Introducing the Easy Series
Essential automation & control products

When just enough is just right!

Motion

Drives

HMI

PLCs

Control & Signaling
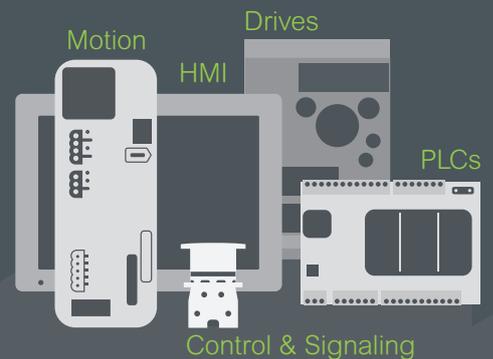
Easy Harmony GXU

Human Machine Interfaces
Essential touch screen panels for simple machines

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Life Is On

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General contents

Easy Harmony GXU Essential touch screen panels

Human Machine interfaces
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Essential touch screen panels for simple machines

Easy Harmony GXU touch screen panels: an optimum investment for communication with simple machines

7" Wide and 10" Wide Easy Harmony GXU touch screen panels

A user-oriented range of products

The Easy Harmony GXU range of touch screen panels is designed to provide just the right level of performance for communication with simple machines: non-critical functions have been reduced so as to offer easy-to-use products with the correct level of quality at an affordable cost.

Fit for purpose

■ The panels feature the usual key-core characteristics (TFT color screens, USB connection, Ethernet port, etc.)
■ Easy Harmony GXU panels have a compact design: the panels are no more than 38 mm/*1.5 in.* thick.
■ These panels have a reserved space for the communication cable wiring.

Easy throughout the whole life cycle

■ Easy to install using anti-drop hooks and screw fixings for one-handed installation
■ Easy to set up and use with a simplified and intuitive programming software (Vijeo Designer Basic) and an illustrated online help for self-guided training
■ Easy to connect to our range of Easy Modicon M100/M200 logic controllers
■ Easy to connect thanks to an embedded USB stick (no accessory needed)
■ Easy to maintain with a replaceable battery for RTC *(1)* and a self-diagnosis tool

Robustness

■ Able to adapt to non-standard wiring environments thanks to an embedded isolated power supply and enhanced integrated circuit protection for the serial port
■ Robust design for harsh environments:
□ a small vent hole prevents ingress of resist to splashing water and conductive dust
□ PCBA coating helps withstand high humidiy and polluted environments.

Widely available everywhere

■ Fast delivery through a large distribution network
■ Fast access to information and support through Partner Relationship Management tool and dedicated network of engineers

(1) Battery for RTC (Real Time Clock): only for Harmony GXU universal touch screen panels.

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7" Wide and 10" Wide Easy Harmony GXU touch screen panels

Example of project configuration

Presentation and applications

The range of Easy Harmony GXU touch screen panels has been designed for manufacturers of simple machines and is dedicated to the following fields and types of machine:

■ Textile
□ blowing and carding machines
□ winding and twisting machines
□ dyeing and finishing machines
□ etc.
■ Packaging
□ vertical and horizontal packing
□ filling machine
□ labelling machine
□ etc.
■ HVAC & pumping
□ air compressor
□ water pumping
□ etc.
■ Miscellaneous activity sectors
□ machine tools (grinder, saw, etc.)
□ plastic and rubber (extruding machine, etc.)
□ printing (stamping and folding machines, etc.)
□ construction machines
□ etc.

This range of panels consists of 4 models with 2 sizes of color TFT screen:
■ 7" Wide (HMIGXU3500 and HMIGXU3512)
■ 10" Wide (HMIGXU5500 and HMIGXU5512)

Operation

Easy Harmony GXU touch screen panels are designed to fit for the essential needs of information and communication technologies, which, depending on the model, include:
■ Essential level of communication (Serial multilink, USB downloading port)
■ High level of communication (Embedded Ethernet, multilink) *(1)*
■ External data storage (on a USB memory stick) for storing production data and backing up applications *(1)*
■ Management of peripheral equipment: printers, barcode readers, etc. *(1)*
These panels offer an excellent level of technical performance and are designed for use mainly by OEM customers.

Configuration

Easy Harmony GXU touch screen panels are configured using Vijeo Designer. Basic software in Windows XP Professional, Windows 7 (Service Pack 3) and Windows 8.1 (32-bit and 64-bit) environments. This simplified configuration software boasts an intuitive user interface with many configurable windows, enabling projects to be developed quickly and easily.

Communication

Automation platform or logic controller

Modbus

Easy Harmony GXU panels
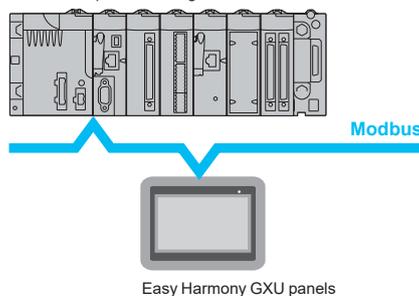
Easy Harmony GXU touch screen panels communicate with our Easy Modicon M100/200 PLCs via one or two integrated serial links, using communication protocols:
■ Schneider Electric (Modbus)
■ Third-party: Mitsubishi Electric, Omron, and Siemens

(1) Except HMIGXU3500 and HMIGXU5500.

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Functions

Easy Harmony GXU touch screen panels offer the following functions:
■ Display of animated mimics with 8 types of animation (pressing the touch panel, color changes, filling, movement, rotation, size, visibility and value display)
■ Control, modification of numeric and alphanumeric values
■ Display of date and time
■ Real-time curves and trend curves with log
■ Alarm display, alarm log and management of alarm groups
■ Multi-window management
■ Page calls initiated by the operator
■ Multilingual application management (10 languages simultaneously)
■ Recipe management
■ Data processing via JavaScript
■ Application and logs stored on external application memory card in USB stick format *(1)*
■ Management of printer and barcode reader

Operating modes for Harmony GXU touch screen panels
Edit mode

Easy Harmony GXU panel
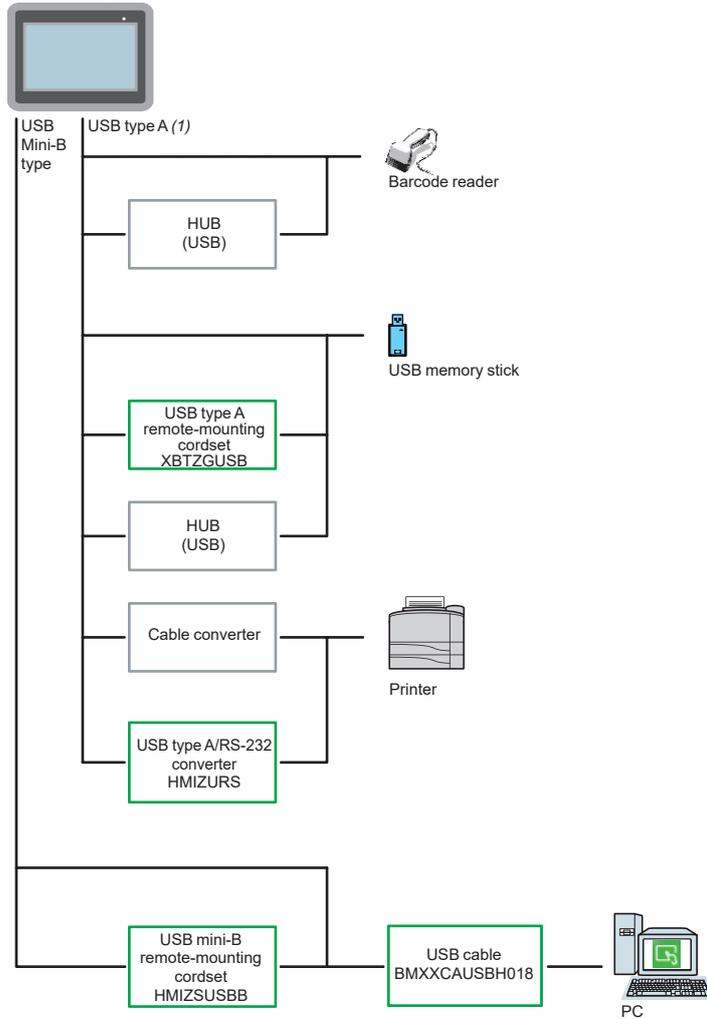
(1) Except HMIGXU3500 and HMIGXU5500.

