CSA INTERNATIONAL

Certificate of Compliance

Certificate: 1356011 **Master Contract:** 203679

Project: 2215947 **Date Issued:** 2009/11/03

Issued to: **Peppers Cable Glands Ltd.**

Stanhope Rd.
Camberley
Surrey, GU15 3BT
United Kingdom
Attention: Richard Ward

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.

C US

Rob Kohuch E.I.T.

Issued by: Rob Kohuch E.I.T.

PRODUCTS

CLASS 4418 05 - CABLE - Hardware - For Hazardous Locations
CLASS 4418 85 - CABLE-Hardware - For Hazardous Locations-Certified to U.S. Standards

CLASS 4418 05 – CABLE – Hardware For Hazardous Locations

CLASS 4418 85 – CABLE – Hardware For Hazardous Locations-Certified to U.S. Standards

Ex d IIC / Ex e II; IP66 IP68; Type 4X (Ta = -20°C to +85°C Neoprene Seals / Ta = -60°C to +180°C Silicone Seals) Class I Div 2 Gr. ABCD, Class II Gr. EFG, Class III; Type 4X (Ta = -20°C to +85°C Neoprene Seals / Ta = -60°C to +180°C Silicone Seals)

Series: CR****

Part No's: CR-D-1/2/3-B/S-R

Options:

D = Omission of Outer Seal

1 = Neoprene Seals

2 = Lead Sheath Cable Continuity Washer

3 = Silicone Seals

B = Brass material

S = Stainless Steel Material

R = Reducer Bore option

Series: E****F*

Part No's: E-1/2/3-W/X/Z-B/S-IE-F-R

Options:

1 = Neoprene Seals

2 = Lead Sheath Cable Continuity Washer

3 = Silicone Seals

W = Steel Wire Armour option

X = Woven Steel Wire Armour option

Z = Steel Tape Armour option

B = Brass material

S = Stainless Steel Material

IE = Integral Earth

R = Reduced Bore option

Series: D****F

Part No's: D-1/2/3-W/X/Z-B/S-IE-F

Options:

1 = Neoprene Seals

2 = Lead Sheath Cable Continuity Washer

3 = Silicone Seals

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W = Steel Wire Armour option

X = Woven Steel Wire Armour option

Z = Steel Tape Armour option

B = Brass material

S = Stainless Steel Material

IE = Integral Earth

Series: A*L*F

Part No's: A-2/3/4-L-B/S/A-F

Options:

2 = Lead Sheath Cable Continuity Washer

3 = Silicone Seals

4 = Lead Sheath Cable Continuity Washer

B = Brass material

S = Stainless Steel material

A = Aluminium material

Series: A*LDS*F

Part No's: A-2/3/4-L-DS-B/S/A-F

Options:

2 = Lead Sheath Cable Continuity Washer

3 = Silicone Seals

4 = Lead Sheath Cable Continuity Washer

B = Brass material

S = Stainless Steel material

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A = Aluminium material

Series: A*L**F

Part No's: A-2/3/4-L-CM/CF-B/S/A-F

Options:

2 = Lead Sheath Cable Continuity Washer

3 = Silicone Seals

4 = Lead Sheath Cable Continuity Washer

CM = Conduit Male entry

CF = Conduit Female entry

B = Brass material

S = Stainless Steel material

A = Aluminium material

Ex e II; IP66; Type 4X (Ta = -20°C to +85°C Neoprene Seals / Ta = -60°C to +180°C Silicone Seals)

Class I Div 2 Gr. ABCD, Class II Gr. EFG, Class III; Type 4X (Ta = -20°C to +85°C Neoprene Seals / Ta = -60°C to +180°C Silicone Seals)

Series: C**L**E*

Part No's: C-3-W/X/Z-L-B/S-IE-E-R

Options:

3 = Silicone Seals

W = Steel Wire Armour option

X = Woven Steel Wire Armour option

Z = Steel Tape Armour option

B = Brass material

S = Stainless Steel Material

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IE = Integral Earth

R = Reduced Bore option

Series: CR-O**

Part No's: CR-O-1/2/3-B/S

Options:

O = Omission of Outer Seal

1 = Neoprene Seals

2 = Lead Sheath Cable Continuity Washer

3 = Silicone Seals

B = Brass material

S = Stainless Steel Material

Ex d IIC; IP68; Type 4X (Ta = -60°C to +135°C)

Class I Div 2 Gr. ABCD, Class II Gr. EFG, Class III; Type 4X (Ta = -60°C to +135°C)

Series: CR-C***

Part No's: CR-C-2-B/S-R Options:

2 = Lead Sheath Cable Continuity Washer

B = Brass material

S = Stainless Steel Material

R = Reduced Bore option

Series: CR-U**

Part No's: CR-U-2-B/S Options:

2 = Lead Sheath Cable Continuity Washer

B = Brass material

S = Stainless Steel Material

Series: CR-X**

Part No's: CR-X-2-B/S

Options:

2 = Lead Sheath Cable Continuity Washer

B = Brass material

S = Stainless Steel Material

Series: CR-S*

Part No's: CR-S-B/S

Options:

2 = Lead Sheath Cable Continuity Washer

B = Brass material

S = Stainless Steel Material

CLASS 4418 85 – CABLE – Hardware For Hazardous Locations-Certified to U.S. Standards

AEx d IIC / AEx e II; IP66 IP68; Type 4X (Ta = -60°C to +135°C)

Class I Div 2 Gr. ABCD, Class II Gr. EFG, Class III; Type 4X (Ta = -60°C to +135°C)

Series: CR-C***

Part No's: CR-C-2-B/S-R

Options:

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2 = Lead Sheath Cable Continuity Washer

B = Brass material

S = Stainless Steel Material

R = Reduced Bore option

Series: CR-U**

Part No's: CR-U-2-B/S

Options:

2 = Lead Sheath Cable Continuity Washer

B = Brass material

S = Stainless Steel Material

Series: CR-X**

Part No's: CR-X-2-B/S

Options:

2 = Lead Sheath Cable Continuity Washer

B = Brass material

S = Stainless Steel Material

Notes:

1. For the A*L*F, A*LDS*F, A*L**F, CR****, E****F* and D****F Series of cable glands: These glands shall not be used with Ex d IIC enclosures with a volume greater than 2000 cm3.

2. For the A*L*F, A*LDS*F, A*L**F, CR****, E****F*, D****F, C**L**E* Series of cable glands: These glands shall not be used in enclosures where the temperature at the point of contact is outside the following range:

-20°C to +85°C for the Neoprene seal variants

-60°C to +180°C for the Silicone seal variants

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3. For the A*L*F, A*LDS*F and A*L**F Series of cable glands: The cable entries are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.

4. For the CR**** Series of cable glands: When used to terminate braided cables the cable entries are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.

5. CEC C22.1, Section 18-106 Part 3, states Tapered Threads shall have 5 fully engaged threads, and where non-tapered threads are used in Groups IIC there must be 8 fully engaged threads.

6. IEC Canadian Standards may have either tapered or non-tapered threads which comply to ISO Standards.

7. These cable glands are designed for appropriate cable, as per the manufacturer's specifications, to maintain integrity of the installation.

8. The product may bear one of the following CSA markings:

"CSA" - Series A*L*F, A*LDS*F, A*L**F, CR****, E****F*, D****F, C**L**E*, CR-O**, CR-C***, CR-U**, CR-X**, CR-S*

"CSA us, or cCSAus" - Series CR-C***, CR-U** and CR-X**

9. For Class II applications, these cable glands when installed into devices which are subject to over-loading (Class II) should not be used where the surface temperature exceeds +120°C.

10. For Class II applications, these cable glands when installed into devices which are not subject to over-loading (Class II) should not be used where the surface temperature exceeds +165°C.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No. 0 M1991	General Requirements - Canadian Electrical Code, Part II
T.I.L. No E-25	Electrical Equipment for Use in Explosive Gas Atmospheres
CSA C22.2 no. 94-M1991	Special Purpose Enclosures
CSA C22.2 no. 213-M1987	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.
CSA C22.2 no. 25-M1986	Enclosures for Use in Class II Groups E, F, and G Hazardous Locations
CAN/CSA E60079-0, 2nd Ed.	Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
CAN/CSA E60079-1, 2nd Ed.	Electrical apparatus for explosive gas atmospheres. Part 1:Flameproof enclosures "d"

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CAN/CSA E60079-7, 2nd Ed.	Electrical apparatus for explosive gas atmospheres. PART 7: Increased safety “e”.
UL 60079-0, 4th Ed	Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
UL 60079-1, 5th Ed.	Electrical apparatus for explosive gas atmospheres. Part 1:Flameproof enclosures "d"
UL 60079-7, 1st Ed.	Electrical apparatus for explosive gas atmospheres. PART 7: Increased safety “e”.
ISA 12.12.01: 2007	Nonincendive Electrical Equipment for Use in Class I and II, Division2 and Class III, Divisions 1 and 2
UL 50 11th ed	Enclosures for Electrical Equipment
UL 1203 4th ed	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations

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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
2215947	2009/11/03	Update of report 1356011 to include additional hazardous locations markings
1837294	2007/01/17	Update to report 1356011 to include new series of cable glands (based on sira reports) and modify existing cable glands
1638021	2005/09/12	Update to 1356011 to include Model Series CR-C, CR-U, CR-X, CR-S for CSAcus-Ex d II Group II, based on SIRA Report acceptance
1514383	2004/03/19	ALF/CR Series Cable Glands - CSA - Revisions to Cert. No. 1356011 to clarify model numbers and markings

History

1356011; February 14th, 2003; Original Certification. Type A*L**F and CR-** Family/Series Cable Glands.