



Marine & Offshore

Certificate number: 22266/C1 BV

File number: AP 4048

Product code: 3891H

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***IMES GmbH**

Kaufbeuren - GERMANY

*for the type of product***PRESSURE TRANSMITTERS / TRANSDUCERS**

Cylinder Pressure Sensor

CPS-01, CPS-01CA, CPS-01CA K1000, CPS-03, CPS-03CA,
FPS-01CA, FPS-02CA, HTT-04 CA, HTT-06, HTT-06CA, TCS-01CA**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 33

*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: 10 Feb 2025****For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 01 Oct 2020,

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=7wha7unlqv>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The **CPS-01, CPS-01CA, CPS-01CA K1000, CPS-03, CPS-03CA, FPS-01CA, FPS-02CA, HTT-04 CA, HTT-06, HTT-06CA, TCS-01CA** are Cylinder Pressure Transmitter intended to be installed on Gas and Diesel Engines and Compressors.

Main Characteristics:

Pressure Range: 0...300 bar, Other on demand
 Supply Voltage: 24VDC, 5VDC for CPS-01
 Output Signal: 4 - 20mA, 0.5 - 4.5VDC for CPS-01
 Electrical Connection: HTOE10-6P-F42-A34-SPL or M12
 Pressure Connection: M10; M14 for HTT-04CA, FPS-02CA, HTT-06 and HTT-06CA
 Body Material: Stainless Steel
 Ingress Protection Index: IP 65 for HTT-04CA; IP 67; IP69 for CPS-03, CPS-03CA, HTT-06 and HTT-06CA

2. DOCUMENTS AND DRAWINGS:

- Unreferenced Technical Documentation for IMES Sensors.
 - HTT-04 CA_en_01-2009; 600 703 Rev. 01; BIF-AVR V3.2/V3.3 dated 23.04.06; BIF-AVR-V3p3 dated 30.05.06.
 For B1 version:
 - CPS-01, CPS-01CA_en_04_2017, FPS-01CA_en_03_2018, FPS-02CA_en_12_2017, TCS-01CA_en_04_2018
 - BIF AVR V3pl rev. 3.1 dated 24.05.2006, BIF-AVR_K1000_V1.0 dated 13.07.2017, BIF-U V3.1 dated Sept. 2016
 - Functional Description and Sensor Type Comparison dated 2018-07-12
 For C1 version:
 - 905 527 - 01 dated 22.06.2020; CPS-03_en_07_2020; 905 492-01 dated 22.06.2020; CPS-03CA_en_07_2020
 - 905 488 - 00 dated 12.03.2020; HTT-06_en_09_2020; 905 537 - 00 dated 22.06.2020; HTT-06CA_en_09_2020
 - Comparison of sensor types: SP01_004 dated 23.06.2020

3. TEST REPORTS:

- IMES GmbH: 6002-09-0021-0 dated 26.01.09;
 - Bureau Veritas E&E Product Services GmbH: 09TH0043-BV-rules_1 dated 03 November 2009;
 - Emitel AG: U-328-3059-00 ME dated 2009-04-01
 For B1 version:
 - Intertek: 2235167KAU001 dated 2019-02-27; 2235473KAU001 dated 2019-03-06; 2232148KAU001 dated 2018-03-09
 - MTU: 01/18 dated 06.11.2018
 For C1 version:
 - Bureau Veritas Consumer Product Services: 20TH0284-IEC60068_0 dated 2020-04-08;
 20TUR0028_BV-rules_1 dated 17. Sept. 2020; 20TUR0029_BV-rules_1 dated 18. Sept. 2020
 - Intertek: 2239232KAU001 dated 2020-05-27

4. APPLICATION / LIMITATION:

4.1 - Bureau Veritas Rules and Regulations 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 - Bureau Veritas Environmental Category, **EC Code: 33**
 4.4 - The above products comply with requirements of IACS UR E10 Rev7.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned products are to be supplied by **IMES GmbH** 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 - **IMES GmbH** has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

IMES GmbH
Dr.-Herbert-Kittel-Str. 2
87600 Kaufbeuren
GERMANY

6. MARKING OF PRODUCT:

- Maker's name or trademark
- Equipment type or model identification
- Date of manufacture and/or serial number

7. OTHERS:

7.1 - It is the responsibility of **IMES GmbH** 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° 22266/C0 BV issued on 10 Feb 2020 by the Society.

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