



Harmony GTO

Standard and stainless HMI panels
with 3.5" to 12.1" screen



Harmony

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Harmony operator interface and industrial relays enhance operational efficiency and equipment availability across industrial and building applications. Harmony includes intelligent connected products and edge terminals that visualize, gather and process data, enabling informed operator decisions

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Life Is On

Schneider
Electric

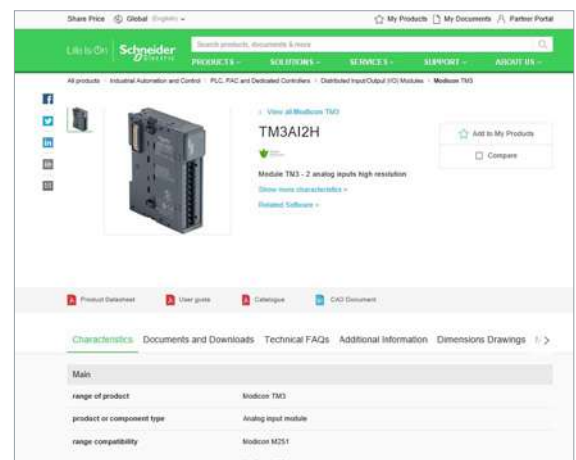
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References

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

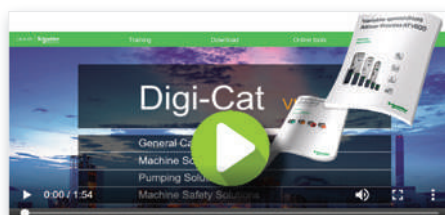
REFERENCE	Modicon TM3 analog input modules	Input range	Output range	Resolution	Input format (digital points)	Reference	Price \$
2 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5142	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5143	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5144	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5145	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5146	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5147	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5148	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5149	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5150	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5151	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5152	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5153	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5154	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5155	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5156	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5157	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5158	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5159	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5160	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5161	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5162	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5163	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5164	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5165	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5166	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5167	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5168	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5169	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5170	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5171	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5172	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5173	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5174	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5175	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5176	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5177	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5178	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5179	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5180	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5181	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5182	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5183	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5184	1,150
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4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5186	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5187	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5188	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5189	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5190	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5191	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5192	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5193	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5194	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5195	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5196	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5197	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5198	1,150
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5199	2,200
4 relay expansion module	2 - 12 VDC	10 mA to 100 mA	10 mA to 100 mA	10 bits	16 digital points	5200	1,150



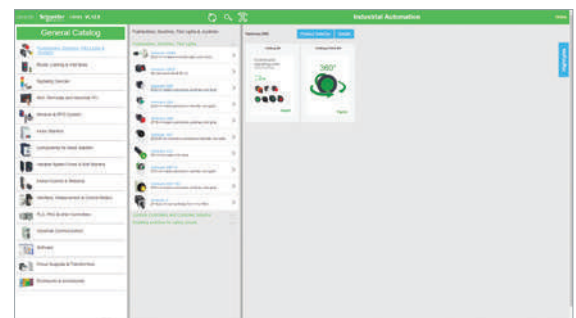
Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

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

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General contents

Harmony GTO Standard and Stainless HMI panels

Selection guide	page 2
■ Presentation	
□ Operation.....	page 4
□ Environment	page 4
□ Configuration	page 5
□ Communication	page 5
□ USB accessories for HMI panels	page 5
□ Functions.....	page 6
□ Architectures and communication.....	page 6
□ Panel operating modes.....	page 7
□ Description	page 8
■ References	page 13
□ Separate components	page 14
□ Spare parts	page 14
□ Cables for application transfer - Panel to PC.....	page 15
□ Adaptors and isolation boxes for HMIGTO panels	page 15
□ Cables for connecting Harmony panels to other Schneider Electric products	page 16
□ Cables and adaptors for connecting Harmony panels to third-party PLCs.....	page 17
□ Connection of Harmony panels via serial links and Ethernet network	page 18
■ Substitution	page 19
■ Connections	page 20
■ Product references Index	page 24

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

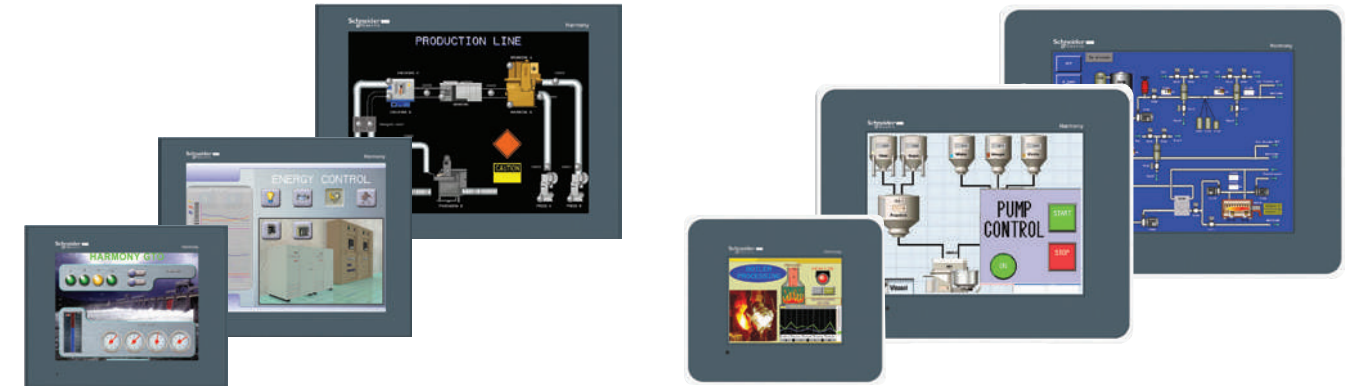
Applications	Display of text messages, graphic objects and synoptic views Control and configuration of data
Type of panel	Standard HMI Panels, touch screen
Degree of protection (according to IEC 60529)	IP 65 (IP 67 with addition of a cover)



Display	Type	Color TFT LCD, backlit 320 x 240 pixels (QVGA)		Color TFT LCD, backlit 800 x 480 pixels (WVGA)
	Capacity	3.5"	5.7"	7.0 Wide
Data entry	Static function keys	Via touch screen	Via touch screen	Via touch screen
	Dynamic function keys	6 function keys (static or dynamic)	–	8 function keys (static or dynamic)
	Service keys	–	–	–
	Alphanumeric keys	–	–	–
	Applications	64/96 MB Flash EPROM (1)	96 MB Flash EPROM	
Expansion	–	By 4 GB SD card (except HMIGTO2300)		
Functions	Maximum number of pages	Limited by internal Flash EPROM memory capacity	Limited by capacity of internal Flash EPROM memory or of SD card	
	Variables per page	Unlimited (8000 variables max.)		
	Representation of variables	Alphanumeric, bitmap, bargraph, gauge, tank, tank level indicator, curves, polygon, button, LED		
	Recipes	32 groups of 64 recipes comprising 1024 ingredients max.		
	Curves	Yes, with log		
	Alarm logs	Yes		
	Real-time clock	Built-in		
	Discrete I/O	–		
	Multimedia I/O	–		
	Communication	Downloadable protocols	Uni-TE (2), Modbus, Modbus TCP/IP (1) and for PLC brands: Mitsubishi, Omron, Allen-Bradley and Siemens	
Asynchronous serial link		RS 232C (COM1) and RS 485 (COM2) except HMIGTO1310: RS 232C/485 (COM1)		
USB ports		1 type A host connector + 1 mini-B connector		
Buses and networks		Ethernet TCP/IP (10BASE-T/100BASE-TX) (3), Modbus Plus and Fipway via USB gateway		
Printer link		RS 232C (COM1) serial link (4) and USB port for parallel printer		
Development software	Vijeo Designer (on Windows XP and Windows 7)			
Operating system	Harmony (333 MHz RISC CPU)			
Type of panel	HMIGTO1300 HMIGTO1310	HMIGTO2300 HMIGTO2310	HMIGTO3510	
Page	13			

(1) Depending on model.
 (2) Uni-TE version V2 for Twido controller and TSX Micro/Premium platform.
 (3) Except HMIGTO1300 and GTO2300 (Modbus Plus and Fipway via USB gateway only).
 (4) Except HMIGTO1310 (USB port for parallel printer only).

