

[1]

UNITED KINGDOM CONFORMITY ASSESSMENT UK-TYPE EXAMINATION CERTIFICATE

[2]

Component Intended for use on/in a Product or Protective System Intended for use in Potentially

Explosive Atmospheres

UKSI 2016:1107 (as amended by UKSI 2019:696) - Schedule 3A, Part 1

[3] UK-Type Examination Certificate No.: UL21UKEX2231U Rev. 0

[4] Component: HK Series Flameproof Enclosures

[5] Manufacturer: Killark, Div. of Hubbell Inc. (Delaware)

[6] Address: 2112 Fenton Logistics Park Blvd., Fenton, MO 63026 USA

- [7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- UL International (UK) Ltd, Approved Body number 0843, in accordance with Regulation 44 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential report UKRCC- 4790001961.2.1- UL21UKEX2231U

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014

Except in respect of those requirements listed at section 19 of the schedule to this certificate.

- [10] The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as the basis for certification of an equipment or protective system.
- [11] This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified component Further requirements of the Regulations apply to the manufacturing process and supply of this component. These are not covered by this certificate.
- [12] The marking of the component shall include the following:

Ex II 2 G Ex db IIC Gb

Certification Manager

David Lloyd

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the UKEx Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Regulations. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2022-03-22

Approved Body UL International (UK) Ltd Unit 1-3 Horizon Kingsland Business Park Wade

Road, Basingstoke RG24 8AH, UK Phone: +44 (0)1256 312100



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[15] <u>Description of Component</u>

These devices are empty aluminum or stainless steel flameproof enclosures, with a single or double enclosure body. The cover can be of blank, glass lens, dome, or glass lens dome construction, with various openings and locations.

Nomenclature for HK Enclosures

Double Port Enclosure Nomenclature

2HKB I	BC II	BC III	0 IV
I	Back Box Type 2HKB 2HKSB	Aluminum Box Dou Stainless Steel Box	
II	Cover Assembly - BC 1DC 2DC 4DC GLC 1GLDC 2 GLDC 4 GLDC	- Side 1 Blank 1 in. High Dome Co 2 in. High Dome Co 4 in. High Dome Co Glass Lens Cover 1 in. High Glass Le 2 in. High Glass Le 4 in. High Glass Le	over over ns Cover ns Cover
III	Cover Assembly - BC 1DC 2DC 4DC GLC 1GLDC 2 GLDC 4 GLDC	- Side 2 Blank 1 in. High Dome Co 2 in. High Dome Co 4 in. High Dome Co Glass Lens Cover 1 in. High Glass Le 2 in. High Glass Le 4 in. High Glass Le	over over ns Cover ns Cover
IV	Side Alternate Ma 0 10 1S 20 2S	chining None 1/2 in. NPT 1/2 in. NPSM* 3/4 in. NPT 3/4 in. NPSM*	

^{*}Not to be used for cable or conduit connections.



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Single Port Enclosure Nomenclature

1GLDC II	1S III	20 IV	
Back Box Type HKB HKBD HKSB HKSBD	Aluminum Box Sin Aluminum Deep B Stainless Steel Bo Stainless Steel De	ox Single Port	
B 1D 2D 4D GL 1GLD 2GLD 4GLD	Blank 1 in. High Dome C 2 in. High Dome C 4 in. High Dome C Glass Lens Cover 1 in. Glass Lens C 2 in. Glass Lens C 4 in. Glass Lens C	over over over	
Back Alternate Ma 0 10 1S 20 2S	chining None 1/2 in. NPT 1/2 in. NPSM* 3/4 in. NPT 3/4 in. NPSM*		
Side Alternate Machining			
10 1S	1/2 in. NPT 1/2 in. NPSM*		
2S	3/4 in. NPSM*		
	II Back Box Type HKB HKBD HKSB HKSBD B 1D 2D 4D GL 1GLD 2GLD 4GLD Back Alternate Ma 0 10 1S 20 2S Side Alternate Ma 0 10 1S 20 2S	II III Back Box Type HKB Aluminum Box Sin HKBD Aluminum Deep B HKSB Stainless Steel Bo HKSBD Stainless Steel De B Blank 1D 1 in. High Dome C 2D 2 in. High Dome C 4D 4 in. High Dome C 6L Glass Lens Cover 1GLD 1 in. Glass Lens C 2GLD 2 in. Glass Lens C 4GLD 4 in. Glass Lens C 6Back Alternate Machining None 10 1/2 in. NPT 1S 1/2 in. NPSM* 20 3/4 in. NPSM* Side Alternate Machining None 10 1/2 in. NPSM* Side Alternate Machining None 10 1/2 in. NPSM* 21 in. NPSM* 22 3/4 in. NPSM* 23 in. NPSM* 24 in. NPSM* 25 in. NPSM* 26 3/4 in. NPT 27 in. NPSM* 28 3/4 in. NPSM* 29 3/4 in. NPSM*	

^{*}Not to be used for cable or conduit connections.

Cat. No. HKBX Enclosure Nomenclature

HKBX I	BC II	1S III	20 IV
1	Back Box Type HKBX	Aluminum Box Sir	ngle Port – Increased opening
II	BC GLC 2DC 2GLDC	Blank Flat Cover Flat Lens Cover 2 in. High Dome (2 in. High Dome (
III	Back Alternate Ma Blank 10 1S 20 2S M20 M25	None 1/2 in. NPT 1/2 in. NPSM* 3/4 in. NPT 3/4 in. NPSM* M20 Metric** M35 Metric**	
	Side Alternate Ma SM 2S M25 MX e used for cable or cused for metric cab	3/4 in. NPT 3/4 in. NPSM* M25 Metric** Mix of above size onduit connection	s c conduit connections

Temperature range

The ambient temperature range is -60 °C to +70 °C



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Routine tests

Routine tests according to EN 60079-1 cl. 16.1 are not required, as the enclosures have been successfully tested at four times the reference pressure

[16] Test Report No. (associated with this certificate issue)

US/UL/ExTR14.0101/04.

[17] Schedule of limitations:

- Where necessary for safety, the contents of the enclosure shall comply with the appropriate requirements of relevant standards for electrical apparatus for use in potentially explosive atmospheres.
- The assembled equipment shall comply with the appropriate requirements of relevant standards for electrical apparatus for use in potential explosive atmospheres.
- The enclosure's apparatus may be placed in any arrangement provided that an area of at least 40% of each cross-sectional area remains free to permit unimpeded gas flow and, therefore, unrestricted development of an explosion.
 Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5 mm
- Rotating or other devices, which create turbulence, shall not be incorporated.
- Liquids shall not be used when there is risk of producing an explosive mixture by the decomposition of or release of oxygen by these liquids.
- The use of energy storage devices may present difficulties, due to the possibility of sparking, after isolation from the supply, when the enclosure cover is removed. In addition, secondary cells, and in some cases primary cells may emit flammable gas not considered under the normal certification conditions. The following requirements shall apply:
 - All such devices shall be provided with adequate means to prevent incendive sparking when flameproof covers are removed.
 - Enclosures which can be opened more quickly than the time necessary for the discharge of incorporated capacitors to a residual energy of:
 - 0.2 mJ for electrical apparatus of Group I or Group IIA, or
 - 0.06 mJ for electrical apparatus of Group IIB
 - 0.02 mJ for electrical apparatus of Group IIC
 - shall be provided with a label stating the delay required before attempting to open the enclosure.
 - If enclosed components have a temperature above that of the temperature classification of the electrical apparatus a label shall be provided stating the delay necessary before attempting to open the enclosure to allow the component to cool below the temperature classification.
- Oil-filled contactors shall not be used.
- No holes, whether for mechanical or electrical purpose and whether blind or clear, shall be drilled in the enclosure other than those shown on the Component Certificate Drawings D-20675 & D-20676.
- All entry devices shall be of a type specified in the certification documents having an appropriate component Certificate
 and suitable for the conditions of use or be specifically certified with the apparatus.
- Any unused entry shall be closed by a device specified in the certification documents having an appropriate Component Certificate or be specifically certified with the apparatus.
- The holder of the final Certificate will be required to provide information to enable the test authority to verify compliance with the above and the relevant parts of the certification standard not explicitly covered by the Component Certificate (e.g. temperature classification).
- The window temperature must not exceed 120°C for models HKB, HKBD, 2HKB, HKSB, and 2HKSB.
- The window temperature must not exceed 97°C for models HKBX.
- The sealing cement on the windows shall not exceed 87°C for models HKB, HKBD, 2HKB, HKSB, and 2HKSB.
- Flameproof joints are not to be repaired in the field. If the flamepath is damaged the enclosure is to be removed from service and replaced with a new properly working enclosure.

[18] Conditions of certification:

None

[19] <u>Essential Health and Safety Requirements (Regulations Schedule 1)</u>

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

Additional information

The HKB, HKBD, 2HKB, HKSB, 2HKSB and HKBX Series have in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013.

The trademark ** KILLARK will be used as the company identifier on the marking label.

The manufacturer shall inform the approved body concerning all modifications to the technical documentation as described in Annex III to UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1.



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[20] <u>Drawings and Documents</u>

Title:	Drawing No.:	Rev. Level:	Date:
2HK & 2HKS Series Certification Drawing	D-20675 (Sheet 1)	D	-
2HK & 2HKS Series Certification Drawing	D-20675 (Sheet 2)	Е	-
2HK & 2HKS Series Certification Drawing	D-20675 (Sheet 3)	D	-
2HK & 2HKS Series Certification Drawing	D-20675 (Sheet 4)	Α	-
HKB, HKBD & HKSB Series Certification Drawing	D-20676 (Sheet 1)	D	-
HKB, HKBD & HKSB Series Certification Drawing	D-20676 (Sheet 2)	Е	-
HKB, HKBD & HKSB Series Certification Drawing	D-20676 (Sheet 3)	D	-
Lens Retaining Ring Assembly	PR-0114	В	-
Approval Nameplate	B-24261	Е	-
Installation Instructions, HKB and HKSB	Form No. K1232	-	2021-08
Installation Instructions, HKBX	From No. K1232A	-	2021-08
HKBX Series Empty Enclosure	51699 (Sheets 1-3)	Α	-

