

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 EU - Type Examination Certificate Number: **Baseefa06ATEX0062X – Issue 6**

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **The PowerEx Range of In-line Plug & Socket Connectors**

5 Manufacturer: **Hawke International (A Division of Hubbell Limited)
(A Member of the Hubbell Group of Companies)**

6 Address: **Oxford Street West, Ashton-under-Lyne, Lancashire, OL7 0NA**

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa06ATEX0062X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR21.0231/00**

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

EN 60079-0:2018 EN 60079-1:2014 EN60079-31:2014

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

See Description

SGS Fimko Oy Customer Reference No. **500**


Project File No. **21/0696**

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Tuomas Hänninen
SGS Fimko Oy

13 **Schedule**

14 **Certificate Number Baseefa06ATEX0062X – Issue 6**

15 **Description of Product**

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 as follows:-

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		
Ex 32									
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
Ex 40									
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
Ex 50									
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
Ex 63									
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
Ex 75									
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

Marking

⊕ II 2 GD 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)

16 Report Number

GB/BAS/ExTR21.0231/00

17 Specific Conditions of Use

- These connectors must be electrically isolated before any attempt is made to remove the covers or join or separate the two halves.
- When separated the metal flameproof caps (not the acetal environmental caps) shall be fitted and locked before any associated supply cables are re-energised.
- 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 use.
- When used in dust environments the cable entry threads shall be sealed in accordance with the installation code of practice to ensure an ingress protection level of IP6X is maintained.
- Flameproof joints are not intended to be repaired.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
6677	1	H	08/06/2021	PowerEx Label

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
6477	1	B	21/08/2012	PowerEx Connector Material Specifications
6303	1	B	30/01/2012	PowerEx CP Assembly
6304	1	B	30/01/2012	PowerEx CR Assembly
6491	1	C	23/07/2009	PowerEx RC Flameproof Cap Assembly
6594	1	B	17/11/2008	PowerEx PC Flameproof Cap Assembly
6595	1	C	30/01/2012	PowerEx PC Protective Cap Assembly
6596	1	C	30/01/2012	PowerEx RC Protective Cap Assembly
6585	1	A	14/09/2005	Mounting Flange Assembly
6686	1	A	12/02/2007	Plug/Socket Insert Assemblies, Sizes & Combinations
6605	1-2	A	15/09/2005	Socket Insert Assembly, 50-240mm ²
6606	1-2	A	15/09/2005	Plug Insert Assembly, 50-240mm ²
6607	1-2	A	15/09/2005	Socket Insert Assembly, 300-630mm ²
6608	1-2	A	15/09/2005	Plug Insert Assembly, 300-630mm ²
6534	1	A	15/08/2005	Internal Earth Assembly
6609	1	A	27/09/2005	Sealing Washer/Spacer
6397	1	A	25/04/2005	Spigot Pin, EX32P
6400	1	A	25/04/2005	CP Front Shell, EX32P
6401	1	A	25/04/05	CR Front Shell, Ex32P
6402	1	A	25/04/05	CP/CR Body Shell, Ex32P
6403	1	A	25/04/05	CP/CR Rear Shell, Ex32P
6528	1	A	25/04/05	CP/CR Rear Shell – Ex32 (Alternative M20 Entry)
6529	1	A	25/04/05	CP/CR Rear Shell – Ex32 (Alternative M25 Entry)
6404	1	A	24/05/05	Rear Engaging Nut, Ex32P
6405	1	A	25/04/05	Engaging Nut, Ex32P
6406	1	A	25/04/05	Spacer Tube, Ex32P
6494	1	A	25/04/05	RC Flameproof Cap, Ex32P
6497	1	A	25/04/05	PC Flameproof Cap, Ex32P
6496	1	A	25/04/05	PC Protective Cap, Ex32P
6510	1	A	25/04/05	RC Protective Cap, Ex32P
6578	1	A	07/09/05	Mounting Flange, Ex32P
6435	1	A	25/04/05	CP Front Shell, Ex40P
6436	1	A	25/04/05	CR Front Shell, Ex40P
6437	1	A	25/04/05	CP/CR Body Shell, Ex40P
6438	1	A	25/04/05	CP/CR Rear Shell, Ex40P

