

## How to install Magelis operator terminals for Merchant Navies applications

**Schneider Automation SAS**  
**Subsidiary of Schneider Electric**  
**06516 Carros - France**

### DISCLAIMER

Instructions provided in this Technical Resolution do not substitute to Merchant Navies Rules applicable in ship manufacturing or ship maintenance & installation.

### RELEVANT STANDARDS

These devices have been manufactured in accordance with:

- IACS-E10
- IEC 60945 with selection of applicable sections
- IEC 60092-504 with selection of applicable sections
- IEC 61174 with selection of applicable sections

**We cannot accept any responsibility for failure to observe these regulations.**

### RELEVANT PRODUCTS

These recommendations relate to matrix and graphic terminals intended for installation for Merchant Navies applications

### GENERAL INSTALLATION INSTRUCTIONS

Make sure that you follow all the recommendations in the User Manuals and especially those listed below

### MERCHANT NAVIES INSTALLATION INSTRUCTIONS

#### *General*

Only analogue, digital and telecommunication signal pairs can be bound one against the other in one bundle or run in the same bundled cable.

The relay, variator, supply and power circuits must be separated from the pairs above.

Take special care when setting up the speed variators to separate the power connections from the data connections.

Check IP Code (Degrees of protection provided by enclosures) compliance of your installation

# INSTRUCTION SHEET

## XBT N/R MATRIX TERMINALS

For installation on GENERAL PURPOSE DISTRIBUTION ZONE  
 To comply with EMC requirements GENERAL PURPOSE DISTRIBUTION ZONE, products must be installed with accessories detailed in the table below:

Products	Instructions for Installation
All XBT N All XBT R	Serial link cable, Printer cable and Power supply cable must be fitted with Würth 74271222 type snap ferrite

For installation on the BRIDGE.  
 To comply with EMC requirements for BRIDGE, products must be installed with accessories detailed in the table below:

Products	Instructions for Installation
All XBT N All XBT R	<ul style="list-style-type: none"> <li>Serial link cable, Printer cable and Power supply cable must be fitted with Würth 74271222 type snap ferrite</li> <li>Terminal must be installed five meters away from the compass as required in 11.2 of IEC60945.</li> </ul>
24VDC power supplied terminals : XBT R410 XBT R411 XBT N401 XBT N410 XBT NU400	<ul style="list-style-type: none"> <li>Power supply cable fitted (in series with supply terminals) with Schaffner FN680-1/06 type filter.</li> <li>Terminal must be installed five meters away from the compass as required in 11.2 of IEC60945.</li> </ul>

## GRAPHIC XBT GT, HMI STU and HMI STO TERMINALS

For installation on GENERAL PURPOSE DISTRIBUTION ZONE

To comply with EMC requirements for GENERAL PURPOSE DISTRIBUTION ZONE, products must be installed with accessories detailed in the table below:

Products	Instructions for Installation
XBT GT1100 / 1130	No specific instruction
XBT GT2330 / 2340 XBT GT4330 / 4340 XBT GT5330 / 5340 XBT GT6330 / 6340 XBT GT7340	<ul style="list-style-type: none"> <li>Power supply cable must be fitted (in series with supply terminals) with Schaffner FN2070-1/06 type filter.</li> <li>Product must be mounted in a grounded metallic enclosure.</li> <li>Shield of Power supply cable, AUX cable and USB cables must be grounded</li> </ul>

For installation on the BRIDGE

To comply with EMC requirements for BRIDGE, products must be installed with accessories detailed in the table below:

Products	Instructions for Installation
XBT GT 1100 XBT GT 1130	<ul style="list-style-type: none"> <li>Power supply cable must be fitted (in series with supply terminals) with Schaffner FN680-1/06 type filter.</li> <li>Terminal must be installed five meters away from the compass as required in 11.2 of IEC60945.</li> <li>HMI application must be designed to not degrade the night vision of the officer of the watch. Configuration software offers the possibility to tune brightness/contrast and application panel colours to comply with Ergonomic requirements based on IEC60945 for Bridge.</li> </ul>
HMI STU 655 HMI STU 855	<ul style="list-style-type: none"> <li>Power supply cable must be fitted (in series with supply terminals) with Schaffner FN2010 type filter.</li> <li>Terminal must installed five meters away from the compass as required in 11.2 of IEC60945.</li> <li>HMI application must be designed to not degrade the night vision of the officer of the watch. Configuration software offers the possibility to tune brightness/contrast and application panel colours to comply with Ergonomic requirements based on IEC60945 for Bridge.</li> </ul>
HMISTO501 HMISTO511 HMISTO512	<ul style="list-style-type: none"> <li>Power supply cable must be fitted (in series with supply terminals) with Schaffner FM2070-3-06 type filter.</li> <li>Terminal must installed five meters away from the compass as required in 11.2 of IEC60945.</li> <li>HMI application must be designed to not degrade the night vision of the officer of the watch. Configuration software offers the possibility to tune brightness/contrast and application panel colours to comply with Ergonomic requirements based on IEC60945 for Bridge.</li> </ul>

