

CONFORMITÉ EUROPÉENNE

EU - TYPE EXAMINATION CERTIFICATE

Product or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU – Annex III

- EU - Type Examination Certificate No.: **EMT17ATEX0021X (incorporating variations V1 to V2)**
- Product: **TTE series of temperature transmitters TTE-2bb-W-c-d**
- Manufacturer: **Dwyer Instruments, LLC.**
- Address: **102 Indiana Hwy. 212, Michigan City, Indiana, 46360, United States of America**

This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

Element Materials Technology, Notified Body number 2812, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in the confidential reports **TRA-032839-33-00A, TRA-052601-33-00A & TRA-058329-33-00A.**

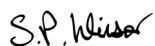
Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018**EN 60079-1:2014****EN 60079-31:2014**

Except in respect of those requirements listed at section 18 of the schedule.

- If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.
- This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- The marking of this product shall include the following:
-  **II 2 G Ex db IIC T6...T4 Gb -20 °C ≤ Tamb ≤ +70 °C**
- II 1 D Ex ta IIIC T200 111 °C Da -20 °C ≤ Tamb ≤ +70 °C**
- Tprocess = -34.4 °C to +120 °C (-30 °F to +250 °F)**

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.



S P Winsor, Certification Manager

Issue date: 2022-10-24

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13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

14 CERTIFICATE NUMBER EMT17ATEX0021X (incorporating variations V1 to V2)

15 Description of Product

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 temperature 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.

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.

Electrical rating 10-35 V, 4-20 mA, max 700 mW.

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).

16 Test Report No. (as added for this issue of the certificate): TRA-058329-33-00A

17 Specific Conditions of Use

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.



Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.

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18 Essential Health and Safety Requirements (Directive Annex II)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

19 Drawings and Documents

The list of controlled technical documentation is given in Appendix A to this schedule.

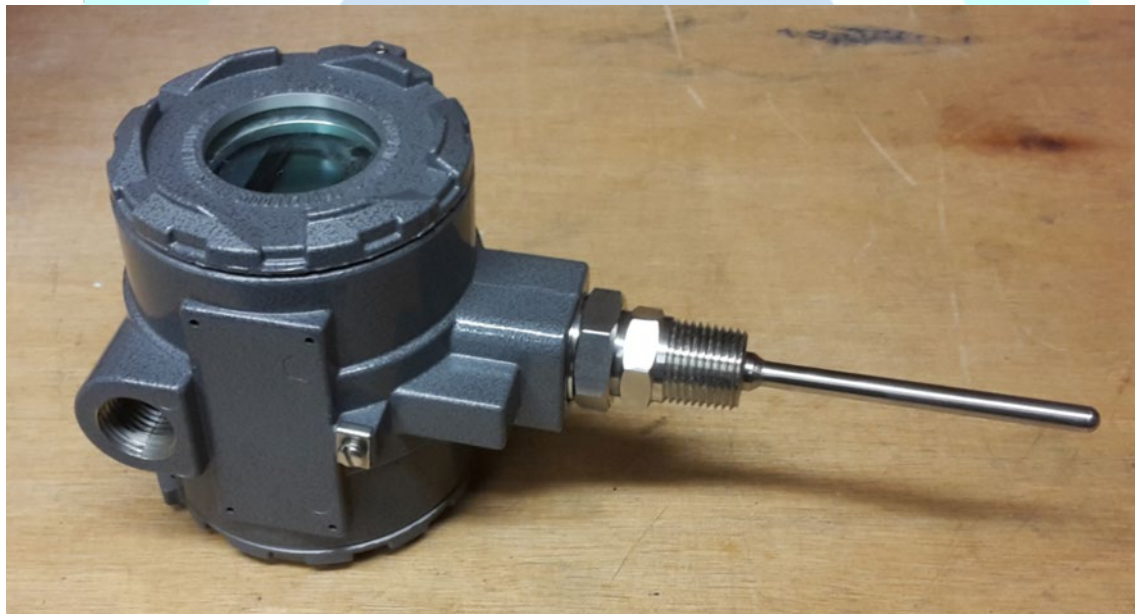
20 Routine Tests

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.

21 Specific Conditions for Manufacture

None.

22 Photographs



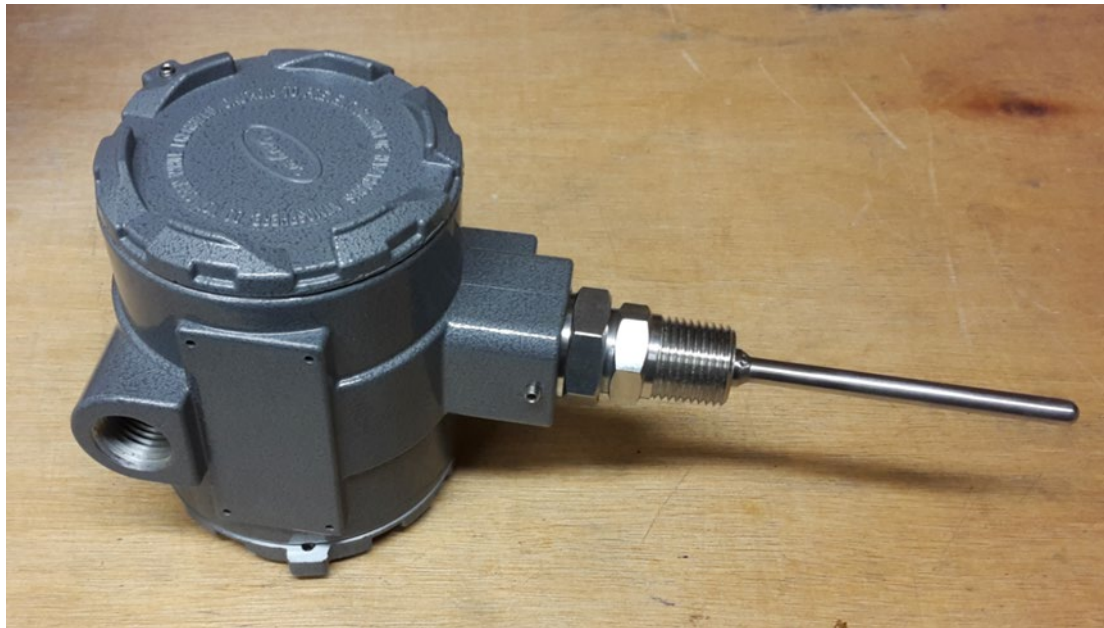
TTE series temperature transmitter with 3 inch probe and window cover with LCD display



TTE series temperature transmitter with 18 inch probe and window cover with LCD display

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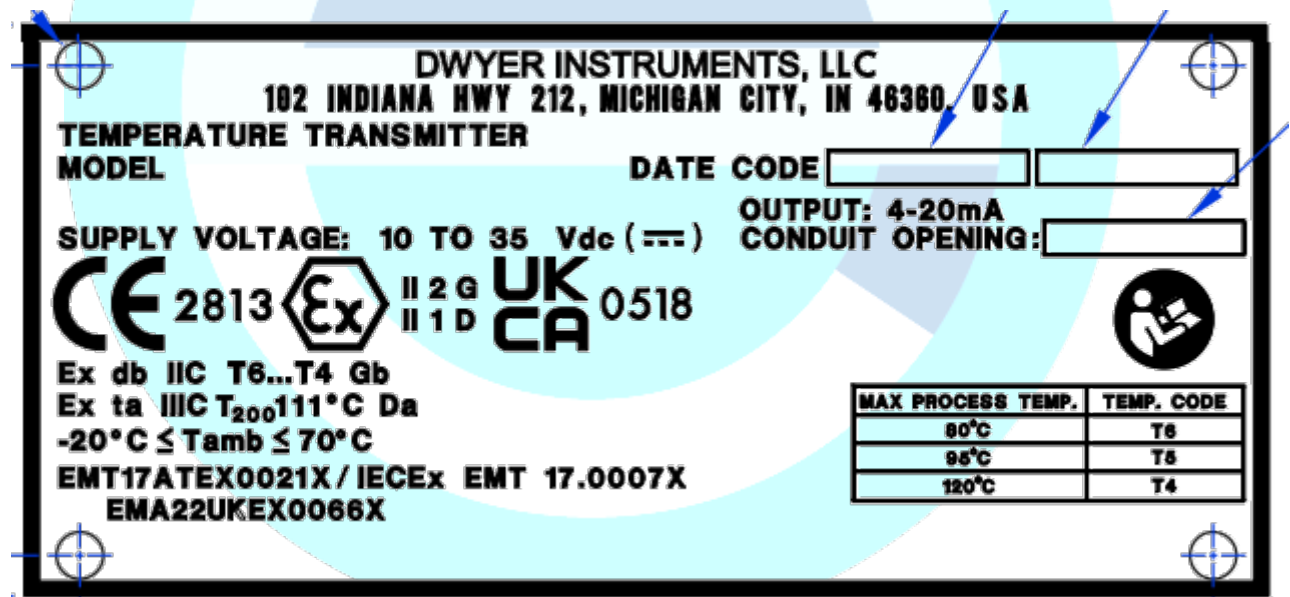
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TTE series temperature transmitter with 3 inch probe and blank cover.

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Details of Markings



24 Certificate History

Original certificate	2017-08-03	First issue. This certificate was originally issued by Notified Body number 0891 under Directive 2014/34/EU. The technical file has been transferred to Element Notified Body number 2812 without further assessment or evaluation.
Variation V1	2021-03-05	Update of 3 drawings to reference new ATEX Notified Body.
Variation V2	2022-10-24	Change to company name.

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This certificate is a consolidated certificate and reflects the latest status of the certification, including all variations and amendments.

25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

26 Notes to this certificate

Element Materials Technology certification reference: ERO038397P22 (GU-DWYQ-0002).

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body number 2812 is the designation for Element Materials Technology Rotterdam BV.

27 Conditions for the validity of this certificate

This certificate remains valid for so long as:

- (i) The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.
- (ii) The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE**CERTIFICATE NUMBER EMT17ATEX0021X (incorporating variations V1 to V2)****APPENDIX A - TECHNICAL 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	2	2022-08-22
TTE Nameplate ATEX / IECEx	001812-00	2	2022-08-22
Series TTE Explosion-Proof RTD Temperature Transmitter Specifications – Installation and Operating Instructions (4 pages)	001821-00	2	2022-08

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