Catalog | September 2023

Harmony GTU

High-performance IoT-ready modular HMI panels

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Harmony

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General contents

High performance IoT-ready modular HMI panels

Harmony GTU is a high-end HMI range designed in a unique modular format that allows you to select and assemble the optimum combination of display unit and processing box as required by your applications.

Harmony Universal panels combine operator efficiency, simplified installation, and flexibility to suit all industrial architectures. This range comprises display modules (Advanced and Smart) and box modules (Standard, Premium and Open).


Advanced display + Premium box   *Smart display + Open box*

Certified for use in the most demanding automation systems, including industrial control equipment, Hazardous locations, and marine applications.

Unique HMI flexibility

Modular and scalable

> Choice of screen size, format, image quality, and processing levels enable Harmony GTU to be used in a wide range of applications
> Universal panels are available in various combinations by simply assembling display modules and box modules
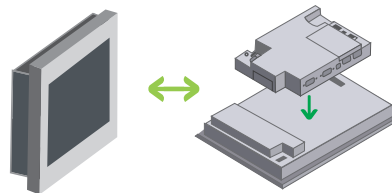
Harmony GTU panel = Display module + Box module

Monitoring and communication capable

> Easily integrated into industrial architectures via embedded dual interfaces (2 serial ports with different signal types, 2 Gigabit Ethernet ports, 2/4 USB host ports) and an optional Fieldbus interface
> Innovative wireless connectivity of 12" Smart WLAN display with embedded antenna

Wireless Harmony 12" Smart display

Operate intuitively and comfortably

Smartphone-like interface

> Easy and comfortable handling with intuitive navigation similar to smartphones/tablets
> Projected-Capacitive or Resistive technology designed multi-touch screen supports zooming in/out, swiping, and scrolling through menus even with protective gloves or a protective display screen cover

Touch Screen Gestures

➕ Harmony GTU → Multiple combinations with easy assembly

Harmony GTU panel box units have SD or CFast card slots for huge external data storage.

Operate intuitively and comfortably (continued)

Operator efficiency with good visualization

> High-resolution screen with 16 M colors for a crystal-clear view
> 16/9 Wide display available in 5 sizes (7", 10", 12", 15", 19") for easy sharing of images with external multimedia devices
> LED backlight for maximum screen comfort with excellent brightness, complete dimming (100 levels), and auto-adjustment to the environment
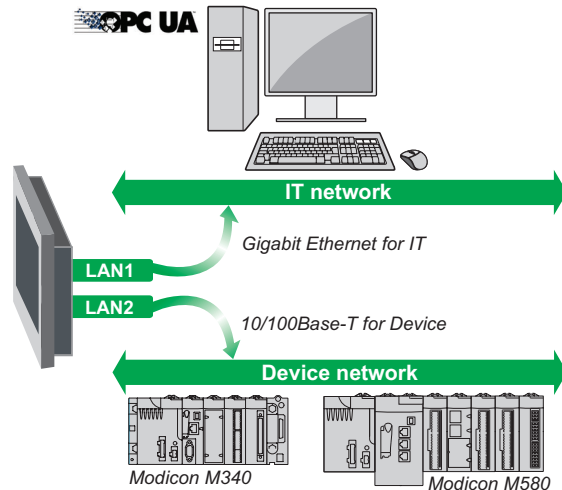
Maintain easily

> Parts can be replaced individually thanks to the modular design
> Easy installation with anti-drop retractable embedded fasteners and no accessories
> Robust panel housed in an aluminum material with high temperature resistance (up to 60 ºC/*140 °F*)
> Dual removable storage units in Box modules speed up maintenance of panels
> Easy migration of Harmony GTU panels with Smart display as these displays have cut-outs similar to the old range of HMI

Push the box LOCK backward *Insert protruding points on the box into holes on the display* *Pull the box LOCK forward*

Ready for IIoT

> Dual LAN (Local Area Network) separates IT and PLC communication for better performance and data security
> Manage all types of data with Open HMI: Microsoft Office and PDF documents, CAD files, Web pages, and Multimedia (sound and video)
> Leverage plant floor-to-enterprise communication with OPC-UA interface on Open Box

Gigabit Ethernet for IT

10/100Base-T for Device

Modicon M340   *Modicon M580*

HMI adapted for Plant *Struxure* and Machine *Struxure*

Harmony GTU
High performance IoT-ready modular HMI panels

Applications		Display of text messages, graphic objects, and synoptic views — Control and configuration of data		
Type of display module		**Advanced Display**		

Display	Touchscreen, size	7" Wide	10" Wide	12" Wide
	Resolution (pixels)	800 x 480	1,280 x 800	1,280 x 800
	Type	262 K colors, TFT		
Gesture support		Single touch: sliding, scrolling		
Functions	Brightness control	0...100 (Adjusted with touch panel or software)		
	Front USB ports	Optional with XBTZGUSB (Type A port) or HMIZSUSBB (Type mini-B port)		
	Wireless antenna	–		
	Backlight service life	50,000 h		
Dimensions	External W × H × D mm/*in.*	204 × 149 × 67/ *8.03 × 5.86 × 2.64*	269 × 199 × 67/ *10.59 × 7.83 × 2.64*	309 × 231 × 67/ *12.17 × 9.09 × 2.64*
	Cut-out W × H mm/*in.*	190 × 135/*7.48 × 5.31*	255 × 185/*10.03 × 7.28*	295 × 217/*11.61 × 8.54*
Supply voltage		12...24 V ⎓		
Environment		Operating temperature 0...60 °C/*32...140 °F*, Front face protection IP67		
Conformity to standards		EN, IEC, UL 508, CSA, ATEX, Marine		
Compatible box models		Standard, Premium and Open box models		
Display module reference		**HMIDT351**	**HMIDT551**	**HMIDT651**
Pages		17		

Type of box module		**Standard Box**

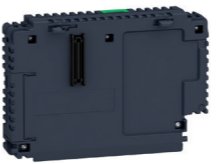| **CPU**		RISC, 600 MHz
Operating system		Real Time
Memory	RAM	256 MB
	Backup memory	512 KB (FRAM/MRAM)
	Main storage: OS with HMI application	1 GB internal flash EPROM
	Memory storage extension	SD card (up to 4 GB)
Functions	Real-time clock	Yes, built-in
	Max. variables	8,000 (in Vijeo Designer)
Video interface		No
Sound input interface		–
Sound output interface	Speaker output	–
	LINE output	–
Alarm output/Buzzer output		–
Communication	Ethernet port	x2 RJ45 (independent)
	Serial line	RS-232C (COM1) + RS-485 (COM2)
	Expansion unit	–
	USB	2x USB 2.0 (Type A), 1x USB 2.0 (Type mini-B)
Optional battery		Yes (HMIZGBAT)
Third-party protocols supported		Siemens, Omron, Mitsubishi, Allen-Bradley (Rockwell Automation), ABB
Compatible display units		HMIDT351, HMIDT551, HMIDT651, HMIDT542, HMIDT642, HMIDT732
Box module reference		**HMIG2U** *(3)*
Pages		17

(1) Vijeo Designer and EcoStruxure Operator Terminal Expert Runtime unlimited version pre-installed.
(2) Microsoft Office & PDF readers, Internet browser V11, .Net 4.6.2, Vijeo Citect web client.

Applications		Display of text messages, graphic objects, and synoptic views — Control and configuration of data				
Type of display module		**Smart Display**				

Display	Touchscreen, size	10.4"	12.1"	15"	15" Wide	19" Wide
	Resolution (pixels)	800 x 600	1,024 x 768	1,024 x 768	1,366 x 768	
	Type	16 M colors, TFT				
Gesture support		Single touch: sliding, scrolling; Multi-touch: zooming, double touch				
Functions	Brightness control	0...100 (Adjusted with embedded sensor, touch panel or software)				
	Front USB ports	1x Embedded USB 2.0 (Type A), 1x USB 2.0 (Type mini-B)				
	Wireless antenna	–	Yes	–		
	Backlight service life	50,000 h				
Dimensions	External W × H × D mm/*in.*	273 × 215 × 67/ *10.74 × 8.46 × 2.64*	315 × 241 × 67/ *12.40 × 9.50 × 2.64*	397 × 296 × 67/ *15.63 × 11.65 × 2.64*	414 x 295 x 69/ *16.30 x 11.61 x 2.72*	483 x 337 x 69/ *19.02 x 13.27 x 2.72*
	Cut-out W × H mm/*in.*	259 × 201/*10.20 × 7.91*	302 × 228/*11.90 × 8.98*	384 × 283/*15.11 × 11.14*	369 x 277/*14.53 x 10.91*	465 x 319/*18.31 x 12.56*
Supply voltage		12...24 V ⎓				
Environment		Operating temperature 0...60 °C/*32...140 °F*, Front face protection IP67			Operating temperature 0...55 °C/*32...131 °F*, IP67	
Conformity to standards		EN, IEC, UL 508, CSA, ATEX, Marine				
Compatible box models		Standard, Premium and Open box models	Open box model	Standard, Premium and Open box models	Premium and Open box models	
Display module reference		**HMIDT542**	**HMIDT642** | **HMIDT643**	**HMIDT732**	**HMIDT752**	**HMIDT952**
Pages		17				

Type of box module		**Premium Box**	**Open Box**

CPU		RISC, 600 MHz	x86, 1.33 GHz	
Operating system		Real Time	Windows 7 Embedded	Windows 10 IoT Enterprise 32-bit
Memory	RAM	256 MB	2 GB	4 GB
	Backup memory	512 KB (FRAM/MRAM)		
	Main storage: OS with HMI application	1 GB SD card	32 GB CFast card	
	Memory storage extension	SD card (up to 4 GB)	SD card (up to 4 GB) and CFast card (up to 32 GB)	
Functions	Real-time clock	Yes, built-in		
	Max. variables	8,000 (in Vijeo Designer)	12,000 (in Vijeo Designer)	
Video interface		No	1x DVI-D OUT	
Sound input interface		–	MIC or LINE input (software switch)	
Sound output interface	Speaker output	300 mW (rated load: 8 Ω, frequency: 1 KHz)		
	LINE output	Rated load: 10 KΩ or more		
Alarm output/Buzzer output		Yes (24 V ⎓/50 mA or less)		
Communication	Ethernet port	x2 RJ45 (independent)		
	Serial line	RS-485 (Isolated) (COM1) + RS-232C/RS-422/RS-485 (COM2)		
	Expansion unit	1x fieldbus unit	1x fieldbus unit	
	USB	2x USB 2.0 (Type A), 1x USB 2.0 (Type mini-B)	3x USB 2.0 (Type A), 1x USB 2.0 (Type mini-B)	
Optional battery		Yes (HMIZGBAT)		
Third-party protocols supported		Siemens, Omron, Mitsubishi, Allen-Bradley (Rockwell Automation), ABB		
Compatible display units		HMIDT351, HMIDT551, HMIDT651, HMIDT542, HMIDT642, HMIDT732, HMIDT752, HMIDT952	HMIDT351, HMIDT551, HMIDT651, HMIDT542, HMIDT642, HMIDT643, HMIDT732, HMIDT752, HMIDT952	
Box module reference		**HMIG3U** *(1)*	**HMIG5U2** *(2)(3)*	**HMIG5U21** *(4)*, **HMIG5U22** *(1)*
Pages		17		

(3) Vijeo Designer unlimited version pre-installed.
(4) No HMI software pre-installed.

Harmony HMIGTU color display modules

+

Harmony HMIGTU Box modules

Presentation

The Harmony GTU series are high-end HMIs built on an innovative concept of modularity. This offers you a choice of options to find the most suitable Universal panels for your application. Harmony GTU panels comprise a front panel display and a processing box module.

The display modules are available in two versions:
■ Advanced Display: compact wide screens in 3 sizes
□ 7" W
□ 10" W
□ 12" W
■ Smart Display: large multi-touch screens in 5 sizes
□ 10.4"
□ 12.1" (with or without wireless Ethernet)
□ 15"
□ 15" W
□ 19" W

The box modules are available in three versions:
■ Standard Box with Real Time operating system
■ Premium Box with Real Time operating system
■ Open Box with Windows 7 Embedded operating system or Windows 10 IoT Enterprise 32-bit operating system

Operation

Harmony GTU Universal panels feature powerful information and communication technologies with maximum operator efficiency in terms of viewing which, depending on the model, include:

■ Clear display with standard or wide-format, single or multi-touch technology
■ High level of communication with all embedded dual interfaces: 2 serial ports, up to 4 USB host ports, and 2 Gigabit Ethernet ports (Multi-link, Webserver and FTP, E-mail, Remote services)
■ Embedded wireless Ethernet function *(1)* in Access point mode or Station mode
■ Removable storage units for operating system easy save/restore, HMI application, and user data (SD memory cards, CFast cards, and USB memory stick management)
■ Management of many peripherals: printers, barcode readers, external monitor display, external keyboard/mouse, and Schneider Electric smart USB accessories (tower light, illuminated switch, keyboard, biometric switch, USB keyboard)
■ View and record video for USB and IP cameras on Open Box
■ Duplicate the image on a large monitor display up to WUXGA resolution (1920x1200) with DVI output, ideal for the Andon application to show production in manufacturing plants
■ Multi-operation with up to 3 additional external Harmony GTU displays on the Ethernet network in either duplicate or extended modes

Environment

The high-end Harmony GTU Universal panels have been designed in accordance with numerous standards, certifications, and requirements:

■ Standards: IEC/EN 61131-2, IEC 61000-6-2, and IEC 61000-6-4
■ Certifications:
□ RCM (Australia), EAC (Eurasia), KC (Korea)
□ cULus Industrial Control Equipment (UL508 and CSA 22.2 No.142)
□ cULus Hazardous Locations (ANSI/ISA 12.12.01 and CSA 22.2 No. 213)
□ Atex zone 2/22
□ Marine certifications: BV, CCS, DNV, GL, LR, RINA, ABS
■ Operating temperature: up to 60 °C/*140 °F*
■ Degree of protection on front face IP 66/67 (according to IEC 60529)
■ Extended power supply voltage 12…24 V ⎓
■ Brightness sensor on Smart Display for automatic brightness adjustment to the environment

(1) Supported by HMIDT643 only.

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Presentation (continued)

Maintenance

Harmony GTU panels supports the following features for ease of maintenance:
- Easy installation with anti-drop retractable embedded fasteners
- Front USB ports to access all data without opening the cabinet
- Scaler function to manage unique application files with any display size and resolution
- Isolation on RJ45-RS-485 port for more reliable communication in complex grounding applications
- Robust panel with complete aluminum housing
- Dual removable storage units in Harmony GTU boxes for storing applications and data, thus enabling zero downtime while changing panels
- Easy migration of Harmony GTU panels with Smart display as they have cut-outs similar to the old range of HMI

Configuration

Like all other Harmony panels, Harmony GTU Universal panels can be configured using Vijeo Designer software in a Windows environment. This software has an advanced user interface with many configurable windows enabling projects to be developed quickly and easily.

Harmony GTU is also configurable with EcoStruxure Operator Terminal Expert software. This software with the user interface brings greater ease to project development and online updates. EcoStruxure Operator Terminal Expert allows you to create an innovative HMI project that can be operated on Harmony GTU like a smartphone.

For more information on Vijeo Designer and EcoStruxure Operator Terminal Expert, please refer to our website www.se.com/HMI Software.

EcoStruxure Operator Terminal Expert

Vijeo Designer

Communication

The following illustrations show the equipment that Universal panels can communicate via Ethernet and Modbus protocols, and also via USB, wireless, and Fieldbus interfaces.

Via Ethernet protocol

Harmony GTU with two Ethernet ports can share data with other Harmony HMIs, browse the PLC's Webserver and SCADA server, and also communicate with PLCs using:
- Modbus TCP protocol
- Third-party Ethernet protocol

OPC-UA protocol is also available on Harmony GTU for IIoT connectivity.

Harmony GTU
High performance IoT-ready modular HMI panels
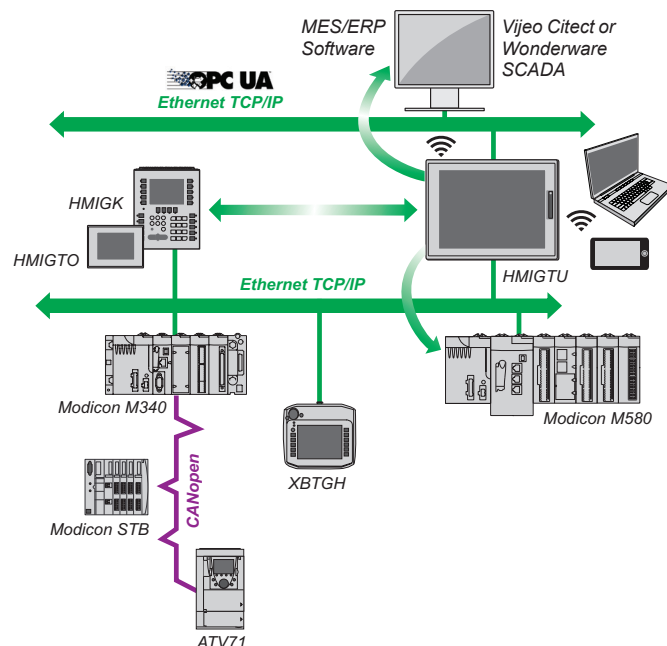
Communication (continued)

Via Modbus protocol

Harmony GTU communicates with PLCs via one or two integrated serial links, using the following communication protocols:
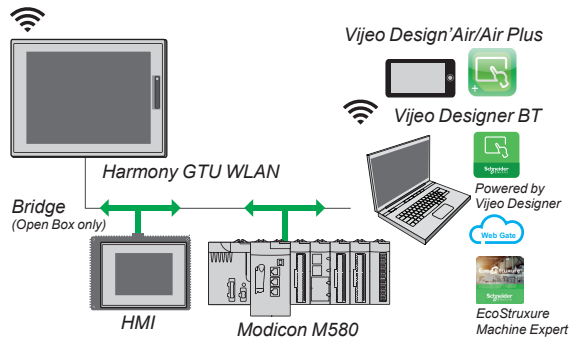
■ Schneider Electric (Uni-TE, Modbus)
■ Third-party: Mitsubishi Electric, Omron, Allen-Bradley, and Siemens

Modicon M2●8

Modicon M2●1

Modbus

Harmony GTU
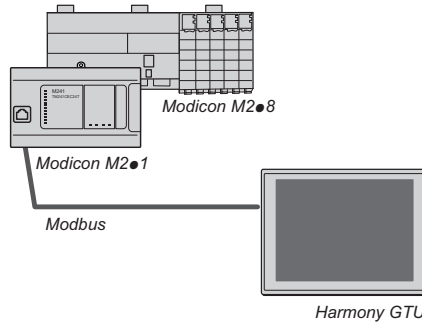
Via wireless connectivity with Smart WLAN display and Vijeo Designer (1)

The 12" Smart WLAN display when configured with Open Box meets setup and maintenance requirements in the following modes:
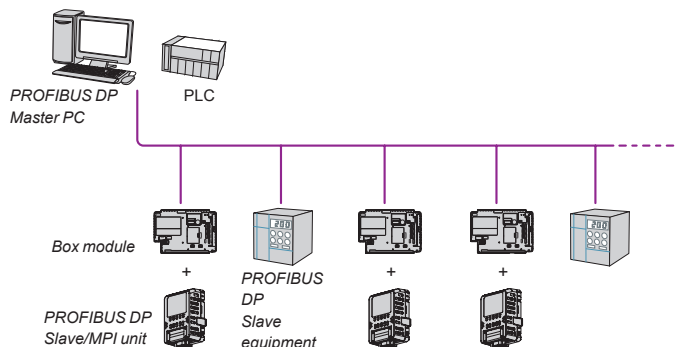
■ Access point mode: The Smart WLAN HMI application display can be accessed wirelessly with a smartphone and Vijeo Designer Air software or with a PC that has an Internet browser and Web Gate function. All HMI applications connected to one of the Harmony GTU Open Box (Bridge function) Ethernet networks can also be accessed wirelessly.
■ Station mode: PLCs and other Harmony HMIs can be communicated wirelessly via an existing access point with a Smart WLAN display in the Ethernet architecture to be used in flexible production lines for data sharing.

