

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No .:	IECEx FMG 13.0004X	ls	ssue No: 2	Certificate history:
Status:	Current	_		Issue No. 2 (2018-09-25) Issue No. 1 (2017-06-22)
Date of Issue:	2018-09-25	P	age 1 of 6	Issue No. 0 (2013-07-05)
Applicant:	Moore Industries International, Inc. 16650 Schoenborn St North Hills, CA 91343-6196 United States of America			
Equipment: <i>Optional accessory:</i>	Model SDY Signal Isolator & Model TDY Tempe	rature Transmitter		
Type of Protection:	Intrinsic Safety; Non-Sparking			
Marking: E	x ia IIC Ga			
E	Ex nA IIC Gc			
Approved for issue on Certification Body:	behalf of the IECEx	James Marquedant		
Position:		VP, Manager - Electrical	Systems	
Signature: (for printed version)				
Date:	-			
	-			
<ol> <li>This certificate and schedule may only be reproduced in full.</li> <li>This certificate is not transferable and remains the property of the issuing body.</li> </ol>				

3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

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



Member of the FM Global Group



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Date of Issue:	2018-09-25
Manufacturer:	Moore Industries International Inc 16650 Schoenborn St
	North Hills, CA 91343-6196
	United States of America

Additional Manufacturing location(s):

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 apparatus 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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-15 : 2010</b> Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-26 : 2006 Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

This Certificate does not indicate compliance with electrical 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 Report:

US/FMG/ExTR13.0004/00

US/FMG/ExTR13.0004/01

Quality Assessment Report:

GB/FME/QAR18.0009/00



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Schedule

### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

### Model SDY/a /4-20mA/10-30VDC/-b [c]. Signal Isolator.

Ex ia IIC T4 Ga Tamb = -40°C to +85°C; Install Per Control Drawing 100-100-54

Entity Parameters: Ui= 30V, Ii = 110mA, Pi = 825mW, Ci = 10.34nF, Li = 0mH.

Sensor Terminals:					
Uo	lo	Po	Co	Lo	Group
6.51V	61.1mA	100mW	21.9µF	9.52mH	IIC
			499.9µF	38.09mH	IIB
			999.9µF	76.19mH	IIA
Ui	li	Pi	Ci	Li	Group
1V	50mA	50mW	66nF	0mH	IIC

a = Input: PRG or 0-50mA.

b = Options: -ISF, ISC, ISE, TROP and/or VTD.

c = Housings and options: DN, FL, FLD, HP, TW and/or VDN.

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

#### Type EPL Ga Equipment

1. The Model TDY Temperature Transmitter shall be installed in an enclosure which maintains an ingress protection rating of IP20.2. The communications port shall be programmed through certified associated intrinsically safe apparatus as described on control drawing 100-100-54. **Type EPL Gc Equipment** 1. When installed as EPL Gc equipment, the Model TDY Temperature Transmitter shall be mounted within a tool-secured enclosure which meets the requirements of IEC60079-0 and IEC60079-15 and be capable of accepting the applicable wiring methods for the country of origin. The enclosure shall, at a minimum, meet the requirements of IP54.2. On installation, the Model TDY Temperature Transmitter shall be provided with supply transient protection external to the apparatus such that the voltage at the supply terminals of the Model TDY Temperature Transmitter does not exceed does not exceed 119V peak or 119Vdc.



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EQUIPMENT (continued):

Model SDY/a/4-20mA/0-30VDC/-b [c]. Signal Isolator.

Ex ia IIC T4 Ga Tamb = -40°C to +85°C; Install Per Control Drawing 100-100-54

Entity Parameters: Ui= 30V, Ii = 110mA, Pi = 825mW, Ci = 10.34nF, Li = 0mH.

Sensor Terminals:

Uo	lo	Po	Co	Lo	Group
6.51V	61.1mA	100mW	21.9µF	9.52mH	IIC
			499.9µF	38.09mH	IIB
			999.9µF	76.19mH	IIA
Ui	li	Pi	Ci	Li	Group
7.9V	8µA	64µW	66nF	0mH	IIC

a = PRG or 7.9VDC.

b = Options: -ISF, ISC, ISE, TROP and/or VTD.

c = Housings and options: DN, FL, FLD, HP, TW and/or VDN.

### Model TDY/PRG/4-20mA/0-30VDC/-a [b]. Temperature Transmitter.

Ex ia IIC T4 Ga Tamb = -40°C to +85°C; Install Per Control Drawing 100-100-54

Entity Parameters: Ui= 30V, Ii = 110mA, Pi = 825mW, Ci = 10.34nF, Li = 0mH.

Sensor Terminals:

Uo	lo	Po	Co	Lo	Group
6.51V	61.1mA	100mW	21.9µF	9.52mH	IIC
			499.9µF	38.09mH	IIB
			999.9µF	76.19mH	IIA

a = Options: -ISF, ISC, ISE, TROP and/or VTD.

b = Housings and options: DN, FL, FLD, HP, TW, VDN.

Model TDY/PRG/4-20mA/0-42VDC/-a [b]. Temperature Transmitter.



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Ex nA IIC T4 Gc Ta = -40°C to +85°C;					
a = Options: -ISF, ISC, ISE, TROP and/or VTD.					
b = Housings and options: DN, FL, FLD, HP, TW and/or VDN.					

### Model SDY/a/4-20mA/10-42VDC/-b [c]. Signal Isolator.

Ex nA IIC T4 Gc Tamb =  $-40^{\circ}$ C to  $+85^{\circ}$ C;

- a = Sensor Input: PRG, 0-10VDC, 0-50mA
- b = Options: -ISF, ISC, ISE, TROP and/or VTD.
- c = Housings and options: DN, FL, FLD, HP, TW and/or VDN.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Update Certificate with the latest QAR number