



1 EU-TYPE EXAMINATION CERTIFICATE

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 13ATEX1166X** Issue: **5**

4 Equipment: **Valvcon Electric Valve Actuators
Models VWX, LVWX, ADCWX and LADCWX Series**

5 Applicant: **Neles USA Inc.**

6 Address: 44 Bowditch Drive
Shrewsbury
Massachusetts 01545-804
USA

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 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 the confidential reports listed in Section 14.2.

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

EN IEC 60079-0:2018

EN 60079-1:2014

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2 G

Ex db IIB T6 Gb

Ta = -20°C to +66°C

Project Number 80036559

Signed: J A May

Title: Director of Operations

This certificate and its schedules may only be reproduced in its entirety and without change

CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 13ATEX1166X
Issue 5

13 DESCRIPTION OF EQUIPMENT

The Electric Valve Actuators consist of a painted, die cast aluminium alloy, Grade A380, flameproof enclosures, which house a number of electrical components such as AC Motor, DC Motor, Solenoids, Switching Power Supply, Heater, Limit Switches, Relays etc.

The large actuator enclosure (Models LVWX and LADCWX Series) comprises a main body and cover, which is secured with 8 (eight) M8 x 1.25 x 36 mm socket head, cap screw fasteners having a property class 12.9. The small actuator enclosure (Models VWX and ADCWX Series) comprises a main body and cover, which is secured with 8 (eight) M6 x 1.0 x 30 mm socket head, cap screw fasteners having a property class 12.9. There is an actuator bushing and shaft located at the bottom of the enclosure and an indicator and manual override bushing and shaft, provided in the cover. The enclosure may have up to two, 3/4 " NPT, threaded entries located in the side wall for use with suitably certified cable entry devices.

Variation 1 - This variation introduced the following changes:

- i. Clarification to drawing details including paint thickness, tapped hole dimensions, shaft diameter, gear corner radius, general dimensions and reference to other certificates.
- ii. Addition and conversion of drawings to new format.

Variation 2 - This variation introduced the following change:

- i. The recognition of minor drawing modifications; including the addition of internal bosses, the addition of a dual revision block and the retaining ring was changed, these amendments are administrative or involve changes to the design that do not affect the aspects of the product that are relevant to explosion safety.

Variation 3 - This variation introduced the following changes:

- i. Following appropriate assessment for the existing products to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012 was replaced by EN IEC 60079-0:2018, and EN 60079-1:2007 was replaced by EN IEC 60079-1:2014.
- ii. Addition of ADC- Series coding.
- iii. Addition of new power supply.
- iv. Addition of new back-up battery. 'Specific Conditions of Use' and 'Product Description' are amended.
- v. Minor text changes, including company name (the inclusion of Inc.).
- vi. Drawing revision changes.

Variation 4 - This variation introduced the following change:

- i. The change of the manufacturer name from "Metso Flow Control USA Inc." to "Neles USA Inc.".
- ii. A typographical error was corrected in the Specific Conditions of Use.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 13ATEX1166X
Issue 5

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	20 December 2013	R30613A/00	The release of the prime certificate.
1	04 May 2016	R70038778A	This Issue covers the following changes: • EC-Type Examination Certificate in accordance with 94/9/EC updated to EU-Type Examination Certificate in accordance with Directive 2014/34/EU. • (In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC-Type Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.) • The introduction of Variation 1.
2	19 January 2017	R70098693A	The Introduction of Variation 2.
3	15 October 2019	1052	Transfer of certificate Sira 13ATEX1166X from Sira Certification Service to CSA Group Netherlands B.V.
4	09 January 2020	R80024988	The Introduction of Variation 3.
5	11 May 2020	R80036559A	The Introduction of Variation 4.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 The maximum constructional gap (ic) is 0.038 mm which is less than that specified in Table 2 of EN 60079-1:2014.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

Certificate Annexe



Certificate Number: Sira 13ATEX1166X

Equipment: Valvcon Electric Valve Actuators

Applicant: Neles USA Inc.

