Operator dialogue terminals
Compact display units and terminals
Magelis XBT N, XBT R and XBT RT

Presentation

Compact display units Magelis XBT N and compact terminals Magelis XBT R/RT are used to display messages and variables. In addition, Magelis compact terminals XBT RT can display small graphic elements.

Various keys can be used to:
- Modify variables.
- Control a device.
- Navigate in an operator dialogue application.

On terminals XBT RT, the touchscreen can also be used for modifying variables, controlling equipment and navigating within the dialogue application.

Models incorporating a printer port enable printing of alarm messages.

Operation

All Magelis compact display units feature the same ergonomic user interface:

- A configurable touchscreen, on XBT RT only (“touch-sensitive” mode).
- 2 service keys (ESC, ENTER), non configurable.
- Complementary to these keys are:
  - for display units XBT N: 4 customisable and configurable keys, either as function keys (“control” mode) or service keys (“entry” mode),
  - for terminals XBT R: 4 service keys, non configurable, and 12 function or numeric entry keys (depending on context),
  - for terminals XBT RT in “control” or “entry” mode: 4 customisable and configurable function keys, 4 service keys (non configurable).
Configuration

Magelis compact display units and terminals can be configured using Vijeo Designer Lite software in a Windows environment.

The Vijeo Designer Lite software uses the concept of pages: each page can be viewed in its entirety. A 2, 4 or 10-line window, depending on the display unit model to be configured, enables viewing the screen of this virtual terminal.

The symbol databases of TwidoSoft, PL7 and Concept applications can be imported into the Vijeo Designer Lite operator dialogue application.

Communication

Display units XBT N and terminals XBT R/RT communicate with PLCs via an integrated point-to-point or multidrop serial link, depending on model.

The communication protocols used are those of Schneider Electric PLCs (Uni-TE, Modbus), as well as those of the other major manufacturers on the market.
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Functions
Compact display units and terminals XBT N/R/RT have, on the front panel, function keys and service keys (according to “control” and “entry” customisation).
The XBT RT features a configurable touchscreen in “touch-sensitive” operating mode.

Function keys “F”
Function keys are defined for the whole application.
Their number depends on the model:
- F1, F2, F3, F4 on XBT N.
- F1…F12 on XBT R.
- F1…F10 or F1…F4 according to configuration on XBT RT.
They can have the following functions:
- Accessing a page.
- Pulsed control.
- Push and push-to-release control.
- etc.

In addition, with terminal XBT R the 12 function keys switch to numeric inputs 1…0, +/- on pressing the MOD key.

Function keys “R” for XBT RT (“entry” mode)
Function keys R1, R2, R3 and R4 of the XBT RT are defined for the pages displayed.
They can be used for:
- Accessing a page.
- Memorising memory bits.
- Toggling memory bits (ON/OFF).
- Resetting to 1/0 of memory bits.
An icon can be displayed on the screen above the Ri keys. This icon is defined using the Vijeo Designer Lite software.

Matrix (5 x 11 cells) touchscreen for XBT RT
The touchscreen can be configured to be active on XBT RT (“touch-sensitive” mode).
This is used for:
- Accessing a page.
- Memorising/toggling memory bits.
- Modifying a numeric field via a virtual numeric keypad.

Service keys
- Service keys (ESC, DEL, ⤪, ⤫, MOD, ENTER, ⤩, ⤪) are used for modifying the parameters of the automation system.
They perform the following actions:
ESC Cancel an entry, suspend or stop a current action, go back up a level in a menu.
DEL Delete the character selected in entry mode.
MOD Select the variable field to enter. Authorise the entry of the next field, on each press, from left to right and top to bottom.
ENTER Confirm a selection or entry, acknowledge an alarm.

The “arrow” keys are used to:
- change page within a menu,
- display the current alarms,
- change a digit in a variable field being entered,
- activate the function associated with a functional link.
- move up and down within a page (XBT N40●),
- select the value of a digit,
- select a value from a list of choices,
- increment or decrement the value of a variable field.
Description of compact display units XBT N

Compact display units XBT N comprise:

**On the front panel:**

1. A communication monitoring indicator light (model XBT N401).
2. A back-lit LCD display: 122 x 32 pixels (matrix) or 2 lines of 20 characters (alphanumeric).
3. Two control or contextual link keys, not customisable.
5. Six service keys, 4 of which (framed) are configurable as function keys and customisable using legend.
6. Two system indicator lights in entry mode or 4 indicator lights managed by PLC in control mode (model XBT N401).

**Supplied separately:**

- A sheet of legends comprising:
  7. An “entry” legend.
  8. A “control” legend F1, F2, F3 and F4.
  9. 4 customisable blank legends.
- 2 spring clips for fixing display unit on panel.

**On the rear:**

**Display units XBT N200/N400**

1. An RJ45 connector for point-to-point serial link and 5 V power supply connection (supplied by PLC).

**Display units XBT N401/N410/N400**

2. A removable screw terminal block for 24 V external power supply.
3. A 25-pin female SUD-D connector for multipoint serial link.
Compact terminals XBT R comprise:

**On the front panel:**
1. A communication monitoring indicator light (XBT R411).
2. A back-lit LCD display: 122 x 32 pixels (matrix).
3. Two control or contextual link keys, not customisable.
5. Six service keys.
6. Two system indicator lights (model XBT R411).
7. Twelve function or numeric entry keys (depending on context), customisable using legend.
8. Twelve indicator lights (for model XBT R411), managed by PLC.

**Supplied separately:**

- A sheet of legends comprising:
  9. A “control” legend F1, F2, ...F12.
  10. 2 customisable blank legends.
- 4 spring clips for fixing terminal on panel.

**On the rear:**

**Terminals XBT R400**
1. An RJ45 connector for point-to-point serial link and 5 V power supply connection (supplied by PLC).

**Terminals XBT R410/R411**
2. A removable screw terminal block for 24 V external power supply.
3. A 25-pin female SUD-D connector for multipoint serial link.
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Description of compact terminals XBT RT with touchscreen and keypad

Compact terminals XBT RT comprise:

**On the front panel:**
1. An extra bright back-lit LCD display: 198 x 80 pixels (matrix).
2. Two service keys.
3. Configurable function or service keys and customisable using legends.
4. Matrix (11 x 5 cells) touchscreen.

**Supplied separately:**

- Two sheets of legends comprising:
  5. A configurable “control” legend F1…F4
  6. A customisable blank “control” legend
  7. An “entry” legend R1…R4
  8. A “tactile feedback” legend F1…F10
  9. Two customisable blank “tactile feedback” legends.

**On the rear:**

**Terminals XBT RT500**
1. An RJ45 connector for point-to-point serial link and 5 V power supply connection (supplied by PLC).