



MARINE DIVISION

Certificate number: 09034/C0 BV

File number: ACM 141/2009/001

Product code: 3891H

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

Männedorf ZH - SWITZERLAND

for the type of product

PRESSURE TRANSMITTERS / TRANSDUCERS

Pressure Transmitter of type:
EPT 8242/8282, SPT 8240/8280

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: 15 Mar 2015**For BUREAU VERITAS,**

At BV HAMBURG, on 15 Mar 2010,

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 :

Pressure Transmitter of type:

SPT 8240.xx.xx.xx.xx.79... and 8280.xx.xx.xx.04.79...

ETP 8242.xx.20xx.xx.79... and 8282.xx.20xx.04.79...

Main Characteristic:

	8240 / 80 and 8242 /82
Range:	0 ... 2.5 to 0 ... 600 bar
Output signal:	4 ... 20 mA
Power supply:	9 to 32 VDC
Degree of protection:	min. IP65
Sensor:	Stainless steel / Thin film on steel

2. DOCUMENTS AND DRAWINGS :

According to documents filed in ACM 141/2009/001

Datasheet 2.3.1.8, ref. H72223i, dated 03/2006

Datasheet 2.3.1.20, ref. H72237g, dated 01/2006

Software specifications, ref. 8498_SOFTWARE, dated 30.09.2004.

TRAFAG Declaration on the unique software ref. 8498, dated 18 Oct 2004.

3. TEST REPORTS :

TRAFAG:

Test Report, ref. V888 01-99

Test Report, ref. V-0317, dated 30.9.04

Salt Mist Test Report, dated 6/1/99

EMC Test Center:

Test Report, ref. EMCKP155A, Index A, dated 10.7.03

ILK Dresden:

Ingress Protection Test Report, ref. 171/2004, dated 21.5.2004

Ingress Protection Test Report, ref. 183/2004, dated 22.6.2004

Ingress Protection Test Report, ref. 191/2004, dated 23.6.2004.

4. APPLICATION / LIMITATION :

4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.

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

4.3 - BUREAU VERITAS Environment Category, **EC Code: 33S/43S**

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The pressure transmitters of series **8240 / 80** and **8242 /82** 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 type of product described in this certificate may be manufactured at the following production site:

TRAFAG AG
Emil-Staub-Strasse 1
CH-8708 Männedorf ZH
SWITZERLAND

6. MARKING OF PRODUCT :

- Maker's name or trade mark

- Date of manufacture and serial number

- Equipment type or model identification under which it was type-tested.

7. OTHERS :

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **TRAFAG AG, Emil-Staub-Strasse 1, CH-8708 Männedorf ZH - Switzerland**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 09034/B1 BV issued on 27/07/2005 by the Society.

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