Certificate of Compliance

Certificate:	1655492	**Master Contract:**	219995
Project:	80004486	**Date Issued:**	2019-05-24

Issued To: **R.C. Systems Co., Inc.**
8621 Hwy 6
Hitchcock, Texas, 77563
United States

Attention: Joshua 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 - C4828 01 - SIGNAL APPLIANCES - Combustible Gas Detection Instruments-For Hazardous
Locations
CLASS - C4828 81 - SIGNAL APPLIANCES-Combustible Gas Detection Instruments For Hazardous
Location-Certified to U.S. Standards

Class I, Div. 1, Groups A, B, C and D;
Class I, Div. 2, Groups A, B, C and D:

- Model No. ST-48, "SenSmart 2000 / 3000" Combustible Gas Stand Alone Transmitter Explosion Proof with 10-0247 Sensor Head when fitted with 10-9071 sensor electronics; may also be fitted with additional Toxic Gas sensor electronics P/Ns 10-0242, 10-0371, 10-0272EC, 10-0272IR, 10-0279, 10-0381 within 10-0247 Sensor Head using p/n 0010-1200 "Y' fitting. Housed in Limatherm XP enclosure, input rated 10 to 30V dc, 10 watts max. Temperature Code: T4.
Ambient Temperature -40°C to +60°C. Optional alarm contacts rated: 5A @ 30 VDC & 250 VAC.

CLASS - C4828 02 - SIGNAL APPLIANCES - Toxic Gas Detection Instruments - For Hazardous Locations
CLASS - C4828 82 - SIGNAL APPLIANCES - Toxic Gas Detection Instruments - For Hazardous Locations -
CERTIFIED TO U.S. REQUIREMENTS

Class I, Div. 1, Groups A, B, C and D:

- Model No. 10-0248, Toxic Gas Stand Alone Transmitter, input rated 10 to 30V dc, 0- 25mA. Explosion proof, Intrinsically safe only when installed per Drawing # 11-0100 with entity parameters as follows: Vmax: 30V, I max: 100 mA, Ci: 0, Li: 0, Pmax: 1.2W. Temperature Code T4 (for IS versions only). Ambient Temperature -40°C to +60°C.

- Model No. 10-0248IS,Toxic Gas Stand Alone Transmitter, input rated 10 to 30 Vdc, 0- 25mA; Intrinsically safe when installed per Drawing # 11-0100 with entity parameters as follows: Vmax: 30V, I max: 100 mA, Ci: 0, Li: 0, Pmax: 1.2W. Temperature Code T4. Ambient Temperature -40°C to +60°C.

- Model No. 10-0248A or "SenSmart 1000", Toxic Gas Stand Alone Transmitter, input rated 10 to 30V dc, 0-25mA. Explosion proof in stainless steel enclosure with flame arrestor installed. Ambient Temperature -40°C to +60°C.

- Model No. ST-48, "SenSmart 2000 / 3000" Toxic Gas Stand Alone Transmitter housed in Limatherm XP enclosure, input rated 10 to 30V dc, 10 watts max. Intrinsically safe (entity) with 10-0247IS Sensor Head (except with 10-0233/10-0234 Relays option) with sensor electronics P/Ns 10-0242, 10-0371, 10-0272EC, 10-0272IR, 10-0279, 10-0381 and when installed per Drawing # 11-0100. Entity parameters: Vmax: 30V, I max: 100 mA, Ci: 0, Li: 0, Pmax: 1.2W. Or Explosion Proof with 10-0247 Sensor Head.
Temperature Code T4. Ambient Temperature -40°C to +60°C. Optional alarm contacts rated: 5A @ 30 VDC & 250 VAC.
Note: Only Explosion Proof versions may be fitted with two sensor heads using p/n 0010-1200 "Y' fitting.

Model No. ST-44, "SenseNet", "SenSmart 6000" 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, 10-0272EC, 10-0272IR, 10-0392 and 10-0279. Ambient Temperature -40°C to +60°C. Optional alarm contacts rated: 5A @ 30 VDC & 250 VAC. Note: May be fitted locally with two sensor heads using p/n 0010-1200 "Y' fitting or remotely when equipped with 10-0388 RS-485 / Relay option, wired to 10-2080 Remote Sensor Interface PCB mounted in Transmitter Housing with sensor head.

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

- Model No. 10-0248A or "SenSmart" 1000, Toxic Gas Stand Alone Transmitter, input rated 10 to 30V dc, 0-25mA. In stainless steel enclosure with flame arrestor not installed or in polymeric Polycarbonate 55N5006NC(f1) injection moulded enclosure manufactured by RC Systems. Ambient Temperature -40°C to +60°C.

Model No. ST-48, "SenSmart 2000 / 3000" Toxic Gas Stand Alone Transmitter housed in Limatherm XP or RC Systems Inc. Polycarbonate 55N5006NC(f1) enclosure molded with 5VA/V0 flame rated polycarbonate, input

rated 10 to 30V dc, 10 watts max. Ambient Temperature -40°C to +60°C. Optional alarm contacts rated: 5A @ 30 Vdc & 250 Vac; Temperature Code: T4. May be used with sensor electronics P/Ns 10-0242, 10-0371, 10-0272EC, 10-0272IR, 10-0279 and 10-0381.
May be fitted with two sensors remotely when equipped with 10-0454 I2C Remote Sensor option.
Explosion proof version may be fitted with p/n 0010-1200 "Y' fitting and additional Toxic Gas sensor. Sensor electronics housed within 10-0247 Sensor Head.

Model No. ST-44, "SenseNet", "SenSmart 6000" Toxic Gas Stand Alone Transmitter housed in Limatherm XP or RC Systems Inc. Polycarbonate 55N5006NC(f1) enclosure molded with 5V/V0 flame rated polycarbonate, input rated 10 to 30V dc, 10 watts max. Ambient Temperature -40°C to +60°C. Optional alarm contacts rated: 5A @ 30 Vdc & 250 Vac. Temperature Code: T4. Note: May be fitted with two sensors remotely when equipped with 10-0388 RS-485 / Relay option, wired to 10-2080 Remote Sensor Interface PCB mounted in Transmitter Housing with sensor head. May be used with sensor electronics P/Ns 10-242, 10-0381, 10-0415, 10-0272EC, 10-0272IR, 10-0392 and 10-0279.
Explosion proof version may be fitted locally with two sensor heads using p/n 0010-1200 "Y" fitting.

Model No. WCM "WaveCast", "SenSmart 7000" Toxic Gas Stand Alone Wireless Transmitter housed either in Limatherm XP enclosure (WCMAL) or RC Systems Inc. Polycarbonate 55N5006NC (f1) enclosure (WCMPY). Input power is from integral 3.6 Vdc lithium battery 10 watts max. Ambient Temperature: -40°C to +60°C. All circuits SELV, Temperature Code: T4. Note: May be fitted with two sensors remotely when equipped with 10-0411 (WCMAL) or 10-0454 (WCMPY) I2C Remote Sensor options.
May be used with sensor electronics P/Ns 10-242, 10-0381, 10-0415, 10-0272EC, 10-0392 and 10-0279.

Note:

Polymeric enclosures manufactured by RC Systems with threaded openings are not suitable for use with rigid conduit. Wiring methods suitable for Division 2 Hazardous Locations subject to acceptance by local jurisdictions having authority shall be used.

APPLICABLE REQUIREMENTS

CAN/CSA Standard C22.2 No. 0-M91	General Requirements - Canadian Electrical Code, Part II
CSA Std. C22.2 No. 30-M1986	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CSA Std. C22.2 No. 142-M1987	Process Control Equipment
CAN/CSA STD C22.2 No. 157-92	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
UL Std. No. 1203, Fourth Edition	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
UL Std. No. 913, Sixth Edition	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous Locations
UL Std. No. 916, Fourth Edition	Energy Management Equipment
UL Std. No. 886, Tenth Edition	Outlet boxes and fittings for Use in Hazardous (Classified) Locations
CSA-C22.2 No. 213-M1987	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
ANSI/ISA-12.12.01-2010	Non-Incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations.
C22.2 No 152-M1984 (R2011)	Combustible gas detection instruments
FM 6310 / 6320-2001	Approval Standard for Combustible Gas Detectors

CSA GROUP™

Supplement to Certificate of Compliance

Certificate: 1655492   **Master Contract:** 219995

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

Product Certification History

Project	Date	Description
80004486	2019-05-24	Update to report 1655492 for addition of alternate batteries for Model WCM.
70148562	2017-07-25	Update to report 1655492 for correction in the product listing.
70132074	2017-06-02	Update to report 1655492 to include alternate Model 10-0248A / "SenSmart" 1000 accommodating GEN II sensor cells.
70116590	2017-03-01	Update to report 1655492 to include alternate potting compound for sensor heads 10-0247 and 10-0247IS.
70106045	2016-12-09	Update to Report 1655492 to include C22.2 No 152 performance marking for Model ST-48, addition of GEN I Cat Bead Combustible Gas Detection sensor 10-9071 suitable for use with ST-48, addition of toxic gas GEN II EC Series 7 smart sensor and drawings update for minor construction changes.
70035655	2015-10-14	Update to Report 1655492 for addition of Class I, Div. 2 for Models St -44 & ST-48 with alternate plastic enclosure with Div. 2 approved cable connection
70020578	2015-03-31	Addition of WaveCast (WCMAL, WCMPY) toxic gas standalone wireless transmitter Class I, Div. 2, Lithium battery operated. No external wiring to WaveCast.
2620981	2013-07-10	Update to report 1655492 to add new model ST-44 and updated ST-48 drawings.
2118739	2009-04-09	Update of report 1655492 to add option to 10-0233 I/O power supply board.
1981085	2007-12-21	Update to report 1655492 to include alternate CSA certified explosion-proof enclosure
1655492	2005-09-30	Original Certification