



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	<b>IECEX BAS 06.0019X</b>	Page 1 of 4	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 7	Issue 6 (2021-12-01)
Date of Issue:	2022-02-03		Issue 5 (2015-06-18)
Applicant:	<b>Hawke International</b> A Division of Hubbell Ltd A member of the Hubbell Group of Companies Oxford Street West, Ashton-under-Lyne Lancashire, OL7 0NA <b>United Kingdom</b>		Issue 4 (2015-02-09)
Equipment:	<b>The PowerEx Range Of In-line Plug &amp; Socket Connectors</b>		Issue 3 (2013-10-08)
Optional accessory:			Issue 2 (2012-08-30)
Type of Protection:	<b>Ex db , Ex tb</b>		Issue 1 (2012-07-03)
Marking:	Ex db IIC T* Gb Ex tb III C T* °C Db (Tamb -40 °C to +** °C) Ex db IIB+H2 T* Gb Ex tb III C T* °C Db (Tamb -40 °C to +** °C) * see the Certificate Annex for the permitted Temperature Class and ambient temperature (**) combinations		Issue 0 (2007-03-01)

Approved for issue on behalf of the IECEx  
Certification Body:

**R S Sinclair**

Position:

**Technical Manager**

Signature:  
(for printed version)

Date:

3/2/2022

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**SGS Baseefa Limited**  
**Rockhead Business Park**  
**Staden Lane**  
**Buxton, Derbyshire, SK17 9RZ**  
**United Kingdom**





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Manufacturer: **Hawke International**  
A Division of Hubbell Ltd.  
A member of the Hubbell Group of Companies  
Oxford Street West  
Ashton-under-Lyne  
Lancashire OL7 0NA  
**United Kingdom**

Additional manufacturing locations: **Hubbell Ltd T/A GAI-TRONICS (A Division of Hubbell Limited) and Metron Eledyne**  
Brunel Drive  
Stretton Business Park  
Burton-Upon-Trent  
Staffordshire  
DE13 0BZ  
**United Kingdom**

**Hubbell Ltd T/A Chalmit Lighting, Victor Products and Transtar**  
388 Hilington Road, Glasgow, G52 4BL  
**United Kingdom**

**Killark, A Division of Hubbell Inc. (Delaware)**  
2112 Fenton Logistics Park Blvd.  
Fenton, MO 63026 USA  
**United States of America**

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

This Certificate **does not** indicate compliance with 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 Reports:

[GB/BAS/ExTR06.0018/00](#)  
[GB/BAS/ExTR13.0219/00](#)  
[GB/BAS/ExTR21.0231/00](#)

[GB/BAS/ExTR12.0168/00](#)  
[GB/BAS/ExTR15.0018/00](#)

[GB/BAS/ExTR12.0222/00](#)  
[GB/BAS/ExTR15.0115/00](#)

### Quality Assessment Reports:

[GB/BAS/QAR06.0027/09](#)  
[GB/SIR/QAR16.0021/05](#)

[GB/BAS/QAR06.0039/11](#)

[GB/BAS/QAR06.0061/09](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The PowerEx Range of In-line Connectors may be manufactured in brass, steel, stainless steel or bronze, and each comprise a cylindrical body section which may take the form of a Type CP In-line Connector with a male mating flame path, or a Type CR In-line Connector with a female mating flamepath. When joined, the male and female parts are secured with a threaded locking ring which is fixed and locked to the male half with a hexagon socket grub screw. When separated the connection chambers are closed with flameproof caps which are secured and locked in a similar manner. The cylindrical body sections are used to house plug & socket arrangements between one and four poles, which are keyed into position by a spigot pin. The plug and socket arrangement of the in-line connector assembly is supported from the rear by a non-metallic ferrule. At the rear of the in-line units is a compression element and securing ring arrangement, the securing ring is locked with two hexagon socket grub screws. The compression element includes a female entry thread for the accommodation of flameproof cable entry devices suitable for the cable and the conditions of use, and be certified as Equipment (not a Component). The connectors are available in a range of five sizes, based on the size of the in-line connectors metric rear entry thread i.e. M32, M40, M50 M63 and M75. The Temperature Classification and maximum ambient temperature vary dependant on the maximum power dissipated within the connector - see Annex

## Marking

Ex db IIC T\* Gb Ex tb III C T\* °C Db (Tamb -40°C to +\*\*°C)

Ex db IIB+H2 T\* Gb Ex tb III C T\* °C Db (Tamb -40 °C to +\*\* °C)

\*see the Certificate Annex for the permitted temperature class and ambient temperature (\*\*) combinations

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

1. These connectors must be electrically isolated before any attempt is made to remove the covers or join or separate the two halves
2. When separated the metal flameproof caps (not the acetal environmental caps) shall be fitted and locked before any associated supply cables are re-energised.
3. The cable entry devices selected for use with the in-line connectors shall provide a mechanical cable retention facility appropriate to the cable type and conditions of service.
4. When used in dust environments the cable entry threads shall be sealed in accordance with the installation code of practice to ensure that an ingress protection level of IP6X is maintained.
5. Flameproof joints are not intended to be repaired.



