# **CERTIFICATE OF CONFORMITY**



- 1. HAZARDOUS (CLASSIFIED) LOCATION COMPONENT PER US REQUIREMENTS
- 2. Certificate No:
- 3. Component: (Type Reference and Name)
- 4. Name of Listing Company:
- 5. Address of Listing Company:

1010, 1110, 1014, 1114, 1016 and 1116 Series Housings

Pushna International Inc.

4151 Bluebonnet Drive Stafford, TX 77477

6. The examination and test results are recorded in confidential report number:

3031933 dated 23rd June 2008

FM19US0201U

7. FM Approvals LLC, certifies that the component described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2018, FM Class 3615:2018, FM Class 3616:2011, FM Class 3810:2005, ANSI/NEMA 250:2014, ANSI/IEC 60529:2004

- 8. The sign 'U' placed after the certificate number indicates that this certificate must not be mistaken for a certificate for equipment or a protective system. This certificate may only be used as the basis for the certification of equipment or a protective system. This certificate is issued to the manufacturer also intended to be the holder of the equipment certificate which includes this component.
- 9. This certificate relates to the design, examination and testing of the component specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the component as examined, tested and Approved.

Certificate issued by:

areveral

J/E. Marquedant VP, Manager - Electrical Systems 14 July 2020 Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

#### THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE





#### US Certificate Of Conformity No: FM19US0201U

#### 10. Component Ratings:

Explosionproof for Class I, Division 1, Groups B, C and D; Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G hazardous (classified) locations, indoors and outdoors (Type 4X, IP66/68) with an ambient temperature rating of -50°C (or -16°C) to +80°C (or +125°C). As permitted by the NEC, the product is also marked Class I Zone 1, IIB+H2 and Zone 21, Group IIIC.

#### 11. The marking of the component shall include:

#### 1010PWE Series:

Class I, Division 1, Groups B, C, D Ta =  $-50^{\circ}$ C to  $+80^{\circ}$ C, Type 4X, IP66/68 Class II/III, Division 1, Groups E, F, G Ta =  $-50^{\circ}$ C to  $+80^{\circ}$ C, Type 4X, IP66/68 Class I, Zone 1, IIB+H2 Ta =  $-50^{\circ}$ C to  $+80^{\circ}$ C, Type 4X, IP66/68 Zone 21, Group IIIC Ta =  $-50^{\circ}$ C to  $+80^{\circ}$ C, Type 4X, IP66/68

1110PWE Series:

Class I Division 1, Groups B, C, D Ta =  $-16^{\circ}$ C to  $+80^{\circ}$ C, IP66 Class II/III, Division 1, Groups E, F, G Ta =  $-16^{\circ}$ C to  $+80^{\circ}$ C, IP66 Class I, Zone 1, IIB+H2 Ta =  $-16^{\circ}$ C to  $+80^{\circ}$ C, IP66 Zone 21, Group IIIC Ta =  $-16^{\circ}$ C to  $+80^{\circ}$ C, IP66

1010PAE, 1014PSE, 1016PSE Series:

Class I Division 1, Groups B, C, D Ta =  $-50^{\circ}$ C to  $+125^{\circ}$ C, Type 4X, IP66/68 Class II/III,, Division 1, Groups E, F, G Ta =  $-50^{\circ}$ C to  $+125^{\circ}$ C, Type 4X, IP66/68 Class I, Zone 1, IIB+H2 Ta =  $-50^{\circ}$ C to  $+125^{\circ}$ C, Type 4X, IP66/68 Zone 21, Group IIIC Ta =  $-50^{\circ}$ C to  $+125^{\circ}$ C, Type 4X, IP66/68

1110PAE, 1114PSE, 1116PSE Series: Class I, Division 1, Groups B, C, D Ta =  $-16^{\circ}$ C to  $+125^{\circ}$ C, IP66 Class II/III, Division 1, Groups E, F, G Ta =  $-16^{\circ}$ C to  $+125^{\circ}$ C, IP66 Class I, Zone 1, IIB+H2 Ta =  $-16^{\circ}$ C to  $+125^{\circ}$ C, IP66 Zone 21, Group IIIC Ta =  $-16^{\circ}$ C to  $+125^{\circ}$ C, IP66

#### 12. Description of Equipment:

The 1010, 1110, 1014, 1114, 1016 and 1116 Series Housings consist of an assembly of a threaded blank cover and base. The base contains two openings that are available as either ½ inch-14 NPT, ¾ inch-14 NPT M20 x 1.5 mm or M24 x 1.5 mm. One opening is located in the side of the body while the other is located in the bottom of the body. The 1010 Series Housings are constructed of ADC-12 Aluminum Alloy that is either silver painted or blue epoxy-painted. The 1014 Series Housings are constructed of 304 Stainless Steel while the 1016 Series Housings are constructed of 316 Stainless Steel. The housing is provided with internal and external grounding facilities. An o-ring is provided between the cover and base for environmental protection. The installed o-ring material dictates the service temperature range of the enclosure. The housings have an approximate free internal volume of 140 cm<sup>3</sup>.

#### 1010PAEa-b Housing.

a = Certifications H, M or BLANK. b = Threaded entries 01, 02, 03, 04, 05, 06, 07, 08, 11, 12, 13, 14, 15, 16, 17 or 18.

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#### 1110PAEa-b Housing.

a = Certifications H, M or BLANK.

 $b = Threaded \ entries \ 01, \ 02, \ 03, \ 04, \ 05, \ 06, \ 07, \ 08, \ 11, \ 12, \ 13, \ 14, \ 15, \ 16, \ 17 \ or \ 18.$ 

#### 1010PWEa-b Housing.

a = Certifications H, M or BLANK.

b = Threaded entries 01, 02, 03, 04, 05, 06, 07, 08, 11, 12, 13, 14, 15, 16, 17 or 18.

#### 1110PWEa-b Housing.

a = Certifications H, M or BLANK.

b = Threaded entries 01, 02, 03, 04, 05, 06, 07, 08, 11, 12, 13, 14, 15, 16, 17 or 18.

#### 101aPSEb-c Housing.

a = Material grade 4 or 6.

- b = Certifications H, M or BLANK.
- c = Threaded entries 01, 02, 03, 04, 05, 06, 07, 08, 11, 12, 13, 14, 15, 16, 17 or 18.

#### 111aPSEb-c Housing.

- a = Material grade 4 or 6.
- b = Certifications H, M or BLANK.
- c = Threaded entries 01, 02, 03, 04, 05, 06, 07, 08, 11, 12, 13, 14, 15, 16, 17 or 18.

#### 13. Schedule of Limitations:

- 1. The flameproof joints are not intended to be repaired.
- 2. Oil-filled circuit-breakers and/or contactors are not permitted to be used within the enclosure.
- 3. Rotating machines, or other devices which create turbulence, are not permitted to be used within the enclosure.

#### 4. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

#### 5. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

#### 6. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
23 <sup>rd</sup> June 2008	Original Issue.

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#### US Certificate Of Conformity No: FM19US0201U



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# **Certificate of Compliance**

Certificate:	80052245	Master Contract:	238720
Project:	80052245	Date Issued:	2020-09-08
Issued To:	Pushna International Inc. 4151 Bluebonnet Dr Stafford, Texas, 77477 United States Attention: Sunil Karamchandani		

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



Issued by: Khushboo Patel Khushboo Patel

#### **PRODUCTS**

#### 4418 02 - OUTLET BOXES AND FITTINGS Boxes - For Hazardous Locations

#### Class I, Division 1, Groups B, C, D; Class II, Division 1, Groups E, F, G; Class III

Explosion-Proof Housings 1010PAEa-b, 1010PWEa-b, 1014PSEa-b, and 1016PSEa-b; Type 4X and IP 66/IP68 (1m/1hr) -50° C to 125°C (model 1010PWE a-b rated for -50°C to 80°) Explosion proof Housing 1110PAE a-b,1110PWE a-b,1114PSE a-b,1116PSE a-b IP66 -16°C to 125°C (Except model 1110 PWE a-b- Tamb: -16 °C to 80°C)

