

Certificate of Compliance

Certificate: 1205533 (078713 0 000) **Master Contract:** 178267

Project: 70036605 **Date Issued:** 2015-06-26

Issued to: Hawke International A Division of Hubbell Limited

Oxford St W

Ashton-Under-Lyne, Lancashire OL7 0NA

UNITED KINGDOM Attention: Andy Tindall

The products listed below are eligible to bear the CSA Mark shown



Issued by: Donald Verbeem

Donald Verbeem

PRODUCTS

CLASS - C441805 - CABLE-Hardware - For Hazardous Locations

CLASS - C441885 - CABLE-Hardware-For Hazardous Locations-Certified to U.S. Standards

Class I Div 2 Groups ABCD,

Class II Div 2, Groups EFG, Class III, Enclosure rating IP 66

Ex e II

Class II, Div 1, Groups EFG; Class III, Div 1;

 $-60^{\circ}\text{C} \le T_a \le 100^{\circ}\text{C}$

Enclosure rating IP 66

Hawke Gland Models

Series	Size (Os to F)	Oversized G,H,J,L	Operating Temperature
321	Yes	Yes	-60°C to 100°C
321 2K	2K	No	-60°C to 100°C
321 R	Os to C2	No	-60°C to 100°C
351	Yes	Yes	-60°C to 100°C
351 RAC	Yes	Yes	-60°C to 100°C
353	Yes	Yes	-60°C to 100°C



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353 RAC Yes	Yes	-60°C to 100°C
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NOTES:

- 1. Cable Gland Connectors' Material may be brass, nickel plated brass, aluminium or stainless steel. Additional marking denoting trade size, and manufacturer information will be included.
- 2. These cable glands are designed for use with unarmoured or appropriate Steel Tape Armour (STA), Steel Wire Armour (SWA), and appropriate braided cable.
- 3. All glands (except 321R range) when used with unarmoured or braided cables are only suitable for use with fixed apparatus, the cable must be effectively clamped and cleated elsewhere, to be noted in Installation Instructions.
- 4. For installation, cable glands threads must comply with the Canadian Electrical Code or National Electrical code requirements as applicable. The Hawke 3 series cable gland connectors, when used in Class 1 Division 2 Classified areas, are not suitable to be interfaced with an explosion proof enclosure containing arcing and sparking devices, unless installed in conjunction with an approved explosion proof sealing fitting.
- 5. These glands are also suitable for use with Certified Marine Shipboard armoured/unarmoured cables constructed to CSA Std 245 and IEEE45/IEC600092-353 Standards, or certified equivalent), and may be used on Shipboards and Offshore Rigs/ platforms. This is in accordance with US (NEC) wiring methods describing the types of cables that can be used in Class 1 Div. 1 and 2 and Class 1 Zone 1 and 2 classified areas, and in accordance with 60079-14 installation wiring methods restrictions.
- 6. To maintain integrity, these cable glands are to be used with the appropriate designed cable, as per the manufacturer's specifications.
- 7. A sealing washer or thread sealant may be required between the enclosure and the gland to maintain the IP rating of the enclosure.

CLASS 4418 85 - CABLE - Hardware For Hazardous Locations - Certified to US Standards

Class I Div 2 Groups ABCD, Class II Div 2, Groups EFG, Class III Enclosure rating IP 66

Class I Zone 1,AEx e II; Zone 21 AEx tD, -60°C \leq T_a \leq 100°C Enclosure rating IP 66

Hawke Gland Models

Series	Size (Os to F)	Oversized G,H,J,L	Operating Temperature
321	Yes	Yes	-60°C to 100°C



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NOTES:

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351	Yes	Yes	-60°C to 100°C
351 RAC	Yes	Yes	-60°C to 100°C
353	Yes	Yes	-60°C to 100°C
353 RAC	Yes	Yes	-60°C to 100°C

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APPLICABLE REQUIREMENTS

The following standards were used as a guide in the evaluation of the products covered by this report.

CSA Standard C22.2 No 0-M1991

- General Requirements Canadian Electrical Code Part II.
- CSA C22.2 No 174-M1984 Cables and Cable Glands for Use in Hazardous Locations. (For Reference.)
 - CSA C22.2 No.60079-0-11 Electrical apparatus for explosive gas atmospheres. PART 0: General requirements 2nd Edition.



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CSA C22.2 No.60079-7-12 - Electrical apparatus for explosive gas atmospheres.

Part 7: Increased Safety 'e'. 1st Edition

CSA C22.2 No E60079-31-12 - Explosive atmospheres Part 31: Dust ignition protection by

enclosure "t"

ANSI/UL Standard UL514B - Conduit, Tubing and Cable Fittings

UL1203 - Outlet boxes and fitting for Use in Hazardous (Classified)

Locations. Fourth Edition

UL2225 - Cable and Cable Glands for Use in Hazardous Locations

UL 60079-0 - UL Standard for Safety for Electrical Equipment for Use in Class I, Zone 0,1,2 Hazardous Locations- Part 0 Fifth Editiom

UL 60079-7 - UL Standard for Safety for Electrical Equipment for Use in

Class I, Zone 0,1,2 Hazardous Locations- Part 7 Fourth Edition

ISA 60079-31 - Explosive Atmospheres Part 31 Dust ignition protection by

enclosure "t"

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.

- 1. Submittor's name, trademark,
- 2. Model designation,
- 3. Thread form and Trade size.
- 4. Method of Protection/Area Classification
- 5. Ambient Temperature Range- 60° C $\leq T_a \leq 100^{\circ}$ C,
- 6. Enclosure rating IP66
- 7. The Cus Mark.

Note: Glands shall be provided with and assembled in accordance with manufacturer's assembly sheet AI451

METHOD OF MARKING:

The marking shall be permanent such as cast, etched, or engraved.



Supplement to Certificate of Compliance

Certificate: 1205533 (078713_0_000) **Master Contract:** 178267

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
70036605	2015-06-26	Update report 1205533 to remove supplementary gland assembly note.
2524266	2013-02-15	Update report 1205533 to expand zone markings of 321, 351, 353 series glands to Canadian and US requirements.