



1 TYPE EXAMINATION CERTIFICATE

2 Equipment or Protective systems intended for use in Potentially
Explosive Atmospheres - Directive 94/9/EC

3 Type Examination Certificate No: FM06ATEX0030X

4 Equipment or protective system: Model THZ² And TDZ² Temperature Transmitters
(Type Reference and Name)

5 Name of Applicant: Moore Industries International

6 Address of Applicant: 16650 Schoenborn Street
North Hills, CA 91343 USA

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 FM Approvals Ltd. certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

3024597EC dated 29th June 2007

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN60079-0:2006 and EN60079-15:2005

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include:



TDZ² Transmitter
II 3 G Ex nA IIC T4 Ta = -40°C to +85°C;

THZ² Transmitter
II 3 G Ex nA IIC T5 Ta = -40°C to +85°C; T6 Ta = -40°C to +60°C

Mick Gower
Certification Manager, FM Approvals Ltd.

Issue date: 14th January 2014

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals Ltd. 1 Windsor Dials, Windsor, Berkshire, UK. SL4 1RS
T: +44 (0) 1753 750 000 F: +44 (0) 1753 868 700 E-mail: atex@fmaprovals.com www.fmaprovals.com

SCHEDULE

to Type Examination Certificate No. **FM06ATEX0030X**

13 Description of Equipment or Protective System:

The Model TDZ² and THZ² are 2-wire, loop powered, user-configurable HART[®] based temperature transmitters. The transmitters use either RTD, T/C, Ohms, mV or potentiometer input sensors. The transmitters can be configured in a non-hazardous area using either a PC's RS-232 serial port or by a HART communicator.

The Model TDZ² and THZ² Temperature Transmitters are powered with a nominal 12V to 42V and 4-20mA. The transmitters operate in a maximum ambient of 85°C.

The Model THZ² Temperature Transmitter's circuitry is enclosed by a polymeric hockey puck style housing approximately 2" in diameter. The top of the housing contains exposed terminals for configuration programming, power terminals and the sensor terminals. The back of the housing contains a metallic plate for mounting. The housing is intended to be installed in a final assembly enclosure.

The Model TDZ² Temperature Transmitter's circuitry is enclosed by an oval style housing approximately 3" by 2.45". The housing is metallic except for the top display portion which is polymeric. The top of the housing also contains exposed terminals for configuration programming, power, and the sensors. The housing is intended to be installed in a final assembly enclosure.

THZ²/a/4-20mA/12-42DC/-b [c]. Temperature Transmitter.

a = Input: TPRG, HLRPG, 2TPRG, C, B, E, J, K, N, R, S, T, MV, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, RO or POT.

b = Options: VTB, VTD, FMEDA.

c = Housing options: HPP, HPPD, HPPDN or CH6.

TDZ²/a/4-20mA/12-42DC /-b [c]. Temperature Transmitter.

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b = Options: TROP, HS, VTB, VTD, FMEDA.

c = Housing options: FL, FLD, HP, HPDY, TW or VDN.

14 Special Conditions for Safe Use:

1. If the Model THZ² Temperature Transmitter is installed as Category 3 equipment, it shall be installed in an enclosure which maintains an ingress protection rating of IP54 and meets the enclosure requirements of EN60079-0 and EN60079-15.
2. The Model THZ² Temperature Transmitter shall contain external transient protection to prevent the supply voltage from exceeding 46.2V including tolerance.
3. Using the box provided on the nameplate, the User shall permanently mark the protection type chosen for the specific installation. Once the type of protection has been marked it shall not be changed.
4. The COM port shall not be used in the hazardous area.

15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

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16 Test and Assessment Procedure and Conditions:

This Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Ltd's ATEX Certification Scheme.

17 Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by FM Approvals Ltd.

18 Certificate History

Details of the supplements to this certificate are described below:

Date	Description
29 th June 2007	Original Issue.
11 th March 2010	<u>Supplement 1:</u> Report Reference: Supplement 1 to 3024597EC dated 10 th March 2010 Description of the Change: 1) To correct and improve HART communication performance 2) To prevent the output from 'latching up' 3) Addition of a Dual Thermocouple option 4) General documentation updates
02 nd August 2013	<u>Supplement 2:</u> Report Reference: -3024597rev130701 dated 28 th July 2013 Description of the Change: Component updated, that does not affect safety, and associated drawing updated.
14 th January 2014	<u>Supplement 3:</u> Report Reference: 3024597rev131207 dated 13 th January 2014. Description of the Change: Minor electrical and clerical updates not affecting compliance.

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