Issue 0

Drawing	Sheets	Rev.	Date (Sira Stamp)	Drawing
1026	1 of 1	A	20 Dec 13	O ring
1117	1 of 1	A	20 Dec 13	Retaining Ring
1244	1 of 1	C	20 Dec 13	Override Solid Shaft
1249	1 of 1	A	20 Dec 13	Internal Grounding Lug
1355	1 of 1	C	20 Dec 13	Shaft
1358	1 of 1	A	20 Dec 13	Spring
1359	1 of 1	A	20 Dec 13	Retaining Ring
1365	1 of 1	B	20 Dec 13	Pointer
1375	1 of 1	B	20 Dec 13	Indicator Pointer SA
1563	1 of 1	A	20 Dec 13	O ring
1622	1 of 1	B	20 Dec 13	Override Split Shaft
VCO01645	1 of 1	C	20 Dec 13	Motor Override Shaft Bearing
7306	1 of 1	B	20 Dec 13	Output Shaft Bearing
7141	1 of 1	A	20 Dec 13	Override Shaft Bearing
3060	1 of 1	B	20 Dec 13	Override Solid Shaft
3045	1 of 1	A	20 Dec 13	Override Split Shaft
3024	1 of 1	A	20 Dec 13	Retaining Ring
7230	1 of 1	A	20 Dec 13	Overlay For P/N 1379
VC001342	1 of 1	F	20 Dec 13	Cover Casting
VC001343	1 to 2	J	20 Dec 13	Base Casting
VC001344	1 of 1	H	20 Dec 13	Cover Casting
VC001345	1 to 2	H	20 Dec 13	Base Casting
VC001377	1 of 1	K	20 Dec 13	Cover Machining and SA
VC001379	1 of 1	G	20 Dec 13	Label Base Std
VC007144	1 of 1	A	20 Dec 13	Indicator Pointer Bearing
VC007153	1 of 1	A	20 Dec 13	Override Shaft Bearing
VC007210	1 of 1	C	20 Dec 13	Output Shaft Bearing
VC007211	1 of 1	B	20 Dec 13	Dowel Pin
VC007240	1 of 1	H	20 Dec 13	Base Machining and SA
VC007246	1 of 1	A	20 Dec 13	Base Flange O ring
VC007440	1 to 2	L	20 Dec 13	Base Machining and SA
VC007446	1 of 1	A	20 Dec 13	Base Flange O ring
VC007480	1 of 1	A	20 Dec 13	Large Output Shaft One Piece 20 MM Double Keyed
VC007800	1 of 1	G	20 Dec 13	Cover Machining and SA
VCM00019	1 of 1	A	20 Dec 13	Cover/Base Screw
VCM00020	1 of 1	A	20 Dec 13	Cover/Base Screw
VCM00029	1 of 1	-	20 Dec 13	External Grounding Nut
VCM00030	1 of 1	-	20 Dec 13	External Grounding Screw
VCD00056	1 of 1	A	20 Dec 13	ATEX Label Data For Valvcon Actuators

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
VC001344	1 of 1	L	31 Mar 16	Cover Casting

This certificate and its schedules may only be reproduced in its entirety and without change

CSA Group Netherlands B.V.
 Utrechtseweg 310,
 6812 AR, Arnhem,
 Netherlands

Certificate Annexe



Certificate Number: Sira 13ATEX1166X

Equipment: Valvcon Electric Valve Actuators

Applicant: Neles USA Inc.

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
VC001377	1 of 1	R	31 Mar 16	Cover Machining and SA
VC001345	1 to 2	K	31 Mar 16	Base Casting
VC007240	1 of 1	M	31 Mar 16	Base Machining and SA

VC001244	1 of 1	F	31 Mar 16	Shaft, override small, solid, CSA
VC001622	1 of 1	E	31 Mar 16	2 PC, 0-R, SV, SQ, HD, MALE
VC007301	1 of 1	P	31 Mar 16	SHAFT OUTPUT SM. 0.1875 PINS
VC007380	1 of 1	D	31 Mar 16	SMALL OUTPUT SHAFT ONE PIECE 15mm DOUBLE KEYED
VC007324	1 of 1	F	31 Mar 16	OUTPUT SHAFT SUB-ASSEMBLY SMALL ENCLOSURE 20mm KEYED
VC001342	1 of 1	H	31 Mar 16	Cover Casting
VC007800	1 of 1	M	31 Mar 16	LG. DIA. CAST COVER, FAIL SAFE BEIGE (YELLOW)
VC001343	1 to 2	L	31 Mar 16	Base Casting
VC007440	1 to 2	T	31 Mar 16	Base Machining and SA
VC003060	1 of 1	E	31 Mar 16	SHAFT, OVERRIDE LARGE, SOLID, CSA
VC003045	1 of 1	D	31 Mar 16	2 PC, 0-R, LG, SQ, HD, MALE
VC007201	1 of 1	H	31 Mar 16	SHAFT OUTPUT LG. 1/4" SHEAR PINS 1.938" DIA
VC007480	1 of 1	E	31 Mar 16	LARGE OUTPUT SHAFT ONE PIECE 20 MM DOUBLE KEYED
VC007224	1 of 1	E	31 Mar 16	LARGE OUTPUT SHAFT ONE PIECE 25mm DOUBLE KEYED
VC001375	1 of 1	E	31 Mar 16	POSITION INDICATOR ASSEMBLY
VCD00056	1 of 1	A	31 Mar 16	ATEX + IECEx LABEL DATA FOR VALVCON ACTUATORS

