



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 15.0031X	Page 1 of 5	<u>Certificate history:</u>
Status:	Current	Issue No: 2	Issue 1 (2017-09-29) Issue 0 (2015-09-29)
Date of Issue:	2022-08-16		
Applicant:	R.STAHL Schaltgeräte GmbH Am Bahnhof 30 74638 Waldenburg Germany		
Equipment:	Ground monitoring device type 8485/1**-**		
Optional accessory:			
Type of Protection:	flameproof enclosure "db", intrinsic safety "ib", protection by enclosure "tb"		
Marking:	Ex db ib [ib] IIB T4 Gb Ex ib [ib] tb IIIC T130°C Db		

Approved for issue on behalf of the IECEx
Certification Body:

Dipl. Ing. Martin Gregor

Position:

Vice Head of Certification Body

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:

Fyzikálne technický zkušební ústav
(Physical -Technical Testing Institute)
Pikartská 7, 71607 Ostrava - Radvanice
Czech Republic





IECEX Certificate of Conformity

Certificate No.: **IECEX FTZU 15.0031X**

Page 2 of 5

Date of issue: 2022-08-16

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Manufacturer: **R.STAHL Schaltgeräte GmbH**
Am Bahnhof 30
74638 Waldenburg
Germany

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 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[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 Reports:

[CZ/FTZU/ExTR15.0031/00](#)

[CZ/FTZU/ExTR15.0031/01](#)

[CZ/FTZU/ExTR15.0031/02](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/17](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX FTZU 15.0031X**

Page 3 of 5

Date of issue: 2022-08-16

Issue No: 2

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Electrostatic Grounding Tester 8485/1**-** is designed to prevent uncontrolled electrostatic discharges in hazardous areas which could lead to ignition hazardous when loading and unloading flammable liquids and powder from, road trucks and tankers, railway wagons, containers, barrels, drums and big bags.

The electronic circuits of the Grounding Tester are installed in a die-cast aluminium flameproof enclosure or stainless steel flameproof enclosure. The clamp circuit is designed as intrinsically safe. The relays contacts can be connected to either intrinsically safe or non-intrinsically safe circuits. The cover plate with either two or four lights is secured with six hexagon screws, placed in protecting shrouds. Certified flameproof cable glands are used for the supply cable, operative cable and output clamp cable. The clamp cable can be equipped with a connector to enable easy interchange of clamps. An arctic clamp cable is available for ambient temperatures -55°C .

Maximum length of the grounding clamp cable is 20 m.

Marking:

- Ex ib - earth cable with clamp;
- Ex [ib] - associated apparatus inside of enclosure;

Two PCB's are mounted inside the flameproof enclosure. The Control PCB includes the supply terminals, the IS relay input terminals and the IS grounding clamp terminals. There are also non-IS circuits for power supply and relay controls. The Display PCB includes only non-IS circuits.

Type 8485/1**-** includes variants 8485/111-42 rev. D and 8485/111-42 rev. E, 8485/121-42 rev. D and 8485/121-42 rev. E.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Ambient temperature range: $-55^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
2. The basic values for maximum constructional gaps are different from the maximum values shown in Table 3 IEC 60079-1. The values are specified in documents approved on Technical Documents.
3. Overpressure static test: 12 bar / 10 s at normal ambient temperature.
4. The enclosure shall be installed to avoid a risk from propagating brush discharges for application in explosive dust atmosphere.



IECEX Certificate of Conformity

Certificate No.: **IECEX FTZU 15.0031X**

Page 4 of 5

Date of issue: 2022-08-16

Issue No: 2

Equipment (continued):

Parameters:

Power input: $U_n = 20 \text{ V} - 230 \text{ V AC/DC}$
Relay contacts: $U_i = 50 \text{ V}$, $I_i = 200 \text{ mA}$
Ingress protection: IP 65
Rated ambient temperature range: -55°C to $+60^\circ\text{C}$



IECEX Certificate of Conformity

Certificate No.: **IECEX FTZU 15.0031X**

Page 5 of 5

Date of issue: 2022-08-16

Issue No: 2

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 2:

1. The type marking was changed to 8485/1**-**.
2. The Bluetooth module was changed on the PCB UZCL 6.ZB.
3. Added variants 8485/111-42 rev. E and 8485/121-42 rev. E - with new used PCB UZCL 6.E3 and UZCL 6.ZB2.
4. The Special Conditions were updated.
5. Verification according to the newest standard IEC 60079-0:2017.