



USB Accessories for Harmony Terminals

Tower light, illuminated switch and
keyboard



Harmony

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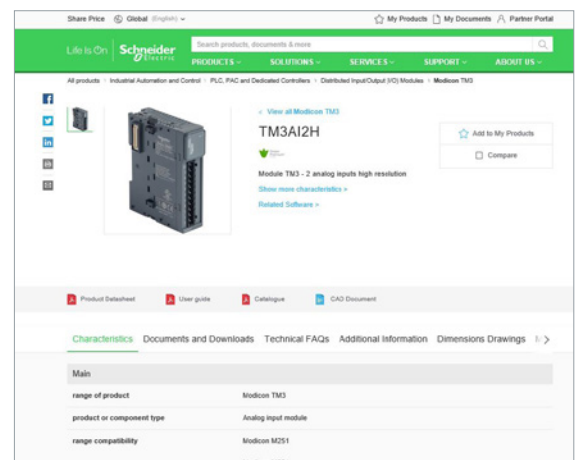
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References

Modicon TM3
I/O expansion modules for Modicon controllers
Analog I/O modules

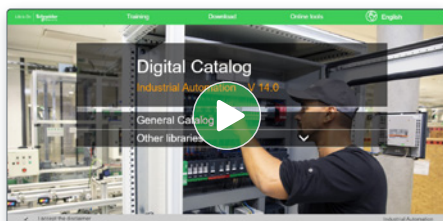
Number and type of channels	Input range	Output range	Resolution	Input terminal (Modicon TM3)	Reference	Weight
2 enhancement inputs	-10...+10 VDC 0...20 mA, 4...20 mA	10 mA or 10 mA + sign	12 bits	Terminal 2	TM3AI2H	0,110
4 enhancement inputs	-10...+10 VDC 0...20 mA, 4...20 mA	10 mA or 10 mA + sign	12 bits	Terminal 2	TM3AI4H	0,130
4 enhancement or temperature inputs	-10...+10 VDC 0...20 mA, 4...20 mA	10 mA or 10 mA + sign	12 bits	Terminal 2	TM3AI4T	0,130
4 differential temperature inputs	Thermocouples (K, J, N, S, T, E, C) RTDs (Pt100, Ni100, Pt1000, Ni1000)	10 mA or 10 mA + sign	12 bits	Terminal 2	TM3AI4D	0,130
4 differential temperature inputs	Thermocouples (K, J, N, S, T, E, C) RTDs (Pt100, Ni100, Pt1000, Ni1000)	10 mA or 10 mA + sign	12 bits	Terminal 2	TM3AI4D	0,130
2 enhancement inputs	-10...+10 VDC	10 mA or 10 mA + sign	12 bits	Terminal 2	TM3AI2H	0,110



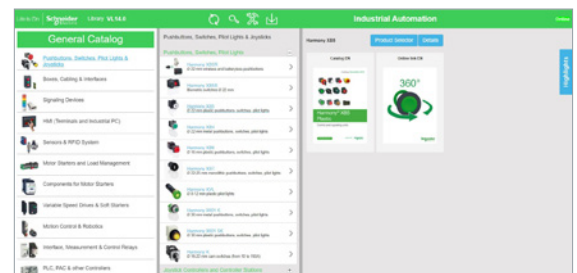
Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

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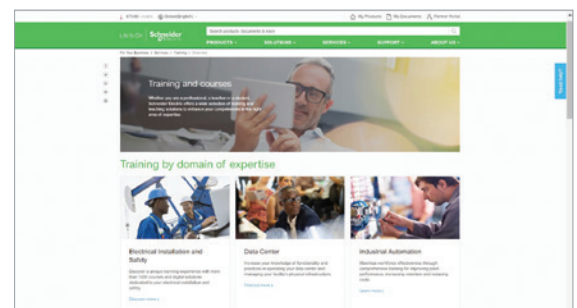


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USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard

USB accessories (programmable with Vijeo Designer)

Monolithic USB tower lights



Description	<ul style="list-style-type: none"> 3 multi-color LEDs clear lens 2-tone buzzer (up to 85 dB at 1 m/3.28 ft distance) pre-assembled USB cable for easy connection USB cable clamp to help ensure firm connection 	
Degree of protection	IP 54	
Dimensions	Ø 60 mm/2.36 in.	
Power consumption	2 W	
Product certifications	CE, UL, CSA, GOST, and RCM	
Type of mounting/cut-out	Mounting on support tube with fixing plate: 4x Ø 6 mm/0.24 in.	Direct mounting on horizontal support: 3x Ø 5 mm/0.20 in.
Connection	USB cable with type A female connector: <ul style="list-style-type: none"> 300 mm/11.81 in. for tube mounting 400 mm/15.75 in. for direct mounting 	
Compatibility with Harmony	Magelis XBT GT/GC, Harmony GK/GTO/GXO/SCU/G3U (1)	
References	XVGU3SWV	XVGU3SHAV
Page	7	

(1) Except GT1000 series of Magelis XBTGT

Illuminated USB switch

USB keyboard



Description	<ul style="list-style-type: none"> 5 customizable soft/static function keys multi-color LED backlight or alarm acknowledgment 	<ul style="list-style-type: none"> USB keyboard with 12 keys and integrated LEDs that can be used as user customizable function keys or alphanumeric input keys
Degree of protection	IP 65	
Dimensions	80 x 97.6 x 31.5 mm/3.15 x 3.84 x 1.24 in. (H x W x D)	54 x 122 x 28 mm/2.13 x 4.80 x 0.08 in. (H x W x D)
Power consumption	2 W or less	0.75 W or less
Product certifications	UL, CSA, CE and GOST	CSA, GOST-R, KCC, CE and UL
Type of mounting/cut-out	Mounted on flat surface: M22	
Connection	USB mini-B cable	USB type B cable
Compatibility with Harmony	Harmony Panel PC/Box PC, Magelis XBT GT/GC, Harmony GK/GTO/GXO/SCU/G3U/G5U (1)	Harmony HMI GTO/GXO/STU/SCU/G3U
References	HMIZRA1	HMIZKB1
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USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard

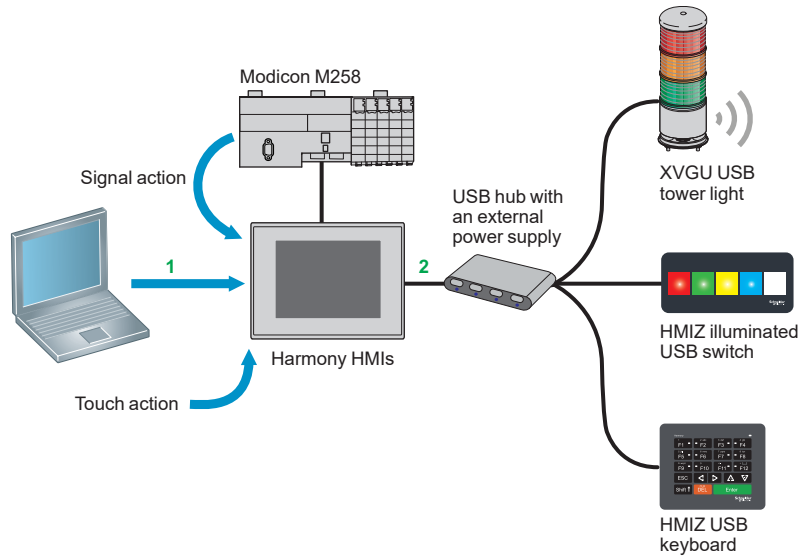
Presentation

The USB accessories for Harmony are designed to expand the selection range of user applications by offering value-added/differentiated HMI solutions. These innovative USB accessories can be easily installed and operated with HMI terminals (panels).

The USB accessories for Harmony terminals include:

- Harmony XVGU USB tower light
- Harmony HMIZ illuminated USB switch
- Harmony HMIZ USB Keyboard

The following illustrates the configuration of USB accessories with Harmony HMIs.



1 The HMI application is created on a computer using the Vijeo Designer HMI configuration software. The application is then downloaded to the Harmony HMIs via a USB cable for:

- Harmony XVGU tower light: Setting situation, colors, and buzzer actions (1)
- Harmony HMIZ illuminated USB switch: Setting and operating as alarm console (display and acknowledgement) or illuminated function keys (1)
- Harmony HMIZ USB Keyboard: Operating in alphanumeric input or function key mode with a real sense of clicking (2)

2 The USB accessories are connected to Harmony HMI terminals by a USB cable for power supply and data transmission. Each Harmony HMI terminal can also support two or more USB accessories (one of each kind) via a USB hub with an external power supply.

The following table lists the Harmony HMIs that are compatible with USB accessories.

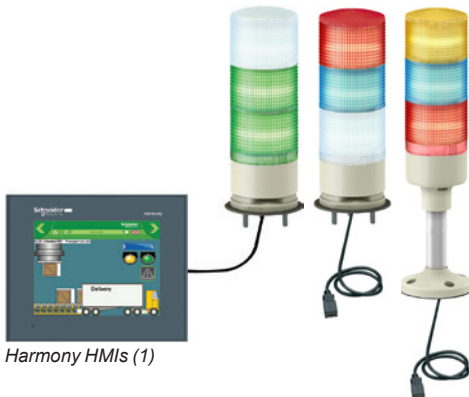
Harmony HMIs	USB accessories for HMI terminals		
	USB tower light	Illuminated USB switch	USB Keyboard
	XVGU3S●●●	HMIZRA1	HMIZKB1
Harmony Panel PC	No	Yes	No
Harmony BOX PC	No	Yes	No
XBTGT (except GT1000 series)	Yes	Yes	No
XBTGK	Yes	Yes	No
XBTGC	Yes	Yes	No
HMIGTW	No	Yes	No
HMIGTO	Yes	Yes	Yes
HMIGXO	Yes	Yes	Yes
HMISTU	No	No	Yes
HMISCU	Yes	Yes	Yes

(1) Compatible with Vijeo Designer HMI configuration software V6.1, Service pack 1.

(2) Compatible with Vijeo Designer HMI configuration software V6.2 or higher.

USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard
Harmony XVGU Multi-color USB tower lights



Harmony HMIs (1)

Presentation

The monolithic USB tower lights of the Harmony® XVGU range supports Harmony HMIs (1). These tower lights with multi-color LEDs are unique and simple-to-use as the states and patterns are directly set and modified in the HMI application.

The XVGU tower lights provide long distance indication of the operating status or sequences of a machine or installation, both visually by illuminated signaling units with 360° visibility, and audibly by a buzzer.

- The tower light comes with a pre-assembled USB cable for simple wiring and easy integration with the Harmony HMIs (1) (2).
- The tower light settings are selected from the Set screen of the HMI application at the time of integration.
 - The multi-color LEDs on the three levels can be set to numerous color combinations (red, orange, green or blue) for sophisticated signaling.
 - The 2-tone buzzer volume and alarm type (4 pre-recorded types) can be set easily.
- The tower lights allow to optimize your equipment: many customized configurations can be made from a sole product.
- The range involves Ø 60 mm/2.36 in. products and is therefore ideal for use in many activity sectors (textiles, packaging, baggage handling). It is also ideal for use with metal tools, plastic extrusion machines and assembly lines. This range is only for indoor applications.

XVGU tower lights are supplied:

- with 3 multi-color LEDs and a clear lens
- with a 2-tone buzzer
- with pre-assembled USB cable for easy connection (2)
- with USB cable clamp for firm connection
- fitted with one of the following mounting options:
 - direct base mounting (IP 54)
 - aluminium tube mounting and fixing plate (IP 54)

Environment

- Product certifications: CE, UL, CSA, GOST, and RCM
- Conformity to standards:
 - IEC 61000-6-2
 - IEC 61000-6-4
 - UL 508
 - CSA C22.2 No 14-13
- Degree of protection:
 - IP 54
- Ambient air temperature:
 - For storage: - 35 to + 70 °C/- 31 to + 158 °F
 - For operation: 0 to + 55 °C/32 to + 131 °F

(1) Compatible with XBTGT (except GT1000 series), XBTGC (with SoMachine platform), XBTGK and HMIGTO terminals.

(2) For extension, use either the Schneider Electric USB cable (BMXXCAUSBH018) or a third-party USB Type A/mini B cable of maximum length 4 m/13.12 ft.

USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard
Harmony XVGU Multi-color USB tower lights

Presentation (continued)

Illuminated signaling

The light source consists of three multi-color LEDs (red, orange, green or blue) completed with a clear lens to provide an aesthetic look and reliable signaling (clear lenses help to avoid color reflectance in bright environments). When LEDs are not powered, the tower lights appear translucent. The LED colors can be set to many possible combinations of red, orange, green, and blue.

