

FM Approvals
 1151 Boston Providence Turnpike
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

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

IS/I/1/ABCD/T4 Ta = -40°C to +85°C –100-100-54; Entity
 I/O/AEx ia/IIC/T4 Ta = -40°C to +85°C –100-100-54; Entity;
 Entity Parameters:
 Ui= 30V, li = 110mA, Pi = 825mW, Ci = 10.34nF, Li = 0mH.
 Sensor Terminals:

Uo	Io	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:

- The Model SDY Signal Isolator shall be installed in an enclosure which maintains an ingress protection rating of at least IP20 and also meets the requirements of ANSI/ISA 61010-1.

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

IS/I/1/ABCD/T4 Ta = -40°C to +85°C –100-100-54; Entity
 I/O/AEx ia/IIC/T4 Ta = -40°C to +85°C –100-100-54; Entity;
 Entity Parameters:
 Ui= 30V, li = 110mA, Pi = 825mW, Ci = 10.34nF, Li = 0mH.
 Sensor Terminals:

Uo	Io	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 = Input: PRG or 0-7.9VDC.

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:

1. The Model SDY Signal Isolator shall be installed in an enclosure which maintains an ingress protection rating of at least IP20 and also meets the requirements of ANSI/ISA 61010-1.

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

NI/I/2/ABCD/T4 Ta = -40°C to +85°C;
 I/2/AEx nA /IIC/T4 Ta = -40°C to +85°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.

Specific Conditions of Use:

1. When installed as Zone 2 equipment, the Model SDY Signal Isolator shall be mounted within a tool-secured enclosure which meets the requirements of ANSI/ISA 60079-0 and ANSI/ISA 60079-15 and be capable of accepting the applicable wiring methods per the NEC. The enclosure shall, at a minimum, meet the requirements of IP54.
2. When installed as Division 2 equipment, the Model SDY Signal Isolator shall be mounted within a tool-secured enclosure which meets the requirements of ANSI/ISA 61010-1 and be capable of accepting the applicable wiring methods per the NEC .
3. On installation of Zone 2 equipment, the Model SDY Signal Isolator shall be provided with supply transient protection external to the apparatus such that the voltage at the supply terminals of the Model SDY Signal Isolator does not exceed 58.8V peak or 58.8Vdc.

TDY/PRG/4-20mA/10-30Vdc/-a [b]. Temperature Transmitter.

IS/I/1/ABCD/T4 Ta = -40°C to +85°C –100-100-54; Entity
 I/0/AEx ia/IIC/T4 Ta = -40°C to +85°C –100-100-54; Entity
 Entity Parameters:
 Ui= 30V, Ii = 110mA, Pi = 825mW, Ci = 10.34nF, Li = 0mH.
 Sensor Terminals:

Uo	Io	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.

Specific Conditions of Use:

1. The Model TDY Temperature Transmitter shall be installed in an enclosure which maintains an ingress protection rating of at least IP20 and also meets the requirements of ANSI/ISA 61010-1.

TDY/PRG/4-20mA/10-42VDC/-a [b]. Temperature Transmitter.

NI/I/2/ABCD/T4 Ta = -40°C to +85°C;
 I/2/AEx nA /IIC/T4 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.

Specific Conditions of Use:

1. When installed as Zone 2 equipment, the Model TDY Temperature Transmitter shall be mounted within a tool-secured enclosure which meets the requirements of ANSI/ISA 60079-0 and ANSI/ISA 60079-15 and be capable of accepting the applicable wiring methods per the NEC. The enclosure shall, at a minimum, meet the requirements of IP54
2. When installed as Division 2 equipment, the Model TDY Temperature Transmitter shall be mounted within a tool-secured enclosure which meets the requirements of ANSI/ISA 61010-1 and be capable of accepting the applicable wiring methods per the NEC.
3. On installation of Zone 2 equipment, 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 58.8V peak or 58.8Vdc.



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Equipment Ratings:

Intrinsically Safe (Entity) for use in Class I, Division 1, Groups A, B, C, D; Temperature Class T4 Tamb = -40°C to +85°C in accordance with Control Drawing No.100-100-54; Intrinsically safe (Entity) for use in Class I, Zone 0, AEx ia IIC T4 Tamb = -40°C to +85°C in accordance with Control Drawing No.100-100-54; Nonincendive for use in Class I, Division 2, Groups A, B, C, and D; Temperature Class T4 Tamb = -40°C to +85°C; Class I, Zone 2, AEx nA IIC T4 Tamb = -40°C to +85°C; Hazardous (Classified) Locations.

FM Approved for:

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



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

FM Class 3600	2011
FM Class 3610	2010
FM Class 3611	2004
FM Class 3810	2005
ANSI/ISA 60079-0	2009
ANSI/ISA 60079-11	2009
ANSI/ISA 60079-15	2009

Original Project ID: 3045718

Approval Granted: July 5, 2013

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
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FM Approvals LLC

J. E. Marquedant
Group Manager, Electrical

5 July 2013

Date



Member of the FM Global Group

FM Approvals
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T: 781 762 4300 F: 781-762-9375 www.fmaprovals.com

CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

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

IS/I/1/ABCD/T4 Ta = -40°C to +85°C -100-100-54; Entity

Ex ia/IIC/T4 Ta = -40°C to +85°C -100-100-54; Entity;

Entity Parameters:

Ui= 30V, li = 110mA, Pi = 825mW, Ci = 10.34nF, Li = 0mH.

Sensor Terminals:

Uo	Io	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:

1. The Model SDY Signal Isolator shall be installed in an enclosure which maintains an ingress protection rating of at least IP20 and also meets the requirements of C22.2 No 1010-1.

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

IS/I/1/ABCD/T4 Ta = -40°C to +85°C -100-100-54; Entity

Ex ia/IIC/T4 Ta = -40°C to +85°C -100-100-54; Entity;

Entity Parameters:

Ui= 30V, li = 110mA, Pi = 825mW, Ci = 10.34nF, Li = 0mH.

Sensor Terminals:

Uo	Io	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 = Input: PRG or 0-7.9V.

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

To verify the availability of the Approved product, please refer to www.approvalguide.com

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

Specific Conditions of Use:

1. The Model SDY Signal Isolator shall be installed in an enclosure which maintains an ingress protection rating of at least IP20 and also meets the requirements of C22.2 No 1010-1.

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

NI/I/2/ABCD/T4 Ta = -40°C to +85°C

Ex/nA/IIC T4 Ta = -40°C to +85°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.

Specific Conditions of Use:

1. When installed as Zone 2 equipment, the Model SDY Signal Isolator shall be mounted within a tool-secured enclosure which meets the requirements of CAN/CSA-E60079-0 and CAN/CSA 60079-15 and be capable of accepting the applicable wiring methods specified in the C22.1 Canadian Electrical Code, Part I. The enclosure shall, at a minimum, meet the requirements of IP54.
2. When installed as Division 2 equipment, the Model SDY Signal Isolator shall be mounted within a tool-secured enclosure which meets the requirements of C22.2 No 1010-and be capable of accepting the applicable wiring methods specified in the C22.1 Canadian Electrical Code, Part I.

TDY/PRG/4-20mA/10-30Vdc/-a [b]. Temperature Transmitter.

IS/I/1/ABCD/T4 Ta = -40°C to +85°C –100-100-54; Entity

Ex ia/IIC/T4 Ta = -40°C to +85°C –100-100-54; Entity;

Entity Parameters:

Ui= 30V, li = 110mA, Pi = 825mW, Ci = 10.34nF, Li = 0mH.

Sensor Terminals:

Uo	Io	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.

Specific Conditions of Use:

1. The Model TDY Temperature Transmitter shall be installed in an enclosure which maintains an ingress protection rating of at least IP20 and also meets the requirements of C22.2 No 1010-1.

TDY/PRG/4-20mA/10-42Vdc/-a [b]. Temperature Transmitter.

NI/I/2/ABCD/T4 Ta = -40°C to +85°C

Ex nA/IIC/T4 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.

Specific Conditions of Use:

1. When installed as Zone 2 equipment, the Model TDY Temperature Transmitter shall be mounted within a tool-secured enclosure which meets the requirements of CAN/CSA-E60079-0 and CAN/CSA 60079-15 and be capable of accepting the applicable wiring methods specified in the C22.1 Canadian Electrical Code, Part I. The enclosure shall, at a minimum, meet the requirements of IP54.
2. When installed as Division 2 equipment, the Model TDY Temperature Transmitter shall be mounted within a tool-secured enclosure which meets the requirements of C22.2 No 1010-and be capable of accepting the applicable wiring methods specified in the C22.1 Canadian Electrical Code, Part I.

Equipment Ratings:

Intrinsically Safe (Entity) for use in Class I, Division 1, Groups A, B, C, D; Temperature Class T4 Tamb = -40°C to +85°C in accordance with Control Drawing No.100-100-54; Intrinsically safe (Entity) for use as Ex ia IIC T4 Tamb = -40°C to +85°C in accordance with Control Drawing No.100-100-54; Suitable for use in Class I, Division 2, Groups A, B, C, and D; Temperature Class T4 Tamb = -40°C to +85°C; Suitable for use as Ex nA IIC T4 Tamb = -40°C to +85°C; Hazardous Locations.

To verify the availability of the Approved product, please refer to www.approvalguide.com



FM Approved for:

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

To verify the availability of the Approved product, please refer to www.approvalguide.com

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 (Reaffirmed 2012)
CAN C22.2 No. 213-M1987	1987 (Reaffirmed 2008)
C22.2 No. 1010.1	2004
CAN/CSA E60079-0	2011
CAN/CSA E60079-11	2011
CAN/CSA E60079-15	2012

Original Project ID: 3045718C

Approval Granted: July 5, 2013

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
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FM Approvals LLC



J.E. Marquedant
Group Manager, Electrical

5 July 2013

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com