

Human/Machine Interfaces

Magelis™ ST6 Basic HMI panels

Catalog

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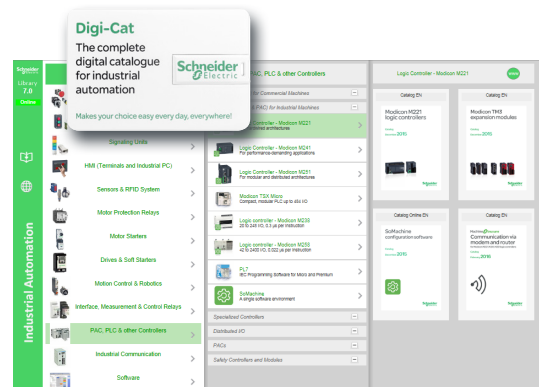
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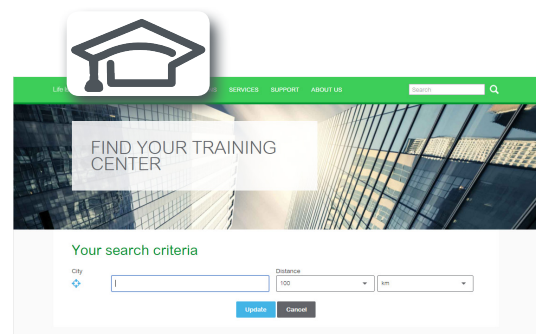
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Magelis™ ST6 Basic HMI panels

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Magelis ST6 Basic HMI panels

Magelis ST6 HMI panels range in size from 4" to 15" and combine exceptional quality with good graphics and stylish design. They offer an improved user experience through an attractive look and feel and intuitiveness powered by EcoStruxure Operator Terminal Expert software.



Magelis ST6 Basic HMI panels

EcoStruxure Machine brings together key technologies for product connectivity and on-premise edge control, and cloud technologies to provide analytics and digital services. EcoStruxure Machine helps you bring more innovation and added value to your customers throughout the entire machine life cycle.

The new Magelis ST6 range meets IIoT challenges at the Connected Products level, by providing secure communication, connectivity, and efficiency to the required software and applications at the Edge control level and thus opening up more business opportunities.



Refined hardware design

> A perfectly finished appearance : CNC machining, processing, and color coating like a smartphone gives it a high-grade finish



Visualization

> High-quality screen, high resolution with 16 M colors
> Improved graphics with truetype fonts, gradient, transparency, and anti-aliasing



Truetype fonts Gradient transparency Anti-aliasing

> Theme and color set for supporting situational awareness



Alarm mode

Day mode

Night mode

+ Attractive aesthetics and visualization for simple machines

Human Machine Interfaces

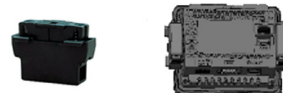
Magelis ST6 Basic HMI panels

Refined hardware design with improved visualization
Easy to use, connected and secure

Easy to install

> Quick mounting without screw driver

- Spring clip for 4" panel (1)



- Tool-free fastener for 7", 10", 12", and 15" panels



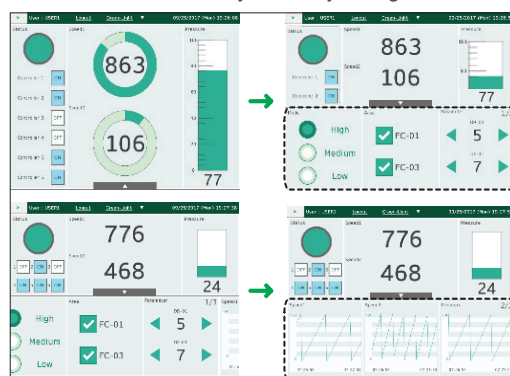
Easy to use

> With the Multi Screen function, more information can be displayed in a single screen



> With the Layout Objects (Dock Panel) function:

- Several pages can be embedded in one screen and users can navigate in each section independently
- Screens are automatically resized to fit the frame
- Frame sizes can be dynamically changed to show different content



> Electronic manual via QR code for easy in-field maintenance without PC or paper



Enhanced
Cybersecurity

Connected and secure

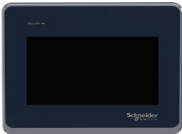
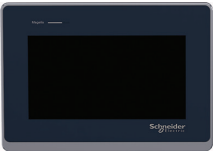
The offer is uniquely positioned in "Connected Products" within the EcoStruxure platform for enhanced cybersecurity.

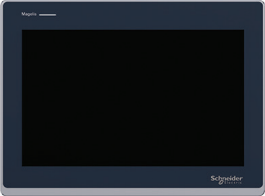
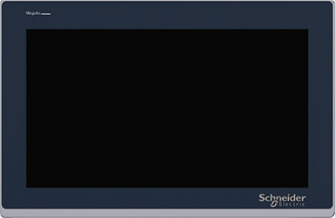
- > Require admin rights to download projects to HMI target <BuildTime>
- > Logging out OP user after predefined idle time <RunTime>
- > Performing security check during booting <CPU>

(1) This accessory has to be ordered separately.



Magelis ST6 → An HMI adapted for IIoT and cybersecurity

Applications		Display of text messages, graphic objects, and synoptic views Control and configuration of data	
Type of display module		Basic HMI panels	
		 	
Display	Touchscreen size	4.3"	7"
	Resolution (pixels)	480 x 272 pixels, 16 million colors	800 x 480 pixels (WVGA), 16 million colors
	Type	TFT Color LCD, single touch analogue resistive	
Degree of protection		IP65F, Type 1, Type 4X (indoor use only), Type 13 (on the front panel when properly installed in an enclosure)	
Functions	Brightness control	16 levels (adjusted with touch panel or software)	
	Backlight service life	50,000 hrs or more	
Memory	System memory	512 MB Flash EPROM	1 GB Flash EPROM
	Backup memory	512 KB NVRAM	
Dimensions	External W × H × D mm/in.	134.5 x 108.5 x 43 / 5.3 x 4.27 x 1.69	208 x 153 x 45 / 8.19 x 6.02 x 1.77
	Cut-out W × H mm/in.	118.5 x 92.5 / 4.67 x 3.64	190 x 135 / 7.48 x 5.31
Weight		0.4 kg / 0.88 lb	0.8 kg / 1.76 lb
Supply voltage		24 V $\overline{\text{---}}$	
Environment		Ambient air temperature 0...50 °C / 32...122 °F	
Communication	Asynchronous serial link	RS-232C/485 (COM1)	RS-232C (COM1), RS-485 (COM2)
	USB ports	1x USB 2.0 (Type A), 1x USB 2.0 Micro-B	
	Buses and networks	1x Ethernet TCP/IP (10BASE-T/100BASE-TX)	2x Ethernet TCP/IP (10BASE-T/100BASE-TX)
Conformity to standards		CE, UL, RCM, KC	
Operating system		Magelis (800 MHz ARM Cortex-A8 CPU)	
Development software		EcoStruxure Operator Terminal Expert	
Terminal reference		HMIST6200	HMIST6400
Pages		11	

Display of text messages, graphic objects, and synoptic views Control and configuration of data		
Basic HMI panels		
  		
10.1"	12.1"	15.6"
1,024 x 600 pixels (SVGA), 16 million colors	1,280 x 800 pixels (WXGA), 16 million colors	1,366 x 768 pixels (FWXGA), 16 million colors
TFT Color LCD, single-touch analog resistive		
IP65F, Type 1, Type 4X (indoor use only), Type 13 (on the front panel when properly installed in an enclosure)		
16 levels (adjusted with touch panel or software)		
50,000 hrs or more		
1 GB Flash EPROM		
512 KB NVRAM		
273 x 203 x 47 / 10.75 x 7.99 x 1.85	313 x 235 x 50 / 12.32 x 9.25 x 1.97	412 x 268 x 50 / 16.22 x 10.55 x 1.97
255 x 185 / 10.04 x 7.28	295 x 217 / 11.61 x 8.54	394 x 250 / 15.51 x 9.84
1.3 kg / 2.87 lb	1.8 kg / 3.97 lb	2.7 kg / 5.95 lb
24 V $\overline{\text{---}}$		
Ambient air temperature 0...50 °C / 32...122 °F		
RS-232C (COM1), RS-485 (COM2)	RS-232C (COM1), RS-485 (COM2)	RS-232C (COM1), RS-485 (COM2)
1x USB 2.0 (Type A), 1x USB 2.0 Micro-B		
2x Ethernet TCP/IP (10BASE-T/100BASE-TX)		
CE, UL, RCM, KC		
Magelis (800 MHz ARM Cortex-A8 CPU)		
EcoStruxure Operator Terminal Expert (1)		
HMIST6500	HMIST6600	HMIST6700
11		





Magelis HMIST6 color touchscreen terminals in 5 sizes from 4.3" to 15.6"

Presentation

Magelis ST6 Basic panels offer includes a range of color touchscreen terminals (TFT technology) available in 5 different sizes:

- 4.3"
- 7"
- 10.1"
- 12.1"
- 15.6"

Their efficiency, flexibility, connectivity, and security features makes them suitable for use in food and beverage, HVAC&R, pumping, and packaging applications.

Environment

The Magelis ST6 Basic panels range has been designed in accordance with numerous standards, certifications, and requirements:

■ Compliance standards:

- Europe:
 - Low Voltage Directive (2014/35/EU), EMC Directive (2014/30/EU), Programmable Controllers: EN 61131-2, EN 61000-6-4, EN 61000-6-2
- Australia:
 - RCM
 - EN 61000-6-4
- Korea
 - KC
 - KN 11
 - KN 61000-6-2

■ Agency certifications:

- Third-party certified standards: Underwriters Laboratories Inc., UL 61010-2-201 and CSA C22.2 No. 61010-2-201, Industrial Control Equipment

■ Operating temperature: up to 50 °C / 122 °F

- Degree of protection: IP65F, Type 1, Type 4X (indoor use only), Type 13 (on the front panel when properly installed in an enclosure)

■ Vibration resistance:

- IEC/EN 61131-2 compliant, 5...9 Hz single amplitude 3.5 mm / 0.14 in., 9...150 Hz fixed acceleration: 9.8 m/s², X, Y, Z directions for 10 cycles (approximately 100 minutes)

■ Shock resistance

- IEC/EN 61131-2 compliant, 147 m/s², X, Y, Z directions for 3 times

■ Electrical fast transient/burst

- IEC 61000-4-4
- 2 kV: Power port (display unit)
- 1 kV: Signal ports

■ Electrostatic discharge immunity

- Contact discharge method: 6 kV
- Air discharge method: 8 kV (IEC/EN 61000-4-2 Level 3)



EcoStruxure
Operator Terminal
Expert



Software functions

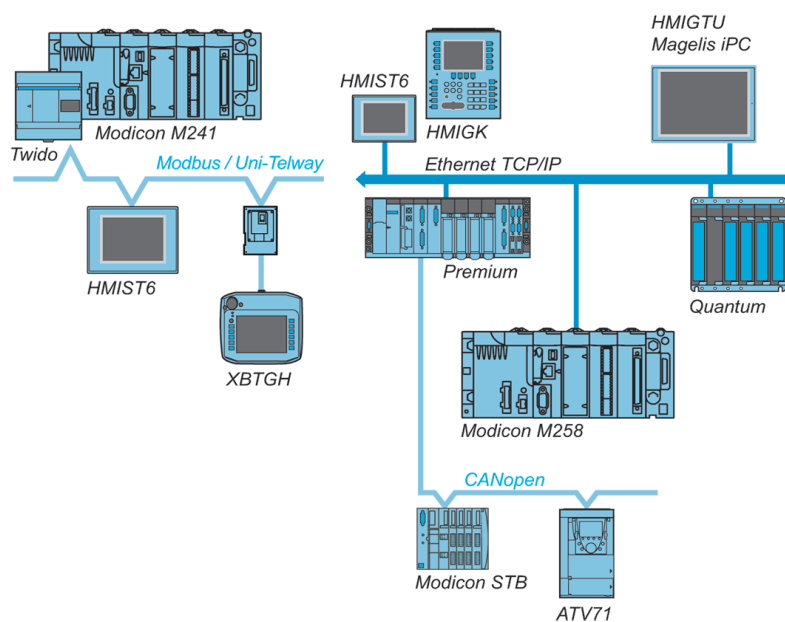
Magelis ST6 panels are configured using EcoStruxure Operator Terminal Expert software. This software and its user interface bring greater ease of use to project development and online updates. EcoStruxure Operator Terminal Expert allows you to create HMI applications with innovative navigation concept on Magelis ST6.

Magelis ST6 Basic HMI panels with EcoStruxure Operator Terminal Expert 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
- Multi-window
- Recipe management
- Multi-language support in the Build time editor (10 languages)
- Storage of the application logs on USB stick

For more information on EcoStruxure Operator Terminal Expert, please refer to the catalog available on our website www.schneider-electric.com.

Communication



Magelis ST6 Basic HMI panels communicate 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

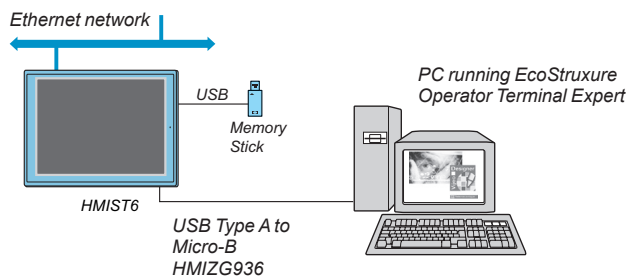
Depending on the model, they can be connected to Ethernet TCP/IP networks using one of the following:

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

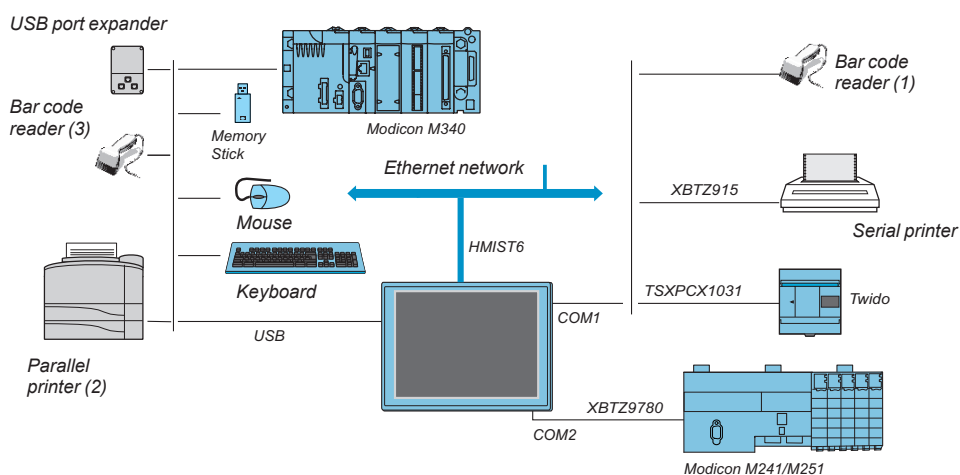
Panel operating modes

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

Edit mode

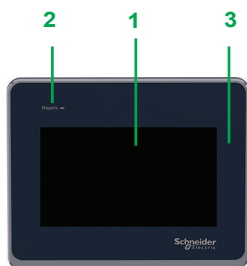


Operating mode

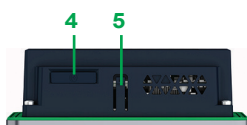


(1) Validated with DataLogic Gryphon bar code reader.

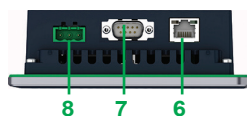
(2) Validated with Hewlett Packard printer via USB/PIO converter.



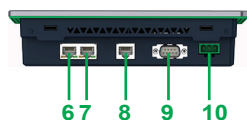
HMIST6 200/400 front view



HMIST6 200/400 top view



HMIST6200 underside view



HMIST6400 underside view



HMIST6 200/400 rear view

Description

Magelis HMIST6 200/400 Basic HMI panels

Front view

- 1 Single-touch resistive screen for displaying synoptic views
- 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

Magelis HMIST6 200/400 Basic HMI panels

Top view

- 4 Battery slot
- 5 Hook to hold panel in position during installation

Magelis HMIST6200 Basic HMI panels

Underside view

- 6 Ethernet interface (ETH1)
- 7 Serial interface (RJ45, RS-232C/485) (COM1)
- 8 Power plug connector

Magelis HMIST6400 Basic HMI panels

Underside view

- 6 Ethernet interface (ETH2)
- 7 Ethernet interface (ETH1)
- 8 Serial interface (RJ-45, RS-485) (COM2)
- 9 Serial interface (RS-232C) (COM1)
- 10 Power plug connector

Magelis HMIST6 200/400 Basic HMI panels

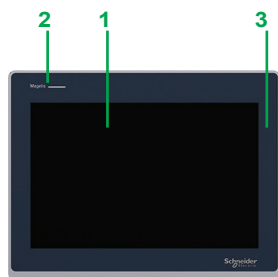
Rear view

- 11 USB (Type A) interface
- 12 USB (Micro-B) interface

Human Machine Interfaces

Magelis ST6 Basic HMI panels

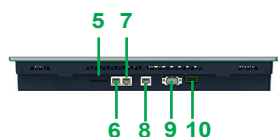
Panels with 10", 12", and 15" touchscreens



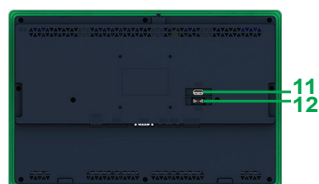
HMIST6 500/600/700 front view



HMIST6 500/600/700 top view



HMIST6 500/600/700 underside view



HMIST6 500/600/700 rear view

Description

Magelis HMIST6 500/600/700 Basic HMI panels

Front view

- 1 Single-touch resistive screen for displaying synoptic views
- 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

Magelis HMIST6 500/600/700 Basic HMI panels

Top view

- 4 Hook to hold panel in position during installation

Magelis HMIST6 500/600/700 Basic HMI panels

Underside view

- 5 Battery slot
- 6 Ethernet interface (ETH2)
- 7 Ethernet interface (ETH1)
- 8 Serial interface (RJ-45, RS-485) (COM2)
- 9 Serial interface (RS-232C) (COM1)
- 10 Power plug connector

Magelis HMIST6 500/600/700 Basic HMI panels

Rear view

- 11 USB (Type A) interface
- 12 USB (Micro-B) interface



HMIST6400



HMIST6700

Magelis ST6 Basic HMI panels

Data entry method	Size	Resolution (pixels)	Colors	Application memory	Number of ports	Reference	Weight kg/lb
Via touchscreen	4.3" W	480 x 272	16 million colors	512 MB (Flash EPROM)	2x USB 1x COM 1 1x Ethernet	HMIST6200	0.400 / 0.880
	7" W	800 x 480 WVGA	16 million colors	1 GB (Flash EPROM)	2x USB 1x COM 1 1x COM 2 2x Ethernet	HMIST6400	0.800 / 1.760
	10.1" W	1,024 x 600 WSVGA	16 million colors	1 GB (Flash EPROM)	2x USB 1x COM 1 1x COM 2 2x Ethernet	HMIST6500	1.300 / 2.870
	12.1" W	1,280 x 800 WXGA	16 million colors	1 GB (Flash EPROM)	2x USB 1x COM 1 1x COM 2 2x Ethernet	HMIST6600	1.800 / 3.970
	15.6" W	1,366 x 768 FWXGA	16 million colors	1 GB (Flash EPROM)	2x USB 1x COM 1 1x COM 2 2x Ethernet	HMIST6700	2.700 / 5.950