Vijeo Design'Air/Air Plus

Vijeo Designer BT

Powered by Vijeo Designer

Web Gate

Harmony GTU WLAN

Bridge (Open Box only)

HMI

Modicon M580

EcoStruxure Machine Expert

Smart WLAN display in Access point mode

Via fieldbus modules with EcoStruxure Operator Terminal Expert

By attaching the fieldbus module to the Box unit, you can join a PROFIBUS DP network or MPI network to communicate with PROFIBUS DP master or MPI equipment. You can also join a CANopen network to communicate with a CANopen master.

PROFIBUS DP Master PC

PLC

Box module

PROFIBUS DP Slave/MPI unit

PROFIBUS DP Slave equipment

(1) Depending on the environment, location (distance and angle), and application used and displayed on the Harmony GTU screen.

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Harmony GTU
High performance IoT-ready modular HMI panels

EcoStruxure Operator Terminal Expert

Vijeo Designer

Communication (continued)
Via USB for HMI accessories with Vijeo Designer

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

The Harmony USB accessories supported by Harmony GTU include:
■ Harmony XVGU USB tower light (only on Standard and Premium Boxes)
■ Harmony HMIZ illuminated USB switch
■ Harmony HMIZ USB keyboard (only on Standard and Premium Boxes)

For more information on HMI USB accessories, please refer to our website www.se.com/USB Accessories for Harmony Terminals.

Functions
Software functions

Harmony GTU panels with Vijeo Designer offer the following functions:

■ Display of animated synoptic views with 8 types of animation (pressing the touch panel, color changes, filling, movement, rotation, size, visibility, and value display)
■ Control and modification of numeric and alphanumeric values
■ Display of current date and time
■ Real-time and trending curves with log
■ Alarm display, alarm log, and management of alarm groups
■ Multi-window and recipe management
■ Operator-initiated page calls
■ Multilingual application management (10 languages at the same time)
■ Data processing via Java script
■ Storage of the application and logs on external application memory card in SD format, USB stick, or CFast card
■ Management of serial printers and barcode readers
■ Sound Message management

In addition, the Harmony GTU display units offer a multi-touch screen feature with EcoStruxure Operator Terminal Expert software. These features, such as drag, click, and dual-press gestures are similar to those of smartphones.

The flexibility of Windows 7 Embedded or Windows 10 IoT Enterprise on Harmony GTU Open Box allows:
■ Running a Vijeo Designer application or EcoStruxure Operator Terminal Expert software application
■ Dual-screen support and cloning function on external monitor with DVI port connected to Open Box
■ Multi-operation with up to 3 external Harmony GTU displays connected on Ethernet to the Open Box host in either duplicate or extended modes with touch exclusive control function that is configurable on each display
■ Web video support with view and record functions on Open Box
■ Navigate HTML pages and send e-mails
■ Simultaneous functions such as:
□ Use of Internet Explorer, Windows Media Player, Office Viewer, and Adobe Reader (pdf, doc, xls documents)

The following programs enable you to connect remotely to HMI panels and access processes at any time from anywhere:

■ Vijeo Design'Air enables you to connect remotely to the Harmony GTU terminal and have a remote view of the terminal on your tablet and smartphone (mirror function).

■ Vijeo Design'Air Plus enables you to create a tablet/smartphone project for a specific display size of the tablet/smartphone. During runtime, an operator can access the Harmony GTU user application to display data and control automation processes on the tablet/smartphone.

■ Web Viewer tool enables you to connect remotely to Harmony GTU terminal running an application EcoStruxure Operator Terminal Expert and have a remote of Terminal on a PC, Tablet, or Smartphone (mirror function).

Vijeo Design'Air

Vijeo Design'Air Plus

(1) Depending on the environment, location (distance and angle), and application used and displayed on the Harmony GTU screen.

Harmony GTU
High performance IoT-ready modular HMI panels

EcoStruxure Secure Connect remote maintenance

Functions

Companion Products

With EcoStruxure Secure Connect, all Harmony GTUs serve as a service enabler and access point for remote maintenance of your machine. EcoStruxure Secure Connect provides a more secure way to access existing Schneider Electric tools (for example: Vijeo Designer, Unity, EcoStruxure Machine Expert) to program or monitor machines remotely. The maintenance personnel can also access Schneider Electric software and update it remotely and securely via the HMI, PLC, and other connected devices as if they were on-site. Troubleshooting and repair can also be performed remotely upon request.

For more information, please refer to the EcoStruxure Secure Connect catalog available on our website www.se.com.

Industrial automation solutions

The Harmony GTU integrated *(1)* in MachineStruxure™ *(2)* automation solutions offer will help machine manufacturers (OEMs) to quickly design optimized machines (in terms of cost and energy efficiency).

MachineStruxure solutions are based on high-performance control platforms and EcoStruxure Machine Expert single software package. EcoStruxure Machine Expert allows the development, commissioning, and programming of machines. With Vijeo Designer software, this software allows programming of panels in the Harmony range.

Harmony GTUs have been designed for PlantStruxure™ *(2)* architecture, MachineStruxure *(2)* architecture, and Transparent Ready equipment (combination of Web and Ethernet TCP/IP technologies). Therefore, all panels with an Ethernet port have a built-in FTP server for data file transfer and a Web Gate function for remote access to the panel application from a PC with an Internet browser.

Harmony GTU Hardware and Software compatibility table

GTU Hardware		HMI software (Minimum version required)	
Display	Box	Vijeo Designer	EcoStruxure Operator Terminal Expert
HMIDT●51/●42/●32	HMIG2U	V6.2 SP8	No
	HMIG3U	V6.2 SP1	V3.1
	HMIG5U2	V6.2 SP5.1	No
	HMIG5U22	V6.2SP11	V3.2
HMIDT●52	HMIG2U	No	No
	HMIG3U	V6.2 SP9	V3.1
	HMIG5U2	V6.2 SP7	No
	HMIG5U22	V6.2 SP11	V3.2
HMIDT643	HMI G2U/G3U	No	No
	HMIG5U2	V6.2 SP5.1	No
	HMIG5U22	V6.2SP11	No
HMIDT●●●	HMI G3U/G5U2 + Fieldbus modules	No	V3.1 *(3)*
	HMIG5U22 + Fieldbus modules	No	*V3.2*
	HMIG5U21	No	No

(1) Harmony GTU is integrated into MachineStruxure with Vijeo Designer version V6.2 SP3 or later.
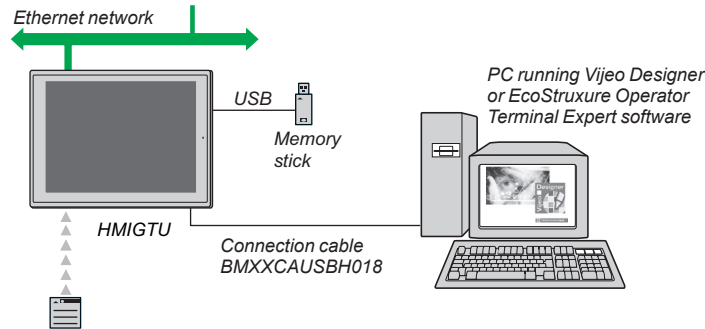*(2) For more information on the MachineStruxure and PlantStruxure solutions, please refer to our website www.se.com.*
(3) Not supported by HMIG5U2.
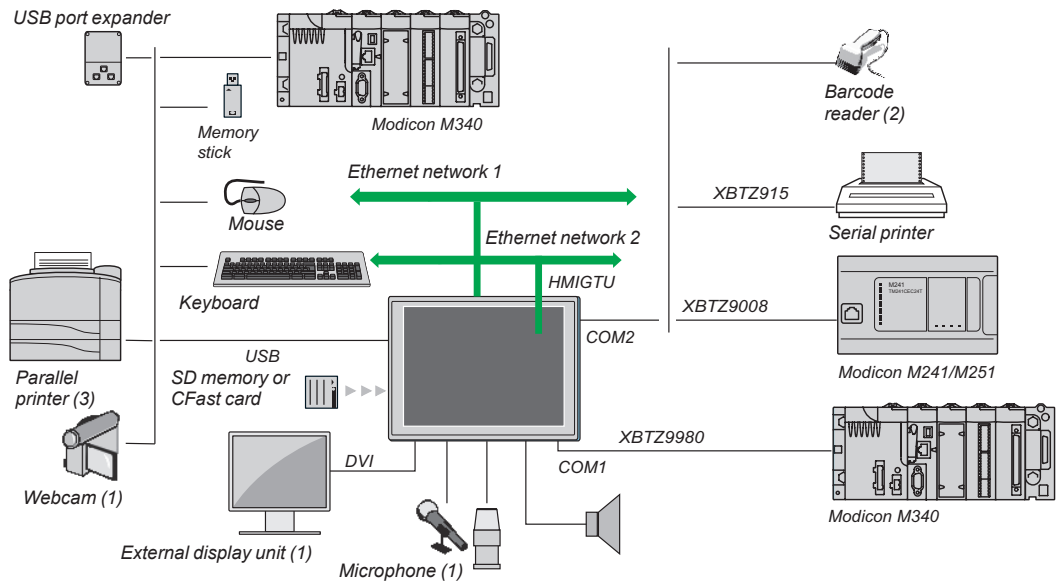
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Panel operating modes

The following illustrations show the equipment that can be connected to Universal panels depending on their two operating modes.

Edit mode

Ethernet network

USB

Memory stick

PC running Vijeo Designer or EcoStruxure Operator Terminal Expert software

HMIGTU

Connection cable BMXXCAUSBH018

SD memory card for Premium Box and CFast card for Open Box

Operating mode

USB port expander

Memory stick

Modicon M340

Barcode reader (2)

XBTZ915

Serial printer

Ethernet network 1

Mouse

Ethernet network 2

HMIGTU

Keyboard

COM2

XBTZ9008

Modicon M241/M251

Parallel printer (3)

USB
SD memory or CFast card

Webcam (1)

DVI

XBTZ9980

COM1

Modicon M340

External display unit (1)

Microphone (1)

Conformal coating for improved environmental resistance

The Conformal coating service offers varnishing of electronic cards to prolong the service life of the panels and enable them to be used in corrosive environments. The varnishing increases resistance to condensation, dusty atmospheres, and chemical corrosion (sulfurous and halogenous atmospheres). This coating service is applicable to all display and box modules of Harmony GTU. For more information on this service offer, please contact our Customer Care Centre.
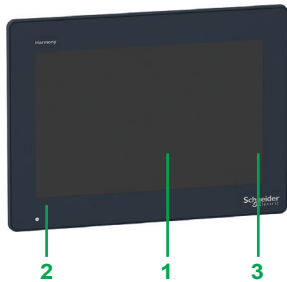
(1) With Open Box unit.
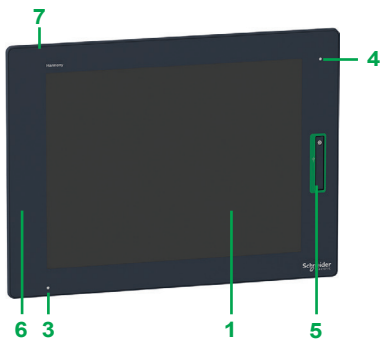(2) Validated with DataLogic Gryphon barcode reader.
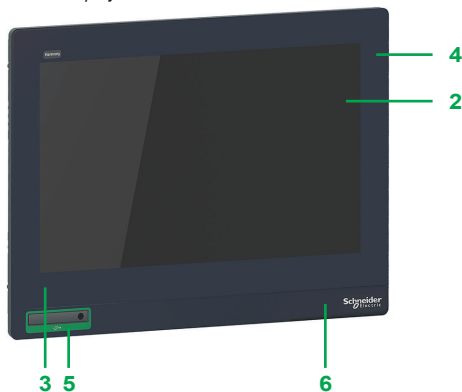(3) Validated with Hewlett Packard printer via USB/PIO converter.

Harmony GTU
High performance IoT-ready modular HMI panels
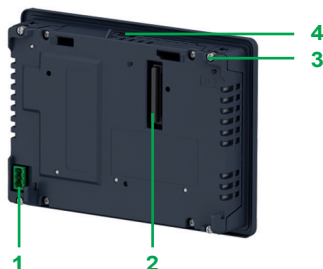Advanced and Smart Display modules

Advanced Display front view

Smart Display front view

Smart XL display front view

*Advanced and Smart display
rear view*

Description

Harmony Advanced Display modules

Front view

1 Single-touch resistive screen for displaying synoptic views (262 K colors LCD TFT LED with brightness adjustable to 100 levels) in sizes 7", 10", and 12" wide

2 Multi-color status indicator (green, orange, and red) showing the panel's operating mode

3 Aluminum alloy front panel providing IP 66/67 protection when mounted on panel or enclosure door

Harmony Smart Display modules

Front view

1 Multi-touch resistive screen for displaying synoptic views (16 M colors, LCD TFT LED with brightness adjustable to 100 levels) in sizes 10.4", 12.1", and 15" standard format

2 Multi-touch Projected-Capacitive screen with glass top cover for displaying synoptic view (16 M colors, LCD TFT LED with brightness adjustable up to 100 levels) in sizes 15" and 19" Wide format

3 Multi-color indicator (green, orange, and red) showing the panel's operating mode

4 Brightness sensor to automatically adjust the level of brightness to the environment

5 Front USB ports 2.0 Host & Device with screw protective cover

6 Aluminum alloy front panel providing IP 66/67 protection when mounted on panel or enclosure door

7 For HMIDT643 GTU display *(1)*, a wireless antenna is embedded in the front bezel with:
- 2.4 GHz bandwidth
- Maximum speed: 72.2 Mbps (in IEEE 802.11n mode), 54 Mbps (in IEEE 802.11g mode), 11 Mbps (in IEEE 802.11b mode)
- Standard IEE802.11 b/g/n
- Distance 30 m max. according to the environment
- Access point or station modes
- Communication mode for infrastructure only
- WEP/WPA/WPA2 security
- Radio frequency certifications for Europe, USA, Canada, China, Taiwan, South Korea, Japan

Advanced and Smart Display rear view

1 Removable screw terminal block for 12...24 V ⎓ power supply
2 Box interface
**3** 4x retractable embedded screw fasteners
4 Anti-Drop lock

(1) Depending on the environment, location (distance and angle), and application used and displayed on the Harmony GTU screen.

Presentation:
page 6

References:
page 17

Substitution:
page 23

Connections:
page 24

12

Schneider Electric

Harmony GTU
High performance IoT-ready modular HMI panels
Display modules with Multi-display adapter
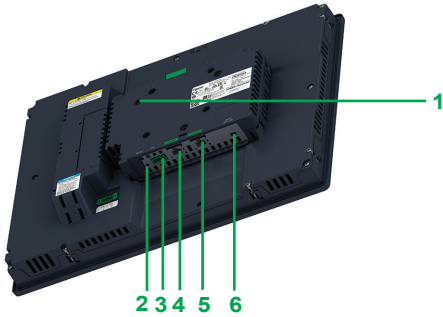
Rear view of the mounted Multi-display adapter HMIZMDARX
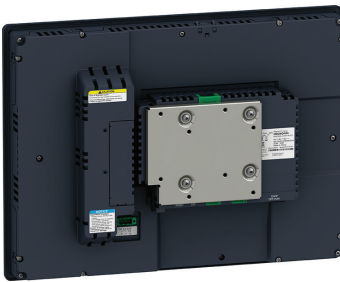
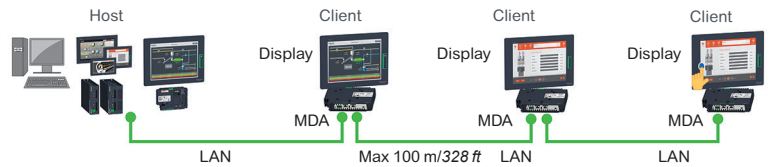*VESA mounted Multi-display adapter*

Description

Harmony GTU Display with Multi-display adapter

Rear view

1 Screw hole for VESA accessory
2 Reset switch (Factory Reset)
3 Direct IOs interface
4 Ethernet 1
5 Ethernet 2 (Embedded Hub)
6 ON/OFF switch for DHCP Server

Operating mode

The multi-display adapter is mounted on the rear side of Harmony GTU Display to extend up to 3 remote displays for one host station. The host station *(1)* can be a Harmony GTU Open, a Harmony *i*PC, or a general PC.

■ Standard Ethernet cable (up to 100 m/*328 ft*) can be used between adapters for transmission of images and touch signals. The display adapters can be wired in either Line or Star connection modes.
■ Configuration software is provided with the adapter (MDA configuration tool) to install on the host station for complete architecture configuration.
□ Allows selection of Duplicate or Extended modes for each display's visualization.
□ Touch operation exclusive control can be managed either by "first touch priority" mode using a configurable temporization or "Excluded" mode using the direct inputs/outputs with external push buttons and lights.
■ VESA mounting accessory is available for the Multi-display adapter.

(1) Operating System supported: Microsoft Windows 7 32-bit/64-bit, Windows 8 32-bit/64-bit, Windows Embedded Standard 7 32-bit/64-bit, Windows Embedded 8.1 Industry Pro 32-bit/64-bit, Windows 10 32-bit/64-bit, and Windows 10 IoT Enterprise for Harmony products only.

Harmony GTU
High performance IoT-ready modular HMI panels
Standard Box module
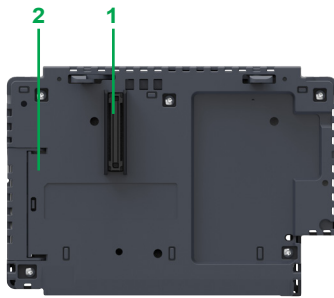
Standard Box Rear view
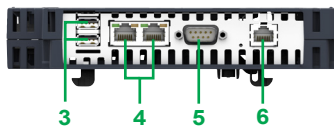
Standard Box Underside view
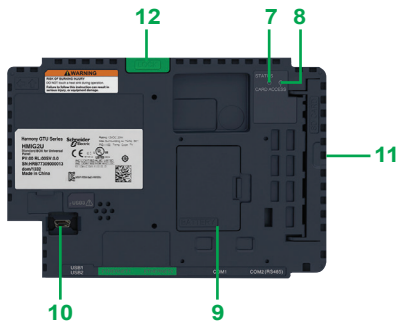
Standard Box Front view

Description

Harmony Standard Box module

Rear view

1 Display interface
2 Internal Flash Memory (1 GB) with
- Realtime operating system
- Vijeo Designer Runtime

Underside view

3 2 Type A USB host connectors for connecting peripherals, transferring applications, and Modicon M340 terminal port communication
4 RJ45 connector for Ethernet TCP/IP link, 10BASE-T/100BASE-TX with an activity LED
5 9-way male SUB-D connector for RS-232C serial link to PLCs (COM1)
6 RJ45 connector for RS-485 serial link (COM2)

Front view

7 Status LED indicating the operating mode of the terminal
8 LED indicating access to the SD memory card
9 Expansion unit cover for optional battery
10 Type mini-B USB connector for application transfer
11 Storage unit Cover for SD slot memory card dedicated to user data
12 LOCK button for attaching the box module to the display module

