



# Certificate of Compliance

**Certificate:** 70041617 (056812\_0\_000)

**Master Contract:** 150254

**Project:** 70041617

**Date Issued:** 2016-11-04

**Issued to:** Arjay Engineering Limited  
2851 Brighton Rd  
Oakville, Ontario L6H 6C9  
CANADA  
**Attention:** Greg Reeves

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*



**Issued by:** Behzad Nejad  
Behzad Nejad, P.Eng.

## PRODUCTS

CLASS - C225802 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations-

CLASS - C225882 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards

Ex db IIC T5 Gb

Class I, Zone 1, AEx db IIC T5 Gb

- Capacitance Controller model 2880 Series, Capacitance Controller model 2880R Series Controller module, Ambient temperature: -20°C to +55°C, IP65;
- Arjay probe; Ambient temperature: -40°C to +55°C, IP65 (For probe process temperature, see Note 1).

Model	Input rated
Capacitance Controller model 2880 Series	100-240Vac, 50-60Hz, Max. 0.15A
	DC 12V model: Input 12Vdc, +15%~-10% tolerance, Max. 0.25A;
	DC 24V model: Input 24Vdc, +15%~-10% tolerance, Max. 0.25A
Capacitance Controller model 2880R Series	100-240Vac, 50-60Hz, Max. 0.15A



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	DC 12V model: Input 12Vdc, +15%~-10% tolerance, Max. 0.25A;
	DC 24V model: Input 24Vdc, +15%~-10% tolerance, Max. 0.25A
Arjay probe heavy duty Arjay probe standard duty Arjay flexible probe	The Arjay capacitance probes model P(1)-(2)-(3)-(4)-(5) comes in various configurations as denoted by the suffixes. (1) denotes the probe type, (2) denotes the process entrance fitting, (3) denotes the length specified in mm, (4) denotes probe options, (5) denotes if custom or standard configuration. Model # PROC-P3-X series is a custom level probe whereas X specifies the length.

**Notes:**

1. Process temperature for the standard and heavy duty probes are -60°C to +200°C and for flexible probe is -60°C to +100°C. It is end-user's responsibility to ensure that ambient around the Capacitance Controller and ARJAY Probe does not exceed the permitted ambient of 55°C.
2. Maximum process pressure is 1500psi/ 10342KPa.
3. All entry devices shall be of a type specified in the certification documents having an appropriate component Certificate and suitable for the conditions of use, or be specifically certified with the apparatus.
4. Flameproof joints are not to be repaired in the field. If the flamepath is damaged, the enclosure is to be removed from service and replaced with a new properly working enclosure.



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**APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 0-M91 (R2006)	General Requirements – Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 61010-1-12	Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements 3 <sup>rd</sup> edition of CAN/CSA-C22.2 No. 61010-1, 3 <sup>rd</sup> edition of ANSI/ISA 61010-1, 3 <sup>rd</sup> edition of UL 61010-1
CAN/CSA-C22.2 No. 60079-0:15	Explosive Atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-1:16	Electrical apparatus for explosive gas atmospheres - Part 11: Equipment protection by flameproof enclosures “d”
UL 61010-1, 3rd Edition,	Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements
ANSI/UL 60079-0:13	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
ANSI/UL 60079-1:15	Electrical apparatus for explosive gas atmospheres - Part 11: Equipment protection by flameproof enclosures “d”

**MARKINGS**

Name-Plate:

- Submitter's identification or trademark;
- Product designation or equivalent;
- Electrical ratings;
- Date code or equivalent;
- CSA monogram with C-US indicator;
- Name or Mark of the certificate issuer, year and certificate number (CSA 16.70041617);
- Maximum process pressure is 1500psi/10432KPa
- Hazardous locations designation as below:
  - Ex db IIC T4 Gb
  - Class I, Zone 1, AEx db IIC T4 Gb
- Ambient temperature: -20°C to +55°C  
(Capacitance Controller model 2880 Series/ 2880R series, Ambient temperature: -20°C to +55°C, IP65)  
(Arjay probe; Ambient temperature: -40°C to +55°C, IP65 (for probe process temperature, see Note 1))
  
- WARNING - EXPLOSION HAZARD - DO NOT OPEN WHEN ENERGIZED
  
- WARNING – DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE IS PRESENT
  
- WARNING - A SEAL SHALL BE INSTALLED WITHIN 50 mm OF THE ENCLOSURE



## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
70041617	2016-11-04	North American Certification for ARJAY capacitance controller series 2800 Ex d IIC T5 Gb/ Class I, Zone 1, AEx db IIC T5 Gb.