

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM17US0192X
3. **Equipment:** Load cell, models 140, 160, 190, 210, 220, 260, 300, 350, 480, 630, 740 and PIN
(Type Reference and Name)
4. **Name of Listing Company:** Tecnicas De Electronica Y Automatismos S.A.
5. **Address of Listing Company:** C/ Espronceda 176-180, 08018-Barcelona, Spain

6. The examination and test results are recorded in confidential report number:
3059529 dated 4th December 2017

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

FM Class 3600:2018, FM Class 3610:2015, FM Class 3810:2017

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:**

Intrinsically Safe for Class I, II and III, Division 1, Groups A, B, C, D, E, F and G hazardous (classified) locations, indoors and outdoors, with an ambient temperature rating of T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$, IP66, IP67, IP68*.

*The model PIN does not have an IP rating.

Certificate issued by:



J. E. Marquedant
VP, Manager - Electrical Systems

10 August 2020

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

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11 The marking of the equipment shall include:

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$,
IP66 (models 140, 160, 190a); IP67 (models 210, 220, 350a, 350n, 480n, 630); IP68 (models 190i, 260, 300, 350i, 480i, 740).

12 **Description of Equipment:**

General – All of the load cells are transducers that create an electrical signal whose magnitude is directly proportional to the force applied. Electrical components are inside the load cell, protected using different systems: silicone coating, welded or screwed housing. The degree of protection against the ingress of foreign objects depends on the model and variant, and can be IP66, IP67 or IP68. The model PIN does not have an IP rating.

The operating principle of the load cells is by strain gauges glued onto an elastic body. The load cells work by bending beam, shear beam, or compression, depending on the model. The strain gauges form a single or double full Wheatstone bridge.

Model 190 has the variants 190a protected with silicone coating and 190i which is welded. Model 350 has variants 350a and 350n protected with silicone coating and 350i which is welded. Model 480 has variants 480n protected with silicone coating and 480i which is welded.

Construction – The construction material can be aluminum, alloy steel or stainless steel.

Ratings – $U_i = 15\text{V}$, $I_i = 0.288\text{A}$, $P_i = 1.08\text{W}$;
 $U_i = 13\text{V}$, $I_i = 0.332\text{A}$, $P_i = 1.08\text{W}$.

140 series. Load cell.

14XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811;
IP66.

XXX = Capacity (kg): 001, 003, 005, 007, 008, 010, 015, 020, 030, 050, 075, 100 (other capacities in t, kg, lb or kN may exist);

a = Variation: Not applicable;

b = Cable Type: Blank (PVC) P or PUR (Polyurethane);

c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);

d = Impedance: Blank (350 Ω), 1K (1000 Ω);

e = Other options.

160 series. Load cell.

16XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811;
IP66.

XXX = Capacity (kg): 015, 020, 030, 050, 075, 100, 150 (other capacities in t, kg, lb or kN may exist);

a = Variation: Not applicable;

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b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);
d = Impedance: Blank (350 Ω), 1K (1000 Ω);
e = Other options.

190 series. Load cell.

19XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811;
IP66 (190a), IP68 (190i).

XXX = Capacity (kg): 015, 020, 030, 050, 075, 120, 200, 250, 350, 400 (other capacities in t, kg, lb or kN may exist);

a = Variation: i (190i), Blank (190a);
b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
c = Cable conductors: Blank (4 wires for 190a, 6 wires for 190i), 4, 4H or 4W (4 wires for 190i), 6, 6H or 6W (6 wires for 190a);
d = Impedance: Blank (350 Ω), 1K (1000 Ω);
e = Other options.

210 series. Load cell.

21XXXabcde. Load cell.

IIS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811;
IP67.

XXX = Capacity (kg): 050, 075, 100, 150, 200, 250, 300, 500, 635, 1000 (other capacities in t, kg, lb or kN may exist);

a = Variation: Not applicable;
b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
c = Cable conductors: Blank (6 wires), 4, 4H or 4W (4 wires);
d = Impedance: Blank (350 Ω), 1K (1000 Ω);
e = Other options.

220 series. Load cell

22XXXabcde. Load cell.

IIS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811;
IP67.

XXX = Capacity (kg): 050, 075, 100, 150, 200, 250, 300, 500, 635 (other capacities in t, kg, lb or kN may exist);

a = Variation: Not applicable;
b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
c = Cable conductors: Blank (6 wires), 4, 4H or 4W (4 wires);
d = Impedance: Blank (350 Ω), 1K (1000 Ω);
e = Other options.

