



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEx FME 16.0003X**

Page 1 of 5

Certificate history:

Status: **Current**

Issue No: 13

[Issue 12 \(2023-03-06\)](#)

[Issue 11 \(2022-10-30\)](#)

[Issue 10 \(2022-05-26\)](#)

[Issue 9 \(2022-03-28\)](#)

[Issue 8 \(2021-11-12\)](#)

[Issue 7 \(2021-10-25\)](#)

[Issue 6 \(2021-04-19\)](#)

[Issue 5 \(2019-03-12\)](#)

[Issue 4 \(2019-01-23\)](#)

[Issue 3 \(2018-06-11\)](#)

Date of Issue: **2024-02-28**

Applicant: **ABB SpA**  
Via L Vaccani 4  
Tremezzina Ossuccio, Como 22016  
**Italy**

Equipment: **Model 266 Pressure Transmitter**

Optional accessory:

Type of Protection: **Intrinsic safety 'ia'**

Marking: **See attached Annex which remains unchanged from IECEx FME 16.0003X Issue No.: 13.**

Approved for issue on behalf of the IECEx  
Certification Body:

**Andrew Was**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

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**Maidenhead**  
**Berkshire**  
**SL6 2PJ**  
**United Kingdom**





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Page 2 of 5

Date of issue: 2024-02-28

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Manufacturer: **ABB SpA**  
Via L Vaccani 4  
Tremezzina Ossuccio, Como 22016  
**Italy**

Manufacturing  
locations: **ABB Engineering (Shanghai)  
Limited**  
No 4528, KangXin Road  
KangQiao Town  
Pudong new District  
Shanghai. 201319  
**China**

**ABB India Limited**  
Process Automation - Measurement  
Products  
Plot No. 5 & 6, 2nd Phase, Peenya  
Industrial Area  
Bangalore - 560058  
India  
**India**

**ABB Inc**  
125 East County Line Rd. Warminster,  
PA 18974  
**United States of America**

## See following pages for more locations

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

### STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

**IEC 60079-0:2017** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

**IEC 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

### TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

#### Test Reports:

GB/FME/ExTR16.0002/00  
GB/FME/ExTR16.0002/03  
GB/FME/ExTR16.0002/07  
GB/FME/ExTR16.0002/11  
GB/FME/ExTR16.0002/15

GB/FME/ExTR16.0002/01  
GB/FME/ExTR16.0002/05  
GB/FME/ExTR16.0002/09  
GB/FME/ExTR16.0002/12  
GB/FME/ExTR16.0002/16

GB/FME/ExTR16.0002/02  
GB/FME/ExTR16.0002/06  
GB/FME/ExTR16.0002/10  
GB/FME/ExTR16.0002/14

#### Quality Assessment Reports:

GB/FME/QAR10.0007/13  
IT/CES/QAR07.0001/17

GB/FME/QAR21.0005/00  
NO/PRE/QAR17.0003/04

GB/ITS/QAR16.0002/04



# IECEx Certificate of Conformity

Certificate No.: **IECEx FME 16.0003X**

Page 3 of 5

Date of issue: 2024-02-28

Issue No: 13

## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The 2600T Pressure transmitter, Model 266 consists of an aluminium alloy or stainless steel housing with an internal partition which separates the enclosure into a terminal compartment and an electronics compartment. RF leadthroughs are fitted in the partition wall. The terminal compartment is fitted with a flat threaded cover and the electronics compartment is fitted with a window cover having a cemented-in flat glass window. The housing is also provided with a threaded opening on the electronics side to accommodate a pressure sensor (primary) which can be of gauge or differential design and having various sensor types. All joints are sealed using 'O' rings and all threaded joints are locked against removal. The design includes a number of different configurations:

1. HART 4-20mA
2. Foundation Fieldbus/Profibus

There are 5 different terminal arrangements

1. 2 terminals with and without surge protection
2. 3 terminals with and without surge protection
3. 6 terminals with and without surge protection
4. 8 terminals with and without surge protection
5. 9 terminals with and without surge protection

