



Certificate of Compliance

Certificate: 1015065 (078713_0_000)

Master Contract: 178267

Project: 70133468

Date Issued: 2017-07-07

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 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: Don Verbeem
Don Verbeem

PRODUCTS

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

CLASS - C441805 - CABLE-Hardware - For Hazardous Locations

Class 1Div.2 Grps ABCD; Class II Div 2, Groups EF G; Class III

Ex d IIC, Ex e II

Class II, Groups EFG;Class III

-60 °C <T_a <80°C or -60°C < T_a < 100 °C ; IP 66

Series	Size (Os to F)	Oversized G, H,J	Operating Temp
501/414	Yes	No	-60 °C to 100°C
501/421	Yes	Yes	-60 °C to 100°C
501/421 2K	2K	No	-60 °C to 100°C
501/421 R	Os to C2 size only	No	-60 °C to 100°C
501/423	Yes	Yes	-60 °C to 100°C
501/453 Dedicated	Yes	Yes	-60 °C to 100°C
501/453 RAC	Yes	No	-60 °C to 100°C
501/453 UNIV	Yes	No	-60 °C to 80°C



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NOTES:

1. Cable Gland Connectors' Material may be brass, nickel plated brass, aluminium or stainless steel.
2. Additional marking denoting trade size, and manufacturer information will be included.
3. These cable glands are designed for use with unarmoured or appropriate Steel Tape Armour (STA), Steel Wire Armour (SWA), and appropriate braided cable. These cables must be with extruded sealing (solid polymeric) completely surrounding the 'core' (insulation and conductor), allowing for no holes or ventilation through the inner jacket or along the cores.
4. The Hawke 501/4 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 gland are also suitable for use with Certified Marine Shipboard armored/ unarmored cables constructed to CSA Std 245 and IEEE45/IEC600092-353 Standards, or certified equivalent) , for use on Shipboards and Offshore Rigs/ platforms.
6. Must comply with Canadian Electrical Code and National Electric Code requirements for threaded entries.
7. Cable glands must be used with an appropriate cable, as per the manufacturer's specifications, to maintain integrity of the installation.
8. For Ex e applications a sealing washer or thread sealant may be required between the enclosure and the gland to maintain the IP rating of the enclosure.
9. All glands (exception 501/421R range) when used with unarmored 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.

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

Class 1Div.2 Grps ABCD; Class II Div 2, Groups EFG; Class III
 Class1, Zone 1, AEx d IIC, AEx e II
 Zone 21, AEx tD ;
 -60 °C < T_a < 80°C or -60°C < T_a < 100 °C; IP 66

"HAWKE" Cable Glands

Series	Size (Os to F)	Oversized G, H,J	Operating Temp
501/414	Yes	No	-60 °C to 100°C
501/421	Yes	Yes	-60 °C to 100°C
501/421 2K	2K	No	-60 °C to 100°C
501/421 R	Os to C2 size only	No	-60 °C to 100°C
501/423	Yes	Yes	-60 °C to 100°C
501/453 Dedicated	Yes	Yes	-60 °C to 100°C
501/453 RAC	Yes	No	-60 °C to 100°C
501/453 UNIV	Yes	No	-60 °C to 80°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 Standard C22.2 No 174-M1984	-	Cables and Cable Glands for Use in Hazardous Locations (For Reference.)
CSA Standard C22.2 No 60079-0-11	-	Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
CSA Standard C22.2 No 60079-1-11	-	Electrical apparatus for explosive gas atmospheres. PART 1: Construction and verification test of flameproof enclosures of electrical apparatus.
CSA Standard C22.2 No 60079-7-12	-	Electrical apparatus for explosive gas atmospheres. Part 7: Increased Safety 'e'.
CSA C22.2 No E60079-31-12	-	Explosive atmospheres Part 31: Dust ignition protection by enclosure "p"
UL514B (6 th Edition)	-	Conduit , Tubing and Cable Fittings
UL1203 (4 th Edition)	-	Outlet boxes and fitting for Use in Hazardous (Classified) Locations. Fourth Edition



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UL 2225(4 th Edition)	- Cables and Cable Glands for Use in Hazardous Locations
UL60079-0 (6 th Edition)	- Electrical apparatus for explosive gas atmospheres. PART 0: General requirements
UL60079-1 (7 th Edition)	- Electrical apparatus for explosive gas atmospheres. PART 1: construction and verification test of flameproof enclosures of electrical apparatus "d"
UL60079-7 (5 th Edition)	- Electrical apparatus for explosive gas atmospheres. Part 7: Increased Safety 'e'.
ISA 60079-31 (2 nd Edition)	- 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. Submitter's name, trademark, or the CSA file number (adjacent the CSA Mark).
2. Model designation,
3. Thread form and Trade size.
4. Method of Protection/Area Classification:
5. The Cus Mark. 
6. Enclosure rating IP66
7. Operating Temperature $-60^{\circ}\text{C} < T_a < 80^{\circ}\text{C}$ or $-60^{\circ}\text{C} < T_a < 100^{\circ}\text{C}$

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

METHOD OF MARKING:

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



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
70133468	2017-07-07	Update the certificate 1015065 to include assessment to the later standards as justified by existing documentation
70036583	2015-06-26	Update report 1015065 to remove supplementary Gland Assembly note.
2489847	2013-02-15	Update report 1015065 to include North American Class/Div ratings, Temperature ratings and expand series model offering