



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-13693**

This is to certify that the
Pressure Switch

with type designation(s)
Picostat 9M4, Picostat 9K4

Issued to
Trafag AG
Bubikon, Switzerland

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application
Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
Picostat 9M4	B	B	B	NA	B*
Picostat 9K4	D	B	B	NA	B*

*IP65 verified

This Certificate is valid until **2018-06-30**.

Issued at **Høvik** on **2014-03-17**

DNV local station: **Essen CMC Southern Germany**

Approval Engineer: **Nils Jarem**



for **Det Norske Veritas AS**

Digitally Signed By: **Sneen, Ståle**

Location: **DNV Høvik, Norway**

Signing Date: **2014-03-20**, on behalf of

Odd Magne Nesvåg
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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

Product description

Type Picostat 9K4 (PST4K) and 9M4 (PST4M) pressure switch, including the following options:

	Type	Microswitch	Range	Sensor	Pressure Connection
Ordering No.	9K4	42, 84	78-86	756-759	04
	9M4	42, 84	78-83	761-763	04

Microswitch rating:

Type	Features	Rating: Resistive load (inductive load)	
		AC	DC
42	Silver Contacts	250 V / 6(1) A	220 V / 0.25(0.1) A 110 V / 0.5(0.25) A 60 V / 1(0.5) 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:

Trafrag spol. S.r.o, CZ-34701 Tachov, Czech Republic

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Data Sheets : H72369a dated 2013-08, 9K4 PICOSTAT PST4K
 H72368a dated 2013-08, 9M4 PICOSTAT PST4M
 Drawings: C22668 Rev.b, 9K4 family overview drawing
 C22667 Rev.b, 9M4 family overview drawing
 Test Reports: V-13075 dated 2013-09-19, 13075 9K4 Vibration Witness test LRS
 V-12072 dated 2013-05-21, 12072 Typetest 9X4
 20081211.A02.01 dated 2008-11-28

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.
 Pressure testing at 4 x pN for 2 minutes.

Marking of product

The products to be marked with model name, manufacturer name and serial number

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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE