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Touch screen  
graphic terminals  
**Magelis XBT GT range**  
*A talented cast*  
for great cinema





# Touch screen graphic terminals Magelis XBT GT


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# Operator dialogue terminals

## Magelis graphic terminals

<b>Applications</b>		Display of text messages and graphic objects Control and parametering of data	
<b>Type of unit</b>		<b>Graphic terminals</b>	
			
<b>Display</b>	Type	Colour LCD TFT with touch-sensitive screen (320 x 240 pixels) with optimum viewing angle (1)	Colour LCD STN or colour TFT with touch-sensitive screen (320 x 240 pixels) with optimum viewing angle (1)
	Capacity	5,7" (color)	10,4" (color)
<b>Data entry</b>		Via keypad with: - 10 static function keys - 8 soft function keys - 12 service keys - 12 alphanumeric keys	Via touch-sensitive screen 8, 12 or 16 tactile feedback keys (XBT FC) (1)
			Via keypad with: - 12 static function keys - 10 soft function keys - 12 service keys - 12 alphanumeric keys
<b>Memory capacity</b>	Application	16 Mb Flash EPROM (via PCMCIA type II card)	
	Extension	-	
<b>Functions</b>	Maximum number of pages	50 to 720 application, alarm, help and print-out form pages depending on the memory card used (512 alarms maximum)	30 to 480 application, alarm, help and print-out form pages depending on the memory card used (512 alarms maximum)
	Variables per page	64	
	Representation of variables	Alphanumeric, bitmap, bargraph, gauge, potentiometer, selector	
	Recipes	125 records maximum with 5000 values maximum	
	Curves	16	
	Alarm logs	Yes	
	Real-time clock	Access to the PLC real-time clock	
	Discrete inputs/outputs	1 alarm relay	
	Multimedia inputs/outputs	-	
<b>Communication</b>	Asynchronous serial link	Uni-TE, Modbus, KS and for PLC brands: GE Fanuc, Omron, Allen-Bradley and Siemens	Uni-TE, Modbus, KS, Modbus TCP/IP, Uni-TE TCP/IP (1) and for PLC brands: GE Fanuc, Omron, Allen-Bradley and Siemens
	Downloadable protocols	RS 232C or RS 422/485	
	USB Ports	-	
	Bus and networks	Modbus Plus, Fipio/Fipway avec carte additive PCMCIA type III (1),	Ethernet TCP/IP (10BASE-T/100BASE-TX) (1)
		-	
	Printer link	RS 232C serial link (1)	
<b>Development software</b>		XBT L1003 (under Windows 98, Windows 2000 and Windows XP)	
<b>Operating systems</b>		Magelis	
<b>Type of terminal</b>		<b>XBT F01</b>	<b>XBT F02/F03/FC</b>
<b>Pages</b>		36342/3	36344/3 et 36343/3

(1) Depending on model.

(2) Uni-TE version V2 for Twido/TSX Micro/Premium PLCs.

**Display of text messages and graphic objects  
Control and parametering of data**

**New Technology touch-sensitive graphic terminals**



Back-lit monochrome (amber or red mode) LCD STN (320 x 240 pixels)	Back-lit monochrome or colour LCD STN or back-lit colour LCD TFT (320 x 240 pixels)	Back-lit colour LCD STN or color LCD TFT (640 x 480 pixels)	Back-lit colour LCD STN or color LCD TFT (640 x 480 pixels)	Back-lit colour LCD TFT (800 x 600 pixels)	Back-lit colour LCD TFT (1024 x 768 pixels)
3,8" (monochrome)	5,7" (monochrome or colour)	7,5" (colour)	10,4" (colour)	12,1" (colour)	15" (colour)

Via touch-sensitive screen 6 dynamic function keys	Via touch-sensitive screen				
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8 Mb Flash EPROM	16 Mb Flash EPROM	32 Mo Flash EPROM			
–	By Compact Flash card 128, 256, 512 Mb or 1 Gb (except XBT GT2110 model)				

Limited by the internal Flash memory capacity	Limited by the internal Flash memory capacity or Compact Flash card memory capacity				
-----------------------------------------------	-------------------------------------------------------------------------------------	--	--	--	--

Unrestricted (8000 variables max.)					
Alphanumeric, bitmap, bargraph, gauge, tank, curves, polygons, button, light					
32 groups of 64 recipes of 1024 ingredients max.					
Yes, with log					
Yes					
Built-in					
–		1 input (reset) et 3 outputs (alarm, buzzer, run)			
–		1 audio input (microphone), 1 composite vidéo input (numerical or analog camera), 1 audio input (loudspeaker) (1)			

Uni-TE (2), Modbus, Modbus TCP/IP (1) and for PLC brands: Mitsubishi, Omron, Allen-Bradley and Siemens

RS 232C/485 (COM1)	RS 232C/RS 422/485 (COM1) and RS 485 (COM2)				
–	1 (application download)	2 (application download and peripherals)			
–					
Ethernet TCP/IP (10BASE-T) (1)	Ethernet TCP/IP (10BASE-T/100BASE-TX) (1)				
–	RS 232C serial link (COM1), USB port for parallel printer				

Vijeo Designer VJD ●●D TGS V44M (under Windows 2000 and Windows XP)

Magelis (CPU 100 MHz RISC)	Magelis (CPU 133 MHz RISC)	Magelis (CPU 266 MHz RISC)			
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<b>XBT GT11</b>	<b>XBT GT21/22/23</b>	<b>XBT GT42/43</b>	<b>XBT GT52/53</b>	<b>XBT GT63</b>	<b>XBT GT73</b>
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# Operator dialogue terminals

## New Technology Magelis XBT GT

### Touch-sensitive graphic terminals

#### Presentation



Touch-sensitive graphic terminals with monochrome or colour screen, 6 sizes 3,8" to 15"

The New Technology Magelis graphic terminals XBT GT are touch-sensitive products with a wide choice of screen sizes (3.8", 5.7", 7.5", 10.4", 12.1" and 15") as well as different versions (monochrome, colour, STN or TFT).

- A range comprising 3 Optimum terminals 3.8" and 5.7" monochrome screen for simple applications.
- A range comprising 13 multifunction terminals from 5.7" to 15" screen for applications requiring more functions.

The XBT GT terminals range replaces the XBT G terminals range entirely, see page 36372/2.

#### Operation

All Magelis XBT GT model terminals feature the new information and communication technologies:

- High level of communication (on-board Ethernet, multi-line).
  - External support of data (Compact Flash card) for storage of production informations and saving of applications.
  - Multimedia data with integrated management of image and sound (video numerical or analog camera).
- Peripheral management: printers, bar code reader and loudspeaker.

#### Configuration

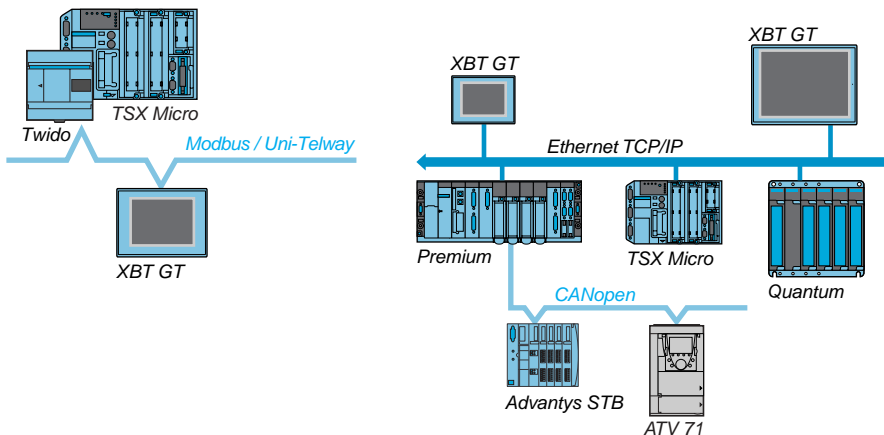


Display of a video sequence

XBT GT terminals can be configured using the Vijeo Designer VJD ●●D TGS V44M software, in a Windows environment. The evolutive ergonomics of the Vijeo Designer VJD ●●D TGS V44M software, designed around several parameterable windows, enables quick and simple development of a project. This version allows to manage the composite video signal from camera or camcorder.

See pages 36349/2 and 36349/7.

#### Communication



XBT GT terminals communicate with PLCs via one or two integrated serial links using communication protocols:

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

The Magelis multifunction terminals can be connected on:

- Ethernet TCP/IP with Modbus TCP protocol and third-party protocols.

#### Functions

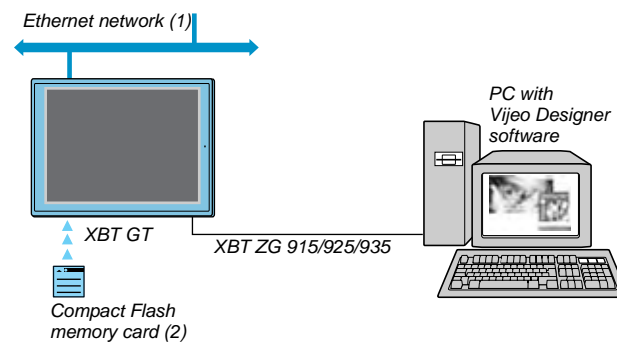
XBT GT graphic terminals offer the following functions:

- Display of animated synoptic screens with 8 types of animation (pressing touch-sensitive zone, changing of colour, filling, movement, rotation, size, visibility and value display).
- Control, modification of numeric and alphanumeric variables.
- Display of date and time.
- Real-time and trending curves with log.
- Alarm display, alarm log and management of alarm groups.
- Multiwindow management.
- Pages can be called up by the user.
- Multilingual application management (10 languages simultaneous).
- Recipes management.
- Data processing via Java script.
- Application and log support in the Compact Flash format external application memory card.
- Serial and parallel printers and bar code reader management
- Management of sound messages.
- Management of composite video signals from camera or camescop.

