



Certificate of Compliance

Certificate: 1731876 **Master Contract:** 178267 (078713_0_000)

Project: 70125248 **Date Issued:** 2017-03-31

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: Donald Verbeem
Donald Verbeem

PRODUCTS

CLASS - C441803 - CONDUIT FITTINGS-Fittings - For Hazardous Locations

CLASS - C441883 - CONDUIT FITTINGS-Fittings - For Hazardous Locations - Certified to US Standards

CLASS 4418 03 - CONDUIT FITTINGS - Fittings For Metal Conduit - For Hazardous Locations

Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III: (see Note 1 & 2)

Ex db IIC Gb; Ex eb IIC Gb; Zn 21 Ex tb IIIC Db IP66

Operating Ambient -60°C to +200°C (see note 3)

- Series 476 Adaptors and Reducers for North American trade sizes 3/8" to 6"NPT/NPSM or Metric sizes M12 to M130 (Brass, Aluminum, or Stainless Steel)

Catalog number

476x-y-z where

x = A for adapter or R for reducer

y = Male thread size

z = Female thread size

Notes:



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1. Suitable for use with Class I Div 2 when installed in accordance with wiring methods per the Canadian Electrical Code.
2. Straight thread products require a suitable o-ring sealing gasket for Class II and Ex tb IIIC applications.
3. Operating ambient is lower when using Nitrile o-ring (-60°C to +80°C) or Silicon o-ring (-60°C to +160°C).
4. End User shall follow Manufacturer's instruction sheet AI 380

**Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III:
Ex db IIC Gb; Ex tb IIIC Db IP66
Operating Ambient -60C to +200C (see notes)**

- Series 475 Stopping Plugs and Series 477 Tamperproof Stopping Plugs for North American trade sizes 1/2"NPT to 6"NPT or Metric sizes M16 to M130 (Brass, Aluminum, and Stainless Steel)

Catalog number

475x where
x = Thread Type and size

Notes:

1. Products marked Class II, Class III, and or Zone 21 are suitable for a maximum Operating Ambient of 160°C.
2. For Class I (without Class II, Class III or Zone 21) may use with -60°C to +200°C operating ambient
3. End User shall follow Manufacturer's instruction sheet AI 404

Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIIC Db

- Series **478 Insulated Adapters** or North American trade sizes 1/2"NPT to 3"NPT , 1/2" NPSM to 3" NPSM, or Metric sizes M16 to M75 (Brass or nickel plated Brass, Aluminum, and Stainless Steel) -55°C to +90°C or -60 to +95°C

Model 478

Polymer A
-55°C to +90°C

Polymer B
-55°C to +95°C

Model 478 LT

Polymer A
-60°C to +90°C

Polymer B
-60°C to +95°C

Catalog number

478x-y-z where
x = blank or LT
y = Male thread size
z = Female thread size

Notes



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The products covered in this Report are incomplete in construction features or limited in performance capabilities and are intended for use and evaluation in other products. Consideration should be given to the following when the component is used in or with another product.

1. When the Insulated Adaptors are used for Flameproof, Increased Safety or Dust Protection, the entry of the enclosure and the female threads of the Insulated Adaptor are to be suitably sealed (in accordance with local regulations) to maintain the Ingress Protection rating of the associated enclosure.
2. When the Insulated Adaptors are used for Increased Safety or Dust Protection in a plain hole, in hole in the enclosure must be no greater than 0.7mm bigger than the male thread and the Insulated Adaptor must be secured with a locknut, the female threads of the Adaptor or Reducer are to be suitably sealed (in accordance with local regulations) to maintain the Ingress Protection rating of the associated enclosure.
3. The Insulated Adaptors, when used in flameproof applications, must not be closed with a flameproof stopping plug.
4. End user must follow Manufacturer's Instruction sheets AI 426

Ex db IIC Gb; Ex eb IIC Gb; Zone 21 Ex tb IIIC Db

- Series **479 Male to Male** and **480 Female to Female Adapters** or North American trade sizes 1/2"NPT to 3"NPT , 1/2" NPSM to 3" NPSM, or Metric sizes M16 to M75 (Brass or nickel plated Brass, Aluminum, and Stainless Steel) -60 to +200°C

Catalog number

479x-y or 480x-y where

x = First thread size

y = Second Thread size

Notes

1. End user must follow Manufacturer's Instruction sheets AI 414

Ex db IIC Gb; Ex eb IIC Gb; Zone 21 Ex tb IIIC Db IP66

- Series 490 and 491 **Male to Female inline swivel unions** in North American trade sizes 1/2"NPT to 6"NPT , 1/2"NPSM to 3"NPSM, or Metric sizes M16 to M75 (Brass or nickel plated Brass, Aluminum, and Stainless Steel) -60 to +100°C

Catalog number

490x-y or 491x-y where

x = Male thread size

y = Female Thread size

Notes

1. End user must follow Manufacturer's Instruction sheets AI 416 & AI 417



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- Series 492 and 493 **Male to Female elbow swivel unions** in North American trade sizes 1/2"NPT to 6"NPT , 1/2"NPSM to 3"NPSM, or Metric sizes M16 to M75 (Brass or nickel plated Brass, Aluminum, and Stainless Steel) -60 to +100°C

Catalog number

492x-y or 493x-y where
x = Male thread size
y = Female Thread size

Notes:

1. Blanking elements shall not be used with swivel unions
2. Only one swivel union shall be used per entry
3. Seals may be required to maintain IP rating and Ex t rating. Follow manufacturer's instructions
4. End user must follow Manufacturer's Instruction sheets AI 418 & AI419

CLASS 4418 83 - CONDUIT FITTINGS - Fittings - For Hazardous Locations - Certified to US Standards

Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III:
Class I Zn 1 AEx d Gb; AEx e IIC Gb; Zn 21 AEx tb IIIC Db IP66
Operating Ambient -60°C to +200°C (see notes)

- Series 476 Adaptors and Reducers for North American trade sizes 3/8" to 6"NPT/NPSM or Metric sizes M12 to M130 (Brass, Aluminum, or Stainless Steel)

Catalog number

476x-y-z aaa where
x = A for adapter or R for reducer
y = Male thread size
z = Female thread size
aaa = addition suffixes to designate material and o-ring options

Notes:

1. When an o-ring is supplied the operating ambient changes (Nitrile o-ring -60°C to +80°C or Silicon o-ring -60°C to +160°C.)
2. End user must follow manufacturer's instruction sheet AI 380.

Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III:
Class I Zn 1 AEx d; Zn 21 AEx tb IIIC Db IP66
Operating Ambient -60C to +200C (see notes)

- Series 475 Stopping Plugs and Series 477 Tamperproof Stopping Plugs for North American trade sizes 1/2"NPT to 6"NPT or Metric sizes M16 to M130 (Brass, Aluminum, and Stainless Steel)

Catalog number

475x where
x = Thread Type and size



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2. For Class I (without Class II, Class III or Zone 21) may use with -60°C to +200°C operating ambient
3. End user must follow manufacturer's instruction sheet AI 404

Class I Zone I AEx d IIC Gb; AEx e IIC Gb; Zone 21 AEx tb IIIC Db

- a. Series 478 Insulated Adapters or North American trade sizes 1/2"NPT to 3"NPT , 1/2" NPSM to 3" NPSM, or Metric sizes M16 to M75 (Brass or nickel plated Brass, Aluminum, and Stainless Steel) -55°C to + 90°C or -60 to +95°C

Model 478

Polymer A
-55°C to +90°C

Polymer B
-55°C to +95°C

Model 478 LT

Polymer A
-60°C to +90°C

Polymer B
-60°C to +95°C

Notes

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3. The Insulated Adaptors, when used in flameproof applications, must not be closed with a flameproof stopping plug.
4. End user must follow Manufacturer's Instruction sheets AI 426

