



Marine & Offshore

Certificate number: 27803/B1 BV

File number: AP4283

Product code: 3891H

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

www.veristar.com

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**ENDRESS + HAUSER SE + Co. KG**

Maulburg - GERMANY

*for the type of product*

**PRESSURE TRANSMITTERS / TRANSDUCERS**

Hydrostatic Pressure Transmitter

Waterpilot FMX21

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

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: 30 Sep 2024**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 04 Feb 2021,

Dirk Hoepfner



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. 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.

The electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=vfuh4smpaw>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

**Waterpilot FMX21** is a pressure transmitter for hydrostatic water level measurement in tanks.

#### **Main characteristics:**

Sensor:	Ceramic measuring cell
Measuring ranges:	From 0...0.1bar to 0...20bar for fresh and waste water and 0...4bar for saltwater
Probe:	Stainless steel or stainless steel with heat-shrink sleeve for saltwater applications (up to 4bar)
Extension cable:	Screened and insulated with: PUR (polyurethane) or FEP (fluorinated ethylene propylene)
Power Supply:	24VDC
Output:	4 to 20mA (two-wire)
Operation:	Freely hanging sensor inside a guide tube or fixed to the ship structure free from flow and turbulences.
Cable end:	Outside of the tank in a dry room or suitable terminal box.
Degree of protection:	IP68

**Variants:** (acc. to document TI00431P/00/EN/13.11)

Type: FMX21 **aa 2 b cc d e ff g**

**aa** = Approval:

Ex-approvals

**b** = Probe tube:

1, 2, 5

**cc** = Measuring range:

1C, 1D, 1F, 1G, 1H, 1K, 1M, 1P, 1Q, 2K, 2M, 2P, 2Q

**d** = Reference accuracy:

D, G

**e** = Probe cable:

A to F, J, K

**ff** = Probe connection:

30, 31, 35, 40, 41, 45, 50, 51, 55, 60, 61, 65

**g** = Seal:

A, H

### 2. DOCUMENTS AND DRAWINGS:

- Technical Information TI00431P/00/EN/13.11
- Assembly drawings for pcb's
- KEMA 08 ATEX 0173 issue 1, IECEx KEM 09.0026 issue 0

### 3. TEST REPORTS:

- Phoenix Testlab: Attestation of Testing no.: S092577E dated 26 May 2010; U092577E1 dated 18 May 2010; E092577E1 dated 19 April 2010
  - Endress + Hauser: 970002202 dated 08.09.2010; 970002203 dated 08.09.2010
- For B1 version:
- Endress + Hauser: 970008006\_AK\_01 dated 2020-10-09

### 4. APPLICATION / LIMITATION:

- 4.1 - Bureau Veritas Rules for the Classification of Steel Ships
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zone and Deck Zone.
- 4.4 - Bureau Veritas Environmental Category, **EC Code: 31**
- 4.5 - The installation shall comply with the Manufacturer's recommendation described in the above-referenced documentation.
- 4.6 - Ex-certification is not covered by this certificate. Applications in hazardous areas are to be approved in each case according to the Rules and Conditions for safe use specified in a valid Ex-Certificate issued by a Notified or Recognised Certification Body.
- 4.7 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev7.

**5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The above mentioned pressure transmitter is to be supplied by **Endress + Hauser SE + Co. KG** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Endress + Hauser SE + Co. KG** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products :

**ENDRESS + HAUSER SE + Co. KG**  
**Hauptstrasse 1**  
**79689 Maulburg**  
**GERMANY**

**6. MARKING OF PRODUCT:**

- Maker's name or trademark
- Date of manufacture and/or serial number
- Equipment type or model identification under which it was type-tested
- Ex marking, as relevant

**7. OTHERS:**

7.1 - It is the responsibility of **ENDRESS + HAUSER SE + Co. KG** 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 N° 27803/B0 BV issued on 30 Sep 2019 by the Society.

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