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

### Variation 7.1

Standards update to IEC 60079-0:2017 Edition 7

### Variation 7.2

To remove Ex components: M50 component elbow type: 492, 493, 494 and 495 along with drawings 492, 493, 494 and 495 from the certificate.

### Variation 7.3

Update to Annex and Product Description

ExTR: **GB/BAS/ExTR21.0231/00**

File Reference: **21/0696**

## Annex:

[IECEX BAS 06.0019X Annex\\_1.pdf](#)

Connector Size	MAX Ambient = 40°C		MAX Ambient = 50°C		MAX Ambient = 60°C	
	Temperature Class		Temperature Class		Temperature Class	
	T80°C	T95°C	T80°C	T95°C	T80°C	T95°C
M32	20.5W	27.5W	15.75W	26W	7.5W	15.75W
M40	22.5W	30.5W	17.5W	28W	8.7W	17.5W
M50	25.8W	35.3W	20W	32.25W	10W	20W
M63	30.2W	41.5W	23.5W	37.7W	11.7W	23.5W
M75	36.3W	49.5W	28.25W	45.25W	14W	28.25W

Internal and external earth continuity facilities are provided.

POWEREX	Connector size	Pin configuration	Upper Ambient Temperature of + 40°C		Upper Ambient Temperature of + 50°C		Upper Ambient Temperature of + 60°C		Recommended Max Voltage AC/DC
			T6	T5	T6	T5	T6	T5	
			Maximum Current Per Contact Amps		Maximum Current Per Contact Amps		Maximum Current Per Contact Amps		
<b>Ex 32</b>									
1x 50 Sq mm + Grd	1x 1/0MCM + Grd		190	190	175	190	120	175	750
1x 70 Sq mm + Grd	1x 2/0MCM + Grd		230	240	200	240	139	200	750
1x 95 Sq mm + Grd	1x 3/0MCM + Grd		269	290	235	290	162	235	750
1x 120 Sq mm + Grd	1x 250MCM + Grd		290	339	255	329	177	256	750
1x 150 Sq mm + Grd	1x 300MCM + Grd		318	368	278	358	192	279	750
<b>Ex 40</b>									
1x 185 Sq mm + Grd	1x 400MCM + Grd		363	423	320	405	226	320	750
1x 240 Sq mm + Grd	1x 500MCM + Grd		395	460	348	440	245	348	750
<b>Ex 50</b>									
3x 50 Sq mm + Grd	3x 1/0MCM + Grd		129	151	113	144	80	113	750
3x 70 Sq mm + Grd	3x 2/0MCM + Grd		149	174	131	166	92	131	750
4x 50 Sq mm + Grd	4x 1/0MCM + Grd		112	131	98.5	125	69	98	750
4x 70 Sq mm + Grd	4x 2/0MCM + Grd		129	151	113	144	80	113	750
1x185 Sq mm + Grd	1x 400MCM + Grd		389	440	342	435	242	342	750
1x 240 Sq mm + Grd	1x 500MCM + Grd		423	495	372	473	263	372	750
<b>Ex 63</b>									
3x 95 Sq mm + Grd	3x 3/0MCM + Grd		188	221	166	210	117	166	750
3x 120 Sq mm + Grd	3x 250MCM + Grd		205	240	181	229	127	181	750
3x 150 Sq mm + Grd	3x 300MCM + Grd		223	261	196	249	138	196	750
4x 95 Sq mm + Grd	4x 3/0MCM + Grd		163	190	144	182	101	144	750
4x 120 Sq mm + Grd	4x 250MCM + Grd		177	208	156	198	110	156	750
4x 150 Sq mm + Grd	4x 300MCM + Grd		193	226	170	216	120	170	750
1x 300 Sq mm + Grd	1x 600MCM + Grd		590	590	535	590	377	535	750
1x 400 Sq mm + Grd	1x 800MCM + Grd		670	670	592	670	417	592	750
<b>Ex 75</b>									
3x 185 Sq mm + Grd	3x 400MCM + Grd		266	311	235	297	165	235	750
3x 240 Sq mm + Grd	3x 500MCM + Grd		289	338	255	323	180	255	750
4x 185 Sq mm + Grd	4x 400MCM + Grd		231	269	203	257	143	203	750
4x 240 Sq mm + Grd	4x 500MCM + Grd		251	293	221	280	155	221	750
1x 500 Sq mm + Grd	1x 1000MCM + Grd		720	720	720	720	509	720	750
1x 630 Sq mm + Grd	1x 1000MCM + Grd		780	780	780	780	557	780	750

Contact Size	Combined Cable and Contact Resistance (Ohms)	Contact Current Rating (Amps)
50 sq mm	0.000514	190
70 sq mm	0.000387	240
95 sq mm	0.000283	290
120 sq mm	0.000239	340
150 sq mm	0.000202	385
185 sq mm	0.00017	440
240 sq mm	0.000144	520
300 sq mm	0.000082	590
400 sq mm	0.000067	670
500 sq mm	0.000054	720
630 sq mm	0.000045	780