



Certificate of Compliance

Certificate: 70131733

Master Contract: 163224


Project: 80198404

Date Issued: 20 Feb 2024

Issued To: Delta Controls Corporation
585 Fortson St.
Shreveport, Louisiana, 71107
United States

Attention: Martin McCallister



Issued by: 
Dustin Pearce

PRODUCTS

CLASS 2258 02- PROCESS CONTROL EQUIPMENT for Hazardous Locations

CLASS 2258 82- PROCESS CONTROL EQUIPMENT for Hazardous Locations - Certified to US Standards

Models HTX, HTS and HTV, $V_{out_{max}} = 60mV$, $I_{out_{max}} = 60mA$, Max Process temperature hot: 1800C, Nitrogen purge Cold: 0.4 scfh, $-40^{\circ}C \leq T_{amb} \leq 80^{\circ}C$

Ex db IIB+H2 T3 Gb

Class I Zone 1, AEx db IIB + H2; T3 Gb

Conditions of Acceptability:

- Flamepath joints are not intended to be repaired.
- Unit must only be disassembled or repaired by manufacturer.
- Flange temperature shall not exceed 200°C.
- Use Fasteners with M6 x 1mm 6g, 25 mm long 18-8 stainless steel with tolerance strength of $\geq 70KPSI$ bolts. Fasteners incorporated in both lower and upper flange joints



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- Assembly shall be used with at least minimum 124.24 mm [4.89"] high steel Nozzle with maximum wall thickness 11.252 mm[0.443"] and maximum nozzle diameter 174.625 mm [6.875"].
- Minimum 131.940 mm [5.1945"] refractory below the nozzle shall be provided by the end user. Thermowell shall not extend more than 25.1 mm [1"] beyond the refractory hot face.
- Temperature insulating material provided by manufacturer shall be installed inside the nozzle. Refractory well provided by manufacturer shall be installed in the refractory bore hole."
- This equipment shall be installed so that the flanged joints are not within 40 mm of a solid object that is not part of the equipment.
- Terminal housing threaded conduit entries = 3/4" NPT
- Threaded adaptors size for Nitrogen connection = 1/8" NPT
- The thermowell tube shall be securely mounted internally to a suitably equally protective enclosure installed such that there is no risk of impact to the ceramic enclosure wall. See manufacture installation instructions for details.

APPLICABLE REQUIREMENTS

CAN/CSA- C22.2 No. 61010-1-12 (R2017)	Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements
UL 61010-1 3 rd Ed. Rev. through 2016	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
UL 60079-0 7 th Ed.	Standard for Safety for Explosive atmospheres – Part 0: Equipment – General requirements
CAN/CSA- C22.2 No. 60079-1: 16	Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures “d”
UL 60079-1 7 th Ed.	Standard for Safety for Explosive Atmospheres – Part 1: Equipment Protection by Flameproof Enclosures “d”

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.



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Method of Marking: Marking is laser etched on stainless steel tag.

Following details must appear on nameplate of equipment:

- Manufacturer's name: "XXXXXXXX", or CSA Master Contract Number "163224", 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.
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.
- The CSA Mark with or without "C" and "US" indicators, as shown on the Certificate of Conformity.
- Hazardous Location designation: As specified in the PRODUCTS section, above.
- Temperature code
- Max Process temperature Hot: 1800°C
- Nitrogen purge Cold: 0.4 scfh
- CSA18CA70131733
- WARNING: Use wiring rated > 92°C
- A seal shall be installed within 50 mm of enclosure
- DO NOT OPEN IF EXPLOSIVE GASES ARE PRESENT. NE PAS OUVRIR SI DES GAZ EXPLOSIFS SONT PRÉSENTS.
- INSTALL PER DOC 00-HTX03, 00-HTS03 OR 00-HTV03.

Notes:



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
80198404	2024-02-20	Update to report 70131733 to: <ul style="list-style-type: none">• Addition of new models HTS and HTV• Update lower ambient temperature rating from -20°C to -40°C• Update upper ambient temperature rating from +70°C to +80°C• Standard update of CSA 60079-0:15 to CSA 60079-0:19.• Standard update of UL 60079-0 Ed. 6 to Ed 7.• Reduce max flange temperature from 230°C to 200°C.• Increase the Temperature Code from T2 to T3.
70220816	2019-03-28	Update to report 70131733 to add option “0” as one of the thermocouple types. Quote assumes no testing or additional evaluation.
70131733	2018-10-09	Original assessment of Model HTX Thermocouple for CSAc-us Certification as Explosionproof for Class I, Division 1, Groups ABCD and Class I, Zone 1: Ex/AEx db IIC; IP66, Type 4X. Includes dual seal testing.