



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 TPS 25.0081X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2026-02-12

Applicant: **National Lighting Co. Ltd.**
Street 77, 2nd Industrial City,
Dammam- 31411
Saudi Arabia

Equipment: **Junction box Type: NLC EXP-JBR-*/* Series**

Optional accessory:

Type of Protection: **Flameproof enclosures "db"; Protection by enclosure "tb"**

Marking: Ex db IIC T6/T5 Gb (Except NLC EXP-JBR-KB1/*)
Ex db IIB+H₂ T6/T5 Gb (NLC EXP-JBR-KB1/*)
Ex tb IIIC T80°C/T95°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Xia Jiayan

Position:

Technical Certifier

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:

TÜV SÜD Product Service GmbH
Ridlerstr. 65
D-80339 Munich
Germany



Product Service



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Manufacturing
locations: **National Lighting Co. Ltd.**
Street 77, 2nd Industrial City,
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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](#) 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/TPS/ExTR25.0096/00](#)

Quality Assessment Report:

[US/UL/QAR24.0012/00](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Junction box consists of housing and cover, which is made of aluminium alloy ADC12. Inside the housing there are terminal blocks provided for connecting to external circuits. Threaded holes with different types and sizes are provided in the housing of the Junction box and closed by IECEx certified blanking elements. The ingress degree of protection of the Junction box is IP66 (IEC 60529).

Model designation:

NLC EXP-JBR - * / *
W X Y Z

W: NLC EXP - Explosive-proof series

X: JBR - Design No.

Y: Shape code - A1, A2A, A2B, A3, A4, A5, B3, B3A, C4A, C4B, C6, C8, KB1

Z: Thread specification - M20x1.5, M25x1.5, M32x1.5, NPT1/2", NPT3/4", NPT1"

Warning label:

WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The temperature class and maximum surface temperature of junction box are T6 and T80 °C when Ambient Temperature is $-60\text{ °C} \leq T_a \leq +40\text{ °C}$.
2. The temperature class and maximum surface temperature of junction box are T5 and T95 °C when Ambient Temperature is $-60\text{ °C} \leq T_a \leq +55\text{ °C}$.
3. The cable entry holes shall be connected by means of suitable cable entry devices which are certified separately with IECEx certificate and the IP degree of cable entries shall be IP66 as a minimum.
4. The unused entry holes shall be blocked by means of suitable blanking elements which are certified separately with IECEx certificate and the IP degree of blanking elements shall be IP66 as a minimum.
5. Repairs of the flameproof joints may only be made by the manufacturer or on behalf of the manufacturer and on his own responsibility. Repair in compliance with the values of IEC 60079-1 is not allowed.
6. Use fasteners with property class A2-70.
7. The withstand temperature of cable for field wiring shall be not less than 80 °C, when Junction box is used for Ambient temperature up to 55 °C.
8. The installation shall be installed according to the requirement of IEC 60079-14: latest version.
9. To minimize the risk from electrostatic discharge, cleaning of the junction box shall be done only with damp cloth.

Annex:

[Annex to CoC IECEx TPS 25.0081X.pdf](#)



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Product Service

Annex to certificate: IECEx TPS 25.0081X **Issue No:** 0
Applicant: National Lighting Co. Ltd.
Street 77, 2nd Industrial City, Dammam- 31411, Saudi Arabia
Equipment: Junction box, type: NLC EXP-JBR-*/* Series

TECHNICAL DATA:

Rated current and voltage of NLC EXP-JBR-*/* Series junction box:

Product type	Cross-section area of the conductor (mm ²)	Rated current (A)	Rated voltage (V a.c.)
NLC EXP-JBR-A1/*, NLC EXP-JBR-A2A/*, NLC EXP-JBR-A2B/*, NLC EXP-JBR-A3/*, NLC EXP-JBR-A4/*, NLC EXP-JBR-A5/*	2.5	24	Max.800
	4.0	32	
NLC EXP-JBR-B3/*, NLC EXP-JBR-B3A/*	2.5	24	
	4.0	32	
NLC EXP-JBR-C4A/*, NLC EXP-JBR-C4B/*, NLC EXP-JBR-C6/*, NLC EXP-JBR-C8/*	2.5	24	
	4.0	32	
	6.0	41	
NLC EXP-JBR-KB1/*	2.5	24	
	4.0	27	

The relation between applicable ambient temperature, temperature class and maximum temperature are as below:

Ambient temperature	Explosive gas atmosphere	Explosive dust atmosphere
	Temperature class	Maximum surface temp.
-60 °C to +40 °C	T6	T80 °C
-60 °C to +55 °C	T5	T95 °C

Routine tests:

Routine tests are required on each piece (100%) during production control:

1. The flameproof enclosure shall withstand an overpressure test of 2 MPa, with the test duration being at least 10 s. After the test, the enclosure must show no damage that would invalidate its flameproof protection type. The overpressure test shall be performed in accordance with Clause 16.1.2 of IEC 60079-1:2014.