F (No dew condensation or icing allowed), Storage: -20 to +60 °C -4 to +140 °F |
| Ambient humidity | 35 to 85 % RH, Storage: 35 to 85 % RH |
| Voltage withstandability | 1,000 V AC for one min. between all supply terminals connected together and enclosure |
| Insulation resistance | 20 M Ω or higher, using 250 V DC megger between all supply terminals connected together and enclosure |
| Vibration resistance | 10 to 150 Hz frequency, 0.75 mm 0.030 in double amplitude (10 to 58Hz), maximum acceleration 49 m/s ² (58 to 150 Hz) in X, Y and Z directions for two hours each |
| Shock resistance | 98 m/s ² (10 G approx.) acceleration in X, Y, and Z directions five times each |
| Grounding method | Casing: Floating type |
| Material | Case: Polycarbonate |
| Communication cable | Category 5e (shielded twisted pair cable recommended) |
| Weight | Net weight: 90 g approx. Gross weight: 150 g approx. |

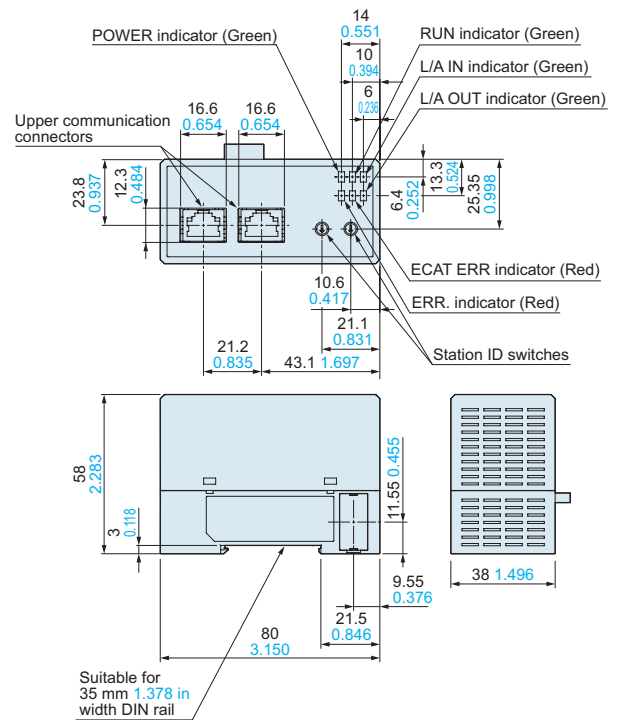
- Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C **+68 °F**.
 2) Power is supplied from a connected controller / master controller.
 3) Do not use or store in an environment that has been pressurized to an air pressure higher than the atmospheric pressure at 0 m.

Please contact

DIMENSIONS (Unit: mm in)

The CAD data can be downloaded from our website.

SC-HG1-ETC EtherCAT communication unit



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