

# **Certificate of Compliance**

Certificate: 70194963 Master Contract: 167528

**Project:** 70194963 **Date Issued:** May 29, 2019

**Issued to:** TopWorx, Inc.

3300 Fern Valley Rd Louisville, KY 40213

**USA** 

**Attention:** Joel Pearce

The products listed below 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 US Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only



**Issued by:** 

H. Gambell
Hannah Gambell

# **PRODUCTS**

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

Class I, GRP B, C and D; Class II, Gps. E, F and G, Class III; Type 4, 4X, 6 and 6P (For Canada): K1\*-\*\*1\*\*\*\* position monitor (with options type NA6.xx, NA6H.xx, NA4.xx and NA4H.xx) and K2\*-\*\*1\*\*\*\* position monitor (with options type NE6.xx,NE6H.xx, NE5.xx, NE4.xx and NE4H.xx) where "x" can be any numeric value between 1 and 14. Rating cannot exceed 250 Vac/dc, 10Amps, 1 Watt. Operating temperature ambient range for the K2 Series: NE6-xx -50°C to +40°C, NE6H- xx -50°C to +70°C, NE5- xx -50°C to +40°C, NE4- xx -50°C to +80°C and NE4H- xx -50°C to +120°C. Operating temperature ambient range for the K1 Series: NA6- xx -60°C to +40°C, NA6H- xx -60°C to +70°C, NA4- xx -60°C to +80°C and NA4H- xx -60°C to +120°C.; May provide electrical outputs of 250V(max)/ 2 Amps (max) for connection of remote solenoids. Temperature Code T6 for options NE6.x, NE6H.x, NA6.x and NA6H.x, T5 for options NE5.x and T4 for options NE4.x, NE4H.x, NA4.x and NA4H.x.

Ex d IIC T4/T5/T6; Ex tb IIIC T85°C /T100°C/ T135°C, Class II, Gps. E, F and G; IP66/67/68; and /or Type 4, 4X, 6, 6P (For Canada):

Series K1\*-\*\*Z\*\*\*\* IIC Position Monitor (with options types SC6.x, SC6H.x, SC4.x and SC4H.x) and Series K2\*-\*\*Z\*\*\*\* IIC Position Monitor (with options types C6.x, C6H.x, C5.x, C4.x and C4H.x) where "x" can be



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any numeric value between 1 and 14. Rating cannot exceed 250 Vac/dc, 10Amps, 1 Watt. Operating temperature ambient -50°C to +40°C (for option types C6.x and C5.x), -50°C to +70°C (for option types C6H) -50°C to +80°C (for option types C4.x), -50°C to +120°C (for option types C4H), -60°C to +40°C (for option types SC6.x), -60°C to +70°C (for option types SC6H), -60°C to +80°C (for option types SC4.x), -60°C to +120°C (for option types SC4H); Temperature Code T6 for options C6.x, C6H.x SC6.x and SC6H.x, T5 for option C5.x and T4 for options C4.x, C4H.x, SC4.x and SC4H.x; (Zone 21) AEx tD and Ex tb enclosure surface temperature of T85°C for options C6.x, C6H.x, SC6.x and SC6H.x, T100°C for option C5.x and T135°C for options C4.x, C4H.x, SC4.x and SC4H.x; May provide electrical outputs of 250V(max)/ 2 Amps (max) for connection of remote solenoids.

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - To U.S. Standards

Class I, GRP B, C and D; Class II, Gps. E, F and G, Class III; Type 4, 4X, 6 and 6P (For USA):

K1\*-\*\*1\*\*\*\* position monitor (with options type NA6.xx, NA6H.xx, NA4.xx and NA4H.xx) and K2\*-\*\*1\*\*\*\* position monitor (with options type NE6.xx,NE6H.xx, NE5.xx, NE4.xx and NE4H.xx). where "x" can be any numeric value between 1 and 14. Rating cannot exceed 250 Vac/dc, 10Amps, 1 Watt. Operating temperature ambient range for the K2 Series: NE6-xx -50°C to +40°C, NE6H- xx -50°C to +70°C, NE5- xx -50°C to +40°C, NE4- xx -50°C to +80°C and NE4H- xx -50°C to +120°C. Operating temperature ambient range for the K1 Series: NA6- xx -60°C to +40°C, NA6H- xx -60°C to +70°C, NA4- xx -60°C to +80°C and NA4H- xx -60°C to +120°C. May provide electrical outputs of 250V (max)/ 2 Amps (max) for connection of remote solenoids. Temperature Code T6 for options NE6.x, NE6H.x, NA6.x and NA6H.x, T5 for options NE5.x and T4 for options NE4.x, NE4H.x, NA4.x and NA4H.x.

# Class I, Zone 1, AEx d IIC T4/T5/T6; Zone 21, AEx tb/tD, IIIC T85°C /T100°C/ T135°C; IP66/67/68; and /or Type 4, 4X, 6, 6P (For USA):

Series K1\*-\*\*Z\*\*\*\* IIC Position Monitor (with options types SC6.x, SC6H.x, SC4.x and SC4H.x) and Series K2\*-\*\*Z\*\*\*\* IIC Position Monitor (with options types C6.x, C6H.x, C5.x, C4.x and C4H.x) where "x" can be any numeric value between 1 and 14. Rating cannot exceed 250 Vac/dc, 10Amps, 1 Watt. Operating temperature ambient -50°C to +40°C (for option types C6.x and C5.x), -50°C to +70°C (for option types C6H) -50°C to +80°C (for option types C4.x), -50°C to +120°C (for option types C4.x), -60°C to +70°C (for option types SC6.x), -60°C to +70°C (for option types SC6H), -60°C to +80°C (for option types SC4.x), -60°C to +120°C (for option types SC4H); Temperature Code T6 for options C6.x, C6H.x SC6.x and SC6H.x, T5 for option C5.x and T4 for options C4.x, C4H.x, SC4.x and SC4H.x; (Zone 21) AEx tD and Ex tb enclosure surface temperature of T85°C for options C6.x, C6H.x, SC6.x and SC6H.x, T100°C for option C5.x and T135°C for options C4.x, C4H.x, SC4.x and SC4H.x; May provide electrical outputs of 250V(max)/ 2 Amps (max) for connection of remote solenoids.

#### Note -

1/ Rating (Volts, Amps and/or Wattage) dependent of CSA/UL internal components rating such that the overall rating of the monitor cannot exceed 250 Vac/dc, 10Amps, 1 Watt. (Note wattage rating is only applicable when 4 -20 mA electronic circuitry and/or potentiometer options are used).

2/ Operating ambients are minimum and maximum, submittor can include operating ambient in between the above listed operating ambient.

3/ IPX8 rating is for 30 meters submersion for a period of 96 hours.



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# **APPLICABLE REQUIREMENTS**

C22.2 No 0 – M91 C22.2 No 142 – M1987 C22.2 No 60529-05

CAN/CSA C22.2 No. 60079-0:07

CAN/CSA C22.2 No. 60079-1:07

CAN/CSA-C22.2 No. 60079-31:12

UL 916, 4th Ed.

ANSI/ISA 60079-0 (12.00.01) - 2009 ANSI/ISA 60079-1 (12.22.01) - 2009

ANSI/ISA-60079-31 (12.10.03)-2009

ANSI/IEC 60529-2005

C22.2 No. 30-M1986 (R2007)

FMRC 3615 – 2006 C22.2 No. 94.2-07 - General Requirements - Canadian Electrical Code Part II.

- Process Control Equipment.

- Degrees of protection provided by enclosures (IP Code)

- Electrical apparatus for explosive gas atmospheres. Part 0: General requirements.

- Electrical apparatus for explosive gas atmospheres.

Part 1: Flameproof Enclosures "d".

- Explosive Atmospheres – Part 31: Equipment Dust Ignition Protections by Enclosure "t"

- Energy Management Equipment

- Explosive Atmospheres – Part 0- General Requirements

- Explosive Atmospheres – Part 1- Equipment Protection by

Flameproof Enclosures "d"

- Explosive Atmospheres – Part 31: Equipment Dust Ignition Protections by Enclosure "t" (Approved 10 November 2009)

- Degrees of Protection Provided by Enclosure (IP Code)

Explosion-Proof Enclosures for Use in Class I Hazardous

Locations

- Explosion proof Electrical Equipment, General Requirements

- Enclosures for Electrical Equipment, Environmental

Considerations



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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:

Markings as listed below and as shown in company's drawing C13849 (pages 1 to 3), C13848 (pages 1 to 3) C13846 (pages 1 to 3) and C13845 (pages 1 to 3) may be used for dual operating ambient temperatures and temperature codes, markings appear etched and engraved onto a stainless steel metal nameplate mechanically fasten onto the position monitors.

- Company's name/trade name/trademark
- Position monitor model number
- Position monitor Serial number
- Complete electrical rating (volts/Amps and/or Watts; as applicable)
- CSA c/us monogram
- Hazardous location designation and type of protection
- The following "CSA. 19.70194963"
- Operating ambient temperature
- Temperature code
- Ingress protection rating
- Warning regarding installation of conduit seals within 50 mm of enclosure
- Warning regarding to disconnect supply before servicing
- Warning regarding not open if area is known to be hazardous
- Reference to solenoid electrical output rating (applicable only when solenoid termination connection option is used)

(Note – Internal electrical termination connections will be identified by marking label, refer to company's drawing C11625 for example of internal termination wiring)