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
VC001344	1 to 2	N	28 Nov 16	Cover Casting
VC001377	1 of 1	S	28 Nov 16	Cover Machining and SA
VC001345	1 to 2	L	28 Nov 16	Base Casting
VC007240	1 of 1	P	28 Nov 16	Base Machining and SA
VC001375	1 of 1	F	28 Nov 16	Indicator Pointer SA
VC001244	1 of 1	H	28 Nov 16	Override Solid Shaft
VC001622	1 of 1	H	28 Nov 16	Override Split Shaft
VC001342	1 to 2	K	28 Nov 16	Cover Casting
VC007800	1 of 1	R	28 Nov 16	Cover Machining and SA
VC001343	1 to 3	N	28 Nov 16	Base Casting
VC007440	1 to 2	V	28 Nov 16	Base Machining and SA
VC003060	1 of 1	G	28 Nov 16	Override Solid Shaft
VC003045	1 of 1	G	28 Nov 16	Override Split Shaft
VC007201	1 of 1	J	28 Nov 16	SHAFT OUTPUT LG. 1/4" SHEAR PINS 1.938" DIA
VC007224	1 of 1	F	28 Nov 16	LARGE OUTPUT SHAFT ONE PIECE 25 MM DOUBLE KEYED
VC007301	1 of 1	R	28 Nov 16	SHAFT OUTPUT SM. 0.1875 PINS
VC007324	1 of 1	G	28 Nov 16	SMALL OUTPUT SHAFT ONE PIECE 20 MM DOUBLE KEYED
VC007380	1 of 1	E	28 Nov 16	SMALL OUTPUT SHAFT ONE PIECE 15 MM DOUBLE KEYED
VC007480	1 of 1	F	28 Nov 16	LARGE OUTPUT SHAFT ONE PIECE 20 MM DOUBLE KEYED
VCD00056	1 of 1	C	28 Nov 16	ATEX Label Data For Valvcon Actuators

This certificate and its schedules may only be reproduced in its entirety and without change

CSA Group Netherlands B.V.
 Utrechtseweg 310,
 6812 AR, Arnhem,
 Netherlands

Certificate Annexe



Certificate Number: Sira 13ATEX1166X

Equipment: Valvcon Electric Valve Actuators

Applicant: Neles USA Inc.

Issue 3. No new drawings were introduced.

Issue 4

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
VC001026	1 of 1	B	28 Nov 19	O-RING, OVERRIDE SHAFT, SM
VC001117	1 of 1	C	28 Nov 19	RETAINING RING OVERRIDE SHAFT, LG.
VC001249	1 of 1	B	28 Nov 19	INTERNAL GROUNDING LUG
VC001355	1 of 1	F	28 Nov 19	SHAFT, INDICATOR SHAFT
VC001358	1 of 1	B	28 Nov 19	SPRING POSITION INDICATOR SHAFT
VC001359	1 of 1	B	28 Nov 19	RETAINING RING POS. IND.
VC001365	1 of 1	C	28 Nov 19	INDICATOR, VISUAL
VC001379	1 of 1	K	28 Nov 19	LABEL BASE STD
VC001563	1 of 1	B	28 Nov 19	O-RING, OVERRIDE SHAFT, LG
VC001645	1 of 1	D	28 Nov 19	SLEEVE BEARING
VC003024	1 of 1	C	28 Nov 19	RETAINING RING OVERRIDE SHAFT, LG.
VC007141	1 of 1	C	28 Nov 19	SLEEVE BEARING
VC007144	1 of 1	B	28 Nov 19	SLEEVE BEARING
VC007153	1 of 1	B	28 Nov 19	SLEEVE BEARING
VC007210	1 of 1	D	28 Nov 19	SLEEVE BEARING
VC007211	1 of 1	C	28 Nov 19	DOWEL PIN LV-SERIES OUTPUT COUPLING
VC007306	1 of 1	D	28 Nov 19	SLEEVE BEARING
VC007446	1 of 1	B	28 Nov 19	O-RING, BUNA-N/NITRILE 10.359 ID x 10.498 OD
VCM00029	1 of 1	A	28 Nov 19	PRESS NUT #8-32UNC-2B ATEX EXTERNAL GROUND
VCM00030	1 of 1	0	28 Nov 19	GREEN ATEX GROUNDING SCREW #8-32 X 3/8 LG PHMS W/ CAPTIVE WASHER
VCD00056	1 of 1	E	28 Nov 19	ATEX LABEL DATA FOR VALVCON ACTUATORS
VCM00143	1 of 1	0	28 Nov 19	CAPTIVE SCREW M8 X 1.25 LARGE ENCLOSURE
VCE00015	1 to 2	B	28 Nov 19	LI-ION BATTERY PACK
VCD00066	1 to 3	0	28 Nov 19	FLAMEPATH DATA LARGE ENCLOSURE AND QB
VCD00067	1 to 3	0	28 Nov 19	FLAMEPATH DATA SMALL ENCLOSURE
VCD00069	1 of 1	0	28 Nov 19	WARNING LABEL ADC - SERIES
VS-016	1 to 5	1	28 Nov 19	VCE00015 LITHIUM ION BATTERY PACK SPECIFICATION

Issue 5

Drawing	Sheets	Rev.	Date (Stamp)	Title
VCD00056	1 of 1	F	16 Apr 20	ATEX LABEL DATA FOR VALVCON ACTUATORS

This certificate and its schedules may only be reproduced in its entirety and without change

CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands