

CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

KCD2-STC-Ex1a SMART Transmitter Power Supply.

KCD2-SCD-Ex1a SMART Repeater.

KCD0-SD-Ex1.1245a Solenoid Driver.

AIS/I,II,III/1/ABCDEFGH – 116-0419; Entity

I/0/[Ex ia] IIC – 116-0419; Entity

S/I/2/ABCD/T4, Ta = 60°C

I/2/Ex nA II T4, Ta = 60°C

Entity Parameter	Models / Terminals		
	KCD2-STC-Ex1a KCD2-SCD-Ex1a		KCD0-SD-Ex1.1245a
	1+, 2-	3+, 4-	1, 2
Voc, Uo (V)	25.2	7.2	25.2
Isc, Io (mA)	100	100	110
Po (mW)	630	25	693
Ca, Co, Groups, A, B, IIC (uF)	0.1	13.49	0.107
La, Lo, Groups, A, B, IIC (mH)	3.5	3.5	2.94
Lo/Ro, Groups A, B, IIC (uH/Ω)	N/A	1437	51

a = Terminal Type: Blank (Screw Terminals), .SP (Spring Terminals)

Special Conditions of Use:

1) In Class I, Division 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of the Class I, Division 2 wiring methods specified in the Canadian Electrical Code (C22.1).

2) In Class I, Zone 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of the Class I, Zone 2 wiring methods specified in the Canadian Electrical Code (C22.1). Where installed in outdoor or potentially wet locations, the enclosure shall, at a minimum, meet the requirements of IP54. Where installed in dry, clean, indoor locations, the enclosure shall, at a minimum, meet the requirements of IP4X.

3) In Class I, Zone 2 installations, the installer shall ensure protection of supply terminals against

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transient voltages exceeding 140% of the rated supply voltage.

4) It is the responsibility of the manufacturer to provide warning markings in French where required by local jurisdictions.

KCD2-SR-Ex1.LBa Isolated Switch Amplifier.

KCD2-SR-Ex2a Isolated Switch Amplifier.

AIS/I,II,III/1/ABCDEFG – 116-0419; Entity

I/0/[Ex ia] IIC – 116-0419; Entity

S/I/2/ABCD/T4, Ta = 60°C

I/2/Ex nC IIC T4, Ta = 60°C

Entity Parameters (Terminals 1 & 2, 3 & 4):

Voc, Uo = 10.5V

Isc, Io = 17.1 mA

Po = 45 mW

Ca, Co (Groups A, B, IIC) = 2.41 uF

La, Lo (Groups A, B, IIC) = 121.5 mH

Lo/Ro (Groups A, B, IIC) = 792 uH/Ω

a = Terminal Type: Blank (Screw Terminals), .SP (Spring Terminals)

Special Conditions of Use:

1) In Class I, Division 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of the Class I, Division 2 wiring methods specified in the Canadian Electrical Code (C22.1).

2) In Class I, Zone 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of the Class I, Zone 2 wiring methods specified in the Canadian Electrical Code (C22.1). Where installed in outdoor or potentially wet locations, the enclosure shall, at a minimum, meet the requirements of IP54. Where installed in dry, clean, indoor locations, the enclosure shall, at a minimum, meet the requirements of IP4X.

3) In Class I, Zone 2 installations, the installer shall ensure protection of supply terminals against transient voltages exceeding 140% of the rated supply voltage.

4) It is the responsibility of the manufacturer to provide warning markings in French where required by local jurisdictions.

Equipment Ratings:

KCD2-STC-Ex1a SMART Transmitter Power Supply, KCD2-SCD-Ex1a SMART Repeater and KCD0-SD-Ex1.1245a Solenoid Driver: Intrinsically safe (entity) connections to Class I, II and III, Division 1, applicable Groups A, B, C, D, E, F and G; intrinsically safe (entity) connections to Class I, [Ex ia] IIC per control drawing 116-0419; suitable for Class I, Division 2, Groups A, B, C and D, T4 at Tambient = -20°C to 60°C; non-sparking, Class I, Ex nA IIC, Tambient = -20°C to +60°C, hazardous (classified) indoor locations.

KCD2-SR-Ex1.LBa Isolated Switch Amplifier and KCD2-SR-Ex2a Isolated Switch Amplifier: Intrinsically safe (entity) connections to Class I, II and III, Division 1, applicable Groups A, B, C, D, E, F and G; intrinsically safe (entity) connections to Class I, [Ex ia] IIC per control drawing 116-0419; suitable for Class I, Division 2, Groups A, B, C and D, T4 at Tambient = -20°C to 60°C; sparking, Class I, Ex nC IIC, Tambient = -20°C to +60°C, hazardous (classified) indoor locations.

FM Approved for:

Pepperl+Fuchs GmbH
68307 Mannheim, Germany

To verify the availability of the Approved product, please refer to www.approvalguide.com
FM Approvals HLC 5/13

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

CSA C22.2 No. 157	2002
CSA E60079-0	2006
CSA E600079-11	2006
CSA C22.2 No. 213	2004
CSA E600079-15	2006
CSA C22.2 No. 142	2004
E60079-15	2002
C22.2 No. 142	1987
Reaffirmed	1993
C22.2 No. 60529	2005
C22.2 No. 94	2001

Original Project ID: 3026499C

Approval Granted: October 17, 2006

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
RR202394	September 9, 2015		

FM Approvals LLC



J.E. Marquedant
Manager, Electrical Systems

9 September 2015
Date