



# 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 TSA 08.0036	issue No.:0	Certificate history:.....
Status:	<b>Current</b>		
Date of Issue:	<b>2009-03-18</b>	Page 1 of 3	
Applicant:	<b>Flameproof Engineering Pty Ltd</b> Unit 18, 276 New Line Road Dural, NSW 2158 <b>Australia</b>		
Electrical Apparatus: Optional accessory:	<b>FJB Series Enclosure</b>		
Type of Protection:	<b>Ex d t</b>		
Marking:	<b>Flameproof Engineering</b> <b>Ex d IIB + H2 T* Gb</b> <b>Ex tb IIIC T* Db</b> <b>IECEx TSA 08.0036</b> (* see Tables 1 and 2) <b>S/N -----</b>		
Approved for issue on behalf of the IECEx Certification Body:	Ujen Singh		
Position:	Quality & Certification Manager		
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:

**TestSafe Australia**  
**919 Londonderry Road**  
**Londonderry NSW 2753**  
**Australia**





## IECEx Certificate of Conformity

Certificate No.: IECEx TSA 08.0036

Date of Issue: **2009-03-18**

Issue No.: **0**

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Manufacturer: **Flameproof Engineering Pty Ltd**  
Unit 18, 276 New Line Road  
Dural, NSW 2158  
**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:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-0 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-31 : 2008</b> Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*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:

[AU/TSA/ExTR08.0048/00](#)  
[AU/TSA/ExTR09.0010/00](#)

Quality Assessment Report:  
[AU/TSA/QAR09.0001/00](#)



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### Schedule

#### EQUIPMENT:

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

The FJB series of enclosures are designed to house terminals, control, signalling and distribution equipment & instruments. The range of enclosure series is as follow.

Internal volume of enclosures in Litres	
Model	Internal Volume
	Empty
FJB-210	1.6
FJB-211	5.0
FJB-322	14.0
FJB-433	21.5
FJB-432	15.0
FJB-543	35.0
FJB-643	56.0
FJB-754	95.0

For Equipment containing certified intrinsically safe barriers, refer to the relevant certificates of the barriers for the installation conditions and intrinsically safe parameters.  
Refer to attached Annex for details.

#### CONDITIONS OF CERTIFICATION: NO

Annexe: [Annex\\_IECEx TSA 08\\_0036-0\\_CoC.pdf](#)

	<b>IECEX Certificate of Conformity Annexe</b>		
<b>Annexe for Certificate No.:</b>	<b>IECEX TSA 08.0036</b>	<b>Issue No.:</b>	<b>0</b>

**Equipment – continued.**

These Enclosures are constructed of cast aluminium–silicon alloy as per AS 1874-2000, with less than 7.5% Mg content. These enclosures have rectangular shape with the lid fixed to main enclosure body by means of stainless steel hexagonal socket head cap screw fasteners. Bonded seals are used under the head of each fastener against the ingress of dusts and liquid in to the enclosure. All models are provided with solid silicone rubber seal fitted and secured in a groove in the lid.

Windows made of tempered clear borosilicate glass having minimum thickness of 10 mm may be fitted in the lid. Glass panels may be circular or rectangular. Rectangular glass panels are cemented directly in to the lid of the enclosure and clamped by a metallic frame or with retaining steel clips. Circular glass panels are cemented into a threaded replaceable circular insert, which is then fitted to the lid of enclosure and locked by a hexagon socket head grub screw.

Enclosure lids can be fitted with switch operators with handle or key switch, push buttons and pilot light as required. Suitable Ex-Certified cable glands are used for cable entry from any side of the enclosure, in size ranging from M20 to M63 or 3/8 " NPT to 2" NPT.

The FJB enclosures may be installed either in vertical or horizontal position. Steel perforated or solid aluminium gear trays may be fitted inside the enclosure for mounting various electrical components. The maximum power dissipation of each model is as shown in Table 1 and Table 2.

