



# Certificate of Compliance

**Certificate:** 1033919

**Master Contract:** 185887

**Project:** 70217343

**Date Issued:** 2019-11-26

**Issued to:** Eaton Electrical Systems Ltd.  
 4185 EXI Aldridge  
 1 Kingsway South  
 Westgate Aldridge, West Midlands WS9 8FS  
 UNITED KINGDOM  
**Attention:** Samuel Mauger

*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:** Jared Gillespie

**PRODUCTS**

- 4418 03 - CONDUIT FITTINGS - Fittings - For Hazardous Locations
- 4418 83 - CONDUIT FITTINGS - Fittings - For Hazardous Locations - Certified to US Standards

**Ex eb IIC Gb**  
**Class 1 Zone 1 AEx eb IIC Gb**

Model Series DP-E-X-X-X Breather/Drains; IP66; Type 4X

Product		Certification		Material		Plating		Thread Size			
DP	Breather Drain	E	Exe	1	Brass	0	None	04	M20	29	½" NPT
				2	M. Steel	1	Nickel	05	M25	30	¾" NPT
				3	S. Steel	2	Electro Zinc	06	M32	31	1" NPT
				4	G F Nylon	3	Cadmium				
				5	Aluminum	4	Zinc Passivated				
						6	Chromatised				
						8	Electroless Nickel				
						9	Anodised				
						A	Black Anodised				



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**Conditions of Acceptability:**

1. Installation must be in accordance with the Canadian Electrical Code (C22.1), the National Electrical Code (NFPA 70), and manufacturers Issue 98-2-10 Inst/2.
2. These breather/drains are only suitable for bottom entry applications.
3. Metallic Breather/Drains shall only be used in Metallic Threaded Entries.
4. The breather/drains with three, 3 mm drain holes shall only be used with increased safety enclosures that have a minimum wall thickness of 2 mm; there is no restriction on the wall thickness for breather/drains with two, 5 mm drain holes,
5. The products shall be selected for a temperature range at their point of mounting based upon the combination of interface seal and material of construction:

<u>Construction material</u>	<u>Limiting temperature</u>
Metallic body	Dependent on seal and interface material
Nylon body	-50 °C to +85 °C, unless limited by seal material
HDPE dust/moisture seal	-50 °C to +80 °C
Metallic dust/moisture seal	Dependent on body and interface material

<u>Interface O-ring Material</u>	<u>Limiting temperature</u>
Nitrile	-30 °C to +100 °C
EPDM	-50 °C to +125 °C
Neoprene	-40 °C to +100 °C
Viton	-20 °C to +180 °C
Silicone	-50 °C to +180 °C
Fluorosilicone	-70 °C to +150 °C

6. The interfaces between the breather/drains and associated enclosure cannot be defined; therefore, it is the user's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
7. Non-metallic Breather/Drains shall not be used in metallic threaded increased safety enclosures.
8. Non-metallic Breather/Drains shall only be used in Clearance Holes (secured with Locknut) and GRP Threaded Entries in increased safety enclosures. Avoid over-tightening. Reference Installation Manual for maximum torque specifications.
9. The clearance holes for non-metallic or metric threaded increased safety enclosures shall have clearance holes with a diameter of 0.3 to 0.5 mm larger than the major diameter of the Breather/Drain trade size.



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### APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 0-10 (r 2015)	General requirements - Canadian Electrical Code, Part II - Tenth Edition
CAN/CSA C22.2 NO. 18.3-12 (r 2017)	Conduit, Tubing, and Cable Fittings - Second Edition; Update No. 1: November 2014
CAN/CSA C22.2 No. 60079-0:17	Explosive atmospheres - Part 0: Equipment - General requirements - Seventh Edition
CAN/CSA C22.2 No. 60079-7:16	Explosive atmospheres - Part 7: Equipment protection by increased safety "e" - Second Edition
CAN/CSA C22.2 No. 60529:05	Degrees of protection provided by enclosures (IP Code) - First Edition
CAN/CSA C22.2 NO. 94-M91	Special Purpose Enclosures Industrial Products - Fourth Edition
ANSI/UL 514B	UL Standard for Safety Conduit, Tubing, and Cable Fittings - Sixth Edition; Reprint with revisions through and including November 21, 2014
ANSI/UL 60079-0	UL Standard for Safety Explosive atmospheres – Part 0: Equipment – General requirements - Seventh Edition
ANSI/UL 60079-7	UL Standard for Safety Explosive Atmospheres – Part 7: Equipment protection by increased safety "e" - Fifth Edition; Reprint with Revisions Through and Including April 21, 2017
ANSI/UL 50	UL Standard for Safety Enclosures for Electrical Equipment - Eleventh Edition

### 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.

The following markings are etched on the exterior face of the drain cover.

- Manufacturer's name: "Eaton Electrical Systems Ltd.", Trademark name: "Eaton" or CSA Master Contract Number "185887", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model designation: As specified in the PRODUCTS section, above.
- Trade Size: As specified in the PRODUCTS section, above.
- Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.



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- Enclosure ratings: “Type 4X”
- Ingress protection rating: “IP66”
- The CSA Mark, with or without the “C” and “US” indicators, as shown on the Certificate of Conformity.
- The designation “CSA00CA1033919X”
- Method of Protection markings: “Ex eb IIC Gb” for Canada, and “Class 1 Zone 1 AEx eb IIC Gb” for USA
- The following optional markings may be used: “Class 1, Division 2, Groups A, B, C, D”



## *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**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
70217343	2019-11-26	Update to report 1033919 for model DPE Breather/Drains to latest applicable requirements for the type of protection, and change name of certificate holder to Eaton Electrical Systems Ltd.
2346736	2011-07-27	Update of Report 1033919 to include revised Drawing (Figure 2) and to reflect updated Standards.  Updated Standards – C22.2 No. 0-M10, CAN/CSA E60079-7:2003, UL 60079-7:2008
1077660	2000-04-10	Correction to 1033919 to include C/US Markings.
1033919	2000-02-16	Certification of Breather Glands for Hazardous Locations. Originally issued as 2500003408.