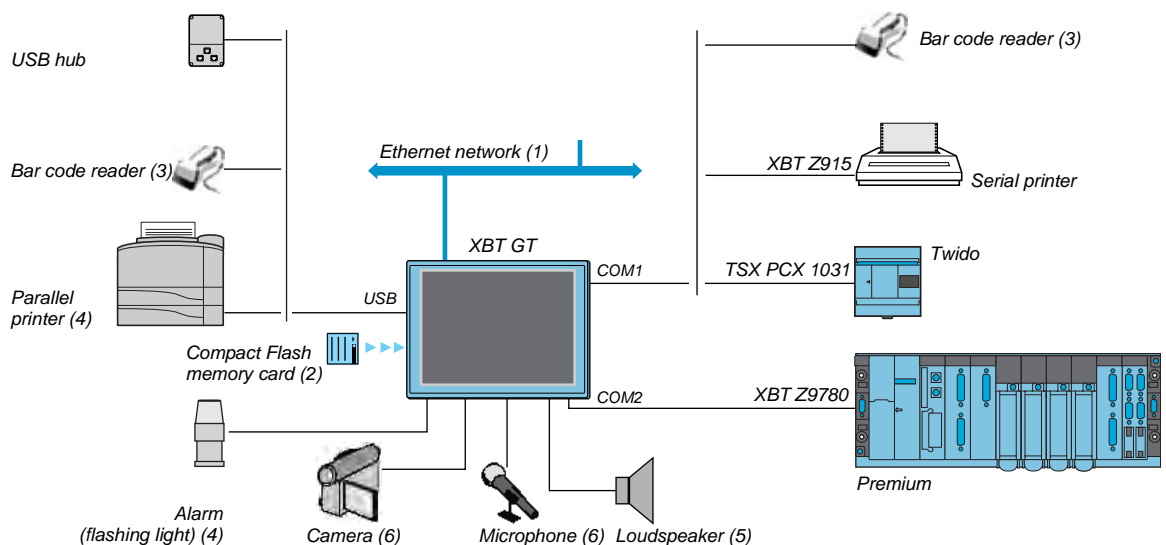
#### Operating structure of graphic terminals

The following diagrams indicate the equipment that can be connected to XBT GT terminals according to their operating mode.

#### Editing mode



#### Operating mode



(1) With XBT GT●●30/XBT GT●●40.

(2) Memory card 128, 256, 512 Mb or 1 Gb for all multifunction XBT G/GT.

(3) Bar code reader (validated with Gryphon reader of DataLogic).

(4) Validated with the Hewlett Packard parallel printer via USB/PIO cable converter.

(5) With multifunction XBT GT 7,5" to 15".

(6) With multifunction XBT GT●340 7,5" to 15".

# Operator dialogue terminals

## Magelis touch-sensitive graphic terminals

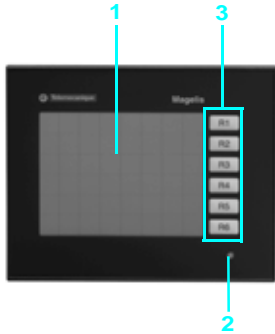
New Technology, XBT GT with 3,8" screen

### Description

Optimum graphic terminal XBT GT1100 / GT1130

#### They have the following on the front panel:

- 1 A touch-sensitive graphical display screen (amber or red mode 3.8" monochrome).
- 2 A back-lighting control light.
- 3 Six function keys (R1, R2...R6).

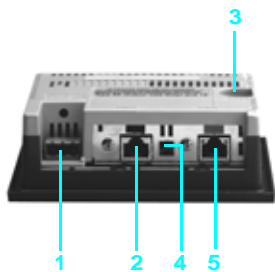


#### And on the rear panel:

- 1 A removable screw terminal for  $\pm$  24 V power supply.
- 2 A RJ45 connector for RS 232 C or RS 485 serial link to PLCs (COM1).
- 3 A 8-way female mini-DIN connector for application transfer cable.
- 4 A polarization switch for serial link used in RS 485 Modbus.

On **XBT GT1130** only

- 5 A RJ45 connector for Ethernet TCP/IP (10BASE-T) link .



# Operator dialogue terminals

## Magelis touch-sensitive graphic terminals

### New Technology, XBT GT with 3,8" screen

Type of terminal		XBT GT1100	XBT GT1130	
<b>Environment</b>				
Conforming to standards		EN 61131-2, IEC 61000-6-2, FCC (Classe A), UL 508, UL 1604, CSA C22-2 n°14		
Product certifications		CE, cULus, CSA, UL Class 1 Div 2 T4A or T5 (UL and CSA), C-Tick		
Temperature	Operation	0...50 °C		
	Storage	- 20...+ 60 °C		
Relative humidity		0...85% (without condensation)	0...90% (without condensation)	
Altitude		< 2000 m		
Degree of protection	Front panel	IP 65 conforming to IEC 60529, Nema 4X (with mounting by 4 screwed installation fastner)		
	Rear panel	IP 20 conforming to IEC 60529		
Shock resistance		Conforming to IEC 60068-2-27; semi-sinusoidal pulse 11 ms, 15 gn on the 3 axes		
Vibration		Conforming to IEC 60068-2-6; 5...9 Hz at 3.5 mm; 9...150 Hz at 1 gn		
E.S.D.		Conforming to IEC 61000-4-2, level 3		
Electromagnetic interference		Conforming to IEC 61000-4-3, 10 V/m		
Electrical interference		Conforming to IEC 61000-4-4, level 3		
<b>Mechanical characteristics</b>				
Mounting and fixing	Mounting on 1.5...10 mm thick panel	Flush mounted, fixed by 4 screwed installation fastner (included) or 2 spring clamps (to be order separately)		
Material	Enclosure	Polycarbonate / polyethylene terephthalate		
Keys		6 functions keys (R1, R2, ..., R6)		
<b>Electrical characteristics</b>				
Power supply	Voltage	--- 24 V		
	Limits	--- 19.2...28.8 V		
	Voltage cut	≤ 2 ms		
Inrush current		≤ 50 A		
Consumption		7 W		
<b>Operating characteristics</b>				
LCD screen	Type	Back-lit monochrome STN		
	Colour	Amber or red with 8 levels of grey		
	Definition	320 x 240 pixels (QVGA)		
	Size (width x height in mm)	3.8" (76.7 x 57,5)		
	Touch-sensitive zone	Resistive film, 8 x 6 cells		
	Back-lighting (service life)	50,000 hours for amber color usage, 10,000 hours for red color usage		
	Settings	Brightness	2 levels via touch pad	
		Contrast	8 levels via touch pad	
	Character fonts	ASCII, Japanese (ANK, Kanji), Chinese (simplified Chinese), Taiwanese (traditional Chinese), Korean		
Dialogue application	Max. number of pages	Limited by the internal Flash memory capacity		
Signalling		1 LED: green for normal operation		
Operating system/Processor		Magelis/CPU 100 MHz RISC		
Memory	Application, on Flash Eprom	8 Mb on Flash EPROM		
	Back-up of data	512 Kb SRAM (lithium batteries)		
Schneider Electric protocols	Telemecanique	Modicon	Modbus, Uni-TE	
			Modbus, Uni-TE, Modbus TCP/IP	
Third-party protocols	Mitsubishi	Melsec	A Link (SIO)	
			–	
	Omron	Sysmac	FINS (SIO), LINK (SIO)	
			–	
			FINS (Ethernet)	
	Rockwell Automation	Allen-Bradley	DF1-Full Duplex, DH 485	
			–	
		Ethernet IP (PLC5, SLC500, MicroLogix, ControlLogix), Ethernet IP (native)		
Siemens	Simatic	MPI (S7-300/400 Series), RK512/3964RS7 (S7-300/400 Series), PPI (S7-200 Serie)		
		–		
		Ethernet		
Real-time clock		Built-in real-time clock		
Connection	Power supply	Removable screw terminal block: 3 terminals (pitched at 5.08 mm), tightening torque 0.5 Nm		
	COM1 serial port (115,2 kbps maxi)	RJ45 connector (RS 232 C/RS 485 serial link), compatible with Siemens MPI (187,5 kbps)		
	Ethernet TCP/IP network (10BASE-T)	–	RJ45 connector	
	Application downloading	Via a 8-way female mini-DIN connector		

# Operator dialogue terminals

## Magelis touch-sensitive graphic terminals

### New Technology, XBT GT with 5.7" screen

#### Description

Optimum graphic terminal XBT G2110 and XBT GT2●20 & XBT GT2●30

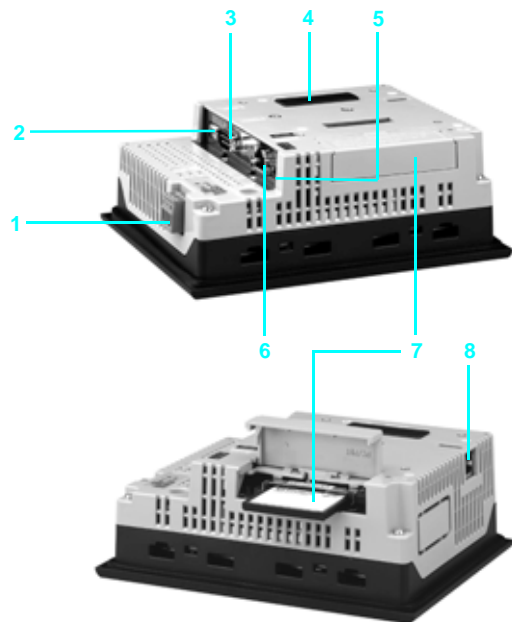
It has the following on the front panel:

- 1 A touch-sensitive graphical display screen (blue mode 5.7" monochrome),
- 2 A back-lighting control light.



And on the rear panel:

- 1 A screw removable terminal block for  $\bar{\text{---}}$  24 V power supply.
- 2 An A type USB host connector for external device and application transfer connexion.
- 3 A 9-way male SUB-D connector for RS 232C or RS 422/485 serial link to PLCs (COM1).
- 4 An extension unit interface for futur use.
- 5 A commutateur for polarization of serial link COM2, used in Modbus.
- 6 An RJ45 type connector for RS 485 serial link (COM2).
- 7 A slot for Compact Flash card, with cover (except XBT GT2110 Optimum).



On XBT G2130 and GT2330 only:

- 8 An RJ45 type connector for Ethernet TCP/IP link, 10BASE-T/100BASE-TX.

# Operator dialogue terminals

## Magelis touch-sensitive graphic terminals

### New Technology, XBT GT with 5.7" screen

Type of terminal	XBT GT2110	XBT GT2120	XBT GT2130	XBT GT2220	XBT GT2330	
<b>Environment</b>						
Conforming to standards	EN 61131-2, IEC 61000-6-2, FCC (Classe A), UL 508, UL 1604, CSA C22-2 n°14					
Product certifications	C€, cULus, CSA, UL Class 1 Div 2 T4A or T5 (UL and CSA), C-Tick					
Temperature	Operation	0...50 °C				
	Storage	- 20...+ 60 °C				
Relative humidity	0...85% (without condensation)		0...90% (without condensation)			
Altitude	< 2000 m					
Degree of protection	Front panel	IP 65 conforming to IEC 60529, Nema 4X				
	Rear panel	IP 20 conforming to IEC 60529				
Shock resistance	Conforming to IEC 60068-2-27; semi-sinusoidal pulse 11 ms, 15 gn on the 3 axes					
Vibration	Conforming to IEC 60068-2-6; 5...9 Hz at 3.5 mm, 9...150 Hz at 1 g					
E.S.D.	Conforming to IEC 61000-4-2, level 3					
Electromagnetic interference	Conforming to IEC 61000-4-3, 10 V/m					
Electrical interference	Conforming to IEC 61000-4-4, level 3					
<b>Mechanical characteristics</b>						
Mounting and fixing	Mounting on 1.5...10 mm thick panel	Flush mounted, fixed by 4 screwed installation fastener (included) or 2 spring clamps (to be order separately)				
Material	Enclosure	Polycarbonate / polyethylene terephthalate	Aluminium (front face) Polycarbonate / polyethylene terephthalate (back face)			
<b>Electrical characteristics</b>						
Power supply	Voltage	--- 24 V				
	Limits	--- 19.2...28.8 V				
	Voltage cut	≤ 10 ms	≤ 5 ms			
Inrush current	≤ 30 A					
Consumption	18 W		26 W			
<b>Operating characteristics</b>						
LCD screen	Type	Back-lit monochrome STN		Colour STN	Colour TFT	
	Colour	Blue and white, 16 levels of grey	Black and white, 16 levels of grey	4 096 colours	65,536 colours, 16,384 if flashing	
	Definition	320 x 240 pixels (QVGA)				
	Size (width x height in mm)	5.7" (115.2 x 86.4)				
	Touch-sensitive zone	Analog, resolution 1024 x 1024				
	Back-lighting (service life), at 25 °C for continual usage	58,000 hours		75,000 hours	50,000 hours	
	Settings	Brightness	8 levels via tactile feedback			
		Contrast	8 levels via tactile feedback			–
	Character fonts	ASCII (including European characters), Japanese (ANK, Kanji), Chinese (simplified Chinese), Taiwanese (traditional Chinese), Korean				
	Dialogue application	Max. number of pages	–	Limited by the internal Flash memory capacity or "Compact Flash" card memory capacity		
Signalling	1 LED: green for normal operation, orange if back-lighting faulty					
Operating system/Processor	Magelis/CPU 133 MHz RISC					
Memory	Application	16 Mb Flash Eprom				
	Back-up of data	128 Kb SRAM (lithium batteries)	512 Kb SRAM (lithium batteries)			
Schneider Electric protocols	Telemecanique	Modicon	Modbus, Uni-TE	Modbus, Uni-TE, Modbus TCP/IP	Modbus, Uni-TE, Modbus TCP/IP	
	Third-party protocols	Mitsubishi	Melsec	A/Q CPU (SIO), A/Q Ethernet (TCP) (1), A Link (SIO), QnA CPU (SIO), Q Ethernet (UDP) (1), FX (CPU)		
	Omron	Sysmac	FINS (Ethernet) (1), FINS (SIO), LINK (SIO)f			
	Rockwell Automation	Allen-Bradley	DF1-Full Duplex, DH 485, Ethernet IP (PLC5, SLC500, MicroLogix, ControlLogix) (1), Ethernet IP (native) (1),			
	Siemens	Simatic	MPI (S7-300/400 Series), RK512/3964R (S7-300/400 Series), PPI (S7-200 Serie) , Ethernet (1)			
Real-time clock	Built-in real-time clock					
Extensions	Compact Flash card	–	1 slot for Compact Flash card 128, 256, 512 Mb or 1 Gb			
	Extension unit	For futur use				
Connection	Power supply	Screw removable terminal block: 3 terminals (pitched at 5.06 mm), tightening (torque 0.5 Nm)				
	COM1 serial port (115,2 kbps maxi)	9-way male SUB-D connector (RS 232 C/RS 422/485 serial link)				
	COM2 serial port (115,2 kbps maxi)	RJ45 connector (RS 485 serial link), compatible with Siemens MPI (187,5 kbps)				
	Application downloading and external device	A type host USB connector				
	Ethernet TCP/IP network (10BASE-T/100BASE-TX)	–	RJ45 connector	–	RJ45 connector	
	Input/output terminal block	–				

(1) For XBT GT2130 and XBT GT2330 models.

# Operator dialogue terminals

## Magelis touch-sensitive graphic terminals

### New Technology, XBT GT with 7.5" screen

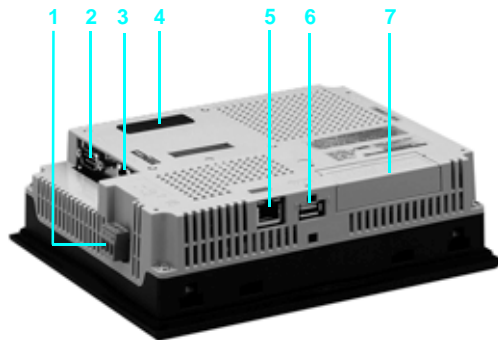
#### Description

Multifunction graphic terminals XBT GT4230 & 4300



#### They have the following on the front panel:

- 1 A touch-sensitive graphical display screen (colour STN 7.5" or colour TFT 7.5", depending on model).
- 1 A multicolour light (green, orange and red) indicating the status of terminal.



#### And on the rear panel:

- 1 A screw removable terminal block for  $\bar{\text{---}}$  24 V power supply.
- 2 A 9-way male SUB-D connector for RS 232C or RS 422/485 serial link to PLCs (COM1).
- 3 An RJ45 type connector for RS 485 serial link (COM2) with a switch selector for polarization of serial link COM2, used in Modbus.
- 4 An extension unit interface for futur use.
- 5 An RJ45 type connector for Ethernet TCP/IP link (10BASE-T/100BASE-TX) with an activity LED.
- 6 An A type USB host connector for external device and application transfer connection.
- 7 A slot for Compact Flash card, with cover.
- 8 An input/output terminal block for loudspeaker connection, one input (reset), 3 outputs (alarm, buzzer, run).

#### On XBT GT4340 only:

- 9 A mini-jack connector for microphone connection.
- 10 A RCA connector for numerical or analog video camera NTSC/PAL.



Type of terminal		XBT GT4230	XBT GT4330	XBT GT4340	
<b>Environment</b>					
<b>Conforming to standards</b>		EN 61131-2, IEC 61000-6-2, FCC (Classe A), UL 508, UL 1604, CSA C22-2 n°14			
<b>Product certifications</b>		CE, cULus, CSA, UL Class 1 Div 2 T4A or T5 (UL and CSA), C-Tick			
<b>Temperature</b>	Operation	0...50 °C			
	Storage	- 20...+ 60 °C			
<b>Relative humidity</b>		10...90 % (without condensation)			
<b>Altitude</b>		< 2000 m			
<b>Degree of protection</b>	Front panel	IP 65 conforming IEC 60529, Nema 4X indoor use with 4 screwed installation fastner)			
	Rear panel	IP 20 conforming IEC 60529			
<b>Shock resistance</b>		Conforming IEC 60068-2-27 ; semi-sinusoidal pulse 11 ms, 15 gn on the 3 axes			
<b>Vibration</b>		Conforming IEC 60068-2-6 ; 5...9 Hz at 3.5 mm ; 9...150 Hz at 1 gn			
<b>E.S.D.</b>		Conforming IEC 61000-4-2, level 3 (contact 6 kV, air 8 kV)			
<b>Electromagnetic interference</b>		Conforming IEC 61000-4-3, 10 V/m			
<b>Electrical interference</b>		Conforming IEC 61000-4-4, level 3 (power supply and I/O 2 kV, other ports 1 kV)			
<b>Mechanical characteristics</b>					
<b>Mounting and fixing</b>	Mounting on 1.5...10 mm thick panel	Flush mounted, fixed by 4 screwed installation fastner (included) or 2 spring clamps (to be order separately)			
<b>Material</b>	Enclosure	Aluminium (front face) Polycarbonate / polyethylene terephthalate (back face)			
<b>Electrical characteristics</b>					
<b>Power supply</b>	Voltage	--- 24 V			
	Limits	--- 19.2...28.8 V			
	Voltage cut	≤ 10 ms			
<b>Inrush current</b>		≤ 30 A			
<b>Consumption</b>		28 W			
<b>Operating characteristics</b>					
<b>LCD screen</b>	Type	Colour STN	Colour TFT		
	Colour	4096 colours	65,536 colours, 16,384 if blinking		
	Definition	640 x 480 pixels (VGA)			
	Size (width x height in mm)	7,5" (153.7 x 115.8)			
	Touch-sensitive zone	Analog, resolution 1024 x 1024			
	Back-lighting (service life), at 25 °C for continual usage	54,000 hours			
	Settings	Brightness	8 levels via tactile feedback		
		Contrast	8 levels via tactile feedback		
Character fonts	ASCII (including European characters), Japanese (ANK, Kanji), Chinese (simplified Chinese), Taiwanese (traditional Chinese), Korean				
<b>Dialogue application</b>	Max. number of pages	Limited by the internal Flash memory capacity or "Compact Flash" card memory capacity			
<b>Signalling</b>		1 LED: green for normal operation, orange if back-lighting faulty			
<b>Operating system/Processor</b>		Magelis / CPU 266 MHz RISC			
<b>Memory</b>	Application	32 Mb Flash EPROM			
	Back-up of data	512 Kb SRAM (lithium battery)			
<b>Schneider Electric protocols</b>	Telemecanique	Modicon	Modbus, Uni-TE, Modbus TCP/IP		
<b>Third-party protocols</b>	Mitsubishi	Melsec	A/Q CPU (SIO), A/Q Ethernet (TCP), A Link (SIO), QnA CPU (SIO), Q Ethernet (UDP), FX (CPU)		
	Omron	Sysmac	FINS (Ethernet) , FINS (SIO), LINK (SIO)		
	Rockwell Automation	Allen-Bradley	DF1-Full Duplex, DH 485, Ethernet IP (PLC5, SLC500, MicroLogix, ControlLogix), Ethernet IP (native),		
	Siemens	Simatic	MPI (S7-300/400 Series), RK512/3964R (S7-300/400 Series), PPI (S7-200 Serie) , Ethernet		
<b>Real-time clock</b>		Built-in real-time clock			
<b>Extensions</b>	Compact Flash card	1 slot for Compact Flash card 128, 256, 512 Mb or 1 Gb			
	Extension unit	For futur use			
<b>Connections</b>	Power supply	Screw removable terminal block: 3 terminals (pitched at 5.06 mm), tightening (torque 0.5 Nm)			
	COM1 serial port (115,2 kbps maxi)	9-way male SUB-D connector (RS 232 C/RS 422/485 serial link)			
	COM2 serial port (115,2 kbps maxi)	RJ45 connector (RS 485 serial link), compatible with Siemens MPI (187,5 kbps)			
	USB port (V1.1)	USB host type A for application download and peripheral			
	Ethernet TCP/IP network (10BASE-T/100BASE-TX)	RJ45 connector			
	Audio input (microphone)	-		Mini-jack connector	
	Vidéo input NTSC/PAL (59,9/50 Hz)	-		RCA connector (75 Ω)	
	Inputs/outputs	Screw terminal block for 1 audio output (8 Ω, 70 mW, frequency 1 kHz), 1 digital input and 3 digital outputs			

# Operator dialogue terminals

## Magelis touch-sensitive graphic terminals

### New Technology, XBT GT with 10.4" screen

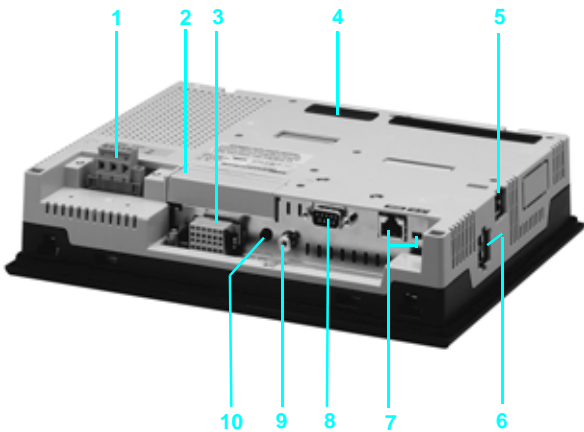
#### Description

Multifunction graphic terminals XBT GT5230 & XBT GT5300



They have the following on the front panel:

- 1 A touch-sensitive graphical display screen (colour STN 10.4" or colour TFT 10.4", depending on model).
- 2 A multicolour light (green, orange and red) indicating the status of terminal.



