



# 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 CSA 17.0019X

Issue No: 0

Certificate history:

[Issue No. 0 \(2017-09-07\)](#)

Status: **Current**

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Date of Issue: **2017-09-07**

Applicant: **Arjay Engineering Limited**  
2851 Brighton Rd, OAKVILLE Ontario L6H 6C9  
**Canada**

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

*Optional accessory:*

Type of Protection: **Ex ia**

Marking:  
Ex ia IIC T4 Ga  
-40°C ≤ Tamb ≤ + 55°C

*Approved for issue on behalf of the IECEx  
Certification Body:*

Dorin Stochitoiu

*Position:*

Technical Advisor

*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](#).

Certificate issued by:

**CSA Group**  
178 Rexdale Boulevard  
Toronto, Ontario M9W 1R3  
Canada





# IECEX Certificate of Conformity

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Manufacturer: **Arjay Engineering Limited**  
2851 Brighton Rd, OAKVILLE Ontario L6H 6C9  
**Canada**

Additional 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 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0  
**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*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:

[CA/CSA/ExTR15.0032/00](#) [CA/CSA/ExTR15.0032/01](#)

Quality Assessment Report:

[CA/CSA/QAR16.0011/00](#)



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## Schedule

### EQUIPMENT:

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

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.

See Annex to IECEx CSA 17.0019X Issue 0 for further details.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

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

### Annex:

[Annex to IECEx CSA 17.0019X Issue 0.pdf](#)



IECEx Certificate of Conformity  
 Certificate No.:  
 IECEx CSA 17.0019X Issue 0  
 Annex  
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**Applicant:**

Arjay Engineering Limited, 2851 Brighton Rd, OAKVILLE Ontario L6H 6C9, Canada

**Electrical Apparatus:**

PMC2800 and PMC2800-TMP Pulse Card and Capacitance Level Probes or Capacitance Sensors

**General Product Information:**

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 follow.

PMC2800/PMC2800-TMP Pulse Card Entity Parameters

Pins 2 & 3 of connector J1	Pin 4 of connector J1 (applicable to PMC2800-TMP only)
U <sub>i</sub> = 15.8 V	U <sub>i</sub> = 8.6 V
I <sub>i</sub> = 150 mA	I <sub>i</sub> = 0 mA
P <sub>i</sub> = 593 mW	P <sub>i</sub> = 0 mW
C <sub>i</sub> = 0.374 µF	C <sub>i</sub> = 0 µF
L <sub>i</sub> = 1.3 mH	L <sub>i</sub> = 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.

**Specific Conditions of Use:**

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