Certificate Number: 16-HS1530623-PDA-DUP
24/MAY/2018

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 22-JUN-2021. 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 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 7900 & 9000

Presented to:
RED LION CONTROLS
20 WILLOW SPRINGS CIRCLE
PA 17406
United States

Intended Service:	Marine and Offshore Application - Industrial Ethernet Switches For Use in Hazardous Locations
Description:	7900 & 9000 Series Gigabit Ethernet Capable Industrial Ethernet Modular Switch - Refer to attached "pdf" for subject Models, Key Specification, Features, etc.
Tier:	3
Ratings:	Series 9000 CPU: Input Voltage: 10-30 VDC Input Current: 2.5 A @ 24VDC Operating Temperature: -20ºC to 70ºC Operating Humidity: 10% to 95% ANSI/ISA 12.12.01, Non-incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations CAN/CSA C22.2 No. 213-M1987, Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations Class I, Div 2, Groups A, B, C, D. Operational Temperature Code: T3C. Series 7900 CPU: Input Voltage: 10-30 VDC Input Current: 1.53A @ 24VDC Operating Temperature: -40ºC to 70ºC Operating Humidity: 10% to 95% ANSI/ISA 12.12.01, Non-incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations CAN/CSA C22.2 No. 213-M1987, Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations Class I, Div 2, Groups A, B, C, D. Operational Temperature Code: T4A.
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.

Comments: Duplicate reside with Red Lion Controls, Inc. - York The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes / Documentation: Document UL Certificate No. 20160502-E214222, Certificate of Compliance, Issued date 02 May 2016 Certificate No. 46911-2009-AQ-USA-RvA, Management System Certificate, Issued date 29 January 2009 Document 7900 and 9000 Series Summary List Document N-Tron Specificaton Industrial Ethernet Series 7900, dated 29 May 2012 Document N-TRON® 9000 Series Gigabit Ethernet Capable Industrial Ethernet Switch dated 23 March 2010 Document UL File E214222, Report on Data Processing Equipment, Electronic for use in Hazardous Locations. Updated 21 Jan 2016 Document EMC Technical Report for 7900CPU - ACS Report: 11-0430.C08.22.A Rev. A, Issued Date 14 December 2011 Document EMI Test Report for 7900 CPU - ACS Report: 11-0430.C01.12.A Rev. A, Issued Date 14, December 2011.

Term of Validity: This Product Design Assessment (PDA) Certificate 16-HS1530623-PDA-DUP, dated 23/Jun/2016 remains valid until 22/Jun/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.

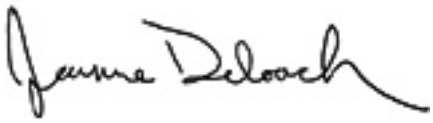
ABS Rules: Rules for Conditions of Classification, Part 1 - 2016 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2016 Steel Vessels: 4-8-2/11.5.4, 4-8-3/1.11 Table 2, 4-8-3/13, 4-8-4/27, 4-9-8/13; 2016 Steel Vessels Under 90 Meters (295 feet) in Length: 4-6-2/15, 4-6-2/15, 4-6-3/11; 2016 Offshore Support Vessels (OSV Rules): 4-8-2/11.5.4, 4-8-3/1.11 Table 2, 4-8-3/1, 4-8-4/29;

National Standards: UL 60950-1 (1st Ed.), UL508 (17th Ed.), ANSI/ISA 12.12.01-2007, UL1604 (3rd Ed.), IEEE Std 1613-2003; ANSI C63.4-2003.

International Standards: IEC 60068 (Sections 2-1,-30 test Db, -6 Test Fc) & IEC 60533 (Section 7); CAN/CSA-C22.2 Nos. 60950, 142-M1987, & 213-1987; EN 61000-6-4:2007; IEC 61000-4-2 2nd Ed.; IEC 61000-4-3 Ed. 3.1; IEC 61000-4-4 2nd Ed.; IEC 61000-4-5 2nd Ed.; IEC 61000-4-6 3rd Ed.; IEC 61000-4-8 Ed. 11; IEC 61000-4-11 2nd Ed.; CISPR 16-2-1 Ed. 1.1 2005; ICES-003 Issue 4.

Government Authority:
EUMED:
Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA-DUP	16-HS1530623-PDA-DUP	22-FEB-2017	22-JUN-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.