

1 EU-TYPE EXAMINATION CERTIFICATE



2 **Equipment or Protective systems intended for use in Potentially
Explosive Atmospheres - Directive 2014/34/EU**

3 **EU-Type Examination Certificate No: FM08ATEX0008X**

4 **Equipment or protective system: Quartz QX and QC Series Valve Position Monitor
(Type Reference and Name)**

5 **Name of Applicant: Neles USA Inc. dba StoneL**

6 **Address of Applicant: 26271 US Hwy 59
Fergus Falls MN 56537
United States of America**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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

3031681EC dated 08th February 2008

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN-60079-1:2014, EN ISO 80079-36:2016, EN ISO 80079-37:2016 and
EN 60529:1991+A1:2000+A2:2013

10 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.

11 This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

Martin Crowe
Certification Manager, FM Approvals Europe Ltd.

Issue date: 20th April 2022

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

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F ATEX 020 Dec/2020)



SCHEDULE

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12 The marking of the equipment or protective system shall include:



- II 2 G Ex db h IIC T5 Gb Ta = -55°C to +80°C; IP66
- II 2 G Ex db h IIC T5 Gb Ta = -40°C to +80°C; IP66 IP67
- II 2 G Ex db h IIC T5 Gb Ta = -25°C to +68°C; IP66 IP67 (_N sensors)
- II 2 G Ex db h IIC T5 Gb Ta = -40°C to +69°C; IP66 IP67 (_A sensors)
- II 2 G Ex db h IIC T5 Gb Ta = -25°C to +69°C; IP66 IP67 (_B sensors)

- II 2 G Ex db h IIC T6 Gb Ta = -55°C to +65°C; IP66
- II 2 G Ex db h IIC T6 Gb Ta = -40°C to +65°C; IP66 IP67
- II 2 G Ex db h IIC T6 Gb Ta = -25°C to +70°C; IP66 IP67 (_E and _F sensors)
- II 2 G Ex db h IIC T6 Gb Ta = -25°C to +56°C; IP66 IP67 (_N sensors)
- II 2 G Ex db h IIC T6 Gb Ta = -40°C to +57°C; IP66 IP67 (_A sensors)
- II 2 G Ex db h IIC T6 Gb Ta = -25°C to +57°C; IP66 IP67 (_B sensors)

13 **Description of Equipment or Protective System:**

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; M20 X 1.5 6H, 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 drawing 105221 and 105478.

The specific models described by this Certificate are as follows:

QXabcdefg. Valve Position Monitor

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, 2V, 4V, 5V, 6V, 7V, BV, CV, TV, 8V, 2W, 4W, 5W, 6W, 7W, 8W, BW, CW, TW, 14, 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, 6X.

b = Enclosure K, N, R, or T.

c = Junction 02, 03, 05 or 06.

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

e = Visual Indicator R, G, C, 1, 2, 3, 4, 5, X, B, E, Y, H, J, K, M, P, 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

a = Function 2V, 4V, 2W, 4W, 35, or 45.

b = Enclosure K, N, R, or T.

c = Junction 03 or 06.

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

e = Visual Indicator R, G, C, 1, 2, 3, 4, 5, X, B, E, Y, H, J, K, M, P, N, D, A, S, T, U, V, W, or 0.

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Member of the FM Global Group

to EU-Type Examination Certificate No. FM08ATEX0008X

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

14 **Specific Conditions of Use:**

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

15 **Essential Health and Safety Requirements:**

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16 **Test and Assessment Procedure and Conditions:**

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17 **Schedule Drawings**

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18 **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
15 th February 2008	Original Issue.
23 rd July 2008 to 22 nd April 2020	Supplement 1 to 10: See certificate dated 22 nd of April 2020
20 th April 2022	Supplement 11: Report reference – RR231394 dated 5 th April 2022. Description of the Change: Remove Quartz SQ Imtex listing, minor drawing revisions, update to last version of the certificate and a Standards Gap Analysis was performed and the following standards were updated: EN 13463-1:2009 to EN ISO 80079-36:2016+COR1:2019 and EN 13463-5:2011 to EN ISO 80079-37:2016. As part of the review the non-electrical markings were updated from "c" to "h" and moved after the db.

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Blueprint Report

Neles USA Inc. dba StoneL (1000001486)

Class No 3615

Original Project I.D. 2RIA7AE

Certificate I.D. FM08ATEX0008X

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
000169	H	Model Description, Quartz QX series, ATEX, IECEx Ex d	RR231394
000220	C	Model Description, Quartz QC series, ATEX, IECEx Ex d	RR231394
105026	I	Electrical Information, Quartz QX Series	RR231394
105180	G	Enclosure Information, Quartz QX series, M20	RR231394
105221	I	Product Marking, Quartz QX series, ATEX Ex d	RR231394
105223	A	Hazardous Location Assessment, Quartz QX series	3031681
105406	E	IOM - QUARTZ SERIES	RR231394
105478	B	Product Marking, Quartz QC Series, ATEX IECEx Ex d Ex i	RR231394
110027	A	Anodizing Specification, Quartz QX series	3031681
200011	D	Schematic, 4-20 mA transmitter, Qtz	3031681
200022	G	Schematic, SST (33), Dual Sensor	3031681
200031	D	Schematic, SST sensor, green & red	3031681
200037	E	Schematic, Dual Sensor, Daughter	3031681
200043	E	Schematic, FF Mother Board 93	3037261
200044	F	Schematic, FF CPU/MAU Board	3031681
200047	A	Schematic, DPDT	3031681
200134	A	Schematic,Dual module,Namur, Ext. Range	3031681
200219	C	Schematic, 45 Dual Module, Namur	3055582
200220	D	Schematic, 35 Dual Module, SST	RR211999
200252	C	Schematic, 92 Dual Module, Devicenet	RR208397
200270	B	Quartz QX Series - Transmitter Schematic	RR211999
200280	A	SCHEMATIC, DUAL MODULE 96/97 ASI	PR452032
412001	A	Switch, Micro, V3, SPDT "V" silver Mechanical	3031681
412016	A	Switch,P&F namur,NJ2-V3-N-V5,w/solder posts,"N"	3031681
412018	A	Switch, DPDT Double Break, 88-104	3031681
412021	A	Switch,bare reed,SPST,Amperex R146IT	3031681
412041	A	Sensor,P&F namur,NBB2-V3-EO-V5,w/solder posts,"E"	3031681
412042	A	Sensor,P&F namur,NBB2-V3-E2-V5,w/solder posts,"F"	3031681
412059	F	PCB Assembly, SPST "P" Maxx-Guard	3050368
412060	D	Circuit Board Coplete From Suupplier For 4120	3055582
412061	G	PCB Assembly, SPST "L" red Maxx-Guard	3050368
412062	G	PCB Assembly, SPST "L" green Maxx-Guard	3050368
412068	G	Switch,PCB assy,"H"	3050368
412069	J	Switch,PCB assy,red "S"	3055582
412070	J	Switch,PCB assy,grn "S"	3055582
412071	J	SPDT yellow Y board	3055582
412072	J	SPDT red Y board	3055582
412088	A	Switch,bare reed,SPDT,Hermetic HSR-V933	3031681
412145	B	Sensor, Namur, P&F "A" Sensor	3031681
412150	A	Switch, SPDT, Low Power, 1 Amp Max	3031681
412154	D	Switch, Board Assy., "G"	3050368
412157	A	Switch, SAIA-Burgess X3M3, SPDT "W", Gold contacts	3031681
412170	B	Switch,PCB assy,"M"	3055582
412179	A	Switch, SPDT, 60W, 1 Amp max	RR231394
414178	C	Block, Terminal, Black, 6 & 12 Pole	3050368
414716	A	Block, Terminal, Weidmuller, 6 Point	3031681
414719	B	Block, Terminal, 12 point PCB mount, Beau	3031681

418007	G	Transmitter board 4-20 (PHOENIX) 1/7/16 XQ	RR222856
418022	A	PCB, Unpopulated, Maxx-Guard switch	3055582
418025	S	Board,Dual Module,SST,Populated	PR452032
418026	R	Board,Dual Module,Namur,Populated	PR452032
418027	I	Board, Unpopulated, SST Module	RR208397
418028	I	Board, Unpopulated, Namur Module	RR208397
418033	B	Board,SST sensor,unpopulated	PR452032
418034-35	L	Board,SST sensor,populated,green & red	PR452032
418057	H	Board, Daughter, Dual Sensor, Unpopulated	RR208397
418059	O	Board, Daughter, Dual Sensor, Populated	PR452032
418064	B	Board,DPDT,unpopulated	3031681
418068	C	Board, Unpopulated, 4-20mA Transmitter	RR222856
418072	G	Foundation Fieldbus, Unpopulated Brd.	RR208397
418073	S	Foundation Fieldbus, Populated Brd.,Mother 93	RR208397
418074	D	FF, CPU/MAU Board, Unpopulated	RR208397
418075	N	FF, CPU/MAU Board, Populated	RR208397
418412	C	Board, 45 Dual Module, Unpopulated	3055582
418413	C	Board, 45 Dual Module, Populated	3055582
418415	D	Board, 35 Dual Module, Unpopulated	RR211999
418416	D	Board, 35 Dual Module, Populated	RR211999
418442	B	Quartz QX Series - Transmitter Option	RR211999
418443	C	Quartz QX Series - Transmitter Option	RR222856
418470	C	Board, 92 Dual Module, Unpopulated	RR208397
418471	D	Board, 92 Dual Module, Populated	RR208397
418502	A	PCB 96/97 DUAL MODULE	PR452032
418503	B	BOARD ASSEMBLY 96 DUAL MODULE	RR222856
418513	A	BOARD ASSEMBLY 97 DUAL MODULE	PR452032
422004	B	Potentiometer,Spectrol,10K,5%tol,.25%lin	RR208397
422020	A	Potentiometer,JDK,10K,10%tol,.1%lin	3031681
432022	A	Dow Corning, Sylgard, 170A/170B mixed	3031681
432029	A	Urethane potting, Conathane EN-14 black, mixed	3031681
432038	B	Urethane potting, Epic Resins D9970 clear, mixed	3055582
434365	C	Block, Terminal , Sauro, 8 Pt, Hoz	PR452032
434366	C	Block, Terminal , Sauro, 10 Pt, Hoz	PR452032