



## ***Confirmation of Product Type Approval***

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 25/JUL/2018. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 31/JAN/2021 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

**Product Name: Pressure Sensor**

**Model Name(s): AST 4000, AST 5400, AST 4530 & AST 20HA**

**Presented to:**

AMERICAN SENSOR TECHNOLOGIES, INC.  
450 CLARK DR.  
United States

**Intended Service:** Marine & Offshore Application

**Description:**

The AST 4000 Pressure Transducer covers a wide variety of application that requires rugged construction and high cycle life. The AST 5400 Differential Pressure Transducer can measure line pressure up to 5,000 PSI (350 bar). The AST 4530 Submersible Pressure Transducer measures harsh Liquid Levels; The AST 20HA digitally compensated Pressure Transducer / Pressure Transmitter offers high performance over temperature. Please refer to Manufacturer's Data Sheet Catalog for Model and Product Details

**Ratings:**

For AST 4000, AST 5400, AST 4530 & AST 20HA please refer to the attached "pdf" Data Sheets for Electrical, Performance & Environmental Data;

**Service Restrictions:**

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. These pressure transducers are suitable for safe non-hazardous area use only.

**Comments:**

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

**Notes / Documentation:**

Drawing No. (B) AST54XX CSA Project 2734453 Report, (B) AST54XXCSA Project 2734453 Report, Revision: -, Technical Data Sheet Form Data 4000 dated 18 June 2010 and AST 5400 dated 16 November 2010. AST 20HA 04/24/2013,

**Technical Data** AST 20HA Industrial Precision Pressure Transducer/ Transmitter; AST 4530 06/06/2013, Technical Data AST 4530 PVDF/PTFE Submersible Pressure Transducer;

**Term of Validity:** This Product Design Assessment (PDA) Certificate 15-HS1465164-PDA, dated 01/Feb/2016 remains valid until 31/Jan/2021 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

**ABS Rules:** 2016 Rules for Conditions of Classification, Part 1 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2016 Steel Vessel Rule 4-8-3/1.11.1; 2016 Steel Vessel Rule U90M 4-6-3/3.1.1(a) 2016 Offshore Support Vessel 4-8-3/1.11.1 2016 ABS Rules for Conditions of Classification, Part 1 – Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following: 2016 Mobile Offshore Drilling Units 4-3-3/3.1.1(a)

**National Standards:** AST4000 - UL 508 (E214980)

**International Standards:**

**Government Authority:**

**EUMED:**

**Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	15-HS1465164-PDA	03/FEB/2016	31/JAN/2021



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.