1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 17ATEX2261X** Issue: **0**

4 Equipment: **Pulse Card and Capacitance Level Probes or Capacitance Sensors PMC2800, PMC2800-TMP**

5 Applicant: **Arjay Engineering Limited**

6 Address: 2851 Brighton Rd
Oakville
Ontario L6H 6C9
Canada

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 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 60079-0:2012/A11:2013 EN 60079-11:2012

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

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 1G
Ex ia IIC T4 Ga
Ta = -40°C to +55°C

Project Number 7070149518

C Ellaby
Deputy Certification Manager

Sira Certification Service
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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE **Sira 17ATEX2261X**
Issue 0

13 **DESCRIPTION OF EQUIPMENT**

Models PMC2800 and PMC2800-TMP Pulse Cards and Capacitance Level Probes or Capacitance Sensors, rated 15.8 V, 150 mA, 0.593 W, measure the capacitance of probes or sensors and send a conditioned pulsed output signal to an external controller. PMC2800 and PMC2800-TMP pulse cards are powered through certified linear barriers. The entity parameters for PMC2800 or PMC2800-TMP cards are as follows:

Pins 2 & 3 of connector J1			Pin 4 of connector J1 (applicable to PMC2800-TMP only)		
Ui	=	15.8 V	Ui	=	8.6 V
Ii	=	150 mA	Ii	=	0 mA
Pi	=	593 mW	Pi	=	0 mW
Ci	=	0.374 µF	Ci	=	0 µF
Li	=	1.3 mH	Li	=	1.3 mH

Pin 1 of connector J1 is connected to Teflon covered metallic capacitive probes or to remote capacitive sensors with a maximum capacitance of 5000pF including cable.

14 **DESCRIPTIVE DOCUMENTS**

14.1 **Drawings**

Refer to Certificate Annexe.

14.2 **Associated Sira Reports and Certificate History**

Issue	Date	Report number	Comment
0	18 September 2017	R70149518A	The release of the prime certificate.

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

15.1 PMC2800 or PMC2800-TMP encapsulated pulse cards shall be installed within metallic enclosures, or metallic junction box, or non-metallic enclosures that shall meet IP20 requirements.

15.2 For enclosure models made of Aluminum, in rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly since the equipment is installed in a Division 1/ Zone 0 location.

15.3 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions can cause build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.

15.4 Pins 2 & 3 of connector J1 to be connected to certified linear barrier only.

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.

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17 **CONDITIONS OF MANUFACTURE**

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

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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Certificate Annexe

Certificate Number: **Sira 17ATEX2261X**

Equipment: **Pulse Card and Capacitance Level Probes or Capacitance Sensors PMC2800, PMC2800-TMP**

Applicant: **Arjay Engineering Limited**

Issue 0

Drawing no.	Sheets	Rev.	Date (Sira Stamp)	Description
20140910	1 of 1	8	29 Aug 17	PMC2800/PMC2800-TMP with Intrinsic Safety (IS) Generic Electrical Drawing
20140914	1 of 1	5	29 Aug 17	PMC2800 Series Pulse Card with Intrinsic Safety (IS) Generic Electrical Drawing 1
20140913	1 of 1	3	29 Aug 17	PMC2800 Series Pulse Card with Intrinsic Safety (IS) Generic Electrical Drawing 2
20140951	1 of 1	4	29 Aug 17	PMC2800/PMC2800-TMP Marking Label
2800_PMC_SCH_0300	1 of 1	3	29 Aug 17	PMC2800/PMC2800-TMP Schematic
2800_PMC_PCB_0300	1 to 10	3	29 Aug 17	PMC2800 PCB Layout
2800_PMC_BOM_0300	1 to 2	3	29 Aug 17	PMC2800 PCB Bill of Material
2800_PMC_TEMP_BOM_0300	1 to 2	3	29 Aug 17	PMC2800-TMP PCB Bill of Material
20140960	1 of 1	3	29 Aug 17	PMC2800 Potted PCB Information
A00744	1 of 1	5	29 Aug 17	PMC2800 Completed pulse card
A00766	1 of 1	2	29 Aug 17	PMC2800-TMP Completed pulse card
PMC2800 User Manual	1 to 14	2	29 Aug 17	PMC2800/PMC2800-TMP User Manual

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