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 SIR 07.0082X issue No.:0	Certificate history:
Status:	**Current**	
Date of Issue:	**2008-09-03**	Page 1 of 4

Applicant: **International Metal Engineering**
BIK 13 Toa Payoh Lorong 8,
#06-05 Bradell Tech Park,
Singapore 319261
Singapore

Electrical Apparatus: **Ranges of Stopping plugs**
Optional accessory:

Type of Protection: **Flameproof and Increased Safety and Dust**

Marking: **Ex dIIC/ Ex e II/ Ex tD A21 IP6X**

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

Position: Certification Officer

Signature:
(for printed version)

Date: 2008-09-03

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.

Certificate issued by:

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

sira CERTIFICATION

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Certificate No.: IECEx SIR 07.0082X

Date of Issue: **2008-09-03** Issue No.: **0**

Manufacturer: **International Metal Engineering**
BIK 13 Toa Payoh Lorong 8,
#06-05 Bradell Tech Park,
Singapore 319261
Singapore

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 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2001 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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/ExTR08.0100/00

Quality Assessment Report:
GB/SIR/QAR07.0040/00

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Schedule

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

The Stopping Plugs are used to fill unused threaded cable entries in associated apparatus without compromising the type of protection of the associated equipment They comprise a metallic cylindrical threaded body at one end with a male thread and either a hexagonal head form for securing to associated enclosures, or one of the alternative head forms tabulated below having an additional feature for securing. Some metric threaded designs may also be fitted with a nitrile 'O' ring interface seal for better ingress protection. See table below. NPT threaded Stopping Plugs and Types 88- and 89- Stopping Plugs requiring the application of non-setting (solvent free) thread sealant.

Material of manufacture:
The part model code "X" is replaced with the following number to indicate the material of manufacture:

T	Stainless steel grade 316	
A	Aluminium grade 6082-T6	(Not certified for Group I use)
R	Brass grade CuZn40	

CONDITIONS OF CERTIFICATION: YES as shown below:

1 The ranges of Stopping Plugs are not to be used in conjunction with any other cable entry device.
2 The stopping plugs are suitable for a temperature at the point of mounting between -50°C to + 85° C.
3 The interfaces between the male thread of the products and an associated enclosure female cable entry device cannot be defined. Therefore, it is the user's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
4 The following stopping plugs are to be installed to the following tightening torque values based upon their thread size:

Size	M16	M20
Torque Nm	55	55

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EQUIPMENT(continued):

Threadforms
The stopping plugs are machined with one of the following thread forms complying with the requirements of EN 60079-1, Tables 3 or 4 and clause C.2.2 (as applicable).

- ISO Metric to IEC 9065 PARTS 1 & 3 (6g fit)
- NPT to ANSI/ASME B1.20.1

Surface coating

- The aluminium products are supplied anodized.
- The brass products are supplied nickel plated.

The Manufacturer shall note the following condition of manufacture:

1. The surface coatings are to be no thicker than 0.008 mm maximum.
2. Products manufactured in aluminium alloy are not to be marked suitable for Group I applications.

See Annexe for Design Options

General Design Options for:

Head type	Model Code	Thread size	Fitted with Nitrile O-ring
No head but body machined with an external square head drive	83-X-011-M or C	M16 X 1.5	N
	83-X-012-M or C	M20 X 1.5	N
	83-X-013-M or C	M25 X 1.5	N
	83-X-019-M or C	1/2" NPT	N
	83-X-020-M or C	3/4" NPT	N
	83-X-021-M or C	1" NPT	N
Metallic hexagonal head	86-X-011-M or C	M16 X 1.5	Y
	86-X-012-M or C	M20 X 1.5	Y
	86-X-013-M or C	M25 X 1.5	Y
	86-X-019-M or C	1/2" NPT	N
	86-X-020-M or C	3/4" NPT	N
	86-X-021-M or C	1" NPT	N
Metallic round head, with an external hexagonal socket recess	87-X-011-M or C	M16 X 1.5	Y
	87-X-012-M or C	M20 X 1.5	Y
	87-X-013-M or C	M25 X 1.5	Y
	87-X-019-M or C	1/2" NPT	N
	87-X-020-M or C	3/4" NPT	N
	87-X-021-M or C	1" NPT	N
Thread run out with an internal hexagonal socket recess	88-X-011-M or C	M16 X 1.5	N
	88-X-012-M or C	M20 X 1.5	N
	88-X-013-M or C	M25 X 1.5	N
	88-X-019-M or C	1/2" NPT	N
	88-X-020-M or C	3/4" NPT	N
	88-X-021-M or C	1" NPT	N
Thread run out with an external hexagonal socket recess	89-X-011-M or C	M16 X 1.5	N
	89-X-012-M or C	M20 X 1.5	N
	89-X-013-M or C	M25 X 1.5	N
	89-X-019-M or C	1/2" NPT	N
	89-X-020-M or C	3/4" NPT	N
	89-X-021-M or C	1" NPT	N

Sira Certification Service

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