



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 LC 17.0003X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2019-11-23\)](#)
[Issue 0 \(2017-08-29\)](#)
Date of Issue: 2023-01-18
Applicant: **Emerson Process Management Valve Automation, Inc.**
19200 Northwest Freeway
Houston, TX 77065
United States of America
Equipment: **Rotary Electrical Actuator for Industrial Applications**
Optional accessory:
Type of Protection: **db, eb, tb, mb**
Marking: Ex db eb mb IIC T4 Gb,
Ex db eb IIC, T4 Gb,
Ex tb IIIC T130°C Db
Single phase models: 90-240 VAC 50-60Hz, 1.47Amps; 24VDC, 5.5A
Three phase models: 3 x 400VAC, 50-60Hz, 4A, 3PH
Supply voltage range: 3 x 380VAC & 3 x 480VAC +/-10%
-40°C ≤ Ta ≤ +60°C
IP64

Approved for issue on behalf of the IECEx
Certification Body:

Kavinder Dhillon

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

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:

LabTest Certification Inc.
205 - 8291 92 Street
Delta, British Columbia
V4G 0A4
Canada





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Manufacturer: **Emerson Process Management Valve Automation Inc.**
19200 Northwest Freeway
Houston
Texas 77065
United States of America

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 60079-18:2014](#) Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
Edition:4.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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:

[CA/LC/ExTR17.0003/00](#)

[CA/LC/ExTR17.0003/01](#)

Quality Assessment Reports:

[CA/LC/QAR17.0001/00](#)

[GB/SIR/QAR06.0045/17](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

General product information:

The actuator consists of flameproof protected main compartment with built-in electric and main electronic components (motor, control unit, frequency converter). This enclosure has a cover with operating elements and display for local operating and state readout.

The motor shaft and sensor shaft extend from the control box into the gearbox. Two cables bushing in the separating wall connect electrically the flameproof protected box ("d") with the terminal box in increased safety ("e") protection type.

General description of Size:

- Multiturn actuator: CM-ww: ww= maximum output torque in Nm
- Sizes CM-32 are fixed, no variations possible
- Linear actuator: CL-xx: xx= maximum output force in kN
- Linear failsafe actuator: FL-yy: yy= maximum output force in kN
- 90° part turn failsafe actuator: FQ-zz: zz= maximum output torque in daNm

xx, yy, zz, result from combination of ww with mechanical gears and gear units, additional variations are possible for there are no changes in basic unit ww!

Model CM32 and CM64 3-phases are an optional add-on supply module for assembly with the existing parts of the actuator, allowing the application of a supply voltage of 3 X 400VAC. The new module (Part no. SDC-480-4A-V3.0) can be inserted into the existing section of the actuator protected by increased safety "eb". Embedded into this section, and inside the new module, the electronic circuitry for the voltage conversion is enclosed by casting compound according to requirements of IEC 60079-18, equipment protection by encapsulant "mb". The rest of the module is designed with equipment protection increase safety "eb" in the same way as the connecting device.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- i. The yield stress of the screws for the flameproof enclosure must exceed 400 N/mm².
- ii. Flameproof Control and Motorbox "db" shall always be assembled with the oil filled gearbox.
- iii. The protection device/temperature limiter S-125 has the response temperature of 130°C.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- 1) The requirements of the standards IEC 60079-0:2011 Edition 6, IEC 60079-7:2015 Edition 5, which are associated with the existing certification were compared to the requirements of the latest standards, IEC 60079-0:2017 Edition 7, IEC 60079-7:2017 Edition 5.1.
- 2) The Introduction of a new configuration model CM32 and CM64 with three phase configuration using optional add-on encapsulated supply module encapsulation. As a result, the marking is updated to include "mb".
- 3) Minor drawings amendments, none of which affect compliance with the standards listed.