Audible signaling

The tower light is supplied with a 2-tone buzzer audible signaling unit, the volume of which can be adjusted up to 85 dB. This audible unit with 4 pre-recorded alarm types is located in the base of the tower light.

Cabling

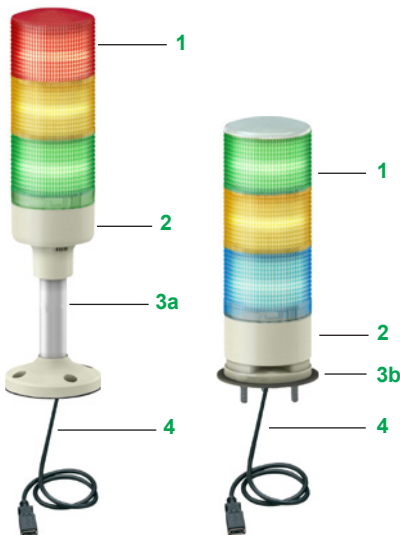
XVGU tower lights have pre-assembled USB cable with "Type A female" connector to attach to any standard USB mini B cable. A clamp is provided to prevent unintended removal or disconnection of the tower light from the Harmony HMIs.

Description

XVGU monolithic tower lights comprise an assembly of:

1. Three layers of multi-color illuminated signaling units (red, orange, green, or blue) which are set in the HMI application. Each XVGU tower light is equipped with multi-color LEDs and a clear lens molded from a single piece of clear plastic. The colors are visible only when the LEDs are supplied with power (5 V $\overline{\text{DC}}$).
2. A base unit integrating the buzzer.
3. A fixing base for mounting on a horizontal support:
 - 3a a fixing base, comprising a 100 mm/3.94 in. aluminium support tube mounted on a fixing plate
 - 3b a fixing base fitted with 3 screws for direct mounting
4. A USB cable with "Type A female" connector, the projecting length being 300 mm/11.81 in. for tube mounting and 400 mm/15.75 in. for direct mounting models (1).

(1) For extension, use either the Schneider Electric USB cable (BMXXCAUSBH018) or a third-party USB Type A/mini B cable of maximum length 4 m/13.12 ft.



USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard
Harmony XVGU Multi-color USB tower lights



XVGU3SHAV



XVGU3SWV



BMXXCAUSBH018

Pre-assembled tower lights 5 V, Ø 60 mm/2.36 in.

Description	Light source (included)	Compatible with terminals (1)	Reference	Weight kg/lb
Tower light composed of 100 mm/3.94 in. aluminium tube mounting, fixing plate and buzzer	Multi-color LED for various states and patterns (red, orange, green, or blue)	XBTGT (except GT1000 series) XBTGC (with SoMachine platform) XBTGK HMIGTO HMIGXO HMISCU	XVGU3SHAV	0.300/ 0.661
Tower light composed of direct base mounting and buzzer	Multi-color LED for various states and patterns (red, orange, green, or blue)	XBTGT (except GT1000 series) XBTGC (with SoMachine platform) XBTGK HMIGTO HMIGXO HMISCU	XVGU3SWV	0.300/ 0.661

Accessories

Description	Function	Length	Reference	Weight kg/lb
Connection cable from PC to the terminal (USB Type A/mini B)	Cable for transferring screen data from a PC (USB Type A) to a HMI (USB Type mini B)	1.8 m/ 5.91 ft	BMXXCAUSBH018	0.065/ 0.143

(1) Compatible with Vijeo Designer HMI configuration software V6.1, Service pack 1.

Note: Signaling colors correspond to a combination of 4 colors (red, orange, green, and blue) which can be set easily in the HMI application.

USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard
Harmony HMIZ Illuminated USB switch



HMIZ illuminated USB switch

Presentation

The illuminated USB switch is uniquely designed for easy visualization and quick acknowledgement of alarm (wide view angle and brightness). This switch with click sensation is also used as a function key in HMI applications where the touch panel involves repetitive and reliable operations in dirty environments. This keeps the touch panel clean and protected by avoiding continuous finger contact.

The illuminated USB switch can be easily wired, powered by the USB cable and integrated with the Harmony HMI. This range is ideal for use in industrial applications like machine tool, packaging, printing, automotive, metal processing, food and beverage, and paper.

With Vijeo Designer HMI configuration software (1), the illuminated USB switch can be set to the following:

- Alarm display and acknowledgement:
 - The 5 multi-color LEDs are configured in the Vijeo Designer (1) to display single or multiple alarm statuses. The users can quickly access these operations of alarm acknowledgement by pressing the integrated function keys.
- Illuminated function keys:
 - The illuminated USB switch can be used as function keys by configuring them in the Vijeo Designer software (1). The 5 multi-color LEDs are linked to the PLC variables to show the status of operation feedback.
 - Vijeo Designer software can configure the function keys to support most of the HMI touch panel operations.

Mounting

The illuminated USB switch is fixed by a nut (hand-tightened without a tool or tightened by a wrench) in a standard 22 mm/0.866 in. diameter hole. It can be installed on flat and vertical surfaces.

Environment

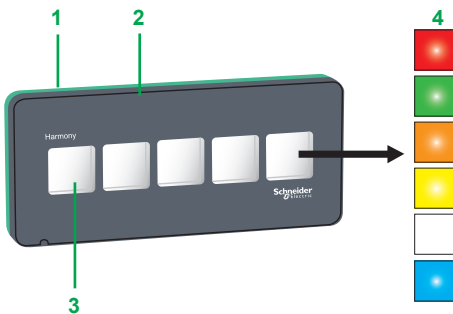
- Product certifications: UL, CSA, and GOST
- Conformity to standards:
 - CSA C22-2 n° 142
 - UL 508
 - IEC 61000-6-2 and IEC 61000-6-4
- Degree of protection conforming to standards:
 - IP 65 for IEC 60529
 - NEMA 4X for NEMA 250
- Ambient air temperature:
 - For storage: - 20 to + 60 °C/- 4 to +140 °F
 - For operation: 0 to + 55 °C/32 to +131 °F

Description

The illuminated USB switch consists of a green rear cover 1 and a dark gray front cover 2. There are 5 function keys 3 on its front face with LED backlit. Each function key 4 has one multi-color LED indicator (green, red, orange, blue, yellow and white).

A insert label sheet, comprising of 3 customizable labels, is supplied with the illuminated USB switch.

(1) Compatible with Vijeo Designer HMI configuration software V6.1, Service pack 2.



USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard
Harmony HMIZ Illuminated USB switch



HMIZRA1



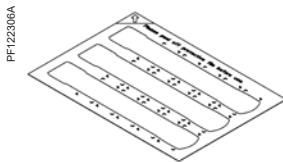
Installation nut



Anti-rotation tee



USB clamp type B



HMIZLYRA1



HMIZU50

References

Illuminated USB switch

Description	Connection	Compatible with Terminals (1)	Reference	Weight kg/lb
Illuminated USB switch composed of 5 switches with backlit LED. Allows the selection and adjustment of colors by the user. 5 V ---	By USB cable	Harmony Panel PC and BOX PC (with Vijeo Designer Run Time) XBTGT (except GT1000 series) XBTGK XBTGC (with SoMachine Platform) HMIGTW HMIGTO HMIGXO HMISCU	HMIZRA1 (2)	0.110/0.243

Spare parts

Description	Reference	Weight kg/lb
Accessory kit for HMIZRA1 which includes: ■ 5 installation nuts ■ 5 anti-rotation tees ■ 5 USB clamps type B	HMIZKITRA1	—
3 insert label sheets for HMIZRA1 switch (3 customizable labels per sheet)	HMIZLYRA1	—
5 gaskets for HMIZRA1 switch	HMIZU50	—

(1) Compatible with Vijeo Designer HMI configuration software V6.1, Service pack 2 for all terminals except HMISCU which is compatible with V6.1, Service pack 3.

(2) When HMIZRA1 illuminated USB switch is ordered, all spare parts are included in the same package.

USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard
Harmony HMIZ USB Keyboard



HMIZ USB Keyboard

Presentation

The USB Keyboard is designed for flexible mounting and easy plug-&-play handling. The tactile keys are suited for HMI applications where the touch panel involves repetitive operations in harsh environments (oil, dust, etc). This also speeds up the data entry by the operator and provides freedom in screen design.

The users can select small size HMIs and use USB Keyboard to save the control panel space. This range is ideal for use in industrial applications like food & beverage, machine tool, and packaging.

The USB Keyboard keys can be used in two different modes:

- Function mode (default)
 - 2 function keys can be pressed simultaneously
 - Shift key + Function key can be pressed simultaneously
- Entry mode
 - Alphanumeric input (similar to the old mobile phone keypad)
 - Numeric input

Mounting

The USB Keyboard is fixed into the 22.5 mm/0.880 in. diameter panel cut-out by a installation nut (hand-tightened without a tool or tightened by a tightening wrench). It can be installed on flat and vertical surfaces.

Environment

■ Product certifications: CSA, GOST-R, KCC, CE and UL

- Conformity to standards:
 - CSA C22-2 n° 142/ CSA C22-2 n° 213
 - UL 508
 - IEC 61000-6-2 and IEC 61000-6-4
 - ANSI/ISA 12.12.01
 - WEEE
 - RoHS
 - REACH

■ Degree of protection conforming to standards (2):

- IP 65 for IEC 60529
- NEMA 4X for NEMA 250

■ Ambient air temperature:

- For storage: - 20 to + 60 °C/- 4 to +140 °F
- For operation: 0 to + 55 °C/32 to +131 °F

Description

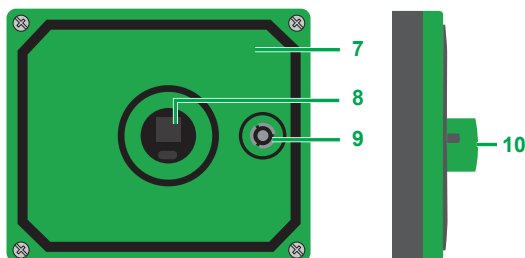
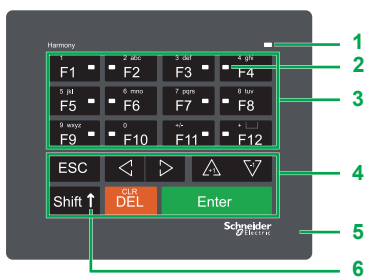
Front view

The USB Keyboard consists of:

- 1 Power LED
- 2 Function LED
- 3 12 Function keys/Alphanumeric input keys
- 4 8 System keys
- 5 Dark gray front cover
- 6 Shift lock LED

Rear view

- 7 Green rear cover
- 8 USB slave Type mini-B
- 9 Anti-rotation tee
- 10 Standard M22 installation



(1) Compatible with Vijeo Designer HMI configuration software V6.2 or higher.

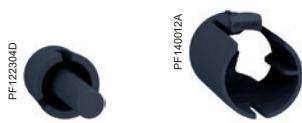
(2) Protection for the USB Keyboard front panel when properly installed in an enclosure.

USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard
Harmony HMIZ USB Keyboard



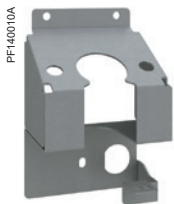
HMIZKB1



Anti-rotation tee USB clamp type mini-B



HMIZLYKB1



HMIZWMKB1



ZB5AZ901

References

USB Keyboard

Description	Connection	Compatible with Terminals (1)	Reference	Weight kg/lb
Harmony USB Keyboard composed of keys which can be used as user customizable Function keys or Alphanumeric input keys	By USB cable	HMIGTO HMIGXO HMISTU HMISCU	HMIZKB1 (2)	0.150/0.330

Spare parts

Description	Reference	Weight kg/lb
Accessory kit for HMIZKB1 which includes: ■ 5 anti-rotation tees ■ 5 USB cable clamps to prevent disconnection (USB type mini-B, 1 port)	HMIZKITKB1	—
Replaceable label for function keys (5 sheets)	HMIZLYKB1	—
Wall mounting adaptor to mount HMIZKB1 on a wall (3)	HMIZWMKB1	—
10 Installation nuts of 22 mm/0.866 in. for tightening	ZB5AZ901	—
Tightening wrench to tighten and loosen installation nuts	ZB5AZ905	—

(1) Compatible with Vijeo Designer HMI configuration software V6.2 or higher.

(2) When HMIZKB1 USB Keyboard is ordered, all spare parts are included in the same package.

(3) If USB keyboard is used with Wall mounting adaptor HMIZKB1, the UL conformity assured in USB keyboard will not apply.

USB Accessories for Harmony Terminals

Tower light, illuminated switch and keyboard
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HMIZLYKB1	11
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HMIZLYRA1	9
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HMIZRA1	9
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HMIZU50	9
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HMIZWMKB1	11
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