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# 1 **EU-TYPE EXAMINATION CERTIFICATE**

- 2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 3 Certificate Number: Sira 07ATEX1133X

Issue: 4

- Equipment: FC4 Range of Junction Boxes, Control Stations and flameproof enclosures
- 5 Applicant: **Pepperl+Fuchs GmbH** (orporating the Govan brand)
- 6 Address: Lilienthalsraße 200 68307 Mannheim Germany Germany These products may only be manufactured at any Pepperl+Fuchs Facility that has been audited for the manufacture of the type of protection defined on this certificate; in addition, the site must also be listed on the Quality Assessment Notification PTB 16 ATEX Q001, PTB 97 ATEX Q008 and PTB 97ATEX Q020 or their subsequent issues.
- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 60079-1:2004 EN 61241-0:2006 EN 61241-1:2004

- 10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.
- 11 This EU-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:

II 2 G D

For Certification Code Refer to Variation 1.

Project Number 1025

Signed:	Ale
	V

Title: Director of Operations

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#### 13 **DESCRIPTION OF EQUIPMENT**

The FC4 Range of Junction Boxes, Control panel and flameproof enclosures are constructed from die cast aluminium alloy or cast iron. Each model comprises an FC4 or FC4/5 base and an interchangeable cover, which is secured to the base using 6 off M6 stainless steel fasteners.

The enclosures are fitted with O-rings for the prevention of water and dust ingress to a rating of IP 66.

The enclosures have a maximum power dissipation as follows:

Type Reference:	Maximum Power Dissipation
FC4/5 (excluding FC4TC)	26 W
FC4 (excluding FC4TC)	22 W
FC4TC	2.5 kW

Entries may be provided within the side walls of the enclosure and range between M20 to M50 and/or between  $\frac{1}{2}$ " to 1" NPT.

The FC4 range may be supplied in any of the following configurations:

Cover Types							
FC4HTC High thick cover for LCS applications							
FC4LTC	FC4LTC Low thick cover for LCS applications						
FC4JB	Low thick cover for LCS applicat	ions					
<b>Junction Boxes</b>	5						
Model No:	Entry Combination:	Model No:	Entry Combination:				
FC4-22	2 way entry M20 or <sup>1</sup> /2" NPT	FC4-32	2 way entry M25 or 34" NPT				
FC4-23	3 way entry M20 or 1/2" NPT	FC4-33	3 way entry M25 or 34" NPT				
FC4-24	4 way entry M20 or 1/2" NPT	FC4-34	4 way entry M25 or 34" NPT				
FC4/5	orporates deep body enclosure						
<b>Control Station</b>	Control Stations						
Model No:	Configuration:						
FC4A	1 x Rotary switch 415 V 20 A AC1 AC3- 4.5 kW						
FC4A-SS	1 x Sail switch assembly						
FC4A-FS	1 x Float switch assembly						
FC4A-A1	1 x Instruments enclosure 50 mm diameter viewing window						
FC4-BELL	1 x Electronic bell assembly						
FC4B	1 x Rotary switch 415 V 25 A AC1 AC3- 7.5 kW						
FC4C	1 x Rotary switch 415 V 32 A AC1 AC3- 11 kW						
FC4D	1 x Rotary switch & 1 x push button						
FC4E	1 x Rotary switch & 2 x push button						
FC4F	1 x Rotary switch & 1 x pilot light						
FC4G	1 x Rotary switch & 2 x pilot light						
FC4H	1 x Rotary switch & 1 x push butto	n 1 x pilot light					
<b>Control Station</b>	าร						

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Model No:	Configuration:
FC4I	1 x Push button
FC4J	2 x Push button
FC4K	3 x Push button
<b>Control Station</b>	ns Continued
Model No:	Configuration:
FC4L	1 x Push button x 1 x pilot light
FC4M	2 x Push button x 1 x pilot light
FC4N	1 x Push button x 2 x pilot light
FC4O	1 x Pilot light
FC4P	2 x Pilot light
FC4R	3 x Pilot light
FC4S	2 x Rotary Switch
FC4T	1 x Thermostat
FC4TC	1 x Thermostat C/W Heating Element to 2.5 kW
FC4U	1 x Rotary switch 415 V 40 A AC1 AC3- 15 kW
FC4V	1 x Rotary switch 415 V 55 A AC1 AC3- 22 kW
FC4X	4 x Push button
FC4Z	4 x Module combination of pushbutton & pilot light

**Variation 1** - This variation introduced the following changes:

i. The rease in ambient temperature range from -20°C to +40°C to -20°C to +55°C or -20°C to +60°C was approved, hence the following maximum allowable power dissipation and temperature classification:

Maximum	FC4/5		FC4 (including FC4-T)		FC4TC	
Ambient (°C)	Max Power (W)	T Class	Max Power (W)	T Class	Max Power (W)	T Class
+40°C	26 W	T6	22 W	T6	2.5 kW	T4
+55°C	16 W	T6	12 W	T6	2.5 kW	T3
+60°C	13 W	T6	10 W	T6	2.5 kW	T3

ii. Condition of Certification 17.4 is amended to reflect this change.

iii. To permit the FC4-A1 Model to be used in an IIC Gas Group, (with RTV 732 Silicone cemented joint only), hence coded Ex d IIC T6 IP 66.

iv. To permit RTV 732 as an alternative cementing material on the FC4-A1 Model.

v. To permit Cast 304 and 316L stainless steel as alternative materials of manufacture.

