



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx EMT 17.0007X

Issue No: 0

Certificate history:

Issue No. 0 (2017-08-23)

Status: **Current**

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Date of Issue: **2017-08-23**

Applicant: **Dwyer Instruments Inc.**
102 Indiana Hwy.212,
Michigan City,
Indiana, 46360
United States of America

Equipment: **TTE series of temperature transmitters**

Optional accessory:

Type of Protection: **Flameproof "db", by enclosure "ta"**

Marking:

Ex db IIC T6...T4 Gb -20 °C ≤ Tamb ≤ +70 °C

Ex ta IIIC T200 111°C Da -20 °C ≤ Tamb ≤ +70 °C

Tprocess = -34.4 °C to +120 °C (-30 °F to +250 °F)

*Approved for issue on behalf of the IECEx
Certification Body:*

Stephen Winsor

Position:

Certification Manager

*Signature:
(for printed version)*

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Element Materials Technology
Unit 1 Pendle Place
Skelmersdale
West Lancashire
United Kingdom





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Manufacturer: **Dwyer Instruments Inc.**
102 Indiana Hwy.212,
Michigan City,
Indiana, 46360
United States of America

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical 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 Report:

[GB/EMT/ExTR17.0008/00](#)

Quality Assessment Report:

[CA/CSA/QAR09.0006/08](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The TTE series of temperature transmitter are employed in gas and dust environments for process temperatures of -34.4 °C to +120 °C (-30 °F to +250 °F) and ambient temperatures of -20 °C to +70 °C. The equipment consists of a probe assembly mounted to a main enclosure which house the electronics. The enclosure can be fitted with a solid cover or a cover with a window fitted to provide visibility of the optional fit LCD (temperature) display.

The main enclosure is constructed from aluminium and is of a mainly cylindrical design with a central threaded entry for fitment of the temperature probe, and two threaded side entries for cable / conduit connections. There are two threaded covers to the top and bottom of the enclosure. Approximate overall dimensions 100 mm x 90 mm.

The probe tips, which house the temp sensing elements, are constructed from stainless steel and can be supplied in lengths of 2 to 18 inches (51 to 457 mm). The probe tip tube is welded to a threaded fitting to facilitate its fitment to the main enclosure.

Model number breakdown see Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When employed in a Zone 20, EPL Da (ta) application the equipment is to be used with a power source rated for a prospective short circuit current of 10 kA. If the power source is rated for a prospective short circuit current of less than 10 kA the end user / installer must mark the equipment with the prospective short circuit current rating of the power supply it is used in conjunction with.
2. Repairs to the flameproof joints are not permitted

Annex:

[Annex to IECEx EMT 17.0007X iss 0.pdf](#)



Annex to IECEx Certificate of Conformity

IECEx EMT 17.0007X issue No.: 0

Routine Tests

1. The probe tip assemblies shall be subjected to routine overpressure testing at a pressure of 10.3 bar (150 psi) for at least 10 seconds. There shall be no leakage or permanent deformation or damage to the assembly as a result of the test.

Model configuration

Model number breakdown:

TTE-2bb-W-c-d

bb = 02 to 18 (probe length in inches)

W = Well probe

c = BLANK (No display) or LCD,

d = C5 (C5M Paint) or (standard paint), BSPT (process connection) or M20 (electrical connection).

Temperature class

Note that on installation the temperature class of the equipment will depend upon the process temperatures that the temperature sensors are subjected to:

T _{process} Temperature	Temperature Class
≤ 80 °C	T6
> 81 °C ≤ 95 °C	T5
> 96 °C ≤ 120 °C	T4

This information is marked on the equipment's nameplate.

Manufacturer's Documents			
Title:	Drawing No.:	Rev. Level:	Date:
Reducer TTE RTD Temperature Transmitter ATEX & IECEx Approval	001458-01	-	2015-12-04
LCD Glass Window TTE RTD Temperature Transmitter ATEX & IECEx Approval	001458-02	-	2016-02-12
Probe Body TTE RTD Temperature Transmitter ATEX & IECEx Approval	001458-03	-	2015-12-04
Electrical Enclosure TTE RTD Temperature Transmitter ATEX & IECEx Approval	001458-04	-	2015-12-22
Blank Cover TTE RTD Temperature Transmitter ATEX & IECEx Approval	001458-05	-	2015-12-07
LCD Option Cover TTE RTD Temperature Transmitter ATEX & IECEx Approval	001458-06	-	2015-12-16
RTD Transmitter Engineering Schematic	001458-07	-	2016-01-25
Retainer TTE RTD Temperature Transmitter ATEX & IECEx Approval	001458-08	-	2016-02-12
Assembly Detail Blank Cover TTE RTD Temperature Transmitter ATEX & IECEx Approval (3 pages)	001458-09/10	-	2016-01-26
Assembly Detail Series TTE ATEX / IECEx Approval (2 pages)	001458-18	-	2017-05-18
TTE Nameplate ATEX / IECEx	001812-00	-	2016-07-12
Series TTE Explosion-Proof RTD Temperature Transmitter Specifications – Installation and Operating Instructions (4 pages)	008121-00	*	2017-07

*'-' denotes initial issue drawing, no rev level. '**' denotes no information provided.*