



Certificate of Compliance

Certificate: 80088684

Master Contract: 224176

Project: 80088684

Date Issued: 2022-03-07

Issued To: Bartec Benke GmbH
Borsigstraße 10
Reinbek, Schleswig-Holstein, 21465
Germany

Attention: Dieter Hartwich

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: Wesley Van Hill
Wesley Van Hill

PRODUCTS

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe, Entity - For Hazardous Locations

CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity-- For Hazardous Locations - Certified to US Standards

[Ex ia op is IIC Ga]

[AEx ia op is IIC Ga]

5674-100 Channel Card (Ex i) – Associated Apparatus [Ex ia op is IIC Ga] providing outputs for use in Class I, Zone 0 or Class I, Division 1

Mains Supply Voltage:

- Voltage: DC 24 V \pm 10%
- Current: max. 150 mA / rated 115 mA
- Um = 250V

Data Connection

- Voltage: DC 3.3 V

Associated IS entity parameters

Safety data – Port “RTD” (PT100 input) [Ex ia IIC Ga]			
Terminals	4 (I+), 3 (IN+), 2 (IN-), 1 (GND)		
Max. voltage U_o	6.7V		
Max. current I_o	30mA		
Max. power P_o	50mW		
Max. resistance R	230 Ω		
Internal capacitance C_i	2.5 μ F		
Internal inductance L_i	0.3mH		
Max. connectable capacitance C_o	15.4 μ F		
Max. connectable inductance L_o	38 mH		
if capacitance and inductance are present at the same time:			
C_o	0.3 μ F	0.2 μ F	0.1 μ F
L_o	0.01mH	0.1mH	0.15mH

Safety data – Port “0-20mA” (Analog Input) [Ex ia IIC Ga]	
Case: Passive 0..20mA sensor connected	
Terminals	4 (+24V), 2 (IN+), 1 (IN-)
Max. voltage U_o	28V
Max. current I_o	93mA
Max. power P_o	0.65W
Max. resistance R	300 Ω
Internal capacitance C_i	negligible small (between I.S. wires)
Internal inductance L_i	negligible small
Max. connectable capacitance C_o	83 nF
Max. connectable inductance L_o	3 mH
if capacitance and inductance are present at the same time:	
Max. connectable capacitance C_o	83nF
Max. connectable inductance L_o	0.2mH
Case: Active 0..20mA sensor connected (external I.S. circuit)	
Terminals	2 (IN+), 3 (IN-)
Max voltage U_o	28 V
Max current I_o	0 mA
External I.S. voltage U_i	30 V
External I.S. current I_i	120mA
External I.S. capacitance C_i	0nF
External I.S. inductance L_i	0 μ H



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Conditions of Acceptability:

1. This is OPEN type equipment that must be installed within a non-hazardous area internal to a Hy-F 5674 (Hygrophil F5674), moisture and trace humidity measurement device from BARTEC BENKE that requires a tool to access, in accordance with the installation instructions. The suitability of the enclosure is subject to investigation by the local Authority Having Jurisdiction at the time of installation.
2. Wiring to or from this equipment, which enters or leaves the system enclosure, must utilize wiring methods suitable for Class I, Division 1 and/or Class I, Zone 0 Hazardous Locations, as appropriate for the installation.
3. The above model is permanently connected, Equipment Class III, Pollution Degree 2, Overvoltage Category NA
4. Mode of operation: Continuous
5. Environmental Conditions: Outdoor, -20°C to +70°C ,5000 m max.
6. This equipment may only be powered by a power supply unit with a limited energy electric circuit: In accordance with CAN/CSA C22.2 No. 61010-1-12 and ANSI/UL 61010-1, Limited Power Source (LPS) in accordance with CSA/UL 60950-1 or Class 2 source as defined in the Canadian Electrical Code C22.1, Section 16-200 and/or National Electrical Code (NFPA 70), article 725.121.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 0:20	General requirements — Canadian Electrical Code, Part II
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. 60079-0:19	Explosive atmospheres – Part 0: Equipment – General requirements
CAN/CSA C22.2 No. 60079-11:14 (R2018)	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety “i”
CAN/CSA C22.2 No. 60079-28:16 (R2021)	Explosive atmospheres — Part 28: Protection of equipment and transmission systems using optical radiation
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 60079-0-2020 <i>Seventh Edition</i>	Explosive atmospheres – Part 0: Equipment – General requirements
ANSI/UL 60079-11-2018 <i>Sixth Edition</i>	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety “i”
ANSI/UL 60079-28-2017 <i>Second Edition</i>	Explosive atmospheres — Part 28: Protection of equipment and transmission systems using optical radiation



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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.

- Model designation: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.
- 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 “C” and “US” indicators, as shown on the Certificate of Conformity.
- The designation “CSA 22CA80088684X
- Hazardous Location Method of Protection markings (Ex markings): “ASSOCIATED EQUIPMENT or the symbol [Exia]; [Ex ia op is IIC Ga] and indication that connections may be made for Class I, Zone 0 or Class I, Division 1
- Reference to the installation manual

Notes:

Products certified under Class C225804, C225884 have been certified under CSA’s ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





Supplement to Certificate of Compliance

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*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
80088684	2022-03-07	Prime cCSAus approval of Channel Card (Ex i)/5674-100 as [(A)Ex ia op is IIC Ga]; Tamb: -20°C to +70°C