



Member of the FM Global Group

FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

HiC2025. SMART Transmitter Power Supply.

HiC2031. SMART Repeater.

HiC2871. Solenoid Driver.

AIS/I,II,III/1/ABCDEFG – 16-534FM-12; Entity

I/0/[Ex ia] IIC – 16-534FM-12; Entity

S/II/2/ABCD/T4, Ta = 60°C

I/2/Ex nA II T4, Ta = 60°C

Entity Parameter	Models / Terminals		
	HiC2025 HiC2031		HiC2871
	5a, 5b	7a/1b, 5a	5a, 5b
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)	57	1437	51

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.

HiC2821. Isolated Switch Amplifier.

HiC2822. Isolated Switch Amplifier.

AIS/I,II,III/1/ABCDEFG – 16-534FM-12; Entity

I/0/[Ex ia] IIC – 16-534FM-12; Entity

S/II/2/ABCD/T4, Ta = 60°C

I/2/Ex nC IIC T4, Ta = 60°C

Entity Parameters (Terminals 5a 5b & 1a, 1b):

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

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:

HiC2025, SMART Transmitter Power Supply, HiC2031. SMART Repeater and HiC2871 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 16-533FM-12; 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.

HiC2821 Isolated Switch Amplifier and HiC2822 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 16-533FM-12; 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



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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

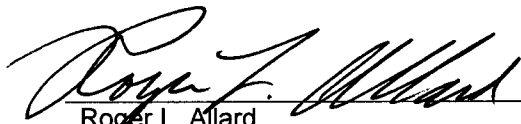
Original Project ID: 3026498C

Approval Granted: *OCTOBER 17, 2006*

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
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FM Approvals LLC


 Roger L. Allard
 Assistant Vice President

OCTOBER 17, 2006
Date