Display of text messages, graphic objects and synoptic views Control and configuration of data	
Standard HMI Panels, touch screen	Standard HMI Panels, touch screen, "Stainless Steel" version
IP 65 (IP 67 with addition of a cover)	IP 66K (Front panel with stainless steel frame) for food & beverage environment



Color TFT LCD, backlit	640 x 480 pixels (VGA)	640 x 480 pixels (VGA)	800 x 600 pixels (SVGA)	320 x 240 pixels (QVGA)	640 x 480 pixels (VGA)	800 x 600 pixels (SVGA)
	7.5"	10.4"	12.1"	5.7"	10.4"	12.1"
Via touch screen						
–						
–						
–						
96 MB Flash EPROM						
By 4 GB SD card						
Limited by capacity of internal Flash EPROM memory or of SD card						
Unlimited (8000 variables max.)						
Alphanumeric, bitmap, bargraph, gauge, tank, tank level indicator, curves, polygon, button, LED						
32 groups of 64 recipes comprising 1024 ingredients max.						
Yes, with log						
Yes						
Built-in						
–						
–						
Uni-TE (2), Modbus, Modbus TCP/IP (1) and for PLC brands: Mitsubishi, Omron, Allen-Bradley and Siemens						
RS 232C (COM1) and RS 485 (COM2)						
1 type A host connector + 1 mini-B connector						
Ethernet TCP/IP (10BASE-T/100BASE-TX), Modbus Plus and Fipway via USB gateway						
RS 232C (COM1) serial link and USB port for parallel printer						
Vijeo Designer (on Windows XP and Windows 7)						
Harmony (333 MHz RISC CPU)						
HMIGTO4310	HMIGTO5310	HMIGTO6310	HMIGTO2315	HMIGTO5315	HMIGTO6315	
13						

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen



Harmony color touch screen panels HMIGTO●●●0 in 5 sizes from 3.5" to 12.1" (standard version)

Presentation

The Standard HMI touch screen panels Harmony GTO offer includes:

- A range of 8 color touch screen panels (TFT technology), available in a choice of 5 sizes
 - 3.5"
 - 5.7"
 - 7": 7 Wide and 7.5" (front identical in size)
 - 10.4"
 - 12.1"
- A range of 3 color TFT touch screens available in 3 sizes:
 - 5.7"
 - 10.4"
 - 12.1"

with front featuring a Stainless Steel frame, dedicated to applications in harsh environments (food & beverage and pharmaceutical).

Operation

Harmony GTO Standard HMI panels feature optimized information and communication technologies, which, depending on the model, include:

- High level of communication (embedded Ethernet, multilink, Web server and FTP, e-mail)
- External storage of data (SD memory card and USB memory stick) for storing production data and backing up applications
- Management of peripherals: printers, etc.

These panels offer an excellent level of technical performance designed principally for use by OEM customers.

Environment

The Harmony GTO range has been designed in accordance with numerous standards, certifications and requirements:

- Standards: EN 61131-2, 61000-6-2 and UL508.
- Certifications:
 - CE, C-tick, GOST-R, KCC
 - Atex and UL Hazardous location (pending)
 - Marine certifications (pending).
- Operating temperature: up to 55°C
- Degree of protection (according to IEC 60529):
 - IP 65 for standard version products
 - IP 67 for standard version products fitted with a cover for harsh environments (see accessories [page 14](#))
 - IP 66K for "Stainless Steel" version products
- Resistance to high-pressure cleaning (conforming to DIN 40050-9): up to 10 bar for "Stainless Steel" version products.



Harmony color touch screen panels HMIGTO●●●5 in 3 sizes from 5.7" to 12.1" ("Stainless Steel" version)

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen



Display of a video sequence

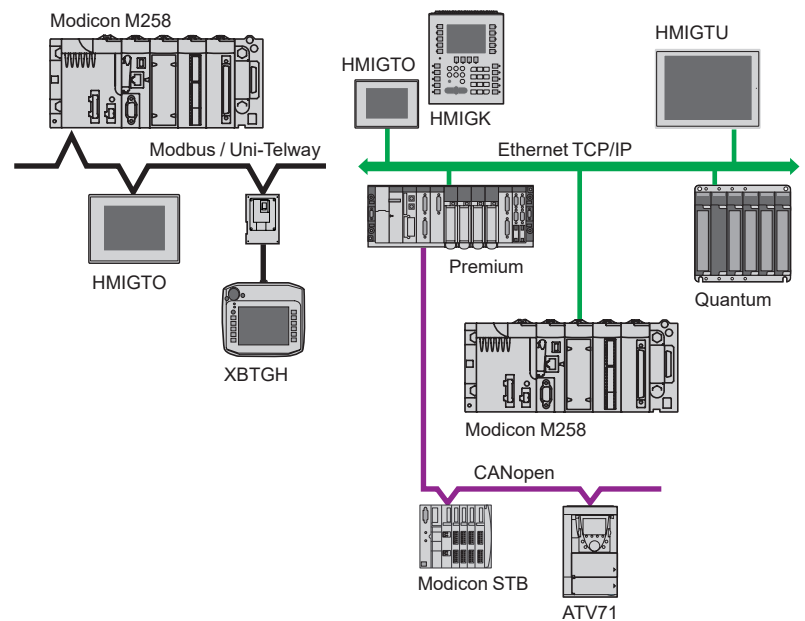
Configuration

Harmony GTO Standard HMI panels can be configured using Vijeo Designer software in a Windows 7, Windows 8.1 and Windows 10 Pro environment.

Vijeo Designer software boasts an advanced user interface with many configurable windows, enabling projects to be developed quickly and easily.

The Harmony GTO range is compatible with Vijeo Designer version V6.1 or later. For more information, please refer to Vijeo Designer catalog [DIA5ED2130614EN](#).

Communication



Standard HMI panels communicate with PLCs via one or two integrated serial links, using communication protocols:

- Schneider Electric (Uni-TE, Modbus)
- Third-party: Mitsubishi Electric, Omron, Allen-Bradley and Siemens

Depending on the model, they can be connected to Ethernet TCP/IP networks using:

- A Modbus TCP protocol
- An Ethernet TCP/IP protocol
- or a third party protocol

USB accessories for HMI panels

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 be easily installed and operated with HMI panels.

The Harmony USB accessories supported by Mageis GTO include:

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

For more information, please refer to HMI USB Accessories catalog [DIA5ED2130901EN](#).

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Functions

Standard HMI panels 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, 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
- Multiwindow management
- Operator-initiated page calls
- Multilingual application management (10 languages at the same time)
- Recipe management
- Data processing via Java script
- Storage of the application and logs on external application memory card in SD format or USB stick
- Management of serial printer

Architectures and communication

The Harmony GTO range is perfectly integrated in the EcoStruxure Machine (1) automation solutions offer, which helps machine manufacturers (OEMs) to quickly design optimized machines (in terms of cost and energy efficiency).

EcoStruxure Machine solutions are based on high performance control platforms and a single software package: SoMachine and EcoStruxure Machine Expert. SoMachine and EcoStruxure Machine Expert allows the development, commissioning and programming of machines. SoMachine version 3.1 allows programming of panels in the Harmony GTO range using Vijeo Designer software.

Standard HMI panels have been designed for EcoStruxure Plant (1) and EcoStruxure Machine (1) architectures as well as for Transparent Ready equipment (combination of Web and Ethernet TCP/IP technologies). Therefore, all panels with an Ethernet port feature a built-in FTP server for data file transfer and a Web Gate function for remote access to the application of the panel from a PC with an Internet browser.

Vijeo Designer also allows Harmony GTO panels to browse HTML pages and send e-mails.

