



CERTIFICATE NUMBER
16-HG1534973-PDA

DATE
29 Jun 2016

ABS TECHNICAL OFFICE
Hamburg Engineering Department

CERTIFICATE OF DESIGN ASSESSMENT

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

BACHOFEN AG

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: **Float Operated Liquid Level Switch**

Model: **Trimod'Besta**

This Product Design Assessment (PDA) Certificate 16-HG1534973-PDA, dated 29/Jun/2016 remains valid until 28/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.

AMERICAN BUREAU OF SHIPPING

Ulf Numirski
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).

BACHOFEN AG

42 ACKERSTRASSE

CH 8610 USTER

Switzerland

Telephone: +41 44 944 11 11

Fax: +41 44 944 12 33

Email: info@trimodbesta.com

Web: www.trimodbesta.com

Tier: 3 - Type Approved, unit certification not required

Product: Float Operated Liquid Level Switch

Model: Trimod'Besta

Intended Service:

Liquid Level Control.

Description:

Standard Range, Industrial Range, Plastic Range

Rating:

Operating Pressure Ranges: Up to 320 bar DIN (Cl.2500, ANSI); Operating Temperature: Standard Range: -200° C to 400° C; Industrial Range: -200° C to 400° C; Plastic Range: -200° C to 200° C; Flange modules: DIN, ANSI-, BS-, Jis.-, BESTA-Standard.

Type X level switches are of a certified safe type:

Ex ia d IIC T6 Ga/Gb, Ex de IIC T6 Ga/Gb (IECEX EPS 15.0037X),

Type Z, I, B level switches are of a certified safe type:

Ex e d IIC T5...T6 Ga/Gb, Ex ia IIC T6...T2 Ga/Gb (IECEX EPS 15.0038X).

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:

Configurations and applications as per manufacturer's specifications.

Each particular application is to be approved in conjunction with the relevant systems and tank arrangements.

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

Notes/Drawing/Documentation:

Drawing No. 611, Safety Manual, Revision: -, Pages: 1

Drawing No. 69 1205006 P0027 C001, SIL Certificate, Revision: -, Pages: 1

Drawing No. IECEX EPS 150037 X, IECEX Certificate, 2015-09-30, Revision: -, Pages: 1

Drawing No. IECEX EPS 150038 X, IECEX Certificate, 2015-09-16, Revision: -, Pages: 1

Drawing No. None 01, Type Key, Revision: -, Pages: 1

Drawing No. None 02, Dimension Drawings, Switch, Revision: -, Pages: 1

Drawing No. None 03, Manuals, Revision: -, Pages: 1

Drawing No. None 04, Drawings, Switch, Revision: -, Pages: 1

Terms of Validity:

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STANDARDS

ABS Rules:

2016 Steel Vessel Rules 1-1-4/7.7, 1-1-Appendix 3 and 4, 4-6-4/13.5.6(d), /15.3.4(d), 4-8-4/27.5.1

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA