



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx TRC 13.0020U Issue No: 0 Certificate history:
Issue No. 0 (2014-01-31)

Status: **Current** Page 1 of 4

Date of Issue: **2014-01-31**

Applicant: **JCE (Europe) Ltd**
East Way,
Lee Mill Ind. Estate,
Ivybridge,
Devon,
PL21 9LL
United Kingdom

Electrical Apparatus: **Flameproof Enclosures, EMH29 Series Models EMH29, EMH29E,
EMH29SS, EMH29ESS, EMH29P, EMH29PE, EMH29PSS, EMH29PESS**

Optional accessory:

Type of Protection: **Flameproof, Enclosure**

Marking: **Ex d IIC Gb
Ex tb IIIC Db**

*Approved for issue on behalf of the IECEx
Certification Body:*

Stephen Winsor

Position:

Certification Officer

*Signature:
(for printed version)*

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

TRaC Global Ltd.
Unit 1 Pendle Place
Skelmersdale
West Lancashire
WN8 9PN
United Kingdom





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Manufacturer: **JCE (Europe) Ltd**
East Way,
Lee Mill Ind. Estate,
Ivybridge,
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PL21 9LL
United Kingdom

Additional Manufacturing
location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0
IEC 60079-1 : 2007-04 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:6
IEC 60079-31 : 2008 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
Edition:1

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/TRC/ExTR13.0022/00](#)

Quality Assessment Report:

[GB/SIR/QAR10.0001/02](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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.

CONDITIONS OF CERTIFICATION: NO



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EQUIPMENT (continued):

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 $+60^{\circ}\text{C}$.
6. The limiting temperature for the window cement material is $+100^{\circ}\text{C}$.
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.

Annex:

[Annex to IECEx TRC 13.0020X is 0.pdf](#)



TRaC Global Limited,
 Unit 1, Pendle Place,
 Skelmersdale,
 West Lancashire, WN8 9PN,
 United Kingdom

Annex to IECEx Certificate of Conformity

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Model Designations:			
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	



Routine Tests
<ol style="list-style-type: none">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°C2. 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.



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Special conditions for manufacture
1. The covers fitted with Patol glass must be supplied with the air curtain / Guard assembly.



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Manufacturer's 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
*no information provided.			