

# CERTIFICATE OF CONFORMITY

**1. HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**

**2. Certificate No:** FM24CA0005X

**3. Equipment:** L, P, U, V, W, X, Y, Z Series Load Cells  
(Type Reference and Name) SEN-J04, SEN-J06, SEN-J08, SEN-J12 Series Junction Boxes

**4. Name of Listing Company:** Sentran LLC

**5. Address of Listing Company:** 4355 Lowell Street, Ontario, California 91761, United States of America

**6. The examination and test results are recorded in confidential report number:**

PR467109 dated 19 September 2024

**7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:**

CSA C22.2 No. 213:2015, CSA C22.2 No. 60079-0:2015, CSA C22.2 No. 60079-11:2014,  
CSA C22.2 No. 60529:2016, CSA 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.**

**10. Equipment Ratings:**

See Annex

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

See Annex

**12. Description of Equipment:**

**Certificate issued by:**



J.E. Marquedant  
VP, Manager - Electrical Systems

19 September 2024

Date

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

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FM Approvals LLC. One Technology Way, Norwood, MA 02062 USA

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## SCHEDULE

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**General** – The L, P, U, V, W, X, Y, Z series are load cells, and the SEN-J04, SEN-J06, SEN-J08, SEN-J12 series are junction boxes. The load cells can be powered directly from intrinsically safe barriers, or they can be powered from the barriers through junction boxes. A single load cell can be connected directly to the barriers while as many as 12 load cells can be connected to a single junction box or a combination of junction boxes.

The Control Drawing shows the details for the allowed number of load cells to be connected through a junction box or boxes. In all cases, a maximum of two barriers can be connected to the load cell(s) or junction box(es). The first barrier will be connected at the input(s) to supply power, while the second barrier is connected to the output(s). The second barrier is not connected to any supply voltage.

**Construction** – The enclosures are made of stainless steel, aluminum, or alloy steel.

**Ratings** -  $U_i = 15V$ ,  $I_i = 306\text{ mA}$ ,  $P_i = 1.15W$  (for multiple load cells);  
 $U_i = 15V$ ,  $I_i = 44\text{ mA}$ ,  $P_i = 165\text{ mW}$  (for single load cells).

See Annex for Model code options.

### 13. Specific Conditions of Use:

1. The enclosure contains aluminum and is considered a potential risk of ignition by impact or friction. Care must be taken during installation to prevent impact or friction.
2. When two barriers are used, both barriers shall be connected to the same ground reference.

### 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:

Date	Description
19 September 2024	Original Issue.

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# ANNEX

## L, P, U, V, W, X, Y, Z Series Load Cells

### Equipment Ratings:

Intrinsically safe for Class I, II and III, Division 1, Groups A, B, C, D, E, F and G; T6;  $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$  (for installations with single load cells only);

Nonincendive with nonincendive field wiring for Class I, II and III, Division 2, Groups A, B, C, D, E, F and G; T6;  $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$  (for installations with single load cells only);

Ex ia for Class I, Zone 0, Group IIC, T<sup>\*</sup>;  $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ ;

Ex ia for Zone 20, Group IIIC, T83°C;  $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}^{**}$ ;

IP65-IP68, depending on the model and variant.

### Markings:

Installations with single load cells (no junction boxes)

IS CL I II III DIV 1, GP ABCDEFG T6

NI CL I II III DIV 2, GP A-G T6, NIFW

ZN 0 Ex ia IIC T6

ZN 20 Ex ia IIIC T83°C

T<sub>a</sub> =  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ;

IP6x

### Description of Equipment:

SENTRAN				
Model Series	a	b	c	F

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X	XB1-C	250lb-20Klb	Signifying parameters not affecting the electrical circuitry, interfaces, or the main structural design, such as cable length, cable type, connector type, labeling, etc. Ex: xxm, xxft, xxx,etc (xx or xxx can be any number)	F
	XA1-C			
	XA4-C			
V	VE4-C	5kg-500kg		
W	WA4-C	1Klb-300Klb		
	WB1-C			
	WA1-C			
Z	ZD4-C	50lb-10t		
	ZD3-C			
	ZD1-C			
	ZA1-C			
L	LB3-C	2t-100t		
	LB1-C			
	LA3-C			
P	PG1-C	5t-100t		
U	UC1-C	1t-120t		
Y	YA6-C	3kg-1.5t		
	YB6-C			
	YN6-C			
	YG6-C			
	YL3-C	50lb-1Klb		
	YB3-C	3kg-1.5t		
	YN3-C			

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### SEN-J04, SEN-J06, SEN-J08, SEN-J12 Series Junction Boxes

#### Equipment Ratings:

Intrinsically safe for Class I, Division 1, Groups A, B, C and D; T4;  $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$  (for installations with multiple load cells only);

Nonincendive with nonincendive field wiring for Class I, Division 2, Groups A, B, C and D; T4;  $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$  (for installations with multiple load cells only);

Ex ia for Class I, Zone 0, Group IIC, T\*;  $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ ;

IP65-IP68, depending on the model and variant.

#### Markings:

##### Installations with multiple load cells

IS, CL DIV 1, GP ABCD T4

NI CL I DIV 2, GP ABCD T4, NIFW

ZN 0 Ex ia IIC T4

$T_a = -40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ;

IP6x

#### Description of Equipment:

Model Series	a	F
SEN-J04	SEN-J04EA-16	F
	SEN-J04SA-16	
	SEN-J04ES	
	SEN-J04ES-II	
	SEN-J04SS	
	SEN-J04SS-II	
	SEN-J04ES-E	
	SEN-J04SS-E	
	SEN-J04ES-FS	
	SEN-J04SS-FS	
SEN-J06	SEN-J06ES	

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SEN-J06	SEN-J06ES-II	F
	SEN-J06SS	
	SEN-J06SS-II	
SEN-J08	SEN-J08ES	
	SEN-J08ES-I	
	SEN-J08ES-II	
	SEN-J08ES-III	
	SEN-J08SS	
	SEN-J08SS-I	
	SEN-J08SS-II	
	SEN-J08SS-III	
SEN-J12	SEN-J12ES	
	SEN-J12ES-I	
	SEN-J12ES-II	
	SEN-J12ES-III	
	SEN-J12SS	
	SEN-J12SS-I	
	SEN-J12SS-II	
	SEN-J12SS-III	

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