



1 EU-TYPE EXAMINATION CERTIFICATE

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

3 Certificate Number: CSANe 25ATEX1001X Issue: 0

4 Equipment: Electric Valve Actuator model KEA-xS-y-mm-nn Series

5 Applicant: Kimray Incorporated

6 Address: 52 NW 42nd Street
Oklahoma City OK 73118

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 2G

Ex db IIB T6 Gb

Ta = -40°C to +60°C

Signed:

M Halliwell

Title: Senior Director of Operations

Project Number 80235828

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SCHEDULE

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CSA Ne 25ATEX1001X
Issue 0

13 DESCRIPTION OF EQUIPMENT

The Kimray Electric Actuator is a flameproof rising-stem actuator intended for ON/OFF or modulating operations on a globe or gate type valve or similar, and is contained in aluminum housing.

The frameless BLDC torque motor is attached to hollow shaft which contains a roller screw. The nut of the roller screw is secured to the hollow shaft such that when the motor rotates, the threaded rod of the roller screw moves up and down, lifting and lowering the valve stem. Several yoke assemblies are available to mate the actuator to the valve body. A yoke assembly is required since it holds the anti-rotate feature for the shaft coupling.

The motor/electronics compartment of the valve actuator contains a frameless brushless DC (BLDC) motor, servo drive controller, Kimray KA7510 PCB, linear position sensor and an optional back-up PTC protected

battery pack. The motor drive controller has an electronic current protection for the motor and power line fuse. KA7510 PCB contains a charger circuit which controls the voltage/current applied to the battery as well as the current drawn from the battery. A user interface consisting of an OLED display and four on-board tactile buttons is provided for commissioning and debugging of the actuator. The control and position sensor used in the actuator provide closed-loop feedback, eliminating the need for limit switches. The electronics provide an analog 4-20mA or discrete input and output, as well as digital input and output.

External connections are made through no more than four conduit entries. No more than two each of 1/2" NPT and 3/4" NPT entries.

The actuator is rated 24VDC, 10A Max, Ta = -40°C to 60°C, 1000 RPM Max, 1500 LBF Continuous; 3200 LBF peak and is marked Ex db IIB T6 Gb, IP66, -40°C to 60°C

Model Nomenclature:

KEAI-xS-Y-mm-nn where;

X = R for roller screw or X = L for linear screw

Y = 1, 2, 3, or 6 for yoke size

mm and nn are place-holders for variations not related to protection method.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	17 February 2025	R80235827A	The release of the prime certificate.

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

15.1 Flameproof joints are not intended to be repaired.

15.2 Potential Static Hazard; Clean only with a water wetted cloth

15.3 Blanking elements shall be suitably certified to maintain ratings of the equipment.

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Issue 0

- 15.4 Use only Kimray 7715 Battery Pack.
- 15.5 Only metric M8 stainless steel cover fasteners with a property class of A2-70 or yield stress of 450 MPa shall be used.

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.

17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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Certificate Annexe



Certificate Number: CSANe 25ATEX1001X

Equipment: Electric Valve Actuator model KEA-xS-y-mm-nn Series

Applicant: Kimray Incorporated

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
80072506	1 to 2	A-01	04 Feb 25	Electric Actuator Flame Path
RM_0022	1 to 28	V06	04 Feb 25	Installation Operation & Maintenance Guide
A-5837	1 of 1	A-01	04 Feb 25	TAG ELECTRIC ACTUATOR
A-5839	1 of 1	A-01	04 Feb 25	IECEX ATEX TAG ELECTRIC ACTUATOR

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