

# CERTIFICATE OF CONFORMITY



1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** FM17CA0026X
3. **Component:**  
**(Type Reference and Name)** Quartz QX and QC Series Valve Position Monitor
4. **Name of Listing Company:** Neles USA Inc. dba StoneL
5. **Address of Listing Company:** 26271 US Hwy 59  
Fergus Falls MN 56537  
USA
6. The examination and test results are recorded in confidential report number:  
3031039 dated 24<sup>th</sup> January 2008
7. FM Approvals LLC, certifies that the component described has been found to comply with the following Approval standards and other documents:  
CSA C22.2 No. 0.4:2013; CSA C22.2 No. 0.5:2012; CSA C22.2 No. 25:2014; CSA C22.2 No. 30:2012;  
CSA C22.2 No. 94:2011; CSA C22.2 No. 60529:2005, CSA C22.2 No. 142:2014;  
CSA C22.2 No, 61010-1:2004; CSA C22.2 No. 213:2013; CSA C22.2 No. 60079-0:2019;  
CSA C22.2 No. 60079-1:2016
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 component as examined, tested and Approved.

**Certificate issued by:**

  
\_\_\_\_\_  
J.E. Marquedant  
VP, Manager - Electrical Systems

21 April 2020  
\_\_\_\_\_  
Date

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

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

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## SCHEDULE

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10. Equipment Ratings:

Explosionproof for Class I, Division 1, Groups BCD, T5  
Dust-Ignitionproof for Class II / III, Division 1, Groups EFG, T5  
Nonincendive for Class I / II / III, Division 2, Groups ABCDEFG, T5  
Flameproof for Class I, Zone 1, Ex db IIC T5 Gb  
Type 4 / 4X / 6 / IP66 / IP67  
-50°C ≤ Ta ≤ +80°C

See equipment details for specific hazardous location ratings. Some models are not available with all ratings. Some models have a more limited ambient temperature range.

11. The marking of the equipment shall include:

Hazardous location ratings per Section 12  
Ambient temperature rating  
Manufacturer's name and address  
Model number  
Serial number  
Date code  
Electrical ratings

12. **Description of Equipment:**

The Quartz QX and QC Series enclosure is a single flameproof compartment. The material of the base and all covers are fabricated from aluminum alloy or Stainless Steel. Each cover is prevented from opening by means of an M4 set-screw that locks the cover to the base. Up to three; ½ NPT, or ¾ NPT; threaded entries can be provided. The base-to-cover joint and the operating shaft are sealed with Buna-N o-rings. A series of different function modules may be mounted in the enclosure to provide different monitoring of a valve's position. An external visual indicator is also provided at the base of the enclosure.

The electrical ratings vary by function module, but are clearly specified on the product nameplate. The specific markings can be found on drawings 105025 and 105477.

The specific models described by this Certificate are as follows:

***QXabcdefg. Valve Position Monitor.***

XP / I / 1 / BCD / T5; Type 4 / 4X / 6 / IP66 / IP67; Ta = -40°C to +80°C  
DIP / II-III / 1 / EFG / T5; Type 4 / 4X / 6 / IP66 / IP67; Ta = -40°C to +80°C  
I / 1 / Ex db IIC T5 Gb; Type 4 / 4X / 6 / IP66 / IP67; Ta = -40°C to +80°C

a = Function 2V, 4V, 5V, 6V, 7V, 8V, BV, CV, TV, 2W, 4W, 5W, 6W, 7W, 8W, BW, CW, TW, or 14.

b = Enclosure E, S, B, or J.

c = Junction 02 or 03.

d = Shaft output X, S, N, or H.

e = Visual Indicator R, G, C, 1, 2, 3, 4, 5, X, N, D, A, S, T, U, V, W or 0.

f = Branding A or M.

g = Options 'Special Unit Digits'.

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Note 2: 'Special Unit Digits' are do not affect the integrity of the housing, the electrical safety, or the title plate.

**QXabcdefg. Valve Position Monitor.**

XP / I / 1 / BCD / T5; Type 4 / 4X / 6 / IP66 / IP67; Ta = -40°C to +80°C  
 DIP / II-III / 1 / EFG / T5; Type 4 / 4X / 6 / IP66 / IP67; Ta = -40°C to +80°C  
 NI / I-II-III / 2 / ABCDEFG / T5; Type 4 / 4X / 6 / IP66 / IP67; Ta = -40°C to +80°C  
 I / 1 / EX db IIC T5 Gb; Type 4 / 4X / 6 / IP66 / IP67; Ta = -40°C to +80°C

\*When a = 2E, 4E, 5E, 7E, BE, CE, 2F, 4F, 5F, 7F, BF, CF, or TF Ta = -25°C to +70°C  
 \*When a = 2N, 4N, 5N, 6N, 7N, BN, CN, or TN, Ta\* = -25°C to +68°C  
 \*When a = 2A, 4A, 5A, 7A, BA, CA, or TA, Ta\* = -40°C to +69°C  
 \*When a = 2B, Ta\* = -25°C to +69°C

a = Function 2A, 4A, 5A, 7A, BA, CA, TA, 2B, 2J, 4J, 5J, 7J, BJ, CJ, 2M, 4M, 5M, 7M, BM, CM, 2N, 4N, 5N, 6N, 7N, BN, CN, TN, 2P, 4P, 5P, 7P, BP, CP, 2L, 4L, 5L, 7L, BL, CL, 2H, 4H, 5H, 7H, 8H, BH, CH, 2S, 4S, 5S, 7S, BS, CS, 8Y, 2G, 4G, 5G, 7G, BG, CG, 2E, 4E, 5E, 7E, BE, CE, TE, 2F, 4F, 5F, 7F, BF, CF, TF, 33, 53, 73, B3, C3, 35, 5T, 7T, BT, CT, TT, 44, 54, 74, B4, C4, 45, 5R, 7R, BR, CR, TR, 82, 83, 86, 87, 92, 93, 96, 97, 5O, 7O, TO, BO, CO, 4X, or 6X.

b = Enclosure E, S, B or J.  
 c = Junction 02 or 03.  
 d = Shaft output X, S, N, or H.  
 e = Visual Indicator R, G, C, 1, 2, 3, 4, 5, X, N, D, A, S, T, U, V, W or 0.  
 f = Branding A or M.  
 g = Options 'Special Unit Digits'.

Note: 'Special Unit Digits' do not affect the integrity of the housing, the electrical safety, or the title plate.

**QCabcdefg. Valve Position Monitor.**

XP / I / 1 / BCD / T5; IP66; Ta = -50°C to +80°C  
 DIP / II-III / 1 / EFG / T5; IP66 Ta = -50°C to +80°C  
 I / 1 / Ex db IIC T5 Gb; IP66; Ta = -50°C to +80°C

a = Function 35, 45, 2V, 4V, 2W, or 4W  
 b = Enclosure E, S, B, or J.  
 c = Junction 03.  
 d = Shaft output X, S, N, or H.  
 e = Visual Indicator R, G, C, 1, 2, 3, 4, 5, X, N, D, A, S, T, U, V, W or 0.  
 f = Branding A or M.  
 g = Options 'Special Unit Digits'.

Note 2: 'Special Unit Digits' are do not affect the integrity of the housing, the electrical safety, or the title plate.

**13. Specific Conditions of Use:**

1. Consult the manufacturer if dimensional information on the flameproof joints is necessary.
2. To minimize the risk of electrostatic sparking, the equipment shall be cleaned with a damp cloth.

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

This Certificate has been issued in accordance with FM Approvals Canadian 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
24 <sup>th</sup> January 2008	Original Issue.
26 <sup>th</sup> February 2017	<u>Supplement 05</u> Report Reference: 2R1A7AE - RR208397 dated 26 <sup>th</sup> February 2017. Description of the Change: Introduction of alternate construction die-cast aluminum base, introduction of alternate construction die-cast aluminum short cover, consolidation of instruction sheets into a single manual, revisions to function assemblies not affecting explosionproof or dust protection.
29 <sup>th</sup> November 2017	<u>Supplement 06</u> Report Reference: 2R1A7AE - RR212001 dated 29 <sup>th</sup> November 2017. Description of the Change: Addition of Transmitter "T__" options. Revision to "35" function assembly.
9 <sup>th</sup> October 2019	<u>Supplement 07</u> Report Reference: 2R1A7AE - PR452032 dated 9 <sup>th</sup> October 2019 Description of the Change: Addition of "2B" function option. Revision to "96", "97", "86", and "87" function options. Added "QC" section. Addition of IP66, IP67. Standards updates, Added X condition. Removed "2X", "5X", "7X", "BX" and "CX" function options.
21 <sup>st</sup> April 2020	<u>Supplement 08</u> Report Reference: RR222856 dated 21 <sup>st</sup> April 2020. Description of the Change: Company name change.

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