



# 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](http://www.iecex.com)

Certificate No.: IECEx SIR 07.0014X issue No.:4

Status: **Current**

Date of Issue: 2011-04-07 Page 1 of 5

Certificate history:  
Issue No. 4 (2011-4-7)  
Issue No. 3 (2011-1-24)  
Issue No. 2 (2010-9-10)  
Issue No. 1 (2008-10-17)  
Issue No. 0 (2007-4-5)

Applicant: **Trimec Industries Pty Ltd**  
1/16 Atkinson Road  
Taren Point  
New South Wales 2229  
Australia

Electrical Apparatus: **Series of Enclosures (See Equipment Description for models)**  
Optional accessory:


Type of Protection: **Flameproof**

Marking: **Ex d I Mb**  
**Ex d IIB T6 (-20°C ≤ Ta ≤ 70°C)**  
**Ex d IIB T4 (-20°C ≤ Ta ≤ 120°C)**

Approved for issue on behalf of the IECEx Certification Body: C Ellaby

Position: Deputy Certification Manager

Signature:  
(for printed version)

  
\_\_\_\_\_  
2011-04-07

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:

**SIRA Certification Service**  
Rake Lane  
Eccleston  
Chester  
CH4 9JN  
United Kingdom

**sira**  
CERTIFICATION



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Manufacturer: **Trimec Industries Pty Ltd**  
1/16 Atkinson Road  
Taren Point  
New South Wales 2229  
**Australia**

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 : 2004** Electrical apparatus for explosive gas atmospheres - Part 0: General requirements  
Edition: 4.0

**IEC 60079-1 : 2003** Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'  
Edition: 5

*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/SIR/ExTR07.0017/00](#)  
[GB/SIR/ExTR08.0127/00](#)  
[GB/SIR/ExTR10.0210/00](#)  
[GB/SIR/ExTR10.0310/01](#)

#### Quality Assessment Report:

[AU/TSA/QAR06.0006/01](#)  
[AU/TSA/QAR06.0006/02](#)  
[AU/TSA/QAR10.0003/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The MP, MG and OM Series of Enclosures are intended for use as part of a pulse flowmeter and consists a cover and number of different sized enclosures. The enclosure can be made of either aluminium or stainless steel and has two separate chambers. The lower chamber is non-flameproof and is attached to a suitable non-certified manifold. The upper flameproof chamber contains a printed circuit board and connection terminals.

The MP and MG Series Enclosures comprises a flameproof cover which forms a cylindrical joint with the body and provides a threaded entry for external connection with either M20 or 1/2" NPT threads. The body houses electronic equipment and is completely sealed from the process fluid.

The OM Series Enclosures comprises a blank flameproof cover, which forms a cylindrical joint with the body. A separate entrance provides a threaded entry for external connection with either M20 or 1/2" NPT threads. Again the body houses electronic equipment and is completely sealed from the process fluid.

### CONDITIONS OF CERTIFICATION: YES as shown below:

- 1 The maximum diametric clearance of the cylindrical joint between the cover and body is 0.15mm.
- 2 The temperature of the process fluid is to be less than:
  - 70°C for temperature class T6
  - 120°C for temperature class T4 and mining applications



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## EQUIPMENT(continued):

Model	Material
AIM002, AIM004, AIM006, AIM008, AIM015, AIM025	Aluminium or Stainless Steel
EX50	Aluminium or Stainless Steel
MG002, MG004, MG006, MG008, MG015, MG025, MG040, MG050, MG080, MG080E, MG100	Aluminium or Stainless Steel
MG002H, MG004H, MG006H, MG008H, MG015H, MG025H, MG040H, MG050H	Stainless Steel
MP15, MP25, MP40, MP50	Aluminium or Stainless Steel
OM002, OM004, OM006, OM008, OM015, OM025, OM040, OM050, OM050E, OM080, OM080E, OM100, OM100E	Aluminium or Stainless Steel
TG025, TG040, TG050, TG080, TG100, TG150	Aluminium or Stainless Steel

The Manufacturer shall comply with the following condition of manufacture:

1. Due to the welded joint on the turbine flowmeter, each EX50 series assembly shall be subjected to a routine pressure test of 9.48 bar for at least 10 s, as required by Clause 16.1 of EN 60079-1 and IEC 60079-1. There shall be no damage or deformation as a result of the test.



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

<b>Issue 1</b> - this Issue introduced the following changes:	
1	Larger fixing screws were allowed to be used in the meter cap to the manifold of the MG004, MG006 and MG008 enclosures; these types are designated the MG004HP, MG006HP and MG008HP enclosures.
2	The through holes in the MG015, MG025 and MG040 were increased in number, in addition, the size of the holes in the MG015 and MG040 was increased, these types are designated the MG015HP, MG025HP and MG040HP enclosures.
3	Minor profile changes were recognised.
<b>Issue 2</b> - this Issue introduced the following changes:	
1	The introduction of the MP, MG and OM series of enclosures for use with group I applications, the marking of the equipment to include: Ex d I Mb
2	The recognition of a change in the applicant's address from Northumberland Road, Caringbah to Atkinson Road, Taren Point.
<b>Issue 3</b> - this Issue introduced the following changes:	
1	The introduction of the "TG" Series of Enclosures. These are based on the MG series, the only difference is the shape of the measuring manifold and measuring element that the Ex d chamber is attached to.
2	The introduction of the "EX50" Series. This is a standalone enclosure used to house a PCB assembly fitted with terminal blocks, so that it can be electrically connected to the turbine flow meters and to other products via suitable Ex d I Mb or Ex d IIB certified conduit. The design is based on the existing MG and OM series enclosures
3	The recognition of other model type references that are based on existing designs, the complete range is now defined in the Equipment Description.
4	The existing drawings were reviewed and some minor drawing modifications were recognised, however, the majority of documents were removed and new drawings were introduced; therefore, the latest, rationalised drawing list replaces all previous versions.
5	The recognition of additional model type references to the existing range of enclosures.
<b>Issue 4</b> - this Issue introduced the following change:	
1	Re-issued to allow ExTR GB/SIR/ExTR10.0310/00 to be replaced by GB/SIR/ExTR10.0310/01