

### Presentation



Optimised graphic terminals with monochrome or colour screen in 3 sizes from 5.7" to 10.4"

Magelis *Opti* graphic terminals comprise:

- A range of 5 touchscreen products (XBT OT) with a choice of screen sizes (5.7", 7.5" and 10.4") as well as different versions (monochrome, colour, STN or TFT).

### Operation

Magelis *Opti* graphic terminals offer the advantages of a high level of performance whilst retaining economy:

- Communication on 2 serial links.
- External storage of data (Compact Flash memory card and USB Memory Stick) for production information backup and saving of applications.
- Peripheral management: printers, bar code readers, loudspeakers, etc.

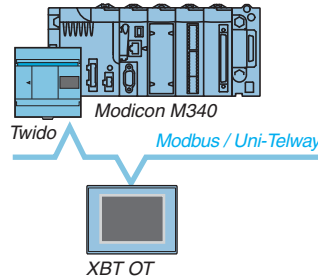


Video sequence display

### Configuration

Graphic terminals XBT OT can be configured using Vijeo Designer *Opti* software, in a Windows 2000, Windows XP or Windows Vista environment. The evolutive ergonomics of the Vijeo Designer *Opti* software, designed around several parameterable windows, enables quick and simple development of a project.

### Communication



Magelis XBT OT graphic terminals communicate with PLCs via two integrated serial links, using communication protocols:

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

### Functions

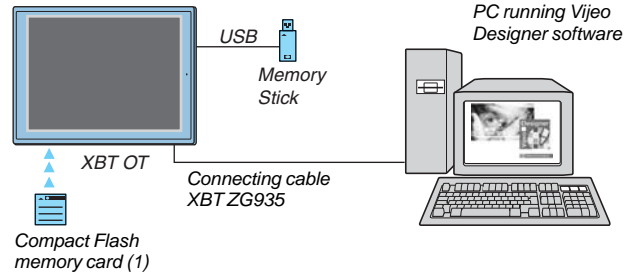
Optimised graphic terminals XBT OT offer the following functions:

- Display of animated synoptic views with 8 types of animation (pressing touch panel, 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 at the same time).
- Recipe management.
- Data processing via Java script.
- Application and log storage on Compact Flash format external application memory card or on USB key.
- Serial and parallel printer and bar code reader management.
- Sound messages management.

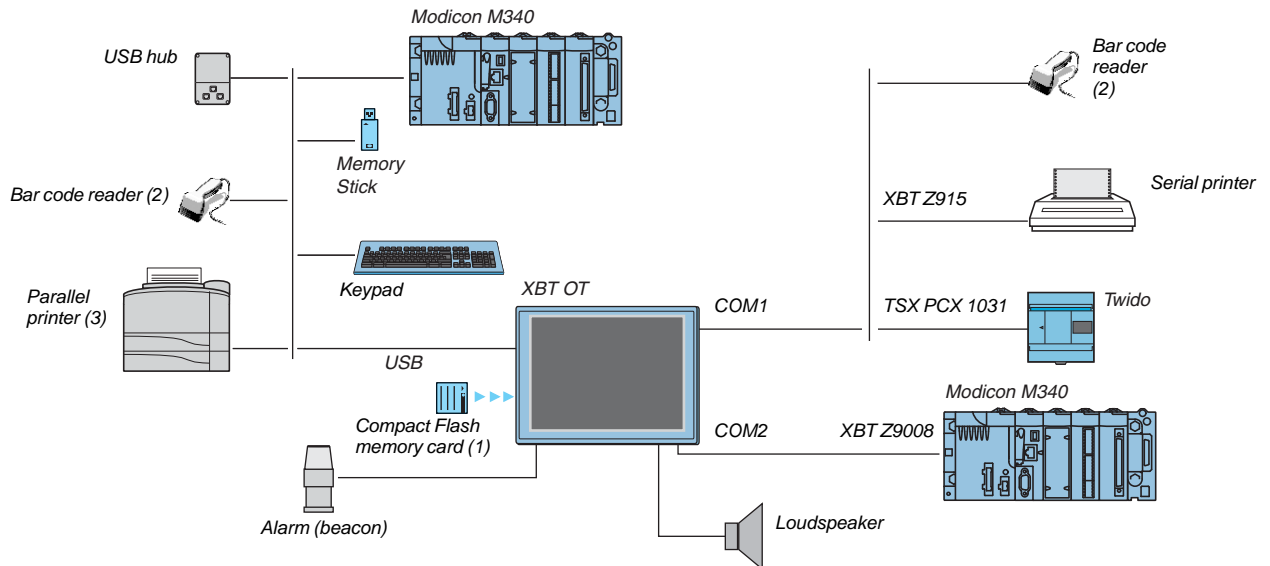
### Operating modes of optimised graphic terminals

The following illustrations indicate the equipment that can be connected to terminals XBT OT according to their two operating modes.

#### Editing mode



#### Operating mode



(1) 128, 256, 512 MB or up to 1 GB memory card, with XBT OT 43/52/53.

(2) Validated with DataLogic Gryphon bar code reader.

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

# Operator dialogue terminals

## Graphic terminals Magelis *Opti* XBT OT with 5.7" screen

### Description

Optimised graphic terminals XBT OT2110 and XBT OT2210

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

- 1 A graphical display touchscreen (5.7" monochrome or colour STN LCD).
- 2 A multicolour light (green, orange and red) indicating the operating mode of the terminal.



#### And on the rear panel:

- 1 A removable screw terminal block for  $\bar{\sim}$  24 V supply.
- 2 An A type USB host connector for peripheral connection, application transfer and Modicon M340 terminal port communication.
- 3 A 9-pin male SUB-D connector for RS 232C serial link to PLCs (COM1).
- 4 A 9-pin male SUB-D connector for RS 422/RS 485 serial link (COM2).



# Operator dialogue terminals

## Graphic terminals Magelis *Opti* XBT OT with 5.7" screen

Type of terminal		XBT OT2110	XBT OT2210	
<b>Environment</b>				
<b>Conformity to standards</b>		EN 61131-2, IEC 61000-6-2, FCC (Class A), UL 508		
<b>Product certifications</b>		CE, cULus		
<b>Temperature</b>	Operation	0...50 °C		
	Storage	- 20...+ 60 °C		
<b>Relative humidity</b>		0...85% (without condensation)	0...90% (without condensation)	
<b>Altitude</b>		< 2000 m		
<b>Degree of protection</b>	Front panel	IP 65 conforming to IEC 60529, Nema 4X		
	Rear panel	IP 20 conforming to IEC 60529		
<b>Shock resistance</b>		Conforming to IEC 60068-2-27; semi-sinusoidal pulse 11 ms, 15 gn on the 3 axes		
<b>Vibration</b>		Conforming to IEC 60068-2-6; 5...9 Hz at 3.5 mm; 9...150 Hz at 1 g		
<b>E.S.D.</b>		Conforming to IEC 61000-4-2, level 3		
<b>Electromagnetic interference</b>		Conforming to IEC 61000-4-3, 10 V/m		
<b>Electrical interference</b>		Conforming to IEC 61000-4-4, level 3		
<b>Mechanical characteristics</b>				
<b>Mounting and fixing</b>	Mounting on 1.6...5 mm thick panel	Flush mounted, fixed by 4 screw clamps (included)		
<b>Material</b>	Enclosure	Polycarbonate/polyethylene terephthalate		
<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>		18 W		
<b>Operating characteristics</b>				
<b>LCD screen</b>	Type	Back-lit monochrome STN	Colour STN	
	Colour	Blue and white, 8 levels of grey	256 colours	
	Definition	320 x 240 pixels (QVGA)		
	Size (width x height in mm)	5.7" (115.2 x 86.4)		
	Touch-sensitive zone	Analogue, resolution 1024 x 1024		
	Back-lighting (service life at 25 °C for continual usage)	58 000 hours	75 000 hours	
	Settings	Brightness	8 levels via touch panel	
		Contrast	8 levels via touch panel	
Character fonts	ASCII (including all European characters), Japanese (ANK, Kanji), Chinese (simplified Chinese), Taiwanese (traditional Chinese), Korean			
<b>Dialogue application</b>	Max. number of pages	Limited by internal Flash 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	6 MB Flash EPROM		
	Backup of data	320 kB SRAM (lithium batteries)		
<b>Schneider Electric protocols</b>		Telemecanique	Modicon	
<b>Third party protocols</b>		Mitsubishi	Melsec	
		Omron	Sysmac	
		Rockwell Automation	Allen-Bradley	
		Siemens	Simatic	
<b>Real-time clock</b>		Built-in real-time clock		
<b>Connections</b>	Power supply	Removable screw terminal block: 3 terminals (pitched at 5.06 mm), tightening torque 0.5 Nm		
	COM1 serial port (115.2 kbps max.)	9-pin male SUB-D connector (RS 232C serial link)		
	COM2 serial port (115.2 kbps max.)	9-pin male SUB-D connector (RS 422/RS 485 serial link), compatible with Siemens MPI (187.5 kbps)		
	USB port (V1.1)	A type USB host connector for downloading applications, peripheral connection and Modicon M340 terminal port communication.		

