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 EPS 14.0103**

Certificate history:
Issue 0 (2015-03-20)

Status: **Current**

Issue No: 1

Date of Issue: 2020-07-13

Applicant: **COELBO S.r.l.**
V. Santa Margherita, 83
20861 Brugherio (MB)
Italy

Equipment: **EFS Series switch enclosure for commutators, deviation switches and circuit closing switches**

Optional accessory:

Type of Protection: **"db", "tb"**

Marking: Ex db IIB/IIC T6/T5/T4 Gb

Ex db I Mb (stainless steel, brass or cast iron versions only)

Ex tb IIIC T85°C/T100°C/T135°C Db IP66/67

Approved for issue on behalf of the IECEx Certification Body: **Holger Schaffer**

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:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany

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Certificate No.: **IECEx EPS 14.0103**

Date of issue: 2020-07-13 Issue No: 1

Manufacturer: **COELBO S.r.l.**
V. Santa Margherita, 83
20861 Brugherio (MB)
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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 Report:

DE/EPS/ExTR14.0102/01

Quality Assessment Report:

IT/CES/QAR10.0009/10

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Series EFS enclosures can be used for commutators, deviation switches and circuit closing switches. Different models group I, IIB and IIC versions are possible. For details see certificate Annex.

SPECIFIC CONDITIONS OF USE: NO

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Date of issue: 2020-07-13 Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Standard updated. Documents updated

Annex:

Annex to IECEx CoC 14.0103_01.pdf

Annexe to: IECEx EPS 14.0103 issue No.:1

Applicant: COELBO S.r.l.

Apparatus: Switch enclosure EFS Series

Description:

Series EFS are available as switches, commutators, deviation switches and circuit closing switches, allowing maximum flexibility for every technical requirement and great adaption for mounting capability, both for new and for existing installations. The series includes three enclosures of different dimensions (16, 32 and 63) that can suit electrical equipment with increasing rated currents (see following table). The enclosure is made of light alloy of aluminum (Mg+Ti+Zirconimum < 6%) with external screws in stainless steel and identification plates. In addition, versions in Stainless Steel AISI 316L (letter "I" is added to code), Brass CW608N CuZn38Pb2 (OT58) (letter "B" is added to code) or Cast Iron (letter "C" is added to code) are available. External standard paint is grey color RAL 7000. Other RAL colors are available on customer's request. The thickness of the external paint must be < 0.2 mm for gas group IIC and < 2 mm for gas group IIB. On request series EFS switches are available also with locking movement.

Electrical characteristics:

		EFS 16	EFS 32	EFS 63
Maximum voltage		690 V ac, 660 V dc		
Standard frequency		50/60 Hz		
Standard current Up to	AC-21A AC-1	20	40	63
	DC1	20	25	40
	DC23A	12	16	20

Temperature class:

Enclosure size	Temperature class		Max. ambinet temperature range
	Gas	Dust	
EFS 16	T6	T85°C	-50°C ≤ Ta ≤ +60°C
	T5	T100°C	-50°C ≤ Ta ≤ +80°C
EFS 32 EFS 63	T6	T85°C	-50°C ≤ Ta ≤ +50°C
	T5	T100°C	-50°C ≤ Ta ≤ +70°C
	T4	T135°C	-50°C ≤ Ta ≤ +80°C

Minimum ambient temperature: -50 °C

Special conditions for manufacturing and installation :

For use in presence of combustible dusts:

- User must regularly clean external surface of enclosure to avoid any accumulation of dust on the surface (the maximum allowed thickness of dust is equal to 5 mm).
- All damaged parts must be changed or repaired exclusively by manufacturer (where not differently specified).
- Cable entries must have at least degree of protection IP66/67 and number of engaged threads must be higher than 5, with a minimum length of 8 mm.

All openings must be equipped with certified cable glands or blind plugs in accordance with installation requirements of IEC 60079-14.

EFS 16 (IIC version only) must be subjected to routine overpressure test according to IEC 60079-1 with 16.5 bar.