



MARINE DIVISION

Certificate number: 19393/B0 BV

File number: AP 3808

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**  
Bubikon - SWITZERLAND

*for the type of product*

### PRESSURE TRANSMITTERS / TRANSDUCERS

8264 PICOTRANS NPN series and 8298 EPN 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: 21 Jan 2018**

For BUREAU VERITAS,

At BV HAMBURG, on 21 Jan 2013,

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:

8264 PICOTRANS NPN series and 8298 EPN series are thin film on steel pressure transmitters.

#### 1.1 - Main characteristics:

|                          | 8264 series                     | 8298 series                                      |
|--------------------------|---------------------------------|--|
| Pressure Range (bar):    | 0 - 2.5 to 0 - 400              | 0 - 2.5 to 0 - 2500                              |
| Supply Voltage (V DC):   | 9 to 32, 24 Nominal             | 9 to 32, 24 Nominal                              |
| Output :                 | 4 - 20mA / 2 wires              | 4 - 20mA / 2 wires<br>0.5 to 4.5V DC ratiometric |
| Operating Temperature:   | -40 to 100°C                    | -40 to 125°C, media temp. 135°C                  |
| Electrical Connection:   | Plug (DIN 43650)                | Plug (DIN 43650)                                 |
| Pressure Connection:     | G1/4", G1/8", M10x1.0           | G1/4", R1/4"                                     |
| Sensor / Body Materials: | Stainless Steel                 | Stainless Steel                                  |
| Degree of Protection:    | IP 65 (without Plug-in) / IP69K | IP 65 (without Plug-in) / IP69K                  |

#### 1.2 - Variants:

Sensor Type: 8264 . aa . bb cc . dd . 19 . ee

**aa = Pressure range:**

74 to 85

**bb = Sensor accuracy:**

23, 25

**cc = Pressure connection:**

10, 17, 18

**dd = Electrical connection:**

04, 78

**ee = Accessories:**

40, 41, 43, 45, 55, 57, 58, 74, 92, V3, 1M, 2M, 3M

Sensor Type: 8298 . aa . bb cc . dd . ee . ff

**aa = Pressure range:**

74 to 86, 89 to 91

**bb = Sensor accuracy:**

23, 25

**cc = Pressure connection:**

11, 17, 19, 28, 29

**dd = Electrical connection:**

04, 05, 25, 78

**ee = Output signal:**

19, 23

**ff = Accessories:**

40, 43, 45, 58, 92, 1M, 3M, 5M

### 2. DOCUMENTS AND DRAWINGS:

- Data sheet: H72312h dated 05/2010; H72313h dated 05/2010; H73311h dated 06/2010; H73313d dated 05/2010

- B62120 Rev. l dated 31.08.11; B62200 Rev. c dated 28.03.08; B62250 Rev. m dated 05.12.2011;

- C12890 Rev. f dated 29.11.2011; C15988 Rev. b dated 12.05.10

- B62120i; B62300d; B62440c; B63590a

### 3. TEST REPORTS:

#### **TRAFAG AG:**

- V-0605 dated 12.04.2006; V-0554 dated 19.07.05; V-0647 dated 17.05.06; V-07109 dated 07.03.2008;

- V-08055 dated 01.04.2008; V-08101 dated 04.08.2008; V-08102 dated 13.08.2008; V-10015 dated 09.04.2010

#### **EMC-TEST CENTER ZÜRICH AG:**

- EMCKP689A dated 10.01.2006

#### **ENL Testing Laboratory:**

- 20051228.A02.03 dated 2005-December-19th; 20061027.A05.01 dated 2006-April-10th.

#### **SEV Association:**

- 09-IK-0248.01 dated 27.08.2008

#### **SPEKTRA Schwingungstechnik und Akustik GmbH:**

- 80430.A.1.1 dated 29.07.2008; 80430.C.1.1 dated 29.07.2008

### 4. APPLICATION / LIMITATION:

4.1 - Bureau Veritas Rules 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: 33S/43S.**

4.4 - The equipment does not fulfil the EMC requirements for installation in Bridge Zone.