**Table 1 – Maximum surface temperature Vs Maximum power dissipation – Ex tb**

Maximum Power dissipation in Watts				
Model	T80°C (Tamb +40 °C)	T80°C (Tamb +60 °C)	T95°C (Tamb +40 °C)	T95°C (Tamb +60 °C)
FJB-210	45	26	61	40
FJB-211	80	44	106	71
FJB-322	131	73	175	116
FJB-433	170	80	220	150
FJB-432	145	70	193	129
FJB-543	180	80	280	163
FJB-643	297	165	396	264
FJB-754	500	250	600	418

**Certificate issued by:**

	<b>TestSafe Australia</b> 919 Londonderry Road Londonderry NSW 2753 Australia
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	<b>IECEX Certificate of Conformity Annexe</b>		
Annexe for Certificate No.:	IECEX TSA 08.0036	Issue No.:	0


**Table 2 – Temperature class Vs Maximum power dissipation – Ex d**

Maximum Power dissipation in watts				
Model	T6 (Tamb +40 °C)	T6 (Tamb +60 °C)	T5 (Tamb +40 °C)	T5 (Tamb +60 °C)
FJB-210	45	26	61	40
FJB-211	80	44	106	71
FJB-322	131	73	175	116
FJB-433	170	80	220	150
FJB-432	145	70	193	129
FJB-543	180	80	280	163
FJB-643	297	165	396	264
FJB-754	500	250	600	418

**Drawing list pertaining to Issue of this Certificate:**

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
FJB-0000-0001-01	1	Equipment Enclosures Series FJB..... General Dimensions	1	2009/03/01
FJB-0000-0002-01	1	Equipment Enclosures Series FJB... Side Entry Holes	1	2009/03/01
FJB-0000-0003-01	1	Equipment Enclosures Series FJB... Lid holes for control switch and signal operators	1	2009/03/01
FJB-0000-0004-01	1	Equipment Enclosures Series FJB... Glass window Assemblies- Rectangular windows with internal Frame	1	2009/03/01
FJB-0000-0004-02	1	Equipment Enclosures Series FJB... Glass window Assemblies- Round windows with threaded frame	1	2009/03/01
FJB-0000-0004-03	1	Equipment Enclosures Series FJB... Glass window Assemblies and Round windows with internal retaining clips	1	2009/03/01
FJB-0000-0005-01	1	FJB Enclosures and equipment: Marking and Warning Labels	1	2009/03/01
CSS-0000-0001-01	1	CSS series of control, switch and Signal operators	1	2009/03/01


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	<b>IECEX Certificate of Conformity Annexe</b>		
<b>Annexe for Certificate No.:</b>	<b>IECEX TSA 08.0036</b>	<b>Issue No.:</b>	<b>0</b>

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
CSS-0000-0002-01	1	CSS series of control, switch and Signal operators	1	2009/03/01
PLN-0000-0001-01	1	NPT Blanking Plugs	1	2009/03/01
PLA-0000-0001-01	1	Metric Blanking Plugs Type A M20x1.5 to M63x1.5	1	2009/03/01
FJB-0000-0000-01	18	Technical Notes	1	2009/03/01
FJB-0000-0000-02	28	Operational Manual	1	2009/03/01

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**IECEX Technical Report: AU/TSA/ExTR08.0048/00 details**

<b>ExTR :</b>	
ExTR Reference Number *: (automatic numbering)	AU/TSA/ExTR08.0048/00
Status*:	Issued
ExTR Free Reference Number*:	30658
Date of Issue*: (yyyy-mm-dd)	2008-09-04
List of Standards Covered*:	IEC 60079-0 (Ed.5); IEC 60079-1 (Ed.6); IEC 61241-1 (Ed.1)
Issuing ExTL*:	TSA - TestSafe Australia
Endorsing ExCB*:	TSA - TestSafe Australia
Manufacturer*:	Flameproof Engineering Pty Ltd Unit 18, 276 New Line Road Dural NSW 2158
Country of Manufacture*:	Australia
Ex Protection*:	Ex d IIB + H2 Zone 1
Ratings:	
Product*:	FJB Series of Control, Distribution and Monitoring Equipment
Model Reference*:	Series FJB - 210 to FJB - 854
Related IECEX Certificates:	<a href="#">IECEX TSA 08.0036 issue: 0 [Current]</a>
Comment:	
Attachment:	

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## IECEX Technical Report: AU/TSA/ExTR09.0010/00 details

