

MARINE DIVISION

17 bis Place des Reflets - La Défense 2
92400 Courbevoie - France

Tel. 33 1 42 91 52 91
Fax. 33 1 42 91 28 94
www.veristar.com



Certificate number: 19306/A1 BV

File number : AP 3794

Product code : 3891H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

TYPE APPROVAL CERTIFICATE

as per Bureau Veritas Classification Rules

This certificate is issued to

ABB SACE SPA - BU Instrumentation
LENNO - CO - ITALY

for the type of product

PRESSURE TRANSMITTERS / TRANSDUCERS

ABB 2600T Series Pressure Transmitters, 4-20 mA/HART
Type: 264.., 268.. and 364..

Regulations and standards :

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 of the Regulations and standards mentioned above.

This certificate is valid until : 20 Jun 2012

At Paris la Défense, on : 02 Aug 2007

For BUREAU VERITAS,
By order of the Secretary

Approval office

Local office : BV GENOA
Surveyor : G. Pirovano

L.COURREGELONGUE



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. 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 :

ABB 2600T Series Transmitters for Marine Applications.

Main Characteristics:

	Type 264	Type 268	Type 364
Max. Working Pressure (Bar):	up to 600	up to 300	up to 200
Power Supply (VDC):	10.5 to 42	10.5 to 42	10.5 to 42
Output:	4-20 mA / HART	4-20 mA / HART	4-20 mA / HART
Ingress Protection Index:	IP 67 IP 65 with HH Connector	IP 67 IP 65 with HH Connector	IP 67
Ex Protection:	EEx ia IIC T5/T4 (E1 Type) EEx d IIC T6 (E2 Type) EEx nL IIC T6/T4 (E3 Type) EEx ia & EEx d (E7 Type)	EEx ia IIC T5/T4 (E1 Type) EEx d IIC T6 (E2 Type)	EN Type EEx ia IIC T6/T4 EEx d IIC T6 EEx nL IIC T6/T4

Note 1: A Base Model is identified with Type Number (e.g. 264) followed with two letters (Measure Type and Application). Additional letters and Numbers are required to define Span Limit, Diaphragm Material, Process Flange, Bolts/Gasket, Housing Material and Electrical Connection, Output, Drain/Vent Valve, Ex Certification, etc...

Note 2: Only 4-20 mA/HART Models are Type Approved. FOUNDATION Fielbus and PROFIBUS PA Models are not covered by this certificate.

2. DOCUMENTS AND DRAWINGS :

ABB: Data Sheets No. SS/268XS_6, SS/268HS/NS_5, SS/364XS_1, SS/264XS_5, SS/264/NS_5

3. TEST REPORTS :

3.1 - TÜV Italia:

EMC Test Report No. EMI 06/147 Rev.0 dated 18/09/2006
 EMC Test Report No. EMS 06/204 Rev.0 dated 20/09/2006
 EMC Test Report No. 28100526 001 dated 2005-02-23
 Shock & Vibration Test Report No. VIBR 06_066 Rev.0 dated 15/06/2006
 Shock & Vibration Test Report No. VIBR 06_093 Rev.0 dated 05/12/2006
 Climatic Tests on 3 Pressure Transmitters of 2600T Series, Report No. PA07/038 dated 17 April 2007
 EMC Tests on Pressure Transmitter mod. 264..., Report No. EMI 07/083 dated 23/04/2007
 EMC Immunity Test on 2600T Series, Cod. 264DSFSSA1A1, Report No. EMS 07/123 dated 10/05/2007
 EMC Tests on Pressure Transmitter mod. 268..., Report No. EMI 07/085 dated 02/05/2007
 EMC Immunity Test on 2600T Series, Cod. 268DSFSSA1A4, Report No. EMS 07/122 dated 10/05/2007
 EMC Tests on Pressure Transmitter mod. 364..., Report No. EMI 07/086 dated 02/05/2007
 EMC Immunity Test on 2600T Series, Cod. 364DSGSHT0S1, Report No. EMS 07/119 dated 08/05/2007.

3.2 - **Evaluation International:** Evaluation Report No. E 1820 S 04 dated June 2004.

3.3 - Ex Certificates:

Equipment	Model Number	Certificate
Pressure Transmitter Series 2600T	262, 264, 266, 268	CESI 02 ATEX 027, April 26th, 2002 Extension n. 01/04, June 21th, 2004 Extension n. 02/05, March 25th, 2005
Safety 2600T Pressure Transmitters	Not Indicated	TPS 04 ATEX 1 008, 2004-02-20
2600T Series Pressure Transmitters, HART 4..20 mA	262, 264	ZELM 02 ATEX 0081, April 25, 2002 Supplement 1, August 01, 2003 Supplement 2, April 19, 2005
2600T Series Pressure Transmitters, HART 4..20 mA	262, 264	ZELM 02 ATEX 3088, June 04, 2002 Supplement 1, August 01, 2003 Supplement 2, April 19, 2005
2600T Series Pressure Transmitters, HART 4..20 mA	262, 264	ZELM 02 ATEX 3088, June 04, 2002 Supplement 1, August 01, 2003 Supplement 2, April 19, 2005
2600T Series Pressure Transmitters Model 364 HART	364	ZELM 06 ATEX 0302 X, August 09, 2006 Supplement 1, August 01, 2003 Supplement 2, April 19, 2005

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: 33/43.**

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The **2600T Series** Pressure Transmitters are to be manufactured, examined and tested by **ABB SACE SPA - BU Instrumentation** 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 **ABB SACE SPA - BU Instrumentation** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 - **ABB SACE SPA - BU Instrumentation** has declared to Bureau Veritas that the type of product described in this certificate are manufactured at the following production site:

ABB SACE SPA - BU Instrumentation
Via S.S. 113
22016 LENNO - CO
ITALY

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

6. MARKING OF PRODUCT :

- Trade name,
- Date of manufacture and serial number,
- Equipment type number or model identification under which it was type-tested.
- Ex marking, as relevant.

7. OTHERS :

7.1 - This approval is given with the understanding that:

ABB SACE SPA - BU Instrumentation
Via S.S. 113
22016 LENNO - CO
ITALY

will accept full responsibility for informing shipbuilders, ship-owners or their sub-contractors of the proper methods of use and general maintenance of the transmitters and the conditions of this approval.

7.2 - This Certificate supersedes the Type Approval Certificate N° 19306/A0 BV issued on 20/06/2007 by the Society.

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