

1 EU - TYPE EXAMINATION CERTIFICATE

2 Product or Protective System Intended for use in Potentially Explosive Atmospheres

Component Intended for use on/in an Product or Protective System Intended for use in Potentially Explosive Atmospheres

Directive 2014/34/EU – Annex III

3 EU - Type Examination Certificate No.: **TRAC13ATEX0058U (incorporating variation V1)**

4 Product: **Flameproof Enclosures, EMH29 Series
Models EMH29, EMH29E, EMH29SS, EMH29ESS, EMH29P, EMH29PE,
EMH29PSS, EMH29PESS**

5 Manufacturer: **JCE (Europe) Ltd.,**

6 Address: **East Way, Lee Mill Ind. Estate, Ivybridge, Devon, PL21 9LL, United Kingdom**

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

8 Element Materials Technology, Notified Body number 2812, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in the confidential report **TRA-012090-33-00A**.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012

EN 60079-1:2007

EN 60079-31:2009

Except in respect of those requirements listed at section 18 of the schedule.

10 The sign “U” is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as the basis for certification of an equipment or protective system.

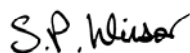
11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall include the following:

 **II 2 G Ex d IIC Gb**

II 2 D Ex tb IIIC Db

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.



S P Winsor, Certification Manager

Issue date: 2019-11-01

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13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

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15 Description of Product

The EMH29 comprises an empty enclosure available in a range of different configurations. The equipment model designations are as detailed in Table 1 below. The EMH29 comprises a lower threaded body section base casting and an upper threaded cast cover with a windowed aperture. A threaded body extension is available that increases the volume by insertion between the lower base and the upper cover to accommodate a range of equipment.

The lower body section and extension are fabricated from either LM25 Aluminium or Stainless Steel. The upper windowed covers and guards can also be made from LM25 Aluminium or Stainless Steel. In addition the aluminium covers may be painted.

The enclosure cover is available with either an 80mm or 86mm diameter aperture forming a cemented viewing window that can be provided with two glazing options comprising plain soda lime glass or Patol® glass that additionally includes a mechanical cover with viewing apertures provided for observation purposes when equipment such as cameras are fitted within the enclosure.

The base casting can be supplied with either 1 x M25 or a 1 x 3/4" NPT entry located in the top face and either 2 x M20 entries or 2 x 1/2" NPT entries located in the bottom face positioned at 45mm centres. The guard for the Patol is supplied with a 1/4 BSP parallel thread for connection of the air curtain supply, this connection is not critical to the protection concept.

The enclosure cover and base are secured with stainless steel locking screws to the body extension. The enclosure base is also supplied with an M4 stainless steel internal and M6 stainless steel external through body earth stud as standard.

No additional entries are permitted into the enclosure other than those already permitted by the enclosure manufacturer and detailed on the drawings.

The enclosure was evaluated for use with gas group IIC and dust group IIIC, within a temperature range of -40 °C to +60 °C.

Table 1			
Model Designation	Assembly & Dimensions	Material	Lid Style
EMH29	Standard enclosure 146mm Diameter x 129mm high	Aluminium LM25	Window
EMH29E	Enclosure fitted with extension 146mm Diameter x 299 mm high	Aluminium LM25	
EMH29SS	Standard enclosure (stainless steel) 146mm Diameter x 129mm high	Stainless steel	
EMH29ESS	Enclosure & extension (stainless steel) 146mm Diameter x 299 mm high	Stainless steel	
EMH29P	Enclosure fitted with Patol Glass & guard. 146mm Diameter x 129mm high	Aluminium LM25	
EMH29PE	Enclosure fitted with extension, Patol glass & guard 146mm Diameter x 299 mm high	Aluminium LM25	
EMH29PSS	Enclosure (stainless steel) fitted with Patol Glass & guard. 146mm Diameter x 129mm high	Stainless steel	
EMH29PESS	Enclosure & extension (stainless steel) fitted with Patol Glass & guard. 146mm Diameter x 299 mm high	Stainless steel	

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16 Test Report No. (as added for this issue of the certificate): N/A

17 Schedule of Limitations

1. No holes, whether blind or clear may be drilled in the Ex component enclosure other than those already provided by the manufacturer. JCE drawing number A3C-3009 Sheet 1 of 5 refers.
2. All blind holes shall have at least one thread remaining when screws are fully tightened without washers.
3. Rotating electrical machines or other devices which create turbulence shall not be incorporated.
4. Oil-filled circuit breakers and contactors shall not be used.
5. The enclosures are designed to be used in an ambient temperature range of -40°C to +60°C
6. The limiting temperature for the window cement material is +100°C.
7. The content of the Ex component enclosure may be placed in any arrangement providing that an area of at least 40% of each cross-sectional area remains free to permit unimpeded gas flow and unrestricted development of an explosion. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5mm.
8. When evaluating the component enclosure as equipment, the requirements of EN/IEC 60079-1 Annex D.4 must be applied.
9. Painted or powder coated versions may present an electrostatic hazard. These units should only be cleaned with a damp or anti-static cloth.
10. Flamepath repair must not be carried out by the end user



Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.

18 Essential Health and Safety Requirements (Directive Annex II)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

19 Drawings and Documents

The list of controlled technical documentation is given in Appendix A to this schedule.

20 Routine Tests

1. The manufacturer is exempted from routine pressure testing the soda lime glass and Patol glass glazed windows when used at a lower ambient temperature of -20 °C
2. The manufacturer shall perform a 1.5x routine pressure test in accordance with EN/IEC60079-1 Clause 16.1 at the following pressure of 16.4 bar for the soda lime glass and the Patol glass glazed windows when used at a lower ambient temperature of -40 °C.

21 Specific Conditions for Manufacture

The covers fitted with Patol glass must be supplied with the air curtain / Guard assembly.

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22 Photographs



23 Details of Markings



24 Details of Variations to this Certificate

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following variations:

- Variation V1 - This certificate was originally issued by Notified Body number 0891 under Directive 2014/34/EU. The technical file has been transferred to Element Notified Body number 2812 without further assessment or evaluation.

25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

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26 Notes to this certificate

Element Materials Technology certification reference: NR-JCEQ-0011

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body number 2812 is the designation for Element Materials Technology Rotterdam BV.

In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variation certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

27 Conditions for the validity of this certificate

This certificate remains valid for so long as:

- (i) The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.
- (ii) The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE**CERTIFICATE NUMBER TRAC13ATEX0058U (incorporating variation V1)****APPENDIX A - TECHNICAL DOCUMENTS**

Title:	Drawing No.:	Rev. Level:	Date:
Certification Drawing EMH29 Series Enclosures to Ex d IIC	A3C-3009 (Sheets 1-5)	1	2014-01-14
EMH29 Series Empty Flameproof Enclosures Installation, Operation and Maintenance Manual	-	1	2014-01-14
Datasheet – Adhesive	10-1096G-01	-	2008-11-21
Component certified label details	A3C-2024	1	2019-10-11