Schneider Electric

Harmony GTU
High performance IoT-ready modular HMI panels
Premium Box module
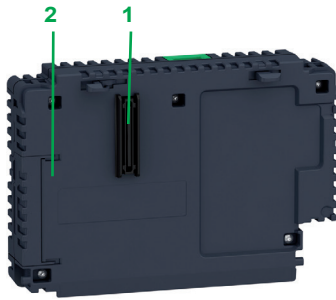
Premium Box rear view

Description

Harmony Premium Box module

Rear view

1 Display interface
2 Storage unit Cover 1 with an SD card (1 GB) and pre-installed:
- Real Time operating system
- Vijeo Designer Runtime or EcoStruxure Operator Terminal Expert Runtime

Premium Box front view

Front and underside views

3 Auxiliary interface for alarm, buzzer, and speaker outputs
4 Status LED indicating the operating mode of the terminal
5 LED indicating access to the SD memory card
6 Type mini-B USB connector for application transfer
7 Expansion unit cover for optional battery or optional FieldBus card
8 2 Type A USB host connectors for connecting peripherals, transferring applications, and Modicon M340 terminal port communication
9 RJ45 connector for Ethernet TCP/IP link, 10BASE-T/100BASE-TX/ 1000BASE-T with an activity LED
10 COM1 LED indicating data transmission
11 RJ45 connector for RS-485 serial link with isolation (COM1)
12 9-way male SUB-D connector for RS-232C or RS-422/RS-485 serial link to PLCs (COM2)
13 Storage unit Cover 2 for SD slot memory card dedicated to user data
14 LOCK button for attaching the box module to the display module
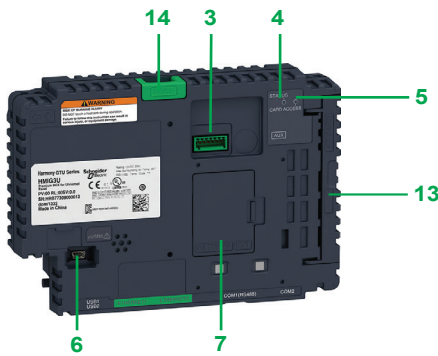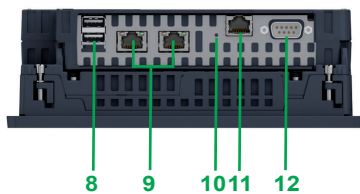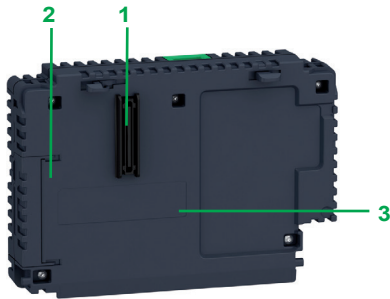

Premium Box underside view

Harmony GTU
High performance IoT-ready modular HMI panels
Open Box module

Open Box rear view
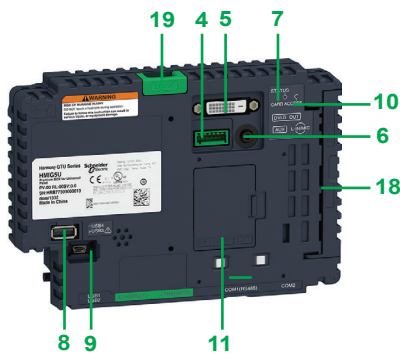
Open Box front view
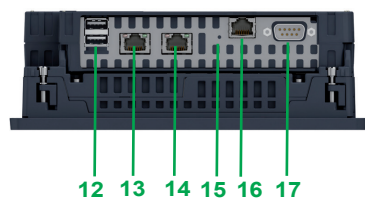
Open Box underside view

Description
Harmony Open Box module
Rear view

1 Display interface

2 Storage unit Cover 1 that has a CFast card (32 GB) for:

■ **HMIG5U2** pre-installed with Windows® Embedded 7 supplied in 9 languages (English, French, German, Italian, Portuguese, Spanish, Swedish, Chinese, Russian) including:
- Internet Explorer V11.0 Web browser
- Notepad
- Windows Media Player
- PDF Reader, Microsoft Word/Excel Viewer
- Framework.Net 4
- VNC Client/Server (Virtual Network Computing) for remote connection
- Vijeo Citect Web Client

■ **HMIG5U21/HMIG5U22** pre-installed with Windows 10 IoT Enterprise 32-bit LTSC 2019 supplied in 8 languages (English, French, German, Italian, Portuguese, Spanish, Chinese Simplified and Traditional) including:
- Internet Explorer V11.0 Web browser
- Edge Web browser
- Windows Media Player
- Framework.Net 4

3 Each Open Box reference is dedicated to a different HMI Runtime as explained below:
- **HMIG5U2**: Runtime Vijeo Designer and registered with Open Box
- **HMIG5U21**: No HMI Runtime
- **HMIG5U22**: Runtime Vijeo Designer and EcoStruxure Operator Terminal Expert registered

Front and underside views

4 Auxiliary interface for alarm, buzzer, and speaker outputs

5 DVI-D interface to connect Harmony *i* Display or LCD monitor display

6 Mini-jack connector for microphone input

7 Status LED indicating the operating mode of the terminal

8 Type A USB connector for application transfer

9 Type mini-B USB connector for application transfer

10 LED indicating access to SD or CFast cards

11 Expansion unit cover for optional battery or optional Fieldbus card

12 2 Type A USB host connectors for connecting peripherals, transferring applications, and Modicon M340 terminal port communication

13 RJ45 connector for Ethernet TCP/IP link, 10BASE-T/100BASE-TX/1000BASE-T with an activity LED

14 RJ45 connector for Ethernet TCP/IP link, 10BASE-T/100BASE-TX/1000BASE-T with an activity LED

15 COM1 LED indicating data transmission

16 RJ45 connector for RS-485 serial link with isolation (COM1)

17 9-way male SUB-D connector for RS-232C or RS-422/RS-485 serial link to PLCs (COM2)

18 Storage Cover 2 for SD slot and CFast slot card dedicated to user data

19 LOCK button for attaching the box module to the display module

Harmony GTU
High performance IoT-ready modular HMI panels
Display and Box modules

HMIDT351

HMIDT651

HMIDT642

HMIDT752

Harmony GTU Universal Display modules

Data entry method	Size	Resolution (pixels)	Colors	Touch type	Options	Reference	Weight kg/*lb*
Advanced Display							
Via touch screen	7", format 16/9	800 × 480	262 K	Single resistive	No	HMIDT351	1.200/ *2.600*
	10", format 16/9	1280 × 800	262 K	Single resistive	No	HMIDT551	2.500/ *5.500*
	12", format 16/9	1280 × 800	262 K	Single resistive	No	HMIDT651	3.000/ *6.600*
Smart Display							
Via touch screen	10.4", format 4/3 Standard	800 × 600	16 M	Multi resistive	Front USB (Type A + Type mini-B), Brightness sensor, Scaler	HMIDT542	2.700/ *5.900*
	12.1", format 4/3 Standard	1024 × 768	16 M	Multi resistive	Front USB (Type A + Type mini-B), Brightness sensor, Scaler	HMIDT642	3.000/ *6.600*
					Front USB (Type A + Type mini-B) Brightness sensor, Scaler, Wireless antenna	HMIDT643	3.000/ *6.600*
	15", format 4/3 Standard	1024 × 768	16 M	Multi resistive	Front USB (Type A + Type mini-B) Brightness sensor, Scaler	HMIDT732	4.500/ *9.900*
	15", format 16/9	1366 x 768	16 M	Multi-touch Projected-capacitive technology	Front USB (Type A + Type mini-B) Brightness sensor, Scaler	HMIDT752	5.000/ *11.023*
	19", format 16/9	1366 x 768	16 M	Multi-touch Projected-capacitive technology	Front USB (Type A + Type mini-B) Brightness sensor, Scaler	HMIDT952	6.800/ *14.991*

HMIG3U

HMIG5U2

HMIG5U21

Harmony GTU Universal Box modules

Operating system	RAM memory	Storage units	USB ports	Communi- cation	Multimedia interface	Reference	Weight kg/*lb*
Standard Box							
Real Time	256 MB	1x Internal Flash and 1x SD card	2x Hosts (Type A), 1x Device (Type mini-B)	2x Serial, 2x Fast Ethernet	No	HMIG2U	0.900/ *1.980*
Premium Box							
Real Time	256 MB	2x SD cards	2x Hosts (Type A), 1x Device (Type mini-B)	2x Serial, 2x Gigabit Ethernet	Sound output	HMIG3U	0.900/ *1.980*
Open Box							
Windows® 7 Embedded	2 GB	2x CFast cards 1x SD card	3x Hosts (Type A), 1x Device (Type mini-B)	2x Serial, 2x Gigabit Ethernet	Sound output, Microphone input, External display output (DVI)	HMIG5U2 *(2)*	0.900/ *1.980*
Windows 10 IoT Enterprise 32bit	4 GB	2x Cfast cards 1x SD card	3x Hosts (Type A), 1x Device (Type mini-B)	2x Serial, 2x Gigabit Ethernet	Sound output, Microphone input, External Display output (DVI)	HMIG5U21 *(1)* HMIG5U22 *(2)*	

Note: See the table of compatibility on *page 10* for Box modules and Display modules with the related HMI software used.

(1) Open Box with no Runtime HMI.
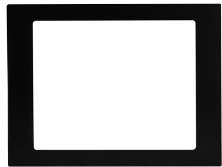*(2) Each Open Box reference is dedicated to run an HMI Runtime application.*

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Harmony GTU
High-performance IoT-ready modular HMI panels
Accessories, Separate parts

HMIZMDARX

XBTZGCO●

HMIZMDRVS

XBTZGUSB

Accessories

Description	Host type compatible	Display compatible	Reference	Weight kg/*lb*
Harmony GTU Universal Smart System Adapter	HMIG5U2 Harmony *i*PC General PC	HMIDT●●●	**HMIZMDARX**	–

Separate parts

Description	Characteristics	Compatible with panels	Reference	Weight kg/*lb*
SD memory card system	1 GB, blank	HMIG3U	**HMIZSD1GS**	–
CFast card system	32 GB, blank	HMIG5U2/HMIG5U22	**HMIZCFA32S**	–
CFast card	32 GB, blank	HMIG5U2/HMIG5U22	**HMIZCFA32**	–
SD card	4 GB, blank	HMIG3U/HMIG5U2/ HMIG5U22	**HMIZSD4G**	–
Protective sheets against dirt and moisture (5 peel-off sheets)	–	HMIDT351	**HMIZG63**	–
		HMIDT551	**HMIZD65W**	–
		HMIDT651	**HMIZD66W**	–
		HMIDT542	**HMIZG65**	–
		HMIDT642/HMIDT643	**HMIZG66**	–
		HMIDT732	**MPCYK50SPSKIT**	–
Protective sheets against ultraviolet light (1 peel-off sheet)	–	HMIDT351	**HMIZUV3W**	–
		HMIDT551	**HMIZUV5W**	–
		HMIDT651	**HMIZUV6W**	–
		HMIDT542	**HMIZUV5**	–
		HMIDT642/HMIDT643	**HMIZUV6**	–
		HMIDT732	**HMIZUV7**	–
Anti-glare protective sheets (5 peel-off sheets)	Help prevent reflections with dirt resistance	HMIDT752	**HMIZDAG7W**	–
		HMIDT952	**HMIZDAG9W**	–
Plastic covers for harsh environments (IP 67 protection)	–	HMIDT542	**HMIZDCOV5**	–
		HMIDT642/HMIDT643	**HMIZDCOV6**	–
		HMIDT732	**HMIZDCOV7**	–
VESA mount adapter	–	HMIZMDARX	**HMIZMDRVS**	–

Description	Characteristics	Length m/*ft*	Reference	Weight kg/*lb*
Mechanical adapters for substitution of Harmony range panels	From XBTGT5230 to HMIDT542	–	**XBTZGCO4**	–
	From XBTGT4●●● to HMIDT351	–	**HMIZGCO1**	
Remote USB port for HMI panels	Enables the USB Type-A port to be located remotely on the rear of the XBT or HMIGTU terminal, on a panel, or on an enclosure door (Ø 21 mm fixing device)	1/*3.28*	**XBTZGUSB**	–
Remote USB port for HMI panel	Enables the USB mini-B port to be located remotely on the rear of the HMIGTU panel, on a panel, or on an enclosure door (Ø 21 mm fixing device)	1/*3.28*	**HMIZSUSBB**	–
DVI-D cable	For connecting an external Harmony *i*Display to the HMIG5U2/HMIG5U22 Open Box	10/*32.81*	**HMIYCABDVI1011**	–
Battery	HMIGTU	–	**HMIZGBAT**	–
Auxiliary connector **Sold in sets of 5 units**	HMIGTU	–	**HMIZGAUX**	–
Stylus **Sold in lots of 5**	–	–	**XBTZGPEN**	–

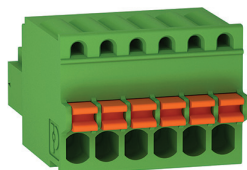***Note:*** *Separate part products may be changed or discontinued without notice. Please check our website www.se.com for the latest information.*

Schneider Electric

Harmony GTU
High-performance IoT-ready modular HMI panels
Replacement parts

GTU_61981_CPMGU18002

HMIZMDIO

Spare parts

Description	For use with panels	Reference	Weight kg/*lb*
Seals	HMIDT351	**HMIZD53W**	–
	HMIDT551	**HMIZD55W**	–
	HMIDT651	**HMIZD56W**	–
	HMIDT542	**HMIZD55**	–
	HMIDT642/HMIDT643	**HMIZD56**	–
	HMIDT732	**HMIZD57**	–
	HMIDT752	**HMIZD57W**	–
	HMIDT952	**HMIZD59W**	–
USB fastenings **Sold in lots of 5**	HMIGTU (USB Type A)	**HMIZGCLP1**	–
	HMIGTU (USB Type mini-B)	**HMIZSCLP3**	–
Power supply connectors **Sold in lots of 5**	HMIGTU (direct connection)	**HMIZGPWS**	0.030/ *0.066*
	HMIGTU (right-angle connection)	**HMIZGPWS2**	0.030/ *0.066*
Direct IO connector	HMIZMDARX	**HMIZMDIO**	–

Cables for application transfer - Terminal to PC

Type of terminal (terminal end connector)	Connector (PC end**)**	Type	Length m/*ft*	Reference *(1)*	Weight kg/*lb*
HMIGTU	USB	USB Type mini-B	1.80/ *5.91*	**BMXXCAUSBH018**	–
		USB Type A		**XBTZG935**	-

Printer connection cables

Type of printer *(2)*	Connector (printer end**)**	Type	Length m/*ft*	Reference	Weight kg/*lb*
HMIGTU	25-way female SUB-D	RS-232C (COM2)	2.5/ *8.20*	**XBTZ915**	0.200/ *0.441*
Serial printer for HMIGTU	9-way female SUB-D	USB Type A/RS-232C	1.80/ *5.91*	**HMIZURS**	–

105874-35M

XBTZGI485

Adapters and isolation boxes for HMIGTU panels

According to the application concerned, these 3 adapters are used with the connection cables.

Description	Type of connector (automation product end)	Physical link (HMIGTU terminal end)	Length m/*ft*	Reference	Weight kg/*lb*
Adapter for HMIGTU	25-way SUB-D connector	RJ45 connector	0.2/ *0.66*	**XBTZG939**	–
Adapter for HMIGTU (COM2 port)	25-way SUB-D connector	9-way SUB-D connector, RS-232C	0.2/ *0.66*	**XBTZG919**	–

Description	For use with	Link to isolate	Reference	Weight kg/*lb*
Serial link isolation units for HMIGTU	- Isolated link on 9-way SUB-D connector *(3)* - Box power supply via terminal USB port Incorporates a USB port expander	RS-232C/RS-485 (COM1)	**XBTZGI232**	–
		RS-485 (COM2)	**XBTZGI485**	–

(1) Cable included (depending on model) with Vijeo Designer software packages (refer to HMI Configuration Software catalog).
(2) Parallel printer (see page 11).
(3) Male connector with XBTZGI232.

Note: *The spare parts and accessories may be changed or discontinued without notice. Please check our website www.se.com for the latest information.*

Harmony GTU
High-performance IoT-ready modular HMI panels
Connection accessories

PF600266

TSXPCX1031

Cables for connecting Harmony panels to other Schneider Electric products

Automation product type	Type of connector (automation product end)	Protocol	Type of terminal	Link	On port	Length m/*ft*	Reference	Weight kg/*lb*
Nano, Modicon TSX Micro, Modicon Premium	Terminal port, 8-way female mini-DIN	Uni-TE (V1/V2), Modbus	HMIGTU	RS-485	COM1	2.5/*8.20*	**XBTZ9780**	0.180/ *0.397*
						10/*32.80*	**XBTZ9782**	–
			HMIGTU	RS-232	COM2	2.5/*8.20*	**TSXPCX1031**	–
Modicon M340 Modicon M241 Modicon M258 Modicon M2●1	RJ45	Modbus	HMIGTU	RS-485	COM1	2.5/*8.20*	**XBTZ9980**	0.230/ *0.507*
						10/*32.80*	**XBTZ9982**	–
					COM2	2.5/*8.20*	**XBTZ9008**	–
Modicon M340	USB Type mini-B	Terminal port	HMIGTU	USB	USB type A	1.8/*5.91*	**BMXXCAUSBH018**	0.230/ *0.507*
						4.5/ *14.76*	**BMXXCAUSBH045**	–
Modicon Quantum	9-way male SUB-D	Modbus	HMIGTU	RS-232C	COM2	2.5/*8.20*	**XBTZ9710** + *(1)*	0.210/ *0.463*
						3.7/ *12.14*	**990NAA26320**	0.290/ *0.639*
Modicon STB	HE13 (NIM, network interface module)	Modbus	HMIGTU	RS-232C	COM2	2/*6.56*	**STBXCA4002**	0.210/ *0.463*
						2.5/*8.20*	**XBTZ988** + *(1)*	0.220/ *0.485*
Modicon Momentum M1	RJ45 (port 1 on Momentum M1)	Modbus	HMIGTU	RS-232C	COM2	2.5/*8.20*	**XBTZ9711** + *(1)*	0.210/ *0.463*
TeSys U, T starters ATV 312/61/71 variable speed drives ATS 48 starters Lexium 05 Preventa XPSMC	RJ45	Modbus	HMIGTU	RS-485	COM1	3/*9.84*	**VW3A8306R30**	0.060/ *0.132*
						1/*3.28*	**VW3A8306R10**	–
						2.5/*8.20*	**XBTZ9980**	–
						10/*32.80*	**XBTZ9982**	–
					COM2	2.5/*8.20*	**XBTZ9008**	–

(1) XBTZG919 adapter should be used with cables with "+ (1)" after the reference.