Accessories

Description	Characteristics	Length m/ft	Reference	Weight kg/lb
USB panel-mount extension cable	Extension cable for connecting USB interface to front panel	1/3.28	HMIZSUSBB2	

Separate parts (5 sheets/set)

Description	Characteristics	Compatible with terminals	Reference	Weight kg/lb
Screen protection sheet	Disposable, dirt-resistant sheet	HMIST6200	HMIZG60W	
	Disposable, dirt-resistant sheet	HMIST6400	HMIZG63W	
	Disposable, dirt-resistant sheet	HMIST6500	HMIZG65W1	
	Disposable, dirt-resistant sheet	HMIST6600	HMIZG66W	
	Disposable, dirt-resistant sheet	HMIST6700	HMIZG67W	
Spring clip	Fasteners to attach this product to the mounting surface	HMIST6200	XBZ3002	

Spare parts

Description	Characteristics	Compatible with terminals	Reference	Weight kg/lb
Installation fastener	Installation fastener	HMIST6200	HMIZSFIX1 (1)	
		HMIST6400	HMIZSFIXTF1 (2)	
		HMIST6500		
		HMIST6600		
		HMIST6700		
Installation gasket	Provides dust and moisture resistance when this product is installed in a solid panel	HMIST6200	HMIZS51W1	
		HMIST6400	HMIZS53W1	
		HMIST6500	HMIZS55W1	
		HMIST6600	HMIZS56W1	
		HMIST6700	HMIZS57W1	
DC power supply Connector	Connector to connect DC power supply cables	All terminals	XBZGPW1	
Replacement battery	Primary battery for time data backup	All terminals	HMIZSBA1	

(1) 2 pieces/set

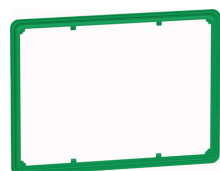
(2) 2 pieces/set for HMIST6400/HMIST6500/HMIST6600 and 3 pieces/set for HMIST6700



HMIZSFIX1

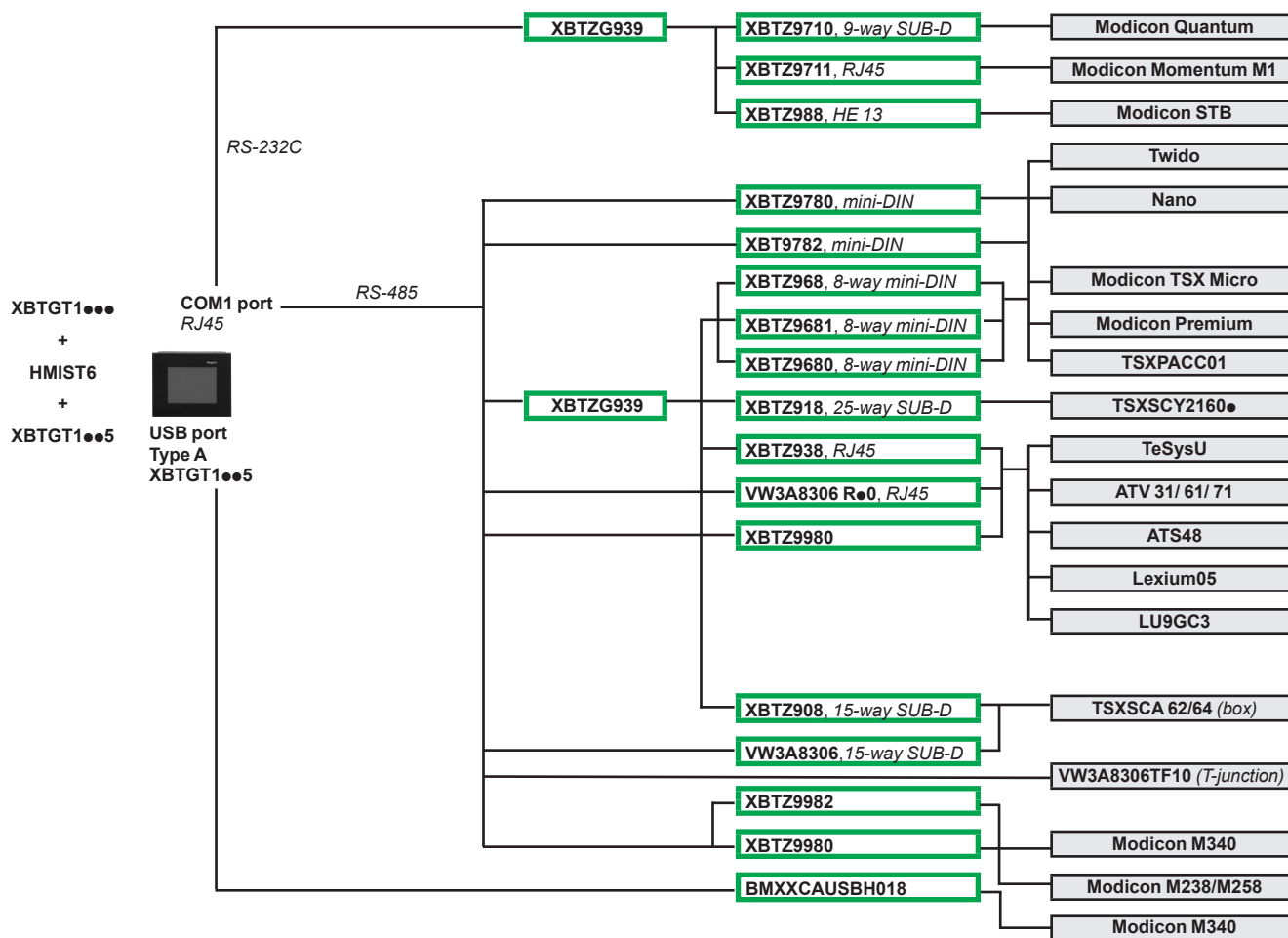


HMIZSFIXTF1

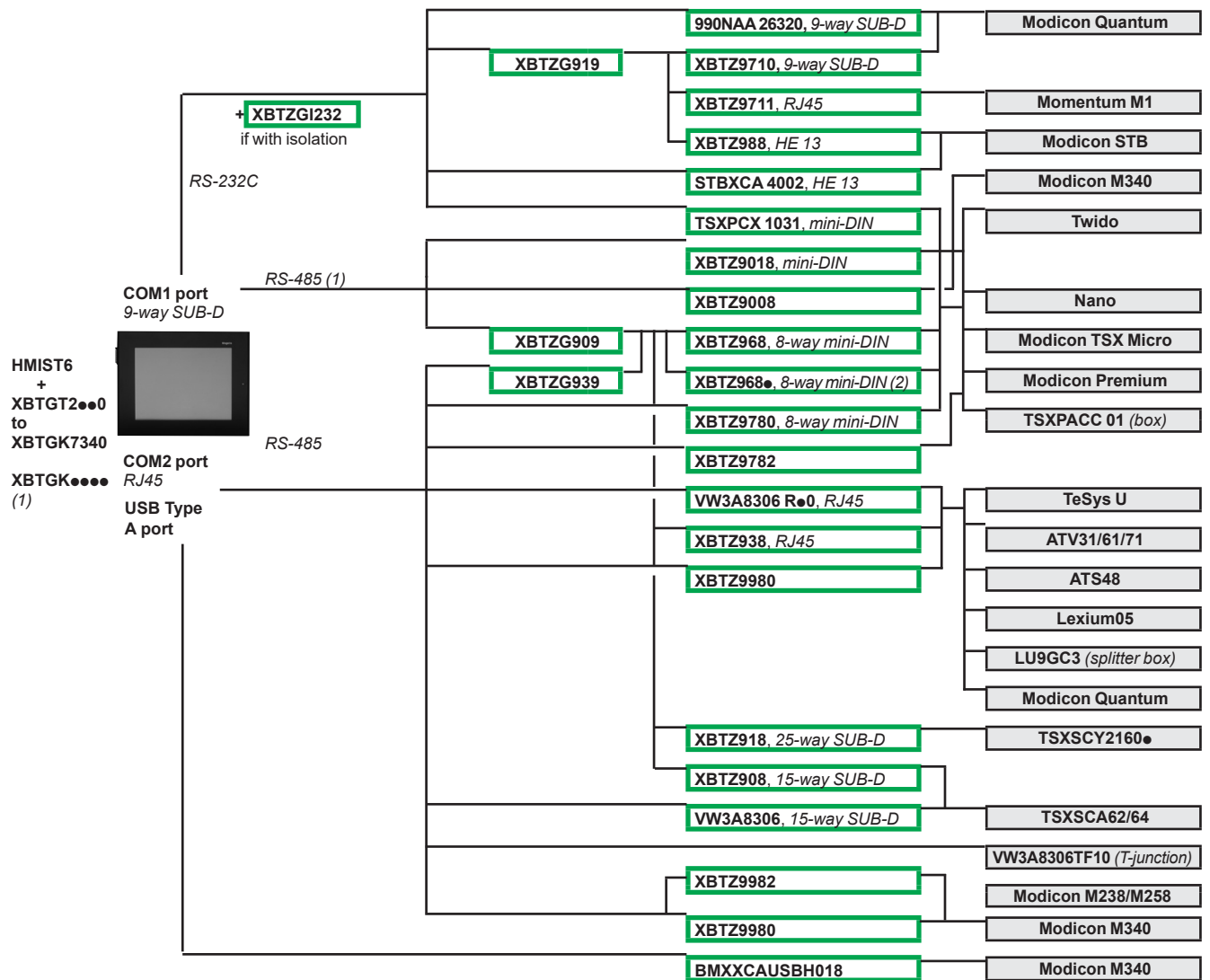


HMIZS53W1

XBTGT11●5 terminals, HMIST6 terminals, and Schneider Electric products



XBTGT2●●0/GT7340/GK●●●● terminals, HMIST6 terminals, and Schneider Electric products



(1) RS-485 not available for HMIST6 (COM1).

(2) ● defines the length:

- 0: 2.5 m / 8.2 ft (elbowed connector)

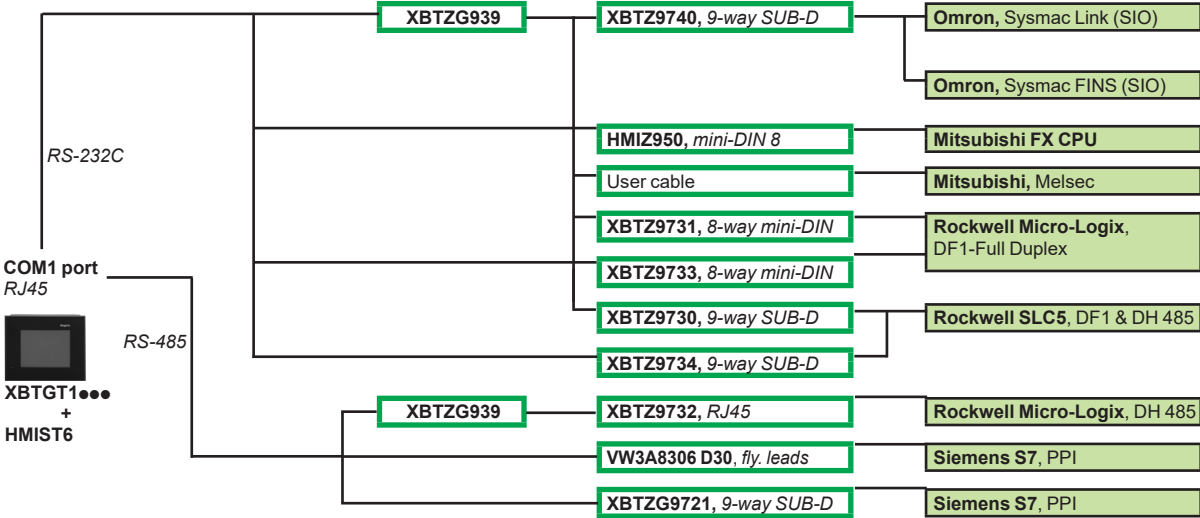
- 1: 5 m / 16.4 ft

- 6: 16 m / 52.5 ft

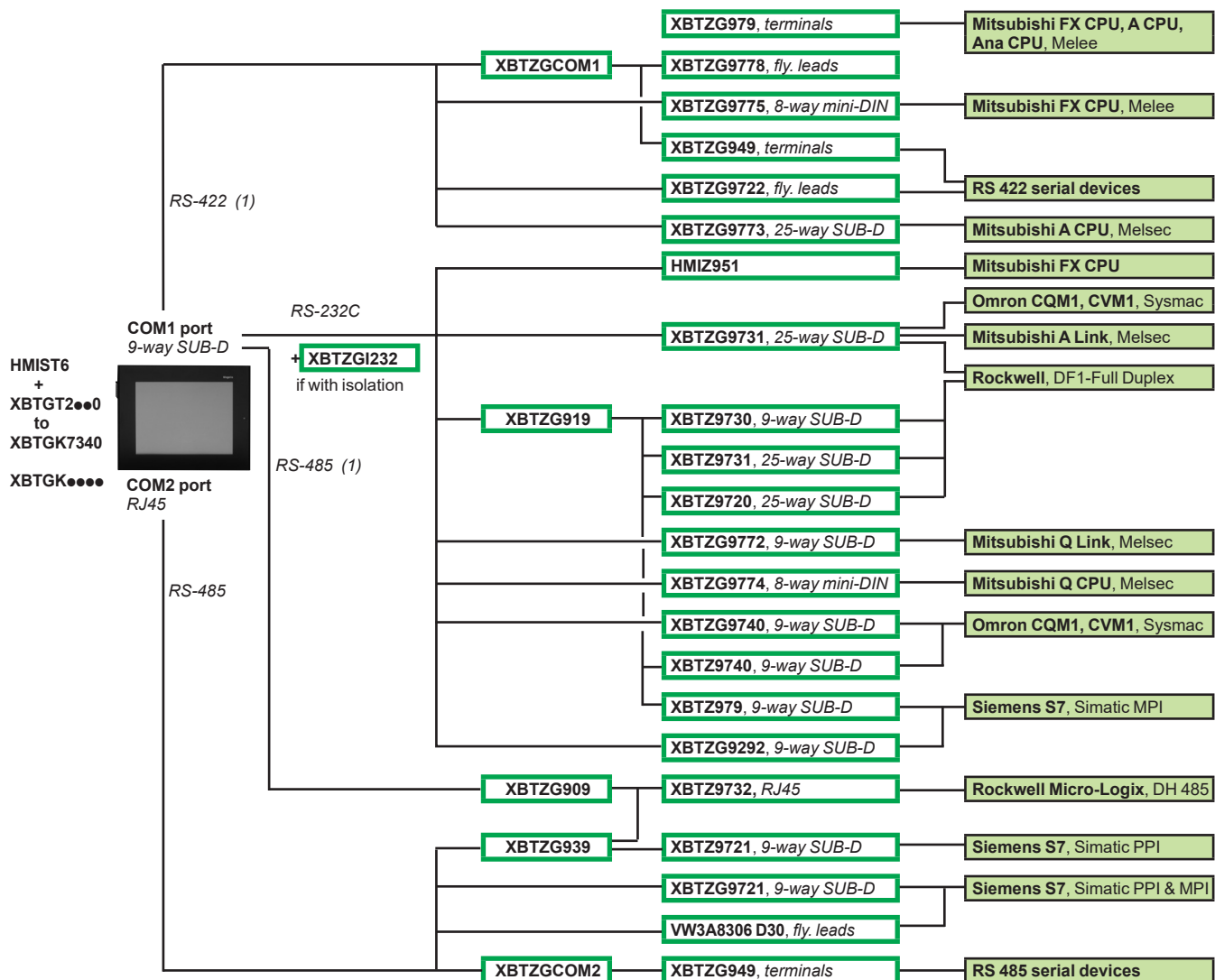
- 7: 20 m / 65.6 ft

- 8: 25 m / 82.0 ft

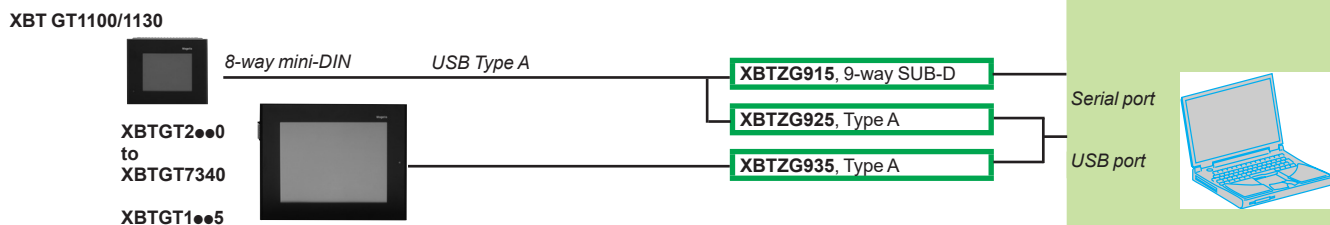
XBTGT11●5 terminals, HMIST6 terminals, and third-party PLCs



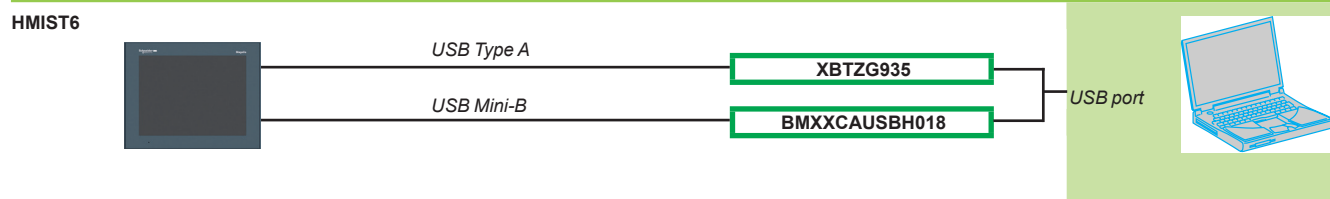
XBTGT2●●0/GT7340/GK●●●● terminals, HMIST6 terminals, and third-party PLCs



Application transfer from XBTGT terminals to PC



Application transfer from HMIST6 terminals to PC



(1) RS-422 and RS-425 not available on HMIST6 (COM1).

H	
HMIST6200	11
HMIST6400	11
HMIST6500	11
HMIST6600	11
HMIST6700	11
HMIZG60W	11
HMIZG63W	11
HMIZG65W1	11
HMIZG66W	11
HMIZG67W	11
HMIZS51W1	11
HMIZS53W1	11
HMIZS55W1	11
HMIZS56W1	11
HMIZS57W1	11
HMIZSBA1	11
HMIZSFIX1	11
HMIZSFIXTF1	11
HMIZSUSBB2	11
X	
XBTZ3002	11
XBTZGPW1	11



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