



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 IBE 23.0033X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2023-12-13

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

Equipment: **LED Cleanroom Light Fitting type 6413/5**

Optional accessory:

Type of Protection: **Restricted-breathing enclosure and dust ignition protection by enclosure**

Marking: Ex nR IIC T4 Gc
Ex tb IIIC T100 °C Db
-20 °C ≤ T_a ≤ +45 °C

Approved for issue on behalf of the IECEx
Certification Body:

Kai Willamowski

Position:

Head of department 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:

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg
Germany





IECEX Certificate of Conformity

Certificate No.: **IECEX IBE 23.0033X**

Page 2 of 3

Date of issue: 2023-12-13

Issue No: 0

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

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

R. STAHL Schaltgeräte GmbH
Nordstraße 10
99427 Weimar
Germany

R. STAHL (P) LTD
Plot No. 5, Malrosapuram Road
Sengundram Indl Area
Singaperumal Koil Chengalpattu Dt.,
Tamil Nadu - 603 204
India

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 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-31:2022](#) Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

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/IBE/ExTR23.0033/00](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/19](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX IBE 23.0033X**

Page 3 of 3

Date of issue: 2023-12-13

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The LED Cleanroom Light Fitting of type 6413/5 is a recessed luminaire for application in explosive gas and dust atmospheres that require equipment protection level (EPL) Gc and Db, respectively. The luminaire consists of a metal enclosure made of stainless steel and a cover made of toughened glass in a metal frame. A gasket made of silicone foam is applied for sealing of the luminaire enclosure. Internally, the luminaire is equipped with an industrial LED driver and several integral LED modules employing mid-power LEDs.

The luminaire is implemented in types of protection restricted-breathing enclosure "nR" and dust ignition protection by enclosure "tb".

The luminaire is intended for installation in a false ceiling where no heat accumulation occurs. It is not suitable for covering with thermally insulating material.

Technical data:

Type	6413/512*	6413/513*
Nominal input power	≤ 50 W	
Nominal input voltage	220 V...240 V AC, 50/60 Hz; 220 V...240 V DC	
Enclosure size	Small ¹	Large ²
LEDs	Mid-power LEDs	
LED module configuration	6 LED blocks connected in series with 4 parallel LEDs per block (6 x 4 configuration)	
Number of LED modules	4 (28 W)	4 (28 W)
	6 (40 W)	6 (40 W)
	8 (50 W)	8 (50 W)
Nominal LED current	max. 350 mA	
Through-wiring	max. 3 x 10 A	
Ambient temperature	-20 °C...+45 °C	
Temperature class	T4	
Maximum surface temperature	T100 °C	

(1) Small enclosure size: 290 mm x 560 mm x 80 mm

(2) Large enclosure size: 590 mm x 560 mm x 80 mm

SPECIFIC CONDITIONS OF USE: YES as shown below:

The routine test of restricted-breathing enclosures in accordance with IEC 60079-15, clause 12.2 has to be carried out after any activity that requires the luminaire to be opened, such as installation, maintenance and repair.