



Marine & Offshore

Certificate number: 36313/B0 BV

File number: AP4482

Product code: 3843H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**TRAFAG AG**

Bubikon - SWITZERLAND

*for the type of product*

**PRESSURE SWITCH**

Picostat PST4K 9K4

Picostat PST4M 9M4

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships

EC Code:33

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 05 Apr 2024**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 05 Apr 2019,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site [www.veristar.com](http://www.veristar.com). Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

**Picostat PST4K** is a piston-type and **Picostat PST4M** is a membrane-type pressure switch.

#### **1.1 - Main characteristics:**

Pressure range: 1 ... 10 to 40 ... 400bar (for PST4K);  
1 ... 10 to 10 ... 100bar (for PST4M)

Output: change-over contact (silver or gold plated contacts)

Electrical connection: male electrical plug (DIN 43650-A), EN175301-803-A

Pressure connection: G1/8" female, G1/4" female, M10x1" female

Sensor material: 1.4035 (for PST4K);  
FKM Membrane (for PST4M)

Housing material: aluminium alloy

Degree of protection: IP65

#### **1.2 - Variants:**

Sensor Type: **9K4 aa.bb.ccc.dd.ee** (acc. to H72369h)

**aa= Microswitch:**

42, 84

**bb= Pressure range:**

78, 79, 80, 81, 82, 83, 84, 85, 86,

G8, G9, H0, H1, H2, H3, H4, H5, H6

**ccc= Material:**

756, 757, 758, 759

**dd= Pressure connection:**

02, 03, 04

**ee= Accessories:**

11, 46, 74, V3, 16, 88

Sensor Type: **9M4 aa.bb.ccc.dd.ee** (acc. to H72368h)

**aa= Microswitch:**

42, 84

**bb= Pressure range:**

78, 79, 80, 81, 82, 83

G8, G9, H0, H1, H2, H3

**ccc= Material:**

761, 762, 763

**dd= Pressure connection:**

02, 03, 04

**ee= Accessories:**

11, 46, 74, V3, 16, 88

#### **1.3 - Rating:**

Features of the Electrical Connection	AC	DC
Silver contacts	250V / 6(1)A	220V / 0.25(0.1)A 110V / 0.5(0.2)A 60V / 1(0.5)A 24V / 3(2)A 12V / 6(6)A
Gold plated contacts	max. 30V / 0.1(0.1)A min. 5V / 5mA	

### 2. DOCUMENTS AND DRAWINGS:

- C22667 Rev b dated 23.05.2013; C22668 Rev b dated 23.05.2013

- H72368a dated 08/2013; H72369a dated 08/2013

For B0 version:

- C22667 Rev h dated 03.05.2018; C22668 Rev i dated 03.05.2018

- H72368h dated 12/2018; H72369h dated 12/2018

### 3. TEST REPORTS:

**Trafag AG:**

- V-12072 dated 21.05.2013; V-13078 dated 2013-09-20; V-13092 dated 2014-01-10

### 4. APPLICATION/LIMITATION:

4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships.

4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.3 - Bureau Veritas Environmental Category, **EC Code: 33**

4.4 - Bureau Veritas Rules: Part C, Ch 1, Sec 10 apply for pressurized parts made of aluminium or aluminium alloys if they are used in piping systems for flammable liquids or fire-extinguishing systems.

**5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The above mentioned products are to be supplied by **Trafag AG** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Trafag AG** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

**TRAFAG spol. s.r.o.**  
**Vilemowska 2129**  
**CZ-34701 Tachov**  
**CZECH REPUBLIC**

5.4 - Equipment is to be supplied with manual(s) for installation, use and maintenance.

**6. MARKING OF PRODUCT:**

- Maker's name or trademark
- Equipment type or model identification
- Date of manufacture and/or serial number

**7. OTHERS:**

7.1 - It is the responsibility of **TRAFAG AG - SWITZERLAND** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 36313/A0 BV issued on 27 Feb 2014 by the Society.

**\*\*\* END OF CERTIFICATE \*\*\***