

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:** FM18ATEX0043X

4 **Equipment or protective system:** Prism PI 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 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:

3062876 dated 6th September 2018

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 60079-0:2012+A11:2013, 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 $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

II 1 D Ex ia IIIC T100°C Da $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

IP66 / IP67

Richard Zammitt
Certification Manager, FM Approvals Europe Ltd.

Issue date; 12th January 2021

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

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F ATEX 020 (Dec/2020)



SCHEDULE



Member of the FM Global Group

to EU-Type Examination Certificate No. FM18ATEX0043X

13 Description of Equipment or Protective System:

The Prism PI series Valve Position monitors are designed to be attached directly to various valve/actuator assemblies and to communicate and control its position. The apparatus consist of an internally mounted sensing and communication modules, internally mounted pilot valves for pneumatic control, connection options to plant electrical, pneumatic and communications systems with external visual indication to the fluid being processed. Apart from two push button switches and the main terminals, all electronic components inside the apparatus are encapsulated and enclosed with a polycarbonate cover and base.

To maintain the IP66/67 rating of the enclosure the Prism PI should be installed in accordance with the manufacturer's instructions and using the gaskets supplied and the Prism PI mounting kit.

Operation Temperature Ranges:

The ambient operating temperature range of the Prism PI Series Valve Position Monitors is;
 $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$.

Electrical data:

Energy Limitation Parameters:

Solenoid Option a = 11

Sensors: $U_i = 22 \text{ Vdc}$; $I_i = 120 \text{ mA}$; $P_i = 0.4 \text{ W}$; $C_i = 3 \text{ nF}$; $L_i = 0$

Solenoid Junction Terminals: $U_i = 28 \text{ Vdc}$; $I_i = 120 \text{ mA}$; $C_i = 0$; $L_i = 0$

Solenoid Option a = 1N

Energy Limitation Parameters:

Sensors: $U_i = 22 \text{ Vdc}$; $I_i = 120 \text{ mA}$; $P_i = 0.4 \text{ W}$; $C_i = 3 \text{ nF}$; $L_i = 0$

Solenoid: $U_i = 28 \text{ Vdc}$; $I_i = 120 \text{ mA}$; $P_i = 0.84 \text{ W}$; $C_i = 3 \text{ nF}$; $L_i = 0$

Mode Code:

PI45SaSVbcdef Valve Position Monitor

a = 11 and 1N (Solenoid)

b = 01, 02, 04, 05, 10, 11, 13, 15, 19, 20 and 21 (Junction)

c = X, 0, G and R (Visual Indicator)

d = S and L (Stroke)

e = A, M, T, B, C, D and E (Branding)

f = X (Special and Marketing ID Digits not affecting the integrity of the housing, the electrical safety, or the title plate. Up to 5 Alpha and Numeric Digits after Model No.)

14 Specific Conditions of Use:

1. 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.

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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
13 th September 2018	Original Issue.
26 th October 2018	<u>Supplement 1:</u> Report Reference - RR215907 dated 23 rd October 2018. Description of the Change: Update Model Type Code. Correct typing errors in certificate heading and description.
12 th January 2021	<u>Supplement 2:</u> Report Reference: RR226087 dated 08 th January 2021. 1. Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809. 2. Update name change from StoneL to Neles USA Inc. dba StoneL. 3. Minor drawing updates.

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Blueprint Report

Neles USA Inc. dba StoneL (1000001486)

Class No 3610

Original Project I.D. 3062876

Certificate I.D. FM18ATEX0043X

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
000204	C	Model Description, Prism PI series, ATEX / IECEx Ex ia	RR226087
105341	B	Product Marking, Prism PI series, ATEX / IECEx Ex ia	RR226087
105383	B	Electrical Information, Prism PI series	RR226087
105431	C	Installation Manual, IMO, Prism PI series	RR226087
105445	A	Enclosure Information, Prism PI series	3062876
200199	C	SCHEMATIC, PI, LINEAR SENSOR	3062876
200203	B	SCHEMATIC, PI, LINEAR SENSOR, TALL	3062876
200238	C	SCHEMATIC, PI 45 MOTHERBOARD, SHORT	3062876
200239	C	SCHEMATIC, PI 45 MOTHERBOARD, TALL	3062876
200253	D	SCHEMATIC, INTRINSICALLY SAFE STONEL SOLENOID	3062876
407082	A	O-RING 13/16 ID X .070 CS SZ019	3062876
407098	A	O-RING 1 5/8 ID X .062 CS SZ030	3062876
407138	A	O-RING 3 1/2 ID X 0.103CS SZ153	3062876
407141	A	O-RING 1/2 ID X 1/16 CS SZ014	3062876
407142	A	O-RING 2 7/8 ID X .070 CS SZ 040	3062876
407143	A	O-RING 2 1/2 ID X .070 CS SZ 037	3062876
407144	A	O-RING 2.0 ID X .070 CS SZ 033	3062876
418347	D	PCB, PI SENSOR, SHORT	3062876
418348	E	BOARD ASSEMBLY, PI SENSOR, SHORT	3062876
418406	C	PCB, PI SENSOR, TALL	3062876
418407	D	BOARD ASSEMBLY, PI SENSOR, TALL	3062876
418447	C	PCB, PI 45 MOTHERBOARD, SHORT	3062876
418448	C	BOARD ASSEMBLY, PI 45 MOTHERBOARD, SHORT	3062876
418449	C	PCB, PI 45 MOTHERBOARD, TALL	3062876
418450	C	BOARD ASSEMBLY, PI 45 MOTHERBOARD, TALL	3062876
418455	D	PCB INTRINSICALLY SAFE STONEL SOLENOID	3062876
418456	I	BOARD ASSEMBLY INTRINSICALLY SAFE STONEL SOLENOID	3062876
432038	B	Urethane potting, Epic Resins D9970 clear, mixed	3062876
434381	H	COIL I.S. LOW COST WOUND	RR226087
434382	C	COIL I.S. LOW COST OVERMOLDED	3062876