



Member of the FM Global Group

FM Approvals  
1151 Boston Providence Turnpike  
P.O. Box 9102 Norwood, MA 02062 USA  
T: 781 762 4300 F: 781-762-9375 www.fmapprovals.com

# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

### SPA2IS/a/b/U/c [d] Site Programmable Alarm

AIS / I,II,III / 1 / ABCDEFG – 100-100-82; Entity

NI / I / 2 / ABCD / T4 Ta = -40°C to +85°C

[I / 0] / AEx [ia] / IIC – 100-100-82; Entity

I / 2 / AEx nA [ia] / IIC / T4 Ta = -40°C to +85°C – 100-100-82; Entity

### Entity Parameters for Intrinsically Safe Field Connections: TPRG

Type	Uo (V)	Io (mA)	Po (mW)	Co (µF)	Lo (mH)	Lo/Ro (mH/Ohm)
Value (Group AB/IIC)	6.51	7.34	11.94	21.94	660.88	2.98
Value (Group C/IIB)	6.51	7.34	11.94	499.94	1982.63	11.92
Value (Group D/IIA)	6.51	7.34	11.94	999.94	5947.88	23.83

### Entity Parameters for Intrinsically Safe Field Connections: HLPRG

Type	Uo (V)	Io (mA)	Po (mW)	Co (µF)	Lo (mH)	Lo/Ro (mH/Ohm)
Value (Group AB/IIC)	29.05	107.41	727.83	0.01	3.09	0.05
Value (Group C/IIB)	29.05	107.41	727.83	0.54	9.25	0.20
Value (Group D/IIA)	29.05	107.41	727.83	1.89	27.74	0.40

a = Input: TPRG or HLPRG

b = Output: 2PRG or 4PRG

c = Options (one or more of the following): -AO, -FMEDA or Blank

d = Housing code: DIN or FLB

### Special Conditions of Use:

1. The equipment shall be mounted in an enclosure providing a minimum degree of protection of IP54 in accordance with ANSI/ISA 60079-15, and in a tool-secured enclosure which meets the requirements of ANSI/ISA 60079-0 and ANSI/ISA 60079-15.

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)



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## Equipment Ratings:

Associated Apparatus having Intrinsically Safe connections to Class I, II, III, Division 1, Groups A, B, C, D, E, F and G hazardous (classified) locations in accordance with drawing 100-100-82;

Nonincendive Apparatus for use in Class I, Division 2, Groups A, B, C & D hazardous (classified) locations;

Non-sparking Apparatus for use in Class I, Zone 2, Group IIC having Intrinsically Safe connections to Class I, Zone 0, Group IIC hazardous (classified) locations.

## FM Approved for:

Moore Industries-International, Inc  
North Hills, CA United States



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

Class 3600	2011
Class 3610	2010
Class 3611	2004
Class 3810	2005
ANSI/ISA 60079-0	2013
ANSI/ISA 60079-11	2014
ANSI/ISA 60079-15	2013
ANSI/ISA 61010-1	2004

Original Project ID: 3049394

Approval Granted: September 9, 2015

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
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FM Approvals LLC

*J.E. Marquedant*

J.E. Marquedant  
Manager, Electrical Systems

9 September 2015

Date



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CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT
PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

SPA2IS/a/b/U/c [d] Site Programmable Alarm

AIS / I,II,III / 1 / ABCDEFG – 100-100-82; Entity
NI / I / 2 / ABCD / T4 Ta = -40°C to +85°C
[I / 0] / Ex [ia] / IIC – 100-100-82; Entity
I / 2 / Ex nA [ia] / 2 / IIC / T4 Ta = -40°C to +85°C – 100-100-82; Entity

Entity Parameters for Intrinsically Safe Field Connections: TPRG

Table with 7 columns: Type, Uo (V), Io (mA), Po (mW), Co (uF), Lo (mH), Lo/Ro (mH/Ohm). Rows include Value (Group AB/IIC), Value (Group C/IIB), and Value (Group D/IIA).

Entity Parameters for Intrinsically Safe Field Connections: HLPRG

Table with 7 columns: Type, Uo (V), Io (mA), Po (mW), Co (uF), Lo (mH), Lo/Ro (mH/Ohm). Rows include Value (Group AB/IIC), Value (Group C/IIB), and Value (Group D/IIA).

- a = Input: TPRG or HLPRG
b = Output: 2PRG or 4PRG
c = Options (one or more of the following): -AO, -FMEDA or Blank
d = Housing code: DIN or FLB

Special Conditions of Use:

1. The equipment shall be mounted in an enclosure providing a minimum degree of protection of IP54 in accordance with CAN/CSA-E60079-15, and in a tool-secured enclosure which meets the requirements of CAN/CSA-E60079-0 and CAN/CSA-E60079-15.



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## Equipment Ratings:

Associated Apparatus having Intrinsically Safe connections to Class I,II, III Division 1, Groups A, B, C, D, E, F and G hazardous locations in accordance with drawing 100-100-82;

Nonincendive Apparatus for use in Class I, Division 2, Groups A, B, C & D hazardous locations;

Non-sparking Apparatus for use in Class I, Zone 2, Group IIC having Intrinsically Safe connections to Class I, Zone 0, Group IIC hazardous (classified) locations.

## FM Approved for:

Moore Industries-International, Inc

North Hills, CA United States



Member of the FM Global Group

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 (R2012)
CAN C22.2 No. 213-M1987	1987 (R2008)
CAN/CSA-E60079-0	2011
CAN/CSA-E60079-11	2014
CAN/CSA-E60079015	2012
C22.2 No. 1010-1	2004

Original Project ID: 3049394C

Approval Granted: September 9, 2015

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
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FM Approvals LLC

*J.E. Marquedant*

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Manager, Electrical Systems

9 September 2015

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