



CERTIFICATE NUMBER 18-HG1794437-PDA
EFFECTIVE DATE 08-November-2018
EXPIRATION DATE 07-November-2023
ABS TECHNICAL OFFICE
Hamburg Engineering Department

CERTIFICATE OF Product Design Assessment

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

TRAFAG AG

located at

Industriestrasse 11, CH-8608 Bubikon, Switzerland

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 Pressure Switch

Model Pressure Switch 9K4 – Picostat PST4K, Pressure Switch 9M4 – Picostat PST4M

This Product Design Assessment (PDA) Certificate remains valid until expiration date or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to 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 ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

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Tier: 3 - Type Approved, unit certification not required

Product: Pressure Switch
Model: Pressure Switch 9K4 - Picostat PST4K
Pressure Switch 9M4 - Picostat PST4M

Intended Service:

Pressure control, alarm and monitoring functions for marine applications.

Description:

Piston respectively membrane type pressure switch. Housing of AlSi10Mg.

Rating:

Model 9K4: Pressure Range: 1.0 - 10 to 40 - 400 bar

Model 9M4: Pressure Range: 1.0 - 10 to 10 - 100 bar

Maximum Ambient Operating Temperature:

9K4: -25° C to 85° C.

9M4: 0° C to 80° C

Maximum Medium Temperature:

9K4: -25° C to 125° C.

9M4: 0° C to 80° C

Maximum Electric Contact Load:

- Microswitch 42: 250 V AC / 6 (1) A, 220 V DC / 0.25 (0.1) A, 110 V DC / 0.5 (0.2) A, 60 V DC / 1 (0.5) A, 24 V DC / 3 (2) A, 12 V DC / 6 (6) A

- Microswitch 84: max 30 V / 0.1 (0.1) A; min 5 V / 5 mA

Enclosure Protection Degree: IP 65

Service Restriction:

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.

Comments:

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

Notes/Drawing/Documentation:

Drawing No. C22667h, Dimension Drawing, Revision: h, Pages: 1

Drawing No. C22668i, Dimension Drawing, Revision: i, Pages: 1

Drawing No. C31215b, Dimension Drawing, Revision: b, Pages: 1

Drawing No. H72368h, Data Sheet, Revision: h, Pages: 1

Drawing No. H72369h, Data Sheet, Revision: h, Pages: 1

Terms of Validity:

This Product Design Assessment (PDA) Certificate 18-HG1794437-PDA, dated 08/Nov/2018 remains valid until 07/Nov/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

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manufacturer and intended client.

STANDARDS

ABS Rules:

2018 Steel Vessel Rules, 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/1.7, 4-8-3/1.11.1, 4-8-3/1.17, 4-9-8/13.1

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA