

# **Certificate of Compliance**

**Certificate:** 2288626 (101909 0 000) **Master Contract:** 184585

**Project:** 70096183 **Date Issued:** 2016-10-06

**Issued to:** CMP Products Ltd

Glasshouse St.

St. Peters

Newcastle Upon Tyne, NE6 1BS

**UNITED KINGDOM** 

**Attention: Dave Willcock** 

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:** 

Madhumathí Kulothungan

Madhumathi Kulothungan

#### **PRODUCTS**

Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III, Division 1 and 2; Type 4X; Oil Resistance II:

#### Class I, Zone 2, AEx nR IIC Gc

- Series PX2K or PX2KW cable glands, integrally sealed (SL) for use only with served wire armored Tray Cable Type (TC). For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads.
- Series PXSS2K cable glands, integrally sealed (SL) for use with unarmored Tray Cable Type (TC) and unarmored Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads.

Class I, Division 2, Groups A, B, C and D; Class III, Division 1 and 2; Type 4X; Oil Resistance II: Class I, Zone 2, AEx nR IIC Gc

• Series PX2K or PX2KW cable glands, integrally sealed (SL) for use only with served wire armored Tray Cable Type (TC-ER). For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or



Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads.

• Series PXSS2K cable glands, integrally sealed (SL) for use with unarmored Tray Cable Type (TC-ER) and unarmored Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads.

### Class I, Division 1 and 2, Groups A, B, C and D; Type 4X; Oil Resistance II: Class I, Zone 1, AEx d IIC Gb, AEx e IIC Gb; Class I, Zone 2, AEx nR IIC Gc

- Series PX2K or PX2KW cable glands, integrally sealed (SL) for use only with served wire armored Tray Cable Type (TC-ER-HL). For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads.
- Series PXSS2K cable glands, integrally sealed (SL) for use with unarmored Tray Cable Type (TC-ER-HL). For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads.

## Class I, Division 2, Groups C and D; Class II, Division 2, Groups F and G; Class III, Division 1 and 2; Type 4X; Oil Resistant II:

- Class I, Zone 2, AEx nR IIC Gc
  - Series PX2K or PX2KW cable glands, integrally sealed (SL) for use only with served wire armored Tray Cable Type (TC). For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads.
  - Series PXSS2K cable glands, integrally sealed (SL) for use with unarmored Tray Cable Type (TC) and unarmored Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads.

## Class I, Division 2, Groups C and D; Class III, Division 1 and 2; Type 4X; Oil Resistant II: Class I, Zone 2, AEx nR IIC Gc

- Series PX2K or PX2KW cable glands, integrally sealed (SL) for use only with served wire armored Tray Cable Type (TC-ER). For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads.
- Series PXSS2K cable glands, integrally sealed (SL) for use with unarmored Tray Cable Type (TC-ER) and unarmored Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with



manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads.

#### Class I, Division 1 and 2, Groups C and D; Type 4X; Oil Resistant II: Class I, Zone 1, AEx d IIC Gb, AEx e IIC Gb; Class I, Zone 2, AEx nR IIC Gc;

- Series PX2K or PX2KW cable glands, integrally sealed (SL) for use only with served wire armored Tray Cable Type (TC-ER-HL). For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads.
- Series PXSS2K cable glands, integrally sealed (SL) for use with unarmored Tray Cable Type (TC-ER-HL). For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads.

Class I, Division 1 and 2, Groups A, B, C and D; Class II, Division 1 and 2, Groups E, F and G; Class III; Type 4X: Oil Resistant II:

Class I, Zone 1, AEx d IIC Gb, AEx e IIC Gb; Class I, Zone 2 AEx nR IIC Gc; Class I, Zone 20 AEx ta IIIC Da

• Series PX2KX and PX2K cable glands, integrally sealed (SL) for use with braided-armored or armored-jacketed Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads.

Class I, Division 1 and 2, Groups C and D; Class II, Division 1 and 2, Groups E, F and G; Class III; Type 4X: Oil Resistant II:

Class I, Zone 1, AEx d IIC Gb, AEx e IIC Gb; Class I, Zone 2 AEx nR IIC Gc; Class I, Zone 20 AEx ta IIIC Da

• Series PX2KX and PX2K cable glands, integrally sealed (SL) for use with braided-armored or armored-jacketed Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads.

Class I, Division 1 and 2, Groups A, B, C and D; Class II, Groups E, F and G; Class III; Type 4X; Oil Resistant II:

Class I, Zone 1, AEx d IIC Gb, AEx e IIC Gb; Class I, Zone 2, AEx nR II C Gc; Class I, Zone 20 AEx ta IIIC Da

Series PXSS2K cable glands, integrally sealed (SL) for use with Extra Hard usage cord. For vertical or
horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade
sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with a minimum of 5
full NPT threads or 8 full ISO metric threads.



Class I, Division 1 and 2, Groups C and D; Class II, Division 1 and 2, Groups E, F and G; Class III; Type 4X: Oil Resistant II:

Class I, Zone 1, AEx d IIC Gb, AEx e IIC Gb; Class 1, Zone 2, AEx nR IIC Gc; Class I, Zone 20 AEx ta IIIC Da

• Series PX2KX cable glands, integrally sealed (SL) for use with braided-armored or armored-jacketed Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or RapidEx sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with 5 full NPT threads or a minimum of 8 full ISO metric threads.

#### Notes:

- 1. Cable gland connectors material may be of brass, aluminum or stainless steel.
- 2. Connectors with metric entry threads are only suitable for Areas Classified in ZONES unless fitted with an approved Metric to NPT thread conversion adaptor.
- 3. According to US (NEC) wiring method for the types of cables that can be used in Class I, Div. 1 and 2 and Class I, Zone 1 and 2 Classified Areas, according to 60079-14 installation wiring method restrictions.
- 4. When used with "RapidEx" sealing compound the product Series has suffix REX added to it. E.g. PX2KW becomes PX2KW-REX.
- 5. "Tray Cable" in the report could be read as TC, TC-ER, TC-ER-HL (tray cable).
- 6. Cord in the report could be read as, SO, SOO, SOOW listed for 'extra hard usage'.
- 7. Marine Shipboard cables are for use only on Marine shipboard or off shore unless they have been tested to CSA Std. 174 and or UL Std. 2225 when used in Hazard Location Classified areas. These cables must be marked with the letter HL so that its known that they have being certified for Hazloc classified areas.
- 8. All cable types referenced can be read as being with or without an EMI shield.
- 9. Refer to the report 2288626, Edition 6 for Tables that specifically lists the cable gland with cable series applicable to respective divisions and zones as per CEC and NFPA 70 standards.

#### CLASS 4418 05 - CABLE - Hardware - For Hazardous Locations

Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III, Division 2; Type 4X; Oil Resistant II: Ex nR IIC Gc

- Series PX2K or PX2KW cable glands, integrally sealed (SL) for use only with served wire armored Tray Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads.
- Series PXSS2K glands, integrally sealed (SL) for use with unarmored Tray Cable Type and unarmored Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads.



# Class I, Division 2, Groups C and D; Class II, Division 2, Groups F and G; Class III, Division 2; Type 4X; Oil Resistant II: Ex nR IIC Gc

- Series PX2K or PX2KW cable glands, integrally sealed (SL) for use only with served wire armored Tray Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads.
- Series PXSS2K cable glands, integrally sealed (SL) for use with unarmored Tray Cable Type and unarmored Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads.

Class I, Division 1 and 2 Groups A, B, C and D; Class II, Division 1 and 2 Groups E, F and G; Class III, Division 1 and 2; Type 4X: Oil Resistant II: Ex d IIC Gb, Ex e IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da

• Series PX2KX and PX2K cable glands, integrally sealed (SL) for use with braided-armored or armored-jacketed Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or RapidEx sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 8 full ISO metric threads

Class I, Division 1 and 2 Groups C and D; Class II, Division 1 and 2 Groups E, F and G; Class III, Division 1 and 2; Type 4X: Oil Resistant II:

#### Ex d IIC Gb, Ex e IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da

• Series PX2KX and PX2K cable glands, integrally sealed (SL) for use with braided-armored or armored-jacketed Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or RapidEx sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with NPT or a minimum of 5 full ISO metric threads

Class I, Division 1 and 2, Groups A, B, C and D; Class II, Groups E, F and G; Class III; Type 4X; Oil Resistant II:

Ex d IIC Gb; Ex e IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da

• Series PXSS2K cable glands, integrally sealed (SL) for use with Extra Hard usage cord. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or Rapid Ex sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with a minimum of 5 full NPT threads or 8 full ISO metric threads

Class I, Division 1 and 2 Groups C and D; Class II, Division 1 and 2 Groups E, F and G; Class III, Division 1 and 2; Type 4X: Oil Resistant II:

Ex d IIC Gb, Ex nR IIC Gc, Ex e IIC Gb, Ex ta IIIC Da

Series PX2KX cable glands, integrally sealed (SL) for use with braided-armored or armored-



jacketed Marine Shipboard Cable Type. For vertical or horizontal mounting, for use with manufacturer's Type EP2122 or RapidEx sealing compound, trade sizes ½ in NPT through 4 in NPT and M20 through M100 (Metric), when provided with 5 full NPT threads or a minimum of 8 full ISO metric threads.

