



EU-TYPE EXAMINATION CERTIFICATE

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

Certificate Number: **Sira 19ATEX1176X** Issue: **2**

Equipment: **Type: ECON Fig. 7917EX Explosion-Proof Spring Return Actuators**

Applicant: **ERIKS Flow Control**

Address: **A division of: ERIKS B.V.
Cypresbaan 63
2908 LT Capelle aan den IJssel
The Netherlands**

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

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.

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/AC:2018-09 EN 60079-31:2014

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.

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.

The marking of the equipment shall include the following:



**II 2 GD
Ex db IIB T4 Gb
Ex tb IIIC T130°C Db
Ta = -30°C to +70°C**

Project Number 80065982

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 19ATEX1176X
Issue 2

13 DESCRIPTION OF EQUIPMENT

The ECON Fig. 7917EX, ELSA model series Explosion-Proof Spring Return Actuator comprises an aluminium flameproof enclosure, containing a motor and associated electronics which drive a carbon steel transmission shaft via a mechanical transmitting unit. A rotating handle may be used to manually drive the mechanical transmitting unit when the equipment is unpowered which can be removed from the mechanical circuit to prevent movement of the handle when the motor is driven. Within the flameproof enclosure is a double rack and pinion arrangement driven by the transmission shaft. Each rack is supported by a pair of springs, such that when power to the equipment is lost the actuator will be driven back to its original position.

The flameproof enclosure has a mechanical indicator at the upper end to show the position of the actuator valve which can be viewed through a cemented toughened glass window.

The internal motor winding contains a bimetallic strip for thermal protection, which is set to operate at 125°C. The motor is provided with class F insulation.

The equipment is rated as IP68 (7 metres for 72 hours), which is maintained by O-ring seals in each joint and oil seals in the interface between the main housing and transmission/drive handle shafts.

The flameproof housing features two threaded cable entries, which may be NPT3/4", NPT1/2", M20x1.5 or M25x1.5. Each cable entry is supplied by the manufacturer with a proprietary stainless steel blanking plug which may be replaced by the end user with suitably certified and rated flameproof cable entry devices.

Model Nomenclature:

ELSA 'X1'-'X2'-'X3'-'X4'-'X5'

X1 – Torque (Nm)

- 50
- 130
- 200
- 260

X2 – Voltage:

D24 – 24 VDC	24 – 24 VAC	100 – 100 VAC
120 – 110 - 120 VAC	200 – 200 VAC	220 – 220 - 240 VAC
380 – 380 VAC	440 – 440 VAC	

X3 – Direction of Rotation:

- CW – Clockwise
- CCW – Counter Clockwise

X4 – Control Method:

- T – Two Position
- M – Modulating
- F – Floating

X5 – Manual Override:

- Y – With Manual Override
- N – Without Manual Override

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Issue 2

Including the following variations:

- i. Introduction of alternative models that show the 'power fail' in the anti-clockwise position (manual over-ride on the left).
- ii. The reinforcement of the Top Cover.
- iii. The introduction of transparent paint on labels.

Variation 1 - This variation introduced the following changes:

- i. Change the type key and related ratings as follows:

Previous	New
110 stands for 110VAC 120 stands for 120VAC	120 stands for 110-120VAC
220 stands for 220VAC 240 stands for 240VAC	220 stands for 220-240VAC

- ii. Change of opening indicator type.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	22 August 2019	R80001558A	The release of prime certificate.
1	31 October 2019	4215	Transfer of certificate Sira 19ATEX1176X from Sira Certification Service to CSA Netherlands B.V.
2	20 January 2021	R80065982A	The introduction of Variation 1.

14.3 Certificate number Sira 14ATEX1307X Issue 5.

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

- 15.1 The flamepaths in this equipment are different to the standard dimensions given in EN 60079-1. If specific flamepath dimensions are required then the manufacturer (OEM) must be contacted.
- 15.2 Caution - Use fasteners with yield stress $\geq 700\text{MPa}$.

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.



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx SIR 19.0043X	Page 1 of 4	<u>Certificate history:</u> Issue 0 (2019-08-22)
Status:	Current	Issue No: 1	
Date of Issue:	2021-01-20		
Applicant:	ERIKS Flow Control A division of: ERIKS B.V. Cypresbaan 63 2908 LT Capelle aan den IJssel Netherlands		
Equipment:	Type: ECON Fig. 7917EX Explosion-Proof Spring Return Actuators		
Optional accessory:			
Type of Protection:	Flameproof and Dust Protection by Enclosure		
Marking:	Ex db IIB T4 Gb Ex tb IIIC T130°C Db Ta = -30°C to +70°C		

Approved for issue on behalf of the IECEx
Certification Body:

Neil Jones

Position:

Certification Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
United Kingdom

sira
CERTIFICATION





IECEx Certificate of Conformity

Certificate No.: **IECEx SIR 19.0043X**

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Date of issue: 2021-01-20

Issue No: 1

Manufacturer: **ERIKS Flow Control**
A division of: ERIKS B.V.
Cypresbaan 63
2908 LT Capelle aan den IJssel
Netherlands

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/SIR/ExTR19.0186/00](#)

[GB/SIR/ExTR21.0001/00](#)

Quality Assessment Report:

[DE/EPs/QAR19.0002/01](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx SIR 19.0043X**

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Date of issue: 2021-01-20

Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The **ECON Fig. 7917EX, ELSA model series Explosion-Proof Spring Return Actuator** comprises an aluminium flameproof enclosure, containing a motor and associated electronics which drive a carbon steel transmission shaft via a mechanical transmitting unit. A rotating handle may be used to manually drive the mechanical transmitting unit when the equipment is unpowered which can be removed from the mechanical circuit to prevent movement of the handle when the motor is driven. Within the flameproof enclosure is a double rack and pinion arrangement driven by the transmission shaft. Each rack is supported by a pair of springs, such that when power to the equipment is lost the actuator will be driven back to its original position.

Refer to the Annexe for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The flamepaths in this equipment are different to the standard dimensions given in IEC 60079-1. If specific flamepath dimensions are required then the manufacturer (OEM) must be contacted.
2. Caution - Use fasteners with yield stress $\geq 700\text{MPa}$.



IECEx Certificate of Conformity

Certificate No.: **IECEx SIR 19.0043X**

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Date of issue: 2021-01-20

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1, this Issue recognises the following changes:

1. Change the type key and related ratings as follows:

Previous	New
110 stands for 110VAC	120 stands for 110-120VAC
120 stands for 120VAC	
220 stands for 220VAC	220 stands for 220-240VAC
240 stands for 240VAC	

2. Change of opening indicator type.

Annex:

[IECEx SIR 19.0043X Annexe Issue 1.pdf](#)