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 FTZU 14.0021X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2014-08-06)
Date of Issue:	2020-01-24		
Applicant:	**RIBCO s.r.l** VIA DEI MILLE, 12-20061 – CARUGATE (MI) **Italy**		
Equipment:	**Instrument and terminal boxes Type series R....; RI....; RJ....; RO....; ROI....; ROJ....; SRI....; SROI....; EMH90..**		
Optional accessory:			
Type of Protection:	**Flameproof enclosure "d", dust protection by enclosure „t“**		
Marking:	Ex db IIC T6 ... T4 Gb Ex tb III C T85°C ...T135°C Db Ex db I Mb		

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

Position: **Head of the Certification Body**

Signature: (for printed version)

Date: 2020-01-24

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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:

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

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Date of issue: 2020-01-24 Issue No: 1

Manufacturer: **RIBCO s.r.l**
VIA DEI MILLE, 12-20061 – CARUGATE (MI)
Italy

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 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 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:

CZ/FTZU/ExTR14.0021/00 CZ/FTZU/ExTR14.0021/01

Quality Assessment Report:

IT/CES/QAR11.0001/08

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

The equipment enclosures are separately certified as component, certificate IECEx FTZU 14.0005U.

The instruments enclosures or terminal boxes types R....; RI....; RJ....; RO....; ROI....; ROJ....; SRI....; SROI....; EMH90.. are aluminium, brass or stainless steel enclosures with threaded cover with or without sight glass. Enclosures can be alternatively extended by threaded extension. Extension and cover are locked by screws with hex socket and are sealed with o-rings. Enclosures are equipped with 1 to 5 NPT or Metric threaded holes. Appropriate certified cable glands for direct entry have to be used.

The enclosures contain various electrical apparatus or terminals blocks.

Enclosures with silicon o-rings are suitable for ambient temperature from -50°C and for max. surface temperatures T85°C ... T135°C.

Enclosures with EPDM o-rings are suitable for ambient temperature from -40°C C and for max. surface temperatures T85°C ... T100°C.

Enclosures types RI....; RJ....; ROI....; ROJ....; SRI....; SROI.... are equipment group I, II and III.

Enclosures types R....; RO....; EMH90.. are equipment group II and III

Technical specification:

Degree of protection: IP66
Max. rated voltage: 660Vac / 440Vdc
Max. rated current: 109A
Max. rated cross section: 35mm^2
Range of ambient temperature: -50°C to +40°C or +50°C or +60°C or +70°C or +85°C
-40°C to +40°C or +50°C or +60°C or +70°C or +85°C

Power dissipations, temperature class, max. surface temperature and max. ambient temperatures are determined in Table No.1. See Annex to this certificate.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Mechanical resistance for types RJ..., ROJ... matches to low risk of mechanical danger, for equipment group I.

2. Equipment must be installed so way to avoid a risk from propagating brush discharges for application in explosive dust atmosphere.

3. Temperature class, maximum surface temperature and ambient temperature range are given on the product marking plate.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue No.1:

1. Documentation updated.

2. Evaluation of the product according to the new edition of the standards IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-31:2013.

3. Equipment Ex marking is changed from "d" to "db" according to IEC 60079-1:2014.

4. Specific Conditions of Use updated.

Annex:

Annex_to_Certificate_IECEx_FTZU_14_0021_Issue_No_1.pdf

Type designation of instrument enclosures:
(a) (b) (c) (d) (e)

(a) – Type:

R*	aluminium enclosure without sight glass
R*I	stainless steel enclosure without sight glass;
R*J	brass enclosure without sight glass
RO*	aluminium enclosure with sight glass
RO*I	stainless steel 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.

(e) – Model of electrical equipment installed.

Type designation of instrument enclosure type EMH90..:

EMH90 (a) (b)

(a) - Dimension of cable entry:
N – 3/4" NPT
M – M25x1.5

(b) – Model of electrical equipment installed.

Type designation of terminal boxes:
(a) (b) (c) (d) (e)

(a) – Type:

R*	aluminium enclosure without sight glass
R*I	stainless steel enclosure without sight glass;
R*J	brass enclosure without sight glass
SR*I	stainless steel enclosure without 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) – Code of terminal installed

(e) – Max No. of terminals

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Table No. 1:

Type of enclosure	Max. ambient temperature	Max. power dissipation	Temperature class Equipment group II	Maximum surface temperature Equipment group III	Cable entry point temperature for max. power dissipation
R...4.	40°C	7.5 W	T6	T85°C	80°C
	50°C	5.5 W			
	60°C	3 W			
	70°C	1 W			
	40°C	11 W	T5	T100°C	95°C
	50°C	8.5 W			
	60°C	6 W			
	70°C	4.5 W			
	85°C	1 W			
	40°C	19.5 W	T4	T135°C	130°C
	50°C	17 W			
	60°C	14 W			
	70°C	12 W			
	85°C	8.5 W			
R...6/6A.	40°C	8 W	T6	T85°C	80°C
	50°C	5.5 W			
	60°C	3 W			
	70°C	1 W			
	40°C	11.5 W	T5	T100°C	95°C
	50°C	9 W			
	60°C	6.5 W			
	70°C	4.5 W			
	85°C	1 W			
	40°C	20.5 W	T4	T135°C	130°C
	50°C	18 W			
	60°C	15 W			
	70°C	12.5 W			
	85°C	9 W			
R...7.	40°C	10 W	T6	T85°C	80°C
	50°C	7 W			
	60°C	4 W			
	70°C	1.5 W			
	40°C	15 W	T5	T100°C	95°C
	50°C	11.5 W			
	60°C	8.5 W			
	70°C	5 W			
	85°C	1.5 W			
	40°C	30 W	T4	T135°C	130°C
	50°C	26 W			
	60°C	21 W			
	70°C	17 W			
	85°C	11.5 W			

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Type of enclosure	Max. ambient temperature	Max. power dissipation	Temperature class Equipment group II	Maximum surface temperature Equipment group III	Cable entry point temperature for max. power dissipation
R...8. / EMH90.	40°C	11 W	T6	T85°C	80°C
	50°C	7.5 W			
	60°C	4.5 W			
	70°C	2 W			
	40°C	16 W	T5	T100°C	95°C
	50°C	12.5 W			
	60°C	9 W			
	70°C	6 W			
	85°C	2 W			
	40°C	31 W	T4	T135°C	130°C
	50°C	27 W			
	60°C	22 W			
	70°C	18 W			
	85°C	12.5 W			
R...9.	40°C	14 W	T6	T85°C	80°C
	50°C	10 W			
	60°C	6 W			
	70°C	2.5 W			
	40°C	21 W	T5	T100°C	95°C
	50°C	16 W			
	60°C	12 W			
	70°C	8 W			
	85°C	2.5 W			
	40°C	42 W	T4	T135°C	130°C
	50°C	35 W			
	60°C	29 W			
	70°C	24 W			
	85°C	16 W			

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