1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 09ATEX3178X** Issue: **0**

4 Equipment: **EA/DA1608, EA/DA2020, EA/DA3030 & EA/DA7535 Range of Junction Boxes and Control Stations and EA 7535 – BUS (Busbar Enclosure)**

5 Applicant: **Govan Industries PTY Ltd**

6 Address: 131 – 149 Link Drive
Campbellfield
3061
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7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2006 EN 60079-7:2007 EN 61241-0:2006 EN 61241-1:2004
IEC 60079-0:2007 was used as guidance in respect of marking

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

Ex	II 2 G D	
	Ex e • IIC T , Gb IP 65/IP66[1]	EA Range of Junction Boxes & Control Stations
	Ex tb IIIC T , C Db IP6x	DA Range of Junction Boxes & Control Stations
	Ta = -20°C to +40°C or Ta = -20°C to +55°C	
	• Other safety codings are applied dependant upon the components that are fitted, refer to Table 2 and condition of certification	
	, The temperature class and surface temperature for dust may be either T6, T5, T4, T80°C, T95°C, see tables 3 to 5	

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C. Index 04

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Certification Manager

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13 **DESCRIPTION OF EQUIPMENT**

The EA range of junction boxes and control stations is intended for increased safety applications and the DA range is used for dust protection. Both types employ a die-cast aluminium alloy and lid forming a sealed enclosure that is fitted with separately certified devices, the applicable coding being dependant on the components used, see Tables 1 to 5. The enclosures may also be constructed in cast steel or cast iron with a minimum 150 grade. The lid is secured to the body using slotted head stainless steel screws and a neoprene gasket is provided for sealing purposes. Holes are drilled into the side and end walls of the enclosure body to accommodate suitably certified cable glands and closure devices. The EA range also includes a Busbar Enclosure (Model EA 7535-Bus).

Table 1: Model numbers and dimensions

Model number	Dimension (mm)	Model number	Dimension (mm)
EA1608	173 x 98 x 74	DA1608	173 x 98 x 74
EA2020	210 x 210 x 155	DA2020	210 x 210 x 155
EA3030	305 x 305 x 160	DA3030	305 x 305 x 160
EA7535	750 x 350 x 155	DA7535	750 x 350 x 155
EA7535-bus	750 x 350 x 155		

Table 2: Certified components permitted

Component type	Certificate number	Pertinent code
Weidmüller Terminal blocks, W-Reihe, type feed through and PE	IECEx ULD 05.0008U	Ex e II
Terminal blocks and Protective conductor terminal blocks series SAK and EK	IECEx KEM 06.0014U	Ex e II
Terminal blocks series UK…N	IECEx KEM 06.0034U	Ex e II
SAK K range of rail mounted feed-through terminals	IECEx SIR 05.0032U	Ex e II
Type BK Range of Terminal Strips	IECEx SIR 05.0035U	Ex e II
Type MK 3 Range of Terminal Strips	IECEx SIR 05.0036U	Ex e II
Type MK 6 Range of Terminal Strips	IECEx SIR 05.0037U	Ex e II
AKZ Range of Rail Mounted Feed-Through Terminals & AKE Range of Rail Mounted Protective Earth Terminals	IECEx SIR 05.0038U	Ex e II
Indicator light, type 8010/.-..-.	IECEx PTB 06.0016U	Ex de IIC
Indicating light for panel mounting types 8013/3.2-.. and 8013/3.4-..	IECEx PTB 07.0012U	Ex dem IIC
Indicating light for panel mounting types 8013/3.1.. and 8013/3.3.. •	PTB 02ATEX2131U	Ex de mb IIC T6
A Moving Iron Ammeter Type AWAM2	IECEx BAS 07.0043U	Ex e II
A Moving Iron Ammeter Type 8045/2	IECEx PTB 06.0017U	Ex e II Ex em II
Circuit module and control circuit switch type 07-3..-1../..	PTB 99ATEX1043U	EEx de IIC
Control and signalling device adapters, types 05-0003-00../. •	PTB 00ATEX3114U	Ex e II

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SCHEDULE

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Component type	Certificate number	Pertinent code
Contact element/isolating terminal type 8082/.-.-..	PTB 00ATEX1031U IECEx PTB 06.0011U	Ex de IIC
CZ0201 series explosion proof switch module	DNV-2008-OSL-ATEX-21657U IECEx CQM 08.0005U	Ex de IIC
Operation head Type P/K/L/... •	IECEx CQM 08.0012U	Ex e II
Fuse, type 8560/..	IECEx PTB 06.0056U	Ex em II

• These devices have previously been certified as suitable for use in dust, therefore, when incorporated into the DP junction boxes and control stations, they may be fitted in the lid of the enclosure.