# INSTRUCTION SHEET

## GRAPHIC HMIGTO TERMINALS

For installation on GENERAL PURPOSE DISTRIBUTION ZONE

To comply with EMC requirements for GENERAL PURPOSE DISTRIBUTION ZONE, products must be installed with accessories detailed in the table below:

Products	Instructions for Installation
HMI GTO 1300 /1310 HMI GTO 2300 / 2310 HMI GTO 3510 HMI GTO 4310	<ul style="list-style-type: none"> <li>A filter of Schaffner type FN2070-3-06 or equivalent is to be installed inside the 24VDC power line.</li> </ul>
HMI GTO 5310 HMI GTO 6310	<ul style="list-style-type: none"> <li>No specific instruction</li> </ul>

For installation on the BRIDGE

To comply with EMC requirements for BRIDGE, products must be installed with accessories detailed in the table below:

Products	Instructions for Installation
HMI GTO 1300 /1310 HMI GTO 2300 / 2310 HMI GTO 3510 HMI GTO 4310	<ul style="list-style-type: none"> <li>A filter of Schaffner type FN2070-3-06 or equivalent is to be installed inside the 24VDC power line.</li> <li>The product is to be placed inside the metal enclosure.</li> <li>Terminal must be installed five meters away from the compass as required in 11.2 of IEC60945.</li> <li>HMI application must be designed to not degrade the night vision of the officer of the watch Configuration software offers the possibility to tune brightness/contrast and application panel colours to comply with Ergonomic requirements based on IEC60945 for Bridge.</li> </ul>
HMI GTO 5310 HMI GTO 6310	<ul style="list-style-type: none"> <li>The product is to be placed inside the metal enclosure.</li> <li>Terminal must installed five meters away from the compass as required in 11.2 of IEC60945.</li> <li>HMI application must be designed to not degrade the night vision of the officer of the watch. Configuration software offers the possibility to tune brightness/contrast and application panel colours to comply with Ergonomic requirements based on IEC60945 for Bridge.</li> </ul>

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# INSTRUCTION SHEET

## • Industrial PC and associated display

For installation on the GENERAL PURPOSE DISTRIBUTION ZONE and BRIDGE

To comply with EMC requirements, products must be installed with accessories detailed in the table below:

Products	Instructions for Installation
Box PC HMIBUxND1xx1 HMIBUxND2xx1 HMIPCCB1B1B HMIPCCB1B2B HMIPCCB1B1B	<ul style="list-style-type: none"> <li>• Power supply cable must be fitted (in series with supply terminals) with HMIYLFIMAR11 filter. (see Schneider catalogue)</li> <li>• Product must be installed five meters away from the compass as required in 11.2 of IEC60945.</li> </ul>
Panel PC HMIPUx7D0xx1 HMIPUx9D0xx1 HMIPCCP170B HMIPCCP180B	<ul style="list-style-type: none"> <li>• Power supply cable must be fitted (in series with supply terminals) with HMIYLFIMAR11 filter. (see Schneider catalogue)</li> <li>• Product must be installed five meters away from the compass as required in 11.2 of IEC60945.</li> <li>• HMI application must be designed to not degrade the night vision of the officer of the watch Configuration software offers the possibility to tune brightness and application panel colours to comply with Ergonomic requirements based on IEC60945 for Bridge.</li> </ul>
Display HMIDID7DT0	<ul style="list-style-type: none"> <li>• HMIDID7DT0 must be connected to marine certified Schneider Box PC</li> <li>• Power supply cable must be fitted (in series with supply terminals) with Schaffner FN2070-3-06 or FN670-1.8-06 type filter.</li> <li>• Display must be installed five meters away from the compass as required in 11.2 of IEC60945.</li> <li>• HMI application must be designed to not degrade the night vision of the officer of the watch. Configuration software offers the possibility to tune brightness/contrast and application panel colours to comply with Ergonomic requirements based on IEC60945 for Bridge.</li> </ul>

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