

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pressure Switch**with type designation(s)
Picostat PST4B 9B4

Issued to

Trafag AG
Bubikon, ZH, Switzerland

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Location classes:**

Temperature	D
Humidity	B
Vibration	B
EMC	Not relevant
Enclosure	B (IP 65 verified)

Issued at **Hamburg** on **2019-04-08**for **DNV GL**This Certificate is valid until **2024-04-07**.DNV GL local station: **Augsburg**Approval Engineer: **Dariusz Lesniewski**

Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-007289-4**
Certificate No: **TAA000027Y**

Product description

Type Picostat PST4B pressure switch, including the following options:

	Type	Microswitch	Range	Sensor	Pressure Connection
Ordering No.	9B4	42, 84	74, 76, 77 78, 79 80, 81	769 770, 753 771, 754 772	04

Microswitch rating:

Type	Features	Rating: Resistive load (inductive load)	
		AC	DC
42	Silver Contacts	240 V / 6(1) A	220 V / 0.25(0.1) A 110 V / 0.5(0.2) A 24 V / 3(2) A 12 V / 6(6) A
84	Gold Contacts	Max 30V 0.1 (0.1) A Min 5V 5mA	

Place of manufacture

Trafag spol s.r.o.
CZ-34701 Tachov

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Type Approval documentation

Data sheet: H72367q
ENL Testing Laboratory test report 20081211.A02.01 dated 2008-10-28
Trafag test report V-08125 dated 2002-10-24
Gerätestecker C283 assembly drawing no. E00891 rev. C, dated 2015-04-27
Picostat assembly drawing no. D23005 rev.C, dated 2008-11-06
Micro switch 33,42 drawing no. C11491 rev. f
Schalter 33 Pico4 assembly drawing no. C11492 rev. m
Schalter-BG, Schalter 84 assembly drawing no. C31214 rev. a
9B4 family (bronze bellows), overview drawing no. C20784 Rev. q
Micro switch 84, drawing no. C31215 Rev. b
Typetest Pressure Switch 9B4 (PST4B), V-11140 dated 20.06.2012
Test report: STR-1350, dated 2011-06-09
Type approval renewal assessment report issued at Prague on 2019-03-28

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.
Pressure testing at 4 x pN for 2 minutes.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

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Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE