IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Ex COMPONENT CERTIFICATE

Certificate No.: IECEx FTZU 14.0005U

Issue No: 2

Certificate history:
Issue No. 2 (2019-09-17)
Issue No. 1 (2014-06-30)
Issue No. 0 (2014-02-26)

Status: **Current**

Date of Issue: **2019-09-17**

Applicant: **RIBCO S.r.l.**
Via dei Mille, 12
20061 Carugate - MI
Italy

Ex Component: **Empty enclosures types R...; RI...; RJ...; RO...; ROI...; ROJ...; SRI...; SROI...; EMH90***

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Flameproof enclosure "d", Dust ignition protection "t"**

Marking:

Ex db IIC Gb

Ex tb IIIC Db

Ex db I Mb (stainless steel or brass variant only)

Approved for issue on behalf of the IECEx Certification Body: Dipl.Ing. Lukáš Martinák

Position: Head of Certification Body

Signature:
(for printed version)

Date: 2019-09-17

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 the Official IECEx Website.

Certificate issued by:

Fyzikalne technicky zkusebni ustav
(Physical -Technical Testing Institute)
Pikartska 7, 71607 Ostrava - Radvanice
Czech Republic

IECEx Certificate of Conformity

Certificate No:	IECEx FTZU 14.0005U	Issue No: 2
Date of Issue:	2019-09-17	Page 2 of 5
Manufacturer:	RIBCO S.r.l. Via dei Mille, 12 20061 Carugate - MI Italy	

Additional Manufacturing location(s):

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 Component 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 Ex Component 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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

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

TEST & ASSESSMENT REPORTS:

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

Test Report:

CZ/FTZU/ExTR14.0005/00 CZ/FTZU/ExTR14.0005/01 CZ/FTZU/ExTR14.0005/02

Quality Assessment Report:

IT/CES/QAR11.0001/08

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. • OSTRAVA-RADVANICE • FTZÚ Ex

IECEx Certificate of Conformity

Certificate No: IECEx FTZU 14.0005U Issue No: 2

Date of Issue: 2019-09-17

Schedule

Ex Component(s) covered by this certificate is described below:

The empty enclosures types R..., RO..., RI..., RJ..., ROI..., ROJ..., SRI..., SROI... are aluminium, brass or stainless steel enclosures with threaded cover with or without sight glass. Enclosure can be alternatively prolonged by threaded extension. Extension and cover are locked by screws with hex socket and are sealed with O-rings. Enclosure is equipped with 1 to 5 NPT or Metric threaded entries.

The empty enclosures types EMH90* are aluminium enclosures with threaded cover with sight glass. Cover is locked by screws with hex socket and is sealed with O-ring. Enclosure is equipped with one Metric M25x1,5 (type EMH90M) threaded entry or with one 3/4" NPT threaded entry (type EMH90N).

Technical specification:
Degree of protection: IP66
Service temperatures: -40°C ÷ 110°C with EPDM O-ring
-50°C ÷ 160°C with Silicone O-ring
-50°C ÷ 160°C sight glass with cementing joint
Routine overpressure test is not required for enclosures types R..., RI..., RJ...
Routine overpressure test 20 Bar is required for enclosures type RO...; ROI...; ROJ...; SRI...; SROI...
Routine overpressure test 13 Bar is required for enclosures type EMH90*.

SCHEDULE OF LIMITATIONS:

1. Maximum numbers of holes, their size and position are given in manuals No. IS-CROI, IS-CRO and IS-CEMH.

2. A circuit breakers or contactors containing oil filling and apparatus producing turbulences are not allowed to be installed inside of the enclosure.

3. The empty enclosure can be used for electrical equipment designed for ambient temperature not exceed range: -40°C ÷ 85°C (with EPDM O-ring) and -50°C ÷ 85°C (with silicone O-ring).

4. Apparatus installed inside of enclosure can has any lay-out, which ensures, that in any cross-section area will be at least 40% of area free.

5. Service temperature range of sight glass wit cementing joint is from -50°C to +160°C. Service temperature range of EPDM O-ring is from -40°C to +110°C and service temperature range of Silicone O-ring is from -50°C to +160°C.

6. Appropriate certified Ex equipment cable glands for direct entry has to be used.

7. Mechanical resistance of enclosure types RJ..., ROJ... matches to low risk of mechanical danger for component group I.

8. Component with non-metallic surface treatment must be installed so way to avoid a risk from propagating brush discharges for application in explosive dust atmosphere.

9. For information on dimensions of the flameproof joints the manufacturer shall be contacted.

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, S.P. OSTRAVA-RADVANICE FTZÚ Ex

IECEx Certificate of Conformity

Certificate No: IECEx FTZU 14.0005U Issue No: 2

Date of Issue: 2019-09-17 Page 4 of 5

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 2:

1. Documentation updated.
2. Evaluation of the product according to the new edition of the standards.
3. Component Ex marking is changed from "d" to "db" according to IEC 60079-1:2014.
4. Schedule of limitations updated.

IECEx Certificate of Conformity

Certificate No: IECEx FTZU 14.0005U Issue No: 2

Date of Issue: 2019-09-17 Page 5 of 5

Additional information:

Type designation:
(a) (b) (c) (d)

(a) – Type:
R* Aluminium enclosure without sight glass
R*I stainless steal enclosure without sight glass;
R*J brass enclosure without sight glass
RO* Aluminium enclosure with sight glass
RO*I stainless steal enclosure with sight glass;
RO*J brass enclosure with sight glass
SR*I stainless steel enclosure without sight glass, with soldered threaded hole
SRO*I stainless steel enclosure with sight glass, with soldered threaded hole
* Number and position of threaded holes – A; B; C; L; D; M; T; W; X; XA;

(b) – Dimension of cable entries

1 – 1/2" NPT	20 – M20x1.5
2 – 3/4" NPT	25 – M25x1.5
3 – 1" NPT	32 – M32x1.5
4 – 1.1/4" NPT	40 – M40x1.5
5 – 1.1/2" NPT	50 – M50x1.5
6 – 2" NPT	63 – M63x1.5

K – Mixed

(c) Size of the enclosure – 4; 6; 6A; 7; 8; 9

(d) – Internal height of enclosure.

EMH90M one metric M25 x 1,5 threaded entry

EMH90N one 3/4" NPT threaded entry