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The User shall permanently mark the protection type chosen. Once the type of protection has been marked it shall not be changed.
2. The material of the partition wall (sensing diaphragm) shall not be subject to environmental conditions which might adversely affect it.
3. The model 266 main electronics enclosure options = A or B contains aluminium and is considered to present a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.
4. For areas subject to explosive dust atmospheres the painted surface of the Model 266 may store electrostatic charge and become a source of ignition in applications with a low relative humidity  $< \sim 30\%$  relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TS 60079-32-1. Cleaning of the painted surface shall only be done in accordance with the manufacturer's instructions.
5. For the Model 266 Multivariable the HART and the Digital Output circuits shall be treated as separate intrinsically safe circuits and the wiring used shall be Type A or Type B as defined in IEC 60079-25.
6. The ABB Instruction Manual for the Model 266 Pressure Transmitter details the permitted Temperature Classification as influenced by the input parameters and Ambient Temperature ratings.



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Certificate No.: **IECEx FME 16.0003X**

Page 4 of 5

Date of issue: 2024-02-28

Issue No: 13

**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Update to DP-Piezo pressure transducer.



# IECEx Certificate of Conformity

Certificate No.: **IECEx FME 16.0003X**

Page 5 of 5

Date of issue: 2024-02-28

Issue No: 13

Additional manufacturing locations:

**ABB Electrical Industries Co. Ltd. (SAARA)**  
75th Street, 2nd Industrial City,  
PO Box 514,  
Dammam  
**Saudi Arabia**

**Annex:**

[Annex to FME16\\_0003X Issue 13.pdf](#)

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### Electrical parameters

HART/Entity (communications options t = 1, 7, 8, H or T)

U<sub>i</sub> = 30 Vdc      C<sub>i</sub> = 5 nF      L<sub>i</sub> = 10 µH

U<sub>i</sub> = 30 Vdc      C<sub>i</sub> = 17 nF      L<sub>i</sub> = 10 µH      when option u = YE

T Class	Minimum Ambient °C	Maximum Ambient °C	I <sub>max</sub> mA	Power W
T4	-50°C	+85°C	100	0.75
T4	-50°C	+70°C	160	1
T5	-50°C	+40°C	100	1.75
T6	-50°C	+40°C	50	0.4

### Profibus (communications options t = 2)

U<sub>i</sub> = 17.5V      I<sub>i</sub> = 360 mA      P<sub>i</sub> = 2.5 W      C<sub>i</sub> = 5nF      L<sub>i</sub> = 10 µH

T Class	Minimum Ambient °C	Maximum Ambient °C
T4	-50°C	+85°C
T5	-50°C	+40°C
T6	-50°C	+40°C

### FISCO (communications options t = 3)

U<sub>i</sub> = 17.5V      I<sub>i</sub> = 380 mA      P<sub>i</sub> = 5.32 W      C<sub>i</sub> = 5nF      L<sub>i</sub> = 10 µH

T Class	Minimum Ambient °C	Maximum Ambient °C
T4	-50°C	+85°C
T5	-50°C	+40°C
T6	-50°C	+40°C

### Fieldbus (communications options t = 3)

U<sub>i</sub> = 24 V      I<sub>i</sub> = 250 mA      P<sub>i</sub> = 1.2 W      C<sub>i</sub> = 5nF      L<sub>i</sub> = 20 µH

T Class	Minimum Ambient °C	Maximum Ambient °C
T4	-50°C	+85°C
T5	-50°C	+40°C
T6	-50°C	+40°C

### 266bcdefghimnoqrstu 2600T Series Pressure Transmitter model 266.

Ex ia IIC T6...T4 Ga - DH3173 (For communication option 1, 7, 8, H, L, T); IP66; IP67

Ex ia IIC T6...T4 Ga/Gb - DH3173 (For communication option 1, 7, 8, H, L, T); IP66; IP67

Ex ia IIIC T85°C Da/Db - DH3173: IP66; IP67

b = measure type and construction: A, C, D, G, H, J, M, N, P, R, or V.

c = application: D\*\*, H, L, R\*\*, or S.

m (only for 266 DLH and 266 DHH) = high pressure side process flange standard rating – size : A, B, D, E, M, N, or L.

n (only for 266 DLH and 266 DHH) = high pressure side process flange material-form-finish: A, D, G, or L.

o (only for 266 DLH and 266 DHH) = low pressure side diaphragm material and fill fluid: 4, 5, A, B, C, D, F, H, K, L, M, P, Q, S, or T.

q (only for 266 DLH) = low pressure side seal type and capillary length: 1, 2, 3, 4, 5, 6, 7, 8, M, N, Q, S, T, U, V, or Z.

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r = bolts and gasket: Single character not relevant to explosion safety.

s = electronic housing: A, B, E, G, J, K, S, T, W, or Z.

t = communication: 1, 2, 3, 7, 8, F, H, L, P, or T. (If t = F, P, H, L or T then u = blank)

u = Options: E8, EH or EI, and blank or AA, AB, A1, A2, A3, A8, A9, B†, C†, D†, F†, H†, I†, L1, L3, L7, L9, M†, N†, P†, R1, S2, T†, U†, V1, V2, V3, V4, V5, V6, V7, V8, V9, VA, VB, VC, W†, Y† or Z1.

\*\* Note 1: If on option "c" is D or R denotes remote seal elements.

† Note 2: Any single letter or number.

Code of remote seal:

S6 for 600TEN series

S26 for 2600T series

Model code option variables "d" through "i" do not affect product safety.

### **266bcdefghirstu 2600T Series Pressure Transmitter model 266 (multivariable).**

Ex ia IIC T6...T4 Ga - DH3272; IP66; IP67

Ex ia IIC T6...T4 Ga/Gb - DH3272; IP66; IP67

Ex ia IIIC T85°C Da/Db - DH3272; IP66; IP67

#### Electrical parameters

HART/Entity

Ui = 30 Vdc      Ci ≤ 13 nF      Li ≤ 10 µH

Temperature Class - Gas	Temperature Class - Dust	Minimum ambient °C	Maximum ambient °C	I <sub>max</sub> mA	Power W
T4	T135°C	-50°C	+60°C	100	0.75
T4	T135°C	-50°C	+60°C	160	1
T5	T100°C	-50°C	+56°C	100	1.75
T6	T85°C	-50°C	+44°C	50	0.4

#### RTD connections

U<sub>o</sub> = 5.9 V      I<sub>o</sub> = 24 mA      P<sub>o</sub> = 0.035 W      C<sub>o</sub> = 11.3 µF      L<sub>o</sub> = > 10 µH (negligible)

#### Digital Output

U<sub>o</sub> = 0      I<sub>o</sub> = 0      C<sub>o</sub> = 650 nF      L<sub>o</sub> = 5.5 mH

Ui = 30 Vdc      Ii = 120 mA      Ci = 3 nF      Li = 0

Temperature Class - Gas	Temperature Class - Dust	Minimum ambient °C	Maximum ambient °C	Power W
T4	T135°C	-50°C	+60°C	1.0
T5	T100°C	-50°C	+56°C	1.3
T6	T85°C	-50°C	+44°C	0.4

b = measure type and construction: C, or J.

c = application: R\*\*, or S.

r = bolts and gasket: 3, 4, 5, 6, 7, R, or T

s = electronic housing: A, B, J, S, or T

t = communication: 1 or 8

u = Options: E8, EH or EI, and blank or A1, B†, C†, D†, E1, E7, EN, EW, F†, H†, I†, L1, L3, L5, L7,

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L9, M†, N†, P†, R1, S2, T†, U†, V1, V2, V3, V4, V5, V6, V7, V8, V9, W†, Y† (Excluding Option u = YE) or Z1.

\*\* Note 1: If on option “c” is D or R denotes remote seal elements.

† Note 2: Any single letter or number.

Code of remote seal:

S6 for 600TEN series

S26 for 2600T series

Model code option variables “d” through “i” do not affect product safety.