#### Notes:

- 1. Cable gland connectors material may be of brass, aluminum or stainless steel.
- 2. Connectors with metric entry threads are only suitable for Areas Classified in ZONES unless fitted with an approved Metric to NPT thread conversion adaptor.
- 3. According to C.E.C. wiring method for the types of cables that can be used in Class I, Div. 1 and 2 and Class I, Zone 1 and 2 Classified Areas, according to 60079-14 installation wiring method restrictions.
- 4. Shipboard Cables are for use on Marine Platform and or shipboards only and are subject to local authorities having jurisdiction on the installation.
- 5. When used with "RapidEx" sealing compound the product Series has suffix REX added to it. E.g. PX2KW becomes PX2KW-REX.
- 6. "Tray Cable" in the report could be read as TC, TC-ER, TC-ER-HL (tray cable).
- 7. Marine Shipboard cables are for use only on Marine shipboard or off shore unless they have being tested to CSA Std. 174 and or UL Std. 2225 when used in Hazard Location Classified areas. These cables must be marked with the letter HL so that its known that they have being certified for Hazloc classified areas.
- 8. All cable types referenced can be read as being with or without an EMI shield
- 9. Refer to the report 2288626, Edition 6 for Tables that specifically lists the cable gland with cable series applicable to respective divisions and zones as per CEC and NFPA 70 standards.



#### APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No 0-M91 - General Requirements

CAN/CSA-C22.2 No 18-04 - Outlet Boxes, Conduit Boxes, and Fittings

CAN/CSA-C22.2 No 25-1966 - Enclosures for Use in Class II, Groups E, F and G Hazardous

Locations

CAN/CSA-C22.2 No 30-M1986- Explosion Proof Enclosure for use in Class I Hazardous

Locations – Industrial Products

CAN/CSA-C22.2 No.174-M1984 - Cables and Cable Glands for Use in Hazardous Locations

CAN/CSA-C22.2 No.94-M91 - Special Purpose Enclosures

CSA C22.2 No 60079-0-11 - Explosive atmospheres — Part 0: Equipment — General

requirements - Second Edition

CSA C22.2 NO 60079-7-12 - Explosive atmospheres — Part 7: Equipment protection by

increased safety "e" - First Edition

CSA C22.2 NO 60079-1-11 - Explosive atmospheres — Part 1: Equipment protection by

flameproof enclosures "d" - Second Edition

CSA C22.2 No 60079-15-12 - Electrical apparatus for explosive gas atmospheres — Part 15:

Construction, test and marking of type of protection "n"

electrical apparatus - First Edition

CSA C22.2 No 60079-31-12 - Explosive atmospheres -Part 31: Equipment dust ignition

protection by enclosure "t".

ANSI/UL 514B Edition 5 - Conduit, Tubing, and Cable Fittings

ANSI/UL 50 Edition 11 - Enclosures for Electrical Equipment

ANSI/UL 2225 Edition 4 - Cables and Cable Fittings For Use in Hazardous (Classified)

Locations

ANSI/ISA 60079-31 (12.10.03)-2013 - Explosive atmospheres - Part 31: Equipment dust ignition

protection by enclosure "t".

CAN/CSA-E61241-1-1 - Electrical Apparatus for for the presence of combustible dust –

Part 1-1

UL60079-0:09 - Electrical Apparatus for Explosive Gas Atmospheres – Part 0 -

UL60079-7:08 - Electrical Apparatus for Explosive Gas Atmospheres – Part 7 –

Increase Safety "e"

UL60079-1:09 - Electrical Apparatus for Explosive Gas Atmospheres – Part 1 –

Flameproof

UL60079-15:13 - UL Standard for Safety Explosive atmospheres – Part 15:

Equipment protection by type of protection "n" - Fourth Edition