



Certificate of Compliance

Certificate: 70001345 (036087_0_000)

Master Contract: 169790

Project: 70063971

Date Issued: 2016-04-15

Issued to: Pepperl+Fuchs GmbH
Lilienthalstrasse 200
Mannheim, 68307
GERMANY
Attention: Paul Thomas

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: Semyon Baum
Semyon Baum

PRODUCTS

CLASS - C225804 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe, Entity - For Hazardous Locations-
CLASS - C225802 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations-
CLASS - C225882 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards
CLASS - C225884 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity-- For Hazardous Locations - Certified to US Standards

For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.

Class I, Division 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III

Ex [ia] IIC

AEx [ia] IIC

Class I, Division 2, Groups A, B, C and D; T4 @ +60 C

Ex nA IIC T4; Ta = 60 C

AEx nA IIC T4; Ta = 60 C

H-System Galvanically Isolated Barriers, Models HiD followed by 2012, 2025, 2025SK, 2026, 2026SK, 2029, 2029SK, 2030, 2030SK, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2038Y, 2061, 2062, 2071, 2071YA4, 2072, 2072YA4, 2081, 2082, 2821, 2822, 2824, 2842, 2844, 2871, 2872, 2873, 2874, 2875, 2876, 2877, 2878;



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installed per drawing 366-005CS-12, except for Model 2012 installed per drawing 366-022CS-12 and Models 2081 and 2082 installed per drawing 366-017CS-12; rated input 30V dc max, ambient temperature -20 to +60 C max. For use with appropriate certified HiD Termination Boards. Entity parameters as follows:

Models 2025, 2025SK, 2026, 2026SK:

Maximum Entity Parameters:

Terminals: 7-(1-4) and 6-(2-5)

Voc/Uo = 26.0V, Isc/Io = 93mA; Po = 605 mW

Ca/Co = 0.099 uF (Grp A-B / IIC); 0.77 uF (Grp C-E / IIB); 2.6 uF (Grp D-F-G / IIA)

La/Lo = 4.1 mH (Grp A-B / IIC); 16.4 mH (Grp C-E / IIB); 32.8 mH (Grp D-F-G / IIA)

Models 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2038Y, 2877, 2878:

Maximum Entity Parameters:

Terminals: 7-(1-4) and 6-(2-5)

Voc/Uo = 26.0V, Isc/Io = 93mA; Po = 605 mW

Ca/Co = 0.099 uF (Grp A-B / IIC); 0.77 uF (Grp C-E / IIB); 2.6 uF (Grp D-F-G / IIA)

La/Lo = 4.1 mH (Grp A-B / IIC); 16.4 mH (Grp C-E / IIB); 32.2 mH (Grp D-F-G / IIA)

Models 2875, 2876:

Maximum Entity Parameters:

Terminals: 7-(1-4) and 6-(2-5)

Voc/Uo = 26.0V, Isc/Io = 93mA; Po = 605 mW

Ca/Co = 0.099 uF (Grp A-B / IIC); 0.77 uF (Grp C-E / IIB); 2.6 uF (Grp D-F-G / IIA)

La/Lo = 4.1 mH (Grp A-B / IIC); 16.4 mH (Grp C-E / IIB); 32.8 mH (Grp D-F-G / IIA)



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Models 2029, 2029SK, 2030, 2030SK

Maximum Entity Parameters:

Terminals: 1-4 and 2-5

Voc/Uo = 26.0V, Isc/Io = 93mA; Po = 605 mW

Ca/Co = 0.099 uF (Grp A-B / IIC); 0.77 uF (Grp C-E / IIB); 2.6 uF (Grp D-F-G / IIA)

La/Lo = 4.1 mH (Grp A-B / IIC); 16.4 mH (Grp C-E / IIB); 32.2 mH (Grp D-F-G / IIA)

Terminals: 4-7 and 5-6

Voc/Uo = 1.2 V, Isc/Io = 50 mA; Po = 605 mW

Ca/Co = 1000 uF (Grp A-B / IIC); 1000 uF (Grp C-E / IIB); 1000 uF (Grp D-F-G / IIA)

La/Lo = 14 mH (Grp A-B / IIC); 52 mH (Grp C-E / IIB); 110 mH (Grp D-F-G / IIA)

Terminals: 1-4-7 and 2-5-6

V_T/Uo = 27.2 V, I_T/Io = 143 mA; Po = 605 mW

Ca/Co = 0.089 uF (Grp A-B / IIC); 0.69 uF (Grp C-E / IIB); 2.30 uF (Grp D-F-G / IIA)

La/Lo = 1.43 mH (Grp A-B / IIC); 5.72 mH (Grp C-E / IIB); 11.44 mH (Grp D-F-G / IIA)

Models 2061, 2062, 2071, 2071YA4, 2072, 2072YA4, 2821, 2822, 2824, 2842, 2844

Maximum Entity Parameters:

Terminals: 1-4, 2-5, 3-6 and 7-8

Voc/Uo = 13.2V, Isc/Io = 20mA; Po = 66.0 mW

Ca/Co = 0.94 uF (Grp A-B / IIC); 5.80 uF (Grp C-E / IIB); 21.0 uF (Grp D-F-G / IIA)

La/Lo = 88.0 mH (Grp A-B / IIC); 352.0 mH (Grp C-E / IIB); 704.0 mH (Grp D-F-G / IIA)

Models 2871, 2872

Maximum Entity Parameters:

Terminals: 7-1-4 and 6-2-5

Voc/Uo = 26.0V, Isc/Io = 110mA; Po = 715 mW

Ca/Co = 0.099 uF (Grp A-B / IIC); 0.77 uF (Grp C-E / IIB); 2.6 uF (Grp D-F-G / IIA)

La/Lo = 2.90 mH (Grp A-B / IIC); 11.7 mH (Grp C-E / IIB); 23.5 mH (Grp D-F-G / IIA)

Models 2873, 2874

Maximum Entity Parameters:

Terminals: 7-1-4 and 6-2-5

Voc/Uo = 26.0V, Isc/Io = 110mA; Po = 715 mW

Ca/Co = 0.99 uF (Grp A-B / IIC); 0.77 uF (Grp C-E / IIB); 2.6 uF (Grp D-F-G / IIA)

La/Lo = 2.90 mH (Grp A-B / IIC); 11.7 mH (Grp C-E / IIB); 23.5 mH (Grp D-F-G / IIA)

Models 2012

Maximum Entity Parameters:

Terminals: 1-4 and 2-5

Voc/Uo = 1.7 V, Isc/Io = 45 mA; Po = 20 mW

Ca/Co = 100 uF (Grp A-B / IIC); 1000 uF (Grp C-E / IIB); 1000 uF (Grp D-F-G / IIA)

La/Lo = 17 mH (Grp A-B / IIC); 70 mH (Grp C-E / IIB); 140 mH (Grp D-F-G / IIA)

Models 2081, 2082



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Maximum Entity Parameters:

Terminals: 1-2-5-4 and 7-3-6-8

Voc/Uo = 10 V, Isc/Io = 15 mA; Po = 38 mW

Ca/Co = 3 uF (Grp A-B / IIC); 20.2 uF (Grp C-E / IIB); 100 uF (Grp D-F-G / IIA)

La/Lo = 158 mH (Grp A-B / IIC); 632 mH (Grp C-E / IIB); 1260 mH (Grp D-F-G / IIA)

NOTE 1: The Barriers and Termination Boards are certified as component items for mounting in a suitable enclosure where the final assembly is subject to the acceptance by the local authority having jurisdiction.

Class I, Division 1, Groups C and D; Class II, Groups E, F and G; Class III

Ex [ia] IIB

AEx [ia] IIB

Class I, Division 2, Groups A, B, C and D; T4 @ +60 C

Ex nA IIC T4; Ta = 60 C

AEx nA IIC T4; Ta = 60 C

H-System Galvanically Isolated Barriers, Model HiD followed by 2881; installed per Dwg 366-005CS-12; rated input 30V dc max, ambient temperature -20 to +60 C max. For use with appropriate certified HiD Termination Boards.

Entity parameters as follows:

Maximum Entity Parameters:

Terminals: 1-4

Voc/Uo = 26.0V, Isc/Io = 184mA; Po = 1.2 W

Ca/Co = 0.77 uF (Grp C-E / IIB); 2.6 uF (Grp D-F-G / IIA)

La/Lo = 4.2 mH (Grp C-E / IIB); 8.4 mH (Grp D-F-G / IIA)

NOTE 1: The Barriers and Termination Boards are certified as component items for mounting in a suitable enclosure where the final assembly is subject to the acceptance by the local authority having jurisdiction.

Class I, Division 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III

Ex [ia] IIC

AEx [ia] IIC

Class I, Division 2, Groups A, B, C and D; T4 @ +60 C

Ex nA IIC T4; Ta = 60 C

AEx nA IIC T4; Ta = 60 C

H-System Termination Board Assemblies; Model ISTA-a-BPb-c-d; Suitable for Class I, Division 2, Groups A, B, C and D with I.S. Connections to Class I, Division 1, Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III when Installed per Associated H-System Galvanically Isolated Barrier Control Drawing; Ambient Temperature -20 to +60 C max. For use with appropriate certified H-System Galvanically Isolated Barriers. Entity parameters are determined by the used H-System Galvanically Isolated Barrier.

Where:



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a = Associated FBM Module(s): 201, 204, 205, 207b, 211, 214, 215, 216, 217, 218, 237, 241c, 242, 201/237 or 214/215

b = Functional Description of Associated FBM Module(s): (i.e. AO = Analog Output, AI = Analog Input, ...)

c = Fault Detection (FD) and/or Dual (D) 3-wire transmitter (3W) or omitted

d = Single (Blank) or Redundant (R) may be followed by Y1

NOTE 1: The H-System Termination Board Assemblies, Model ISTA-a-BPb-c-d provided by P+F do not include the associated FBM Module(s). The FBM Module(s) to be utilized in the final assembly are required to be Certified as appropriate for the application (i.e. if located in Non-Hazardous Location Certified to the appropriate Ordinary Location Requirement or if located in a Class I, Division 2 application be Certified as suitable for Class I, Division 2); where the final assembly is subject to the acceptance by the local authority having jurisdiction.

NOTE 2: The H-System Termination Board Assemblies, Model ISTA-a-BPb-c-d are certified as component items for mounting in a suitable enclosure where the final assembly is subject to the acceptance by the local authority having jurisdiction.

Class I, Division 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III

Ex [ia] IIC

AEx [ia] IIC

H-System HiD Termination Boards models, Models HiDT followed by B or F; followed by 08 or 16; followed by three alphanumeric characters; may be followed by two alphanumeric characters; may be followed by up to six alphanumeric characters; followed by two to four alphanumeric characters; followed by CC, SC, SP, PL or PF; may be followed by any combination, installed per Associated H-System Galvanically Isolated Barriers Control drawing, ambient temperature -20 to +60 C max. For use with appropriate certified H-System Galvanically Isolated Barriers. Entity parameters are determined by the used H-System Galvanically Isolated Barrier.

H-System HiD Termination Board; Model HiDTB04 - *, where the third character string of '*' may be SC, CC or SP; suitable for installation in a non-hazardous (unclassified) area; provides intrinsically safe circuits when installed per drawing 116-0381; Ta: -20°C to +60°C.

Conditions of certification:

Note 1: The pieces of associated apparatus that are used in this equipment shall be manufactured by Pepperl+Fuchs GmbH, suitable for the application and certified by a NRTL. The user/installer shall also ensure that they are fitted in accordance with CEC/NEC as advised by the manufacturer. Additionally, the pieces of associated apparatus shall have a maximum Um of 250V rms and a maximum Uo of 30V dc.

Note 2: The HiDTB04 - *, HiDTB08 - * and HiDTB16 - * Termination Boards are certified as a component for mounting in a suitable enclosure where the final assembly is subject to the acceptance by the local authority having jurisdiction.

APPLICABLE REQUIREMENTS

CAN/CSA Standard C22.2 No. 0-M91

General Requirements - Canadian Electrical Code, Part II



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(Eighth Edition, Reaffirmed 2006)

CSA Standard C22.2 No. 0.4 -M1982
(Third Edition, Reaffirmed 1999)

CAN/CSA Standard C22.2 No.142-M1987
(Third Edition, Reaffirmed 2004)

CAN/CSA Standard C22.2 No.213-M1987
(First Edition, Reaffirmed 2008)

CAN/CSA Standard C22.2 No.157-92
(Third Edition, Reaffirmed 2006)

CAN/CSA Standard E60079-0-02
(Second Edition, Reaffirmed 2006)

CAN/CSA Standard E60079-11-02
(Second Edition, Reaffirmed 2006)

CAN/CSA Standard E60079-15-02
(Second Edition, Reaffirmed 2006)

UL Standard 1604
(Third Edition, 1994)

UL Standard 916
(Third Edition, 1998)

UL Standard 913
(Sixth Edition, 2002)

ANSI/UL Standard 60079-0
(First Edition, 2002)

ANSI/UL Standard 60079-11
(First Edition, 2002)

ANSI/UL Standard 60079-15
(First Edition, 2003)

Bonding and Grounding of Electrical Equipment
(Protective Grounding)

Process Control Equipment Industrial Products

Non-incendive Electrical Equipment for Use in Class I,
Division 2 Hazardous Locations Industrial Products

Intrinsically Safe and Non-Incendive Equipment for Use in
Hazardous Locations

Electrical Apparatus for explosive gas atmospheres – Part
0: General Requirements

Electrical Apparatus for Explosive Gas Atmospheres – Part
11: Intrinsic Safety "i"

Electrical Apparatus for Explosive Gas Atmospheres - Part
15: Type of Protection "n"

Electrical Equipment for Use in Class I and II, Division 2,
and Class III Hazardous (Classified) Locations

Energy Management Equipment

Intrinsically Safe Apparatus and Associated Apparatus for
Use in Class I, II, and III, Division 1, Hazardous
(Classified) Locations

Electrical Apparatus for Explosive Gas Atmospheres – Part
0: General Requirements

Electrical Apparatus for Explosive Gas Atmospheres Part
11: Intrinsic Safety "i"

Electrical apparatus for Explosive Gas Atmospheres Part
15: Electrical Apparatus with Type of Protection "n"

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The following markings are either provided on CSA-accepted adhesive labels or are laser printed onto the equipment as specified in the descriptive documents.



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- Manufacturer's name, "Pepperl+Fuchs", or CSA Master Contract Number "169790", adjacent to the CSA Mark in lieu of Manufacturer's name.
- Model number: as specified in the PRODUCTS section, above.
- Electrical ratings: as specified in the PRODUCTS section, above.
- Maximum Ambient temperature rating: as specified in the PRODUCTS section, above.
- Manufacturing date in MMY format, or serial number, traceable to month of manufacture.
- The CSA Mark, as shown on the Certificate of Compliance.
- Hazardous Location designation: as specified in the PRODUCTS section, above.
- Temperature Code: as specified in the PRODUCTS section, above (May appear on control drawing).
- For the H-System Galvanically Isolated Barriers, the following:
 - The symbol "[Exia]"
 - The words "ASSOCIATED EQUIPMENT"
 - Reference to I.S. Control Drawing
 - Entity Parameters, Nominal Input, Switched Output
 - The words "INTRINSICALLY SAFE"
 - The words "WARNING- EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY"
 - The words "WARNING- TO PREVENT IGNITION OF FLAMMABLE OR COMBUSTIBLE ATMOSPHERES, DISCONNECT POWER BEFORE SERVICING" (This Warning is permitted to be located in the I.S. Control Drawing).
 - Optional markings: "Class I, Zone 2" and Class I, Zone 0"
- For the H-System Termination Board Assemblies, Model ISTA-a-BPb-c-d, the following:
 - The words "WARNING- DO NOT DISCONNECT WHILE ENERGIZED UNLESS AREA IS KNOWN TO BE NON HAZARDOUS"

Note - Jurisdictions in Canada may require these markings to also be provided in French language. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the "Markings".