



Member of the FM Global Group

FM Approvals  
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# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

***TDZ<sup>2</sup>/a/4-20mA/b/-c [d]. Temperature Transmitter.***

IS/I/1/ABCD/T4 Ta = 85°C – 100-100-71; Entity; I/O/AEx ia IIC T4 Ta = 85°C – 100-100-71; Entity; NI/I/2/ABCD/T4 Ta = 85°C

Entity Parameters:

Vmax = 30V, Imax = 110, Pi = 825mW, Ci = 5.83nF, Li = 0mH.

Field Sensor Terminals:

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 20µF, La = 25mH (Groups A, B).

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 498µF, La = 100mH (Groups C, D).

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 20µF, La = 200mH (Group D).

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 = Power: 12-42DC or 12-30DC. (12-42DC not for Intrinsically Safe Installations)

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

d = Housing options: HP, BH or D.

*Special Conditions of Use:*

1. The Model TDZ<sup>2</sup> Temperature Transmitter shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.

### Equipment ratings:

Intrinsically Safe (Entity) for use in Class I, Division 1, Groups A, B, C and D; Temperature Class T4 Ta = 85°C in accordance with Control Drawing No.100-100-71; Intrinsically safe (Entity) for use in Class I, Zone 0, AEx ia IIC T4 Ta = 85°C; in accordance with Control Drawing No.100-100-71; Nonincendive for use in Class I, Division 2, Groups A, B, C, and D; Temperature Class T4 Ta = 85°C; indoor Hazardous (Classified) Locations.

***THZ<sup>2</sup>/a/4-20mA/b/-c [d]. Temperature Transmitter.***

IS/I/1/ABCD/ T5 Ta = 85°C; T6 Ta = 60°C – 100-100-71; Entity; I/O/AEx ia IIC T5 Ta = 85°C; T6 Ta = 60°C – 100-100-71; Entity; NI/I/2/ABCD/ T5 Ta = 85°C; T6 Ta = 60°C

Entity Parameters:

Vmax = 30V, Imax = 110 Pi = 825mW, Ci = 5.83nF, Li = 0mH.

Field Sensor Terminals:

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 20µF, La = 25mH (Groups A, B, C, D).

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 498 $\mu$ F, La = 100mH (Groups C, D).

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 20 $\mu$ F, La = 200mH (Group D).

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 = Power: 12-42DC or 12-30DC. (12-42DC not for Intrinsically Safe Installations)

c = Options: VTB, VTD, FMEDA.

d= Housing options: HPP, D or LH1.

*Special Conditions of Use:*

1. *The Model THZ<sup>2</sup> Temperature Transmitter shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.*

## Equipment Ratings:

Intrinsically Safe (Entity) for use in Class I, Division 1, Groups A, B, C and D; Temperature Class T5 Ta = 85°C; T6 Ta = 60°C in accordance with Control Drawing No.100-100-71; Intrinsically safe (Entity) for use in Class I, Zone 0, AEx ia IIC T5 Ta = 85°C; T6 Ta = 60°C in accordance with Control Drawing No.100-100-71; Nonincendive for use in Class I, Division 2, Groups A, B, C, and D; T5 Ta = 85°C; T6 Ta = 60°C; indoor Hazardous (Classified) Locations.

### **888/TPRG/4-20mA/a-b [c]. Temperature Transmitter.**

IS/I/1/ABCD/ T5 Ta = 85°C; T6 Ta = 60°C – 100-100-77; Entity; I/O/AEx ia IIC T5 Ta = 85°C; T6 Ta = 60°C – 100-100-77; Entity; NI/I/2/ABCD/T5 Ta = 85°C; T6 Ta = 60°C

Entity Parameters:

Vmax = 30V, Imax = 110 Pi = 825mW, Ci = 5.83nF, Li = 0mH.

Field Sensor Terminals:

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 20 $\mu$ F, La = 25mH (Groups A, B, C, D).

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 498 $\mu$ F, La = 100mH (Groups C, D).

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 20 $\mu$ F, La = 200mH (Group D).

a = Power: 12-42DC or 12-30DC. (12-42DC not for Intrinsically Safe Installations)

b = Options: VTB or VTD.

c= Housing options: HPP, D or LH1.

*Special Conditions of Use:*

1. *The Model 888 Temperature Transmitter shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.*

## Equipment Ratings:

Intrinsically Safe (Entity) for use in Class I, Division 1, Groups A, B, C and D; Temperature Class T5 Ta = 85°C; T6 Ta = 60°C in accordance with Control Drawing No.100-100-77; Intrinsically safe (Entity) for use in Class I, Zone 0, AEx ia IIC T5 Ta = 85°C; T6 Ta = 60°C in accordance with Control Drawing No.100-100-77; Nonincendive for use in Class I, Division 2, Groups A, B, C, and D; T5 Ta = 85°C; T6 Ta = 60°C; indoor Hazardous (Classified) Locations.