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As a result of these changes the marking is amended as follows:

FC4TC Model:	FC4-A1 Model	FC4-T Model:	All other Models:
Ex d IIB T4 IP 66	Ex d IIB T6 IP 66	Ex d IIB T6 IP 66	Ex d IIB T6 IP 66
Ex tD A21 IP 66 T130°C	Ex tD A21 IP 66 T80°C	Ex tD A21 IP 66 T80°C	Ex tD A21 IP 66 T80°C
Ta -20°C to +40°C	Ta -20°C to +40°C or +55°C or	Ta -20°C to +40°C or +55°C or	Ta -20°C to +40°C or +55°C or +60°C
Or	+60°C	+60°C	Or
Ex d IIB T3 IP 66	Or		Ex d IIC T6 IP 66
Ex tD A21 IP 66 T145°C	Ex d IIC T6 IP 66 (with RTV 732		Ex tD A21 IP 66 T80°C
Ta -20°C to +55°C	Silicone cemented joint only)		Ta -20°C to +40°C or +55°C or +60°C
Or	Ex tD A21 IP 66 T80°C		
Ex d IIB T3 IP 66	Ta -20°C to +40°C or +55°C or		
Ex tD A21 IP 66 T160°C	+60°C		
Ta -20°C to +60°C			

**Variation 2** - This variation introduced the following change:

i. The Applicants name and address was changed from Govan Industries Pty Ltd, 131-149 Link Drive, Campbellfield, Victoria, 3061, Australia to that currently shown in Sections 5 and 6 above.

Variation 3 - This variation introduced the following changes:

- i. The Notified Body number, responsible for quality, was changed to 0102.
- ii. The alternative manufacturing locations were removed from the description as they are now covered by the statement in section 6 of the certificate.

#### 14 **DESCRIPTIVE DOCUMENTS**

14.1 Drawings

Refer to Certificate Annexe.

#### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	25 September 2007	R51A16570C	The release of the prime certificate.
1	23 August 2012	R22241A/00	The introduction of Variation 1
2	10 July 2013	R30253A/00	The introduction of Variation 2
3	01 February 2017	R70089891A	<ul> <li>This Issue covers the following changes:</li> <li>EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. (In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)</li> <li>The introduction of Variation 3</li> </ul>

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## **EU-TYPE EXAMINATION CERTIFICATE**

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4	15th October 2019	1025	•	Transfer	of	certificate	Sira
				07ATEX11 Service to	33X fro CSA Gro	om Sira Certifi oup Netherlands	cation s B.V

### 15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 The maximum gap of cylindrical joints shall not exceed 0.15 mm for Group IIB applications.
- 15.2 The M6 cover fasteners shall have a minimum yield stress of 450 N/mm<sup>2</sup>.

# 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.

# **Certificate Annexe**



<b>Certificate Number:</b>	Sira 07ATEX1133X
Equipment:	FC4 Range of Junction Boxes, Control Stations and flameproof enclosures
Applicant:	Pepperl+Fuchs GmbH ( orporating the Govan brand)

## Issue 0

Drawing No.	Sheets	Rev.	Date (Sira Stamp)	Description
C4046	1 to 2	6	11 Sep 07	Control station & Junction box
C4047	1 of 1	5	11 Sep 07	Submission drawing for FC4 enclosure range box
C4105	1 of 1	4	11 Sep 07	General assembly & detail
C2610	1 of 1	5	11 Sep 07	Control station
C4061	1 of 1	5	11 Sep 07	General assembly & detail
C0774	1 of 1	9	29 Aug 07	Govan Module Range

#### Issue 1

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
C4046	1 to 2	8	23 Aug 12	Control station & Junction box
C4047	1 of 1	7	02 Aug 12	Submission drawing for FC4 enclosure range box
C4061	1 of 1	6	02 Aug 12	General assembly & detail
C4105	1 of 1	5	02 Aug 12	General assembly & detail
C2610	1 of 1	6	02 Aug 12	Control station

#### Issue 2

Drawing	Sheets	Rev.	Date (Sira Stamp)	Description
GC 0654	1 to 2	0	10 Jul 13	Compliance Name Plate detail for company name
				change

**Issue 3** No new Drawings were introduced.

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