ExTR :	
ExTR Reference Number *: (automatic numbering)	AU/TSA/ExTR09.0010/00
Status*:	Issued
ExTR Free Reference Number*:	AU/TSA/ExTR09.0010/00
Date of Issue*: (yyyy-mm-dd)	2009-03-18
List of Standards Covered*:	IEC 60079-0 (Ed.5); IEC 60079-31 (Ed.1)
Issuing ExTL*:	TSA - TestSafe Australia
Endorsing ExCB*:	TSA - TestSafe Australia
Manufacturer*:	Flameproof Engineering Unit No 18, 276 New Line Road NSW 2158
Country of Manufacture*:	Australia
Ex Protection*:	Ex tb
Ratings:	Voltage variable 240 V to 3.0 kV, variable current and IP66/67
Product*:	FJB series of Control, Distribution and Monitoring Equipment
Model Reference*:	FJB 210 to FJB 754
Related IECEx Certificates:	<a href="#">IECEX TSA 08.0036 issue: 0 [Current]</a>
Comment:	For Ex d, refer to AU/TSA/Ex 08.0048/00, TestSafe Test Report 30658.
Attachment:	



## IECEX Technical Report: AU/TSA/ExTR08.0049/00 details

ExTR :	
ExTR Reference Number *: (automatic numbering)	AU/TSA/ExTR08.0049/00
Status*:	Issued
ExTR Free Reference Number*:	AU/TSA/ExTR08.0049/00
Date of Issue*: (yyyy-mm-dd)	2008-09-04
List of Standards Covered*:	IEC 60079-0 (Ed.5); IEC 60079-1 (Ed.6); IEC 61241-1 (Ed.1)
Issuing ExTL*:	TSA - TestSafe Australia
Endorsing ExCB*:	TSA - TestSafe Australia
Manufacturer*:	Flameproof Engineering Pty Ltd Unit 18, 276 New Line Road Dural NSW 2158
Country of Manufacture*:	Australia
Ex Protection*:	Ex d IIC, tD Zone 1 & 21
Ratings:	
Product*:	CSS Series of Control, Switch and Signal Operator
Model Reference*:	Series CSS 1000 to CSS 3000
Related IECEX Certificates:	-
Comment:	
Attachment:	

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## IECEX Quality Assessment Report: AU/TSA/QAR09.0001/00 details

QAR :	
QAR Reference Number *: (automatic numbering)	AU/TSA/QAR09.0001/00
Related QARs:	
Status*:	Issued
QAR Free Reference Number*:	TSA QAR No. 08.010
Date of Original Issue*: (yyyy-mm-dd)	2009-01-28
Audit Date*: (yyyy-mm-dd)	2008-11-14
Site(s) audited*:	Flameproof Engineering Pty Ltd Unit 18, 276 New Line Road Dural NSW 2158 Australia
Issuing ExCB*:	TSA - TestSafe Australia
Manufacturer*:	Flameproof Engineering Pty Ltd Unit 18, 276 New Line Road Dural NSW 2158 Australia
Country of Manufacture*:	Australia
Product information*:	Ex d and Ex tD control, distribution and monitoring equipment
Validity*: (yyyy-mm-dd)	2012-01-28
Protection concept*:	Ex d and Ex tD
Related IECEX Certificates: (automatic linking)	<a href="#">IECEX TSA 08.0036 issue: 0 [Current]</a>
Related Certificates: (manual insertion)	
Related IECEX Certificates for previous version:	-
Comment:	
Attachment:	

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Quality  
Endorsed  
Company

# CERTIFICATE OF REGISTRATION

## Flameproof Engineering Pty Ltd

ABN 63 132 487 757

Unit 18 276 New Line Road DURAL NSW 2158 AUSTRALIA

complies with the requirements of

**AS/NZS ISO 9001:2000**

Quality management systems – Requirements

for the following capability

The registration covers the Quality Management System for the design, manufacture, sale and servicing of explosion protected electrical equipment for control, distribution and monitoring used in hazardous areas and corrosive atmospheres such as mining, oil and gas plants, as well as other industrial and marine applications.

### Registered by:

SAI Global Certification Services Pty Ltd (ACN 108 716 669) 286 Sussex Street Sydney NSW 2000 Australia with SAI Global Limited ("SAI Global") and subject to the SAI Global Terms and Conditions for Certification. While all due care and skill was exercised in carrying out this assessment, SAI Global accepts responsibility only for proven negligence. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request.

**Certificate No.:** QEC24536  
**Issue Date:** 24 October 2008

**Certified Date:** 24 October 2008  
**Expiry Date:** 23 October 2011

Alex Ezrakhovich  
General Manager Certification  
for and on behalf of  
SAI Global Limited

Authorised Local Signatory, SAI Global