Note: *The connection accessories may be changed or discontinued without notice. Please check our website* www.se.com *for the latest information.*

Schneider Electric

Harmony GTU
High-performance IoT-ready modular HMI panels
Connection accessories

105877-30M

XBTZG9772

105876-30M

XBTZG9731

Cables and adapters for connecting Harmony panels to third-party PLCs

Mitsubishi, Melsec PLCs

Description Driver used	Type of terminal	Type of connector (fitted to cable, excluding adapter)	Physical link (COM2)	Length m/*ft*	Reference	Weight kg/*lb*
Connection cable, **Q Link** *(SIO)*	HMIGTU	9-way SUB-D 9-way SUB-D	RS-232C	5/*16.40*	**XBTZG9772**	–
Connection cable, **Q CPU** *(SIO)*	HMIGTU	9-way SUB-D mini-DIN	RS-232C	5/*16.40*	**XBTZG9774**	–
Connection cable, **A Link** *(SIO)*	HMIGTU	9-way SUB-D 25-way SUB-D	RS-232C	5/*16.40*	**XBTZG9731**	–
Connection cable, **FX** *(CPU)*	HMIGTU	9-way SUB-D mini-DIN	RS-232/ RS-422	5/*16.40*	**XBTZG919 +** **XBTZ980**	–

Omron, Sysmac PLCs

Description Driver used	Type of terminal	Type of connector (fitted to cable, excluding adapter)	Physical link (COM2)	Length m/*ft*	Reference	Weight kg/*lb*
Connection cables, **Link** *(SIO)*	HMIGTU	9-way SUB-D 9-way SUB-D	RS-232C	5/*16.40*	**XBTZG9740**	–
		9-way SUB-D 25-way SUB-D	RS-232C	5/*16.40*	**XBTZG9731**	–
Connection cable, **FINS** *(SIO)*	HMIGTU	9-way SUB-D/ 9-way SUB-D	RS-232C	5/*16.40*	**XBTZG9740**	–

Rockwell Automation, Allen-Bradley PLCs

Description Driver used	Type of terminal	Type of connector (fitted to cable, excluding adapter)	Physical link (COM2)	Length m/*ft*	Reference	Weight kg/*lb*
Connection cable, **DF1 Full Duplex**	HMIGTU	9-way SUB-D/ 25-way SUB-D	RS-232C	5/*16.40*	**XBTZG9731**	–
Connection cable, **DH485**	HMIGTU	9-way SUB-D	RS-485	5/*16.40*	**XBTZ9732** + *(1)*	–

### Siemens, Simatic PLCs

Description Driver used	Type of terminal	Type of connector (fitted to cable, excluding adapter)	Physical link	Length m/*ft*	Reference	Weight kg/*lb*
Connection cable, **PPI, S7 200**	HMIGTU *(3)*	RJ45/9-way SUB-D	RS-485 (COM1)	2.5/ *8.20*	**XBTZG9721**	–
Connection cables, **MPI port, S7 300/400**	HMIGTU	9-way SUB-D/ 9-way SUB-D	RS-232C (COM2)	3/ *9.84*	**XBTZG9292**	–
	HMIGTU *(3)*	RJ45/flying leads at other end	RS-485 *(2)* (COM1)	3/ *9.84*	**VW3A8306D30**	0.150/ *0.331*
		RJ45/9-way SUB-D	RS-485 *(2)* (COM1)	2.5/ *8.20*	**XBTZG9721**	–

(1) XBTZG939 adapter should be used with cables with "+ (1)" after the reference (see page 19).
(2) Non-isolated RS-485 serial link, 12 Mbps.
(3) Available only with Premium Box HMIG3U.

Note: *The connection accessories may be changed or discontinued without notice. Please check our website www.se.com for the latest information.*

PF600266

TSXSCA62

822607C_1

TSXPACC01

822620C_1

TSXSCA64

DA577123
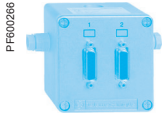
VW3A8306TF10

Connection of Harmony panels via serial links and Ethernet network

Type of bus/network	Tap-off units	Connector (tap-off unit end)	Panel type	Length m/*ft*	Reference	Weight kg/*lb*
Uni-Telway serial link	Subscriber socket **TSXSCA62**	15-way female SUB-D	HMIGTU	3/*9.84*	**VW3A8306**	0.150/*0.331*
	Connection box **TSXPACC01**	8-way female mini-DIN	HMIGTU	2.5/*8.20*	**XBTZ9780**	0.180/*0.396*
Modbus serial link	Subscriber socket **TSXSCA64**	15-way female SUB-D	HMIGTU	3/*9.84*	**VW3A8306**	0.150/*0.331*
	T-junction box	With integrated cable, RJ45 fitted	HMIGTU	1/*6.56*	**VW3A8306TF10**	–
Ethernet TCP/IP network	Hubs 499 NEH/NOH Switches 499 NES, 499 NMS, 499 NSS and 499 NOS	RJ45	HMIGTU	2/*6.56*	**490NTW00002**	–
				5/*16.40*	**490NTW00005**	–
				12/*39.37*	**490NTW00012**	–
				40/*131.23*	**490NTW00040**	–
				80/*262.47*	**490NTW00080**	–

Connection of Harmony panels to fieldbuses

Type of bus/network	Connection components	Type of terminal	Reference	Weight kg/*lb*
FIPWAY, FIPIO	USB gateway	HMIG3U	**TSXCUSBFIP**	–
Modbus Plus	USB gateway	HMIG3U	**XBTZGUMP**	–
		HMIG5U2	**TSXCUSBMBP**	
CANopen (Slave)	Copla Harmony module	HMIG3U, HMIG5U2, HMIG5U22	**HMIZGCAN**	–
Profibus DP (Slave)	Copla Harmony module	HMIG3U, HMIG5U2, HMIG5U22	**HMIZGPDP**	–

Note: The connection accessories may be changed or discontinued without notice. Please check our website www.se.com for the latest information.

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Harmony GTU
High-performance IoT-ready modular HMI panels
Equivalent product table

Equivalent product table between XBTGT panels and HMIGTU panels

Old range XBTGT	New range HMIGTU	Comments
XBTGT2120/2220/2330/2430	HMIDT351 + HMIG3U	Different cut-out, no adapter
XBTGT4230/4330	HMIDT351 + HMIG3U	Different cut-out, HMIZGC01 adapter
XBTGT4340	HMIDT351 + HMIG3U	Different cut-out, HMIZGC01 adapter, no video support
XBTGT5230	HMIDT542 + HMIG3U	Different cut-out, XBTZGCO4 adapter
XBTGT5330/5430	HMIDT542 + HMIG3U	–
XBTGT5340	HMIDT542 + HMIG3U	No video support
XBTGT6330	HMIDT642 + HMIG3U	–
XBTGT6340	HMIDT642 + HMIG3U	No video support
XBTGT7340	HMIDT732 + HMIG3U	No video support

Notes: *When upgrading from the Harmony XBT range to the Harmony GTU range, the following points should be considered:*
- connection to the Profibus DP and Device Net fieldbuses will be possible in the next software release
- serial ports COM1 and COM2 are identical but inverted
- no CF card but SD card provided as optional storage unit
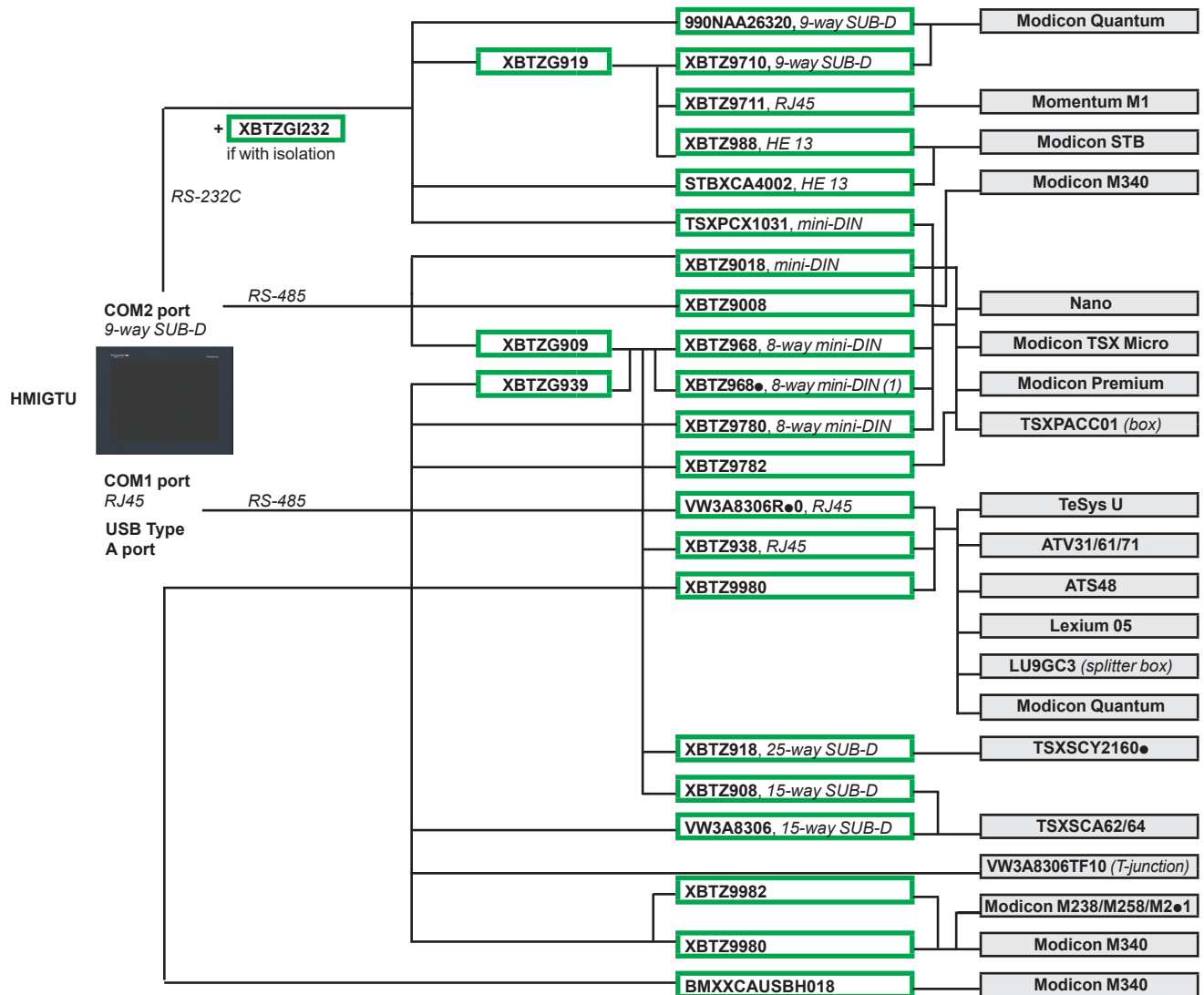*- no CANopen Master connection on Harmony GTU*

