



# 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](http://www.iecex.com)

### Ex COMPONENT CERTIFICATE

Certificate No.: IECEx ITA 14.0033U Issue No: 2 Certificate history:  
Status: **Current** Page 1 of 5 Issue No. 2 (2019-04-18)  
Date of Issue: **2019-04-18** Issue No. 1 (2018-07-30)  
Applicant: **B&R Ex Systems** Issue No. 0 (2016-02-22)  
Unit 12/100 Belmore Rd North,  
Riverwood NSW 2210  
**Australia**  
Ex Component: **PB, RS, RP Range of push buttons, rotary switches & potentiometers**

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

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

Marking:

Ex db IIC (-30 °C ≤ Tamb ≤ 60 °C)

Ex tb IIIC IP66/67

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



TESTING & CERTIFICATION



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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 Component 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 Ex Component 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:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2014-06</b> Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-31 : 2013</b> 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 Ex Component listed has successfully met the examination and test requirements as recorded in*

Test Report:

[AU/ITA/ExTR15.0053/00](#)

Quality Assessment Report:

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

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

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



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## Schedule

**Ex Component(s) covered by this certificate is described below:**

The PB Pushbuttons, RP Potentiometers and RS Rotary Switch Operators are designed for use in Ex d and Ex tb Control Panels, Isolator Switches and similar Electrical Equipment for Hazardous Area, subject to the appropriate certification of the complete apparatus.

Refer to annex for further details.

## SCHEDULE OF LIMITATIONS:

The operators shall only be used with enclosures which are suitably certified and have provision for such operators in their certification.



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

Refer to Annex for details.



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**Additional information:**

Refer to Annex for details.

**Annex:**

[IECEX ITA 14.0033U -2 Certificate Annex\\_final.pdf](#)

# IECEX Certificate of Conformity



## Annexe



Annexe for Certificate No.:

IECEX ITA 14.0033U

Issue No.:

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### Description:

The PB Pushbuttons, RP Potentiometers and RS Rotary Switch Operators are designed for use in Ex d and Ex tb Control Panels, Isolator Switches and similar Electrical Equipment for Hazardous Area, subject to the appropriate certification of the complete apparatus. These components include four types of pushbuttons (PB-..), three of which are provided with an operating shaft or shafts moving linearly through a cylindrical joint. The fourth "pushbutton" component PB-04 is a pilot light. The light transmission through the wall of the enclosure is achieved by means of a transparent polycarbonate lens sealed with a cemented joint. The Ex d operators also include bushing arrangements (RS-..) with three spindle diameter sizes (8, 10 or 12 mm) to transmit rotary movement and torque from an external handle to a switch, circuit breaker or potentiometer inside the Ex enclosure. The use of PB pushbuttons and RS Rotary Switch Operators as Ex Components is restricted to application in enclosures having suitable certification which allows the use of such Ex Components. The non-metallic parts fitted in the PB and RS components have COT well in excess of the operating temperature range for which these components can be practically used:

Thermal Characteristics of Non-Metallic Materials			
Ex Component	Non-Metallic Part	Where used	COT to ASTM D2000
Pushbuttons	Silicone O-ring	Operating rod	-55 to +225 °C
Pilot light, illuminated PB	Polycarbonate lens (MR10)	Internal light transmission	-60 to +132 °C
Rotary Switch Operator	FKM O-ring	Operating rod (spindle)	up to +250 °C
All	Fibre washer	Under body or bushing	-150 to +250 °C
All	Soft Teflon Washer	Under body or bushing	-200 to +250 °C

# IECEx Certificate of Conformity



## Annexe

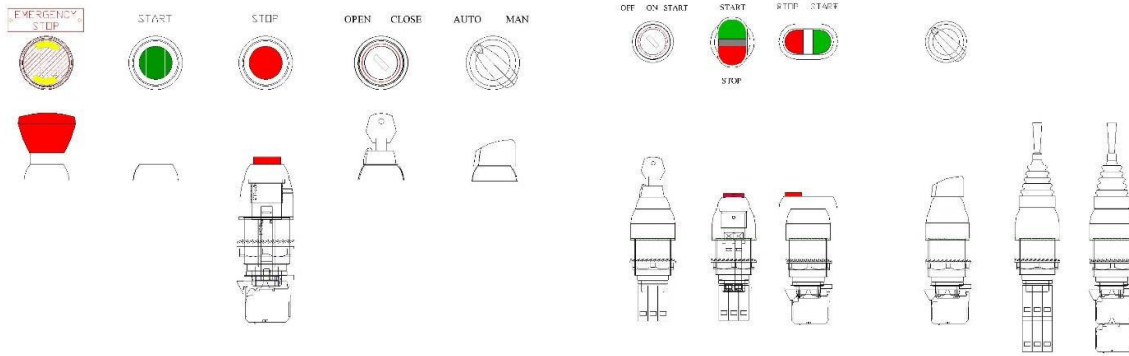


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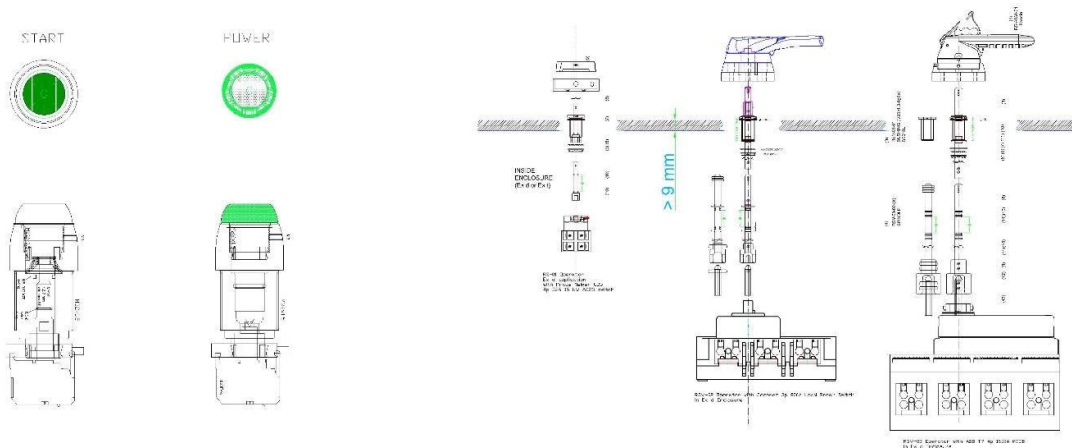
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PB01 single spindle pushbutton with choice of various types of external operator

PB02 double spindle pushbutton with choice of various types of external operator



PB03 (Illuminated Pushbutton) and PB04 (Pilot Light), The external operator or lens might be of different colours.

RS01, RSV02 and RSV03 in their typical applications, engaged with switches and circuit breakers (not part of the component assessment).

# IECEX Certificate of Conformity



## Annexe



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

1. These components shall be used only with enclosures which are suitably certified and have provision for such accessories in their certification.
2. All PB, RS & RP operators are limited to operating in an environment that is at most 85°C.

### Drawing list pertaining to Issue 0 of this Certificate:

Manufacturer's Documents				
Title:	Drawing No.:	Pages	Rev. Level:	Date:
Single Push Button Assy	CD-PB-01	1	C	16 Feb 2016
Double Push-button Assy	CD-PB-02	1	C	16 Feb 2016
Illuminated Push button Assy	CD-PB-003	1	C	16 Feb 2016
Pilot Light Body Assy	CD-PB-04	1	C	16 Feb 2016
Typical Pot Assy	CD-RP-01	1	C	16 Feb 2016
Rotary Sw Opp Latch	CD-RS-01	1	C	16 Feb 2016
Typ Handle attach Size RSV-01	CD-RS-011	1	B	16 Feb 2016
Rotating Spindle 8mm	CD-RSV-01	1	C	16 Feb 2016
Rotating Spindle 10 mm	CD-RSV-02	1	C	16 Feb 2016
Typ Handle attach Size RSV-02	CD-RSV-021	1	B	16 Feb 2016
Rotating Spindle 12 mm	CD-RSV-03	1	C	16 Feb 2016
Typical example of operator attachment Size RSV-03	CD-RSV-031	1	B	16 Feb 2016
Technical Note PB-RP-RS	-	11	2.0	17 Feb 2016



# IECEX Certificate of Conformity



## Annexe



Annexe for Certificate 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.

**Schedule of Limitations 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.

**Schedule of Limitations 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.