Class I Zone I AEx d IIC Gb; AEx e IIC Gb; Zone 21 AEx tb IIIC Db

- Series **479 Male to Male** and **480 Female to Female Adapters** or North American trade sizes 1/2"NPT to 3"NPT , 1/2" NPSM to 3" NPSM, or Metric sizes M16 to M75 (Brass or nickel plated Brass, Aluminum, and Stainless Steel) -60 to +200°C



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Catalog number
479x-y or 480x-y where
x = First thread size
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Notes

1. End user must follow Manufacturer's Instruction sheets AI 414

Class I Zone I AEx d IIC Gb; AEx e IIC Gb; Zone 21AEx tb IIIC Db IP66

- Series 490 and 491 **Male to Female inline swivel unions** in North American trade sizes 1/2"NPT to 6"NPT , 1/2"NPSM to 3"NPSM, or Metric sizes M16 to M75 (Brass or nickel plated Brass, Aluminum, and Stainless Steel) -60 to +100°C

Catalog number
490x-y or 491x-y where
x = Male thread size
y = Female Thread size

Notes

1. End user must follow Manufacturer's Instruction sheets AI 416 & AI 417

- Series 492 and 493 **Male to Female elbow swivel unions** in North American trade sizes 1/2"NPT to 6"NPT , 1/2"NPSM to 3"NPSM, or Metric sizes M16 to M75 (Brass or nickel plated Brass, Aluminum, and Stainless Steel) -60 to +100°C

Catalog number
492x-y or 493x-y where
x = Male thread size
y = Female Thread size

Notes:

1. Blanking elements shall not be used with swivel unions
2. Only one swivel union shall be used per entry
3. Seals may be required to maintain IP rating and Ex t rating. Follow manufacturer's instructions
4. End user must follow Manufacturer's Instruction sheets AI 418 & AI 419

APPLICABLE REQUIREMENTS

CSA Std C22.2 No. 25-1966	-Enclosures for Use in Class II, Groups E, F and G Hazardous Locations
CSA Std C22.2 No. 30-M1986	-Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CSA Std C22.2 No. 45-M1981	-Rigid Metal Conduit
CAN/CSA-C22.2 No. 94-M91	-Special Purpose Enclosures



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CAN/CSA –C22.2 No. 18.3.-12	- Conduit, Tubing, and Cable Fittings
CSA C22.2 No. 60079-0:15	- Explosive atmospheres – Part 0: Equipment - General requirements
CSA C22.2 No. 60079-1:11	- Explosive Atmospheres – Part 1: Equipment Protection by Flameproof Enclosures “d”
CSA C22.2 No. 60079-7:16	- Explosive atmospheres — Part 7: Equipment protection by increased safety “e”
CSA C22.2 No. 60079-31:15	- Explosive Atmospheres – Part 31: Equipment Dust Ignition Protection by Enclosure “t”
UL514B	- Conduit, Tubing, and Cable Fittings
UL 60079-0 6 th Ed	- Explosive atmospheres – Part 0: Equipment - General requirements
UL 60079-1 6 th Ed	- Explosive Atmospheres – Part 1: Equipment Protection by Flameproof Enclosures “d”
UL 60079-7 4 th Ed	- Explosive atmospheres — Part 7: Equipment protection by increased safety “e”
UL 60079-31 2 nd Ed	- Explosive Atmospheres – Part 31: Equipment 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.

Nameplate adhesive label material approval information:

Not Applicable.

Adhesive nameplates are not used with these products.

Product marking

-Die-stamped on each unit;

- Submittor's name or trademark;
- Catalogue number designation;
- Hazardous Location Designation
- cCSAus Monogram.
- Operating Ambient -60C to +200C (when no o-ring supplied) or
-60C to + 160C (silicone o-ring) or
-60C to +80C (nitrile o-ring)



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On each component package.

- Submittor's name or trademark;
- Catalogue number designation;
- Hazardous Locations designation;
- Trade size;



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
70125248	2017-03-31	Update report 1731876 to include various adapters and plugs
70074129	2017-02-23	Update report 1731876 to add various fitting series to North American Class/Division listing based on submitted documentation
1731876	2006-01-17	Supersedes report 78713-3 to include alternate material of aluminum.