Certificate of Compliance

Certificate: 80088684 **Master Contract:** 224176

Project: 80183012 **Date Issued:** 2024-11-13

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

Attention: Hans-Christian Otto

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:

Gordon Neuroth

PRODUCTS

CLASS - C225804 - PROCESS CONTROL EQUIPMENT Intrinsically Safe, Entity - For Hazardous Locations
CLASS - C225884 - 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
Supply Voltage:

- Voltage: DC 24 V ±10%
- Current: max. 150 mA / rated 115 mA

- Um = 28 V

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		230Ω	
Internal capacitance C_i		2.5µF	
Internal inductance L_i		0.3mH	
Max. connectable capacitance C_o		15.4µF	
Max. connectable inductance L_o		38 mH	
if capacitance and inductance are present at the same time:			
C_o	0.3µF	0.2µF	0.1µF
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	300Ω
Internal capacitance C_i	negligible small (between I.S. wires)
Internal inductance L_i	negligible small
Max. connectable capacitance C_o	83nF
Max. connectable inductance L_o	3mH
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+), 1 (IN-)
Max voltage U_o	28V
Max current I_o	0mA
External I.S. voltage U_i	30V
External I.S. current I_i	120mA
External I.S. capacitance C_i	0nF

External I.S. inductance L_i	0µH

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 *Third Edition*	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
ANSI/UL 60079-0-2020 *Seventh Edition*	Explosive atmospheres – Part 0: Equipment – General requirements
ANSI/UL 60079-11-2018 *Sixth Edition*	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety "i"
ANSI/UL 60079-28-2017 *Second Edition*	Explosive atmospheres — Part 28: Protection of equipment and transmission systems using optical radiation

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: "Electrical data and Installation see 468876MDH** 5674-100 SafetyManual"
  ** = Language e.g. EN = english

- 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

Notes:

Products certified under Class(es) C225804 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

Certificate: 80088684 **Master Contract:** 224176

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
80183012	2024-11-13	Update to Report 80088684 to include minor circuit and PCB changes in 5674-100 Channel Card.
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