(1) For more information on the EcoStruxure Plant and EcoStruxure Machine concept, please refer to our website www.schneider-electric.com/Solutions/EcoStruxure Plant and Machine.



SoMachine software platform



EcoStruxure Machine Expert

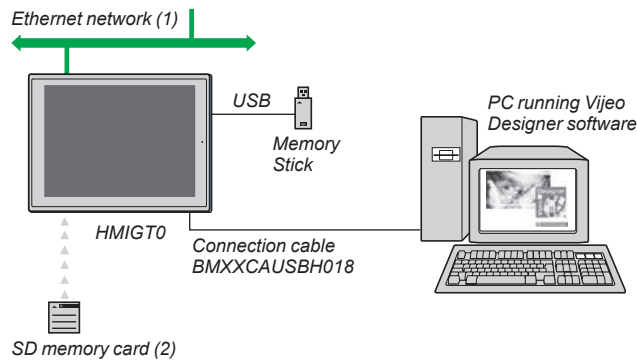


Vijeo Designer configuration software

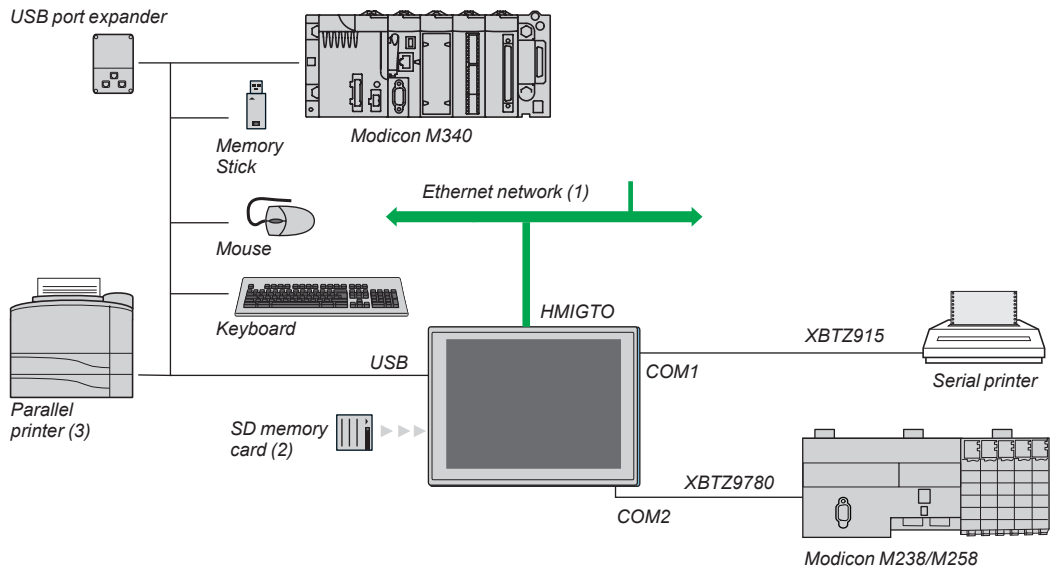
Panel operating modes

The following illustrations show the equipment that can be connected to Harmony GTO panels according to their two operating modes.

Edit mode



Operating mode



- (1) With **HMIGTO●●1●**.
- (2) Memory card, except HMIGTO 1300/1310/2300.
- (3) Validated with Hewlett Packard printer via USB/PIO converter.

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Panels with 5.7" touch screen, standard and Stainless Steel version

Front

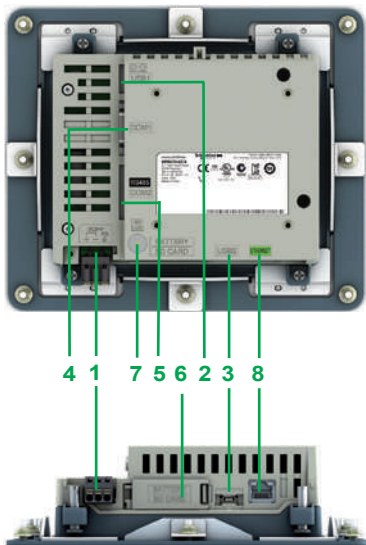


2 1



3 2 1

Rear HMIGTO2315



4 1 7 5 6 2 3 8

Underside HMIGTO2315

Description

Harmony HMIGTO 2300/2310 (standard version) and HMIGTO2315 (Stainless Steel version)

HMIGTO2300 and HMIGTO2310 panels have the following features on the front:

- 1 A touch screen for displaying synoptic views (5.7" color TFT)
- 2 A multicolor indicator (green, orange and red) showing the panel's operating mode

The HMIGTO2315 panel has the following features on the front:

- 1 A touch screen for displaying synoptic views (5.7" color TFT)
- 2 A multicolor indicator (green, orange and red) showing the panel's operating mode
- 3 A Stainless Steel frame, for food & beverage environments. Only this product provides IP 66K degree of protection

All 3 of these panels have the following features on the rear and underside:

- 1 A removable screw terminal block for 24 V $\bar{\square}$ power supply
- 2 A type A USB host connector for connecting peripherals, transferring applications and Modicon M340 terminal port communication
- 3 A mini-B USB connector for application transfer
- 4 A 9-way male SUB-D connector for RS 232C serial link to PLCs (COM1)
- 5 An RJ45 connector for RS 485 serial link (COM2)

On HMIGTO2310 and HMIGTO2315 only:

- 6 A slot for SD memory card, with hinged cover
- 7 LED indicating presence of the SD memory card
- 8 An RJ45 connector for Ethernet TCP/IP link, 10BASE-T/100BASE-TX

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Panels with 7.0" Wide and 7.5" touch screen

Front



Description

Harmony Standard HMI panels HMIGTO 3510/4310

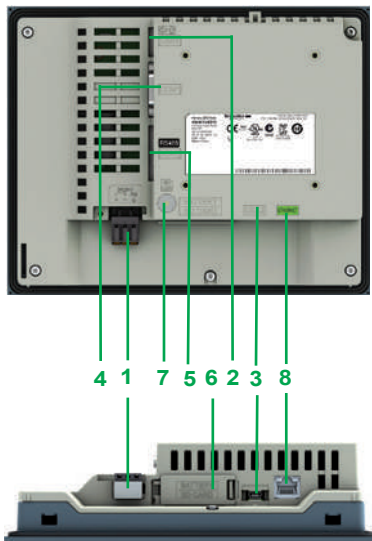
The HMIGTO3510 panel has the following features on the front:

- 1 A touch screen for displaying synoptic views (7.0" Wide color TFT)
- 2 A multicolor indicator (green, orange and red) showing the panel's operating mode
- 3 Eight function keys (F1, F2, F3, F4, F5, F6, F7 and F8)

The HMIGTO4310 panel has the following features on the front:

- 1 A touch screen for displaying synoptic views (7.5" color TFT)
- 2 A multicolor indicator (green, orange and red) showing the panel's operating mode

Rear



Underside

Both panels have the following features on the rear and underside:

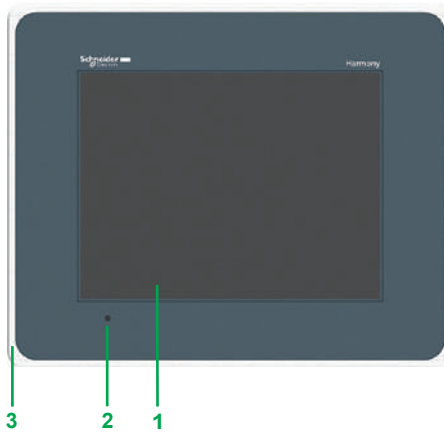
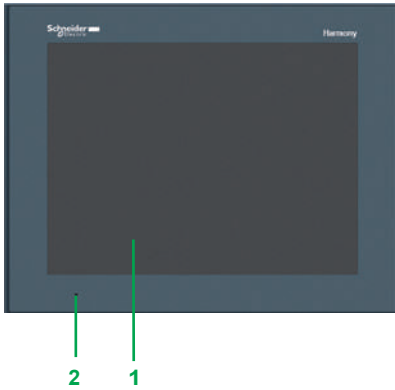
- 1 A removable screw terminal block for 24 V $\bar{\text{---}}$ power supply
- 2 A type A USB host connector for connecting peripherals, transferring applications and Modicon M340 terminal port communication
- 3 A mini-B USB connector for application transfer
- 4 A 9-way male SUB-D connector for RS 232C serial link to PLCs (COM1)
- 5 An RJ45 connector for RS 485 serial link (COM2)
- 6 A slot for SD memory card, with hinged cover
- 7 LED indicating presence of the SD memory card
- 8 An RJ45 connector for Ethernet TCP/IP link, 10BASE-T/100BASE-TX with an activity LED

Harmony GTO

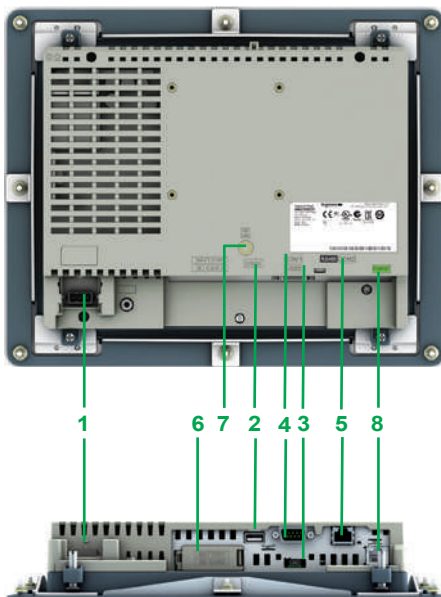
Standard and stainless HMI panels with 3.5" to 12.1" screen

Panels with 10.4" touch screen, standard and Stainless Steel version

Front



Rear



Underside

Description

Harmony panels HMIGTO5310 (standard version) and HMIGTO5315 (Stainless Steel version)

The HMIGTO5310 panel has the following features on the front:

- 1 A touch screen for displaying synoptic views (10.4" color TFT)
- 2 A multicolor indicator (green, orange and red) showing the panel's operating mode

The HMIGTO5315 panel has the following features on the front:

- 1 A touch screen for displaying synoptic views (10.4" color TFT)
- 2 A multicolor indicator (green, orange and red) showing the panel's operating mode
- 3 A Stainless Steel frame, for food & beverage environments. Only this product provides IP 66K degree of protection

Both panels have the following features on the rear and underside:

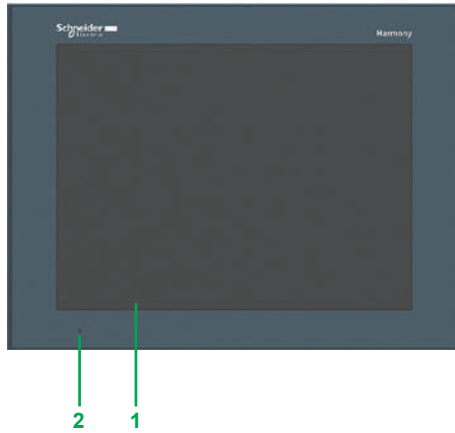
- 1 A removable screw terminal block for the 24 V $\bar{\bar{}}$ power supply
- 2 A type A USB host connector for connecting peripherals, transferring applications and Modicon M340 terminal port communication
- 3 A mini-B USB connector for application transfer
- 4 A 9-way male SUB-D connector for RS 232C serial link to PLCs (COM1)
- 5 An RJ45 connector for RS 485 serial link (COM2)
- 6 A slot for SD memory card, with hinged cover
- 7 LED indicating presence of the SD memory card
- 8 An RJ45 connector for Ethernet TCP/IP link, 10BASE-T/100BASE-TX with an activity LED

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Panels with 12.1" touch screen, standard and Stainless Steel version

Front

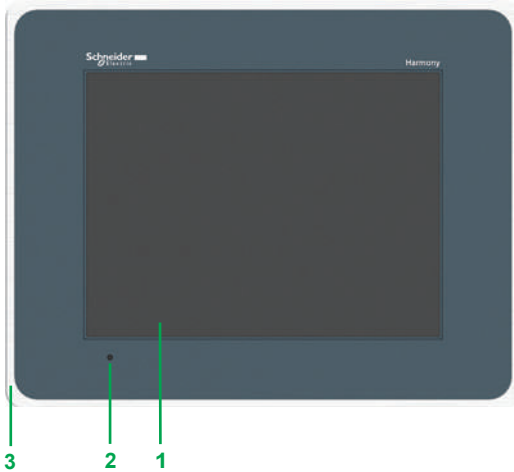


Description

Harmony panels HMIGTO6310 (standard version) and HMIGTO6315 (Stainless Steel version)

The HMIGTO6310 panel has the following features on the front:

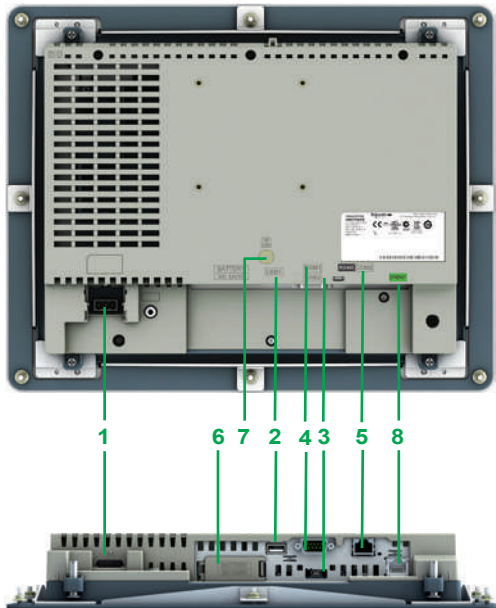
- 1 A touch screen for displaying synoptic views (12.1" color TFT)
- 2 A multicolor indicator (green, orange and red) showing the panel's operating mode



The HMIGTO6315 panel has the following features on the front:

- 1 A touch screen for displaying synoptic views (12.1" color TFT)
- 2 A multicolor indicator (green, orange and red) showing the panel's operating mode
- 3 A Stainless Steel frame, for food & beverage environments. Only this product provides IP 66K degree of protection

Rear



Both panels have the following features on the rear and underside:

- 1 A removable screw terminal block for the 24 V $\overline{\text{DC}}$ power supply
- 2 A type A USB host connector for connecting peripherals, transferring applications and Modicon M340 terminal port communication
- 3 A mini-B USB connector for application transfer
- 4 A 9-way male SUB-D connector for RS 232C serial link to PLCs (COM1)
- 5 An RJ45 connector for RS 485 serial link (COM2)
- 6 A slot for SD memory card, with hinged cover
- 7 LED indicating presence of the SD memory card
- 8 An RJ45 connector for Ethernet TCP/IP link, 10BASE-T/100BASE-TX with an activity LED

Underside

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Panels with 3.5" to 12.1" touch screen



Harmony GTO 24 V DC panels with color touch screen, standard version (1)

Data entry method	Number of ports	Application memory capacity	Memory expansion by SD card	Serial link	Embedded Ethernet	Reference	Weight kg
3.5" QVGA TFT LCD screen, 320 x 240 pixels							
Via touch screen + 6 function keys	2 USB	64 MB	No	1 COM 1 1 COM 2	–	HMIGTO1300	0.400
	2 USB	96 MB	No	1 COM 1	1	HMIGTO1310	0.400



5.7" QVGA TFT LCD screen, 320 x 240 pixels

Via touch screen	2 USB	64 MB	No	1 COM 1 1 COM 2	–	HMIGTO2300	0.800
	2 USB	96 MB	Yes (2)	1 COM 1 1 COM 2	1	HMIGTO2310	0.800



7.0" WVGA (Wide) TFT LCD screen, 800 x 480 pixels

Via touch screen + 8 function keys	2 USB	96 MB	Yes (2)	1 COM 1 1 COM 2	1	HMIGTO3510	1.200
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7.5" VGA TFT LCD screen, 640 x 480 pixels

Via touch screen	2 USB	96 MB	Yes (2)	1 COM 1 1 COM 2	1	HMIGTO4310	1.200
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10.4" VGA TFT LCD screen, 640 x 480 pixels

Via touch screen	2 USB	96 MB	Yes (2)	1 COM 1 1 COM 2	1	HMIGTO5310	2.000
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Harmony GTO 24 V DC panels with color touch screen, Stainless Steel version (1) (3)

Data entry method	Number of ports	Application memory capacity	Memory expansion by SD card	Serial link	Embedded Ethernet	Reference	Weight kg
5.7" QVGA screen, 320 x 240 pixels, with Stainless Steel frame (IP 66K)							
Via touch screen	2 USB	96 MB	Yes (2)	1 COM 1 1 COM 2	1	HMIGTO2315	1.200



10.4" VGA screen, 640 x 480 pixels, with Stainless Steel frame (IP 66K)

Via touch screen	2 USB	96 MB	Yes (2)	1 COM 1 1 COM 2	1	HMIGTO5315	2.500
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12.1" SVGA screen, 800 x 600 pixels, with Stainless Steel frame (IP 66K)

Via touch screen	2 USB	96 MB	Yes (2)	1 COM 1 1 COM 2	1	HMIGTO6315	3.000
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(1) Panels supplied with fixing kit (screw clips), locking device for USB connectors and instruction sheet. Setup documentation for Harmony GTO panels is included in electronic format with Vijeo Designer configuration software. For more information, refer to Vijeo Designer catalog [DIA5ED2130614EN](#).

(2) Memory expansion possible with 4 GB SD card **HMIZSD4G**, see accessories [page 14](#).

(3) The Stainless Steel version includes a front with Stainless Steel frame. Only this version provides IP 66K degree of protection.

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Separate parts for Harmony GTO

Separate components

Description	Characteristics	Compatible with panels	Reference	Weight kg
SD memory card	4 GB, blank	HMIGTO	HMIZSD4G	–
Protective sheets (5 peel-off sheets)	–	HMIGTO1300/1310	HMIZG60	–
		HMIGTO2300/2310/2315	HMIZG62	–
		HMIGTO3510	HMIZG63	–
		HMIGTO4310	HMIZG64	–
		HMIGTO5310/5315	HMIZG65	–
Plastic covers for harsh environments (IP 67 protection)	–	HMIGTO1300/1310	HMIZECOV1	–
		HMIGTO2300/2310	HMIZECOV2	–
		HMIGTO3510/4310	HMIZECOV4	–
		HMIGTO5310	HMIZECOV5	–
		HMIGTO6310	HMIZECOV6	–

Description	Description	Length m.	Reference	Weight kg
Mechanical adaptors for substitution of panels of the Harmony range	From XBTGT5230 to HMIGTO5310	–	XBTZGCO4	–



XBTZGCO●

Remote USB port for HMIGTO	Enables the USB mini-B port to be located remotely on the rear of the XB Tor HMIGTO panel on a panel or enclosure door (Ø 21 mm fixing device)	1	XBTZGUSBB	–
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XBTZGUSB

Remote USB port for HMIGTO	Enables the USB mini-B port to be located remotely on the rear of the HMIGTO panel, on a panel or enclosure door (Ø 21 mm fixing device)	1	HMIZSUSBB	–
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Spare parts

Description	For use with panels	Reference	Weight kg
Seals	HMIGTO1300/1310	HMIZG51	–
	HMIGTO2300/2310	HMIZG52	–
	HMIGTO2315	HMIZG522	–
	HMIGTO3510/4310	HMIZG54	–
	HMIGTO5310	HMIZG55	–
	HMIGTO5315	HMIZG552	–
	HMIGTO6310	HMIZG56	–
	HMIGTO6315	HMIZG562	–
USB fastenings Sold in lots of 5	HMIGTO (USB type A)	HMIZGCLP1	–
	HMIGTO (USB type mini-B)	HMIZSCLP3	–
Fixing kit	4 clips and screws (max. tightening torque: 0.5 Nm), supplied with all HMIGTO●●●0 panels	HMIZGFIX	0.030
	8 nuts and 4 L-shaped brackets, supplied with all HMIGTO●●●5 panels	HMIZGFIX2	0.030
Power supply connector Sold in lots of 5	HMIGTO (direct connection)	HMIZGPWS	0.030
	HMIGTO (right angle connection)	HMIZGPWS2	0.030
Sheets of customizable labels for HMIGTO	HMIGTO1300/1310	HMIZLYGO1	–
	HMIGTO3510	HMIZLYGO3	–
Battery	HMIGTO except HMIGTO1300/1310/2300	HMIZGBAT	–

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Replacement parts for Harmony GTO

Cables for application transfer - Panel to PC

Type of panel (terminal end connector)	Connector (PC end)	Type	Length m	Reference (1)	Weight kg
HMIGTO	USB	USB	1.80	BMXXCAUSBH018	–

Printer connection cables

Type of printer (2)	Connector (printer end)	Type	Length m	Reference	Weight kg
HMIGTO panels (except HMIGTO1310)	SUB-D female 25-way	RS-232C (COM1)	2.5	XBTZ915	0.200
Serial printer for HMIGTO panels	USB	RS-232C (COM1)	1.80	HMIZURS	–

Adaptors and isolation boxes for HMIGTO panels

These 3 adaptors are used with the connection cables depending on the application concerned. For example, the XBTZ968 cable is used with the XBTZG909 adaptor, to connect a Twido controller (via its terminal port) to an XBTGT2●●0 panel (via its COM1 port).

Description	Type of connector (automation product end)	Physical link (XBTor HMIGTO panel end)	Length m	Reference	Weight kg
Adaptor for HMIGTO	25-way SUB-D connector	RJ45 connector	0.2	XBTZG939	–
Adaptors for HMIGTO (COM1 port)	25-way SUB-D connector	9-way SUB-D connector, RS-232C	0.2	XBTZG919	–

Description	For use with	Link to isolate	Reference	Weight kg
Serial link isolation units for HMIGTO	<ul style="list-style-type: none"> - Isolated link on 9-way SUB-D connector (3) - Box power supply via USB port of terminal. Incorporates a USB port expander.	RS-232C/RS-485 (COM1)	XBTZGI232	–
		RS-485 (COM2)	XBTZGI485	–



XBTZGI485

(1) Cable included (depending on model) with Vijeo Designer software packages. For more information, refer to Vijeo Designer catalog [DIA5ED2130614EN](#).

(2) Parallel printer (see [page 7](#)).

(3) Male connector with [XBTZGI232](#), female connector with [XBTZGI485](#).

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Connection accessories for Harmony GTO

Cables for connecting Harmony panels to other Schneider Electric products

Automation product type	Type of connector (automation product end)	Protocol	Type of panel	Link	On port	Length m	Reference	Weight kg
Modicon TSX Micro, Modicon Premium	Terminal port, 8-way female mini-DIN	Uni-TE (V1/V2), Modbus	HMIGTO	RS-485	COM1	2.5	XBTZ9780	0.180
					COM2	10	XBTZ9782	–
			HMIGTO	RS-232	COM1	2.5	TSXPCX1031	–
Modicon M340 Modicon M238 Modicon M258	RJ45	Modbus	HMIGTO	RS-485	COM1	2.5	XBTZ9980	0.230
					COM2	10	XBTZ9982	–
	USB Mini-B	Terminal port	HMIGTO	USB	USB type A	1.8	BMXXCAUSBH018	0.230
						4.5	BMXXCAUSBH045	–
Modicon Quantum	9-way male SUB-D	Modbus	HMIGTO	RS-232C	COM1	2.5	XBTZ9710 + (1)	0.210
						3.7	990NAA26320	0.290
Modicon STB	HE13 (NIM, network interface module)	Modbus	HMIGTO	RS-232C	COM1	2	STBXCA4002	0.210
						2.5	XBTZ988 + (1)	0.220
Modicon Momentum M1	RJ45 (port 1 on Momentum M1)	Modbus	HMIGTO	RS-232C	COM1	2.5	XBTZ9711 + (1)	0.210
TeSys U, T starters ATV 312/61/71 variable speed drives ATS 48 starters Lexium 05 Preventa XPSMC	RJ45	Modbus	HMIGTO	RS-485	COM1 COM2	3	VW3A8306R30	0.060
						2.5	XBTZ9980	–
						10	XBTZ9982	–

(1) Adaptor [XBTZG919](#) to be used with cables with “ + (1) ” after the reference.



TSXPCX1031

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Connection accessories for Harmony GTO

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

Mitsubishi, Melsec PLCs

Description Driver used	Type of panel	Type of connector (fitted to cable, excluding adaptor)	Physical link (COM1)	Length m	Reference	Weight kg
Connection cable, <i>Q Link (SIO)</i>	HMIGTO	9-way SUB-D 9-way SUB-D	RS-232C	5	XBTZG9772	–
Connection cable, <i>Q CPU (SIO)</i>	HMIGTO	9-way SUB-D mini-DIN	RS-232C	5	XBTZG9774	–
Connection cable, <i>A Link (SIO)</i>	HMIGTO	9-way SUB-D 25-way SUB-D	RS-232C	5	XBTZG9731	–



XBTZG9772



XBTZG9731

Omron, Sysmac PLCs

Description Driver used	Type of panel	Type of connector (fitted to cable, excluding adaptor)	Physical link (COM1)	Length m	Reference	Weight kg
Connection cables, <i>Link (SIO)</i>	HMIGTO	9-way SUB-D 9-way SUB-D	RS-232C	5	XBTZG9740	–
		9-way SUB-D 25-way SUB-D	RS-232C	5	XBTZG9731	–
Connecting cables <i>FINS (SIO)</i>	HMIGTO	9-way SUB-D 9-way SUB-D	RS-232C	5	XBTZG9740	–

Rockwell Automation, Allen-Bradley PLCs

Description Driver used	Type of panel	Type of connector (fitted to cable, excluding adaptor)	Physical link (COM1)	Length m	Reference	Weight kg
Connection cables <i>DF1 Full Duplex</i>	HMIGTO	9-way SUB-D 25-way SUB-D	RS-232C	5	XBTZG9731	–
Connection cables, <i>DH485</i>	HMIGTO	9-way SUB-D	RS-485	5	XBTZ9732 + (1)	–

Siemens, Simatic PLCs

Description Driver used	Type of panel	Type of connector (fitted to cable, excluding adaptor)	Physical link	Length m	Reference	Weight kg
Connection cable, <i>PPI, S7 200</i>	HMIGTO	RJ45/9-way SUB-D	RS-485 (COM2)	2.5	XBTZG9721	–
Connection cables, <i>MPI port, S7 300/400</i>	HMIGTO	9-way SUB-D 9-way SUB-D	RS-232C (COM1)	3	XBTZG9292	–
		RJ45/flying leads other end	RS-485 (2) (COM2)	3	VW3A8306D30	0.150
			RJ45/9-way SUB-D	RS-485 (2) (COM1)	2.5	XBTZG9721



XBTZG9731

(1) Adaptor [XBTZG939](#) to be used with cables with " + (1) " after the reference (see [page 15](#)).

(2) Non-isolated RS-485 serial link, 12 Mbps

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Connection accessories for Harmony GTO

Connection of Harmony panels via serial links and Ethernet network

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



TSXSCA62



TSXPACC01



TSXSCA64



VW3A8306TF10

Connection of Harmony panels to fieldbuses

Type of bus/network	Connection components	Type of panel	Reference	Weight kg
FIPWAY, FIPIO	USB gateway	HMIGTO	TSXCUSBFIP	–
Modbus Plus	USB gateway	HMIGTO	XBTZGUMP	–

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Equivalent product table for Harmony GTO

Equivalent product table between XBTGT panels and HMIGTO panels		
Old range XBTGT	New range HMIGTO <i>Requires Vijeo Designer ≥ V6.1</i>	Mechanical adaptor
XBTGT1100	HMIGTO1300	–
XBTGT1130	HMIGTO1310	–
XBTGT1105	HMIGTO1300	–
XBTGT1135	HMIGTO1310	–
XBTGT1335	HMIGTO1310	–
XBTGT2110	HMIGTO2300	–
XBTGT2120	HMIGTO2310	–
XBTGT2130	HMIGTO2310	–
XBTGT2220	HMIGTO2310	–
XBTGT2330	HMIGTO2310	–
XBTGT4230	HMIGTO4310	–
XBTGT4330	HMIGTO4310	–
XBTGT5230	HMIGTO5310	XBTZGC04
XBTGT5330	HMIGTO5310	–
XBTGT6330	HMIGTO6310	–

Comments: when upgrading from the Harmony XBTrange to the Harmony GTO Standard range, the following parameters must be taken into account:

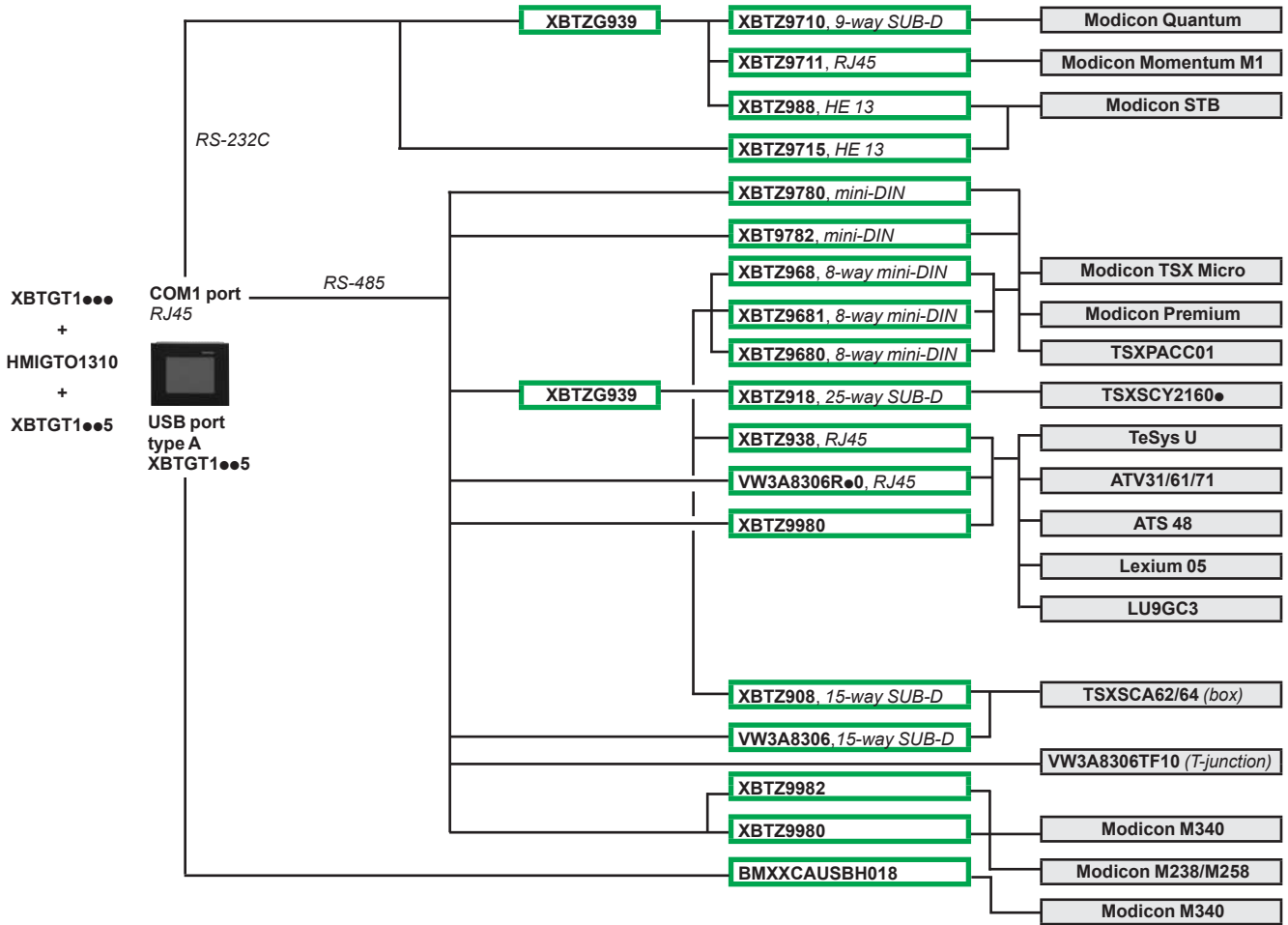
- connection to the Profibus DP and Device Net fieldbuses is not possible,
- a combined RS232/RS422 serial link is not possible with COM1,
- there is no "alarm" output or "loudspeaker" output in the current version of the Standard range.

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Connection system for Harmony GTO

XBTGT11●5 panels, HMIGTO1310 panels and Schneider Electric products

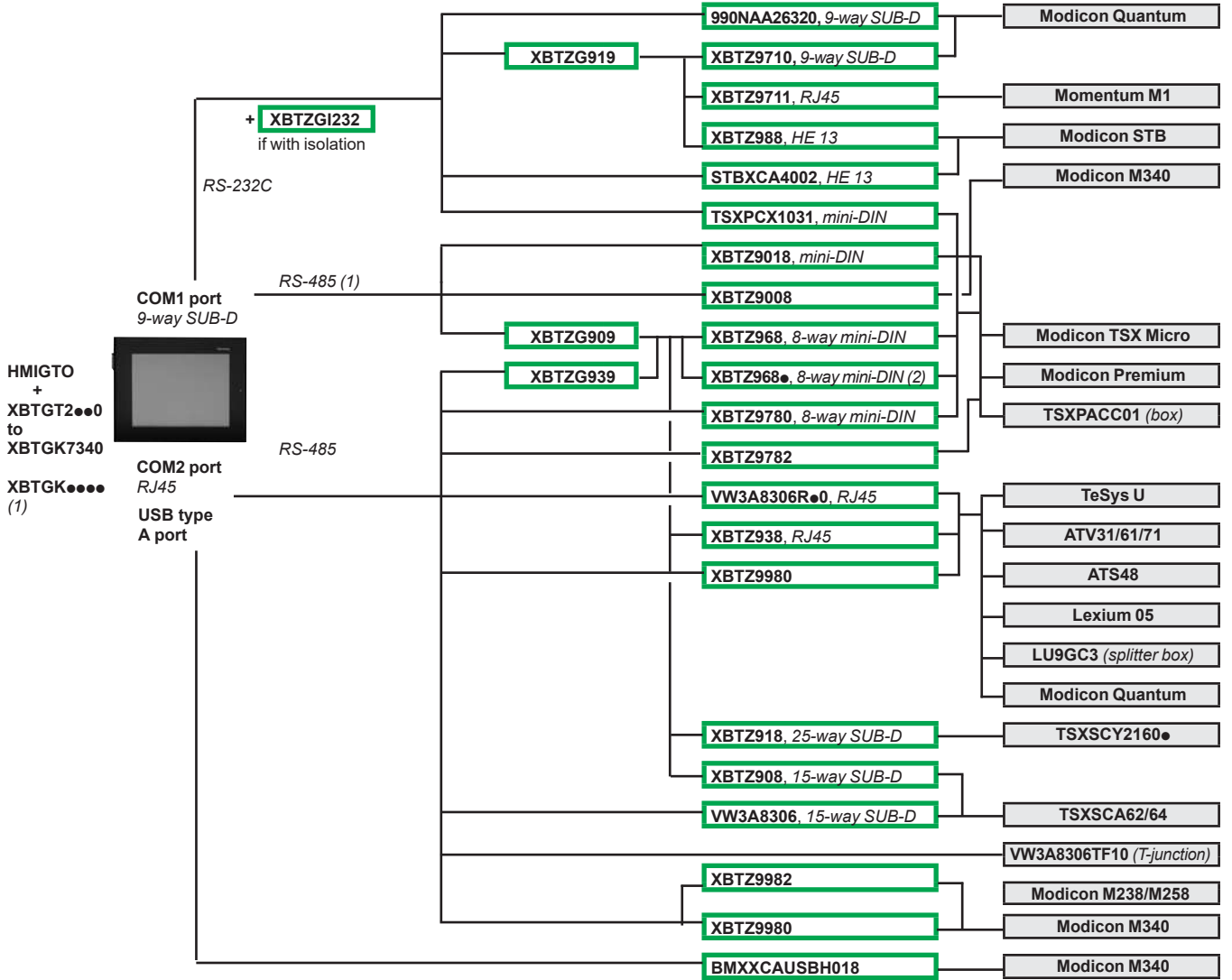


Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Connection system for Harmony GTO

XBTGT2●●0/GT7340/GK●●●● panels, HMIGTO panels (except HMIGTO1310) and Schneider Electric products



(1) RS-485 not available for HMIGTO (COM1).

(2) ● defines the length:

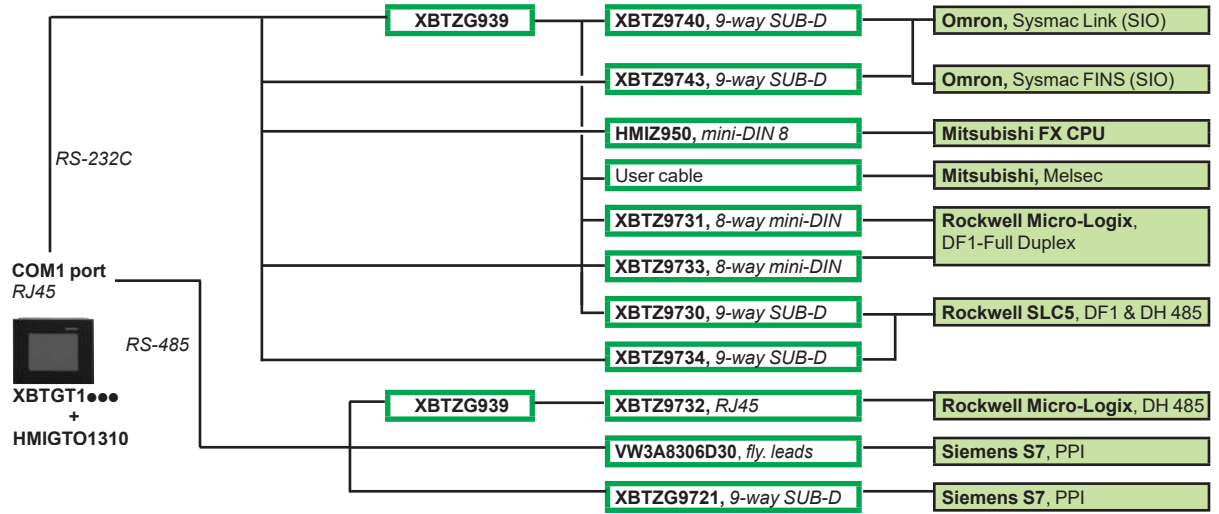
- 0, 2.5 m (elbowed connector)
- 1, 5 m
- 6, 16 m
- 7, 20 m
- 8, 25 m

Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

Connection system for Harmony GTO

XBTGT11●5 panels, HMIGTO1310 panels and third party PLCs

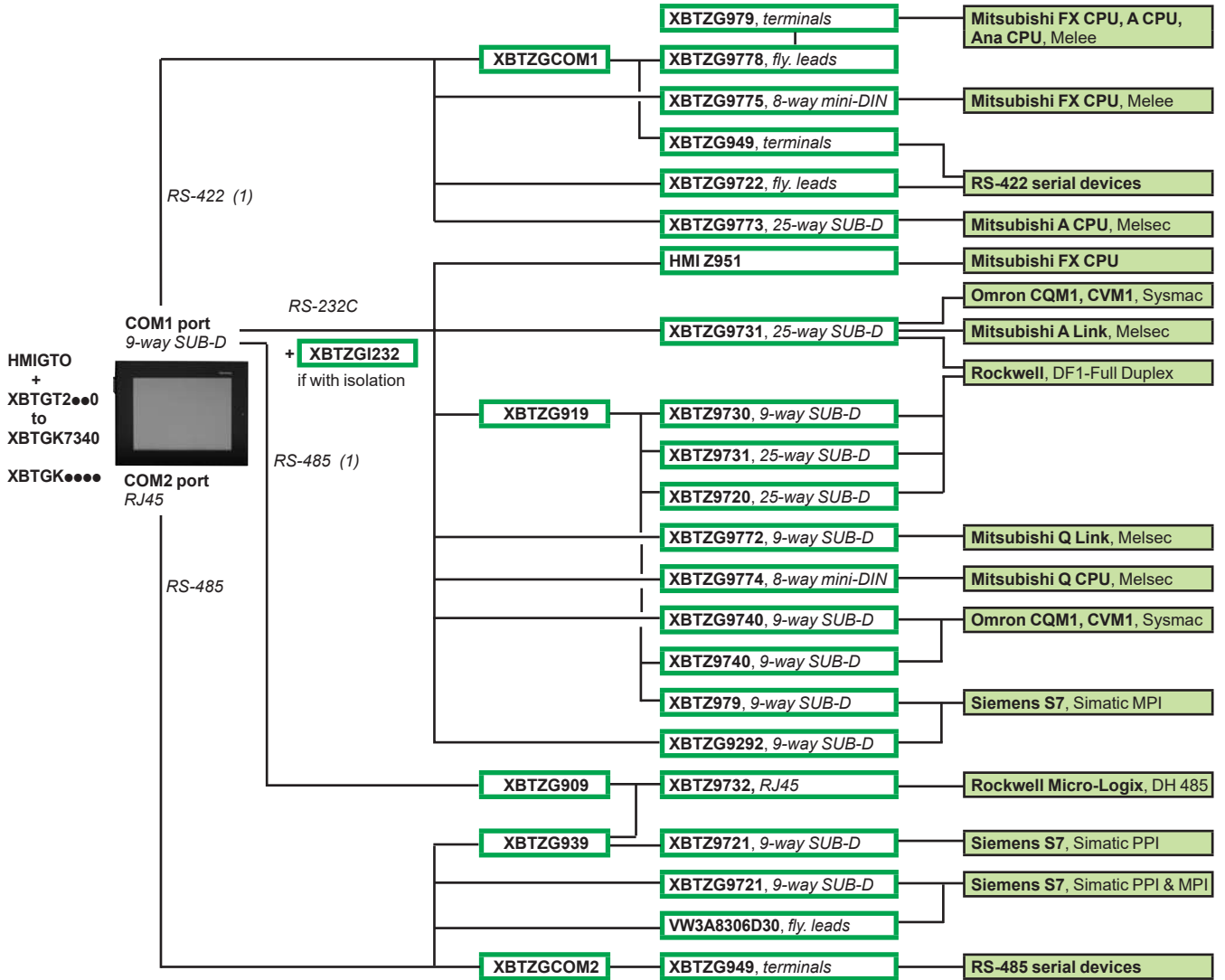


Harmony GTO

Standard and stainless HMI panels with 3.5" to 12.1" screen

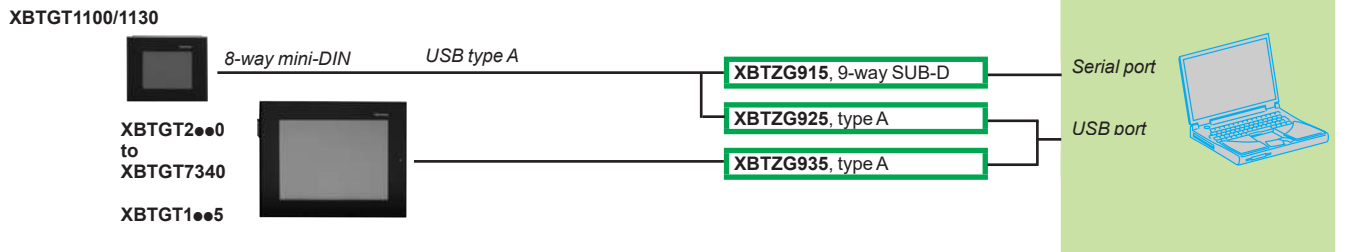
Connection system for Harmony GTO

XBTGT2●●0/GT7340/GK●●●● panels, HMIGTO panels (except HMIGTO1310) and third-party PLCs

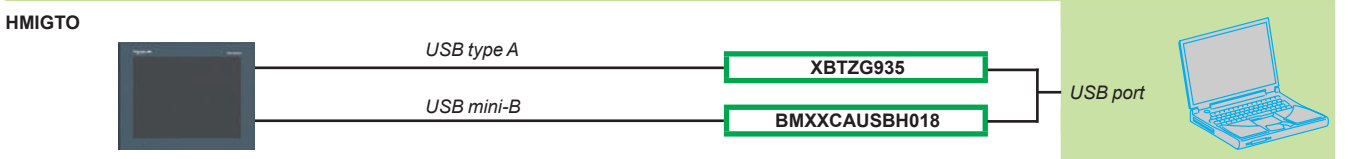


(1) RS-422 and RS-425 not available on HMIGTO (COM1).

Application transfer from XBTGT panels to PC



Application transfer from HMIGTO panels to PC



4	
490NTW00002	18
490NTW00005	18
490NTW00012	18
490NTW00040	18
490NTW00080	18
990NAA26320	16

B	
BMXXCAUSBH018	15
	16
BMXXCAUSBH045	16

H	
HMIGTO1300	13
HMIGTO1310	13
HMIGTO2300	13
HMIGTO2310	13
HMIGTO2315	13
HMIGTO3510	13
HMIGTO4310	13
HMIGTO5310	13
HMIGTO5315	13
HMIGTO6310	13
HMIGTO6315	13
HMIZECOV1	14
HMIZECOV2	14
HMIZECOV4	14
HMIZECOV5	14
HMIZECOV6	14
HMIZG51	14
HMIZG52	14
HMIZG54	14
HMIZG55	14
HMIZG56	14
HMIZG60	14
HMIZG62	14
HMIZG63	14
HMIZG64	14
HMIZG65	14
HMIZG66	14
HMIZG522	14
HMIZG552	14
HMIZG562	14
HMIZGBAT	14
HMIZGCLP1	14
HMIZGFIX	14
HMIZGFIX2	14
HMIZGPWS	14
HMIZGPWS2	14
HMIZLYGO1	14
HMIZLYGO3	14
HMIZSCLP3	14
HMIZSD4G	14
HMIZSUSBB	14
HMIZURS	15

S	
STBXCA4002	16

T	
TSXCUSBFIP	18
TSXPCX1031	16

V	
VW3A8306	18
VW3A8306D30	17
VW3A8306R30	16
VW3A8306TF10	18

X	
XBTZ915	15
XBTZ988	16
XBTZ9710	16
XBTZ9711	16
XBTZ9732	17
XBTZ9780	16
	18
XBTZ9782	16
XBTZ9980	16
XBTZ9982	16
XBTZG919	15
XBTZG939	15
XBTZG9292	17
XBTZG9721	17
XBTZG9731	17
XBTZG9740	17
XBTZG9772	17
XBTZG9774	17
XBTZGCO4	14
XBTZGI232	15
XBTZGI485	15
XBTZGUMP	18
XBTZGUSBB	14

Life Is On



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