



# Certificate of Compliance

**Certificate:** 70120183

**Master Contract:** 219995 (219995)

**Project:** 70120183

**Date Issued:** 2017-07-12

**Issued to:** R.C. Systems Co., Inc.  
8621 Hwy 6  
Hitchcock, Texas 77563  
USA

**Attention:** Roger Carter

*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:** *Konstantin Rybalko*  
Konstantin Rybalko

## PRODUCTS

**CLASS - C482802** - SIGNAL APPLIANCES-Toxic Gas Detection Instruments - For Hazardous Locations

**CLASS - C482882** - SIGNAL APPLIANCES-Toxic Gas Detection Instruments-For Hazardous Locations.

Certified to U.S. Standards

### **Class I, Div. 1, Groups A, B, C and D, T4;**

Model SenSmart 4000 Toxic Gas Stand Alone Transmitter housed in Limatherm XP enclosure, input rated 10 to 30V dc, 10 watts max. Explosion Proof with Sensor Head 10-0247 with sensor electronics P/Ns 10-0242, 10-0415, 10-0272IR, 10-0279, 10-0381, 10-0392 or 10-0537.

Model No. SenSmart 5000 Toxic Gas Stand Alone Transmitter housed in Limatherm XP enclosure, input rated 10 to 30V dc, 10 watts max. Explosion Proof with Sensor Head 10-0247 with sensor electronics P/Ns 10-242, 10-0381, 10-0415, 10-0272IR, 10-0392, 10-0279 or 10-0537.

Note: Sensor may be fitted remotely when transmitter is equipped with 10-0531 or 10-0532 option boards, wired to 10-2080 Remote Sensor Interface PCB mounted in separate Transmitter Housing with sensor head.

Optional alarm contacts rated: 5A @ 30 VDC & 250 VAC.

Ambient Temperature -40°C to +60°C.



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**Notes:**

1. For Canadian Installations device in metal enclosure shall be bonded to ground according to Section 18 of the CEC, Part 1.
2. For US Installations device in metal enclosure shall be bonded to ground according to Article 501 of the NEC.
3. Conduit seal shall be installed within 18” from the enclosure.
4. For the remote installation of the sensor conduit seals shall be installed within 18” from both enclosures – the controller and the sensor.
5. Measures shall be taken to avoid an ignition due to impact for equipment in aluminum enclosure.
6. Shall be supplied by a Class 2 or limited-energy source according to CSA 61010-1-12 / ISA 61010-1 3<sup>rd</sup> Ed.

**Class I, Div. 2, Groups A, B, C and D, T4;**

Model SenSmart 4000 Toxic Gas Stand Alone Transmitter housed in Limatherm XP enclosure with 10-0247 or 10-0247IS Sensor Head or RC Systems Inc. Polycarbonate 55N5006NC(f1) enclosure, input rated 10 to 30V dc, 10 watts max. May be used with sensor electronics P/Ns 10-0415, 10-0392, 10-0272IR, 10-0279 or 10-0381.

Model SenSmart 5000 Toxic Gas Stand Alone Transmitter housed in Limatherm XP enclosure with 10-0247 or 10-0247IS Sensor Head or RC Systems Inc. Polycarbonate 55N5006NC(f1) enclosure, input rated 10 to 30V dc, 10 watts max. May be used with sensor electronics P/Ns 10-0381, 10-0415, 10-0272IR, 10-0392 or 10-0279.

Note: Sensor may be fitted remotely when transmitter is equipped with 10-0531 or 10-0532 option boards, wired to 10-2080 Remote Sensor Interface PCB mounted in separate Transmitter Housing with sensor head.

Optional alarm contacts rated: 5A @ 30 Vdc & 250 Vac.

Model SenSmart 8000 and SenSmart 8000X Toxic Gas Stand Alone Wireless Transmitter housed either in Limatherm XP enclosure with 10-0247 or 10-0247IS Sensor Head or RC Systems Inc. Polycarbonate 55N5006NC (f1) enclosure. Input rated 10 to 30V dc, 10 watts max (SenSmart 8000X) or powered from integral 3.6 Vdc lithium battery (SenSmart 8000). May be used with sensor electronics P/Ns 10-0272IR, 10-0381, 10-0415, 10-0392 or 10-0279.

Note: Sensor may be fitted remotely when transmitter is equipped with 10-0531 or 10-0532 option boards, wired to 10-2080 Remote Sensor Interface PCB mounted in separate Transmitter Housing with sensor head.

Ambient Temperature -40°C to +60°C.

**Notes:**

1. For Canadian Installations the device in metal enclosure shall be bonded to ground according to Section 18 of the CEC, Part 1.
2. For US Installations the device in metal enclosure shall be bonded to ground according to Article 501 of the NEC.



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3. Polymeric enclosures manufactured by RC Systems with threaded openings are not suitable for use with rigid conduit. Wiring methods suitable for Division 2 / Zone 2 Hazardous Locations subject to acceptance by local jurisdictions having authority shall be used.
4. Measures shall be taken to avoid an ignition due to impact for equipment in aluminum enclosure.
5. Sensor electronics 10-0242 with Catalytic Bead sensor cell shall only be used in explosion proof enclosure.
6. Externally powered models shall be supplied by a Class 2 or limited-energy source according to CSA 61010-1-12 / ISA 61010-1 3<sup>rd</sup> Ed.

### **APPLICABLE REQUIREMENTS**

- |                                      |   |
|--------------------------------------|---|
| C22.2 No 61010-1-2012                | - Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements                  |
| ANSI/ISA 61010-1 3 <sup>rd</sup> Ed. | - Electrical Equipment for Measurement, Control, and Laboratory Use; Part 1: General Requirements   |
| C22.2 NO. 213 / ISA-12.12.01: 2016   | - Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations |
| C22.2 No. 30-M1986                   | - Explosion-Proof Enclosures for Use in Class I Hazardous Locations   |
| UL 1203, 4 <sup>th</sup> Ed.         | - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations                                  |



## *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>
70120183	2017-07-12	Certification of toxic gas detectors: Model SenSmart 4000 and 5000: Class I, Div. 1, Groups A, B, C and D; Model SenSmart 4000, 5000, 8000 and 8000X: Class I, Div. 2, Groups A, B, C and D