



Marine &amp; Offshore

Certificate number: 38948/B0 BV

File number: AP 4557

Product code: 4483D

This certificate is not valid when presented without the full attached schedule  
composed of 7 sections

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## TYPE APPROVAL CERTIFICATE

This certificate is issued to

**MARINER SYSTEMS (UK) Ltd**

Wokingham - UNITED KINGDOM

for the type of product

**DISPLAY MONITORS / VIDEO SCREENS / TERMINALS**

HP EliteDisplay E190i 19-inch IPS LED Backlit Monitor

complete with

Mariner Systems Mounting Kits MS1170, MS1175 or MS1180.

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships  
IEC 60945 (2002), including IEC 60945 Corrigendum 1 (2008)

EC Code : 31

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

**This certificate will expire on: 20 Nov 2024**

For Bureau Veritas Marine & Offshore,

At BV LONDON, on 20 Nov 2019,

Spencer Yule



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site [www.veristar.com](http://www.veristar.com). Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 2 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

**HP EliteDisplay E190i, 19-inch IPS LED Backlit Monitor complete with Mariner Systems Mounting Kits MS1170, MS1175 or MS1180.**

The HP EliteDisplay E190i, 19-inch IPS LED Backlit Monitor (models E4U30AA, E4U30AT, E4U30AS) must be used in conjunction with the appropriate Mariner Systems Kits

MS1170 - Desk mounted,  
MS1175 - Wall mounted, or  
MS1180 - Console mounted.

### 2. DOCUMENTS AND DRAWINGS:

HP EliteDisplay E190i, 19-inch IPS LED Backlit Monitor QuickSpec DA14806 Version 6 dated 27 March 2014.

Mariner Systems drawing MS1170\_A Issue 1 dated 21 March 2014.

Mariner Systems drawing MS1175\_A Issue 1 dated 21 March 2014.

Mariner Systems drawing MS1180\_A Issue 1 dated 31 January 2014.

### 3. TEST REPORTS:

MS Testing electromagnetic & environmental compatibility report TL14017 Issue 3, dated 4 October 2019.

### 4. APPLICATION / LIMITATION:

4.1 - Each display must be used in conjunction with the appropriate Mariner Systems Kits: MS1170, MS1175 or MS1180.

4.2 - According to BUREAU VERITAS Rules for the Classification of Steel Ships.

4.3 - Approval valid for ships intended to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.4 - For use in Control, Loading Instrument & General Purpose Applications.

Application to navigation systems may be allowed, when compliance to standard IEC 62288 is not requested.

4.5 - BUREAU VERITAS Environmental Category, **EC Code: 31.**

4.6 - The equipment fulfils the EMC requirements for installation on the Bridge and weather-protected Deck zones.

4.7 - The equipment complies with the test requirements of IACS E10 Rev.7.

### 5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The HP EliteDisplay E190i, 19-inch IPS LED Backlit Monitor is to be supplied by **HEWLETT PACKARD** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.2 - The supporting Mounting Kits are to be supplied by **MARINER SYSTEMS (UK) Ltd.** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.3 - This type of product is within the category DBV of Bureau Veritas Rule Note NR320.

5.4 - **MARINER SYSTEMS (UK) Ltd.** has declared to Bureau Veritas that the types of products described in this certificate are manufactured at the following production sites:

Mounting Kits:  
**MARINER SYSTEMS (UK) Ltd.**  
**Oaklands Park**  
**Wokingham**  
**Berkshire**  
**RG41 2FD**  
**UNITED KINGDOM**

Monitor:  
**HEWLETT PACKARD**  
**PO Box 692000**  
**Houston**  
**Texas**  
**77269-2000**  
**UNITED STATES OF AMERICA**

### 6. MARKING OF PRODUCT:

- Maker's name or trade mark.
- Serial number of the unit.
- Equipment type or model identification under which it was type-tested.

### 7. OTHERS:

7.1 - It is **MARINER SYSTEMS (UK) Ltd's** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate No. 38948/A0 BV issued on 21 Oct 2014 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*