



## *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 27/JUL/2016. 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 14/APR/2020 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:** Switches, Ethernet  
**Model Name(s):** Series 500

**Presented to:**  
N-TRON CORP.  
3101 INTERNATIONAL DRIVE, BUILDING 6  
United States

<b>Intended Service:</b>	Marine, Offshore and Industrial Application - Network Switches
<b>Description:</b>	Ethernet Switches - See attached "pdf" for subject Models, Overview, Key Features
<b>Tier:</b>	3
<b>Ratings:</b>	Input Voltage: 10-30 VDC Input Current: 200 mA @ 24VDC Class I, Div 2, Groups A, B, C, D, T4A. See attached pdf for details
<b>Service Restrictions:</b>	Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
<b>Comments:</b>	The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
<b>Notes / Documentation:</b>	Supporting Documentation: Doc No. 30360705.001, "TUV Rheinland Emissions & Immunity Test Report", dated 26 March 2003; Doc No. 30362623.001, "TUV Rheinland Emissions & Immunity Test Report", dated 26 March 2003; N-Tron 500 Series Industrial Ethernet Switches Installation Guide;
<b>Term of Validity:</b>	This Product Design Assessment (PDA) Certificate 15-HS1340925-PDA, dated 15/Apr/2015 remains valid until 14/Apr/2020 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:**

Rules for Conditions of Classification, Part 1 - 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: Steel Vessels: 4-8-2/11.5.4, 4-8-3/1.11Table 2, 4-8-3/13, 4-8-4/27, 4-9-8/13; Steel Vessels Under 90 Meters (295 feet) in Length: 4-6-2/15, 4-6-2/15, 4-6-3/11; Offshore Support Vessels (OSV Rules): 4-8-2/11.5.4, 4-8-3/1.11Table 2, 4-8-3/1, 4-8-4/29; Rules for Conditions of Classification, 2015- Offshore Units and Structures 1-1-A2, 1-1-A3, which covers the following: Mobile Offshore Drilling Units: 4-3-2/15.9.1 & 3, 4-3-6; Offshore Installations: 3-6/5.1;

**National Standards:**

UL 508 and ANSI/ISA 12.12.01-2007 as per UL Report E214222 (Updated 29 March 2010), EN 55011:2009;

**International Standards:**

IEC 60068 & IEC 60533 as per Curtis-Straus Test Report No.: NG0586-2, Issue 2 (Dated 1 April 2010)

**Government Authority:**

**EUMED:**

**Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	15-HS1340925-PDA	15/APR/2015	14/APR/2020



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.