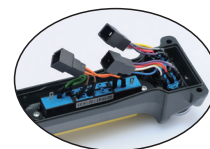
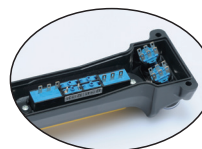
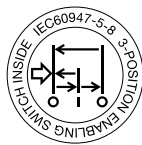


### HE2G Compact Grip Enabling Switch

**Key features:**

- New compact, light-weight grip switch provides a comfortable hold
- Compact design fits comfortably in the hand
- Light operating force ensures worry-free operation
- 3-position switch with distinctive tactile feedback
- Dual enabling contacts ensure a high level of safety



**Part Numbers**

| Additional Control Units                    |  | Rubber Boot Color | Solder Terminal | Internal Connector |
|---|--|-------------------|-----------------|--------------------|
| None  |  | Yellow            | HE2G-21SH       | HE2G-21SC          |
|   |  | Gray              | HE2G-21SH-1N    | HE2G-21SC-1N       |
| Estop                                       |  | Yellow            | HE2G-21SHE      |                    |
| Estop and Green Pilot Light                 |  |                   | HE2G-21SHE-P-0  |                    |
| Two Momentary Pushbuttons                   |  |                   | HE2G-21SH-L-L   |                    |
| E-Stop and Two Momentary Pushbuttons        |  | HE2G-21SHE-L-L    | HE2G-21SCE-L-L  |                    |
| E-Stop, Momentary Pushbutton and Key Switch |  | HE2G-21SHE-L-K    | HE2G-21SCE-L-K  |                    |



1. Additional control units installed on the HE2G are as follows:  
 Emergency Stop Switch: XA1E-BV3U02R  
 Momentary Pushbutton: AB6M-M2PLW  
 Key Selector Switch: AS6M-2KT2PA Pilot Light: UP9P-2498G

2. Silicon rubber: Can be used in general factories. Remains flexible in cold temperatures. Suitable in applications with a wide operating temperature range.  
 3. NBR/PVC polyblend: Oil-proof. Suitable for environments subjected to machine oil and painting robots where silicon rubber cannot be used.

## Specifications

|                             |                                   |  |
|-----------------------------|-----------------------------------|--|
| Overview                    | Applicable Standards              | UL508 (UL recognition)<br>CSA C22.2, No. 14 (c-UL recognition)<br>IEC/EN 60947-5-1 (TÜV)<br>GS-ET-22 (TÜV approval)  |
|                             | Applicable Standards for Use      | ISO 12100-1, -2<br>IEC 60204-1/EN 60204-1<br>ISO11161 / prEN11161<br>ISO 10218 / EN 775<br>ANSI/RIA R15.06<br>ANSI B11.19  |
| XW Series E-Stops           | Operating Temperature             | Silicon rubber boot: -25 to 60°C (no freezing)<br>NBR/PVC Polyblend rubber boot: -10 to 60°C (no freezing)   |
|                             | Relative Humidity                 | 45 to 85% (no condensation)  |
|                             | Storage Temperature               | -40 to +80°C (no freezing)   |
|                             | Pollution Degree                  | 3  |
| Interlock Switches          | Contact Resistance                | 50 mΩ maximum (initial value)  |
|                             | Insulation Resistance             | Between live and dead metal parts: 100 MΩ minimum (500V DC megger)<br>Between terminals of different pole: 100 MΩ minimum (500V DC megger)   |
|                             | Impulse Withstand Voltage         | (Solder terminal)<br>Grip style enabling switch/emergency stop switch: 2.5 kV<br>Momentary pushbutton/key selector switch: 1.5 kV<br>Pilot light: 500V AC, 1 minute (between live and dead parts)<br>(Internal connector)<br>Grip style enabling switch/emergency stop switch/momentary pushbutton/key selector switch: 1.5 kV |
| Enabling Switches           | Electric Shock Protection Class   | Class II (IEC 61140) (With pilot light: class III)   |
|                             | Operating Frequency               | 1,200 operations per hour  |
|                             | Mechanical Life                   | Position 1 → 2 → 1: 1,000,000 operations minimum<br>Position 1 → 2 → 3 → 1: 100,000 operations minimum   |
|                             | Electrical Life                   | 100,000 operations minimum (rated load)<br>1,000,000 operations minimum (24V AC/DC, 100 mA)  |
|                             | Shock Resistance                  | Operating extremes: 150 m/s <sup>2</sup> (15G)<br>Damage limits: 1,000 m/s <sup>2</sup> (100G)   |
|                             | Vibration Resistance              | Operating extremes: 5 to 55 Hz, amplitude 0.5 mm minimum<br>Damage limits: 16.7 Hz, amplitude 1.5 mm minimum   |
| Safety Control Relays       | Applicable Wire                   | Solder terminal: 0.5 mm <sup>2</sup> maximum (20 AWG)<br>Internal connector: 0.05 to 0.86 mm <sup>2</sup> (AWG18 to 30)  |
|                             | Applicable Wire Size              | Solder terminal: 0.5 mm <sup>2</sup> (20 AWG)<br>Internal connector: 0.05 to 0.86 mm <sup>2</sup> (AWG18 to 30) (AWG22 between switch and connector)   |
|                             | Applicable Cable                  | Outside diameter: ø4.5 to 10 mm  |
|                             | Conduit Port Size                 | M16 (cable gland is supplied)  |
|                             | Terminal Tensile Strength         | 20N minimum  |
| Light Curtains              | Degree of Protection              | With control unit: IP67/IP66 (IEC 60529)<br>Without control unit: IP65 (IEC 60529)   |
|                             | Conditional Short-circuit Current | 50A (250V) (Use 250V/10A fast-blow fuse for short circuit protection.)   |
|                             | Direct Opening Force              | 60N minimum (monitor switch)   |
|                             | Operator Strength                 | 500N minimum (when pressing the entire button surface)   |
| AS-Interface Safety at Work | Weight (approx.)                  | HE2G-21SH: 140g<br>HE2G-21SH-P-0/-21SC: 145g<br>HE2G-21SHE/-21SC-P-0: 150g<br>HE2G-21SH-L-L/-21SHE-P-0/-21SCE: 155g<br>HE2G-21SH-L-K/-21SCE-P-0: 160g<br>HE2G-21SHE-L-L/-21SC-L-L: 165g<br>HE2G-21SHE-L-K/-21SC-L-K: 170g<br>HE2G-21SCE-L-L: 175g<br>HE2G-21SCE-L-K: 180g  |

## Contact Ratings

|  |                            |   |    |   |      |       |       |
|--|----------------------------|---|----|---|------|-------|-------|
| Rated Insulation Voltage (Ui)                        |                            |   |    | 250V (momentary pushbutton and key selector: 125V) / 30V (with pilot light) |      |       |       |
| Rated Thermal Current (Ith)                          |                            |   |    | 3A (emergency stop switch: 5A)  |      |       |       |
| Rated Voltage (Ue)                                   |                            |   |    | 30V   | 125V | 250V  |       |
| Rated Current  | Grip Style Enabling Switch | 3-position switch<br>(Terminal No. N01-C1/A1-B1, N02-C2/A3-B3)  | AC | Resistive Load (AC-12)  | —    | 1A    | 0.5A  |
|  |                            |   |    | Inductive Load (AC-15)  | —    | 0.7A  | 0.5A  |
|  |                            |   | DC | Resistive Load (DC-12)  | 1A   | 0.2A  | —     |
|  |                            |   |    | Inductive Load (DC-13)  | 0.7A | 0.1A  | —     |
|  |                            | Monitor Switch (NC contact)<br>(Terminal No. 31-32/A2-B2)   | AC | Resistive Load (AC-12)  | —    | 2.5A  | 1.5A  |
|  |                            |   |    | Inductive Load (AC-15)  | —    | 1.5A  | 0.75A |
|  |                            |   | DC | Resistive Load (DC-12)  | 2.5A | 1.1A  | 0.55A |
|  |                            |   |    | Inductive Load (DC-13)  | 2.3A | 0.55A | 0.27A |
|  | Control Unit               | Emergency Stop Switch<br>XA1E-BV3U02R<br>(Terminal No.1-2/A1-B1, 1-2/A2-B2)   | AC | Resistive Load (AC-12)  | —    | 5A    | 3A    |
|  |                            |   |    | Inductive Load (AC-15)  | —    | 3A    | 1.5A  |
|  |                            |   | DC | Resistive Load (DC-12)  | 2A   | 0.4A  | 0.2A  |
|  |                            |   |    | Inductive Load (DC-13)  | 1A   | 0.22A | 0.1A  |
|  |                            | Momentary Pushbutton<br>Key Selector Switch<br>AB6M-M2PLW,<br>AS6M-2KT2PA<br>(Terminal No.C1/B1, N01/B2, NC1/B3, C2/A1, N02/A2, NC2/A3) | AC | Resistive Load (AC-12)  | —    | 0.5A  | —     |
|  |                            |   |    | Inductive Load (AC-15)  | —    | 0.3A  | —     |
|  |                            |   | DC | Resistive Load (DC-12)  | 1A   | 0.2A  | —     |
|  |                            |   |    | Inductive Load (DC-13)  | 0.7A | 0.1A  | —     |
| UP9 Pilot Light<br>UP9P-2498G<br>(Terminal No. +, -) |                            |   |    | Rated operating voltage: 24V DC ±10%<br>Rated current: 15mA                 |      |       |       |

Overview

XW Series E-Stops


Interlock Switches

Enabling Switches

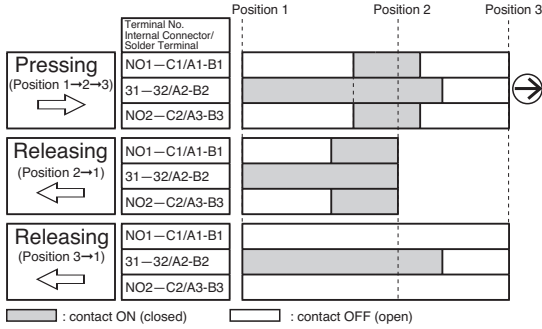
Safety Control Relays


Light Curtains

AS-Interface Safety at Work

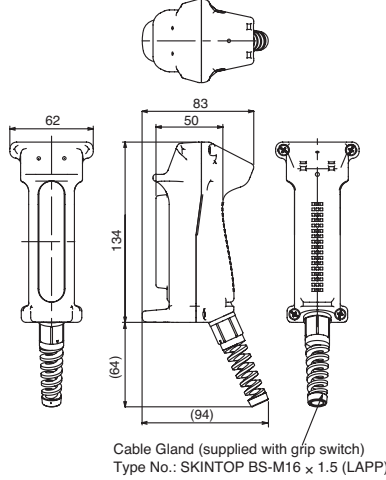
 Note: Minimum applicable load (reference value): 3V AC/DC, 5 mA (Applicable range is subject to the operating conditions and load.)  
 \*Operating temperature for internal connectors:  
 -25°C min., 40°C max. 2.5A (12 to 19 poles), 2A (20 to 22 poles)  
 40°C min., 50°C max. 2.5A (8 to 12 poles), 2A (13 to 22 poles)  
 50°C min., 60°C max. 2.5A (6, 7 poles), 2A (8 to 13 poles), 1.5A (14 to 22 poles)

**Operation Characteristics**



 Terminals NO1-C1/A1-B1, NO2-C2/A3-B3 are outputs of the 3-position enabling switch.  
 The above operation characteristics show when the center of the grip switch button is pressed. Because two contacts are designed to operate independently, pressing the edge of the button turns on one contact earlier than the other contact, causing a delay in operation. To avoid this, always press the center of the button.

**Dimensions (mm)  
HE2G-21SH/HE2G-21SC**



All dimensions in mm.

**Internal Connector**

Cable side connector:  
 Tyco Electronics D-1200D Series

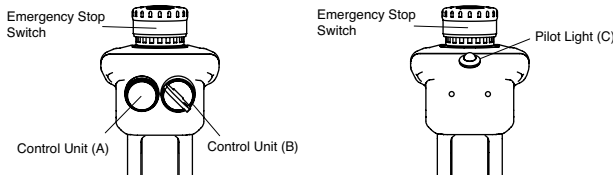
- Receptacle: 1-1827864-□
- Receptacle contact  
 1827586-2: AWG28 to 30 (Hand tool: 1762952-1)  
 1827587-2: AWG22 to 28 (Hand tool: 1762846-1)  
 1827588-2: AWG22 to 28 (Hand tool: 1762950-1)  
 1827589-2: AWG18 to 22 (Hand tool: 1762625-1)

Specify 2 or 3 in place of □.

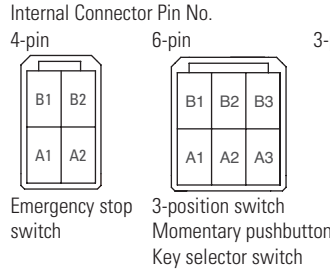
- 2: 4-pin connector
- 3: 6-pin connector

The customer needs to purchase the connector separately.

**Additional Control Unit Layout**



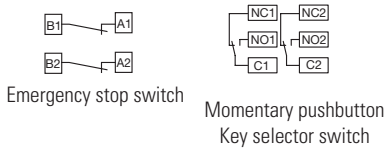
**Contact Arrangement (Internal Connector)**



3-position switch /control unit side connector:

- Tyco Electronics D-1200D Series  
 Tab housing: 1-1903130-2 (4-pin connector)  
 1-1903130-3 (6-pin connector)  
 Tab contact: 19303116-2

**Terminal Arrangement (TOP VIEW) 6-Pin Connector Allotment Table**



| Internal Connector Pin No. | Momentary pushbutton Key selector switch |
|----------------------------|--|
| A1                         | C2                                       |
| A2                         | NO2                                      |
| A3                         | NC2                                      |
| B1                         | C1                                       |
| B2                         | NO1                                      |
| B3                         | NC1                                      |

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [idec manufacturer](#):*

Other Similar products are found below :

[LT7A-XE-G](#) [LT7A-XE-R](#) [LT7B-A250](#) [LT7B-A250FB](#) [LW1B-M1C6-W](#) [LW6L-M1C24MG](#) [FB1T-000Z](#) [FB1W-XW1E-BV411MR](#) [FB3W-413Z](#) [FC2A-KP1C](#) [FC4A-J8AT1](#) [FC4A-T16S3](#) [FC5A-C16R2C](#) [MM-SMART-24](#) [MM-SMART-40](#) [FT1A-C12RA-S](#) [FT1A-C12RA-W](#) [FT1A-C14SA-B](#) [PF3S-BP12](#) [PS3X-D24AFG](#) [PS3X-Q12AFG](#) [GT3A-3AD24](#) [GT3F-2EAD24](#) [GT3S-2AF20](#) [GT3W-A16AD24](#) [ABD302N-R](#) [ABD410N-R](#) [ABFD411N-G](#) [ABN4F11-G](#) [ABPD201N-R](#) [HE2B-M211PB](#) [HE2G-21SH](#) [HE9Z-D3B](#) [HG9Z-2A1](#) [HG9Z-XC300](#) [ACSNO-6123-FB-C6002](#) [RH3V2-UAC240V](#) [DFAN-031-B](#) [AL6M-LK1-G](#) [AL6M-P3-R](#) [AL6Q-M13-W](#) [AL6Q-M23P-QG](#) [ALFD29901DN-G-24V](#) [ALFN22211DNG-U](#) [ALFW224611D-W](#) [ALNE8811-G](#) [ALQW2B24611D-G](#) [ALW212611-G](#) [ALW22211DG](#) [ALW29902D-G-12V](#)