Equivalent product table between HMIGTW panels and HMIGTU panels

Old range XBTGTW/HMIGTW	New range HMIGTU	Comments
HMIGTW5354	HMIDT542 + HMIG5U2/ HMIG5U22	Different cut-out, no adapter
HMIGTW7354	HMIDT732 + HMIG5U2/ HMIG5U22	3 USB hosts, no jack output but auxiliary output for speakers
XBTGTW652	HMIDT642 + HMIG5U2/ HMIG5U22	–

Notes: *When upgrading from the Harmony XBTGTW/HMIGTW range to the Harmony GTU range, the following points should be considered:*
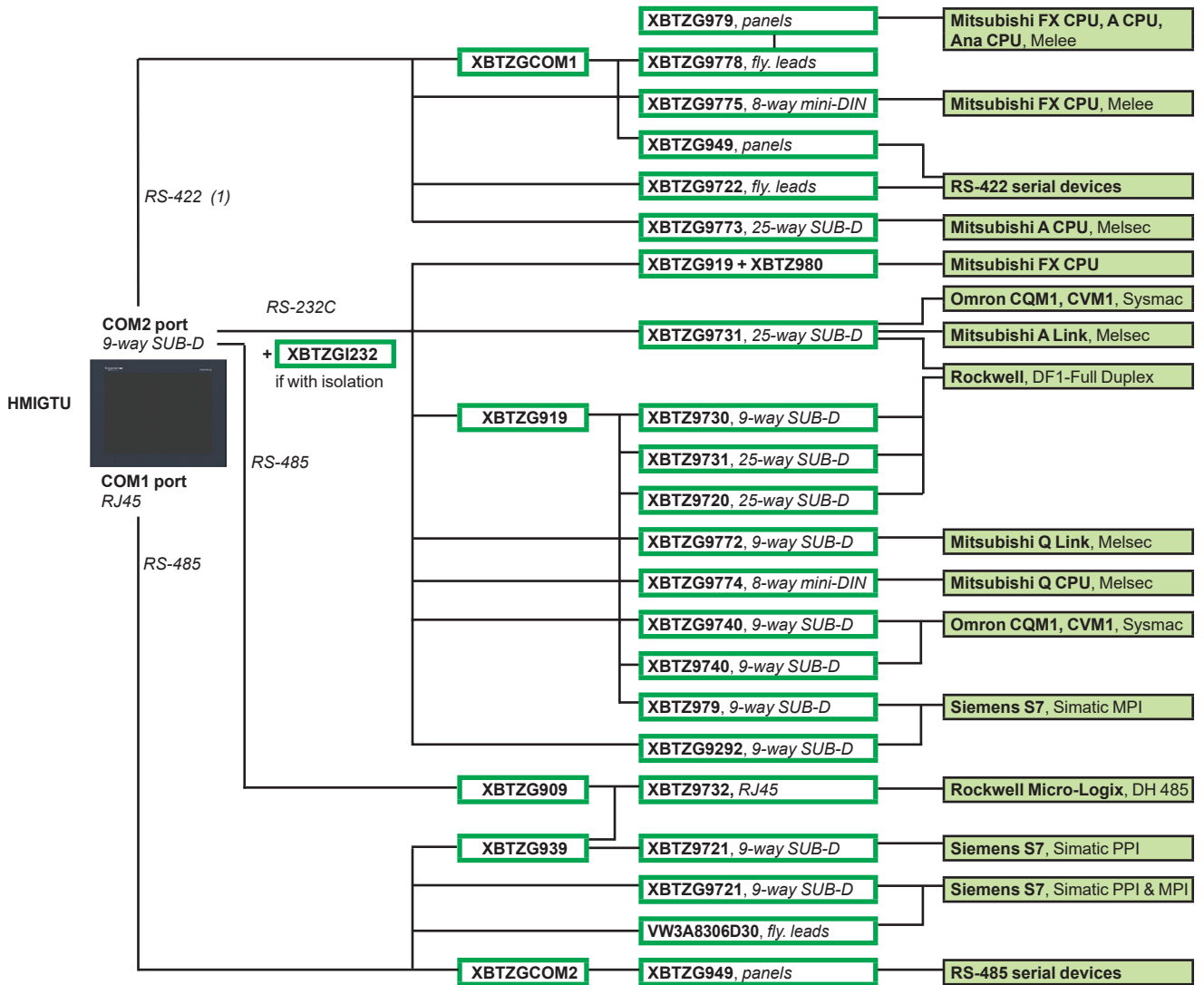*- no CF card but CFast card provided as an optional storage unit*
- no Windows XP Embedded but Windows 7 Embedded or Windows 10 IoT Enterprise 32-bit are provided for the operating system

Harmony GTU
High-performance IoT-ready modular HMI panels
Connection system

HMIGTU panels and Schneider Electric products

HMIGTU

COM2 port
9-way SUB-D

+ XBTZGI232
if with isolation

RS-232C

COM1 port
RJ45

USB Type A port

RS-485

Connector	Product
990NAA26320, *9-way SUB-D*	Modicon Quantum
XBTZ9710, *9-way SUB-D*	
XBTZ9711, *RJ45*	Momentum M1
XBTZ988, *HE 13*	Modicon STB
STBXCA4002, *HE 13*	Modicon M340
TSXPCX1031, *mini-DIN*	
XBTZ9018, *mini-DIN*	
XBTZ9008	Nano
XBTZ968, *8-way mini-DIN*	Modicon TSX Micro
XBTZ968●, *8-way mini-DIN (1)*	Modicon Premium
XBTZ9780, *8-way mini-DIN*	TSXPACC01 *(box)*
XBTZ9782	
VW3A8306R●0, *RJ45*	TeSys U
XBTZ938, *RJ45*	ATV31/61/71
XBTZ9980	ATS48
	Lexium 05
	LU9GC3 *(splitter box)*
	Modicon Quantum
XBTZ918, *25-way SUB-D*	TSXSCY2160●
XBTZ908, *15-way SUB-D*	
VW3A8306, *15-way SUB-D*	TSXSCA62/64
	VW3A8306TF10 *(T-junction)*
XBTZ9982	Modicon M238/M258/M2●1
XBTZ9980	Modicon M340
BMXXCAUSBH018	Modicon M340

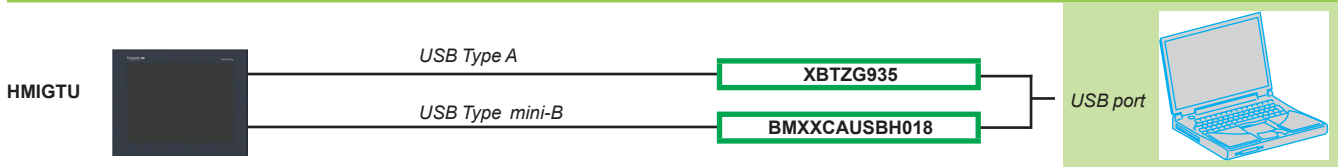Groups: XBTZG919, XBTZG909, XBTZG939

(1) ● defines the length:
- 0 m/0 ft, 2.5 m/8.20 ft (elbowed connector)
- 1 m/3.28 ft, 5 m/16.40 ft
- 6 m/19.68 ft, 16 m/52.49 ft
- 7 m/22.96 ft, 20 m/65.61 ft
- 8 m/26.24 ft, 25 m/82.02 ft

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HMIGTU panels and third-party PLCs

XBTZGCOM1	XBTZG979, *panels*	**Mitsubishi FX CPU, A CPU, Ana CPU**, Melee
	XBTZG9778, *fly. leads*	
	XBTZG9775, *8-way mini-DIN*	**Mitsubishi FX CPU**, Melee
	XBTZG949, *panels*	
	XBTZG9722, *fly. leads*	**RS-422 serial devices**
	XBTZG9773, *25-way SUB-D*	**Mitsubishi A CPU**, Melsec

COM2 port 9-way SUB-D — RS-422 (1)

RS-232C

+ XBTZGI232 *if with isolation*

RS-485

HMIGTU

COM1 port RJ45

RS-485

	XBTZG919 + XBTZ980	**Mitsubishi FX CPU**
XBTZG9731, *25-way SUB-D*		**Omron CQM1, CVM1**, Sysmac
		Mitsubishi A Link, Melsec
		Rockwell, DF1-Full Duplex
XBTZG919	XBTZ9730, *9-way SUB-D*	
	XBTZ9731, *25-way SUB-D*	
	XBTZ9720, *25-way SUB-D*	
	XBTZG9772, *9-way SUB-D*	**Mitsubishi Q Link**, Melsec
	XBTZG9774, *8-way mini-DIN*	**Mitsubishi Q CPU**, Melsec
	XBTZG9740, *9-way SUB-D*	**Omron CQM1, CVM1**, Sysmac
	XBTZ9740, *9-way SUB-D*	
	XBTZ979, *9-way SUB-D*	**Siemens S7**, Simatic MPI
	XBTZG9292, *9-way SUB-D*	
XBTZG909	XBTZ9732, *RJ45*	**Rockwell Micro-Logix**, DH 485
XBTZG939	XBTZ9721, *9-way SUB-D*	**Siemens S7**, Simatic PPI
	XBTZG9721, *9-way SUB-D*	**Siemens S7**, Simatic PPI & MPI
	VW3A8306D30, *fly. leads*	
XBTZGCOM2	XBTZG949, *panels*	**RS-485 serial devices**

Application transfer from HMIGTU panels to PC

HMIGTU

USB Type A	XBTZG935	*USB port*
USB Type mini-B	BMXXCAUSBH018	

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High-performance IoT-ready modular HMI panels
Product reference index

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