Table 3: Maximum Power Dissipation

EA range				
Model number	Max power dissipations (W)			
	T6 (Ta 40°C)	T5 (Ta 40°C)	T6 (Ta 55°C)	T5 (Ta 55°C)
EA1608	13	17	8.5	13
EA2020	23.5	29.5	14.5	23.5
EA3030	41	51.5	25	41
EA7535	61	76.5	38	61
Temperature class T4 is assigned when fitted with 6.3 A fuse listed in Table 4				
EA range				
Model number	Max power dissipations (W)			
	T5 (Ta 40°C)		T4 (Ta 55°C)	
EA7535-bus	76.5 (Ex e only)		85 (Ex e only)	
DA range				
Model number	Max power dissipations (W)			
	T80°C (Ta 40°C)	T95°C (Ta 40°C)	T80°C (Ta 55°C)	T95°C (Ta 55°C)
DA1608	13	17	8.5	13
DA2020	23.5	29.5	14.5	23.5
DA3030	41	51.5	25	41
DA7535	61	76.5	38	61

Table 4: EA Range – Maximum Current and Temperature Classification

Model Number	Maximum current (A)	
	T5 (Ta 40°C)	T4 (Ta 40°C)
EA Range with Fuse Type 8560/..	4	6.3

The following limitations apply when fitted with the separately certified Ex e moving iron ammeter Type AWAM2 previously assessed under IECEx BAS 07.0043.U or window:

- A short circuit protection device to be fitted in series with meter and to be rated at not greater than 10 A.
- The maximum power dissipation of the equipment listed in Table 5 must not be exceeded.
- Meter to only be fitted to enclosures where the internal ambient of enclosure is restricted to less than 70 °C.

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- Maximum service temperature of the Nylon 6 window material is limited to 65 °C.
- Meter and window only fitted to enclosure types: EA/DA2020, EA/DA3030 and EA/DA7535

The following additional limitations apply when fitted with the separately certified Ex e moving iron ammeter Type 8405/2 previously assessed under IECEx PTB 06.0017U:

- Shall only be used in a rated ambient of up to +40°C and a temperature class of T6.
- The maximum power dissipation of the equipment listed in Table 5 must not be exceeded.

Table 5: Maximum Allowable Power Dissipation for Equipment fitted with Ammeter Type AWAM2 or Type 8045/2 and/or Window

EA range				
Model number	Max power dissipations (W)			
	T6 (Ta 40°C)	T5 (Ta 40°C)	T6 (Ta 55°C)	T5 (Ta 55°C)
EA1608	13	17	8.5	10
EA2020	23.5	29.5	14.5	22.5
EA3030	41	51.5	25	30
EA7535	61	62	24.5	24.5
Temperature class T4 is assigned when fitted with 6.3 A fuse listed in Table 4				
DA range				
Model number	Max power dissipations (W)			
	T80°C (Ta 40°C)	T95°C (Ta 40°C)	T80°C (Ta 55°C)	T95°C (Ta 55°C)
DA1608	13	17	8.5	10
DA2020	23.5	29.5	14.5	22.5
DA3030	41	51.5	25	30
DA7535	61	62	24.5	24.5

Notes:
1. The IP X5 and IP X6 rating is not endorsed by Sira as this is considered to be outside the scope of the standards listed.
2. Only applied when Ex tb IIIC marked. (When fitted with capacitor or Power consuming devices)
3. Cable warning label only required for T5 application.
4. When fitted with the window.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	19 June 2009	R51A18919H	The release of the prime certificate.

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SCHEDULE

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15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)

15.1 WARNING: POTENTIAL ELECTROSTATIC CHARGING HAZARD – The polycarbonate window and nylon window shroud may generate an ignition capable level of electrostatic charge, refer to the instruction manual on how to install and maintain the equipment safely and prevent static charge build up.

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF CERTIFICATION**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 The manufacturer shall apply the safety coding, temperature class and surface temperature for dust that are applicable to the individual design dependent upon the type of components that are fitted and in accordance with Tables 3 to 5 in the Product Description.

17.4 Suitable heat resistant cables and suitable certified cable glands, with a continuous operating temperature of at least 95°C must be fitted at the entry point for the EA or DA range with a temperature classification of T5.

17.5 When the junction boxes are equipped by the manufacturer with wired terminals and/or components, a routine electric strength test shall be conducted in accordance with EN 60079-7:2007 clause 6.1.

17.6 The products covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform Sira of any modifications of the devices that may impinge upon the explosion safety design of their products.

17.7 The maximum dissipated power in watts, for each junction box, shall be calculated in accordance with EN 60079-7:2007, Annex E, E.2 and shall not exceed the value given in the Tables detailed on the drawings and in the product description.

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Certificate Annexe

Certificate Number: **Sira 09ATEX3178X**

Equipment: **EA/DA1608, EA/DA2020, EA/DA3030 & EA/DA7535 Range of Junction Boxes and Control Stations and EA 7535 – BUS (Busbar Enclosure)**

Applicant: **Govan Industries PTY Ltd**

Issue 0

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
GC0311	1 to 3	2	18 Jun 09	EA**** & DA**** Control Station
GC0300	1 of 1	1	18 Jun 09	Junction Box & Control Station. EA1608 Cast & DA1608 Cast
GC0301	1 of 1	1	18 Jun 09	Body Detail. EA1608 Cast & DA1608 Cast
GC0302	1 of 1	1	18 Jun 09	Cover Detail. EA1608 Cast & DA1608 Cast
GC0303	1 of 1	1	18 Jun 09	Junction Box & Control Station. EA2020 Cast & DA2020 Cast
GC0304	1 of 1	1	18 Jun 09	Junction Box & Control Station. EA3030 Cast & DA3030 Cast
GC0305	1 of 1	1	18 Jun 09	Cover Detail. EA7535 Cast & DA7535 Cast
GC0306	1 of 1	1	18 Jun 09	Body Detail. EA7535 Cast & DA7535 Cast
GC0310	1 of 1	1	18 Jun 09	Junction Box & Control Station. EA7535 Cast & DA7535 Cast
GC0285	1 of 2	0	18 Jun 09	Square Window Details

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