



Certificate of Compliance

Certificate: 80084549

Master Contract: 158887

Project: 80130175

Date Issued: November 14, 2022

Issued To: PHOENIX CONTACT GmbH & Co. KG
Flachsmarkstraße 8
Blomberg,
North Rhine-Westphalia, D-32825
Germany

Attention: Stephen Klinger

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:

M. Munro

M Munro

PRODUCTS

Class I, Division 2, Groups ABCD T4
Ex ec IIC T4 Gc
Class I, Zone 2, AEx ec IIC T4 Gc

Marshalling Base Module Model number BASE-MSTB/D37M/16CH/EX; Ambient temperature range -40°C to +70°C

Ratings:

Description	Voltage	Current
POWER TERMINALS		
P1+/-	30V Max	15A (Total current on all busses combined must not exceed 15A)
P2+/-	30V, up to 230V AC/DC / Um of 253V AC/DC for IS	
FIELD TERMINALS		
Channels 1-16 - nA, nB, nC, nD, where n refers to the channel number	30V, up to 230V AC/DC (depending on IOA installed).	3A per channel (terminal rating only, refer to installed IOA for further information)



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CONTROLLER INTERFACE

(Either wiring via a D-SUB cable with open ended wiring on one side or via a 1:1 D-SUB cable with FLKM-PA-D37/HW/DIO/C300 adapter mounted to a Honeywell Universal I/O system).

Channels 1-16 +/-	(CHn +/-)	30V	1.0 A / channel
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Notes:

1. The equipment has additionally been evaluated as simple apparatus in accordance with CSA C22.2 No. / UL 60079-11.
2. The above model is permanently connected, Pollution Degree 2, Overvoltage Category II or III
3. Mode of operation: Continuous
4. Environmental Conditions: Ambient Temperature -40 °C to +70 °C, 2000 m max, 0% to 95% permissible humidity (non-condensing)

Conditions of Acceptability:

1. Provision shall be made externally to prevent the rated input from being exceeded by transient disturbances of more than 140% of the rated voltage. See electrical ratings in the operating manual.
2. The equipment must be installed in a suitably certified, tool-secured enclosure providing a minimum ingress protection of IP 54 in accordance with CSA/UL 60079-0. The overall equipment (with its enclosure) shall only be used in an area of pollution degree 2 or better, as defined in IEC 60664-1. Alternatively, the additional enclosure must provide a pollution degree of 2 or better, as defined in IEC 60664-1, on the inside.
3. If 120 or 230 VAC is applied to P2+/P2-, no IOA modules with a supply voltage of 24 VDC powered by the P2+/P2- can be used in conjunction with the base element.
4. All terminal screws, including any that are not wired, shall be fully tightened before the equipment is energised.
5. The base element for DIN rail mounting is certified only for installation in other certified equipment in a cabinet or equivalent type enclosure where the suitability of the final installation is to be determined by the local inspection authority.
6. The base element is certified as an open type device, only for use in complete assemblies where the suitability of the combination is to be determined in the end application.
7. The base element was tested to its maximum rating of 15 A. Mix of IOAs rated to a maximum 3 A per channel can be used on the base element and the total current shall not exceed 15 A.
8. When used in overvoltage II application, field circuit and other circuits (power & control) are segregated with double insulation.
9. When used in overvoltage III application, it provides double insulation between field circuit and other circuits (power & control) only when P2 is not connected.
10. Overcurrent protection shall be provided for field terminals in the end application.
11. Protective earth terminals and connections were not assessed, and the suitability shall be considered in the end application
12. Temperature of terminals - if the Base element is intended to be installed in a field wiring box in the end application, a marking to warn the installer to consult the installation instructions before determining the temperature rating of the cables connected to the terminals shall be provided
13. The product was successfully evaluated against CSA/UL 60079-11 as Simple Apparatus and is suitable for use with PHOENIX CONTACT certified IOA Intrinsically Safe modules for up to EPL Ga/Da.



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14. Product complies with the dielectric strength requirements of CSA/UL60079-11. Intrinsically safe circuits are isolated from non-intrinsically safe circuits. Additionally, all circuits are isolated from PE.
15. When the equipment is connected to intrinsically safe circuits, provision shall be made external to the equipment that ensures that the circuits are limited to overvoltage category II as defined in IEC 60664-1.
16. When the equipment is used for the connection of intrinsically safe circuits:
 - a. Only modules that have intrinsically safe field connections shall be fitted
 - b. No connections are permitted on P1 +/-
 - c. 30VDC maximum is permitted on P2 +/-
17. A type Divider BASE/U/RAIL DIVIDER partition shall be fitted between a base module that has non-intrinsically safe circuits connected and an adjacent base module that has intrinsically safe circuits connected.
18. When used in intrinsically safe applications, all signals in the D37M connector must be intrinsically safe (Ex ic) or nonincendive signals. It is not permitted to mix intrinsically safe (Ex ic) and nonincendive signals with non-intrinsically safe or incendive signals within the same module.
19. When the equipment is connected to intrinsically safe circuits, the controller cable assembly shall be used for connections to equipment that is housed in the same enclosure as this equipment controller. The cable is not permitted to be used for connections to equipment external to the enclosure
20. When the equipment is connected to intrinsically safe circuits, the controller cable assembly capacitance and loop inductance shall be taken into account in any intrinsic safety system assessment. It should be noted that values of input current and voltage equal to, and lower than, the specified I_i and U_i IOA modules may not be intrinsically safe for a particular length of cable.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 61010-1-12 + Amd 1 – 18	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements
CAN/CSA C22.2 No. 213-17	Non-incendive Electrical Equipment for Use in Class I and II Division 2 and Class III Division 1 and 2 Hazardous Locations
CAN/CSA C22.2 No. 60079-0:19	Explosive atmospheres – Part 0: Equipment – General requirements
CAN/CSA-C22.2 No. 60079-7:16	Explosive atmospheres – Part 7: Equipment protection by increased safety “e”
CAN/CSA C22.2 No. 60079-11:14 (R2018)	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety “i”
ANSI/UL 61010-1-2018 <i>Third Edition</i>	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
ANSI/UL 121201-2017 (9th Edition)	Non-incendive Electrical Equipment for Use in Class I and II Division 2 and Class III Division 1 and 2 Hazardous Locations
ANSI/UL 60079-0-2020 <i>Seventh Edition</i>	Explosive atmospheres – Part 0: Equipment – General requirements
ANSI/UL 60079-7-2017 (R2021) <i>Fifth Edition</i>	Explosive atmospheres – Part 7: Equipment protection by increased safety “e”
ANSI/UL 60079-11-2018 <i>Sixth Edition</i>	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety “i”



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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 products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Nameplate adhesive label material approval information:

The above markings are made via silk screening, die stamping, moulding or pad/laser printing on CSA certified or UL recognized adhesive nameplate material compatible with the surface used, or other equivalent permanent means that can pass the label rub test.

- Manufacturer's name: "*PHOENIX CONTACT*", or CSA Master Contract Number "*158887*", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model designation: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above. (may appear in installation manual)
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date, or serial number, traceable to year and month of manufacture.
- The CSA Mark, with the "C" and "US" indicators, as shown on the Certificate of Conformity.
- The designation "CSA 22CA80084549X"
- Hazardous Location designation: "Class I, Division 2, Groups A, B, C and D". The word "Class" may be abbreviated "CL", the word "Division" may be abbreviated "DIV", and the word "Groups" may be abbreviated "GRP" or "GP".
- Method of Protection markings (Ex – markings): As specified in the PRODUCTS section, above. The word "Class" may be abbreviated "CL", the word "Zone" may be abbreviated "ZN".
- Temperature code: As specified in the PRODUCTS section, above.
- The manufacturing location shall be identified if the equipment can be produced in more than one facility.
- The following warnings
 - "WARNING – EXPLOSION HAZARD. DO NOT CONNECT OR DISCONNECT WHEN ENERGIZED", and "AVERTISSEMENT – RISQUE D'EXPLOSION. NE PAS BRANCHER NI DÉBRANCHER SOUS TENSION" or equivalent



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Notes:

Products certified under Class C225802, C225882 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