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Human Machine interfaces
Easy Harmony GXU
Essential touch screen panels for simple machines

Operating modes for Harmony GXU touch screen panels (continued)

### Communication with RS-422/RS-485 serial link mode

Easy Harmony GXU panels

RS 422/RS 485 serial link

XBTZ9008 cable	Schneider Electric PLCs (1)
XBTZG9722 cable	Schneider Electric PLCs (2)
XBTZG9775 cable	Mitsubishi PLC
Customized cable	Siemens PLCs
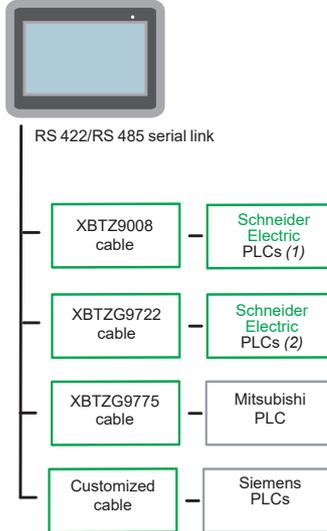
Examples of connection to RS-422/RS-485 serial port (3)

Communication with RS-232C serial link mode

Easy Harmony GXU panels

RS 232 serial link

XBTZG9772 XBTZG9774 cables	Mitsubishi PLC
XBTZG9731 XBTZG9740 cables	Omron PLC
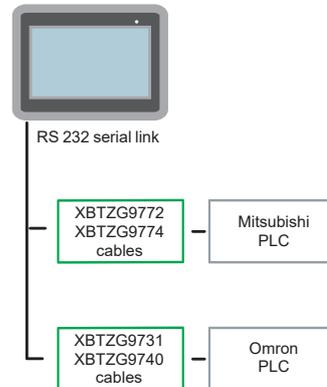
Examples of connection to RS-232C (3)

*(1) M221/M241/M251/M218/M258 logic controllers.*
(2) M100/M200 logic controllers. For all other products, consult your Customer Care Centre.
(3) Non-exhaustive examples; consult your Customer Care Centre for more information.

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Human Machine interfaces
Easy Harmony GXU
Basic and Universal touch screen panels
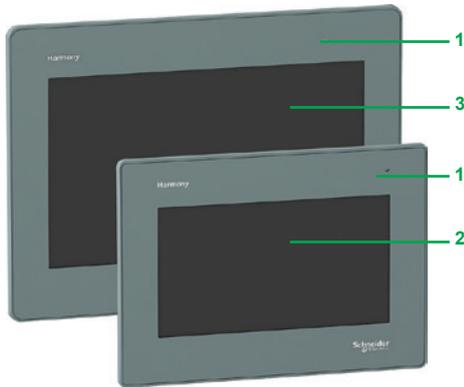
HMIGXU35●● (common front view)
*HMIGXU55●● (common front view)*
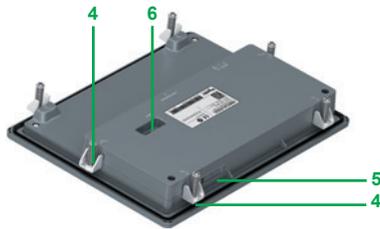
Easy Harmony GXU basic panels (rear view)

Easy Harmony GXU basic panels (bottom view)
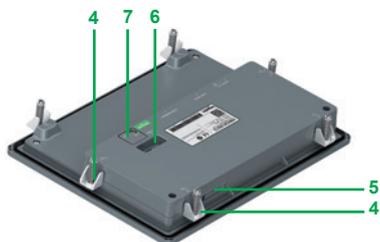
Easy Harmony GXU universal panels (rear view)
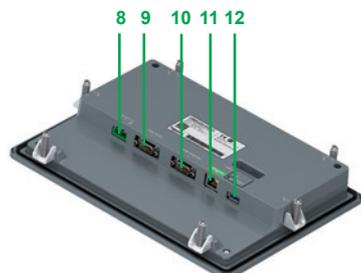
Easy Harmony GXU universal panels (view of underside)

Easy Harmony GXU basic touch screen panels
The basic touch screen panels offer the following features:

On the front panel
1 An LED on/off indicator
2 A 7" Wide color touch screen for HMIGXU3500
3 A 10" Wide color touch screen for HMIGXU5500

On the rear panel
4 Screw fixings supplied with the panels:
- 4 fixing points for HMIGXU3500
- 6 fixing points for HMIGXU5500
5 A slide-open compartment containing a replaceable battery to power the embedded real-time clock *(1)*
6 A USB mini-B port

On the underside
7 A 24 V ⎓ power supply connector supplied with the panels
8 A 9-way male SUB-D connector for RS - 422/RS - 485 serial link (COM1 port)

Easy Harmony GXU universal touch screen panels
The universal touch screen panels offer the following features:

On the front panel
1 An LED on/off indicator
2 A 7" Wide color touch screen for HMIGXU3512
3 A 10" Wide color touch screen for HMIGXU5512

On the rear panel
4 Screw fixings supplied with the panels:
- 4 fixing points for HMIGXU3512
- 6 fixing points for HMIGXU5512
5 A slide-open compartment containing a replaceable battery to power the embedded real-time clock *(1)*
6 A USB mini-B port
7 A USB type A stick

On the underside
8 A 24 V ⎓ power supply connector supplied with the panels
9 A 9-way male SUB-D connector for RS - 232C serial link (COM1 port)
10 A 9-way male SUB-D connector for RS - 422/RS - 485 serial link (COM2 port)
11 An Ethernet port, 10/100 Base-Tx type
12 A USB type A port

(1) Replace battery only with identical type: BR2032. Replacement with another type of battery may cause a fire or explosion.

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References

Human Machine interfaces
Easy Harmony GXU
Basic and Universal touch screen panels
Software and spare parts

HMIGXU3500

HMIGXU5512

Vijeo Designer Basic

HMIZGFIX3

Easy Harmony GXU basic touch screen panels (1) (2)

Screen size and type	Number of ports	Memory capacity		Reference	Weight kg/*lb*
		For appli-cation	For backup		
7" wide, color TFT screen	1 COM1 (RS - 422/485) 1 USB mini-B	32 MB	128 KB	**HMIGXU3500**	0.550/*1.213*
10" wide, color TFT screen	1 COM1 (RS - 422/485) 1 USB mini-B	32 MB	128 KB	**HMIGXU5500**	1.050/*2.315*

Easy Harmony GXU universal touch screen panels (1) (2)

Screen size and type	Number of ports	Memory capacity		Reference	Weight kg/*lb*
		For appli-cation	For backup		
7" wide, color TFT screen	1 COM1 (RS - 232C) 1 COM2 (RS - 422/485) 1 USB mini-B 1 USB A 1 10/100 Base-Tx	48 MB	128 KB	**HMIGXU3512**	0.560/*1.235*
10" wide, color TFT screen	1 COM1 (RS - 232C) 1 COM2 (RS - 422/485) 1 USB mini-B 1 USB A 1 10/100 Base-Tx	48 MB	128 KB	**HMIGXU5512**	1.060/*2.337*

Configuration software

Description	Used for	Reference
Vijeo Designer Basic (4)	Easy Harmony GXU models	(3)

Spare parts

Description	Used for	Sold in lots of	Reference	Weight kg/*lb*
Set of fixing screws	Easy Harmony GXU models	**24**	**HMIZGFIX3**	–
Power supply connector	Easy Harmony GXU models	**4**	**HMIZGPWS2**	–

(1) Panels supplied with fixing screws, power supply connector and instruction sheet. Setup documentation for Easy Harmony GXU panels is included in electronic format with the Vijeo Designer Basic configuration software.
(2) Comprehensive information relating to Easy Harmony GXU panels is available on our website.
(3) To download this software, visit our web site www.schneider-electric.com.
(4) Requires a software version ≥ 1.0 Service Pack 2. Cable for transferring application from PC to Easy Harmony GXU panels (BMXXCAUSBH018), to be ordered separately (see our website www.schneider-electric.com).

