



Certificate of Compliance

Certificate: 70131733

Master Contract: 163224 (107857_0_000)

Project: 70131733

Date Issued: 2018-10-09

Issued to: Delta Controls Corporation
585 Fortson St.
Shreveport, Louisiana 71107
USA

Attention: Ted Keys

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: *Khushboo Patel*
Khushboo Patel

PRODUCTS

CLASS – 2258 02 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations-

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

Ex db IIB+H2 T2 Gb

Class I Zone 1, AEx db IIB + H2; T2 Gb

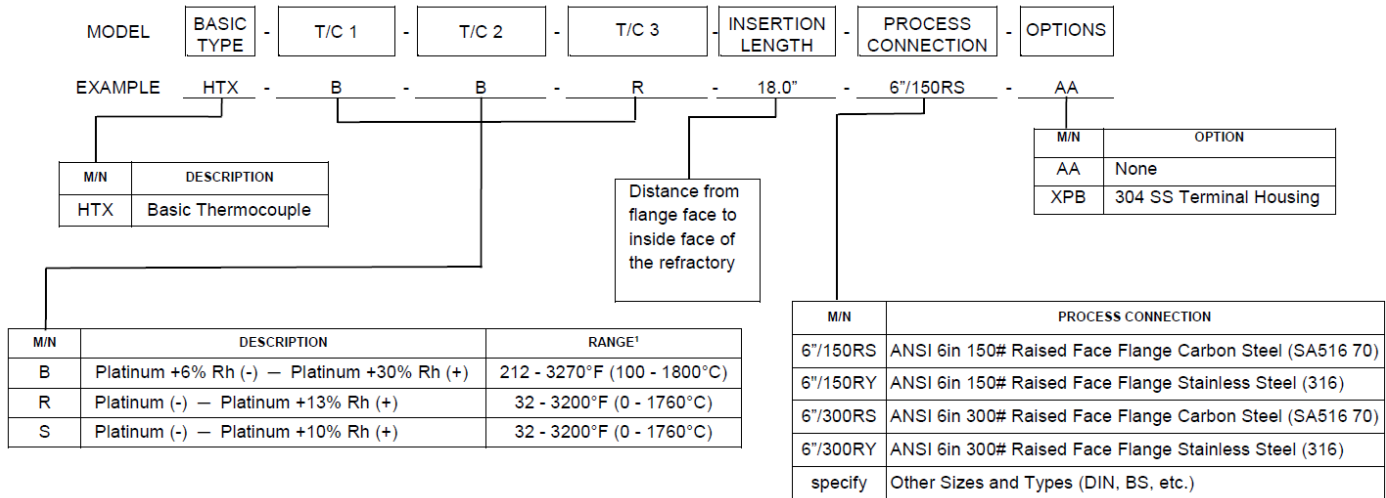
-20°C ≤ Tamb ≤ 70°C

Model HTX, $V_{out,max} = 60mV$, $I_{out,max} = 60mA$, Max Process temperature hot: 1800C, Nitrogen purge Cold: 0.4 scfh



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Auxiliary Components

M/N	DESCRIPTION – SEE SEPARATE DATA SHEETS
HRW	Refractory Well
HNP	Nozzle Packing Kit
HFS	Flush Gas Control Station
H6G	Refractory Drilling Kit
HRS	Nozzle Refractory Stop
HMB	Horizontal Mounting Bars

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 230°C.
- Use Fasteners with M6 x 1mm 6g, 25 mm long 18-8 stainless steel with tolerance strength of ≥ 70KPSI bolts. Fasteners incorporated in both lower and upper flange joints
- 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

APPLICABLE REQUIREMENTS

CAN/CSA- C22.2 No. 61010-1-12 Safety requirements for electrical equipment for measurement, control, and



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(R2017)	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: 15	Explosive atmospheres — Part 0: Equipment — General requirements
UL 60079-0 6 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.

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
- WARNING: Use wiring rated > 82°C
- A seal shall be installed within 50 mm of enclosure
- DO NOT OPEN IF EXPLOSIVE GASES ARE PRESENT.
- INSTALL PER DOC 00-HTX03.
- Max Process temperature Hot: 1800°C



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- Nitrogen purge Cold: 0.4 scfh
- CSA.18.CA.70131733 OR CSA18CA70131733

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".



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
70131733	2018-10-09	Original assessment of Model HTX Thermocouple for cCSAus Certification as Explosionproof for Ex db IIB+H2 T2 Gb, Class I Zone 1, AEx db IIB + H2; T2 Gb; -20°C ≤ Tamb ≤ 70°C