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260 series. Load cell.

26XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP68.

XXX = Capacity (kg): 002, 003, 005, 007, 010, 015, 020, 030, 035, 050, 075, 120, 200 (other capacities in t, kg, lb or kN may exist);

a = Variation: Not applicable;

b = Cable Type: Blank (PVC) P or PUR (Polyurethane);

c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);

d = Impedance: Blank (350 Ω), 1K (1000 Ω);

e = Other options.

300 Series Load Cell.

30XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP68.

XXX = Capacity (kg): 005, 010, 015, 020, 030, 050, 075, 100, 150, 200, 250, 300, 500 (other capacities in t, kg, lb or kN may exist);

a = Variation: Not applicable;

b = Cable Type: Blank (PVC) P or PUR (Polyurethane);

c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);

d = Impedance: Blank (350 Ω), 1K (1000 Ω);

e = Other options.

350 Series Load Cell.

3FXXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP67 (350n/350a), IP68 (350i).

XXX = Capacity (kg): 300, 500, 750, 001, 015, 002, 003, 005, 007, 010 (other capacities in t, kg, lb or kN may exist);

a = Variation: i, n (F = 5), a (F = 7, A = blank);

b = Cable Type: Blank (PVC) P or PUR (Polyurethane);

c = Cable conductors: Blank (4 wires for 350a/350n, 6 wires for 350i), 4, 4H or 4W (4 wires for 350i), 6, 6H or 6W (6 wires for 350a/350n);

d = Impedance: Blank (350 Ω), 1K (1000 Ω);

e = Other options.

35aXXXbcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP67 (350n/350a), IP68 (350i).

XXX = Capacity (kg): 250, 500, 750, 1K, 1.5K, 2K, 2.5K, 4K, 5K, 10K (other capacities in t, kg, lb or kN may exist);

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exist);

- a = Variation: i (350i), n (350n), a (350a);
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (4 wires for 350a/350n, 6 wires for 350i), 4, 4H or 4W (4 wires for 350i), 6, 6H or 6W (6 wires for 350a/350n);
- d = Impedance: Blank (350 Ω), 1K (1000 Ω);
- e = Other options.

480 Series Load Cell.

48XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq \text{Ta} \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP67 (480n), IP68 (480i).

XXX = Capacity (klb): 010, 015, 020, 025, 030, 040, 050, 060, 075, 100, 125 (other capacities in t, kg, lb or kN may exist);

- a = Variation: i, n;
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (6 wires), 4, 4H or 4W (4 wires);
- d = Impedance: Blank (700 Ω), 1K (1000 Ω);
- e = Other options.

630 Series Load Cell.

63XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq \text{Ta} \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP67.

XXX = Capacity (kg): 050, 100, 250, 500, 001, 025 (other capacities in t, kg, lb or kN may exist);

- a = Variation: Not applicable;
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);
- d = Impedance: Blank (350 Ω), 1K (1000 Ω);
- e = Other options.

740 Series Load Cell.

74XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq \text{Ta} \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP68.

XXX = Capacity (t): 010, 015, 020, 025, 030, 035, 040, 050, 060, 070, 100, 150, 200, 300, 400, 500, 600, 800, 900, 1000 (other capacities in t, kg, lb or kN may exist);

- a = Variation: Not applicable;
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (6 wires), 4, 4H or 4W (4 wires);
- d = Impedance: Blank (700 Ω), 1K (1000 Ω);

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e = Other options.

PIN Series Load Cell.

PINa-XXXX-e. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811

XXXX = PIN number

a = Variation: H, Z;

b = Cable Type: Not applicable;

c = Cable conductors: Not applicable;

d = Impedance: Not applicable;

e = Other options.

13 Specific Conditions of Use:

The load cell models 140, 210 and 220, and junction boxes 89092 and 89093 contain aluminum and are considered to constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation to prevent impact or friction.

14 Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

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
4 th December 2017	Original Issue.
8 th June 2018	<u>Supplement 1:</u> Report Reference: – RR214343 dated 8 th June 2018. Description of the Change: Addition of models 210 and 220.
10 th August 2020	<u>Supplement 2:</u> Report Reference: – RR224193 dated 10 th August 2020. Description of the Change: Addition of model PIN and the option for the double Wheatstone bridge. FM 3600 is updated to the 2018 edition.

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1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** FM17CA0103X
3. **Equipment:** Load cell, models 140, 160, 190, 210, 220, 260, 300, 350, 480, 630, 740 and PIN
(Type Reference and Name)
4. **Name of Listing Company:** Tecnicas De Electronica Y Automatismos S.A.
5. **Address of Listing Company:** C/ Espronceda 176-180, 08018-Barcelona, Spain
6. The examination and test results are recorded in confidential report number:

3059529 dated 4th December 2017
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

CAN/CSA-C22.2 No. 60079-0:2011, CAN/CSA-C22.2 No. 60079-11:2014, CAN/CSA-C22.2 No. 61010-1:2012, CSA-C22.2 No. 60529:R2010
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

10 August 2020

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

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Canadian Certificate Of Conformity No: FM17CA0103X

10. Equipment Ratings:

Intrinsically Safe for Class I, II and III, Division 1, Groups A, B, C, D, E, F and G hazardous (classified) locations, indoors and outdoors, with an ambient temperature rating of T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$, IP66, IP67, IP68*.

*The model PIN does not have an IP rating.

11. The marking of the equipment shall include:

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$, IP66 (models 140, 160, 190a); IP67 (models 210, 220, 350a, 350n, 480n, 630); IP68 (models 190i, 260, 300, 350i, 480i, 740).

12. **Description of Equipment:**

General – All of the load cells are transducers that create an electrical signal whose magnitude is directly proportional to the force applied. Electrical components are inside the load cell, protected using different systems: silicone coating, welded or screwed housing. The degree of protection against the ingress of foreign objects depends on the model and variant, and can be IP66, IP67 or IP68. The model PIN does not have an IP rating.

The operating principle of the load cells is by strain gauges glued onto an elastic body. The load cells work by bending beam, shear beam, or compression, depending on the model. The strain gauges form a single or double full Wheatstone bridge.

Model 190 has the variants 190a protected with silicone coating and 190i which is welded. Model 350 has variants 350a and 350n protected with silicone coating and 350i which is welded. Model 480 has variants 480n protected with silicone coating and 480i which is welded.

Construction – The construction material can be aluminum, alloy steel or stainless steel.

Ratings – $U_i = 15\text{V}$, $I_i = 0.288\text{A}$, $P_i = 1.08\text{W}$;
 $U_i = 13\text{V}$, $I_i = 0.332\text{A}$, $P_i = 1.08\text{W}$.

140 series. Load cell.

14XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP66.

XXX = Capacity (kg): 001, 003, 005, 007, 008, 010, 015, 020, 030, 050, 075, 100 (other capacities in t, kg, lb or kN may exist);

a = Variation: Not applicable;

b = Cable Type: Blank (PVC) P or PUR (Polyurethane);

c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);

d = Impedance: Blank (350 Ω), 1K (1000 Ω);

e = Other options.

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160 series. Load cell.

16XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP66.

XXX = Capacity (kg): 015, 020, 030, 050, 075, 100, 150 (other capacities in t, kg, lb or kN may exist);
a = Variation: Not applicable;
b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);
d = Impedance: Blank (350 Ω), 1K (1000 Ω);
e = Other options.

190 series. Load cell.

19XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP66 (190a), IP68 (190i).

XXX = Capacity (kg): 015, 020, 030, 050, 075, 120, 200, 250, 350, 400 (other capacities in t, kg, lb or kN may exist);
a = Variation: i (190i), Blank (190a);
b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
c = Cable conductors: Blank (4 wires for 190a, 6 wires for 190i), 4, 4H or 4W (4 wires for 190i), 6, 6H or 6W (6 wires for 190a);
d = Impedance: Blank (350 Ω), 1K (1000 Ω);
e = Other options.

210 series. Load cell.

21XXXabcde. Load cell.

IIS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP67.

XXX = Capacity (kg): 050, 075, 100, 150, 200, 250, 300, 500, 635, 1000 (other capacities in t, kg, lb or kN may exist);
a = Variation: Not applicable;
b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
c = Cable conductors: Blank (6 wires), 4, 4H or 4W (4 wires);
d = Impedance: Blank (350 Ω), 1K (1000 Ω);
e = Other options.

220 series. Load cell

22XXXabcde. Load cell.

IIS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP67.

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XXX = Capacity (kg): 050, 075, 100, 150, 200, 250, 300, 500, 635 (other capacities in t, kg, lb or kN may exist);

- a = Variation: Not applicable;
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (6 wires), 4, 4H or 4W (4 wires);
- d = Impedance: Blank (350 Ω), 1K (1000 Ω);
- e = Other options.

260 series. Load cell.

26XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP68.

XXX = Capacity (kg): 002, 003, 005, 007, 010, 015, 020, 030, 035, 050, 075, 120, 200 (other capacities in t, kg, lb or kN may exist);

- a = Variation: Not applicable;
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);
- d = Impedance: Blank (350 Ω), 1K (1000 Ω);
- e = Other options.

300 Series Load Cell.

30XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP68.

XXX = Capacity (kg): 005, 010, 015, 020, 030, 050, 075, 100, 150, 200, 250, 300, 500 (other capacities in t, kg, lb or kN may exist);

- a = Variation: Not applicable;
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);
- d = Impedance: Blank (350 Ω), 1K (1000 Ω);
- e = Other options.

350 Series Load Cell.

3FXXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP67 (350n/350a), IP68 (350i).

XXX = Capacity (kg): 300, 500, 750, 001, 015, 002, 003, 005, 007, 010 (other capacities in t, kg, lb or kN may exist);

- a = Variation: i, n (F = 5), a (F = 7, A = blank);

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- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (4 wires for 350a/350n, 6 wires for 350i), 4, 4H or 4W (4 wires for 350i), 6, 6H or 6W (6 wires for 350a/350n);
- d = Impedance: Blank (350 Ω), 1K (1000 Ω);
- e = Other options.

35aXXXbcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811;
IP67 (350n/350a), IP68 (350i).

XXX = Capacity (kg): 250, 500, 750, 1K, 1.5K, 2K, 2.5K, 4K, 5K, 10K (other capacities in t, kg, lb or kN may exist);

- a = Variation: i (350i), n (350n), a (350a);
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (4 wires for 350a/350n, 6 wires for 350i), 4, 4H or 4W (4 wires for 350i), 6, 6H or 6W (6 wires for 350a/350n);
- d = Impedance: Blank (350 Ω), 1K (1000 Ω);
- e = Other options.

480 Series Load Cell.

48XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811;
IP67 (480n), IP68 (480i).

XXX = Capacity (klb): 010, 015, 020, 025, 030, 040, 050, 060, 075, 100, 125 (other capacities in t, kg, lb or kN may exist);

- a = Variation: i, n;
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (6 wires), 4, 4H or 4W (4 wires);
- d = Impedance: Blank (700 Ω), 1K (1000 Ω);
- e = Other options.

630 Series Load Cell.

63XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Drawing #HM-0811;
IP67.

XXX = Capacity (kg): 050, 100, 250, 500, 001, 025 (other capacities in t, kg, lb or kN may exist);

- a = Variation: Not applicable;
- b = Cable Type: Blank (PVC) P or PUR (Polyurethane);
- c = Cable conductors: Blank (4 wires), 6, 6H or 6W (6 wires);
- d = Impedance: Blank (350 Ω), 1K (1000 Ω);
- e = Other options.

740 Series Load Cell.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA

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SCHEDULE



Canadian Certificate Of Conformity No: FM17CA0103X

74XXXabcde. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811; IP68.

XXX = Capacity (t): 010, 015, 020, 025, 030, 035, 040, 050, 060, 070, 100, 150, 200, 300, 400, 500, 600, 800, 900, 1000 (other capacities in t, kg, lb or kN may exist);

a = Variation: Not applicable;

b = Cable Type: Blank (PVC) P or PUR (Polyurethane);

c = Cable conductors: Blank (6 wires), 4, 4H or 4W (4 wires);

d = Impedance: Blank (700 Ω), 1K (1000 Ω);

e = Other options.

PIN Series Load Cell.

PINa-XXXX-e. Load cell.

IS / I, II, III / 1 / ABCDEFG / T4 for $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$; Control Drawing #HM-0811

XXXX = PIN number;

a = Variation: H, Z;

b = Cable Type: Not applicable;

c = Cable conductors: Not applicable;

d = Impedance: Not applicable;

e = Other options.

13. Specific Conditions of Use:

The load cell models 140, 210 and 220, and junction boxes 89092 and 89093 contain aluminum and are considered to constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation to prevent impact or friction.

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
4 th December 2017	Original Issue.

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SCHEDULE



Canadian Certificate Of Conformity No: FM17CA0103X

8 th June 2018	<u>Supplement 1:</u> Report Reference: – RR214343 dated 8 th June 2018. Description of the Change: Addition of models 210 and 220.
10 th August 2020	<u>Supplement 2:</u> Report Reference: – RR224193 dated 10 th August 2020. Description of the Change: Addition of model PIN and the option for the double Wheatstone bridge.

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