

**UK  
CA**

## UK TYPE EXAMINATION CERTIFICATE

No.


**3CT 22UKEX1002U**

- 1 **UNITED KINGDOM CONFORMITY ASSESSMENT**  
**UK TYPE EXAMINATION CERTIFICATE**
- 2 **Component Intended for use in a Product Intended for use in Potentially Explosive Atmospheres Safety Device, Controlling Device or Regulating Device intended for use outside a potentially explosive atmosphere but required for or contributing to the safe functioning of Product and Protective Systems with respect to the risks of explosion**  
**UKSI 2016:1107 (as amended) – Schedule 3A, Part 1**
- 3 Type Examination Certificate No.: **3CT UKEX1002U**
- 4 Product: **Flameproof enclosure**
- 5 Manufacturer: **Killark Division, Hubbell Inc. (Delaware)**
- 6 Address: **2112 Fenton Logistics Park Blvd.  
Fenton, MO  
63026 USA**
- 7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 8 3C Test Ltd, Approved Body number 8508, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product 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 **UKEX1728-2R1**.
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN IEC 60079-0:2018                      EN IEC 60079-1:2014                      EN IEC 60079-31:2014**
- 10 Except in respect of those requirements listed at section 18 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 TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.



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### 12 The marking of this product shall include the following:

 II 2G Ex db IIB+H2 Gb  
II 2D Ex tb IIIC Db IP66  
Ta= -50°C. +70°C

13 This certificate and its schedules may only be reproduced in its entirety and without change.

### 14 Description of Product

The EXB series is a line of Copper-Free Cast Aluminium enclosures that utilize flat flame paths, NPT, NPSM, and metric entry threads to obtain hazardous location/Ex rating of Ex db IIB+H2 Gb, Ex tb IIIC Db IP66 , The service temperature is -50°C to +70°C. The light version model EXBLT Series has identical flame paths but it optimizes the wall thickness and uses a plate stock cover or of a cast cover. The options for the light version has reduced to optimize the wall thickness. The light version EXBLT has the same technical aspects of the original EXB series found compliance to the requirements of the applicable standards.

15 **Test report No. (associated with this certificate issue):** UKEX1728-2R1

### 16 Schedule of Limitations

- The enclosures shall be installed to a flat rigid surface using the mounting means provided.
- For conduit/cable and cover drilling and tapping and layout instructions, refer to drawing 18047 sheets 1-3 of 5.
- At least 40% of the cross-sectional area must remain free to permit unimpeded gas flow and therefore unrestricted development of an explosion.
- All unused openings must be fitted with certified flameproof blanking elements and have a minimum gas and IP marking equal to the marking on the enclosure.
- The enclosure certification applies to the equipment without cable glands. When installing cable glands, they must be certified as flameproof and have a minimum gas and IP marking equal to the marking on the enclosure.
- The enclosure certification applies to equipment without conduit seal fittings (stopping box). When installing conduit seal fitting, they must be certified as flameproof and have minimum gas and IP marking equal to the marking on the enclosure.
- All conduit entries shall have a sealing fitting (stopping box) at the enclosure wall.
- The end user shall provide the earthing/bonding means as necessary.
- The flanged joint has following parameters: width: 24.7 mm, Gap less than 0.0635 mm.

### 17 Essential Health and Safety Requirements (Regulations Schedule 1)

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.



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### 18 Drawings and Documents

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
EXB WITH CAST COVER CERTIFICATION DWG FOR ATEX/IECEX	18047-1	E	Nov. 11, 2020
EXB/LT CERTIFICATION DWG FOR ATEX/IECEX	18047-2	E	July 25, 2022
EXB-1224 N34 MACHINED COVER FOR ATEX/IECEX	18047-3	C	Nov. 11, 2020
EXBLT WITH PLATE COVER CERTIFICATION DWG FOR ATEX/IECEX	18047-4	A	Nov. 11, 2020
EQUIPMENT INST. DETAIL FOR ATEX/IECEX	18047-6	B	July 25, 2022

Instruction			
Document	Sheets	Rev	Title
K0983 R0221 EXB EXBLT IOM IEC --7-25-22	9	R02	INSTALLATION, OPERATION & MAINTENANCE DATA SHEET SERIES EXB-N34 CEN & EXBLT-N4 CEN -Empty Enclosures and Controllers

You can check the validity of this certificate into our website at:



Steve Youngman  
 Certification Officer  
 Ex Products and Systems, United Kingdom  
 Silverstone, 27th September 2022



## 3CT 22UKEX1002U

### Annex

**Table 1. Equipment name/model number**

Flameproof Enclosure empty enclosure (component) EXB and EXBLT series.