**266bcdefghimnoqrstu 2600T Series Pressure Transmitter model 266. (L5 display option)**

Ex ia IIC T6...T4 Ga (For communication option 1, 8, H, T); IP66; IP67

Ex ia IIC T6...T4 Ga FISCO (For communication option 2, 3, F, P); IP66; IP67

Ex ia IIC T6...T4 Ga/Gb (For communication option 1, 8, H, T); IP66; IP67

Ex ia IIC T6...T4 Ga/Gb FISCO (For communication option 2, 3, F, P); IP66; IP67

Ex ia IIIC T85°C Da/Db: IP66; IP67

b = measure type and construction: A, C, D, G, H, J, M, N, P, R, or V.

c = application: D\*\*, H, L, R\*\*, S or V.

m (only for 266 DLH and 266 DHH) = high pressure side process flange standard rating – size : A, B, D, E, M, N, or L.

n (only for 266 DLH and 266 DHH) = high pressure side process flange material-form-finish: A, D, G, or L.

o (only for 266 DLH and 266 DHH) = low pressure side diaphragm material and fill fluid: 4, 5, A, B, C, D, F, H, K, L, M, P, Q, S, or T.

q (only for 266 DLH) = low pressure side seal type and capillary length: 1, 2, 3, 4, 5, 6, 7, 8, M, N, Q, S, T, U, V, or Z.

r = bolts and gasket: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, C, N, R, T, or S.

s = electronic housing: A, B, E, G, J, K, S, T, W, or Z.

t = communication: 1, 2, 3, 7, 8, F, H, L, P, or T. (If t = F, P, H, L or T then u = blank)

u = Options: E8, EH or EI, and blank, or AA, AB, A1, A2, A3, A4, A6, A8, A9, B†, C†, D†, F†, H†, I†, L5, M†, N†, P†, R1, S2, T†, U†, V1, V2, V3, V4, V5, V6, V7, V8, V9, VA, VB, VC, W†, Y† or Z1.

\*\* Note 1: If on option “c” is D or R denotes remote seal elements.

† Note 2: Any single letter or number.

Code of remote seal:

S6 for 600TEN series

S26 for 2600T series

Model code option variables “d” through “i” do not affect product safety.

**266bcdefghimnoqrs7u 2600T Series Pressure Transmitter model 266. (Integrated HMI option)**

Ex ia IIC T6...T4 Ga; IP66; IP67

Ex ia IIC T6...T4 Ga/Gb; IP66; IP67

Ex ia IIIC T85°C Da/Db: IP66; IP67

b = measure type and construction: D, H, P, or N

c = application: D\*\*, R\*\*, H, L or S

m (only for 266DLH and 266DHH) = A, B, D, E, M, N, L,

n (only for 266DLH and 266DHH) = A, D, G, L

o (only for 266DLH and 266DHH) = L, A, S, Q, B, H, P, F, K, C, 4, M, D, T, 5

q (only for 266DLH) = 1, 2, 3, 4, 5, 6, 7, 8, M, N, Q, S, T, U, V, Z

r = 1, 2, 3, 4, 8, 9, R, S

s = electronic housing: A, B, S, T



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u = Options: E8, EH or EI, and blank or A1, B†, C†, D†, F†, H†, I†, LS, M†, N†, P†, R1, S2, T†, V1, V2, V3, V4, V5, V6, V7, V8, V9, VA, VB, or VC

\*\* Note 1: if on option “c” is D or R denotes remote seal elements.

† Note 2: Any single letter or number.

Code of remote seal:

S26 for 2600T series

Model code option variables “d” through “i” do not affect product safety.

**266bcdefghirstu 2600T Series Pressure Transmitter model 266 (multivariable NE21 Terminal option).**

Ex ia IIC T6...T4 Ga - DH3173; (For communication option 1, 8); IP66; IP67

Ex ia IIC T6...T4 Ga/Gb - DH3173; (For communication option 1, 8); IP66; IP67

Ex ia IIIC T85°C Da - DH3173; (For communication option 1, 8); IP66; IP67

Ex ia IIIC T85°C Da/Db - DH3173; (For communication option 1, 8); IP66; IP67

Electrical parameters

HART/Entity (communications options t = 1, or 8)

Ui = 30 Vdc      Ci ≤ 17 nF      Li ≤ 10 μH

Temperature Class - Gas	Temperature Class - Dust	Minimum ambient °C	Maximum ambient °C	I <sub>max</sub> mA	Power W
T4	T135°C	-50°C	+60°C	100	0.75
T4	T135°C	-50°C	+60°C	160	1
T5	T100°C	-50°C	+56°C	100	1.75
T6	T85°C	-50°C	+44°C	50	0.4

RTD connections

U<sub>o</sub> = 5.9 V      I<sub>o</sub> = 24 mA      P<sub>o</sub> = 0.035 W      C<sub>o</sub> = 11.3 μF      L<sub>o</sub> = > 10 μH (negligible)

Digital Output

U<sub>o</sub> = 0      I<sub>o</sub> = 0      C<sub>o</sub> = 650 nF      L<sub>o</sub> = 5.5 mH

Ui = 30 Vdc      I<sub>i</sub> = 120 mA      Ci = 3 nF      Li = 0

Temperature Class - Gas	Temperature Class - Dust	Minimum ambient °C	Maximum ambient °C	Power W
T4	T135°C	-50°C	+60°C	1.0
T5	T100°C	-50°C	+56°C	1.3
T6	T85°C	-50°C	+44°C	0.4

b = measure type and construction: C, or J.

c = application: R\*\*, or S.

r = bolts and gasket: 3, 4, 5, 6, 7, R, or T

s = electronic housing: A, B, C, D, S, T or J.

t = communication: 1, or 8

u = Options: E8, and blank, or A1, B†, C†, D†, F†, H†, I†, L1, L5, M†, N†, P†, R1, S2, T†, U†, V1, V2, V3, V4, V5, V6, V7, V8, V9, YE or Z1.

\*\* Note 1: If on option “c” is D or R denotes remote seal elements.

† Note 2; Any single letter or number.

Model code option variables “d” through “i” do not affect product safety.

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Code of remote seal:  
 S6 for 600TEN series  
 S26 for 2600T series

**266NSHefghirs1u 2600T Pressure transmitter, Model 266 MID option YC – Dual Seal**

Ex ia IIA T6...T4 Ga  
 Ex ia IIA T6...T4 Ga/Gb  
 IP66; IP67

Electrical ratings;

Entity/HART Version

Ui = 30Vdc Ci ≤ 11 nF Li ≤ 64 mH

Temperature Class	Minimum ambient °C	Maximum ambient °C	I <sub>max</sub> mA	Power W
T4	-50°C	+85°C	50	0.75
T4	-50°C	+70°C	50	1
T5	-50°C	+40°C	50	0.75
T6	-50°C	+40°C	50	0.4

s = electronic housing: A, B, S, or T.

u = Options: YC and E1, E7 or EN and, blank or A1, B†, C†, H†, I†, L1, M†, N†, P†, S2, T†, V† or Z1.

† Note: Any single letter or number.

Model code option variables “e” through “i” do not affect product safety.

**266bcddeghi\*stu 2600T Pressure transmitter, Model 266DDS.**

Ex ia IIC T6...T4 Ga; IP66; IP67  
 Ex ia IIC T6...T4 Ga/Gb; IP66; IP67  
 Ex ia IIIC T85°C...135°C Da: IP66; IP67  
 Ex ia IIIC T85°C...135°C Da/Db: IP66; IP67

Electrical ratings;

Entity/HART Version

Ui = 30Vdc Ci ≤ 5 nF Li ≤ 10 μH

Temperature Class	Temperature Class - Dust	Minimum ambient °C	Maximum ambient °C	I <sub>max</sub> mA	Power W
T4	T135°C	-50°C	+85°C	100	0.75
T4	T135°C	-50°C	+70°C	160	1
T5	T100°C	-50°C	+40°C	100	1.75
T6	T85°C	-50°C	+40°C	50	0.4

b = measure type and construction: A\*, G\*, H, N.

c = application: S or R\*\*.

s = electronic housing: A, B, S, or T.

t = communication: D or S.

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u = Options: E8, EH, EI or EN and, blank or A1, A2, A3, AA, AB, AC, B<sup>†</sup>, C<sup>†</sup>, D<sup>†</sup>, H<sup>†</sup>, I<sup>†</sup>, L1, M<sup>†</sup>, N<sup>†</sup>, P<sup>†</sup>, S2, T<sup>†</sup>, V1, V2, V3, V4, V5, V6, V7, V8, V9, VA, VB, VC, Y<sup>†</sup>, or Z1.

<sup>†</sup> Note 2: Any single letter or number.  
S26 for 2600T series

Model code option variables “e” through “i” do not affect product safety.