

EU-TYPE EXAMINATION

CERTIFICATE

Component Intended for use on/in an Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

1. EU-Type Examination Certificate Number: ETL22ATEX0158U Issue 00
2. Product: ELJB Series Empty Enclosures
3. Manufacturer: ROSE Systemtechnik GmbH
4. Address: Erbeweg 13-15, 32457 Porta Westfalica, Germany
5. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
6. Intertek Testing Services NA Ltd., Notified Body number 2903 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the product intended for use in potentially explosive atmospheres given in Annex II of the Directive.
7. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018, EN 60079-1:2014 and EN 60079-31:2014 except in respect of those requirements referred within item 14 of the Schedule.
8. The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for equipment or a protective system. This partial certification may be used as a basis for certification of equipment or a protective system.
9. This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
10. The marking of the product shall include the following:

II 2 G D



Ex db IIB Gb or

Ex db IIB+H₂ Gb and/or

Ex tb IIIC Db IP66

Certification Officer: _____ Date: 25th July 2022
M Newman

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11. Description of Component

Empty enclosures ELJB series (ELJB 01, ELJB 02, ELJB 03 and ELJB 04) are fabricated from Stainless steel SS304 or SS 316L or Mild Steel plates. The lid may contain display windows made of toughened, heat & impact resistant glass, permanently sealed with silicon sealant and threaded entries for Ex control accessories.

The enclosure is provided with bolted lid having flange joint. In case of flameproof enclosure ingress protection of IP66 as per EN 60529 is achieved by application of silicone grease to flange surface of base and lid or providing O Ring of Silicone in flange joint between lid & base as an option. However, in case of Ex tb enclosures ingress protection IP66 with silicon grease is not allowed and silicon O ring to achieve the same will be provided by default.

Enclosures shall be used within permissible watt dissipation as under:

TYPE No.	T Class	T6			T5			T4		
	*Max. surface	T85°C			T100°C			T135°C		
	Max ambient temperature	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C
ELJB 01	Max Watt Dissipation	167	112	80	214	168	132	422	376	318
ELJB 02		227	145	95	309	245	187	672	600	518
ELJB 03		380	268	186	564	418	318	1054	923	800
ELJB 04		455	318	227	705	527	395	1336	1136	982

Note: * Without dust layer

The watt dissipation values for T6 at 40°C, 50°C and 60°C can be extrapolated for T5 at higher ambient of 55°C, 65°C and 75°C and for T4 at higher ambient of 90°C, 100°C and 110°C and similarly watt dissipation values for T5 at 40°C, 50°C and 60°C can be extrapolated for T4 at higher ambient of 75°C, 85°C and 95°C.

Lid may be populated with separately certified control accessories (e.g., various type of PB actuators, rotary actuator for switching devices and LED Indicating lamp etc.) in required numbers & combination as shown hereunder. Lid may also be populated with display window, for Indicating or control instruments with display, number and size as shown hereunder. These control accessories or display window can be populated on sides of base of enclosure also if required.

Type	Dimensions (mm)			Max. no. of control accessories	Display window (mm)		
	Width	Height	Depth		44x44	92x92	140x140
ELJB 01	390	540	264	35	01	02	01
ELJB 02	510	660	297	63	01	02	01
ELJB 03	620	870	313	96	01	02	01
ELJB 04	730	930	325	130	01	02	01

Note: Smaller size display window can be provided e.g., 60x90 instead of 92x92 without reducing the thickness of glass.

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The ELJB series empty enclosures contains one internal and one external earthing. The enclosures are provided with threaded holes in the wall of the enclosure for cable glands, breather, bushings, conduit fittings, adapters and stopping plugs etc.

One or more enclosures of this ELJB series and other certified enclosures may be joined using separately certified sealed wire bushing and or conduit accessories.

12. Report Number

Intertek India Report Reference No. CE-JOB-NDA-22-000818-004 (Intertek UK Certification Report Reference No. G105036929) dated 14th June 2022.

13. Conditions of Certification

(a). Schedule of Limitations

1. Refer instruction manual for maximum number, size, and location of entries.
2. Oil filled circuit breaker and contactors shall not be used.
3. The rated ambient temperature of these enclosures with or without display window is “-20°C to +110°C”.
4. The rated service temperature of these enclosures with or without display window is “-20°C to +135°C”.
5. T Class, Max. surface temperature and ambient temperature to be marked as per watt dissipation table during equipment certification.
6. Marking Label to be fixed inside enclosure being empty enclosure.
7. Yield strength of lid fixing fasteners shall be $\geq 450 \text{ N/mm}^2$ (MPa).
8. The continuous effects of devices, such as rotating devices, which can create significant turbulence that may result in an increase in reference pressure shall be considered during equipment certification.
9. Equipment inside empty enclosure may be placed in any arrangement provided that an area of at least 40% of each cross section remains free when marked IIB+H₂ and an area of at least 20% free when marked IIB. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5mm.
10. No modifications must be made to the flamepaths of the unit without consultation of the drawings listed on the Ex-Certificates.
11. Only suitably certified bushings and or conduit fittings to be used referring to the enclosure marking to connect to other certified enclosures. Minimum distance of obstructions from flameproof flange openings shall be 30mm for IIB and 40mm for IIB+H₂.
12. For enclosures provided with powder coating or liquid painting and intended for use in Group III applications, may pose risk of electrostatic discharge, hence clean with damp cloth only.

(b). Conditions of Manufacture - Routine Tests

A routine overpressure test shall be carried out by the manufacturer on flameproof enclosures of ELJB Series at pressure in bar for a period of at least 10 seconds and test results recorded.

The overpressure test shall be considered satisfactory if no permanent deformation or damage invalidating the type of protection is observed, the joints in no place have been permanently

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enlarged and no leakage through the walls of enclosure and cemented joint shall be observed and test results must be recorded.

Enclosure	ELJB 01	ELJB 02	ELJB 03	ELJB 04
	(bar)			
Pressure for min ambient of "-20°C"	11.3	11.3	11.5	10.1

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek India Report No. CE-JOB-NDA-22-000818-004 (Intertek UK Certification Report Reference No. G105036929) dated 14th June 2022.

15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Empty enclosures - ELJB Series (4 Sheets)	Ex.PMI.ELJB.201-1	0	11.01.2022
Instruction Manual for configuration of equipment's from ELJB Series empty enclosures	IM.ELJB.U	0	11.01.2022