And on the rear panel:

- 1 A screw removable terminal block for  $\bar{\text{---}}$  24 V power supply.
- 2 A slot for Compact Flash card, with cover.
- 3 An input/output terminal block (1) for loudspeaker connection, one input (reset), 3 outputs (alarm, buzzer, run).
- 4 An extension unit interface for futur use.
- 5 An RJ45 type connector for Ethernet TCP/IP link (10BASE-T/100BASE-TX) with an activity LED.
- 6 Two A type USB host connectors for external devices and application transfer connection.
- 7 An RJ45 type connector for RS 485 serial link (COM2) with a switch selector for polarization of serial link COM2, used in Modbus.
- 8 A 9-way male SUB-D connector for RS 232C or RS 422/485 serial link to PLCs (COM1).

On XBT GT5340 only:

- 9 A mini-jack connector for microphone connection.
- 10 A RCA connector for numerical or analog video camera NTSC/PAL.

(1) On XBT GT5230 model, this connector is located on the rear panel of terminal.

# Operator dialogue terminals

## Magelis touch-sensitive graphic terminals

### New Technology, XBT GT with 10.4" screen

Type of terminal		XBT GT5230	XBT GT5330	XBT GT5340	
<b>Environment</b>					
<b>Conforming to standards</b>		EN 61131-2, IEC 61000-6-2, FCC (Classe A), UL 508, UL 1604, CSA C22-2 n°14			
<b>Product certifications</b>		CE, cULus, CSA, UL Class 1 Div 2 T4A or T5 (UL and CSA), C-Tick			
<b>Temperature</b>	Operation	0...50 °C			
	Storage	- 20...+ 60 °C			
<b>Relative humidity</b>		10...90 % (without condensation)			
<b>Altitude</b>		< 2000 m			
<b>Degree of protection</b>	Front panel	IP 65 conforming IEC 60529, Nema 4X indoor use with 4 screwed installation fastner)			
	Rear panel	IP 20 conforming IEC 60529			
<b>Shock resistance</b>		Conforming IEC 60068-2-27 ; semi-sinusoidal pulse 11 ms, 15 gn on the 3 axes			
<b>Vibration</b>		Conforming IEC 60068-2-6 ; 5...9 Hz at 3.5 mm ; 9...150 Hz at 1 gn			
<b>E.S.D.</b>		Conforming IEC 61000-4-2, level 3 (contact 6 kV, air 8 kV)			
<b>Electromagnetic interference</b>		Conforming IEC 61000-4-3, 10 V/m			
<b>Electrical interference</b>		Conforming IEC 61000-4-4, level 3 (power supply and I/O 2 kV, other ports 1 kV)			
<b>Mechanical characteristics</b>					
<b>Mounting and fixing</b>	Mounting on 1.5...10 mm thick panel	Flush mounted, fixed by 4 screwed installation fastner (included) or 2 spring clamps (to be order separately)			
<b>Material</b>	Enclosure	Aluminium (front face) Polycarbonate / polyethylene terephthalate (back face)			
<b>Electrical characteristics</b>					
<b>Power supply</b>	Voltage	≐ 24 V			
	Limits	≐ 19.2...28.8 V			
	Voltage cut	≤ 10 ms			
<b>Inrush current</b>		≤ 30 A			
<b>Consumption</b>		26 W	30 W		
<b>Operating characteristics</b>					
<b>LCD screen</b>	Type	Colour STN	Colour TFT		
	Colour	4096 colours	65 536 colours, 16 384 if flashing		
	Definition	640 x 480 pixels (VGA)			
	Size (width x height in mm)	10,4" (215.2 x 162,3)	10,4" (211.2 x 158.4)		
	Touch-sensitive zone	Analog, resolution 1024 x 1024			
	Back-lighting (service life), at 25 °C for continual usage	54,000 hours	50,000 hours		
	Settings	Brightness	8 levels via tactile feedback		
		Contrast	8 levels via tactile feedback		
Character fonts		ASCII (including European characters), Japanese (ANK, Kanji), Chinese (simplified Chinese), Taiwanese (traditional Chinese), Korean			
<b>Dialogue application</b>	Max. number of pages	Limited by the internal Flash memory capacity or "Compact Flash" card memory capacity			
<b>Signalling</b>		1 LED: green for normal operation, orange if back-lighting faulty			
<b>Operating system/Processor</b>		Magelis / CPU 266 MHz RISC			
<b>Memory</b>	Application	32 Mb Flash EPROM			
	Back-up of data	512 Kb SRAM (lithium battery)			
<b>Schneider Electric protocols</b>	Telemecanique	Modicon	Modbus, Uni-TE, Modbus TCP/IP		
<b>Third-party protocols</b>	Mitsubishi	Melsec	A/Q CPU (SIO), A/Q Ethernet (TCP), A Link (SIO), QnA CPU (SIO), Q Ethernet (UDP), FX (CPU)		
	Omron	Sysmac	FINS (Ethernet) , FINS (SIO), LINK (SIO)		
	Rockwell Automation	Allen-Bradley	DF1-Full Duplex, DH 485, Ethernet IP (PLC5, SLC500, MicroLogix, ControlLogix), Ethernet IP (native),		
	Siemens	Simatic	MPI (S7-300/400 Series), RK512/3964R (S7-300/400 Series), PPI (S7-200 Serie) , Ethernet		
<b>Real-time clock</b>		Built-in real-time clock			
<b>Extensions</b>	Compact Flash card	1 slot for Compact Flash card 128, 256, 512 Mb or 1 Gb			
	Extension unit	For futur use			
<b>Connections</b>	Power supply	Screw removable terminal block: 3 terminals (pitched at 5.06 mm), tightening (torque 0.5 Nm)			
	COM1 serial port (115,2 kbps maxi)	9-way male SUB-D connector (RS 232 C/RS 422/485 serial link)			
	COM2 serial port (115,2 kbps maxi)	RJ45 connector (RS 485 serial link), compatible with Siemens MPI (187,5 kbps)			
	USB port (V1.1)	2 USB host type A for application download and peripheral			
	Ethernet TCP/IP network (10BASE-T/100BASE-TX)	RJ45 connector			
	Audio input (microphone)	–	Mini-jack connector		
	Vidéo input NTSC/PAL (59,9/50 Hz)	–	RCA connector (75 Ω)		
	Inputs/outputs	Screw terminal block for 1 audio output (8 Ω, 70 mW, frequency 1 kHz), 1 digital input and 3 digital outputs			

# Operator dialogue terminals

## Magelis touch-sensitive graphic terminals

New Technology, XBT GT with 12.1" and 15" screen

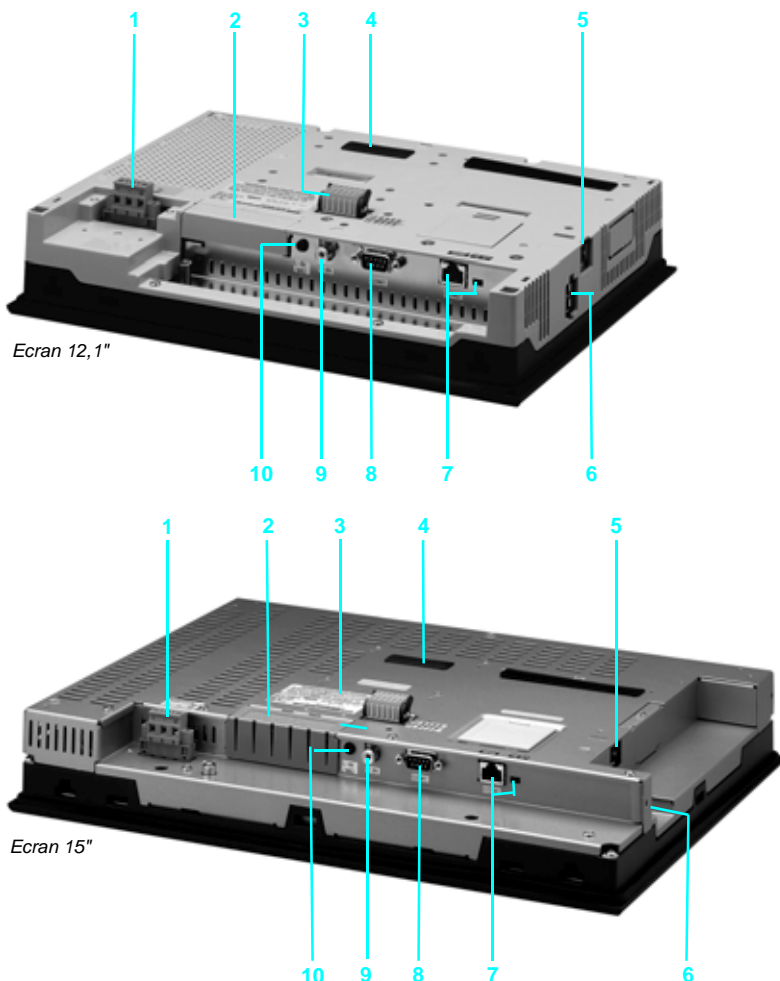
### Description

Multifunction graphic terminals XBT GT6300 & XBT GT7340



They have the following on the front panel:

- 1 A touch-sensitive graphical display screen (colour TFT 12.1" or 15", depending on model).
- 2 A multicolour light (green, orange and red) indicating the status of terminal.



And on the rear panel:

- 1 A screw removable terminal block for  $\approx$  24 V power supply.
- 2 A slot for Compact Flash card, with cover.
- 3 An input/output terminal block for loudspeaker connection, one input (reset), 3 outputs (alarm, buzzer, run).
- 4 An extension unit interface for futur use.
- 5 An RJ45 type connector for Ethernet TCP/IP link (10BASE-T/100BASE-TX) with an activity LED.
- 6 Two A type USB host connectors for external devices and application transfer connection.
- 7 An RJ45 type connector for RS 485 serial link (COM2) with a switch selector for polarization of serial link COM2, used in Modbus.
- 8 A 9-way male SUB-D connector for RS 232C or RS 422/485 serial link to PLCs (COM1).

On XBT GT6340 et XBT GT7340 only:

- 9 A mini-jack connector for microphone connection.
- 10 A RCA connector for numerical or analog video camera NTSC/PAL.

# Operator dialogue terminals

## Magelis touch-sensitive graphic terminals

### New Technology, XBT GT with 12.1" and 15" screen

Type of terminal		XBT GT6330	XBT GT6340	XBT GT7340	
<b>Environment</b>					
<b>Conforming to standards</b>		EN 61131-2, IEC 61000-6-2, FCC (Classe A), UL 508, UL 1604, CSA C22-2 n°14			
<b>Product certifications</b>		C€, cULus, CSA, UL Class 1 Div 2 T4A or T5 (UL and CSA), C-Tick			
<b>Temperature</b>	Operation	0...50 °C			
	Storage	- 20...+ 60 °C			
<b>Relative humidity</b>		10...90 % (without condensation)			
<b>Altitude</b>		< 2000 m			
<b>Degree of protection</b>	Front panel	IP 65 conforming IEC 60529, Nema 4X indoor use with 4 screwed installation fastner)			
	Rear panel	IP 20 conforming IEC 60529			
<b>Shock resistance</b>		Conforming IEC 60068-2-27 ; semi-sinusoidal pulse 11 ms, 15 gn on the 3 axes			
<b>Vibration</b>		Conforming IEC 60068-2-6 ; 5...9 Hz at 3.5 mm ; 9...150 Hz at 1 gn			
<b>E.S.D.</b>		Conforming IEC 61000-4-2, level 3 (contact 6 kV, air 8 kV)			
<b>Electromagnetic interference</b>		Conforming IEC 61000-4-3, 10 V/m			
<b>Electrical interference</b>		Conforming IEC 61000-4-4, level 3 (power supply and I/O 2 kV, other ports 1 kV)			
<b>Mechanical characteristics</b>					
<b>Mounting and fixing</b>	Mounting on 1.5...10 mm thick panel	Flush mounted, fixed by 4 screwed installation fastner (included) or 4 spring clamps (to be order separately)	Flush mounted, fixed by 8 screwed installation fastner (included) or 4 spring clamps (to be order separately)		
<b>Material</b>	Enclosure	Aluminium (front face) Polycarbonate / polyethylene terephthalate (back face)	Aluminium (front face and back face)		
<b>Electrical characteristics</b>					
<b>Power supply</b>	Voltage	--- 24 V			
	Limits	--- 19.2...28.8 V			
	Voltage cut	≤ 10 ms			
<b>Inrush current</b>		≤ 30 A			
<b>Consumption</b>		30 W	42 W		
<b>Operating characteristics</b>					
<b>LCD screen</b>	Type	Colour TFT			
	Colour	65,536 colours, 16,384 if flashing			
	Definition	800 x 600 pixels (SVGA)		1024 x 768 pixels (XGA)	
	Size (width x height in mm)	12,1" (248 x 186.5)		15" (306 x 230.1)	
	Touch-sensitive zone	Analog, resolution 1024 x 1024			
	Back-lighting (service life), at 25 °C for continual usage	50,000 hours			
	Settings	Brightness	8 levels via tactile feedback		
		Contrast	-		
Character fonts	ASCII (including European characters), Japanese (ANK, Kanji), Chinese (simplified Chinese), Taiwanese (traditional Chinese), Korean				
<b>Dialogue application</b>	Max. number of pages	Limited by the internal Flash memory capacity or "Compact Flash" card memory capacity			
<b>Signalling</b>		1 LED: green for normal operation, orange if back-lighting faulty			
<b>Operating system/Processor</b>		Magelis / CPU 266 MHz RISC			
<b>Memory</b>	Application	32 Mb Flash EPROM			
	Back-up of data	512 Kb SRAM (lithium battery)			
<b>Schneider Electric protocols</b>	Telemecanique	Modicon	Modbus, Uni-TE, Modbus TCP/IP		
	<b>Third-party protocols</b>	Mitsubishi	Melsec	A/Q CPU (SIO), A/Q Ethernet (TCP), A Link (SIO), QnA CPU (SIO), Q Ethernet (UDP), FX (CPU)	
Omron		Sysmac	FINS (Ethernet) , FINS (SIO), LINK (SIO)		
Rockwell Automation		Allen-Bradley	DF1-Full Duplex, DH 485, Ethernet IP (PLC5, SLC500, MicroLogix, ControlLogix), Ethernet IP (native),		
Siemens		Simatic	MPI (S7-300/400 Series), RK512/3964R (S7-300/400 Series), PPI (S7-200 Serie) , Ethernet		
<b>Real-time clock</b>		Built-in real-time clock			
<b>Extensions</b>	Compact Flash card	1 slot for Compact Flash card 128, 256, 512 Mb or 1 Gb			
	Extension unit	For futur use			
<b>Connections</b>	Power supply	Screw removable terminal block: 3 terminals (pitched at 5.06 mm), tightening (torque 0.5 Nm)			
	COM1 serial port (115,2 kbps maxi)	9-way male SUB-D connector (RS 232 C/RS 422/485 serial link)			
	COM2 serial port (115,2 kbps maxi)	RJ45 connector (RS 485 serial link), compatible with Siemens MPI (187,5 kbps)			
	USB port (V1.1)	2 USB host type A for application download and peripheral			
	Ethernet TCP/IP network (10BASE-T/100BASE-TX)	RJ45 connector			
	Audio input (microphone)	-	Mini-jack connector		
	Vidéo input NTSC/PAL (59,9/50 Hz)	-	RCA connector (75 Ω)		
	Inputs/outputs	Screw terminal block for 1 audio output (8 Ω, 70 mW, frequency 1 kHz), 1 digital input and 3 digital outputs			

# Operator dialogue terminals

## New Technology Magelis XBT GT touch-sensitive graphic terminals



XBT GT1100 / 1130



XBT GT2100/2220/2330



XBT GT4230/4300



XBT GT5300



XBT GT6300



XBT GT7340

### XBT GT monochrome graphic terminals <sup>(1)</sup>

Type of screen	Number of port	Application memory capacity	Compact Flash card slot	Video input	On-board Ethernet	Reference	Weight kg
<b>Optimum 3.8"</b>							
STN ambre ou rouge	1 COM1	8 Mb	No	No	No	<b>XBT GT1100</b>	0.400
	1 mini-DIN				Yes	<b>XBT GT1130</b>	0.400
<b>Optimum 5.7"</b>							
STN Mbde bleu	1 COM 1	16 Mb	No	No	No	<b>XBT GT2110</b>	1.000
	1 COM 2						
	1 USB						
<b>Multifunction 5.7"</b>							
STN Noir et blanc	1 COM 1	16 Mb	Yes	No	No	<b>XBT GT2120</b>	1.000
	1 COM 2				Yes	<b>XBT GT2130</b>	1.000
	1 USB						

### XBT GT colour graphic terminals <sup>(1)</sup>

Type of screen	Number of port	Application memory capacity	Compact Flash card slot	Video input	On-board Ethernet	Reference	Weight kg		
<b>Multifunction 5.7"</b>									
STN	1 COM 1	16 Mb	Yes	No	No	<b>XBT GT2220</b>	1.000		
	1 COM 2								
	1 USB								
TFT	1 COM 1	16 Mb	Yes	No	Yes	<b>XBT GT2330</b>	1.000		
	1 COM 2								
	1 USB								
<b>Multifunction 7.5"</b>									
STN	1 COM 1	32 Mb	Yes	No	Yes	<b>XBT GT4230</b>	1.800		
	1 COM 2								
	1 USB								
TFT	1 COM 1	32 Mb	Yes	No	Yes	<b>XBT GT4330</b>	1.800		
	1 COM 2			Yes	Yes			<b>XBT GT4340</b>	1.800
	1 USB								
<b>Multifunctions 10.4"</b>									
STN	1 COM 1	32 Mb	Yes	No	Yes	<b>XBT GT5230</b>	3.000		
	1 COM 2								
	2 USB								
TFT	1 COM 1	32 Mb	Yes	No	Yes	<b>XBT GT5330</b>	2.500		
	1 COM 2			Yes	Yes			<b>XBT GT5340</b>	2.500
	2 USB								
<b>Multifunctions 12.1"</b>									
TFT	1 COM 1	32 Mb	Yes	No	Yes	<b>XBT GT6330</b>	3.000		
	1 COM 2			Yes	Yes			<b>XBT GT6340</b>	3.000
	2 USB								
<b>Multifunctions 15"</b>									
TFT	1 COM 1	32 Mb	Yes	Yes	Yes	<b>XBT GT7340</b>	5.600		

<sup>(1)</sup> Terminal supplied with fixing kit (clamps and screws), USB holders (except **XBT GT 1100**) and data sheet. The XBT GT user's manual is supplied with Vijeo Designer configuration software in electronic format, see page 36349/3.

# Operator dialogue terminals

## New Technology Magelis XBT GT touch-sensitive graphic terminals



XBT ZGM

### Separate parts

Description	Compatibility	Size	Reference	Weight kg
Compact Flash memory cards	All XBT GT terminals except XBT GT1100 / GT2110	128 Mb	XBT ZGM128	0.050
		256 Mb	XBT ZGM256	0.050
		512 Mb	MPC YN0 0CFE 00N	0.050
		1 Gb	MPC YN0 0CF1 00N	-
Protective sheets (5 peel off sheets)	XBT GT1100 / GT1130	-	XBT ZG61	0.200
	XBT GT2100 / GT2220 / GT2330	-	XBT ZG62	0.200
	XBT GT4230 / GT4300	-	XBT ZG64	0.200
	XBT GT5300	-	XBT ZG65	0.200
	XBT GT5230 / GT6300	-	XBT ZG66	0.200
XBT GT7340	-	MPC YK5 OSPS KIT	0.200	
Spring clips for mounting	All XBT GT terminals (Number of spring clips depending on model)	Sold in lot of 12	XBT Z3002	-



XBT ZGCO

Description	Compatibility	Lenght	Reference	Weight kg
Panel cut-out adaptators for substitution Magelis legacy terminals	From XBT F032010 to XBT GT2000	-	XBT ZGCO1	-
	From XBT G2110 to XBT GT2000	-	XBT ZGCO2	-
	From XBT F034000 to XBT GT5300	-	XBT ZGCO3	-
	From XBT G5330 to XBT GT5330	-	XBT ZGCO4	-
Remote USB port for XBT GT2000...GT7340 terminal	USB extension cable for remote connection on front cabinet door (Ø 21 mm fixing)	1 m	XBT ZGUSB	-
Adaptator for Compact Flash memory cards	PC with PCMCIA card read	-	XBT ZGADT	0.050



XBT ZGUSB

### Spare parts

Description	For use with	Reference	Weight kg
Gaskets	XBT GT1100 / GT1130	XBT ZG51	0.030
	XBT GT2100 / GT2220 / GT2330	XBT ZG52	0.030
	XBT GT4230 / GT4300	XBT ZG54	0.030
	XBT GT5300	XBT ZG55	0.030
	XBT GT5230 / GT6300	XBT ZG56	0.030
	XBT GT7340	XBT ZG57	0.030
Back-lighting lamps	XBT GT5230	XBT ZG43	0.200
	XBT GT5300	XBT ZG45	0.100
	XBT GT6300	XBT ZG46	0.200
	XBT GT7340	XBT ZG47	0.200
Fixing kits	4 clamps and screws (max. tightening torque: 0.5 Nm) Included with all XBT GT terminals	XBT ZG FIX	0.100
Extension connector protection	All XBT GT terminals except XBT GT1100	XBT ZGCNC	0.030

### Application transfer cordsets to PC

Type of terminal	Connector (PC side)	Type	Lenght	Reference	Weight kg
XBT GT1100 (mini-DIN)	USB type (1)	TTL	2 m	XBT ZG925	0.290
	9-way SUB-D type	TTL	2 m	XBT ZG915	0.250
XBT GT2000...GT7340 (USB type)	USB type (1)	TTL		XBT ZG935	0.290



XBT ZG925

### Cordsets to printer

Printer type	Connector (printer side)	Type	Lenght	Référence	Weight kg
Serial printer (2) for XBT GT / G terminal (except XBT GT1100)	25-way female SUB-D type	RS 232C - XBT GT: COM1 - XBT G: COM2	2.5 m	XBT Z915	0.200

(1) Cordset included in Vijeo Designer V4.4 configuration software, single licence, see page 36349/3.

(2) Parallel printer, see page 36346/3.

# Operator dialogue terminals

## New Technology Magelis XBT GT touch-sensitive graphic terminals

### Adaptors and isolation unit for cordsets to XBT GT terminals

These 3 adaptors are combined, depending of case, with the cordsets. For example, the association of XBT Z968 cordset with "+ (2)", in this case XBT ZG909 adaptor, allows connection between the Twido controller (on terminal port) and XBT GT2●●0 terminal (on COM1 port).

Description	Connector type (automation product side)	Physical link (XBT GT terminal side)	Reference	Weight kg
<b>Adaptor for XBT GT11●0</b> (port COM1) <b>XBT GT2●●0...7340</b>	25-way SUB-D connector	RJ45 connector	<b>XBT ZG939 (1)</b>	–
<b>Adaptors for XBT GT2●●0...7340</b> (port COM1)	25-way SUB-D connector	9-way SUB-D connector, RS 485	<b>XBT ZG909 (2)</b>	–
		9-way SUB-D connector, RS 232C	<b>XBT ZG919 (3)</b>	–

Description	For use	Link to isolate	Reference	Weight kg
<b>Isolation unit for XBT GT2●●0...7340 serial link</b>	- Connection to serial port of XBT GT2 terminal - Isolated link on 9-way SUB-D connector (4) - Power supply via USB port of terminal. Integrate a duplicator of port USB	RS 232C/RS 485 (COM1)	<b>XBT ZGI232 ▲</b>	–
		RS 485 (COM2)	<b>XBT ZGI485 ▲</b>	–



XBT ZGI485



TSX PCX 1031

### Cordsets for direct connection XBT GT terminals to Telemecanique products

Automation product type	Connector type (product side)	Protocol	XBT type terminal, physical link	On XBT port	Length	Reference	Weight kg	
<b>Twido, Modicon TSX Micro, Modicon Premium</b>	Terminal port 8-way female mini-DIN	Uni-TE (V1/V2), Modbus	XBT GT11●0, RS 485	COM1	2.5 m	<b>XBT Z9780</b>	0.180	
			XBT GT2●●0...GT7340, COM2					
			RS 485					
			XBT GT2●●0...GT7340, COM1					
<b>Modicon Premium with TSX SCY 2160●</b>	25-way female SUB-D	Uni-TE (V1/V2)	XBT GT11●0, RS 485	COM1	2.5 m	<b>XBT Z918 + (1)</b>	0.230	
			XBT GT2●●0...GT7340, COM1		2.5 m	<b>XBT Z918 + (2)</b>	0.230	
<b>Modicon Quantum</b>	9-way male SUB-D	Modbus	XBT GT11●0, RS 232C	COM1	2.5 m	<b>XBT Z9710 + (1)</b>	0.210	
			XBT GT2●●0...GT7340, COM1		2.5 m	<b>XBT Z9710 + (3)</b>	0.210	
			RS 232C		3,7 m	<b>990 NAA 263 20</b>	0.290	
<b>Advantys STB</b>	HE13 (NIM, network interface module)	Modbus	XBT GT11●0, RS 232C	COM1	2.5 m	<b>XBT Z988 + (1)</b>	0.220	
			XBT GT2●●0...GT7340, COM1		2 m	<b>STB XCA 4002</b>	0.210	
			RS 232C		2,5 m	<b>XBT Z988+ (3)</b>	0.220	
<b>Modicon Momentum M1</b>	RJ45 (port 1 of Momentum M1)	Modbus	XBT GT11●0, RS 232C	COM1	2.5 m	<b>XBT Z9711 + (1)</b>	0.210	
			XBT GT2●●0...GT7340, COM1		2.5 m	<b>XBT Z9711 + (3)</b>	0.210	
<b>TeSys U starter-controllers, ATV 31/61/71 variable speed drives, ATS 48 soft starters</b>	RJ45	Modbus	XBT GT11●0, RS 485	COM1	3 m	<b>VW3 A8 306 R30</b>	0.060	
			XBT GT2●●0...GT7340, COM2					
			RS 485					

(1) **XBT ZG939** adaptor to use with cordsets whose reference is followed by " + (1)".

(2) **XBT ZG909** adaptor to use with cordsets whose reference is followed by " + (2)".

(3) **XBT ZG919** adaptor to use with cordsets whose reference is followed by " + (3)".

(4) Male connector with **XBT ZGI232**, female connector with **XBT ZGI 485**.

▲ Availability June 2006



XBT ZG9772



XBT ZG9731

### Cordsets and adaptors for connection XBT GT terminals to third-party PLCs

#### Mitsubishi PLCs, Melsec

Description Driver used	XBT GT type terminal	Connector types (equipped the cordset, except adaptor)	Physical link (COM1)	Lenght	Reference	Weight kg
Cordset A CPU (SIO)	2●●0...7340	9-way SUB-D / 25-way SUB-D	RS 422	5 m	XBT ZG9773	–
Cordset Q Link (SIO)	2●●0...7340	9-way SUB-D / 9-way SUB-D	RS 232C	5 m	XBT ZG9772	–
Cordset Q CPU (SIO)	2●●0...7340	9-way SUB-D / mini-DIN	RS 232C	5 m	XBT ZG9774	–
Cordsets A Link (SIO)	2●●0...7340	9-way SUB-D / 25-way SUB-D	RS 232C	5 m	XBT ZG9731	–
Cordsets FX (CPU)	2●●0...7340	9-way SUB-D / mini-DIN	RS 422	5 m	XBT ZG9775	–
Cordsets for adaptor 2 ports, FX (CPU), A CPU (SIO) QnA CPU (SIO)	2●●0...7340	9-way SUB-D / end free	RS 422	5 m	XBT ZG9778 + (4)	–
Adaptor unit FX (CPU), A CPU (SIO) QnA CPU (SIO)	2●●0...7340	2 ports unit Screw terminal / 2 x 9-way SUB-D	RS 422	–	XBT ZG979	–

#### Omron PLCs, Sysmac

Description Driver used	XBT GT type terminal	Connector types (equipped the cordset, except adaptor)	Physical link (COM1)	Lenght	Reference	Weight kg
Cordsets Link (SIO)	11●0	25-way SUB-D / 9-way SUB-D	RS 232C	2,5 m	XBT Z9740 + (1)	0.210
	2●●0...7340	9-way SUB-D / 9-way SUB-D	RS 232C	5 m	XBT ZG9740	–
		9-way SUB-D / 25-way SUB-D	RS 232C	5 m	XBT ZG 9731	–
Cordsets FINS (SIO)	11●0	25-way SUB-D / 9-way SUB-D	RS 232C	2.5 m	XBT Z9740 + (1)	0.210
	2●●0...7340	9-way SUB-D / 9-way SUB-D	RS 232C	5 m	XBT ZG9740	–

(1) XBT ZG939 adaptor to use with cordsets whose reference is followed by " + (1) ", see page 36356/4.

(4) XBT ZG9778 cordset to associate with XBT ZGCOM1 9-way female/female SUB-D adaptor.

# Operator dialogue terminals

## New Technology Magelis XBT GT touch-sensitive graphic terminals



XBT ZG9731

### Cordsets and adaptators for connection XBT G / GT terminals to third-party PLCs

(continued)

#### Rockwell, Allen-Bradley PLCs

Description Driver used	XBT GT type terminal	Connector types (equipped the cordset, except adaptator)	Physical link (COM1)	Lenght	Reference	Weight kg
Cordsets DF1 Full Duplex	11●0	25-way SUB-D / 9-way SUB-D	RS 232C	2.5 m	XBT Z9730 + (1)	0.210
		25-way SUB-D / 8-way mini-DIN	RS 232C	2.5 m	XBT Z9731 + (1)	0.210
	2●●0...7340	9-way SUB-D / 25-way SUB-D	RS 232C	5 m	XBT ZG 9731	–
Cordsets DH485	11●0	25-way SUB-D / 8-way mini-DIN	RS 485	5 m	XBT Z9732 + (1)	–
		2●●0...7340	25-way SUB-D / 8-way mini-DIN	RS 485	5 m	XBT Z9732 + (2)

#### Siemens PLCs, Simatic

Description Driver used	XBT GT type terminal	Connector types (equipped the cordset, except adaptator)	Physical link	Lenght	Reference	Weight kg
Cordset PPI, S7 200	11●0	RJ45 / 9-way SUB-D	RS 485 (COM1)	2.5 m	XBT ZG9721	–
		2●●0...7340	RJ45 / 9-way SUB-D	RS 485 (COM2)		
Cordsets Port MPI, S7 300/400	11●0	RJ45 / end free	RS 485 (4) (COM1)	3 m	VW3 A8 306 D30	0.150
		RJ45 / 9-way SUB-D	RS 485 (4) (COM1)	2.5 m	XBT ZG9721	–
	2●●0...7340	9-way SUB-D / 9-way SUB-D	RS 232C (COM1)	3 m	XBT ZG9292	–
		RJ45 / end free	RS 485 (4) (COM2)	3 m	VW3 A8 306 D30	0.150
		RJ45 / 9-way SUB-D	RS 485 (4) (COM2)	2.5 m	XBT ZG9721	–
Adaptator unit RK512/3964F, S7 300/400	XBT G	1 port unit Screw terminal / 1 x 25-way SUB-D	RS 422 (COM1)	–	XBT ZG989	–

#### Customizable cordsets

Description Driver used	XBT GT type terminal	Connector types (equipped the cordset, except adaptator)	Physical link	Lenght	Reference	Weight kg
Universal adaptator, RS 422	2●●0...7340	9-way SUB-D / end free	RS 422 (COM1)	2.5 m	XBT ZG9722	0.210
Universal adaptators, RS 422/485	2●●0...7340	9-way SUB-D / screw terminal	RS 422 (COM1)	–	XBT ZG949 + (5)	–
		9-way SUB-D / screw terminal	RS 485 (COM2)	–	XBT ZG949 + (6)	–

(1) XBT ZG939 adaptator to use with cordsets whose reference is followed by " + (1) ".

(2) XBT ZG909 adaptator to use with cordsets whose reference is followed by " + (2) ".

(4) No isolated RS 485 serial link 12 Mbps (187,5 Kps with XBT GT11●0/2110).

(5) Cordset to create by user and to associate with XBT ZGCOM1 9-way female/female SUB-D adaptator .

(6) Cordset to create by user and to associate with XBT ZGI485 isolation unit and XBT ZGCOM2 9-way male/female SUB-D adaptator .

# Operator dialogue terminals

## New Technology Magelis XBT GT touch-sensitive graphic terminals



TSX SCA 62



TSX P ACC 01



TSX SCA 64



LU9 GC3



ABL 7RM240

### XBT GT terminals connections to serial links and networks

Type of bus/network	Tap-off unit	Type of connector (unit side)	XBT GT type terminal	Length	Reference	Weight kg
Uni-Telway serial link	TSX SCA 62 passive 2-channel subscriber socket	15-way female SUB-D	11●0 (COM1)	3 m	VW3 A8 306	0.150
			2●●0...7340 (COM2)			
			2●●0...7340 (COM1)	1.8 m	XBT Z908 + (2)	0.240
	TSX P ACC 01 terminal port connection box	8 way female mini-DIN	11●0 (COM1)	2.5 m	XBT Z9780	0.180
			2●●0...7340 (COM2)			
			2●●0...7340 (COM1)	2.5 m	XBT Z968 + (2)	0.180
			5 m	XBT Z9681 + (2)	0.340	
Modbus serial link	TSX SCA 64 passive 2-channel subscriber socket	15-way female SUB-D	11●0 (COM1)	3 m	VW3 A8 306	0.150
			2●●0...7340 (COM2)			
			2●●0...7340 (COM1)	1.8 m	XBT Z908 + (2)	0.240
	LU9 GC3 Modbus splitter box	RJ45	11●0 (COM1)	3 m	VW3 A8 306R30	0.060
			2●●0...7340 (COM2)			
			2●●0...7340 (COM1)	2.5 m	XBT Z938 + (2)	0.210
Ethernet TCP/IP network	499 NEH/NOH hubs 499 NES/NMS, 499 NSS/NOS switches	RJ45	●●30 / ●●40	2 m	490 NTW 000 02	–
				5 m	490 NTW 000 05	–
				12 m	490 NTW 000 12	–
				40 m	490 NTW 000 40	–
				80 m	490 NTW 000 80	–

### Modular regulated switch mode power supplies ABL 7RM (3)

Mains input / output voltage	XBT GT association	Nominal power	Nominal current <sup>1</sup>	Référence	Weight kg
100...240 / 24 V Single-phase wide range 47...63 Hz	XBT GT 1100...6340	30 W	1,3 A	ABL 7RM2401	0,182
	XBT GT7340	60 W	2,5 A	ABL 7RM24025	0,255

(2) XBT ZG909 adaptor to use with cordsets whose reference is followed by " + (2) ", see page 36356/4.

(3) Dimensions : H x L x P : 90 x 72 x 59 mm. For further information, please consult our "Interfaces, I/O splitter boxes and power supplies" catalogue.



### Presentation

Vijeo Designer configuration software is used with the whole range of New Technology Magelis XBT G and XBT GT terminals to create operator dialogue applications designed for controlling automation systems. The text of applications designed can be multilingual, up to 10 languages simultaneous (English, French, German, Katakana, Chinese, Russian...up to 38 alphabets with XBT GT multifunction terminals)

For other Magelis display units and terminals, see XBT L1000 development software pages 36355/2 to 36355/5.

The Vijeo Designer software runs on PC compatible equipped with Windows 2000 or Windows XP Professional operating system. The Vijeo Designer allows to simulate XBT G on PC and to animate PLC variables (I/Os, internal bits and words) for debug purpose (without having to connect to the XBT G/GT terminal).

### Configuration

Vijeo Designer configuration software enables operator dialogue projects to be easily and quickly performed due to its advanced ergonomics using up to 5 configurable windows:

- 1 Navigator
- 2 Recipes
- 3 Object listing
- 4 Library of animated graphic objects
- 5 Report.

Vijeo Designer configuration software also offers complete application management tools:

- Project creation, a project being one or several applications for XBT G/GT terminal with sharing of variables between several terminals (8 terminals max.and 300 variables max.)
- Recipe management (32 groups of 64 recipes of 1024 ingredients max.)
- Cross-referencing of application variables
- Application synoptics documentation
- A simulation mode enabling easy testing of the application from the design office
- Bar code reader management via serial port (COM1 or COM2) of XBT G terminals or via USB port of XBT GT multifunction terminals
- Recovery symbols files of PLCs variables (generated by TwidoSuite, PL7, Concept, ProWORX 32 and Unity Pro software).

### Graphics editor

The powerful graphics editor of the Vijeo Designer software enables easy creation of synoptics when developing applications:

- Simple objects (to be configure)
  - dots, lines, rectangles, ellipses, arcs
  - Bargraphs, meters, tanks, fillers, pie graphs, curves
  - polylines, polygons, regular polygons, bezier curves, scales
  - text, images or summary of alarms
- Preconfigured advanced objects: switches, radio buttons, lights, tanks, bargraphs, potentiometer, selector, text or numeric areas, enumerated lists, ...

### Object animations

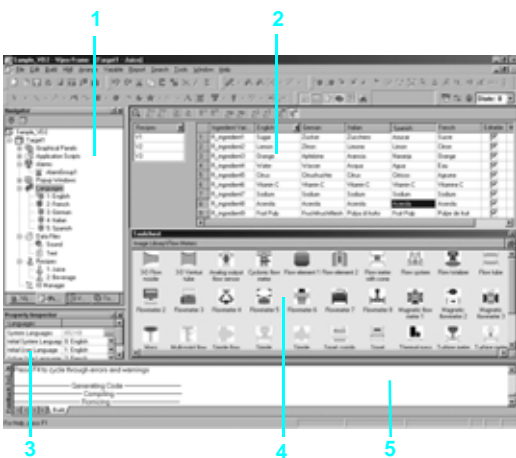
8 types of object animation enable quick establishment of animated synoptics:

- pressing on tactile feedback
- changing of colour
- filling
- movement
- rotation
- size
- visibility
- value display.

### Library of animated graphic objects

The library of animated objects makes the creation of synoptics very efficient by using the numerous objects "ready to be animated". It includes more of 4000 vertical images of industrial world in 2 or 3 D. By simple "drag and drop" operation using the mouse, the object is positioned on the synoptic being created.

This library can be expanded by adding the user's objects using the same simple "drag and drop" method.



```

Script Created: 10/09/2001
Description:
Replace this line with your script
int pos;
if (movebottles.getValue() == 0) { // if conveyor is OFF, do not move bottles
    pos = BottlePos.getValue();
    if (pos >= 1000)
        pos = 0; // if bottle position has been the out of display area, reset position
    pos = pos + 10 + 2 * ConveyorSpeed.getValue();
    BottlePos.write(pos);
}
    
```

### Java scripts

Vijeo Designer software enables the processing of information within the XBT G/GT terminals using Java language scripts.

This function enables establishment of some complex animations, automation of some tasks within the terminal and management of calculations in order to relieve the PLC programmes.

The scripts (50 lines max.) can be associated with:

- Variables
- Operator actions
- Screens
- The application itself.

### Advanced functions

Based on new technologies relating to information, a large number of advanced functions are available on Magelis XBT G/GT terminals for processing a higher volume of data, both faster and more reliably, in order to meet the new requirements of our customers:

- Multimedia data management for the most common formats:
  - image display ( jpeg, bmp, emf and png files),
  - text display (txt files).
- sound message processing (wav files),
- Alarms or curve logs on the Compact Flash card for saving and transfer of data.
- Alarm management. All variables can be typed "Alarm" and are specified for the visualization and acknowledgement. These alarms (boolean, analog thresholds) are real-time printed.
- Multimode application transfer: serial link, Ethernet and Compact Flash (with multifunction terminals).
- Backup of application sources on the Compact Flash card (with multifunction terminals).
- Data exchanges between PC and terminal using Data Manager tool.
- Integrated FTP server for downloading/uploading the recipes and upload historic from XBT G/GT terminal to PC, via Ethernet TCP/IP network.
- Multi-line communication for XBT G/GT multifunction terminal, 2 serial links and Ethernet can be active simultaneously.
- Communication with Third-party PLCs:
  - Mitsubishi with Melsec protocols: A/Q CPU (SIO), A/Q Ethernet (TCP), A Link (SIO), QnA CPU (SIO), Q Ethernet (UDP) and FX (CPU),
  - Omron with Sysmac protocols: FINS (SIO), LINK (SIO) and FINS (Ethernet),
  - Rockwell Automation with Allen-Bradley protocols: DF1-Full Duplex, DH485, Ethernet IP (PLC5, SLC500, MicroLogix, ControlLogix) and Ethernet IP (native),
  - Siemens with Simatic protocols: MPI direct (S7-300/400), RK512/3964R (S7-300/400), PPI (S7-200) and Siemens Ethernet.



### References

The maximum size of applications designed by Vijeo Designer software is:

- 8000 variables (internals and externals), 80 historic variables (365 days max.)
- 9999 alarms (actives, journal or historic).

The maximum of all pages are 800 internal/external variables, 800 objects and 30 switches with 3 "popup" windows. For further details, please consult the Vijeo Designer user's guide.

Vijeo Designer software can be installed on PC running the Windows 2000 and Windows XP Professionnal. It includes:

- an electronic documentation in 6 languages (*English, French, German, Spanish, Italian and Simplified Chinese*), documentation not available in paper format
- the communication protocols for Schneider Electric PLCs and Third-party PLCs (Mitsubishi, Omron, Rockwell Automation and Siemens).



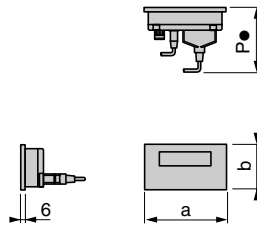
VJD ●UD TGS V43M

Description	Type of license	Application transfer cordset included		Reference (1)	Weight kg
		PC Port	Magelis terminal side		
Vijeo Designer configuration software packages for XBT G/XBT GT terminals (with Schneider Electric and Third-party protocols)	Single (1 station)	–	– (2)	VJD SND TGS V43M	0,280
		Serial	XBT G/GT	VJD SSD TGS V43M	0,440
		USB	XBT G/GT11	VJD SUD TGS V43M	0,420
	Group (3 stations)	–	– (2)	VJD GND TGS V43M	0,280
		Serial	XBT G/GT	VJD GSD TGS V43M	0,440
		USB	XBT G/GT11	VJD GUD TGS V43M	0,420
			XBT GT2●...GT73	VJD GUD TGA V43M	0,410
	Team (10 stations)	–	– (2)	VJD TND TGS V43M	0,280
		Serial	XBT G/GT	VJD TSD TGS V43M	0,440
			USB	XBT G/GT11	VJD TUD TGS V43M
		XBT GT2●...GT73	VJD TUD TGA V43M	0,410	

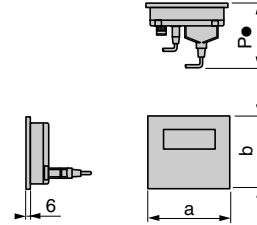
(1) Includes the self-training multimedia tool (duration 1 H 30 mn in English/French).  
 (2) Application transfer cordset to PC in separate parts, see page 36356/3.

### Dimensions

#### XBT N



#### XBT R



	a	a1 (1)	b	b1 (1)	P1 (2)	P2 (3)	P3 (4)	P4 (5)
<b>XBT N200/N400</b>	132	–	74	104	78	–	–	–
<b>XBT N401/N410</b>	132	–	74	104	–	–	58	104
<b>XBT NU400</b>	132	–	74	104	–	104	–	–
<b>XBT R400</b>	137	160	118	146	78	–	–	–
<b>XBT R410/R411</b>	137	160	118	146	–	–	58	104

(1) With 2 fixing clips (included with product).

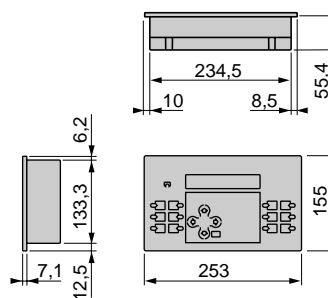
(2) P1 : depth with RJ45 cable, **XBT Z9780** (for Twido, TSX Micro and Premium).

(3) P2 : depth with 25-way SUB-D cable, **XBT Z938** (for TeSys model U and ATV 61/71 variable speed drives).

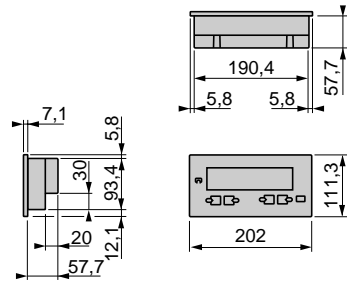
(4) P3 : depth with 25-way SUB-D elbow cable, **XBT Z9680** (for Twido, TSX Micro and Premium) or **XBT Z998** (for Advantys STB).

(5) P4 : depth with 25-way SUB-D cable, **XBT Z68/Z9681** (for Twido, TSX Micro and Premium).

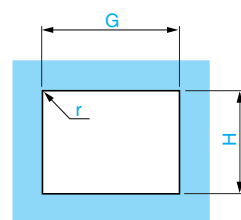
#### XBT PM



#### XBT HM



### Mounting

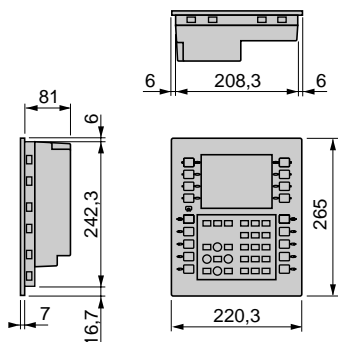


panel thickness: 1.5...6 mm

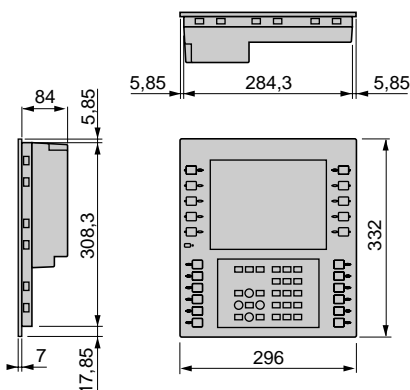
Display units and terminals	Cut-out for flush mounting		
	H (± 0.4 mm)	G (± 0.5 mm)	r
<b>XBT N</b>	63	119.4	1.5 maxi
<b>XBT R</b>	105.2	119.6	1.5 maxi
<b>XBT PM</b>	134	235	2 < r < 3.5
<b>XBT HM</b>	99.2	190.9	2 < r < 3.5

### Dimensions

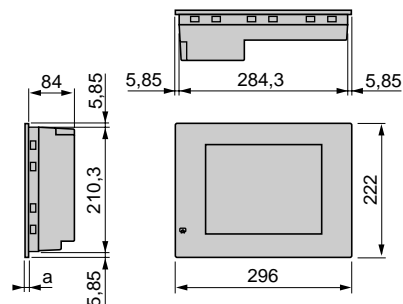
#### XBT F011●10



#### XBT F023/024

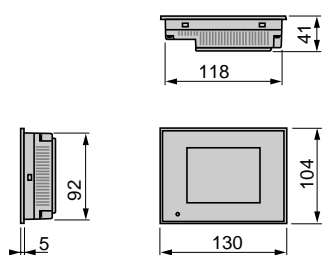


#### XBT F034/FC0●4

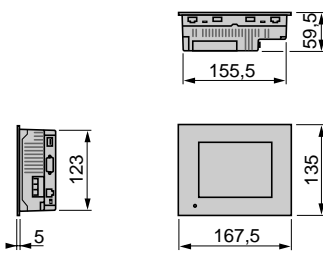


	a
XBT F034	7
XBT FC0●4	11

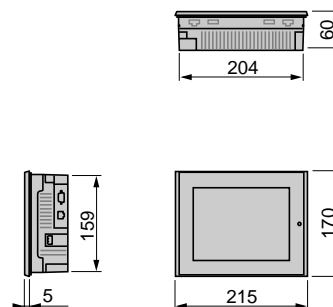
#### XBT GT1100/GT1130



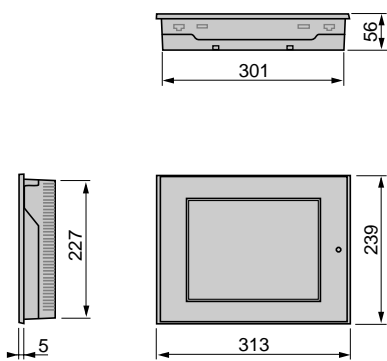
#### XBT GT2110 XBT GT2120/GT2130/GT2220/GT2330



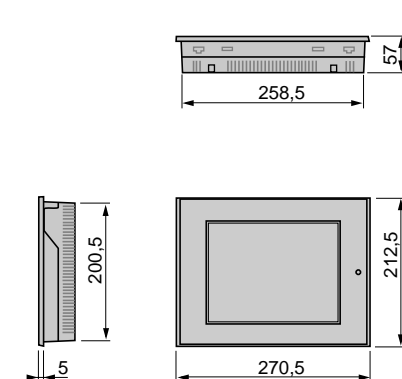
#### XBT GT4230/GT4330/GT4340



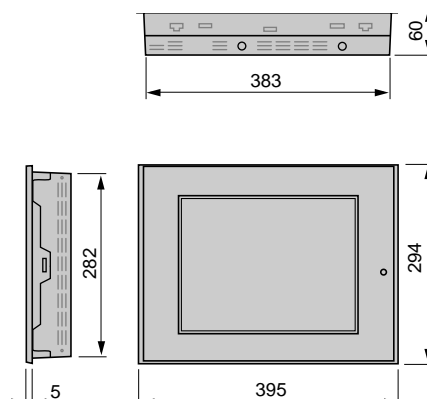
#### XBT GT5230 and XBT GT6330/G6340



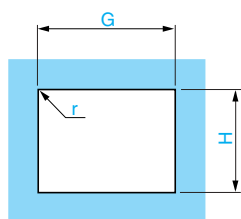
#### XBT GT5330/GT5340



#### XBT GT7340



### Mounting



T = panel thickness

#### Graphic terminals

#### Cut-out for flush mounting

	H	G	r	T
XBT F011●10	243 (± 0.4)	209 (± 0.4)	2 < r < 3.5	1.6...6
XBT F024	309 (± 0.4)	285 (± 0.4)	2 < r < 3.5	1.6...6
XBT F034/FC0●4	210.9 (± 0.4)	284.9 ± 0.4	2 < r < 3.5	1.6...6
XBT GT1100/GT1130	92.5 (+ 1/- 0)	118 (+ 1/- 0)	3 maxi	1.6...5
XBT GT2110/GT2120/GT2130/GT2220/GT2330	123.5(+ 1/- 0)	156 (+ 1/- 0)	3 maxi	1.6...5
XBT GT4230/GT4330/GT4340	159.5(+ 1/- 0)	204.5 (+ 1/- 0)	3 maxi	1.6...10
XBT GT5230/GT6330/G6340	201 (+ 1/- 0)	259 (+ 1/- 0)	3 maxi	1.6...10
XBT GT5330/GT5340	227.5 (+ 1/- 0)	301.5 (+ 1/- 0)	3 maxi	1.6...10
XBT GT7340	282.5 (+ 1/- 0)	383.5 (+ 1/- 0)	3 maxi	1.6...10