

1 EU-TYPE EXAMINATION CERTIFICATE



2 Component intended for use in Potentially

Explosive Atmospheres - Directive 2014/34/EU

3 EU-Type Examination Certificate No: FM08ATEX0010U

4 Component: 1010, 1110, 1014, 1114, 1016 and 1116 Series Housings
(Type Reference and Name)

5 Name of Applicant: Pushna International Inc.

6 Address of Applicant: 4151 Bluebonnet Drive
Stafford, TX 77477
United States of America

7 This component and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February, 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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

3031933EC dated 23rd June 2008

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-31:2014 and
EN 60529:1991+1:2000 +A2:2013

10 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.

11 This EU-Type Examination certificate relates only to the design, examination and tests of the specified component in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

Richard Zammit
Certification Manager, FM Approvals Europe Ltd.

Issue date: 16th July 2020

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

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SCHEDULE

to EU-Type Examination Certificate No. FM08ATEX0010U

12 The marking of the component shall include:



1010PWE/PWT Series:

II 2 G Ex db IIC Gb Ta = -20°C to +80°C IP66/68

II 2 D Ex tb IIIC Db Ta = -50°C to +80°C IP66/68

1110PWE/PWT Series:

II 2 G Ex db IIC Gb Ta = -16°C to +80°C IP66

II 2 D Ex tb IIIC Db Ta = -16°C to +80°C IP66

1010PAE/PAT, 1014PSE/PST, 1016PSE/PST Series:

II 2 G Ex db IIC Gb Ta = -20°C to +125°C IP66/68

II 2 D Ex tb IIIC Db Ta = -50°C to +125°C IP66/68

1110PAE/PAT, 1114PSE/PST, 1116PSE/PST Series:

II 2 G Ex db IIC Gb Ta = -16°C to +125°C IP66

II 2 D Ex tb IIIC Db Ta = -16°C to +125°C IP66

13 **Description of Component:**

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 cm³.

1010PAEa-b Housing.

1010PATa-b Housing.

a = Certifications I, M, T or BLANK.

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

1110PAEa-b Housing.

1110PATa-b Housing.

a = Certifications I, M, T 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.

1010PWTa-b Housing.

a = Certifications I, M, T 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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1110PWEa-b Housing.

1110PWTa-b Housing.

a = Certifications I, M, T 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.

101aPSTb-c Housing.

a = Material grade 4 or 6.

b = Certifications I, M, T 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.

111aPSTb-c Housing.

a = Material grade 4 or 6.

b = Certifications I, M, T or BLANK.

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

14 Schedule of Limitations:

1. The enclosure service temperature range is according to the following table. The user/installer shall take the necessary precautions to ensure that the enclosure service temperature limits are not exceeded in the end use application.

Atmosphere	Service Temperature Range	Seal	Notes
Gas (Ex db)	-20°C to +80°C	EPDM	1010PW models only
Gas (Ex db)	-20°C to +125°C	EPDM	
Gas (Ex db)	-16°C to +80°C	Viton	1110PW models only
Gas (Ex db)	-16°C to +125°C	Viton	
Dust (Ex tb)	-50°C to +80°C	EPDM	1010PW models only
Dust (Ex tb)	-50°C to +125°C	EPDM	
Dust (Ex tb)	-16°C to +80°C	Viton	1110PW models only
Dust (Ex tb)	-16°C to +125°C	Viton	

2. Follow the manufacturer's instructions to reduce the potential of an electrostatic charging hazard on the surface of the enclosure.
3. The flameproof joints are not intended to be repaired.
4. The enclosure is supplied with two entries located on the base and oriented 90° from one another. The entries are available as ½ inch NPT, ¾ inch NPT, ½ inch BSPP, M20 or M24.
5. Oil-filled circuit-breakers and/or contactors are not permitted to be used within the enclosure.
6. Rotating machines, or other devices which create turbulence, are not permitted to be used within the enclosure.
7. The contents of the enclosure may be placed in any arrangement provided that an area of at least 40% of each cross-sectional area remains free to permit unimpeded gas flow and, therefore, unrestricted development of an explosion. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5 mm.

15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

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16 Test and Assessment Procedure and Conditions:

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim, FM Approvals Europe Ltd accepts no responsibility for the compliance of the component against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17 Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18 Certificate History

Details of the supplements to this certificate are described below:

Date	Description
12 th August 2008	Original Issue.
21 st April 2012	<u>Supplement 1:</u> Report Reference: Supplement 1 to Report No. 3031933EC dated 26 th March 2012. Description of the Change: Added alternate housing cover. Updated examination against EN 60079-0:2009. Added examination against EN 60079-31. Added IPx8 ingress protection rating. Minor model code and schedule of limitations revisions.
03 rd June 2016	<u>Supplement 2:</u> Report Reference: 3058534 dated 11 th May 2016. Description of the Change: An updated examination against EN 60079-0:2012 + A11:2013, EN 60079-1:2014 and EN 60079-31:2014 was performed. The products were found to comply with the latest versions of these standards. The examination includes an updated EHSR questionnaire. As the manufacturer chooses to leave their markings unchanged, the standards listed on this certificate are also unchanged.
16 th July 2020	<u>Supplement 3:</u> Report Reference: PR451554 dated 14 th July 2020. Description of the Change: Addition of alternate Viton o-ring material, M24 thread and reintroduction of IP66 rating. EN 60079-0, EN 60079-1 and EN 60079-31 have been updated to the latest editions. Added A2 to EN 60529. Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809.

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Blueprint Report

Pushna International Inc (1000010533)

Class No 3615

Original Project I.D. 3031933

Certificate I.D. FM08ATEX0010U

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
1010-MUL1-A	06/11/2020	ASSEMBLING-1010/1110 PAEM, PAET, PAEI, PAEH	PR451554
1010-MUL2-A	06/11/2020	ASSEMBLING-1010/1110 PWEM, PWET, PWEI, PWEH	PR451554
1010-T-A	06/11/2020	ASSEMBLING-1010/1110A-W-T	PR451554
1014-MUL-A	06/11/2020	ASSEMBLING-1014/1114 PSEM, PSET, PSEI, PSEH	PR451554
1016-4-T-A	06/11/2020	ASSEMBLING-1016/1116/4-T	PR451554
1016-MUL-A	06/11/2020	ASSEMBLING-1016/1116 PSEM, PSET, PSEI, PSEH	PR451554
BODY-M-AL	06/11/2020	BODY-AL (MACHINING)	PR451554
BODY-M-SS	06/11/2020	BODY-SS (MACHINING)	PR451554
CAP2-C-AL	06/11/2020	CAP2-AL (CASTING)	PR451554
CAP2-M-AL	06/11/2020	CAP2-AL (MACHINING)	PR451554
CAP3-C-AL-MUL	02/21/2012	CAP3-AL-MUL (CASTING)	3044782
CAP3-C-SS	06/11/2020	CAP3-SS (CASTING)	PR451554
CAP3-M-SS	1	CAP3-SS (MACHINING)	PR451554
CAP3.M-M-AL-MUL	1	CAP3.M-AL-MUL (MACHINING)	PR451554
CAP4-C-SS-MUL	02/21/2012	CAP4-SS-MUL (CASTING)	3044782
CAP4.M-M-SS-MUL	1	CAP4.M-SS-MUL (MACHINING)	PR451554
GROUND CLAMP	05/22/2008	GROUND CLAMP	3031933
NP-1	06/11/2020	NAME PLATE-1	PR451554
O-RING-V	1	O-RING	PR451554
O-RING	02/21/2012	O-RING	3044782
PUM-001	4	END USER'S MANUAL	PR451554