



TYPE APPROVAL CERTIFICATE

Certificate No:
TAA000017M
Revision No:
3

This is to certify:

That the Pressure Transmitter

with type designation(s)
2600T - 266

Issued to

ABB S.p.A. - IAMA Division
Tremezzina (loc. Ossuccio) CO, Italy

is found to comply with

DNV 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.

Location classes:

Temperature	D
Humidity	B
Vibration	B
EMC	B
Enclosure	C / IP67

Issued at **Hamburg** on **2022-07-05**

for **DNV**

This Certificate is valid until **2027-07-04**.

DNV local station: **Italy/Malta CMC**

Approval Engineer: **Dariusz Lesniewski**

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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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

2600T Series pressure transmitters for absolute-, gauge- and differential pressure available in the following base models:

266	D	differential	S	standard construction	T	top performance
	M	diff. multisensor	R	with remote seals*	H	high performance
	G	gauge	D	with one direct mount diaphragm seal + a possible remote seal*	X	different performance
	A	absolute	L	with one direct mount diaphragm seal + remote seal*		
	H	gauge hi overload	H	flange mounted (no diaphragm seal)		
	N	absolute hi overload	V	with two diaphragm seal* very high performances		
	J	dual output				
	C	multivariable				

* **S26X** Remote seal

E. g. Model 266DSH is a differential transmitter with standard construction and high performance

External communication protocols: HART 4-20 mA.

(use of HART-Communication for configuration purposes only)

For further details, see respective data sheets as listed under Type Approval documentation.

Place of manufacture

ABB S.p.A.

Via L. Vaccani 4

22016 Tremezzina (Loc. Ossuccio) Como, Italy

ABB Automation Engineering Co., Ltd.

No 4528, KangXin Highway, KangQiao Town,

Pudong new District, Shanghai, P.R. China

ABB Inc.

125 East County Line Road

Warminster, PA 18974, USA

Approval conditions

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 classification of ships Pt.4 Ch.9 Control and monitoring systems.

Application/Limitation

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification / Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Ex-loops are to be documented according to the requirements in Pt.4 Ch.8 Sec.11.

In applications where a dynamic inclined installation is required (e. g. naval applications with maximum vessel inclination of +/-22.5°), the maximum error can be up to:

- 0,5 mbar for 266GST / GRT and 2 mbar for 266AST / ART

- 1,5 mbar for 266HSH / HRH and 5 mbar for 266NSH / HRH

- 2,5 mbar for 266MST / MRT, 266CSx / CRx and 266JSx / JRx

- 3 mbar for 266DSH / DRH

For remote seal models (i. e. 266xRx) the error must be intended excluding capillary effect.

Such error might be resulting in a deviation from the standard accuracy with percentual magnitude depending on the range of the selected device.

In case of non-dynamic inclined installations, this effect can be eliminated by performing a zero calibration in the field.

In any case, it is suggested to contact ABB for more product details in relation to specific installation conditions.

Type Approval documentation

Document type

266CRH, 266CRT, 266JRH and 266JRT Multivariable pressure transmitters
 266CSH, 266CST, 266JSH AND 266JST Multivariable Pressure Transmitters
 2600T Series Pressure Transmitters, Data Sheet, Model 266DHH
 2600T Series Pressure Transmitters, Data Sheet, Model 266DLH
 266GST and 266AST Gauge and absolute pressure transmitters
 266HSH and 266NSH Gauge and absolute pressure transmitters
 2600T Series Pressure Transmitters, Data Sheet, Model 266MRH
 2600T Series Pressure Transmitters, Data Sheet, Model 266MSH
 266MST Differential Pressure Transmitters
 2600T Series Pressure Transmitters, Data Sheet, Model 266DDH/HDH/NDH
 2600T Series Pressure Transmitters, Data Sheet, Model 266MDT/GDT/ADT
 266DRH, 266HRH and 266NRH Pressure transmitters with seals
 266MRT, 266GRT and 266ART Pressure transmitters with seals
 S26 remote and direct mount diaphragm seals
 266DSH Differential pressure transmitters, Data Sheet

Document no. / Rev.

DS/266CRX/JRX-EN REV. G
 DS/266CSX/JSX-EN REV. F
 DS/266DHH-EN_0
 DS/266DLH-EN_0
 DS/266GST/AST-EN REV. I
 DS/266HSH/NSH-EN REV. W
 DS/266MRH-EN_0
 DS/266MSH-EN_0
 DS/266MST-EN REV. L
 DS/266XDH-EN_0
 DS/266XDT-EN / 02.2010
 DS/266XRH-EN REV. V
 DS/266XRT-EN REV. N
 OI/DS/S26-EN Rev. A
 DS/266DSH-EN REV. R

Environmental Test Reports:

ABB Test report, Performance test, Model 266 MST
 ABB Test report, Performance test, Model 266 GST
 ABB Test report, Performance test, Model 266 MST
 ABB Test report, Performance test, Model 266 MST
 ABB Test report, Performance test, Model 266 GST
 ABB Test report, EMC test, Model 266 (dp-piezo 2,5bar, Cell 158)
 ABB Test report, EMC test, Model 266 (dp-piezo hp 100bar, Cell 079)
 ABB Test report, EMC test, Model 266 (p-cap 60mbar, Cell 112)
 ABB Test report, EMC test, Model 266 (p-piezo 2,5bar, Cell 126)
 ABB Test report, EMC test, Model 266 (dp-piezo 2,5bar, Cell 158)
 ABB Test report, EMC test, Model 266 (dp-piezo hp 100bar, Cell 079)
 ABB Test report, EMC test, Model 266 (p-cap 60mbar, Cell 113)
 ABB Test report, EMC test, Model 266 (p-piezo 2,5bar, Cell 126)
 ABB Test report, EMC test, Model 266 HSH/NSH/DSH/PSH/VSH
 ABB Test report, Vibration- and Shock test, Model 266 GST
 ABB Test report, Vibration- and Shock test, Model 266 MST
 ABB Test report, Vibration- and Shock test, Model 266 GST
 ABB Test report, Vibration- and Shock test, Model 266 DSH
 ABB Test report, Vibration- and Shock test, Model 266 HSH
 ABB Test report, Vibration- and Shock test, Model 266 MST
 ABB Test report, Climatic test, Model 266 MST
 ABB Test report, Climatic test, Model 266 GST
 ABB Test report, Climatic test, Model 266 MST
 ABB Test report, Climatic test, Model 266 MST
 ABB Test report, Salt spray test, Polyfine 3000
 ABB Test report, Salt spray test, Mile 2 barrel housing
 TÜV Rheinland Italia EMC Emission/Immunity test, Models 266 HSH/NSH,
 266 DSH/PSH/VSH
 TÜV Rheinland Italia EMC Emission/Immunity test, Models 264 B/D/H/N/P/V
 TÜV Italia Test report, IP67 enclosure test, Models 266 Housing
 G.S.D. Test report, EMC/Climatic tests, Models 266 MSH/DSH/VSH/GSH
 G.S.D. Test report, EMC/Climatic tests, Models 266 GST/RST/MST
 INTERTEK Test report, Salt mist test, Models 266 GSH/DSH/ASH
 INTERTEK Test report, Salt mist test, Models 266 GST/RST/MST
 Test Report: INTEK Spa No 2019-0296-00
 Test Report: TÜV Italia SRL 15/141 dated 2015-07-10
 Test Report: INTEK Spa 2019-0297-00 dated 2019-11-28
 Test Report: INTEK Spa RP 2012-0123-00 dated 2012-02-27
 Test Report: TÜV Süd Document 75930996 Report 01 Issue 1, 2016-01-14
 Test Report: INTEK Spa TR 2020-0276-00 dated 2020-11-10
 Test Report UL International 20-4789710959-1-1-0-A, dated 2020-12-22
 Test Report: INTEK TR 2021-0045-00, dated 2021-02-03
 Test Report: TesLab No. 225148E, dated 2022-06-08
 Test Report: TesLab No. 225147E, dated 2022-06-08
 Test Report: INTEK No. 2022-0277-00, dated 2022-06-14
 Test Report: INTEK No. 2020-0244-00, dated 2020-10-13

IIME-A09/2009 T
 IIME-A10/2009 T
 IIME-A11/2009 T
 IIME-A12/2009 T
 IIME-A14/2009 T
 IIME-A16/2009 T
 IIME-A17/2009 T
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 IIME-A19/2009 T
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 21685 / 2009-03-31
 IIME-A20/2009 T
 IIME-A21/2009 T
 IIME-A24/2009 T
 IIME-A28/2009 T
 IIME-A30/2009 T
 IIME-A31/2009 T
 IIME-A25/2009 T
 IIME-A26/2009 T
 IIME-A27/2009 T
 IIME-A34/2009 T
 168.00
 193.00
 28102436 001
 28102437 001
 STA_09_067 / 2009-09-08
 11758 / 00
 11791 / 00
 2011013 / 0
 2011019 / 0
 2019-0296 / 00
 15/141 / -
 2019-0297 / 00
 2012-0123 / 00
 75930996 / 01
 TR 2020-0276 / 00
 20-4789710959-1-1-0-A / -
 TR 2021-0045 / 00
 225148E / 2022-06-08
 225147E / 2022-06-08
 2022-0277-00 /2022-06-14
 2022-0244-00 /2020-10-13

Document type

Test Report: INTEK No. 2020-0243-00, dated 2020-10-13
UL Calibration Certificate 20-4088, dated 2020-11-17
UL Calibration Certificate 20-4089, dated 2020-11-17
UL Metrological Confirmation 20-4088cs, dated 2020-11-17
UL Metrological Confirmation 20-4089cs, dated 2020-11-17
UL Metrological Confirmation 20-4429cs, dated 2020-12-21
UL Calibration Certificate 20-4430, dated 2020-12-21

Document no. / Rev.

2022-0243-00 /2020-10-13
20-4088 / --
20-4089 / --
20-4088cs / --
20-4089cs / --
20-4429cs / --
20-4430 /--

Type approval assessment report issued Certification & Inspection Services, on 2022-06-16
Type approval assessment report issued at Italy/Malta CMC, on 2022-06-29
Type approval assessment report issued at Shanghai, on 2022-06-30

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.

Marking of product

The products to be marked with:

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

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