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FM Approved for:

Moore Industries International, Inc.  
North Hills, CA 91343-6196 USA

This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	1998
Class 3610	2010
Class 3611	2004
Class 3810	2005
ANSI/ISA-60079-0	2009
ANSI/ISA-60079-11	2009

Original Project ID: 3024597

Approval Granted: May 23, 2007

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
02/08/10	March 5, 2010		
3039105	March 12, 2010		
3042210	November 15, 2011		

FM Approvals LLC

Timothy Adam  
Technical Team Manager

15 Nov. 2011

Date



Member of the FM Global Group

# CERTIFICATE OF COMPLIANCE

## HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

***TDZ<sup>2</sup>/a/4-20mA/b/-c [d]. Temperature Transmitter.***

IS/II/1/ABCD/T4 Ta = 85°C – 100-100-71; Entity; NII/2/ABCD/T4 Ta = 85°C

Entity Parameters:

V<sub>max</sub> = 30V, I<sub>max</sub> = 110, P<sub>i</sub> = 825mW, C<sub>i</sub> = 5.83nF, L<sub>i</sub> = 0mH.

Field Sensor Terminals:

V<sub>t</sub> = 6.51V, I<sub>t</sub> = 35.39mA, P<sub>o</sub> = 57.6mW, C<sub>a</sub> = 20μF, L<sub>a</sub> = 25mH (Groups A, B).

V<sub>t</sub> = 6.51V, I<sub>t</sub> = 35.39mA, P<sub>o</sub> = 57.6mW, C<sub>a</sub> = 498μF, L<sub>a</sub> = 100mH (Groups C, D).

V<sub>t</sub> = 6.51V, I<sub>t</sub> = 35.39mA, P<sub>o</sub> = 57.6mW, C<sub>a</sub> = 20μF, L<sub>a</sub> = 200mH (Group D).

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 = Power: 12-42DC or 12-30DC. (12-42DC not for Intrinsically Safe Installations)

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

d = Housing options: HP, BH or D.

*Special Conditions of Use:*

1. *The Model TDZ<sup>2</sup> Temperature Transmitter shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.*

### Equipment ratings:

Intrinsically Safe (Entity) for use in Class I, Division 1, Groups A, B, C and D; Temperature Class T4 Ta = 85°C in accordance with Control Drawing No.100-100-71; Nonincendive for use in Class I, Division 2, Groups A, B, C, and D; Temperature Class T4 Ta = 85°C; indoor Hazardous Locations.



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**THZ<sup>2</sup>/a/4-20mA/b/-c [d]. Temperature Transmitter.**

IS/II/1/ABCD/T5 Ta = 85°C; T6 Ta = 60°C – 100-100-71; Entity; NI/II/2/ABCD/ T6 Ta = 60°C

Entity Parameters:

Vmax = 30V, Imax = 110 Pi = 825mW, Ci = 5.83nF, Li = 0mH.

Field Sensor Terminals:

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 20µF, La = 25mH (Groups A, B, C, D).

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 498µF, La = 100mH (Groups C, D).

Vt = 6.51V, It = 35.39mA, Po = 57.6mW, Ca = 20µF, La = 200mH (Group D).

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 = Power: 12-42DC or 12-30DC. (12-42DC not for Intrinsically Safe Installations)

c = Options: VTB, VTD, FMEDA.

d = Housing options: HPP, D or LH1.

*Special Conditions of Use:*

1. *The Model THZ<sup>2</sup> Temperature Transmitter shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.*

**Equipment Ratings:**

Intrinsically Safe (Entity) for use in Class I, Division 1, Groups A, B, C and D; Temperature Class T5 Ta = 85°C; T6 Ta = 60°C in accordance with Control Drawing No.100-100-71; Nonincendive for use in Class I, Division 2, Groups A, B, C, and D; T5 Ta = 85°C; T6 Ta = 60°C; indoor Hazardous Locations.

FM Approved for:

Moore Industries-International, Inc.  
North Hills, CA 91343 USA



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This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

CAN C22.2 No.157-92	1992
(Re-affirmed 2006)	
CAN C22.2 No.213-M1987	1987
(Re-affirmed 2004)	
C22.2 No. 1010.1	2004

Original Project ID: 3024597C

Approval Granted: May 23, 2007

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
100208	March 5, 2010		

FM Approvals LLC

J. E. Marquedant  
Group Manager, Electrical

5 March 2010  
Date