



CERTIFICATE NUMBER  
EFFECTIVE DATE  
EXPIRY DATE  
ABS TECHNICAL OFFICE

20-1984649-PDA  
05-May-2020  
04-May-2025  
Hamburg Engineering Department

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**IMES GMBH**

located at

**DR.-HERBERT-KITTEL-STR. 2, D-87600 KAUFBEUREN, Germany**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product Transducer, Pressure**

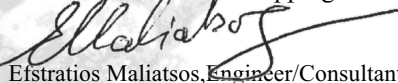
**Model Cylinder Pressure Sensor CPS-01**

This Product Design Assessment (PDA) Certificate remains valid until 04/May/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

  
Efstratios Maliatsos, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

## **IMES GMBH**

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**Tier: 2 - PDA Issued**

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**Product:** Transducer, Pressure

**Model:** Cylinder Pressure Sensor CPS-01

### **Intended Service:**

Pressure sensing for combustion analysis with alarm, monitoring and control function for Marine Applications.

### **Description:**

Cylinder Pressure Sensor for on-line combustion control on diesel and gas engines for increasing engine performance and optimised engine control.

### **Rating:**

Pressure ranges: 0 ... 300 bar

Supply Voltage: 5 V DC

Output Signal Pressure: 0.5...4.5 V (ratiometric)

Temperature range of SCU: -40° C to 75° C

Temp. at measuring cell: 300° C

Degree of Protection: IP67

### **Service Restriction:**

Unit Certification is not required for this product.

If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

### **Comments:**

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Each particular application and installation is to be specifically approved in conjunction with the relevant system, locations and environmental conditions.

### **Notes/Drawing/Documentation:**

Drawing No. 1, Data sheet CPS-01\_en\_05\_2017\_Rev1, Revision: 1, Pages: 1

Drawing No. 1, Data sheet CPS-01\_en\_05\_2017\_Rev1, Revision: 1, Pages: 4

Drawing No. 2, sensor catalog excerpt page 2, Revision: n/a, Pages: 1

Drawing No. 2, sensor catalog excerpt page 2, Revision: -, Pages: 1

Drawing No. 3, sensor catalog excerpt page 4, Revision: n/a, Pages: 00

Drawing No. 3, sensor catalog excerpt page 4, Revision: -, Pages: 1

Drawing No. 4, Sensor type comparison HTT CPS FPS TCS, Revision: -, Pages: 7

Drawing No. 4, Sensor type comparison HTT CPS FPS TCS, Revision: n/a, Pages: 7

Drawing No. 5, BOM CPS-01\_V3.2\_2017-03-24, Revision: 3.2, Pages: 1

Drawing No. 6, CPS-01 Schematic V3, Revision: 3, Pages: 1

Drawing No. 7, Sensor drawing 599134 CPS-01, Revision: n/a, Pages: 1

Drawing No. 8, EMI TYP 01-18 CPS-01, MTU Friedrichshafen Gmbh, 19.11.2018, Revision: n/a, Pages: 55

Drawing No. 9, Heat Cold 2235167 CPS-01, Intertek Gmbh, 27.02.2019, Revision: n/a, Pages: 17

Drawing No. 10, IP 2232148 CPS-01, Intertek Gmbh, 09.03.2018, Revision: n/a, Pages: 15

Drawing No. 11, Vibration 2235473 CPS-01, Intertek Gmbh, 06.03.2019, Revision: n/a, Pages: 12

Drawing No. 12, BV 22266\_C0, Revision: n/a, Pages: 2

Drawing No. 13, DNV-GL TAA00000H0-revision1, Revision: 1, Pages: 3

### **Terms of Validity:**

This Product Design Assessment (PDA) Certificate remains valid until 04/May/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

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**STANDARDS**

**ABS Rules:**

2020 Marine Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/9.11.2, 4-6-2/9.11.3, 4-8-3/1.7, 4-8-3/1.11, 4-8-3/1.17.1, 4-9-9/13, 4-9-9 Table 1

**National:**

NA

**International:**

NA

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA