

1 EC-TYPE EXAMINATION CERTIFICATE



2 Equipment or Protective systems intended for use in Potentially
Explosive Atmospheres - Directive 94/9/EC

3 EC-Type Examination Certificate No: FM08ATEX0008X

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

5 Name of Applicant: StoneL Corporation

6 Address of Applicant: 26275 US Hwy 59
Fergus Falls, MN 56537 USA

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 Ltd, notified body number 1725 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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 8th Feb 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 60079-0:2006, EN 60079-1:2004, EN 13463-1:2001, EN 13463-5:2003, and EN 60529:2000 + A1

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. 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.

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



II 2 G c T5 Ex d IIC T5 Ta = -20°C to +80°C IP67

Ron Webb
Deputy Certification Manager, FM Approvals Ltd.

Issue date:

15th February 2008



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13 Description of Equipment or Protective System:

The Series QX enclosure is a single flameproof compartment. The material of the base and all covers are fabricated from aluminum alloy A356 with an Mg content < 0.45%. 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 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.

The electrical ratings vary by function module, but are clearly specified on the product nameplate. The specific markings can be found on drawing 105221.

The specific models described by this Certificate are as follows:

QXabcdefg. Valve Position Monitor (Silver).

- a = Function 2V, 4V, 5V, 6V, 7V, 8V, 2W, 4W, 5W, 6W, 7W, 8W, 14, 2P, 4P, 5P, 7P, 2L, 4L, 2H, 5L, 7L, 4H, 5H, 7H, 8H, 2S, 4S, 5S, 7S, 8Y, 2G, 4G, 5G, 7G, 2E, 4E, 5E, 7E, 2F, 4F, 5F, 7F, 33, 82, 83, 85, 86, 92, 93, 95, 96, 97, 5O, 7O, 2X, 4X, 6X, 5X, or 7X.
- b = Enclosure R.
- c = Junction 05 or 06.
- d = Shaft output S, N, or H.
- e = Visual Indicator R, G, C, 1, 2, 3, 4, 5, X, or 0.
- f = Branding A, M, or N.
- g = Options 'Special Unit Digits'.

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

QXabcdefg. Valve Position Monitor (Legacy).

- a = Function 2V, 4V, 5V, 6V, 7V, 8V, 2W, 4W, 5W, 6W, 7W, 8W, 14, 2P, 4P, 5P, 7P, 2L, 4L, 2H, 5L, 7L, 4H, 5H, 7H, 8H, 2S, 4S, 5S, 7S, 8Y, 2G, 4G, 5G, 7G, 2E, 4E, 5E, 7E, 2F, 4F, 5F, 7F, 33, 82, 83, 85, 86, 92, 93, 95, 96, 97, 5O, 7O, 2X, 4X, 6X, 5X, or 7X.
- b = Enclosure R.
- c = Junction 05 or 06.
- d = Shaft output S, N, or H.
- e = Visual Indicator X, N, D, A, S, T, U, V, W, or 0.
- f = Branding A, M, or N.
- g = Options 'Special Unit Digits'.

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

SQa. Valve Position Monitor (Imtex).

- a = Construction 1695SR, 1795SR, 2595SR, 4095SR, 4295SR, 5595SR, 7095SR, or 9695SR.

14 Special Conditions for Safe Use:

- 1) *To minimize the risk of electrostatic sparking, the equipment shall be cleaned only with a damp cloth.*

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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 EC-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 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 Ltd's ATEX Certification Scheme.

17 Approved Drawings

Drawing No:	Revision	Title / Description
000090	C	Cross Reference, Quartz, Imtex
000126	A	Schedule Documents, Quartz QX series, ATEX Ex d
000127	A	Model Description, Quartz QX series, ATEX Ex d
105026	D	Electrical Information, Quartz QX Series
105180	B	Enclosure Information, Quartz QX series, M20
105194	A	Qtz with "V" and "W" Switch, Installation & Adjustment Procedures
105195	A	Qtz with "14" Switch, Installation & Adjustment Procedures
105196	A	Qtz w/MaxxGuard Switch, SPST Installation & Adjustment Procedures
105197	A	Qtz w/MaxxGuard Switch, SPDT Installation & Adjustment Procedures
105198	A	Qtz with "X" Switch, Installation & Adjustment Procedures
105199	A	Qtz with "A" Switch, Installation & Adjustment Procedures
105200	A	Qtz with "E" and "F" Switch, Installation & Adjustment Procedures
105201	A	Qtz with "N" Switch, Installation & Adjustment Procedures
105202	A	Qtz with Transmitter, Installation & Adjustment Procedures
105203	A	Qtz with Xmitter and Switch, Installation & Adjustment Procedures
105204	A	Qtz Expeditor w/ Mech Sw, Installation & Adjustment Procedures
105205	A	Qtz Expeditor w/ "Y" Sw, Installation & Adjustment Procedures
105206	A	Qtz Expeditor ASI Module, Installation & Adjustment Procedures
105207	A	Qtz with "33" Module, Installation & Adjustment Procedures
105208	A	Qtz I.S. with "44" Module, Installation & Adjustment Procedures
105209	A	Qtz with "92" Module, Installation & Adjustment Procedures
105210	A	Qtz with "93" Module, Installation & Adjustment Procedures
105212	A	Qtz with "95" Module, Installation & Adjustment Procedures
105213	A	Qtz with "96" Module, Installation & Adjustment Procedures
105214	A	Qtz with "97" Module, Installation & Adjustment Procedures

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Drawing No:	Revision	Title / Description
105216	A	Qtz Expeditor DvcNet Module, Installation & Adjustment Procedures
105217	A	Qtz Expeditor F/F Module, Installation & Adjustment Procedures
105218	A	Qtz Expeditor Modbus Module, Installation & Adjustment Procedures
105221	A	Product Marking, Quartz QX series, ATEX Ex d
105222	A	Installation Addendum, Quartz QX series, ATEX Ex d
105223	A	Hazardous Location Assessment, Quartz QX series
105242	A	Quartz, External Visual Indicator Detail
110027	A	Anodizing Specification, Quartz QX series
200011	D	Schematic, 4-20 mA transmitter, Qtz
200022	G	Schematic, SST (33), Dual Sensor
200031	D	Schematic, SST sensor, green & red
200037	E	Schematic, Dual Sensor, Daughter
200038	F	Schematic, DeviceNet (92), Mother
200043	D	Schematic, FF Mother Board 93
200044	F	Schematic, FF CPU/MAU Board
200047	A	Schematic, DPDT
200049	E	Schematic, Modbus (95)
200051	G	Schematic, ASi (96)
200134	A	Schematic, Dual module, Namur, Ext. Range
412001	A	Switch, Micro, V3, SPDT "V" silver Mechanical
412016	A	Switch, P&F namur, NJ2-V3-N-V5, w/solder posts, "N"
412018	A	Switch, DPDT Double Break, 88-104
412021	A	Switch, bare reed, SPST, Amperex R146IT
412041	A	Sensor, P&F namur, NBB2-V3-EO-V5, w/solder posts, "E"
412042	A	Sensor, P&F namur, NBB2-V3-E2-V5, w/solder posts, "F"
412059	E	PCB Assembly, SPST "P" Maxx-Guard
412060	C	Circuit Board Complete From Supplier For 4120
412061	F	PCB Assembly, SPST "L" red Maxx-Guard
412062	F	PCB Assembly, SPST "L" green Maxx-Guard
412063	E	Switch, PCB assy, red "K"
412064	E	Green board K sw
412068	F	Switch, PCB assy, "H"
412069	G	Switch, PCB assy, red "S"
412070	G	Switch, PCB assy, grn "S"
412071	H	SPDT yellow Y board
412072	H	SPDT red Y board
412088	A	Switch, bare reed, SPDT, Hermetic HSR-V933
412145	B	Sensor, Namur, P&F "A" Sensor
412150	A	Switch, SPDT, Low Power, 1 Amp Max
412154	C	Switch, Board Assy., "G"
412157	A	Switch, SAIA-Burgess X3M3, SPDT "W", Gold contacts

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Drawing No:	Revision	Title / Description
414178-79	C	Block, Terminal, Black, 6 & 12 Pole
414180	A	Block, Terminal, Grey, 6 Pole
414716	A	Block, Terminal, Weidmuller, 6 Point
414717	B	Block, Terminal, Beau, 8 Pt.
414718	B	Block, Terminal, Beau, 10 Pt.
414719	B	Block, Terminal, 12 point PCB mount, Beau
418007	F	Transmitter board 4-20 (PHEONIX) 1/7/16 XQ
418025	M	Board,Dual Module,SST,Populated
418026	M	Board,Dual Module,Namur,Populated
418027	G	Board, Unpopulated, SST Module
418028	H	Board, Unpopulated, Namur Module
418033	A	Board,SST sensor,unpopulated
418034	I	Board,SST sensor,populated,green & red
418056	E	Board, Mother, DeviceNet, Unpopulated
418057	E	Board, Daughter, Dual Sensor, Unpopulated
418058	M	Board, Mother, DeviceNet, Populated
418059	J	Board, Daughter, Dual Sensor, Populated
418064	B	Board,DPDT,unpopulated
418068	B	Board, Unpopulated, 4-20mA Transmitter
418072	C	Foundation Fieldbus, Unpopulated Brd.
418073	J	Foundation Fieldbus, Populated Brd.,Mother 93
418074	C	FF, CPU/MAU Board, Unpopulated
418075	H	FF, CPU/MAU Board, Populated
418089	D	Modbus, Unpopulated.
418090	H	Modbus, Populated
418102	G	Asi, New Unpopulated Board
418103	I	ASi, New Populated Board
418201	A	Board, AS-i extended addressed, populated
422004	A	Potentiometer,Spectrol,10K,5%tol,.25%lin
422020	A	Potentiometer,JDK,10K,10%tol,.1%lin
432022	A	Dow Corning, Sylgard, 170A/170B mixed
432025	A	Urethane Potting Material, Hysol, mixed
432029	A	Urethane potting, Conathane EN-14 black, mixed

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