



CERTIFICATE NUMBER

DATE

13-HG1084197-PDA

20 September 2013

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
TRAFAG AG - CH-8608 BUBIKON

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**

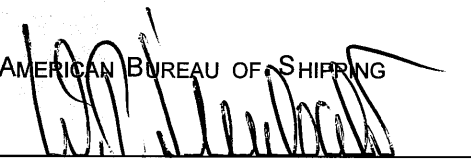
MODEL: **Pressure Switch 9K4 - Picostat PST4K**
Pressure Switch 9M4 - Picostat PST4M

This Product Design Assessment (PDA) Certificate 13-HG1084197-PDA, dated 20/Sep/2013 remains valid until 19/Sep/2018 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

Wulf-Peter Senebald
Engineer

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).

TRAFAG AG
INDUSTRIESTRASSE 11
CH-8608 BUBIKON
Switzerland

MA Certificate No.: 12-MF2216813-X

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.

Ratings:
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:
Duplicate PDA exists with Trafag spol. s.r.o. Tachov/ CZ.

Notes / Drawings / Documentation:
This Product Design Assessment (PDA) is valid only 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.

Term of Validity:

TRAFAG AG

This Product Design Assessment (PDA) Certificate 13-HG1084197-PDA, dated 20/Sep/2013 remains valid until 19/Sep/2018 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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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.

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STANDARDS

ABS Rules:

2013 Steel Vessel Rules, 1-1-4/7.7, 4-8-3/1.7/1.11.1/1.17, 4-9-7/13.1

National:

NA

International:

NA

Government Authority:

NA

EUMED:

NA

Others:

NA