# Operator dialogue terminals

## Graphic terminals Magelis *Opti* XBT OT with 7.5" screen

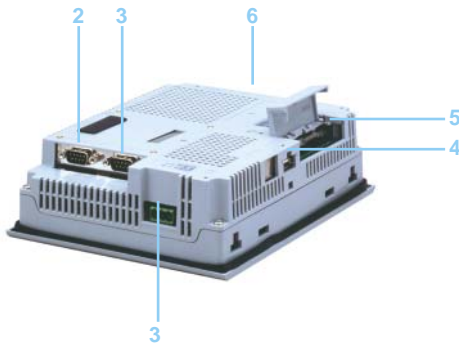
### Description

#### Multifunction graphic terminals XBT OT4320



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

- 1 A graphical display touchscreen (7.5" colour TFT LCD).
- 2 A multicolour light (green, orange and red) indicating the operating mode of the terminal.



#### And on the rear panel:

- 1 A removable screw terminal block for  $\overline{\text{---}}$  24 V supply.
- 2 A 9-pin male SUB-D connector for RS 232C serial link to PLCs (COM1).
- 3 A 9-pin male SUB-D connector for RS 422/RS 485 serial link (COM2).
- 4 An A type USB host connector for peripheral connection, application transfer and Modicon M340 terminal port communication.
- 5 A slot for Compact Flash memory card, with pivoting cover.
- 6 A removable input/output terminal block with 12 spring terminals for loudspeaker connection, one input (reset) and 3 outputs (alarm, buzzer, run).

# Operator dialogue terminals

## Graphic terminals Magelis *Opti* XBT OT with 7.5" screen

<b>Type of terminal</b>		<b>XBT OT4320</b>	
<b>Environment</b>			
<b>Conformity to standards</b>		EN 61131-2, IEC 61000-6-2, FCC (Class A), UL 508	
<b>Product certifications</b>		CE, cULus	
<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 to IEC 60529, Nema 4X (with fixing by 4 screw clamps)	
	Rear panel	IP 20 conforming to IEC 60529	
<b>Shock resistance</b>		Conforming to IEC 60068-2-27; semi-sinusoidal pulse 11 ms, 15 gn on the 3 axes	
<b>Vibration</b>		Conforming to IEC 60068-2-6; 5...9 Hz at 3.5 mm; 9...150 Hz at 1 g	
<b>E.S.D.</b>		Conforming to IEC 61000-4-2, level 3 (contact 6 kV, air 8 kV)	
<b>Electromagnetic interference</b>		Conforming to IEC 61000-4-3, 10 V/m	
<b>Electrical interference</b>		Conforming to 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 screw clamps (included)	
<b>Material</b>	Enclosure	Polycarbonate/polyethylene terephthalate	
<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>		22 W	
<b>Operating characteristics</b>			
<b>LCD screen</b>	Type	Colour TFT	
	Colour	256 colours, 64 if flashing	
	Definition	640 x 480 pixels (VGA)	
	Size (width x height in mm)	7.5" (153.7 x 115.8)	
	Touch-sensitive zone	Analogue, resolution 1024 x 1024	
	Back-lighting (service life at 25 °C for continual usage)	50 000 hours	
	Settings	Brightness	8 levels via touch panel
	Character fonts	ASCII (including all 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	6 MB Flash EPROM	
	Backup of data	320 kB SRAM (lithium batteries)	
<b>Schneider Electric protocols</b>	Telemecanique	Modicon	Modbus, Uni-TE
<b>Third party protocols</b>	Mitsubishi	Melsec	A/Q CPU (SIO), A/Q Ethernet (TCP) (1), A Link (SIO), QnA CPU (SIO), FX (CPU)
	Omron	Sysec	FINS (SIO), LINK (SIO)
	Rockwell Automation	Allen-Bradley	DF1-Full Duplex, DH 485, Ethernet IP (PLC5, SLC500, MicroLogix, ControlLogix)
	Siemens	Simatic	MPI (S7-300/400), RK512/3964R (S7-300/400), PPI (S7-200)
<b>Real-time clock</b>		Built-in real-time clock	
<b>Expansions</b>	Compact Flash card	1 slot for 128, 256, 512 MB or 1 GB Compact Flash memory card	
<b>Connections</b>	Power supply	Removable screw terminal block: 3 terminals (pitched at 5.06 mm), tightening torque 0.5 Nm	
	COM1 serial port (115.2 kbps max.)	9-pin male SUB-D connector (RS 232C serial link)	
	COM2 serial port (115.2 kbps max.)	9-pin male SUB-D connector (RS 422/RS 485 serial link), compatible with Siemens MPI (187.5 kbps)	
	USB port (V1.1)	A type USB host connector for downloading applications, peripheral connection and Modicon M340 terminal port communication.	
	Inputs/outputs	Removable screw terminal block for 1 audio output (8 Ω, 70 mW, frequency 1 kHz), 1 digital input and 3 digital outputs	

# Operator dialogue terminals

## Graphic terminals Magelis *Opti* XBT OT with 10.4" screen

### Description

Multifunction graphic terminals XBT OT5220 and XBT OT5320

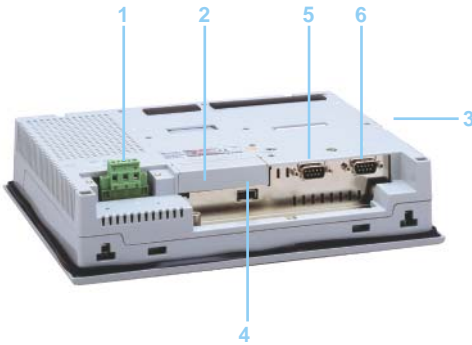
#### They have the following on the front panel:

- 1 A graphical display touchscreen (10.4" colour LCD or 10.4" colour TFT LCD, depending on model).
- 2 A multicolour light (green, orange and red) indicating the operating mode of the terminal.



#### And on the rear panel:

- 1 A removable screw terminal block for  $\bar{\text{---}}$  24 V supply.
- 2 A slot for Compact Flash memory card, with pivoting cover.
- 3 A removable input/output terminal block with 12 spring terminals for loudspeaker connection, one input (reset) and 3 outputs (alarm, buzzer, run).
- 4 An A type USB host connector for peripheral connection, application transfer and Modicon M340 terminal port communication.
- 5 A 9-pin male SUB-D connector for RS 232C serial link to PLCs (COM1).
- 6 A 9-pin male SUB-D connector for RS 422/RS 485 serial link (COM2).





# Operator dialogue terminals

## Graphic terminals Magelis *Opti* XBT OT with 10.4" screen

Type of terminal		XBT OT5220	XBT OT5320	
<b>Environment</b>				
<b>Conformity to standards</b>		EN 61131-2, IEC 61000-6-2, FCC (Class A), UL 508		
<b>Product certifications</b>		CE, cULus		
<b>Temperature</b>	Operation	0...50 °C		
	Storage	- 20...+ 60 °C		
<b>Relative humidity</b>		0...85% (without condensation)	0...90% (without condensation)	
<b>Altitude</b>		< 2000 m		
<b>Degree of protection</b>	Front panel	IP 65 conforming to IEC 60529, Nema 4X		
	Rear panel	IP 20 conforming to IEC 60529		
<b>Shock resistance</b>		Conforming to IEC 60068-2-27; semi-sinusoidal pulse 11 ms, 15 gn on the 3 axes		
<b>Vibration</b>		Conforming to IEC 60068-2-6; 5...9 Hz at 3.5 mm; 9...150 Hz at 1 g		
<b>E.S.D.</b>		Conforming to IEC 61000-4-2, level 3		
<b>Electromagnetic interference</b>		Conforming to IEC 61000-4-3, 10 V/m		
<b>Electrical interference</b>		Conforming to IEC 61000-4-4, level 3		
<b>Mechanical characteristics</b>				
<b>Mounting and fixing</b>	Mounting on 1.5...10 mm thick panel	Flush mounted, fixed by 4 screw clamps (included)		
<b>Material</b>	Enclosure	Polycarbonate/polyethylene terephthalate		
<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>		45 W		
<b>Operating characteristics</b>				
<b>LCD screen</b>	Type	Colour	Colour TFT	
	Colour	16 colours	256 colours, 64 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	Analogue, resolution 1024 x 1024		
	Back-lighting (service life at 25 °C for continual usage)	50 000 hours		
	Settings	Brightness	8 levels via touch panel	
	Character fonts	ASCII (including all 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	6 MB Flash EPROM		
	Backup of data	320 kB SRAM (lithium batteries)		
<b>Schneider Electric protocols</b>	Telemecanique	Modicon	Modbus, Uni-TE	
<b>Third party protocols</b>	Mitsubishi	Melsec	A/Q CPU (SIO), A/Q Ethernet (TCP), A Link (SIO), QnA CPU (SIO), FX (CPU)	
	Omron	Sysec	FINS (SIO), LINK (SIO)	
	Rockwell Automation	Allen-Bradley	DF1-Full Duplex, DH 485, (PLC5, SLC500, MicroLogix, ControlLogix)	
	Siemens	Simatic	MPI (S7-300/400), RK512/3964R (S7-300/400), PPI (S7-200)	
<b>Real-time clock</b>		Built-in real-time clock		
<b>Expansions</b>	Compact Flash card	1 slot for 128, 256, 512 MB or 1 GB Compact Flash memory card		
<b>Connections</b>	Power supply	Removable screw terminal block: 3 terminals (pitched at 5.06 mm), tightening torque 0.5 Nm		
	COM1 serial port (115.2 kbps max.)	9-pin male SUB-D connector (RS 232C serial link)		
	COM2 serial port (115.2 kbps max.)	9-pin male SUB-D connector (RS 422/RS 485 serial link), compatible with Siemens MPI (187.5 kbps)		
	USB port (V1.1)	A type USB host connector for downloading applications, peripheral connection and Modicon M340 terminal port communication.		
	Inputs/outputs	Removable screw terminal block for 1 audio output (8 Ω, 70 mW, frequency 1 kHz), 1 digital input and 3 digital outputs		



XBT OT2110/2210



XBT OT4320



XBT OT5220/5320

### Optimised touchscreen graphic terminals (1)

#### 5.7" screen

Type of screen	Number of ports	Application memory capacity	Compact Flash memory	Reference	Weight kg
Monochrome STN	1 COM1 1 COM2 1 USB	6 MB	No	XBT OT2110	1.000
Colour STN	1 COM1 1 COM2 1 USB	6 MB	No	XBT OT2210	1.000

#### 7.5" screen

Colour TFT	1 COM1 1 COM2 1 USB	6 MB	Yes	XBT OT4320	1.800
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#### 10.4" screen

Colour	1 COM1 1 COM2 1 USB	6 MB	Yes	XBT OT5220	3.000
Colour TFT	1 COM1 1 COM2 1 USB	6 MB	Yes	XBT OT5320	2.500

(1) Included with terminals:

- CD with Vijeo Designer *Opti* configuration software and XBT OT terminal setting-up documentation in electronic format.
- fixing kit (screw clamps), USB connectors locking device.



XBT ZGM●●●

## Separate components

Description	Compatibility	Size	Reference	Weight kg
Compact Flash memory cards	All terminals XBT OT except XBT OT2●●●	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 OT2●●●	–	XBT ZG62	0.200
	XBT OT4●●●	–	XBT ZG64	0.200
	XBT OT5●●●	–	XBT ZG65	0.200

Description	Details	Length	Reference	Weight kg
Remote USB port for terminal XBT OT	Enables remote location of USB port on rear panel of terminal XBT OT, either on panel or enclosure door (Ø 21 mm fixing device)	1 m	XBT ZGUSB	–
Adaptor for Compact Flash cards	Enables a PC with a PCMCIA card format slot to be adapted to accept a Compact Flash card	–	XBT ZGADT	0.050



XBT ZGUSB

## Spare parts

Description	For use with	Reference	Weight kg
Seals	XBT OT2●●●	XBT ZG52	0.030
	XBT OT4●●●	XBT ZG54	0.030
	XBT OT5●●●	XBT ZG55	0.030
USB fastening	XBT OT2●●●/XBT OT4●●●	XBT ZGCLP1	–
	XBT OT5●●●	XBT ZGCLP3	–
Fixing kit	4 clamps and screws (max. tightening torque: 0.5 Nm). Included with all XBT OT terminals	XBT ZG FIX	0.100
Extension connector protection	All terminals XBT OT	XBT ZGCNC	0.030
Power supply connector	XBT OT2●●●	XBT ZGPWS1	0.030
	XBT OT4●●●/5●●●	XBT ZGPWS2	–
Auxiliary connector	Terminals XBT OT4●●●/5●●●	XBT ZGAUX	–

## Application transfer cables - terminal to PC

Type of terminal (terminal side connector)	Connector (PC side)	Type	Length	Reference	Weight kg
XBT OT (USB)	USB	TTL	2 m	XBT ZG935	0.290

## Printer connection cables

Type of printer	Connector (printer side)	Type	Length	Reference	Weight kg
Serial printer for terminal XBT OT	25-pin female SUB-D	RS 232C (COM1)	2.5 m	XBT Z915	0.200

### Adaptors and isolation units for terminals XBT OT

These 3 adaptors are used with the connection cables to suit the application. For example: using cable XBT Z968 for "+ (1)", i.e. adaptor XBT ZG909, enables connection of a Twido controller (via its terminal port) to an XBT OT terminal (via its COM2 port).

Description	Type of connector (automation product side)	Physical link (XBT OT terminal side)	On XBT OT port	Length	Reference	Weight kg
Adaptors for XBT OT	25-pin SUB-D connector	9-pin SUB-D connector, RS 485	COM2	0.2 m	<b>XBT ZG909</b>	–
		9-pin SUB-D connector, RS 232C	COM1	0.2 m	<b>XBT ZG919</b>	–

Description	Usage	Link to isolate	On XBT OT port	Reference	Weight kg
Serial link isolation units for XBT OT	- Connection to serial port of terminal XBT OT - Isolated link on 9-pin male SUB-D connector - Power supply via USB port of terminal. Integrate a USB hub	RS 232C	COM1	<b>XBT ZGI232</b>	–



XBT ZGI232

### Connection cables for XBT OT to other Telemecanique products

Automation product type	Type of connector (automation product side)	Protocol	Type of terminal, physical link	On XBT OT port	Length	Reference	Weight kg
Twido, Nano, Modicon TSX Micro, Modicon Premium	Terminal port 8-pin female mini-DIN	Uni-TE (V1/V2), Modbus	XBT OT, RS 485	COM2	2.5 m	<b>XBT Z968 + (1)</b>	0.180
			XBT OT, RS 232C	COM1	5 m	<b>XBT Z9681 + (1)</b>	0.340
			XBT OT, RS 232C	COM1	2.5 m	<b>TSX PCX 1031</b>	0.170
Modicon M340	RJ45	Modbus	XBT OT, RS 485	COM2	2.5 m	<b>XBT Z9008</b>	–
	USB	Terminal port	XBT OT	USB	1.8 m	<b>XBT Z938 + (1)</b>	0.230
Modicon Premium with TSX SCY 2160	25-pin female SUB-D	Uni-TE (V1/V2)	XBT OT, RS 485	COM2	2.5 m	<b>XBT Z918 + (1)</b>	0.230
			XBT OT, RS 232C	COM1	2.5 m	<b>XBT Z9710 + (2)</b>	0.210
Modicon Quantum	9-pin male SUB-D	Modbus	XBT OT, RS 232C	COM1	3.7 m	<b>990 NAA 263 20</b>	0.290
			XBT OT, RS 232C	COM1	2 m	<b>STB XCA 4002</b>	0.210
Advantys STB	HE13 (NIM, network interface module)	Modbus	XBT OT, RS 232C	COM1	2.5 m	<b>XBT Z988 + (2)</b>	0.220
			XBT OT, RS 232C	COM1	2.5 m	<b>XBT Z9711 + (2)</b>	0.210
Modicon Momentum M1	RJ45 (port 1 of Momentum M1)	Modbus	XBT OT, RS 232C	COM1	2.5 m	<b>XBT Z9711 + (2)</b>	0.210
Starter-controllers TeSys U, T Variable speed drives ATV 31/61/71, Soft starters ATS 48 Lexium 05 Preventa XPSMC	RJ45	Modbus	XBT OT	COM2	2.5 m	<b>XBT Z9008</b>	–

(1) Adaptor **XBT ZG909** to be used with cables with "+ (1)" after the reference.



