



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ITA 14.0032X Issue No: 2 Certificate history:
Status: **Current** Issue No. 2 (2019-04-18)
Date of Issue: **2019-04-18** Page 1 of 4 Issue No. 1 (2018-07-30)
Applicant: **B&R Ex systems** Issue No. 0 (2016-12-20)
Unit 12/100 Belmore Rd North,
Riverwood NSW 2210
Australia

Equipment: **EJB Range of power control, distribution, monitoring and signalling equipment**
Optional accessory:

Type of Protection: **Flameproof & Protection by Enclosure**

Marking:
Ex db IIB T5/T6 (-30 °C ≤ Tamb ≤ 60 °C)
Ex db IIB+H2 T5/T6 (-30 °C ≤ Tamb ≤ 60 °C)
Ex tb IIIB T85 IP66

Approved for issue on behalf of the IECEx
Certification Body:

Ajay Maira

Position:

Certification Authority

Signature:
(for printed version)

Date:

2019-04-18

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Ex Testing and Certification Pty Ltd
1/30 Kennington Drive
Tomago NSW 2322
Australia





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Manufacturer: **B&R Ex Systems**
Unit 12/100 Belmore Rd North,
Riverwood NSW 2210
Australia

Additional Manufacturing location(s):

B&R Enclosures Sdn. Bhd.

No. 38, 38-1, 40, 42, Jalan Suria Puchong 4,
Pusat Perniagaan Suria Puchong,
47110 Puchong, Selangor
Malaysia

B&R Gulf LLC

Factory No 12, Modon Building
King Salman Road, Industrial Area 03
Dammam
Saudi Arabia

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 apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: 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 electrical 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:

[AU/TRA/ExTR16.0021/00](#)

Quality Assessment Report:

[AU/EXTC/QAR18.0001/00](#)

[AU/EXTC/QAR19.0001/00](#)

[AU/ITA/QAR10.0007/05](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description:

The EJB range of aluminium alloy enclosures house electrical control equipment and assemblies (e.g. switch racks), for the control of power electrical machines, lighting and distribution, as well as for monitoring and measurement functions. Ex d equipment may contain sparking components such as contactors, circuit breakers, relays, PLC's high voltage terminals and electronic modules. They may have other equipment otherwise protected such as Intrinsically Safe associated apparatus (such as barriers).

The applications for the EJB range of enclosures include most industries, including the Gas extraction sector, CSG drilling rigs, gas and oil storage plants, FPSOs, oil refineries; all industries producing or storing flammable liquids or dusts including substances like; sugar, grain, flour, coal, aluminium powder, sewage treatment, water treatment.

Refer to annex for further details:

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annex for details.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Refer to Annex for details.

Annex:

[IECEX ITA 14.0032X-2 Certificate Annex_final.pdf](#)

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Annexe



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Product Features: (the features and functions that characterise the product)

The range of EJB Ex d equipment will be an assembly of:

- a) IECEX component-certified Ex d cast Enclosures. The BXT-...-W series of Ex d enclosures is comprised of 13 models covered by Component certificate IECEX CQM 14.0011U, Ex d IIB Gb, Ex tb IIIC Db IP66.
- b) An optional rectangular or circular window made of 12.7 mm thick polycarbonate or 19 mm thick clear tempered glass.
- c) A range of Ex d operator components, including pushbuttons to operate contacts and/or mechanical actuators, pilot lights, rotary operators with pad lockable handle and internal operation device for coupling with switches, miniature circuit breakers, MCCBs and disconnectors.
- d) A variety of possible internal electrical components, such as terminals, bus bars, switches, relays, circuit boards, displays, PLCs, MCBs, MCCBs, Capacitors and internal wiring as the specific application requires.
- e) Rolled lids on sizes EJB04 to EJB07 to cater for the use of operators and viewing windows

See the following table for the allowable options and maximum power dissipation.

The maximum power dissipation of all enclosures is dependent on the design and application of the enclosure. Table 1 below details the maximum power dissipation tables that may be used to determine the maximum power dissipation of a given enclosure based on the configuration and application of the enclosure.

Table 1: Enclosure configuration and application

Power dissipation table	Operator Entries	Window Entries	Application Zones	Conditions/Comments
Table 2: Maximum power dissipation for enclosures without windows	NO	NO	1, 2, 21, 22	NIL
	YES	NO	1, 2	All operators except for illuminating type
Table 3: Maximum power dissipation for enclosures with window / operator options	NO	NO	1, 2, 21, 22	Where the ambient temperature of the application is within the range of 40°C < Tamb ≤ 60°C, glands with a continuous operating temperature of ≥ 85°C and V-90 cable (or better) must be used.
	NO	YES	1, 2, 21, 22	
	YES	NO	1, 2, 21, 22	
	YES	YES	1, 2, 21, 22	

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Table 2: Maximum power dissipation for enclosures without windows

MODEL	Alternative Model Name	Approximate Internal Dimensions WxHxD (mm)	Approximate Internal Volume (Litres)	Max Power Dissipation W for T6 @ Tamb≤40°C	Max Power Dissipation W for T6 @ Tamb≤60°C	Max Power Dissipation W for T5 @ Tamb≤40°C	Max Power Dissipation W for T5 @ Tamb≤60°C
EJB1	EJB050705	130x180x150	4	51	25	69	44
EJB2	EJB050905	130x230x150	5	58	29	80	51
EJB2B	EJB051105	130x280x150	6	66	33	91	58
EJB3	EJB091106	220x270x166	12	93	47	128	82
EJB3B	EJB091108	220x270x236	16	111	55	152	97
EJB4	EJB101407	260x360x181	18	132	66	182	116
EJB4B	EJB101409	260x360x251	24	154	77	212	135
EJB5	EJB121806	300x460x169	25	174	87	239	152
EJB5B	EJB121809	300x460x239	35	200	100	275	175
EJB6	EJB132108	340x540x223	42	227	113	312	198
EJB6B	EJB132111	340x540x293	56	256	128	352	224
EJB7	EJB182408	450x600x232	65	309	154	425	270
EJB7B	EJB182410	450x600x300	84	344	172	473	301

Table 3: Maximum power dissipation for enclosures with windows / operators

MODEL	Alternative Model Name	Approximate Internal Dimensions WxHxD (mm)	Approximate Internal Volume (Litres)	Max Power Dissipation W for T5/T6 @ Tamb≤60°C	Max Power Dissipation W for T5/T6 @ Tamb≤40°C
EJB1	EJB050705	130x180x150	4	30	58
EJB2	EJB050905	130x230x150	5	34	66
EJB2B	EJB051105	130x280x150	6	39	75
EJB3	EJB091106	220x270x166	12	56	107
EJB3B	EJB091108	220x270x236	16	68	128
EJB4	EJB101407	260x360x181	18	79	148
EJB4B	EJB101409	260x360x251	24	92	168
EJB5	EJB121806	300x460x169	25	102	183
EJB5B	EJB121809	300x460x239	35	118	209
EJB6	EJB132108	340x540x223	42	132	231
EJB6B	EJB132111	340x540x293	56	151	259
EJB7	EJB182408	450x600x232	65	178	301
EJB7B	EJB182410	450x600x300	84	200	335

Notes:

- See manufacturer's documents for maximum amount of operators and sizes of windows which can be installed on the different cover types.
- See manufacturer's documents for maximum number and types of entries that are allowed for each enclosure body type.

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Specific Conditions of Use pertaining to Issue 0 of this Certificate:

1. Some flamepaths are different from the standard and must be considered during maintenance / repair using the information supplied by the manufacturer.
2. Where the ambient temperature of the application is within the range of $40^{\circ}\text{C} < \text{Tamb} \leq 60^{\circ}\text{C}$, gland and cable selection as per installation/manufacturer instructions.
3. When polycarbonate windows are installed in enclosure covers, they shall not be exposed to direct sunlight.

Drawing list pertaining to Issue 0 of this Certificate:

Manufacturer's Documents				
Title:	Drawing No.:	Pages	Rev. Level:	Date:
DIM for CAST ENCL. & BASE for ROLLED LID	CD-EJB-01	1 of 1	1	2016.10.20
EJB ENTRIES TABLE	CD-EJB-02	1 of 1	1	2016.10.20
EJB 1~3 CAST LID ENTRIES	CD-EJB-03	1 of 1	1	2016.10.20
EJB 4~7 ENTRIES ROLLED LID	CD-EJB-05	1 of 1	1	2016.11.15
EJB 4~7 ROLLED LID ENTRIES & WINDOWS	CD-EJB-06	1 of 2	1	2016.11.15
EJB 4~7 WINDOW KEEPER CHART	CD-EJB-06	2 of 2	1	2016.10.20
PRODUCT NAME PLATE DETAILS	CD-EJB-07	1 of 1	1	2016.10.23
EJB1, EJB2, EJB3, EJB4, EJB5, EJB6 & EJB7 SERIES ENCLOSURES CAST COVER Installation & maintenance Instructions	IS-EJB-A1	7	1	2016.11.29
EJB1, EJB2, EJB3 ENCLOSURES CAST COVER Installation & maintenance Instructions	IS-EJB-B1	7	1	2016.11.29
EJB4, EJB5 EJB6 & 7 SERIES ENCLOSURES ROLLED LID Installation & maintenance Instructions	IS-EJB-C1	7	1	2016.12.13

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Issue No.:

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Variations permitted by Issue 1 of this certificate:

Added an additional manufacturing location of B&R Sdn. Bhd. at Malaysia to this certificate.

Specific Conditions of use pertaining to Issue 1 of this certificate:

There are no variations to the earlier conditions.

Drawings Associated with the Issue 1 of this Certificate:

There are no drawings associated with this issue of the certificate.

Variations permitted by Issue 2 of this certificate:

Added an additional manufacturing location of B&R Gulf LLC in Kingdom of Saudi Arabia to this certificate.

Specific Conditions of use pertaining to Issue 2 of this certificate:

There are no variations to the earlier conditions.

Drawings Associated with the Issue 2 of this Certificate:

There are no drawings associated with this issue of the certificate.