### Nomenclature

Item	Detail														
Type identification	Series EXB P- 8 10 6 N34 (Sample)														
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 12.5%;">EXB</td> <td style="width: 12.5%;">P</td> <td style="width: 12.5%;">8</td> <td style="width: 12.5%;">10</td> <td style="width: 12.5%;">6</td> <td style="width: 12.5%;">N34</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> </tr> </table>	EXB	P	8	10	6	N34	1	2	3	4	5	6		
	EXB	P	8	10	6	N34									
	1	2	3	4	5	6									
	1: Box Series Constant: EXB or EXBLT														
	2: Cover Type: <b>Blank or "c"</b> : Sand Cast Cover, or <b>P</b> : Flat Aluminum Plate														
	3: Width normal: 6-24														
	4: Length Normal: 6-36														
	5: Depth Normal: 4-10														
	6: Environmental Rating:														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">EXB</th> <th style="width: 33%;">EXBLT</th> <th style="width: 33%;"></th> </tr> </thead> <tbody> <tr> <td>N34</td> <td>N4</td> <td>Type 4 Steel External hardware</td> </tr> <tr> <td>N34 SU-1</td> <td>N4X</td> <td>Type 4X Stainless Steel external hardware</td> </tr> <tr> <td>N34TL</td> <td>N4TL</td> <td>Type 4x Tri-lead Stainless Steel External hardware.</td> </tr> <tr> <td>N34CEN</td> <td>N4CEN</td> <td>Type 4X, IP 66 ATEX &amp; IECEx Certification</td> </tr> </tbody> </table>	EXB	EXBLT		N34	N4	Type 4 Steel External hardware	N34 SU-1	N4X	Type 4X Stainless Steel external hardware	N34TL	N4TL	Type 4x Tri-lead Stainless Steel External hardware.	N34CEN	N4CEN	Type 4X, IP 66 ATEX & IECEx Certification
EXB	EXBLT														
N34	N4	Type 4 Steel External hardware													
N34 SU-1	N4X	Type 4X Stainless Steel external hardware													
N34TL	N4TL	Type 4x Tri-lead Stainless Steel External hardware.													
N34CEN	N4CEN	Type 4X, IP 66 ATEX & IECEx Certification													
7: Suffixes ++:															
<p><b>SU3-****</b>: Type 4X drain &amp; breather installed Group BCD</p> <p><b>SU3-****</b>: ATEX/IECEx drain &amp; breather installed in Group b, Ex-d_IIB</p> <p><b>SU2</b>: Install hinges- EXB-8 &amp; smaller</p> <p><b>SU9</b>: Special Paint.</p> <p><b>SU93</b>: Do not paint</p> <p><b>SU1</b>: Stainless Steel Cover bolts 302, 304 or 316.</p> <p><b>MOD</b>:</p> <ul style="list-style-type: none"> <li>• Openings: NPT, NPSM, METRIC and UN series.</li> <li>• Windows Round "GL" Series and Rectangular "GLXR" Series</li> <li>• "G" Series Operators, Flameproof Operator, Device Actuator Handles.</li> <li>• As defined in the schedule drawing 18047</li> </ul>															

- The above table represent the standard sizes of enclosure, Non-standard size enclosure are permitted, provided that they fall between the sizes list in the above Table, Larger or smaller enclosure than those listed, are not permitted. Distance between the fastening mechanisms of the enclosure are to be no larger than the covered by this certification.



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**Table 2. Cover sizes**

The outlet box covers are made of cast aluminum. The dimensions given below are applicable to the outlet box covers with or without the gasket groove.

Series EXB Cat. No. Suffix	Overall Dimension		Min Thickness		Flange
	Width	Length	Center	Elsewhere	Thickness
664	10 5/16	10 5/16	9/16	9/16	5/8
684	10 1/4	12 1/4	9/16	9/16	5/8
6124	10 63/100	16 63/100	47/50	47/50	1
886	12 5/16	12 5/16	11/16	11/16	5/8
8104, 8106	12 5/16	14 5/16	7/8	7/8	5/8
8126, 8128	13 1/4	17 1/4	7/8	7/8	1
10106, 10108	15 1/4	15 1/4	1 1/8	1 1/8	1
10146, 10148	15 1/4	19 1/4	1 1/8	1 1/8	1
12126, 12128	16 3/8	16 3/8	1 9/64	1 9/64	1
12186, 12188	16 3/8	22 3/8	1 5/16	1 5/32	1
12246, 12248, 122412	16 3/8	28 3/8	1 1/2	1 9/32	1
12368, 123610	17 1/4	41 1/4	1 41/100	1 41/100	1
14146, 14148	19 1/4	19 1/4	1 7/16	1 7/16	1
16166, 16168	20 3/8	20 3/8	1 7/16	1 7/16	1
16248, 162410	21 1/4	29 1/4	1 3/4	1 3/4	1
18186, 18188	23 1/4	23 1/4	1 3/4	1 3/4	1
18248, 182410	22 3/8	28 3/8	1 3/4	1 1/3	1 3/16
<b>18308</b>	<b>22 10/27</b>	<b>35 27/73</b>	<b>2 10/77</b>	<b>1 18/25</b>	<b>1 20/87</b>
18368, 183610	22 3/8	40 3/8	2 1/8	1 23/32	1 1/4
203611	26 13/16	42 13/16	2 9/64	2 11/64	1 19/64
24248, 24248	28 3/8	38 3/8	2	2	1 5/16
24368, 243610	29 1/4	41 1/4	2	2	1 1/64

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**Table 3. Cover sizes**

Series EXBLT Cat. No. Suffix	Overall Dimension			Min Thickness Cover	Flange Thickness
	Width	Length	High		
664	10 31/100	10 31/100	5 47/50	5/8	1/2
684	10 1/4	12 1/4	5 47/50	5/8	1/2
686	10 1/4	12 1/4	7 47/50	5/8	1/2
6124, 6126	10 17/25	16 17/25	5 22/25	5/8	1/2
886	10 17/25	16 17/25	7 22/25	5/8	1/2
8104, 8106	12 31/100	12 31/100	7 47/50	5/8	1/2
8126, 8128	12 31/100	14 31/100	7 22/25	5/8	5/8
9116	13 31/100	15 31/100	7 47/50	5/8	5/8
10106, 10108	15 1/4	15 1/4	10 19/100	5/8	5/8
10146, 10148	15 1/4	19 1/4	8 19/100	5/8	5/8
12126, 12128	16 37/100	16 37/100	10 19/100	5/8	5/8
12186, 12188	16 3/8	23 1/4	8.44/10.44	7/8	1
12246, 12248, 122412	16 3/8	28 3/8	8.57/10.57/14.69	7/8	1
14146, 14148	19 1/4	19 1/4	8.44/10.44	7/8	1
14248	19 1/4	18 3/8	10.57	7/8	1
14308	19 1/4	35 1/4	10.57	7/8	1
16166, 16168	20 3/8	20 3/8	8.44 / 10.44	7/8	1
16248, 162410	20 3/8	29 1/4	10.69 / 12.96	7/8	1

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**Table 4. Fastener Matrix Table for EXB**

Series EXB Cat. No. Suffix	ENCLOSURE COVER BOLTS - CADMIUM			
	Size	Length	QTY*	Din
664	M12 x1.75-6g	35 mm	8	9.8
684	M12 x1.75-6g	35 mm	10	9.8
6124	M12 x2.00-6g	35 mm	12	9.8
886	M12 x1.75-6g	35 mm	12	9.8
8104, 8106	M12 x1.75-6g	35 mm	14	9.8
8126, 8128	M14 x2.00-6g	55 mm	12	9.8
10106, 10108	M14 x2.00-6g	55 mm	12	9.8
10146, 10148	M14 x2.00-6g	55 mm	16	9.8
12126, 12128	M14 x2.00-6g	55 mm	22	9.8
12186, 12188	M14 x2.00-6g	55 mm	22	9.8
12246, 12248, 122412	M14 x2.00-6g	55 mm	28	9.8
12368, 123610	M14 x2.00-6g	55 mm	38	9.8
14146, 14148	M14 x2.00-6g	55 mm	20	9.8
16166, 16168	M14 x2.00-6g	55 mm	24	9.8
16248, 162410	M14 x2.00-6g	55 mm	30	9.8
18186, 18188	M14 x2.00-6g	55 mm	24	9.8
18248, 182410	M14 x2.00-6g	65 mm	34	9.8
18308	M14 x2.00-6g	65 mm	40	9.8
18368, 183610	M14 x2.00-6g	65 mm	44	9.8
203611	M14 x2.00-6g	65 mm	48	9.8
24248, 242410	M14 x2.00-6g	65 mm	40	9.8
24308	M14 x2.00-6g	65 mm	50	9.8
24368, 243610	M14 x2.00-6g	65 mm	56	9.8

Note: This is indicated the minimum quantity of bolts used for the assembly of the enclosure and cover that is certified. Additional bolts can be added. The distance between the fastening mechanisms of the enclosure is to be no greater than that covered by this certificate.



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**Table 5. Fastener Matrix Table for EXBLT**

Series EXBLT Cat. No. Suffix	ENCLOSURE COVER BOLTS - CADMIUM			
	Size	Length	QTY *	Din
664	M12 x1.75-6g	35 mm	8	9.8
684	M12 x1.75-6g	35 mm	10	9.8
686	M12 x1.75-6g	35 mm	12	9.8
6124, 6126	M14 x2.0-6g	55 mm	12	9.8
886	M12 x1.75-6g	35 mm	14	9.8
8104, 8106	M12 x1.75-6g	55 mm	14	9.8
8126, 8128	M14 x2.00-6g	35 mm	12	9.8
9116	M12 x1.75-6g	35 mm	14	9.8
10106, 10108	M14 x2.00-6g	55 mm	12	9.8
10146, 10148	M14 x2.00-6g	55 mm	16	9.8
12126, 12128	M14 x2.00-6g	55 mm	16	9.8
12186, 12188	M14 x2.00-6g	55 mm	22	9.8
12246, 12248, 122412	M14 x2.00-6g	55 mm	28	9.8
14146, 14148	M14 x2.00-6g	55 mm	20	9.8
14248	M14 x2.00-6g	55 mm	28	9.8
14308	M14 x2.00-6g	55 mm	36	9.8
16166, 16168	M14 x2.00-6g	55 mm	24	9.8
16248, 162410	M14 x2.00-6g	55 mm	30	9.8

Note: This is indicated the minimum quantity of bolts used for the assembly of the enclosure and cover that is certified. Additional bolts can be added. The distance between the fastening mechanisms of the enclosure is to be no greater than that covered by this certificate.





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**Table 6. Electrical Rating (Rated voltage: 690 V Max. Conductor Size: 500 MCM / 300 mm<sup>2</sup>)**  
 Power loss for use in temperature class

EXB-xxxxx.N34	EXBLT-XXXX.N4 Series	db IIB+H2		tb	
		T6	T5	T85°C	T100°C
EXB-664, EXB-684 EXB-6124	EXBLT-664, EXBLT-684, EXBLT-686, EXBLT-6124, EXBLT-6126	95 W	135 W	95 W	135 W
EXB-886	EXBLT-886	130 W	185 W	130 W	185 W
EXB-8104	EXBLT-8104	130 W	185 W	130 W	185 W
EXB-8106	EXBLT-8106	155 W	225 W	155 W	225 W
EXB-8126	EXBLT-8126	185 W	270 W	185 W	270 W
EXB-8128	EXBLT-8128	205 W	310 W	205 W	310 W
EXB-9116	EXBLT-9116	205 W	310 W	205 W	310 W
EXB-10106	EXBLT-10106	195 W	280 W	195 W	280 W
EXB-10108	EXBLT-10108	210 W	310 W	210 W	310 W
EXB-10146	EXBLT-10146	235 W	335 W	235 W	335 W
EXB-10148	EXBLT-10148	255 W	380 W	255 W	380 W
EXB-12126	EXBLT-12126	205 W	310 W	205 W	310 W
EXB-12128	EXBLT-12128	240 W	350 W	240 W	350 W
EXB-12186	EXBLT-12186	280 W	385 W	280 W	385 W
EXB-12188	EXBLT-12188	315 W	465 W	315 W	465 W
EXB-12246	EXBLT-12246	350 W	500 W	350 W	500 W
EXB-12248	EXBLT-12248	385 W	565 W	385 W	565 W
EXB-122412	EXBLT-122412	495 W	740 W	485 W	740 W
EXB-12368	N/A	550 W	795 W	550 W	795 W
EXB-123610	N/A	590 W	875 W	590 W	875 W
EXB-14146	EXBLT-14146	280 W	385 W	280 W	385 W
EXB-14148	EXBLT-14148	315 W	465 W	315 W	465 W
--	EXBLT-14248	315 W	465 W	315 W	465 W
--	EXBLT-14308	315 W	465 W	315 W	465 W
EXB-16166	EXBLT-16166	315 W	460 W	315 W	460 W
EXB-16168	EXBLT-16168	340 W	500 W	340 W	500 W
EXB-16248	EXBLT-16248	495 W	735 W	495 W	735 W
EXB-162410	EXBLT-162410	530 W	785 W	530 W	785 W
EXB-18186	N/A	400 W	585 W	400 W	585 W
EXB-18188	N/A	440 W	650 W	440 W	650 W
EXB-18248	N/A	495 W	740 W	495 W	740 W
EXB-182410	N/A	535 W	790 W	535 W	790 W
EXB-18308	N/A	535 W	790 W	535 W	790 W
EXB-18368	N/A	685 W	1020 W	685 W	1020 W
EXB-183610	N/A	725 W	1085 W	725 W	1085 W
EXB-203611	N/A	870 W	1300 W	870 W	1300 W
EXB-24248	N/A	610 W	910 W	610 W	910 W
EXB-242410	N/A	650 W	975 W	650 W	975 W
EXB-24308	N/A	650 W	975 W	650 W	975 W
EXB-24368	N/A	850 W	1265 W	850 W	1265 W
EXB-243620	N/A	900 W	1350 W	900 W	1350 W

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