(2) Adaptor **XBT ZG919** to be used with cables with "+ (2)" after the reference.



TSX PCX 1031

### Cables and adaptors for connecting XBT OT terminals to third party PLCs

#### Mitsubishi PLCs, Melsec

Description <i>Driver used</i>	Type of terminal	Type of connectors (fitted to cable, excluding adaptor)	Physical link (Port)	Length	Reference	Weight kg
 XBT ZG9772	XBT OT	9-pin SUB-D/ 25-pin SUB-D	RS 422 (COM2)	5 m	<b>XBT ZG9773</b>	–
 XBT ZG9731	XBT OT	9-pin SUB-D/ 25-pin SUB-D	RS 232C (COM1)	5 m	<b>XBT ZG9772</b>	–
	XBT OT	9-pin SUB-D/mini-DIN	RS 232C (COM1)	5 m	<b>XBT ZG9774</b>	–
	XBT OT	9-pin SUB-D/ 25-pin SUB-D	RS 232C (COM1)	5 m	<b>XBT ZG9731</b>	–
	XBT OT	9-pin SUB-D/mini-DIN	RS 422 (COM2)	5 m	<b>XBT ZG9775</b>	–
	XBT OT	9-pin SUB-D/free wires other end	RS 422 (COM2)	5 m	<b>XBT ZG9778 + (1)</b>	–
<b>Adaptor unit</b> FX (CPU), A CPU (SIO), QnA CPU (SIO)	XBT OT	2 port unit Screw terminals/ 2 x 9-pin SUB-D	RS 422 (COM2)	–	<b>XBT ZG979</b>	–

#### Omron PLCs, Sysmac

Description <i>Driver used</i>	Type of terminal	Type of connectors (fitted to cable, excluding adaptor)	Physical link (Port)	Length	Reference	Weight kg
<b>Connection cables,</b> Link (SIO)	XBT OT	9-pin SUB-D/ 9-pin SUB-D	RS 232C (COM1)	5 m	<b>XBT ZG9740</b>	–
		9-pin SUB-D/ 25-pin SUB-D	RS 232C (COM1)	5 m	<b>XBT ZG9731</b>	–
<b>Connection cables,</b> FINS (SIO)	XBT OT	9-pin SUB-D/ 9-pin SUB-D	RS 232C (COM1)	5 m	<b>XBT ZG9740</b>	–

(1) Cable **XBT ZG9778** to be used with 9-pin female/female SUB-D adaptor **XBT ZGCOM1**.



XBT ZG9731

### Cables and adaptors for connecting XBT OT terminals to third party PLCs (continued)

#### Rockwell Automation, Allen-Bradley PLCs

Description Driver used	Type of terminal	Type of connectors (fitted to cable, excluding adaptor)	Physical link (Port)	Length	Reference	Weight kg
Connection cables, <i>DF1 Full Duplex</i>	XBT OT	9-pin SUB-D/ 25-pin SUB-D	RS 232C (COM1)	5 m	<b>XBT ZG 9731</b>	–
Connection cables, <i>DH485</i>	XBT OT	25-pin SUB-D/ 8-pin mini-DIN	RS 485 (COM2)	5 m	<b>XBT Z9732 + (1)</b>	–

#### Siemens PLCs, Simatic

Description Driver used	Type of terminal	Type of connectors (fitted to cable, excluding adaptor)	Physical link (Port)	Length	Reference	Weight kg
Connection cables, Ports PPI, S7 200 and MPI, S7 300/400	XBT OT	9-pin SUB-D/ 9-pin SUB-D	RS 232C (COM1)	3 m	<b>XBT ZG9292</b>	–

#### Customisable cables

Description Driver used	Type of terminal	Type of connectors (fitted to cable, excluding adaptor)	Physical link (Port)	Length	Reference	Weight kg
Universal cable, <b>RS 422</b>	XBT OT	9-pin SUB-D/ free wires other end	RS 422 (COM2)	2.5 m	<b>XBT ZG9722</b>	0.210
Universal adaptor, <b>RS 422 C/485</b>	XBT OT	9-pin SUB-D/ Screw terminal	RS 422 (COM2)	–	<b>XBT ZG949 + (2)</b>	–

(1) Adaptor **XBT ZG909** to be used with cables with "+ (1)" after the reference, see page 36383-EN\_Ver1.0/13.

