

DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-12319**

This is to certify that the
Peripheral Equipment

with type designation(s)
IT/XT-series Operator Panels

Manufactured by
ESA Elettronica S.p.A.
Mariano Comense CO, Italy

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards


Application
Location classes:

Temperature	A
Humidity	B
Vibration	A
EMC	B
Enclosure	C / IP66 (panel front)

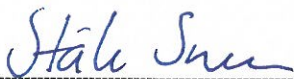
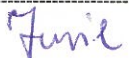
Høvik, 2011-06-10
for Det Norske Veritas AS



This Certificate is valid until
2015-06-30


Odd Magne Nesvåg
Head of Section

DNV local office:
Milan


Ståle Sneen
Surveyor 

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Certificate No.: A-12319
File No.: 899.60
Job Id.: 262.1-009096-1

Product description

HMI Operator Panels,
- IT Operator Panel series,
- XT Operator Panel Open CE series,
comprising the following models:

Model name	Description
IT104G	4.3" TFT 480x272, 32 tones of gray
IT104T	4.3" TFT 480x272, 65.536 colors
IT105B	5,7" STN 320x240, 16 tones of blue
IT105S	5,7" STN 320x240, 65.536 colors
IT105T	5,7" TFT 320x240, 65.536 colors
IT105BK	5,7" STN 320x240, 16 tones of blue
IT105TK	5,7" TFT 320x240, 65.536 colors
IT107W	7" TFT 800x480, 65.536 colors
IT107T	7,5" TFT 640x480, 65.536 colors
IT110T	10,4" TFT 640x480, 65.536 colors
IT112T	12,1" TFT 800x600, 65.536 colors
IT115T	15" TFT 1024x768, 65.536 colors
XT104T	4.3" TFT 480x272, 65.536 colors
XT105B	5,7" STN 320x240, 16 tones of blue
XT105S	5,7" STN 320x240, 65.536 colors
XT105T	5,7" TFT 320x240, 65.536 colors
XT107T	7,5" TFT 640x480, 65.536 colors

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Application/Limitation

Only models that have a revision number with trailing letter D are covered by this approval. E.g. Revision 1.0D.

Each unit shall be equipped with power supply filtering of the following type:

For IT104; XT104:

MANUFACTURE: CHANGZHOU JIANLI ELECTRONIC CO.LTD
MODEL: DL-6D11

or equivalent.

For all other models (IT105; IT107; IT110; IT112; IT115; XT105; XT107):

MANUFACTURE: CORCOM
MODEL: 6VW1

or equivalent.

Type Approval documentation

Catalogues:

- ESA HMI Product Catalogue No. 405.1500.014.2 11/10
- ESA HMI Products Overview No. 405.1500.015.2 11/10

ESA IT/XT Universal Operator Terminals, installation overview:

- No. 405.1300.170.0 Rev. 1 – (IT104 CAN-DP-PROFINET)
- No. 405.1300.169.0 Rev. 1 – (IT104 SP1-SP2-COM0)
- No. 405.1300.158.0 Rev. 3 – (IT105 CAN-DP-PROFINET)
- No. 405.1300.145.0 Rev. 4 – (IT105 SP1-SP2-COM0)
- No. 405.1300.160.0 Rev. 3 – (IT107 CAN-DP-PROFINET)
- No. 405.1300.155.0 Rev. 3 – (IT107 SP1-SP2-COM0)
- No. 405.1300.161.0 Rev. 2 – (IT110-112 CAN-DP-PROFINET)
- No. 405.1300.156.0 Rev. 2 – (IT110-112 SP1-SP2-COM0)
- No. 405.1300.164.0 Rev. 1 – (IT115 CAN-DP-PROFINET)
- No. 405.1300.163.0 Rev. 1 – (IT115 SP1-SP2-COM0)



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Technical data and specification sheets are available at <http://www.esahmi.com>

Nemko EMC Test Reports according to EN 61000-6-2 / EN 61000-6-3:

- No. 111606TRF EMC dated 2008-09-23 – (IT104T)
- No. 94599TRFEMC dated 2007-11-22 – (IT105TK)
- No. 63269TRFEMC dated 2006-04-07 – (IT105S)
- No. 79739-1TRFEMC dated 2007-02-02 – (IT107T)
- No. 151018TRFEMC dated 2010-06-22 – (IT107W)
- No. 90194-1TRFEMC dated 2007-09-21 – (IT112T)
- No. 99971-1TRFEMC dated 2008-02-05 – (IT115T)

Nemko EMC Test reports according to DNV Standard for Certification No. 2.4 (April 2006):

- No. 163967-1TRFEMC dated 2011-02-02 – (IT115)
- No. 163967-2TRFEMC dated 2011-02-02 – (IT107)
- No. 163967-3TRFEMC dated 2011-02-02 – (IT104)

Nemko Environmental Test reports according to DNV Standard for Certification No. 2.4 (April 2006):

- No. 163967-1TRFENV dated 2011-02-24 – (IT112)
- No. 163967-2TRFENV dated 2011-02-24 – (IT115)
- No. 163967-3R1TRFENV dated 2011-05-26 – (IT115)
- No. 163967-4TRFENV dated 2011-03-08 – (IT104)

Type Approval Survey Report for ESA elettronica S.p.A., DNV Milan 2011-03-24.

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

Marking of product

Manufacturer: ESA Elettronica S.p.A.

Model name as listed under product description

Unique serial number

Revision n.nD, where n can be any number from 0 to 9

Power supply: 24 VDC

Certificate Retention Survey

The scope of the retention/renewal survey is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the survey are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE