



# 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: FM07ATEX0047X**

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

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

6 **Address of Applicant: 26271 US Highway 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<sup>th</sup> 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:

3028891EC dated 16<sup>th</sup> January 2009

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 60079-11:2012 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.

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



II 1 G Ex ia IIC T5 Ga Ta = -40°C to 80°C; IP67

II 1 G Ex ia IIC T5 Ga Ta = -18°C to 50°C; IP67

*Damien McArdle*

**Damien Mc Ardle  
Certification Manager, FM Approvals Europe Ltd.**

Issue date: 05<sup>th</sup> January 2021

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

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F ATEX 020 (Dec/2020)



# SCHEDULE

to EU-Type Examination Certificate No. FM07ATEX0047X

## 13 Description of Equipment or Protective System:

The Axiom Series AMI Valve Position Monitor is designed to monitor and control the position of a valve. The apparatus consists of a sensing and communication module, an optional solenoid or solenoids for pneumatic control, connection options to plant electrical and communication systems and a visual indicator to the fluid being processed.

All of the electronic components in the apparatus are encapsulated using type Conathane EN-14 Black urethane encapsulant manufactured by Cytec Industries.

The apparatus is enclosed in an aluminum housing with a GE 143R polycarbonate cover and is intended to be attached directly to various actuators/valves.

### **AMI44aVcSef-g. Valve Position Monitor.**

II 1 G Ex ia IIC T5 Ga Ta = -40°C to 80°C - 105157; IP67

Energy Limitation Parameters:

AMI44:  $U_i = 16V$ ,  $I_i = 25\text{ mA}$ ,  $P_i = 1.0W$ ,  $C_i = 4.4\text{ nF}$ ,  $L_i = 0\text{ mH}$ .

IS Coil:  $U_i = 28V$ ,  $I_i = 120\text{ mA}$ ,  $P_i = 1.0W$ ,  $C_i = 0\text{ nF}$ ,  $L_i = 0\text{ mH}$ .

a = Solenoid: 11 or (1E, 3E or 5E when g = T)

c = Junction: 02, 05, 10, 11, 13, 15, 17, 18, 19, 20 or 21

e = Visual Indication: X, G, R, 1 or 2

f = Branding: A, or M.

g = Options: 1 – 5 alpha or numeric digits including “T” for special and marketing identification.

### **AMI44aVcSef-g. Valve Position Monitor.**

II 1 G Ex ia IIC T5 Ga Ta = -18°C to 50°C - 105157; IP67

Energy Limitation Parameters:

AMI44:  $U_i = 16V$ ,  $I_i = 25\text{ mA}$ ,  $P_i = 1.0W$ ,  $C_i = 4.4\text{ nF}$ ,  $L_i = 0\text{ mH}$ .

IS Coil:  $U_i = 28V$ ,  $I_i = 120\text{ mA}$ ,  $P_i = 1.0W$ ,  $C_i = 0\text{ nF}$ ,  $L_i = 0\text{ mH}$ .

a = Solenoid: 1E, 3E or 5E

c = Junction: 02, 05, 10, 11, 13, 15, 17, 18, 19, 20 or 21

e = Visual Indication: X, G, R, 1 or 2

f = Branding: A, or M

g = Options: 1 – 5 alpha or numeric digits excluding “T” for special and marketing identification

## 14 Specific Conditions of Use:

1. When used within a Zone 0 location, the aluminum enclosure shall be installed in such a manner as to prevent the possibility of sparks resulting from friction or impact.
2. To prevent the risk of electrostatic sparking, the equipment enclosure shall be cleaned only with a damp cloth.

## 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:

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# SCHEDULE

to EU-Type Examination Certificate No. FM07ATEX0047X

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
16 <sup>th</sup> January 2009	Original Issue 3028891EC dated 16 <sup>th</sup> January 2009.
21 <sup>st</sup> January 2013	<u>Supplement 1:</u> Report Reference: 3028891rev120427 dated 15 <sup>th</sup> January 2013. Description of the Change: The company name has changed to StoneL. Removed branding options N and L from all listings. Reviewed drawings for updating the Sensor PCB, SST PCB and associated drawings.
15 <sup>th</sup> September 2016	<u>Supplement 2:</u> Report Reference: RR203250 dated 14 <sup>th</sup> September 2016. Description of the Change: Update certificate to latest directive. Updated standards to latest editions and removal of standard EN60079-26:2004. CDL correction. Component updates. Documentation and labeling updates.
26 <sup>th</sup> June 2017	<u>Supplement 3:</u> Report Reference: 3061079 dated 22 <sup>nd</sup> June 2017. Description of the Change: Update marking. Documentation and labeling updates.
05 <sup>th</sup> January 2021	<u>Supplement 4:</u> Report Reference: RR225434 dated 04 <sup>th</sup> January 2021. Description of the Change: Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809. EN 60079-0 updated to 2018. Name of Applicant changed to Neles USA Inc. dba StoneL. Minor documentation updates.

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# Blueprint Report

**Neles USA Inc. dba StoneL (1000001486)**

**Class No 3610**

**Original Project I.D. 3028891**

**Certificate I.D. FM07ATEX0047X**

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
000123	C	Model Description, Axiom AMI Ex ia	RR225434
105157	E	Control Drawing, IS, Axiom AMI Series	3061079
105170	B	Enclosure, Axiom AMI Series	RR225434
105187	D	Axiom AMI Series Marking ATEX Ex ia	RR225434
105306	B	Electrical Information, Axiom AX-AMI series	3061079
105408	B	Axiom AMI Series IMO, Combined	RR225434
200062	C	Schematic, MAC36 Solenoid 12Vdc	3028891
200085	E	Schematic, Sensor Board, Axiom	4/27/12
200093	E	Schematic, Axiom, Namur	3028891
200153	B	Schematic, Axiom Namur, Dual Coil	3061079
414722	A	TERMINAL BLOCK , 4 pt	4/27/12
414724	B	Terminal Block 8 Point PBC Mount	3028891
418206	G	Board, sensor board, axoim, unpopulated	3061079
418207	G	Board, sensor board, Axoim, populated	3061079
418215	F	Unpopulated Axiom Namur board	RR203250
418216	I	Board, Axiom Namur, populated	3061079
418223	E	Membrane switch pad, Axiom	4/27/12
418299	A	Unpopulated solenoid board, Axiom	3028891
418300	B	Populated solenoid board, Axiom	3028891
418314	C	Board, Axiom, Namur, Dual Coil, Unpopulated	3061079
418315	D	Board, Axiom, Namur, Dual Coil, Populated	3061079
432029	A	Urethane Potting	3028891
434253	A	CONNECTOR, 0.705", 10PIN, 0.05" PITCH	4/27/12
443025	B	Solenoid valve, MAC36, IS Mod 7615	3028891
443029	B	Solenoid valve, MAC36, IS Mod 7616	3028891
443046	A	SOLENOID VALVE 12VDC I.S. 1/2W WIDE TEMP MAC35 MOD 8581	3061079
443047	A	SOLENOID VALVE 12VDC I.S. 1/2W STD TEMP MOD 8582	3061079