(2) Cable to be created by user and used in conjunction with 9-pin female/female SUB-D adaptor **XBT ZGCOM1**.



TSX SCA 62



TSX P ACC 01



TSX SCA 64



LU9 GC3



TWDXCAISO



ABL 7RM2401

### Connection of XBT OT terminals via serial links

Type of bus/network	Tap-off unit	Connector (tap-off unit side)	Type of terminal (Port)	Length	Reference	Weight kg
Uni-Telway serial link	Subscriber socket TSX SCA 62	15-pin female SUB-D	XBT OT (COM2)	1.8 m	<b>XBT Z908 + (1)</b>	0.240
	Connection box TSX P ACC01	8-pin female mini-DIN	XBT OT (COM2)	2.5 m 5 m	<b>XBT Z908 + (1)</b> <b>XBT Z9681 + (1)</b>	0.180 0.340
Modbus serial link	Subscriber socket TSX SCA 64	15-pin female SUB-D	XBT OT (COM2)	1.8 m	<b>XBT Z908 + (1)</b>	0.240
	8 port Modbus splitter box LU9 GC3 2 port tap-off box TWDXCAISO TWDXCAT3RJ	RJ45	XBT OT (COM2)	2.5 m	<b>XBT Z9008</b>	–

### Modular regulated switch mode power supplies ABL 7RM (2)

Mains input voltage/ Output voltage	Association	Nominal power	Nominal current	Reference	Weight kg
<b>100...240/24 V</b> single-phase, wide range 47...63 Hz	XBT OT	30 W	1.3 A	<b>ABL 7RM2401</b>	0.182

(1) Adaptor **XBT ZG909** to be used with cables with “+ (2)” after the reference, see page 36383-EN\_Ver1.0/13.

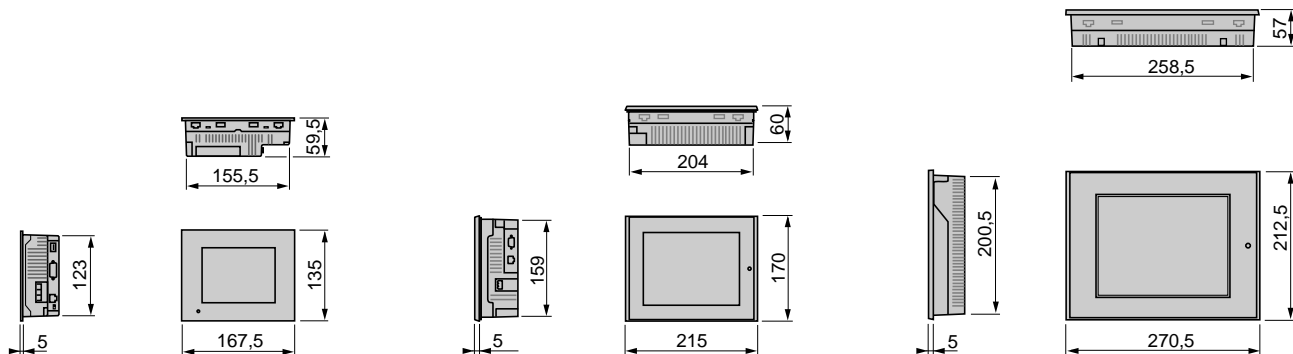
(2) Dimensions:  $H \times W \times D = 90 \times 72 \times 59$  mm. For further information, please refer to our “Power supplies, splitter boxes and interfaces” catalogue.

## Dimensions

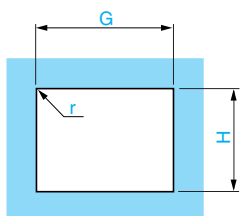
XBT OT2110/2210

XBT OT4320

XBT OT5220/5320



## Mounting



T = panel thickness

Graphic terminals	Cut-out for flush mounting			
	H	G	r	T
XBT OT2110/2210	123.5 (+ 1/- 0)	156 (+ 1/- 0)	3 max.	1.6...5
XBT OT4320	159.5 (+ 1/- 0)	204.5 (+ 1/- 0)	3 max.	1.6...10
XBT OT5220/5320	201 (+ 1/- 0)	259 (+ 1/- 0)	3 max.	1.6...10