



CERTIFICATE NUMBER
18-HS1716875-PDA

DATE
20 Feb 2018

ABS TECHNICAL OFFICE
Houston ESD - Piping

CERTIFICATE OF Design Assessment

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

A-T CONTROLS

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: **Actuator, Electric for Valves and Dampers**

Model: **KE-440, KE-880, KE-1700, KE-3500**

This Product Design Assessment (PDA) Certificate 18-HS1716875-PDA, dated 20/Feb/2018 remains valid until 19/Feb/2023 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.

AMERICAN BUREAU OF SHIPPING

Tim Kimble
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 the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

A-T CONTROLS

9955 INTERNATIONAL BOULEVARD

CINCINNATI OH

United States 45246

Telephone: 513-247-5465

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Email: jmurphy@atcontrols.com

Web: a-tcontrols.com

Tier: 3 - Type Approved, unit certification not required

Product: Actuator, Electric for Valves and Dampers

Model: KE-440, KE-880, KE-1700, KE-3500

Intended Service:

Marine & Offshore Application

Description:

On-Off or Modulating service electrical operated actuator fitted with manual override, anti-condensation heater and thermostat for valves & dampers and other quarter-turn devices;

Option Configurations: Convex lens visual position indicator.

Rating:

Voltage: 110/220VAC, Single Phase, 50/60Hz, 12VDC(440&880 models only)/24VDC ;

Operating Temperature: -4 °F to +140 °F (-20 °C to +60°C);

Enclosure IP rating: IP67;

Actuator torque output;

(i). KE-440, 440 In-Lbs., 50 NM;

(ii). KE-880, 880 In-Lbs., 100NM;

(iii). KE-1700, 1700 In-Lbs., 200NM;

(iv). KE-3500, 3500 In-Lbs., 400NM.

Service Restriction:

1. 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;

2. Suitable for Non-hazardous area installation;

3. The actuators are not to be used for valves on tanks containing flammable liquids, fire mains and fire dampers in high fire risk area such as machinery spaces unless fitted with approved insulation to ensure effective closure facility in the event of fire (Steel Vessel Rules 4-6-4/13.5.3 b), MODU Rules 4-2-5/3.9.2.).

Comments:

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

i) Setting and calibration of limit switches are to be in accordance with the manufactures' recommendation;

ii) Cables for power supply and signals are to be suitable for intended service and environmental conditions (Steel Vessels Rules 4-8-3/9, 4-8-4/21, 27.9, MODU Rules 4-3-3/5 & 4-3-4/7);

iii) Where actuators are remotely controlled and used in propulsion and safety related systems, the complete control system and its associated electrical system for each application are to be submitted to ABS technical office for suitability review (ABS Steel Vessels Rules 4-9-5/13.13).

Notes/Drawing/Documentation:

KE Actuator Type Test Report no. BN005 (KE-440), Pages: 1, Date of Report: 02 February 2018;

KE Actuator IP67 Report no. BST18011046630001Y-1SR-2, Pages: 10, Date of Report: 26 January 2018;

Drawing No. Dimensional Drawing, KE Series, Pages: 2;

KE Series BOM, Drawing no. 30441, Pages: 1;

KE actuator CE certificate - BN Electric actuator. No. 0W171130.ZTAQ001, dated issued 01 December 2017, Expiry date 29 November 2022;

WE XE XC KE actuator literature, Pages: 24.

Terms of Validity:

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STANDARDS

ABS Rules:

Rules for Conditions of Classification, Part 1 – 2018 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2018 Steel Vessels Rules 4-8-3/1.3, 4-8-3/1.11.1 ;

The Rules for Conditions of Classification, Part 1, 2018 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3; which covers the following:

Mobile Offshore Drilling Units 4-3-1/15.

National:

EN61000-3-2:2006, EN60947-1:2007.

International:

N/A

Government:

N/A

EUMED:

N/A

OTHERS:

N/A