

Human/Machine Interfaces

USB accessories for HMI terminals

Catalog

June 2014



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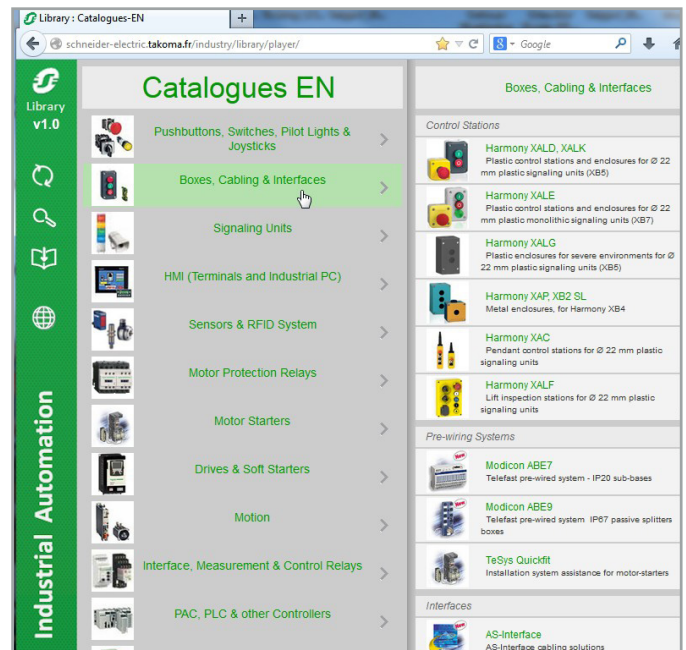
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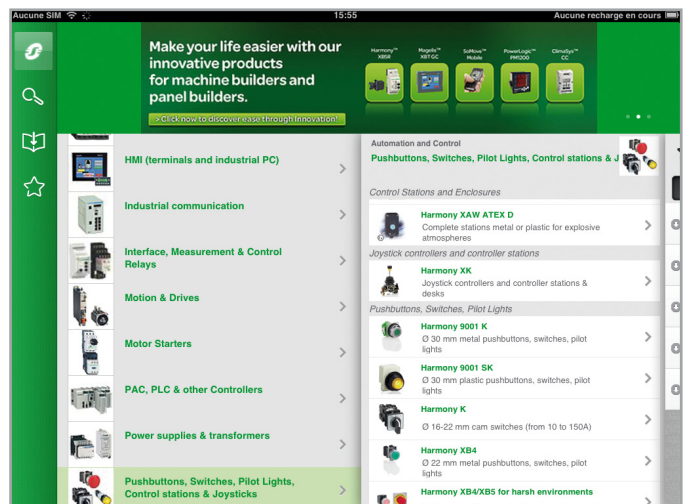
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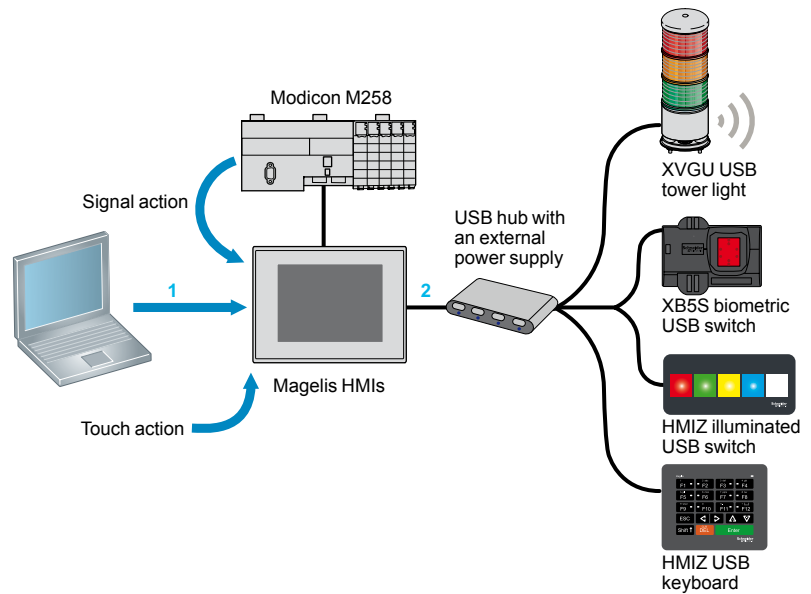
Presentation

The USB accessories for Magelis™ 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.

The USB accessories for Magelis terminals include:

- Harmony XVGU USB tower light
- Harmony XB5S biometric USB switch
- Magelis HMIZ illuminated USB switch
- Magelis HMIZ USB Keyboard

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



- 1 The HMI application is created on a computer using the Vijeo Designer HMI configuration software. The application is then downloaded to the Magelis HMIs via a USB cable for:
 - XVGU tower light: Setting situation, colors, and buzzer actions (1)
 - XB5S biometric USB switch: Managing the fingerprint database and login of users through fingerprint recognition (1)
 - HMIZ illuminated USB switch: Setting and operating as alarm console (display and acknowledgement) or illuminated function keys (1)
 - HMIZ USB Keyboard: Real sense of clicking while operating in alphanumeric input or function key mode (2)
- 2 The USB accessories are connected to Magelis HMI terminals by a USB cable for power supply and data transmission (except for biometric USB switch which has a stand-alone 24 V $\overline{\text{DC}}$ power supply). Each Magelis 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 Magelis HMIs that are compatible with USB accessories.

Magelis HMIs	USB accessories for HMI terminals			
	USB tower light	Biometric USB switch	Illuminated USB switch	USB Keyboard
	XVGU3S***	XB5SB2L2	HMIZRA1	HMIZKB1
Magelis Panel PC	No	Yes	Yes	No
Magelis BOX PC	No	Yes	Yes	No
XBTGT (except GT1000 series)	Yes	Yes	Yes	No
XBTGK	Yes	Yes	Yes	No
XBTGC	Yes	Yes	Yes	No
HMIGTW	No	Yes	Yes	No
HMIGTO	Yes	Yes	Yes	Yes
HMIGXO	Yes	Yes	Yes	Yes
HMISTU	No	Yes	No	Yes
HMISTO	No	No	No	Yes
HMISCU	Yes	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.



Magelis HMIs (1)

Presentation

The monolithic USB tower lights of the Harmony® XVGU range supports Magelis™ 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 Magelis 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 42),
 - aluminium tube mounting and fixing plate (IP 42).

Environment

- Product certifications: CÉ
- Conformity to standards:
 - IEC 61000-6-2
 - IEC 61000-6-4
- Degree of protection:
 - IP 42
- Ambient air temperature:
 - For storage: - 35 to + 70 °C
 - For operation: 0 to + 55 °C

(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.

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

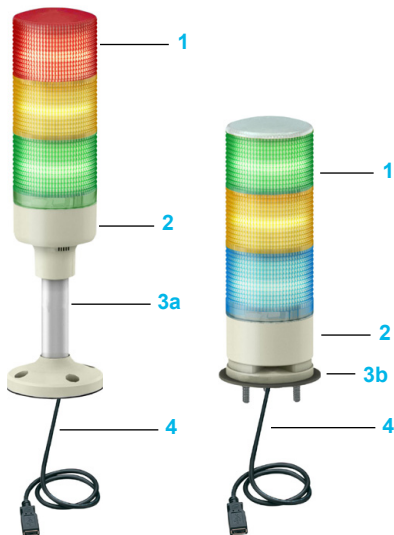
XVGU tower lights have pre-assembled USB cable with "Type A female" connector to attach to any standard USB mini B cable. A clamp is provided to prevent unintended removal or disconnection of the tower light from the Magelis HMIs.

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 HMI terminals

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.



XB5S5 biometric USB switch

Presentation

The XB5S biometric USB switch of the Harmony® XB5S range controls and secures access to systems and machines by checking users' authorization through fingerprint recognition.

The biometric USB switch is connected permanently with Magelis HMI (1) via the USB port to communicate and manage the user database. They are widely used in industry (molding and bottling machines, material handling, forklift, robot, automated machines) and buildings (test zones, high value areas, stock areas).

The user database can be visualized, configured, and modified by Vijeo Designer HMI configuration software (2) in Build Time and Run Time. This software enables the biometric USB switch to authorize different access levels and trace HMI operations of each user. The fingerprint records also can be erased in the absence of users.

The switch operates on 24 V $\overline{\text{---}}$ and provides protection against:

- Reverse polarity
- Overload and short-circuit (switching capacity \leq 200 mA)

Mounting

The product is monolithic (a single plastic housing) and is fixed by a nut (hand-tightened without need for tools) in a standard 22.5 mm/0.886 in. diameter hole. It can be installed on a flat, horizontal, or vertical surface.

A protective cover is available as an accessory to protect the active face of the sensing screen. This cover is fixed using a self-adhesive hinge.

A Female/Female USB extension cable makes it possible for the USB biometric switch to have the female USB port within a 22 mm/0.866 in. diameter hole on the control panel front.

Environment

■ Product certifications: UL, CSA, GOST, and CE.

■ Conformity to standards:

- CSA C22-2 n° 14
- UL 508
- IEC 61000-6-2 and IEC 61000-6-4

■ Degree of protection conforming to standards:

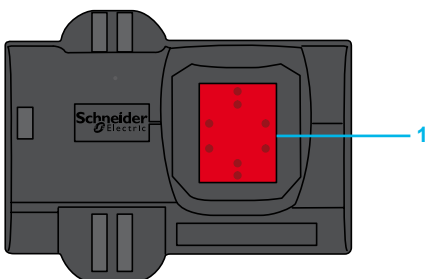
- IP 65 for IEC 60529
- NEMA 4X for NEMA 250

■ Ambient air temperature:

- For storage: - 25 to + 70 °C
- For operation: - 5 to + 50 °C

Description

The USB biometric switch consists of a dark gray housing with a sensing screen 1 for fingerprints on its front face.



(1) Compatible with Magelis iPC (with Vijeo Designer Run Time), HMISTU/GXO/GTO/GTW and XBTGT (except GT1000 series)/GK/GC (with SoMachine Platform).

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

Note: The user database is encrypted and cannot be downloaded from biometric switch to HMI.

PF121407A



XB5S5B2L2

PF121307A



XBTZGUSB

569117



ZB5SZ70

References

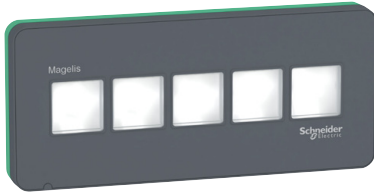
Complete units

Description	Connection	Compatible with Terminals (1)	Reference	Weight kg/lb
USB biometric switch dedicated to Schneider HMI 24 V ~	By 2 m/6.56 ft cable	Magelis Panel PC and BOX PC (with Vijeo Designer Run Time) XBTGT (except GT1000 series) XBTGK XBTGC (with SoMachine Platform) HMIGTW HMIGTO HMIGXO HMISTU HMISCU	XB5S5B2L2	0.202/0.445

Accessories

Description	Function	Reference	Weight kg/lb
Female/Female USB extension cable with Ø 22 mm/0.866 in. female USB port on one side	For connecting biometric switch to the PC via the Ø 22 mm/0.866 in. hole on the control front panel	XBTZGUSB	0.108/0.238
Protective cover , translucent and self-adhesive	Protection of sensing screen	ZB5SZ70	0.020/0.044
Fixing nut Ø 22 mm/0.866 in.	Spare part	ZB5SZ71	0.030/0.066
Legend plate, 27 x 8 mm/ 1.06 x 0.32 in., self-adhesive, blank, black background, for engraving		ZBY0101T	0.005/0.011

(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.



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 Magelis 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.

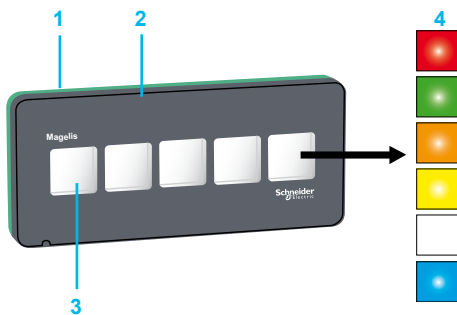
Environment

- 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
 - For operation: 0 to + 55 °C

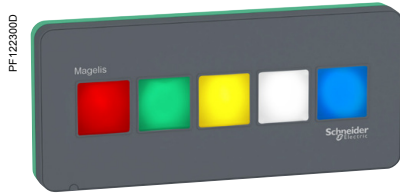
Description

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.



HMIZRA1



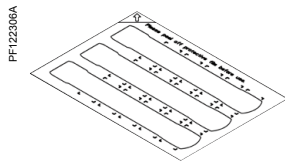
Installation nut



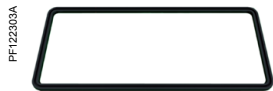
Anti-rotation tee



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 \square	By USB cable	Magelis 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: <ul style="list-style-type: none"> ■ 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.



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
 - For operation: 0 to + 55 °C

Description

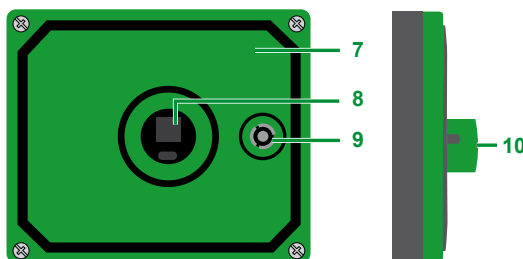
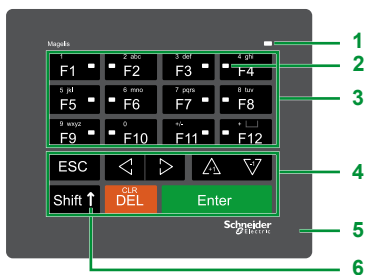
Front view

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



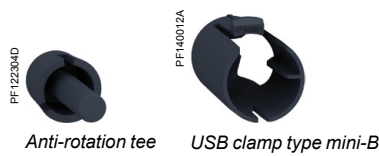
(1) Compatible with Vijeo Designer HMI configuration software V6.2 or higher.

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

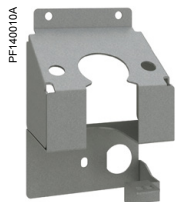
USB accessories for HMI terminals Magelis™ HMIZ USB Keyboard



HMIZKB1



HMIZLYKB1



HMIZWMKB1



ZB5AZ901

References

USB Keyboard

Description	Connection	Compatible with Terminals (1)	Reference	Weight kg/lb
Magelis USB Keyboard composed of keys which can be used as user customizable Function keys or Alphanumeric input keys	By USB cable	HMIGTO HMIGXO HMISTU HMISTO 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.

B	
BMXXCAUSBH018	5

H	
HMIZKB1	11
HMIZKITKB1	11
HMIZKITRA1	9
HMIZLYKB1	11
HMIZLYRA1	9
HMIZRA1	9
HMIZU50	9
HMIZWMKB1	11

X	
XB5S5B2L2	7
XBTZGUSB	7
XVGU3SHAV	5
XVGU3SWV	5

Z	
ZB5AZ901	11
ZB5AZ905	11
ZB5SZ70	7
ZB5SZ71	7
ZBY0101T	7

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