



## Tablet Mount Safety Device HT4P

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# Safety Commander™

Enable industrial tablets to provide operation safety  
Complies with safety requirements as required by the  
ISO 10218 series.



IDEC CORPORATION

## Mechanical switches

NEW

- Up to 3 IDEC LB series switches can be installed. (\*1)
- Reliable operation.
- Ideal for a wide range of applications. Complies with various standards.

\*1) The product will be shipped with requested switches. See P7 for custom products.

### Standard products

- Without mechanical switch



### Custom products (example)

- TS series joystick



### Custom products (example)

- Illuminated pushbuttons (red)
- Illuminated pushbuttons (green)
- Key selector switch



## E-stop switch with LED indicator

Equipped with a safety lock mechanism, safe break action structure, and direct opening action.

## Newly available with an emergency stop switch

(button color: white, illuminated color: red) compliant with ISO 13850:2015)

NEW

In addition to IDEC's unique features, such as "Safety lock mechanism" and "Reverse energy structure", the illuminated E-stop switch allows intuitive visibility of the active/inactive status.



## Emergency stop switch guard (accessory)

Retrofittable guards available.



## USB/LAN converter with built-in USB power delivery

NEW

- Wired LAN enables stable communication regardless of the environment.
- USB power delivery allows battery charge via USB while communicating. No need to worry about the battery running out.



NEW

# HT4P

High performance

Wired LAN

Mechanical switch

10 to 13 inches

## Vertical and horizontal operation for flexible use

- Rotating grips allow the tablet to be used in vertical or horizontal orientation. The emergency stop switch, which must be accessed instantly, can also be positioned for ease of use.
- Easy to hold and operate, regardless of handedness. The ergonomic holder design and enabling switch position result in ease of holding and operability.



## Safety device easily attaches to a 10- to 13-inch tablet

NEW

- The tablet can be readily equipped with a safety device.



Tablet



HT4P Safety Commander™

- Equipped with slide mechanism.
- Fits large and rugged tablets.



10 inches



13 inches

### Three-position enabling switch

Safety during work operations is assured by the ergonomically designed three-position action to avoid danger.

Note: ISO 10218 series specifies the requirement for the installation of the three-position enabling switch on the teaching pendant.

### Rotation unlock button

**NEW**

Allows the grip to rotate only when the button is pressed, preventing unintentional rotation.

### Hand strap or shoulder strap (accessories)

- Prevents the product from dropping during hand-held operation.
- Reduces the burden when working long hours.



- The shoulder strap has a safety feature that disengages when a certain load is applied.



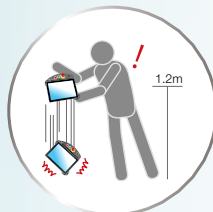
### Can be used set down

Enables stable operation while placed on a desk.

Note.) Excludes operation of enable switches.

### Rugged construction with drop resistance of 1.2m

Designed for assurance, the product has passed drop tests assuming accidental drop or impact while carrying. (\*)



\*) Drop resistance has been tested for tablet weights up to 1.1 kilogram.

Note: Drop protection of the product or tablet is not guaranteed.

### IP54 protection

Usable even in dusty environments or when exposed to splashing or spraying.



**Safety Commander™**

Patent pending

### Expansion lock

Prevents unintentional removal of the tablet.

### Expansion lock lever

Locks the extension of the tablet holder.



### Movable mounting hooks & spacers

**NEW**

The power and audio buttons on the tablet can be operated when mounted, as bracket and spacer positions can be changed.

- Mounting bracket position can be changed.



- Mounting spacer position can be changed.



### Waterproof connector/

**NEW**

Wired LAN, switch contact, power supply cable (accessories)

- Connector allows one-touch connection and disconnection of the cable.
- Easy maintenance.



### Wall mount

Wall mount bracket (accessory) enables operation while fixed to the wall.

Note: Only for operations that do not require an enabling switch.



# Customer benefits

## Improved safety of tablets

### BEFORE

- Devices can be controlled by only using tablets.
- Safety is not ensured without safety devices.
- Does not satisfy safety standards.
- Wireless features are affected by noise.



### AFTER

- Improved safety with safety devices.
- Complies with international safety standards.
- Wired LAN enables safe communication.



## Eliminates the need to develop a dedicated device

### BEFORE

- Large development and production costs.
- Difficult to handle discontinuation of parts.
- Complex operation due to too many buttons.



### AFTER

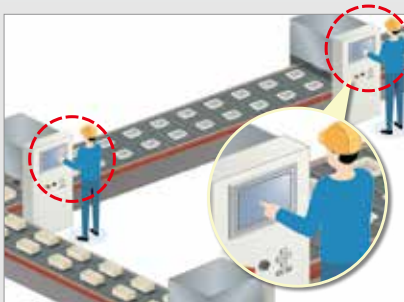
- No hardware development required. Software only.
- Low cost.
- Easy to operate.



## Replacement for a touch panel on a control panel

### BEFORE

- Individual touch panels are installed on multiple panel boards.



### AFTER

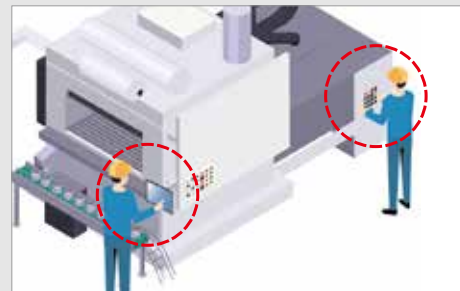
- One Safety Commander can be used in multiple locations.
- Cost reduction and space saving of control panel.
- Reduced number of touch panels.



