

CERTIFICATE OF CONFORMITY



- HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
- Certificate No:** FM19US0195
- Equipment:** Series SPX 22 & 53 Pressure Transducer
(Type Reference and Name)
- Name of Listing Company:** Dynisco Inc
- Address of Listing Company:** 38 Forge Parkway
Franklin, MA 02038
USA
- The examination and test results are recorded in confidential report number:
3018521 dated 22nd July 2004
- 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 3615:2018, FM Class 3810:2005,
ANSI/NEMA 250:1991, ANSI/IEC 60529:2004
- 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.
- 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.
- Equipment Ratings:**
Explosionproof for Class I, Division 1, Groups A, B, C and D; Dust-ignitionproof for Class II, III, Division 1, Groups E, F and G hazardous (classified) locations, indoors and outdoors (Type 4X, IP67) with an ambient temperature rating of T5 Ta = -20°C to +85°C, T6 Ta = -20°C to +60°C

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

23 October 2019

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:

Class I, Division 1, Groups A, B, C, D
Class II / III, Division 1, Groups E, F, G
T5 Ta = -20°C to +85°C, T6 Ta = -20°C to +60°C
Type 4X, IP67

12. **Description of Equipment:**

The transducers are comprised of a stainless steel single compartment 1.74 inch diameter cylindrical housing approximately six inches long, depending on the pressure rating and model. One end of the enclosure has a male 1/2-14 NPT male conduit connection. Model 228X transducers referenced to gage pressure and rated below 500 psi have a 3.25 inch long capillary vent in the wall of the enclosure and are not Approved as NEMA Type 4X or IP67. All other models have filled systems and are never configured with a vent tube regardless of pressure range.

The input/output wiring passes through the conduit connection and is sealed with Emerson & Cuming, Stycast 2651 potting compound with Catalyst 9. There are two 1/4-20 UNC 2A/2B seal screws for accessing the internal zero and span adjustments. The other end of the enclosure has a threaded process connection with pressure sensing strain gages or a selection of fluid filled flexible or rigid snout assemblies with a separate process diaphragm. The conduit connection and process connection are welded to the cylindrical portion of the enclosure.

The transducers are available in working pressure ranges 1 psi to 60,000 psi. The ambient temperature range of the transducers is -20°C to 85°C. The input voltage rating is 16-36 Vdc, 4-20mA.

228aEbcCdefghi. SPX Pressure Transmitter

- a = Accuracy 0, 1 or 2
 - b = Pressure reference E, N H, R, A, B, K, C, M, G, D, L, F, P or S.
 - c = Process connection A, B, C, D, E, F, G, H, K, L, M, N, P, R or S.
 - d = Cable length code (one digit alpha-numeric).
 - e = Wiring connection 4 or 9.
 - f = Pressure units B, C, K, M or P.
 - g = Pressure range code 10 through 32.
 - h = Hart communications A, B or C.
 - i = Option code (four digits alpha-numeric).
- * If Pressure Range Code is less than 14 and Pressure Reference Code (b = B, K, C, M or G) then Type 4X and IP67 ratings are not included

229aEbcdefghCiZZj. SPX Pressure Transmitter

- a = Mounting configuration 0, 1 or 2.
- b = Process diaphragm material (one digit alpha-numeric).
- c = Process connection code (two digits alpha-numeric).
- d = Engineering units B, C, K, M or P.
- e = Pressure range 08 through 23, 33
- f = Rigid snout length code (two digits alpha-numeric).

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- g = Flex length code (two digits alpha-numeric).
- h = Hart communications A, B or C.
- i = Cable length code (one digit alpha-numeric).
- j = Option codes (four digits alpha-numeric).

2241EabcdefgChZZi. SPX Pressure Transducer.

- a = Process diaphragm material code (one digit alpha-numeric).
- b = Process connection (two digits alpha-numeric).
- c = Engineering units B, C, K, M or P.
- d = Pressure range 09 through 23, 33
- e = Rigid Snout length code (two digits alpha-numeric).
- f = Flex length code (two digits alpha-numeric).
- g = Hart communications A, B or C.
- h = Cable length code (one digit alpha-numeric).
- i = Option codes (four characters alpha-numeric).

2242EabcdefgChZZi. SPX Pressure Transducer

- a = Process diaphragm material code (one digit alpha-numeric).
- b = Process connection (two digits alpha-numeric).
- c = Engineering units B, C, K, M or P.
- d = Pressure range 09 through 27, 33
- e = Rigid length code (two digits alpha-numeric).
- f = Flex length code (two digits alpha-numeric).
- g = Hart communications A, B or C.
- h = Cable length code (one digit alpha-numeric).
- i = Option codes (four digits alpha-numeric).

2243EabcdefgChZZi. SPX Pressure Transducer.

- a = Process diaphragm material code (one digit alpha-numeric).
- b = Process connection (two digits alpha-numeric).
- c = Engineering units B, C, K, M or P.
- d = Pressure range 08 through 27, 33
- e = Rigid length code (two digits alpha-numeric).
- f = Flex length code (two digits alpha-numeric).
- g = Hart communications A, B or C.
- h = Cable length code (one digit alpha-numeric).
- i = Option codes (four digits alpha-numeric).

2244EabcdefgChZZi. SPX Pressure Transducer.

- a = Process diaphragm material code (one digit alpha-numeric).
- b = Process connection (two digits alpha-numeric).
- c = Engineering units B, C, K, M or P.
- d = Pressure range 08 through 23, 33
- e = Rigid length code (two digits alphanumeric).
- f = Flex length code (two digits alphanumeric).
- g = Hart communications A, B or C.

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h = Cable length code (one digit alphanumeric).

i = Option codes (four digits alpha-numeric).

538aEbcCdefghi. SPX Smart Pressure Transmitter

a = Accuracy 0, 1, or 2.

b = Pressure reference E, N, H, R, A,B, K, C, M,G, D, L, F, P, or S.

c = Process connection A, B, C, D, E,F, G, H, K, L, M, N, P, R, or S.

d = Cable length code (one digit alpha-numeric)

e = Wiring Connections 4 or 9.

f = Pressure units B, C, K, M, or P.

g = Pressure range code 10 through 32.

h = Hart communications A, B or C.

i = Option code (four digits alpha-numeric)

*If pressure Range code is less than 14 and Pressure Reference Code (b= B, K, C, M or G) then Type 4X and IP67 ratings are not included.

539aEbcdefghCiZZj. SPX Smart Pressure Transmitter

a = Mounting configuration 0, 1, or 2.

b = Process diaphragm material (one digit alpha-numeric).

c = Process connection code (two digits alpha-numeric).

d = Pressure units B, C, K, M, or P.

e = Pressure range 08 through 23, 33

f = Rigid snout length code (two digits alpha-numeric).

g = Flex length code (two digits alpha-numeric).

h = Hart communications A, B or C.

i = Cable length code (one digit alpha-numeric).

j = Option codes (four digits alpha-numeric).

5341EabcdefgChZZi. SPX Smart Pressure Transmitter

a = Process diaphragm material (one digit alpha-numeric).

b = Process connection code (two digits alpha-numeric).

c = Pressure units B, C, K, M, or P.

d = Pressure range 09 through 23, 33

e = Rigid snout length code (two digits alpha-numeric).

f = Flex length code (two digits alpha-numeric).

g = Hart communications A, B or C.

h = Cable length code (one digit alpha-numeric).

i = Option codes (four digits alpha-numeric).

5342EabcdefgChZZi. SPX Smart Pressure Transmitter

a = Process diaphragm material (one digit alpha-numeric).

b = Process connection code (two digits alpha-numeric).

c = Pressure units B, C, K, M, or P.

d = Pressure range 09 through 27, 33

e = Rigid snout length code (two digits alpha-numeric).

f = Flex length code (two digits alpha-numeric).

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- g = Hart communications A, B or C.
- h = Cable length code (one digit alpha-numeric).
- i = Option codes (four digits alpha-numeric).

5343EabcdefgChZZi. SPX Smart Pressure Transmitter

- a = Process diaphragm material (one digit alpha-numeric).
- b = Process connection code (two digits alpha-numeric).
- c = Pressure units B, C, K, M, or P
- d = Pressure range 08 through 27, 33
- e = Rigid snout length code (two digits alpha-numeric).
- f = Flex length code (two digits alpha-numeric).
- g = Hart communications A, B or C.
- h = Cable length code (one digit alpha-numeric).
- i = Option codes (four digits alpha-numeric).

5344EabcdefgChZZi. SPX Smart Pressure Transmitter

- a = Process diaphragm material (one digit alpha-numeric).
- b = Process connection code (two digits alpha-numeric).
- c = Pressure units B, C, K, M, or P.
- d = Pressure range 08 through 23, 33
- e = Rigid snout length code (two digits alpha-numeric).
- f = Flex length code (two digits alpha-numeric).
- g = Hart communications A, B or C.
- h = Cable length code (one digit alpha-numeric)
- i = Option codes (four digits alpha-numeric).

13. Specific Conditions of Use:

None

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.

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16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
22 nd July 2004	Original Issue.
23 rd October 2019	<u>Supplement 4:</u> Report Reference: – RR220986 dated 23 rd October 2019. Description of the Change: (1) Model Code options added (2) FM3600 and FM3615 updated to latest edition (2018) (3) Certificate updated to latest format

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