Model Nomenclature as below: a=Label shape & Listed certification bodies: blank, H, M b=Threaded entries: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 Models 1010 series with EPDM O-ring controls lower Tamb of -50°C or with Viton O-ring controls Tamb of -16°C Model 1110 series controls lower Tamb of -16°C for assembly with Viton O-ring Assembly with Aluminum/Stainless steel construction controls higher Tamb of 125°C Models with PWE designation are epoxy coated which controls higher Tamb of 80 °C

Conditions of Acceptaility:

- 1. The flameproof joints are not intended to be repaired.
- 2. Oil-filled circuit-breakers and/or contactors are not permitted to be used within the enclosure.
- 3. Rotating machines, or other devices which create turbulence, are not permitted to be used within the enclosure.



**Certificate:** 80052245 **Project:** 80052245

Master Contract: 238720 Date Issued: 2020-09-08

#### APPLICABLE REQUIREMENTS

CSA C22.2 No. 25-2017	Enclosures for Use in Class II Groups E, F, and G Hazardous Locations
CSA C22.2 No. 30-M1986	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
(R2016)	
CSA C22.2 No. 94.2-2015	Enclosures for Electrical Equipment, Environmental Considerations
CSA C22.2 No. 60529:2016	Degrees of Protection Provided Enclosure (IP Code)

#### 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, without any adjacent indicators, indicating that products have been manufactured to the requirements of Canadian Standards.

All markings shall be in accordance with the requirements of the local regulatory authorities and related standards.

- Hazardous Location designation: As specified in the PRODUCTS section, above (may be abbreviated).
- Cautions on use in hazardous locations "OPEN CIRCUIT BEFORE REMOVING COVER and OUVRIR LE CIRCUIT AVANT D'ENLEVER LE COUVERCLE".
- Manufacturer's name: "PUSHNA", or CSA Master Contract Number "238720", adjacent to the CSA Mark in lieu of manufacturers name.
- Model number: As specified in the PRODUCTS section, above.
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date in MMYY format, or serial number, traceable to month of manufacture.
- Enclosure ratings: As specified in the PRODUCTS section, above.
- The CSA Mark, as shown on the Certificate of Compliance.

Note:

- The manufacturers name and the cautionary statement are embossed on the cover.
- Jurisdictions in Canada may require these markings to also be provided in French language. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the "Markings".

Method of marking: The manufacturer's etched stainless steel nameplates are permanently secured with stainless steel rivets onto the surface of the housing cover. Depending on which style housing cover is used, the nameplates can be full-moon or half-moon shape.



# Supplement to Certificate of Compliance

Certificate: 80052245

Master Contract: 238720

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
80052245	2020-09-08	Update to report 2061370 has been done to add model 1110 which uses viton O-ring, M20x 1.5P/M24x1.5P entries, add IP rating, update manufacturers address and update standards.
2524038	06-18-2012	Update to report 2061370 to include new drawings for an alternate Housing and nameplates for series 1010, 1014 and 1016. Update Housings ingress rating from IP66 to IP68 using FM Test Report
2158615	05-28-2009	Update to report 2061370 to change drawings 1010-E-A and 1016-E-A dates from 05/22/2008 to 06/20/2008. They had the incorrect dates in the original report and no drawings were changed under this project.
2061370	09-12-2008	Original Certification - Explosion-Proof Housings 1010PAE-a, 1010PWE-a, 1014PSE-a, and 1016PSE-a; Class I, Division 1, Groups BCD;Class II, Div. 1, Grps EFG;Class III, Type 4X, IP66.