Human Machine interfaces
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Connection accessories
Cables for Schneider Electric products

XBTZGUSB

HMIZSUSBB

Connection accessories

Designation	Description	Length m/*ft*	Reference	Weight kg/*lb*
USB cable for PC connection (USB type A/USB mini-B)	Enables connection of a PC (USB type A port) to Harmony GXU panels (USB mini-B port, all models) in order to transfer applications developed with Vijeo Designer Limited Edition.	1.8/*5.91*	**BMXXCAUSBH018**	0.230/*0.507*
USB type A port remote-mounting cordset	Enables the USB type A port to be located remotely on HMIGXU3512 and HMIGXU5512 panels on a panel or cabinet door while providing IP 65 degree of protection (Ø 21 mm/0.83 in. fixing device).	1/*3.28*	**XBTZGUSB**	0.507/*1.118*
USB mini-B port remote-mounting cordset	Enables the USB mini-B port to be located remotely on Harmony GXU panels (all models) on a panel or cabinet door while providing IP 65 degree of protection (Ø 21 mm/0.83 in. fixing device).	1/*3.28*	**HMIZSUSBB**	0.100/*0.220*
USB type A port/9-way SUB-D converter for serial printer	Enables connection of an RS 232 serial link printer (9-way SUB-D) to the USB type A port of HMIGXU3512 and HMIGXU5512 panels.	–	**HMIZURS**	–

Cables for connecting Easy Harmony GXU panels to Schneider Electric products

Type of automation product	Type of connector (automation product end)	Protocol	Type of Harmony GXU panels	Physical link (panels port)	Length m/*ft*	Reference	Weight kg/*lb*
Modicon M340 Modicon M218 Modicon M258 Modicon M221 Modicon M241 Modicon M251	RJ45	Modbus	All models	RS - 485	2.5/*8.20*	**XBTZ9008**	–
Easy Modicon M100 Easy Modicon M200	Panels block	–	All models	RS - 485	2.5/*8.20*	**XBTZG9722**	–
TeSys U/T starters Altivar drives, Altistart starters, Lexium motion control, Preventa XPS MC	RJ45	Modbus	All models	RS - 485	2.5/*8.20*	**XBTZ9008**	–

Human Machine interfaces
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Cables for third-party PLCs
Connection via Modbus serial link

XBTZG9772

XBTZG9731

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

Description *Driver used*	Type of Harmony GXU panels	Type of connector (fitted to cable, excluding adapter)	Physical link (panels port)	Length m/*ft*	Reference	Weight kg/*lb*
Mitsubishi, Melsec PLCs						
Connection cable, Q Link *(SIO)*	HMIGXU3512 and HMIGXU5512 only	9-way SUB-D/9-way SUB-D	RS - 232C	*5/16.40*	**XBTZG9772**	–
Connection cable, Q CPU *(SIO)*	HMIGXU3512 and HMIGXU5512 only	9-way SUB-D/mini-DIN	RS - 232C	*5/16.40*	**XBTZG9774**	–
Connection cable, FX *(CPU)*	All models	9-way SUB-D/mini-DIN	RS - 422	*5/16.40*	**XBTZG9775**	–
Omron, Sysmac PLCs						
Connection cables, Link *(SIO)*	HMIGXU3512 and HMIGXU5512 only	9-way SUB-D/25-way SUB-D	RS - 232C	*5/16.40*	**XBTZG9731**	–
	HMIGXU3512 and HMIGXU5512 only	9-way SUB-D/9-way SUB-D	RS - 232C	*5/16.40*	**XBTZG9740**	–
Connection cable, FINS *(SIO)*	HMIGXU3512 and HMIGXU5512 only	9-way SUB-D/9-way SUB-D	RS - 232C	*5/16.40*	**XBTZG9740**	–
Siemens, Simatic PLCs						
Connection cables, MPI port, S7 200 S7 300/400	All models	9-way SUB-D/9-way SUB-D	RS - 485	–	*(1)*	–
Customizable cables						
Universal cable, RS-422	All models	9-way SUB-D/flying leads at other end	RS - 422	2.5/*8.20*	**XBTZG9722**	–

LU9GC3   *TWDXCAISO*

Connecting Harmony GXU panels via Modbus serial link

Type of bus/ network	Tap-off units	Connector (tap-off unit end)	Type of Harmony GXU panels	Length m/*ft*	Reference	Weight kg/*lb*
Modbus serial link	8-port Modbus splitter box **LU9GC3** 2-port tap junction **TWDXCAISO TWDXCAT3RJ**	RJ45	All models	2.5/*8.20*	**XBTZ9008**	–

(1) Customized cable.

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Photos: Schneider Electric