



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

Certificate No.: **IECEX FMG 17.0016X** Page 1 of 5 [Certificate history:](#)
Status: **Current** Issue No: 2 [Issue 1 \(2018-09-25\)](#)
[Issue 0 \(2017-09-06\)](#)
Date of Issue: 2019-10-03
Applicant: **Moore Industries-International, Inc.**
16650 Schoenborn Street
North Hills, CA 91343
United States of America
Equipment: **Models THZ3 and STZ Dual Input Smart HART Temperature Transmitters**
Optional accessory:
Type of Protection: **Associated Intrinsically Safe, Non-Sparking with Intrinsically Safe Outputs**
Marking: [Ex ia Ga] IIC; Tamb = -40°C to +85°C
Ex nA [ia Ga] IIC T4 Gc; Tamb = -40°C to +85°C

Approved for issue on behalf of the IECEx
Certification Body:

James E. Marquedant

Position:

VP, Manager - Electrical Systems

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 www.iecex.com or use of this QR Code.



Certificate issued by:

FM Approvals LLC
1151 Boston-Providence Turnpike
Norwood, MA 02062
United States of America





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Manufacturer: **Moore Industries-International, Inc.**
16650 Schoenborn Street
North Hills, CA 91343
United States of America

Additional
manufacturing
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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

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

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

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:

[US/FMG/ExTR17.0015/01](#)

[US/FMG/ExTR17.0015/00](#)

Quality Assessment Report:

[GB/FME/QAR18.0009/00](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Moore Industries Models THZ3 and Model STZ Temperature Transmitters accept one or two sensor inputs for measuring process temperatures. Simple apparatus sensors are meant to be connected to the temperature transmitters. A 4-20mA signal provides the information back to the control equipment.

The Temperature Transmitters are for installation in the non-hazardous location or for installation as EPL Gc equipment location with Intrinsically Safe connections of simple apparatus sensors.

The electronics of the Models THZ3 and Model STZ Temperature Transmitters are installed in an aluminum DIN mount housing. The housing is approximately 135mm in length by 97.5mm in height by 28mm wide. The front side of the housing contains an exposed pluggable connector for the power wires and also an exposed fixed connector for sensor wire connections. The DIN mount housing is required to be installed in a final enclosure to complete the installation.

The Model STZ Temperature Transmitter has the same electronics as the THZ3 Temperature Transmitter and is offered with the same housing options. The STZ Temperature Transmitter is a "Safety Transmitter with HART" and includes a third party assessment to the IEC 61508 standard. This assessment was not included under the FM Approvals scope of work and the product was not assessed by FM to this standard. Software related to SIL levels and FMEDA differentiate the Model STZ transmitter from the Model THZ3 transmitter.

The nominal power input of the Models THZ3 and Model STZ Temperature Transmitters is 12-42Vdc, 4-20mA. The ambient operating temperature range of the Model THZ3 and Model STZ Temperature Transmitters is -40°C to +85°C.

The following Intrinsically Safe (Sensor) Energy Limitation Parameters are:

$U_0 = 7.94V$, $I_0 = 71.43mA$, $P_0 = 141.8mW$

Group IIC, $C_0 = 8.32\mu F$, $L_0 = 6.96mH$

Group IIB, $C_0 = 99.92\mu F$, $L_0 = 27.87mH$

Group IIA, $C_0 = 999.92\mu F$, $L_0 = 55.74mH$

THZ3/a/b/c/-AIS d [e]. Dual Sensor Smart Hart Temperature Transmitter.

a= Input: PRG, J-, K-, E-, T-, R-, S-, N-, B-, C-, MV, R1-, R2-, R3-, R4-, R5-, R6-, R7-, R8-, R9-, R10-, R11-, R12-, R13-, R14-, R0-, or POT-.

b= Output: 4-20mA.

c=Power: 12-42Vdc.

d = Options: -RF, -VTD, or -VTB.

e = DIN or FLB.

STZ/a/b/c/-AIS d [e]. Dual Sensor Smart Hart Temperature Transmitter.

a= Input: PRG, J-, K-, E-, T-, R-, S-, N-, B-, C-, MV, R1-, R2-, R3-, R4-, R5-, R6-, R7-, R8-, R9-, R10-, R11-, R12-, R13-, R14-, R0-, or POT-.

b= Output: 4-20mA.

c=Power: 12-42Vdc.

d = Options: -EMP, -VTD, or -VTB.



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e = DIN or FLB.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. *When installed in the non-hazardous area, the Models THZ³ and STZ Temperature Transmitters shall be mounted within a tool-secured enclosure capable of accepting the applicable wiring methods specified in IEC 60079-14 and applicable National regulations. The enclosure shall, at a minimum, meet the requirements of IP20.*
2. *When installed as EPL Gc, the Models THZ³ and STZ Temperature Transmitters shall be mounted within a tool-secured enclosure which meets the requirements of IEC 60079-0 and IEC 60079-15 and is capable of accepting the applicable wiring methods specified in IEC 60079-14 and applicable National regulations. The enclosure shall, at a minimum, meet the requirements of IP54.*
3. *Programming of the Models THZ³ and STZ Temperature Transmitters through the communication port shall only be done in the unclassified location using the Moore Industries USB cable, Part Number 804-030-26.*
4. *The non-metallic parts incorporated in the Models THZ³ and STZ Temperature Transmitters DIN mount housing may generate an ignition-capable level of electrostatic charge. When installed as EPL Gc, the Models THZ³ and STZ Temperature Transmitters shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. Additionally, the equipment shall only be cleaned with a damp cloth.*
5. *Using the box provided on the nameplate, the user shall permanently mark the type of protection chosen for the specific installation. Once the type of protection has been marked it shall not be changed.*
6. *When installed as EPL Gc, the Models THZ³ and STZ Temperature Transmitters shall be provided with supply transient protection external to the apparatus such that the voltage at the supply terminals does not exceed 119Vac peak or 119Vdc.*



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Added Temperature Class and ambient range to marking section as a result of IECEx audit finding.