

# CERTIFICATE OF CONFORMITY



1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** FM17CA0152X
3. **Equipment:** Load Cells  
(Type Reference and Name) Load Cell Summing Junctions
4. **Name of Listing Company:** Coti Global Sensors Mfg Inc
5. **Address of Listing Company:** 5699 Hwy 53  
Harvest AL 35749  
United States
6. The examination and test results are recorded in confidential report number:  
3026213 dated 15<sup>th</sup> January 2007
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:  
C22.2 No. 60079-0:2011, C22.2 No. 60079-11:2014, C22.2 No. 61010-1:2012
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

**Certificate issued by:**

J.E. Marquedant  
VP, Manager - Electrical Systems

1 April 2022

Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

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10. **Equipment Ratings:**

See Annex

11. **The marking of the equipment shall include:**

See Annex

12. **Description of Equipment:**

**General** - The Load Cell is a transducer for the measurement of force or weight, based on a strain gauge bridge. This transducer converts a force into a differential electrical signal. The Load Cell Summing Junction is used for trimming/balancing the connection of multiple Load Cell transducers in multiple force or weight applications.

**Construction** - The strain gauge circuitry for the Load Cell is encapsulated into a steel or stainless-steel enclosure depending upon model. The circuitry of the Load Cell Summing Junction is enclosed in a plastic or stainless-steel enclosure depending upon model.

See Annex for model codes

**Ratings** – The Load Cell and Load Cell Summing Junction operate at voltages up to 15 volts applied to the strain gauge's bridge circuitry. The ambient operating temperature range of the Load Cell is -20 °C to 60 °C. Also see the Annex.

13. **Specific Conditions of Use:**

See Annex

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

15. **Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

16. **Certificate History**

Details of the supplements to this certificate are described below:

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Date	Description
15 <sup>th</sup> January 2007	Original Issue.
25 <sup>th</sup> June 2008 to 27 <sup>th</sup> June 2014	<u>Supplement 1 to 10:</u> Report Reference: – 3048686 dated 27 <sup>th</sup> June 2014. Description of the Change: Model extension
28 <sup>th</sup> September 2017	<u>Supplement 11:</u> Report Reference: – RR210824 dated 28 <sup>th</sup> September 2017. Description of the Change: Model extension
24 <sup>th</sup> August 2018	<u>Supplement 12:</u> Report Reference: – RR215276 dated 24 <sup>th</sup> August 2018. Description of the Change: Model extension
24 <sup>th</sup> July 2019	<u>Supplement 13:</u> Report Reference: – RR219410 dated 24 <sup>th</sup> July 2019. Description of the Change: Model extension
17 <sup>th</sup> July 2020	<u>Supplement 14:</u> Report Reference: – RR224206 dated 17 <sup>th</sup> July 2020. Description of the Change: Model extension Addition of CG-TWM, and CG-RLC to Canistor model a, Load Cells.
25 <sup>th</sup> August 2021	<u>Supplement 15:</u> Report Reference: – RR229178 dated 25 <sup>th</sup> August 2021. Description of the Change: Addition of load cell models CG-CP24 and Railline-CG-RXR. Minor drawing changes not affecting safety.
1 <sup>st</sup> April 2022	<u>Supplement 16:</u> Report Reference: - RR232118 dated 1 <sup>st</sup> April 2022. Description of the Change: Addition of S Beams Model CG-ITCM-1, CGSB-MT and CGSB-SS-MT load cells. Addition of ABS Summing Junction enclosure option. Related minor drawing changes. Removal of Standard C22.2 No. 157-92:2012. Reformatted Certificate.

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## **ANNEX**

### **Model a-bc-d. Load Cell Summing Junctions**

#### **Equipment ratings**

Intrinsically Safe for use in: Class I, Division 1, Groups A, B, C, D; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, Division 1, Groups C, D; T4 Ta = -20°C to +60°C; 1500-B-01 System.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; 1500-B-01 System.

#### **Equipment markings**

##### **Intrinsically Safe**

Class I, Division 1, Groups A, B, C, D; T4 Ta = -20°C to +60°C; Entity

Class I, Zone 0, AEx ia IIC; T4 Ta = -20°C to +60°C; Entity

Refer to Control Drawing 1500-B-01

##### **Intrinsically Safe**

Class I, Division 1, Groups C, D; T4 Ta = -20°C to +60°C; System

Class I, Zone 0, AEx ia IIB; T4 Ta = -20°C to +60°C; System

Refer to Control Drawing 1500-B-01

#### **Electrical Ratings**

*Load Cell Summing Junctions* are powered by an intrinsically safe barrier with the following entity parameters:

$U_i = 15\text{Vdc}$ ,  $I_i = 600\text{ mA}$ ,  $P_i = 1.3\text{ W}$ ,  $C_i = 0.0\text{ uF}$ ,  $L_i = 0.0\text{mH}$

*Load Cell Summing Junctions* are supplied voltages up to 15 volts, with an ambient operating temperature range of -20 °C to 60 °C.

#### **Model Code**

a = Enclosure: ABS, FP or SS

b = Type: 10, 30, 34, 40, 45, 65 or 85

c = Trim: AE or AS

d = Suppression: SP or None

#### **Specific Conditions of Use:**

1. Potential Electrostatic Charging Hazard for enclosure constructed from plastic. To prevent the risk of electrostatic sparking the plastic surface should only be cleaned with a damp cloth.

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# SCHEDULE



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## **Canister Model a, Load Cells.**

### **Equipment ratings**

Intrinsically Safe for use in: Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 System.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; 1500-B-01 System.

### **Equipment markings**

Intrinsically Safe

Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; Entity

Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; Entity

Refer to Control Drawing 1500-B-01 for Installation.

Intrinsically Safe

Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; System

Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; System

Refer to Control Drawing 1500-B-01 for Installation.

### **Electrical Ratings**

*Canister Model a, Load Cells* are powered by an intrinsically safe barrier with the following entity parameters:

$U_i = 15\text{Vdc}$ ,  $I_i = 600\text{ mA}$ ,  $P_i = 1.3\text{ W}$ ,  $C_i = 0.0\text{ uF}$ ,  $L_i = 0.0\text{mH}$

*Canister Model a, Load Cells* are supplied voltages up to 15 volts, with an ambient operating temperature range of -20 °C to 60 °C.

### **Model Code**

a = Type: CG-21, CG-26S, CG-26S1, CG-26S1-65114, CG-26S2, CG-26S3, CG-26S3-10, CG-26S4, CG-26S5, CG-26S6, CG-26S7, CG-31, CG-33, CG-62, CG-63, CG-92, CG-93, CG-94, CG-94M, CG-175, CG-408M, CG-412, CG-412M, CG-1210, CG-1210-1, CG-1211, CG-CC22, CG-CP22, CG-CP24, CG-JRT, CG-SP9, CG-SP9M, CG-TC42 or CG-TC43, CG-TWM, or CG-RLC

### **Specific Conditions of Use:**

None

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# SCHEDULE



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## **Double Ended Model a, Load Cells.**

### **Equipment ratings**

Intrinsically Safe for use in: Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 System.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; 1500-B-01 System.

### **Equipment markings**

Intrinsically Safe

Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; Entity

Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; Entity

Refer to Control Drawing 1500-B-01 for Installation.

Intrinsically Safe

Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; System

Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; System

Refer to Control Drawing 1500-B-01 for Installation.

### **Electrical Ratings**

*Double Ended Model a, Load Cells* are powered by an intrinsically safe barrier with the following entity parameters:

$U_i = 15Vdc$ ,  $I_i = 600\text{ mA}$ ,  $P_i = 1.3\text{ W}$ ,  $C_i = 0.0\text{ uF}$ ,  $L_i = 0.0mH$

*Double Ended Model a, Load Cells* are supplied voltages up to 15 volts, with an ambient operating temperature range of -20 °C to 60 °C.

### **Model Code**

a = Type: CG-03M, CG-16, CG-16M, CG-16-SSW, CG-58, CG-58-1, CG-408M, CG-5103, CG-5103-SSW, CG-5223, CG-5223M, CG-5223-SSW, CG-80210, CG-BE40, CG-BE40M, CG-BE40-SSW, CG-BLC-2, CG-DB50000S, CG-Lodec, CG-ML600-LP, CG-ML1200, CG-SLS, CG-SLS-SS, CG-STR, CG-STR-1, CG-STR-1-SSW, CG-STR-SSW, CG-TSA or CG-WBM(NONE, -W, -X, -Z), Railline-CG-RXR

### **Specific Conditions of Use:**

None

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# SCHEDULE



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## **S Beams Model a, Load Cells.**

### **Equipment ratings**

Intrinsically Safe for use in:

Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.

Intrinsically Safe for use in:

Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 System.

Intrinsically Safe for use in:

Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.

Intrinsically Safe for use in:

Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; 1500-B-01 System.

### **Equipment markings**

Intrinsically Safe

Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; Entity

Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; Entity

Refer to Control Drawing 1500-B-01 for Installation.

Intrinsically Safe

Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; System

Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; System

Refer to Control Drawing 1500-B-01 for Installation.

### **Electrical Ratings**

S Beams Model a, Load Cells are powered by an intrinsically safe barrier with the following entity parameters:

$U_i = 15\text{Vdc}$ ,  $I_i = 600\text{ mA}$ ,  $P_i = 1.3\text{ W}$ ,  $C_i = 0.0\text{ uF}$ ,  $L_i = 0.0\text{mH}$

S Beams Model a, Load Cells are supplied voltages up to 15 volts, with an ambient operating temperature range of -20 °C to 60 °C.

### **Model Code**

a = Type: CG-ITCM, CG-ITCM-1, CGSS, CGSB, CGSB-1, CGSB-SS, CGSB-SSW, CGSB-MT, CGSB-SS-MT, CSS10077, CSS10078 or CSS10079

### **Specific Conditions of Use:**

None

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## **Single Ended Beams Model a, Load Cells.**

### **Equipment ratings**

Intrinsically Safe for use in: Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 System.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; 1500-B-01 System.

### **Equipment markings**

#### **Intrinsically Safe**

Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; Entity  
Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; Entity  
Refer to Control Drawing 1500-B-01 for Installation.

#### **Intrinsically Safe**

Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; System  
Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; System  
Refer to Control Drawing 1500-B-01 for Installation.

### **Electrical Ratings**

*Single Ended Beams Model a, Load Cells* are powered by an intrinsically safe barrier with the following entity parameters:  $U_i = 15\text{Vdc}$ ,  $I_i = 600\text{ mA}$ ,  $P_i = 1.3\text{ W}$ ,  $C_i = 0.0\text{ uF}$ ,  $L_i = 0.0\text{mH}$

*Single Ended Beams Model a, Load Cells* are supplied voltages up to 15 volts, with an ambient operating temperature range of -20 °C to 60 °C.

### **Model Code**

a = Type: CG-8HL, CG-23, CG-23-1, CG-23-LP, CG-23M, CG-23-SS, CG-23-SS-1, CG-23-SSW-XX, CG-59M, CG-82M, CG-30410, CG-60030, CG-60040, CG-743, CG-745, CG-BBS, CG-BLC-C, CG-BLC-T, CG-BLF, CG-F1, CG-HMT, CG-LC22, CG-MBB, CG-MK15, CG-RTM, CG-SB250, CG-SB2L, CG-SB2M, CG-SB3, CG-SB3-1, CG-SB4, CG-SBF, CG-SMB6, CG-SMB6-2, CG-SSB, CG-SSB-10, CG-TB2, CG-WBL-SS, CG-WB-SS, CG-WBM-W, CG-WBM-X, CG-WBM-Z, CG-Z6, CG-Z6M or CG-Z6-1

### **Specific Conditions of Use:**

1. Enclosures containing aluminum constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.

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## **Single Points Model a, Load Cells.**

### **Equipment ratings**

Intrinsically Safe for use in: Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; 1500-B-01 System.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; 1500-B-01 Entity.
Intrinsically Safe for use in: Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; 1500-B-01 System.

### **Equipment markings**

#### **Intrinsically Safe**

Class I, II, III, Division 1, Groups A,B,C,D,E,F,G; T4 Ta = -20°C to +60°C; Entity  
Class I, Zone 0, Ex ia IIC; T4 Ta = -20°C to +60°C; Entity  
Refer to Control Drawing 1500-B-01 for Installation.

#### **Intrinsically Safe**

Class I, II, III, Division 1, Groups C,D,E,F,G; T4 Ta = -20°C to +60°C; System  
Class I, Zone 0, Ex ia IIB; T4 Ta = -20°C to +60°C; System  
Refer to Control Drawing 1500-B-01 for Installation.

### **Electrical Ratings**

*Single Points Model a, Load Cells* are powered by an intrinsically safe barrier with the following entity parameters:

$U_i = 15\text{Vdc}$ ,  $I_i = 600\text{ mA}$ ,  $P_i = 1.3\text{ W}$ ,  $C_i = 0.0\text{ uF}$ ,  $L_i = 0.0\text{mH}$

*Single Points Model a, Load Cells* are supplied voltages up to 15 volts, with an ambient operating temperature range of -20 °C to 60 °C.

### **Model Code**

a = Type: CG-22, CG-22-1, CG-22-2, CG-22-4, 3053177CG-40, CG-40-SS, CG-40-SS-1, CG-42, CG-42-1, CG-42-2, CG-50, CG-50-1, CG-50-SS, CG-50-SS-1, CG-50-2, CG-50-3, CG-51, CG-1010, CG-1130, CG-1130-1, CG-1240, CG-1240-SS, CG-1241, CG-1510, CG-60048, CG-60610, CG-65029, CG-FB, CG-FLS, CG-HPS, CG-MK21, CG-MK4, CG-MK5, CG-PB, CG-PB-1, CG-PWA, CG-PWA-1, CG-PWS, CG-SPL, CG-SPLM, CSS10115 or CSS10133

### **Specific Conditions of Use:**

1. Enclosures containing aluminum constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.

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