



MARINE DIVISION

Certificate number: 31749/A0 BV

File number: AP4350

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

Type: Picostat PST4B 9B4 series

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

This certificate is issued to attest that BUREAU VERITAS 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: 18 Oct 2017**For BUREAU VERITAS,**

At BV HAMBURG, on 18 Oct 2012,

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. 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 Division available on the internet site 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 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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The **Picostat PST4B 9B4** series are bellows-type pressure switches.

1.1 - Main characteristics:

Pressure range: -0.6...4.0bar to 4.0...40bar
 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: bronze bellow
 Housing material: aluminium alloy
 Degree of protection: IP65

1.2 - Variants: (acc. to document H72367a)

Sensor Type: **9B4 aa.bb.ccc.dd.ee**

aa= Microswitch:

42, 84

bb= Pressure range:

74, 76, 77, 78, 79, 80, 81, G4, G6, G7, G8, G9, H0, H1

ccc= Material:

769, 770, 771, 772

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:

- C20784 Rev. b dated 24.11.2011; E01301 Rev. b dated 06.07.09; E01304 Rev. e dated 04.08.2011;
 - H72367a Rev. a dated 06/2012; H73367a Rev. a dated 05/2012

3. TEST REPORTS:

Trafag AG:

- V-11140 dated 20.06.2012; V-12077 dated 05.10.2012

4. APPLICATION/LIMITATION:

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

4.2 - Bureau Veritas Environmental Category, **EC Code: 33/43.**

4.3 - 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 manufactured, examined and tested by **TRAFAG AG** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **TRAFAG AG** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 - **TRAFAG AG** has declared to Bureau Veritas that the types of product described in this certificate are manufactured at the following production site:

TRAFAG s.p.o.l.
Villemovska 2129
CZ-34701 Tachov
CZECH REPUBLIC

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