## Enables operation close to the machine

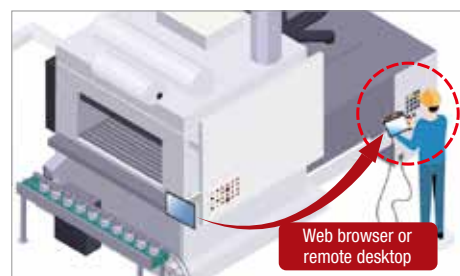
### BEFORE

- Fixed touch panels are used to control large machines.
- Multiple workers call out to each other during maintenance.



### AFTER

- By using the product together with a fixed touch panel, machines can be operated using the web browser and remote desktop functions.
- Workers can operate close to the machine and the number of workers can be reduced.



## Applications

Robot teaching



Large equipment and machinery



Automotive production lines and conveyor lines



Semiconductor manufacturing equipment, chip mounter, food & packaging equipment



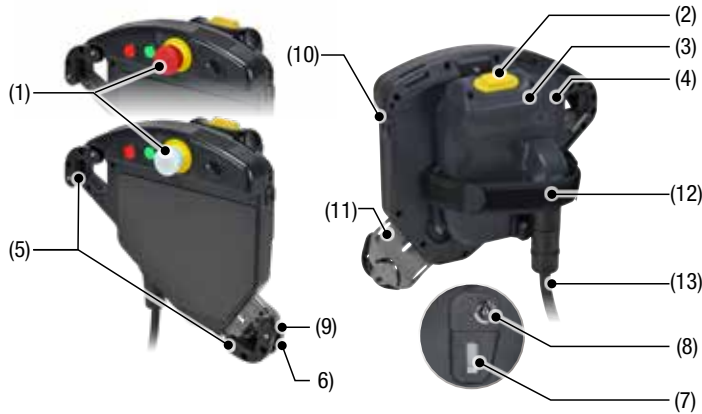
AGV and AMR



# HT4P Safety Commander™



• See website for details on approvals and standards.



| No.  | Name                  | Description                                                                |
|------|-----------------------|----------------------------------------------------------------------------|
| (1)  | Emergency stop switch | XA1E-LV3SG02Q4R/<br>XA1E-LV3SG02Q4WR (IDEC)                                |
| (2)  | Enabling switch       | HE6B-M200Y (IDEC)                                                          |
| (3)  | Grip unit             | Grip of the product                                                        |
| (4)  | Tablet holder unit    | Secures the tablet                                                         |
| (5)  | Hook top              | —                                                                          |
| (6)  | Hook base             | —                                                                          |
| (7)  | Expansion lock lever  | Extendable lever for tablet holder                                         |
| (8)  | Expansion lock        | Key lock for extendable lever<br>(includes 2 extendable lock release keys) |
| (9)  | Spacer                | —                                                                          |
| (10) | USB port              | Type-C                                                                     |
| (11) | Slide arm             | —                                                                          |
| (12) | Hand strap            | Supplied with the product                                                  |
| (13) | Cable                 | Accessory (sold separately)                                                |

## HT4P Safety Commander™

Quantity: 1

| Name                                                                                                  | Tablet compatible size | Part No.           | Switch                                                       |                       |                         |
|-------------------------------------------------------------------------------------------------------|------------------------|--------------------|--------------------------------------------------------------|-----------------------|-------------------------|
|                                                                                                       |                        |                    | Emergency stop switch                                        | Emergency stop switch | Mechanical switches(*1) |
| HT4P Safety Commander™<br>Illuminated E-stop switch model<br>(button: red, illumination color: red)   | 10 to 13 inches        | HT4P-SLNPL         | XA1E-LV3SG02Q4R<br>(Button: red, illumination color: red)    | HE6B-M200Y            | —                       |
|                                                                                                       |                        | HT4P-SLSPL-R****   |                                                              |                       | ●                       |
| HT4P Safety Commander™<br>Illuminated E-stop switch model<br>(button: white, illumination color: red) |                        | HT4P-SLNPL-W       | XA1E-LV3SG02Q4WR<br>(Button: white, illumination color: red) |                       | —                       |
|                                                                                                       |                        | HT4P-SLSPL-W-R**** |                                                              |                       | ●                       |

\*1) See page 7 for details on models equipped with mechanical switches.

## Maintenance parts (sold separately)

| Name                        | Shape | Specification                                                                     | Part No.     | Quantity | Remarks                                                                                          |
|-----------------------------|-------|-----------------------------------------------------------------------------------|--------------|----------|--------------------------------------------------------------------------------------------------|
| Hand strap                  |       | PP, others                                                                        | HT9Z-4PS1    | 1        | Back hand hold type                                                                              |
| Extendable lock release key |       | Metal (brass)                                                                     | HT9Z-4PK01   | 1        | Includes 2 pieces                                                                                |
| Hook (Supplied)             |       | Hook top: Rubber<br>Hook base: Plastic<br>Spacer: Aluminum<br>Rubber tube: Rubber | HT9Z-4PHZ1   | 1        | Hook to secure the tablet<br>(Hook top, hook base, 2 spacers (14mm) 2 rubber tubes (8mm), rivet) |
| Hook top (Supplied)         |       | Rubber                                                                            | HT9Z-4PHZ1-F | 1        | Includes 2 pieces                                                                                |

## Accessories (sold separately)

| Name                              | Shape | Specification                                                                                | Part No.       | Quantity | Remarks                                                                                                                                                                                                                                                         |
|-----------------------------------|-------|----------------------------------------------------------------------------------------------|----------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tablet thickness adjustment kit A |       | Spacer: aluminum<br>Rubber tube: rubber                                                      | HT9Z-3PHB08    | 1        | One pack contains 4 spacers and 4 rubber tubes.<br>Use with standard parts for tablet with thickness of 9 to 17mm.                                                                                                                                              |
| Tablet thickness adjustment kit B |       | Spacer: aluminum<br>Rubber tube: rubber                                                      | HT9Z-3PHB14    | 1        | One pack contains 4 spacers and 4 rubber tubes.<br>Use with standard parts for tablet with thickness of 17 to 23mm.                                                                                                                                             |
| Rubber tube                       |       | Rubber                                                                                       | HT9Z-3PHC10    | 1        | For tablet thickness adjustment<br>Approx. 100mm (inside diameter ø6mm, external diameter ø9mm)<br>• Cut to length when aluminum spacers are provided by customer.<br>For details see the "12. Options/Maintenance parts" *16 and *17 on the instruction sheet. |
| Shoulder strap                    |       | PP, others                                                                                   | HT9Z-4PS2      | 1        | Shoulder strap<br>For safety reasons, if the strap holds more than a certain amount of load, the strap will fall off.                                                                                                                                           |
| Cable (5m)<br>D-sub37p            |       | Double-shielded cable<br>25 cores<br>Power supply: AWG20<br>Ethernet: AWG26<br>Others: AWG28 | HT9Z-4PC15MC-B | 1        | D-sub37 pin (plug)<br>(mating screw: #4-40 inch screw)                                                                                                                                                                                                          |
| Cable stranded wire               |       |                                                                                              | HT9Z-4PC1*M-B  | 1        | Stranded wire type, length (m)<br>*: 5, 10, 15, 20                                                                                                                                                                                                              |
| Emergency stop switch             |       | Plastic                                                                                      | HT9Z-4PG1      | 1        | Screws for mounting emergency stop switch guards: Two M3 × 8 mm countersunk tapping screws                                                                                                                                                                      |
| Wall mount bracket                |       | Aluminum                                                                                     | HT9Z-4PF1      | 1        | The main unit can be fixed to a wall.<br>The mounting centers of the screws complies with VESA standard.                                                                                                                                                        |
| Hook (*2)                         |       | Hook top: Rubber<br>Hook base: Plastic<br>Spacer: Aluminum<br>Rubber tube: Rubber            | HT9Z-4PHZ      | 1        | Hook to secure the tablet<br>(Hook top, hook base, 2 spacers (14mm) 2 rubber tubes (8mm), rivet)                                                                                                                                                                |
| Hook top (*2)                     |       | Rubber                                                                                       | HT9Z-4PHZ-F    | 1        | Includes 2 pieces                                                                                                                                                                                                                                               |

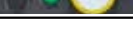
\*2) Holds the tablet more firmly compared to the hooks supplied with the tablet. However, depending on the tablet used, a part of the hook may get in the way of the screen. For the actual size, see the dimensions on the website.

• If the rivet is damaged, purchase the rivet from Hirosugi-Keiki, Part Number N-4060

## Mechanical switch mount model (custom order)

The following IDEC LB series mechanical switches can be installed on the HT4P as custom products.

Quantity: 1

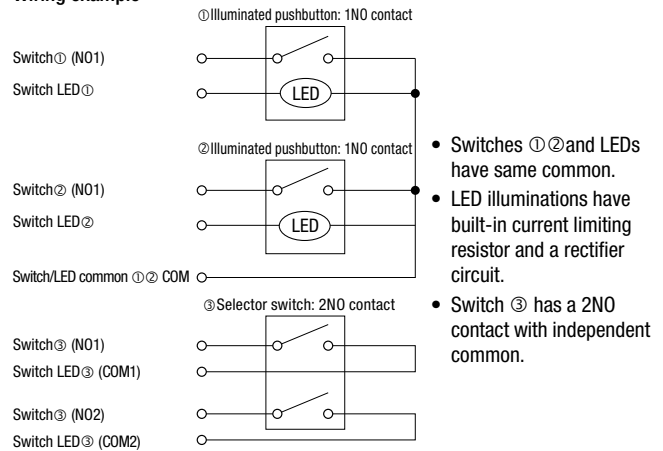
| Part No.           | Emergency stop switch                                        |                                                                 | Mechanical switches                                                       |                                                                           |                                                                                                 | Mounting image                                                                        |
|--------------------|--------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                    | XA1E-LV3SG02Q4R<br>(Button: red,<br>illumination color: red) | XA1E-LV3SG02Q4WR<br>(Button: white,<br>illumination color: red) | Mounting position                                                         |                                                                           |                                                                                                 |                                                                                       |
|                    |                                                              |                                                                 | (1)                                                                       | (2)                                                                       | (3)                                                                                             |                                                                                       |
| HT4P-SLSPL-R0001   | ●                                                            | —                                                               | —                                                                         | —                                                                         | Selector switch<br>2-position / 2NO contact /<br>maintained /<br>knob operator LB6S-2T2         |    |
| HT4P-SLSPL-W-R0001 | —                                                            | ●                                                               |                                                                           |                                                                           |              |                                                                                       |
| HT4P-SLSPL-R0002   | ●                                                            | —                                                               | —                                                                         | —                                                                         | Selector switch<br>3-position / 2NO contact /<br>maintained /<br>knob operator LB6S-3T2         |    |
| HT4P-SLSPL-W-R0002 | —                                                            | ●                                                               |                                                                           |                                                                           |              |                                                                                       |
| HT4P-SLSPL-R0003   | ●                                                            | —                                                               | —                                                                         | —                                                                         | Key selector switch<br>2-position / 2NO contact /<br>maintained /<br>disk tumbler key LB6K-2T2A |    |
| HT4P-SLSPL-W-R0003 | —                                                            | ●                                                               |                                                                           |                                                                           |              |                                                                                       |
| HT4P-SLSPL-R0004   | ●                                                            | —                                                               | —                                                                         | —                                                                         | Key selector switch<br>3-position / 2NO contact /<br>maintained /<br>disk tumbler key LB6K-3T2A |    |
| HT4P-SLSPL-W-R0004 | —                                                            | ●                                                               |                                                                           |                                                                           |              |                                                                                       |
| HT4P-SLSPL-R0005   | ●                                                            | —                                                               | Illuminated pushbuttons<br>Red / 1NO contact /<br>momentary LB6L-M1T14R   | Illuminated pushbuttons<br>Green/1NO contact/<br>momentary LB6L-M1T14G    | Key selector switch<br>3-position / 2NO contact /<br>maintained /<br>disk tumbler key LB6K-3T2A |    |
| HT4P-SLSPL-W-R0005 | —                                                            | ●                                                               |                                                                           |                                                                           |              |                                                                                       |
| HT4P-SLSPL-R0006   | ●                                                            | —                                                               | Illuminated pushbuttons<br>Red / 1NO contact /<br>momentary LB6L-M1T14R   | Illuminated pushbuttons<br>Green/1NO contact/<br>momentary LB6L-M1T14G    | Selector switch<br>2-position / 2NO contact /<br>maintained /<br>knob operator LB6S-2T2         |    |
| HT4P-SLSPL-W-R0006 | —                                                            | ●                                                               |                                                                           |                                                                           |             |                                                                                       |
| HT4P-SLSPL-R0007   | ●                                                            | —                                                               | Illuminated pushbuttons<br>Green/1NO contact /<br>momentary LB6L-M1T14G   | —                                                                         | Key selector switch<br>3-position / 2NO contact /<br>maintained /<br>disk tumbler key LB6K-3T2A |  |
| HT4P-SLSPL-W-R0007 | —                                                            | ●                                                               |                                                                           |                                                                           |            |                                                                                       |
| HT4P-SLSPL-R0008   | ●                                                            | —                                                               | Illuminated pushbuttons<br>Green / 1NO contact /<br>momentary LB6L-M1T14G | —                                                                         | Selector switch<br>2-position / 2NO contact /<br>maintained /<br>knob operator LB6S-2T2         |  |
| HT4P-SLSPL-W-R0008 | —                                                            | ●                                                               |                                                                           |                                                                           |            |                                                                                       |
| HT4P-SLSPL-R0009   | ●                                                            | —                                                               | Pushbuttons<br>White / 1NO contact /<br>momentary LB6B-M1T1W              | Pushbuttons<br>White / 1NO contact /<br>momentary LB6B-M1T1W              | Selector switch<br>2-position / 2NO contact /<br>maintained /<br>knob operator LB6S-2T2         |  |
| HT4P-SLSPL-W-R0009 | —                                                            | ●                                                               |                                                                           |                                                                           |            |                                                                                       |
| HT4P-SLSPL-R0010   | ●                                                            | —                                                               | Pushbuttons<br>Black / 1NO contact /<br>momentary LB6B-M1T1B              | Illuminated pushbuttons<br>Green / 1NO contact /<br>momentary LB6L-M1T14G | Selector switch<br>2-position / 2NO contact /<br>maintained /<br>knob operator LB6S-2T2         |  |
| HT4P-SLSPL-W-R0010 | —                                                            | ●                                                               |                                                                           |                                                                           |            |                                                                                       |

• Contact IDEC for combinations other than those listed above.

### Mechanical switch mount position



### Wiring example



## General specifications

|                                        |                                        |                                                                                                                                                         |                                                                                                                                                                                                 |
|----------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Specifications           | Operating temperature (*3)             |                                                                                                                                                         | -10 to +55°C<br>(when USB is not connected / product is not held)<br>-10 to +40°C<br>(when connected to USB / product is not held)<br>-10 to +35°C (*4)<br>(when product is held) (no freezing) |
|                                        | Storage temperature                    |                                                                                                                                                         | -20 to +55°C (no freezing)                                                                                                                                                                      |
|                                        | Storage humidity                       |                                                                                                                                                         | 30 to 85%RH (no condensation)                                                                                                                                                                   |
|                                        | Operating humidity                     |                                                                                                                                                         | 30 to 85%RH (no condensation)                                                                                                                                                                   |
|                                        | Degree of pollution                    |                                                                                                                                                         | 3                                                                                                                                                                                               |
|                                        | Rated insulation voltage               |                                                                                                                                                         | 50V                                                                                                                                                                                             |
|                                        | Overvoltage category                   |                                                                                                                                                         | II                                                                                                                                                                                              |
| Electrical Specifications (*1)<br>(*2) | Rated input voltage                    |                                                                                                                                                         | Main power supply: 24V DC (20.4V to 28.8V DC)<br>Emergency stop switch<br>LED unit: 24V DC (21.6V to 26.4V DC)<br>Mechanical switch LB series<br>LED unit: 24V DC (21.6V to 26.4V DC)           |
|                                        | Current draw                           |                                                                                                                                                         | Main power supply: 2.0A max.<br>Emergency stop switch<br>LED unit: 11mA<br>Mechanical switch LB series<br>LED unit: 5mA                                                                         |
|                                        | Allowable momentary power interruption |                                                                                                                                                         | 1ms                                                                                                                                                                                             |
|                                        | Dielectric strength                    |                                                                                                                                                         | Main power supply 24V DC between +/- terminals and FE terminal: 500V AC for 1 min.                                                                                                              |
|                                        | Insulation resistance                  |                                                                                                                                                         | Main power supply 24V DC between +/- terminals and FE terminals: 100MΩ min. (500V DC megger)                                                                                                    |
|                                        | Contact ratings (*5)                   | Emergency stop switch (*6)<br>XA1E-LV3SG02Q4R<br>(Button: red, illumination color: red)<br>XA1E-LV3SG02Q4WR<br>(Button: white, illumination color: red) | 2A / 30V DC (resistive load)<br>1A / 30V DC (inductive load)                                                                                                                                    |
|                                        |                                        | Enabling switch<br>HE6B-M200Y (*6)                                                                                                                      | 1A / 30V DC (resistive load)<br>0.7A / 30V DC (inductive load)                                                                                                                                  |
|                                        |                                        | Mechanical switch<br>LB series (*6)                                                                                                                     | 0.1A / 30V DC (resistive load)                                                                                                                                                                  |
|                                        |                                        |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        | EMC Specifications                     |                                                                                                                                                         | Immunity zone                                                                                                                                                                                   |
|                                        | Mechanical specification               | Vibration resistance                                                                                                                                    |                                                                                                                                                                                                 |
|                                        |                                        | Shock resistance                                                                                                                                        |                                                                                                                                                                                                 |
| Structure Specification                | Degree of protection                   |                                                                                                                                                         | IP54 (*7)                                                                                                                                                                                       |
|                                        | Compatible tablet (*8)                 | Compatible tablet size                                                                                                                                  | Tablet diagonal length : 290 to 380mm (270mm~ at reduced size)<br>Screen size: 10 to 13 inches                                                                                                  |
|                                        |                                        | Compatible tablet thickness                                                                                                                             | Standard : up to 9mm (*9)                                                                                                                                                                       |
|                                        |                                        | Compatible OS                                                                                                                                           | (*11)                                                                                                                                                                                           |
|                                        |                                        | Compatible tablet weight                                                                                                                                | Max. 1.1kg (reference value)                                                                                                                                                                    |
|                                        | Weight (approx.) (*10)                 |                                                                                                                                                         | Approx. 880g<br>Approx. 2210g (Cable, including accessory / D-Sub type)                                                                                                                         |
|                                        | Grip unit rotation angle               |                                                                                                                                                         | Approx. 120° (approx.)                                                                                                                                                                          |
|                                        | Housing color                          |                                                                                                                                                         | Black                                                                                                                                                                                           |
|                                        | USB                                    | Communication                                                                                                                                           | USB 2.0 device<br>High speed (480Mbps)                                                                                                                                                          |
|                                        |                                        | Power supply                                                                                                                                            | USB PD Source<br>Output: 30W<br>5V-3A, 9V-3A, 15V-2A, 20V-1.5A                                                                                                                                  |
|                                        |                                        | Cable                                                                                                                                                   | USB Type C connector<br>Cable length: 0.5m max.                                                                                                                                                 |
|                                        | Ethernet (*12)                         | Communication method                                                                                                                                    | IEEE802.3i<br>10BASE-T, 100BASE-TX                                                                                                                                                              |
|                                        |                                        | Internal circuits and insulation                                                                                                                        | Pulse transformer                                                                                                                                                                               |
|                                        | Applicable standards                   |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        |                                        |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        |                                        |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        |                                        |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        | Safety standards                       |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        |                                        |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        |                                        |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        | Applicable standards for use           |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        |                                        |                                                                                                                                                         |                                                                                                                                                                                                 |
|                                        | EMC standards                          |                                                                                                                                                         | IEC/EN 61131-2                                                                                                                                                                                  |
|                                        | UL certification                       |                                                                                                                                                         | UL508<br>UL60947-5-5<br>CSA C22.2 No.14                                                                                                                                                         |

\*1) If there is a risk of malfunction or destruction to the USB power supply or tablet due to noise from the connected power supply, use a dedicated USB power supply that is independent of other power supplies. Use Class2 or SELV power supply. This product does not support hot swap, so wiring should be done while the power supply to be connected is OFF.

\*2) The emergency stop switch and LB series mechanical switch has a built-in current limiting resistor and a rectifier circuit.

\*3) When using the product under operating temperature of more than 40°C, follow the instructions mentioned in "4. Specifications" \*13 on the instruction sheet.

\*4) The tablet holder unit generates heat when power is supplied for a long period of time. Do not supply power while holding the tablet holder unit for a long period of time as it may cause low-temperature burns.

\*5) Specifications for components.

\*6) UL certified rating

Emergency stop switch / Enabling switch: 30VDC / 1A max. (Res), 30V / 0.7A max. (Pilot Duty)

Mechanical switch: 30V / 0.1A max. (Res)

\*7) Not when USB cable is connected.

\*8) May not be applicable depending on the shape. Weight is not guaranteed.

\*9) Tablet thickness can be adjusted up to 23mm with the accessory tablet thickness adjustment kit. Use HT9Z-3PHB08 for tablet thickness of 9mm to 17mm and HT9Z-3PHB14 for tablet thickness of 17mm to 23mm by adding them to the standard parts.

\*10) Except hand straps and other accessories.

\*11) See "USB to Ethernet Conversion Function" below for details.

\*12) USB to Ethernet Conversion Function

USB-Ethernet conversion function can be used by installing a dedicated software driver on a Windows tablet.

This function is available using MAXLINEAR's dedicated IC (model number: XR22801).

The dedicated software driver can be downloaded from the MAXLINEAR website below and should be used in accordance with the conditions of use described on the website. Check the following website for supported OS and versions.

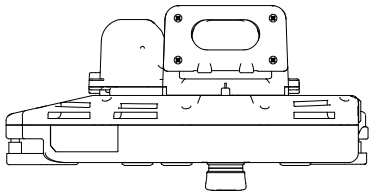
<https://www.maxlinear.com/support/design-tools/software-drivers>

Before using the software, check the Errata information from the following website and handle the software according to the information.

<https://www.maxlinear.com/product/interface/bridges/usb-ethernet-bridges/xr22801#documentation>

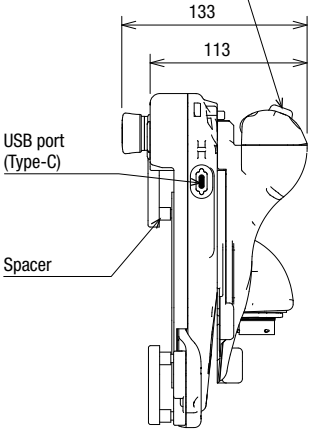
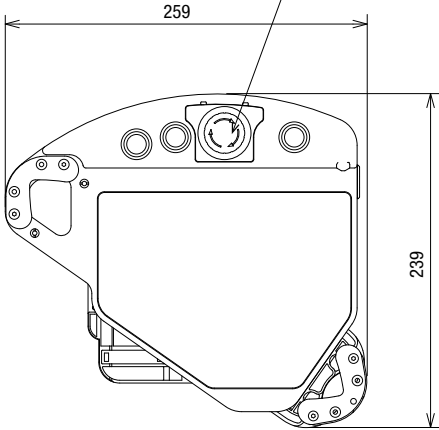
Dimensions  
Main parts

All dimensions in mm.

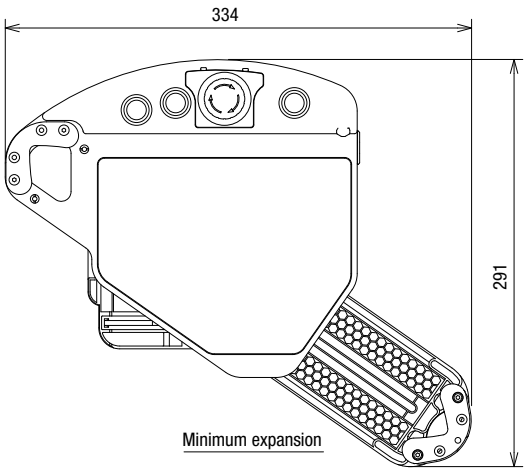


Emergency stop switch  
Part no.: XA1E-LV3SG02Q4R/  
XA1E-LV3SG02Q4WR (IDEC)

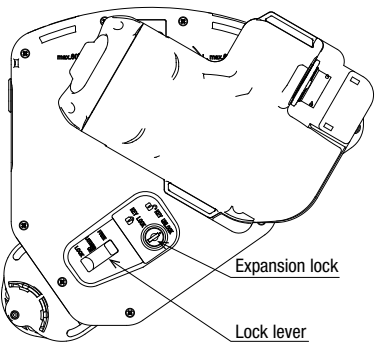
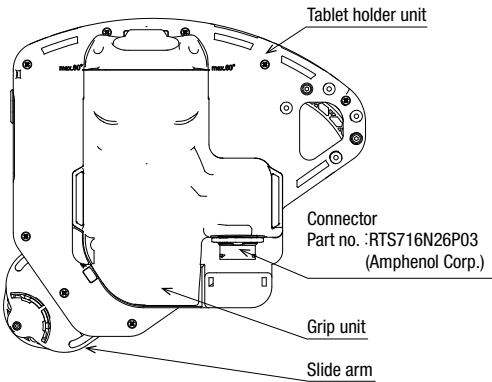
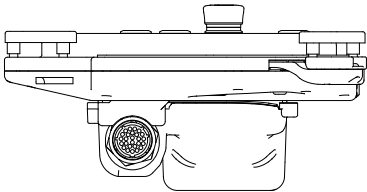
Enabling switch  
Part no.: HE6B-M200Y (IDEC)



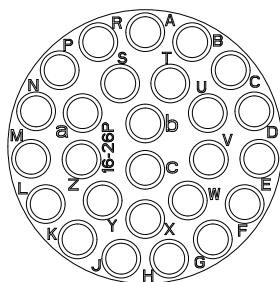
Minimum expansion



Minimum expansion



## External interface



Connector (HT4P side)

Manufacturer : Amphenol Corp.  
Type No.: RTS716N26P03

When preparing cables by the customer

- 1) Cables smaller than AWG20 cannot be connected to the main power supply. Use cables larger than AWG20.
- 2) Use cables with transmission characteristics equivalent to LAN cables of Category 5 or higher for Ethernet wiring, and shield the entire Ethernet cable with a shield. (Internal shield)
- 3) In addition to the cables for the main power supply, the emergency stop switch and enabling switch, and the entire shielded Ethernet cable should be further shielded. (External shield)

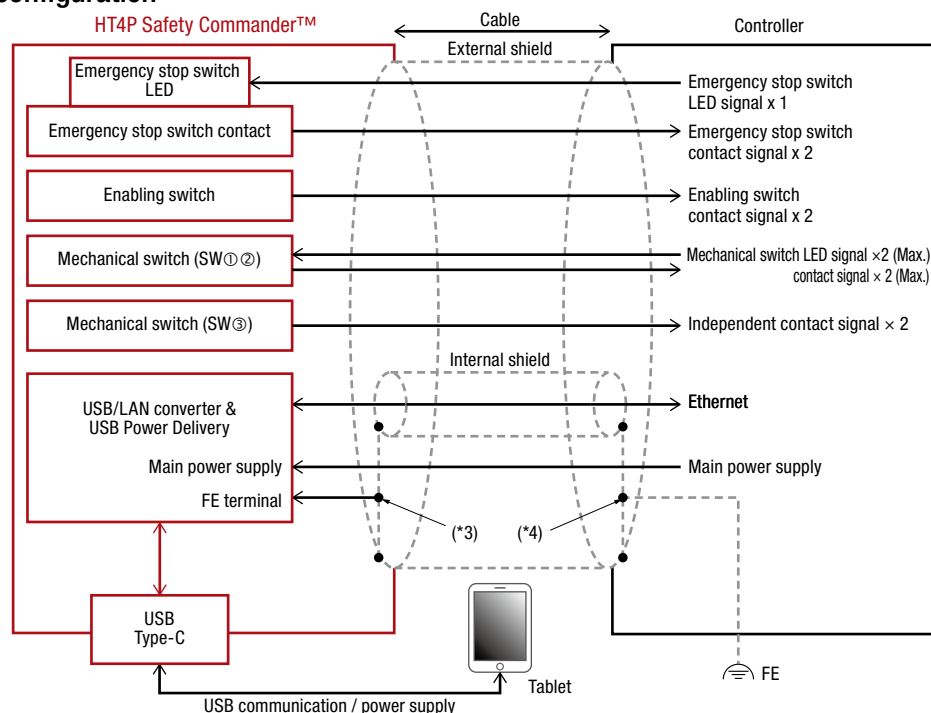
| HT4P side connector code | Cable core color (*1)         | D-sub37p pin no. (*2) | Function name         | HT4P-SLNPL<br>HT4P-SLNPL-W<br>(Standard) | HT4P-SLSPL-R*<br>HT4P-SLSPL-W-R*<br>(Mechanical switch installed) |
|--------------------------|-------------------------------|-----------------------|-----------------------|------------------------------------------|-------------------------------------------------------------------|
| A                        | Black                         | 1                     | Main power supply     | 24V DC+                                  | 24V DC                                                            |
| B                        | White                         | 2                     |                       | 24V DC-                                  | 24V DC                                                            |
| C                        | Shield<br>(External/Internal) | 21                    |                       | FE terminal                              | FE terminal                                                       |
| D                        | Blue                          | 5                     | Ethernet              | TPO + (sent data +)                      | TPO + (sent data +)                                               |
| E                        | White/Blue                    | 6                     |                       | TPO- (sent data -)                       | TPO- (sent data -)                                                |
| F                        | Orange                        | 7                     |                       | TPI + (received data +)                  | TPI + (received data +)                                           |
| G                        | White/Orange                  | 8                     |                       | TPI- (received data -)                   | TPI- (received data -)                                            |
| H                        | Blue                          | 11                    | Mechanical switch     | -                                        | Switch ③ (NO1)                                                    |
| J                        | Gray                          | 12                    |                       | -                                        | Switch ③ (COM1)                                                   |
| K                        | Orange                        | 13                    |                       | -                                        | Switch ③ (NO2)                                                    |
| L                        | Purple                        | 14                    |                       | -                                        | Switch ③ (COM2)                                                   |
| M                        | Pink                          | 15                    |                       | -                                        | Switch ② (NO1)                                                    |
| N                        | Light blue                    | 16                    |                       | -                                        | Switch ① (NO1)                                                    |
| P                        | White/Red                     | 17                    |                       | -                                        | For switch LED ② (24V DC)                                         |
| R                        | White/Green                   | 18                    |                       | -                                        | For switch LED ① (24V DC)                                         |
| S                        | White/Yellow                  | 19                    |                       | -                                        | Switch · LED common ①②COM                                         |
| T                        | White/Brown                   | 27                    | Emergency stop switch | LED (X1)                                 | LED (X1)                                                          |
| U                        | White/Blue                    | 28                    |                       | LED (X2)                                 | LED (X2)                                                          |
| V                        | White/Gray                    | 29                    |                       | Contact 1 (NC)                           | Contact 1 (NC)                                                    |
| W                        | White/Orange                  | 30                    |                       | Contact 1 (NC)                           | Contact 1 (NC)                                                    |
| X                        | White/Purple                  | 31                    | Enabling switch       | Contact 2 (NC)                           | Contact 2 (NC)                                                    |
| Y                        | White/Pink                    | 32                    |                       | Contact 2 (NC)                           | Contact 2 (NC)                                                    |
| Z                        | Red                           | 33                    |                       | Contact 1 (COM)                          | Contact 1 (COM)                                                   |
| a                        | Green                         | 34                    |                       | Contact 1 (NO)                           | Contact 1 (NO)                                                    |
| b                        | Yellow                        | 35                    |                       | Contact 2 (COM)                          | Contact 2 (COM)                                                   |
| c                        | Brown                         | 36                    |                       | Contact 2 (NO)                           | Contact 2 (NO)                                                    |

\*1) Stranded wire core color for option cable HT9Z-4PC1\*M-B.

\*2) D-sub37p connector pin number for option cable HT9Z-4PC15MC-B.

•Wiring not available for pin number 3, 4, 9, 10, 20, 22 to 26 and 37.

## System configuration



- 3) Connect both the internal shield and external shield to the FE terminal.
- 4) Connect both the internal shield and external shield to FE.

## Safety Precautions

- Turn off the power to the product before starting installation, removal, wiring, maintenance, or inspection. Failure to turn power off may cause electrical shock or fire.

## Instructions

Be sure to read the instruction manual carefully before performing installation, wiring, or maintenance work.

For details on mounting, wiring, and maintenance, see the instruction manual from the below URL.

URL: <https://product.idec.com/?product=HT4P>

<https://product.idec.com/?product=HT4P-LB>



HT4P



HT4P mechanical  
switch mount model

# HT3P

**Lightweight, basic type**
**8 to 11 inches**

(Patent pending)



## Fits 8- to 11-inch tablets

The adjustable docking structure fits screen sizes of 8 to 11 inches. Safety Commander™ can also be attached to tablets with thicknesses of up to 24mm (\*1) by using a spacer accessory. Thick and robust tablets can also be mounted.

\*1) Standard thickness: up to 10mm. When accessory "tablet thickness adjustment kit A" is used: up to 18mm. When accessory "tablet thickness adjustment kit B" is used: up to 24mm


 Screen size:  
8 to 11 inches

 Thickness:  
up to 24mm

## E-stop switch with LED indicator

Equipped with a safety lock mechanism, safe break action structure, and direct opening action.

## Newly available with an emergency stop switch (button color: white, illuminated color: red) compliant with ISO 13850:2015

**NEW**

In addition to IDEC's unique features, such as "Safety lock mechanism" and "Reverse energy structure", the illuminated E-stop switch allows intuitive visibility of the active/inactive status.



Inactive (Non-illuminated)



Active (Illuminated)

## Rotating holder

Ease of holding and operability. Adapts to both vertical and horizontal use.


 Horizontal  
right-hand use

 Vertical  
left-hand use

 Horizontal  
left-hand use

## Three-position enabling switch

Safety during work operations is assured by the ergonomically designed three-position action to avoid danger.

Note: ISO 10218 series specifies the requirement for the installation of the three-position enabling switch on the teaching pendant.

## USB charging port

No need to worry about the battering running out while communicating.

Note: 5V DC-1.5A output

## Wall mount

Wall mount bracket (accessory) enables operation while fixed to the wall

Note: Only for operations that do not require an enabling switch.


 5m cable supplied  
(with nylon connector terminal)

## Expansion lock

Prevents unintentional removal of the tablet.

## Expansion lock lever

Locks the tablet holder from extending.



## Product

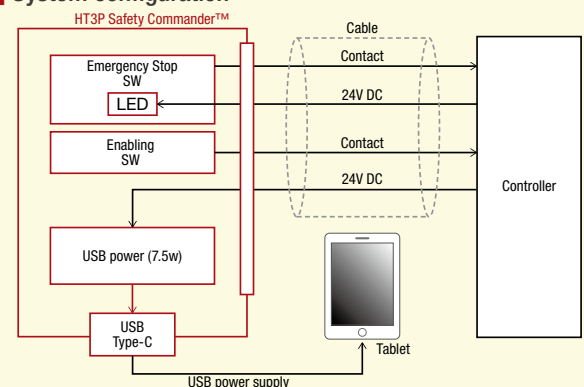
Quantity: 1

| Item                                                                                               | Part No.       |
|----------------------------------------------------------------------------------------------------|----------------|
| HT3P Safety Commander™<br>Illuminated E-stop switch model (button: red, illumination color: red)   | HT3P-SLNP-5M   |
| HT3P Safety Commander™<br>Illuminated E-stop switch model (button: white, illumination color: red) | HT3P-SLNP-5M-W |

## Specification

| Item                             | Specification                                                  |
|----------------------------------|----------------------------------------------------------------|
| Structure                        | Degree of Protection IP54                                      |
|                                  | Compatible tablet size 8 to 11 inch                            |
| Switch                           | Emergency stop switch XA1E-LV3SG02Q4R/ XA1E-LV3SG02Q4WR (IDEC) |
|                                  | Enabling switch HE5B-M2PY (IDEC)                               |
| Power                            | USB power supply USB port: Type-C                              |
|                                  | 7.5w                                                           |
| External cable connection method | 5m cable supplied                                              |

## System configuration



## Ordering Terms and Conditions

Thank you for using IDEC Products.

By purchasing products listed in our catalogs, datasheets, and the like (hereinafter referred to as "Catalogs") you agree to be bound by these terms and conditions. Please read and agree to the terms and conditions before placing your order.

### 1. Notes on contents of Catalogs

- (1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.  
Also, durability varies depending on the usage environment and usage conditions.
- (2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
- (3) The specifications / appearance and accessories of IDEC products listed in Catalogs are subject to change or termination of sales without notice, for improvement or other reasons.
- (4) The content of Catalogs is subject to change without notice.

### 2. Note on applications

- (1) If using IDEC products in combination with other products, confirm the applicable laws / regulations and standards.  
Also, confirm that IDEC products are compatible with your systems, machines, devices, and the like by using under the actual conditions. IDEC shall bear no liability whatsoever regarding the compatibility with IDEC products.
- (2) The usage examples and application examples listed in Catalogs are for reference purposes only. Therefore, when introducing a product, confirm the performance and safety of the instruments, devices, and the like before use. Furthermore, regarding these examples, IDEC does not grant license to use IDEC products to you, and IDEC offers no warranties regarding the ownership of intellectual property rights or non-infringement upon the intellectual property rights of third parties.
- (3) When using IDEC products, be cautious when implementing the following.
  - i. Use of IDEC products with sufficient allowance for rating and performance
  - ii. Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
  - iii. Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications
- (4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.
- (5) IDEC products are developed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use an IDEC product for these applications, unless otherwise agreed upon between you and IDEC, IDEC shall provide no guarantees whatsoever regarding IDEC products.
  - i. Use in applications that require a high degree of safety, including nuclear power control equipment, transportation equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.), equipment for use in outer space, elevating equipment, medical instruments, safety devices, or any other equipment, instruments, or the like that could endanger life or human health
  - ii. Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
  - iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference  
If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

### 3. Inspections

We ask that you implement inspections for IDEC products you purchase without delay, as well as thoroughly keep in mind management/maintenance regarding handling of the product before and during the inspection.

### 4. Warranty

#### (1) Warranty period

The warranty period for IDEC products shall be one (1) year after purchase or delivery to the specified location. However, this shall not apply in cases where there is a different specification in the Catalogs or there is another agreement in place between you and IDEC.

#### (2) Warranty scope

Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.

- i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
- ii. The failure was caused by reasons other than an IDEC product
- iii. Modification or repair was performed by a party other than IDEC
- iv. The failure was caused by a software program of a party other than IDEC
- v. The product was used outside of its original purpose
- vi. Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and Catalogs
- vii. The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from IDEC
- viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)

Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

### 5. Limitation of liability

The warranty listed in this Agreement is the full and complete warranty for IDEC products, and IDEC shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to an IDEC product.

### 6. Service scope

The prices of IDEC products do not include the cost of services, such as dispatching technicians. Therefore, separate fees are required in the following cases.

- (1) Instructions for installation / adjustment and accompaniment at test operation (including creating application software and testing operation, etc.)
- (2) Maintenance inspections, adjustments, and repairs
- (3) Technical instructions and technical training
- (4) Product tests or inspections specified by you

The above content assumes transactions and usage within your region. Please consult with an IDEC sales representative regarding transactions and usage outside of your region. Also, IDEC provides no guarantees whatsoever regarding IDEC products sold outside your region.

# IDEC CORPORATION

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**India** IDEC Controls India Private Ltd.

**China** IDEC (Shanghai) Corporation  
IDEC Hong Kong Co. Ltd.  
**Taiwan** IDEC Taiwan Corporation

**Japan** IDEC Corporation

 **www.idec.com**

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