Number	Sheet	Issue	Date	Description
6530	1	A	25/04/05	CP/CR Rear Shell – Ex40 (Alternative M32 Entry)
6439	1	A	25/04/05	Rear Engaging Nut, Ex40P
6440	1	A	25/04/05	Engaging Nut, Ex40P
6441	1	A	25/04/05	Spacer Tube, Ex40P
6498	1	A	25/04/05	RC Flameproof Cap, Ex40P
6500	1	A	25/04/05	PC Protective Cap, Ex40P
6501	1	A	25/04/05	PC Flameproof Cap, Ex40P
6511	1	A	25/04/05	RC Protective Cap, Ex40P
6579	1	A	07/09/05	Mounting Flange, Ex40P
6291	1	A	25/04/05	CP Front Shell, Ex50P
6292	1	A	25/04/05	CR Front Shell, Ex50P
6294	1	A	25/04/05	CP/CR Body Shell, Ex50P
6295	1	A	25/04/05	CP/CR Rear Shell, Ex50P
6296	1	A	25/04/05	Engaging Nut, Ex50P
6297	1	A	25/04/05	Rear Engaging Nut, Ex50P
6396	1	A	27/05/05	Spacer Tube, Ex50P
6490	1	A	25/04/05	RC Flameproof Cap, Ex50P
6493	1	A	25/04/05	PC Flameproof Cap, Ex50P
6492	1	A	25/04/05	PC Protective Cap, Ex50P
6512	1	A	25/04/05	RC Protective Cap, Ex50P
6525	1	A	25/04/05	Earth Ring, Ex50P
6531	1	A	25/04/05	CP/CR Rear Shell – Ex50 (Alternative M40 Entry)
6580	1	A	07/09/05	Flange, Ex50P
6518	1	A	30/6/05	50mm ² Internal/External Earth Socket
6519	1	A	30/6/05	70mm ² Internal/External Earth Socket
6453	1	A	25/04/05	CP Front Shell, Ex63P
6454	1	A	25/04/05	CR Front Shell, Ex63P
6455	1	A	25/04/05	CP/CR Body Shell, Ex63P
6456	1	A	25/04/05	CP/CR Rear Shell, Ex63P
6457	1	A	25/04/05	Rear Engaging Nut, Ex63P
6458	1	A	25/04/05	Engaging Nut, Ex63P
6459	1	A	27/05/05	Spacer Tube, Ex63P
6502	1	A	25/04/05	RC Flameproof Cap, Ex63P
6505	1	A	25/04/05	PC Flameproof Cap, Ex63P
6504	1	A	25/04/05	PC Protective Cap, Ex63P
6513	1	A	25/04/05	RC Protective Cap, Ex63P
6526	1	A	25/04/05	Earth Ring, Ex63P
6532	1	A	25/04/05	CP/CR Rear Shell – Ex63 (Alternative M50 Entry)
6581	1	A	07/09/05	Flange, Ex63P
6520	1	A	30/6/05	95mm ² Internal/External Earth Socket
6521	1	A	30/6/05	120mm ² Internal/External Earth Socket
6522	1	A	30/6/05	150mm ² Internal/External Earth Socket

Number	Sheet	Issue	Date	Description
6415	1	A	25/04/05	CP Front Shell, Ex75P
6416	1	A	25/04/05	CR Front Shell, Ex75P
6417	1	A	25/04/05	CP/CR Body Shell, Ex75P
6418	1	A	25/04/05	CP/CR Rear Shell, Ex75P
6419	1	A	25/04/05	Rear Engaging Nut, Ex75P
6420	1	A	25/04/05	Engaging Nut, Ex75P
6421	1	A	27/05/05	Spacer Tube, Ex75P
6506	1	A	25/04/05	RC Flameproof Cap, Ex75P
6509	1	A	25/04/05	PC Flameproof Cap, Ex75P
6508	1	A	25/04/05	PC Protective Cap, Ex75P
6514	1	A	25/04/05	RC Protective Cap, Ex75P
6527	1	A	25/04/05	Earth Ring, Ex75P
6533	1	A	25/04/05	CP/CR Rear Shell – Ex75 (Alternative M63 Entry)
6582	1	A	07/09/05	Flange, Ex75P
6523	1	A	30/6/05	185mm ² Internal/External Earth Socket
6524	1	A	30/6/05	240mm ² Internal/External Earth Socket

The above drawings are common to IECEx BAS 06.0019X and BAS21UKEX0045X

20 Certificate History

Certificate No.	Date	Comments
Baseefa06ATEX0062X	20 February 2007	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0:2004, EN 60079-1:2003, IEC 61241-0: 2004, IEC 61241-1: 2004 is documented in Test Report No. GB/BAS/ExTR 06.0018/00
Baseefa06ATEX0062X/1	2 July 2012	Standards update to EN 60079-0: 2011, EN 60079-1: 2007 EN 60079-31: 2009 and is documented in Test Report No. GB/BAS/ExTR 12.0168/00
Baseefa06ATEX0062X/2	28 August 2012	To change the material for the marking label and is documented in Test Report No. GB/BAS/ExTR 12.0222/00
Baseefa06ATEX0062X/3	8 October 2013	To add drawings to the certificate and to add additional materials of construction for the contact carrier and is documented in Test Report No. GB/BAS/ExTR 13.0219/00
Baseefa06ATEX0062X/4	9 February 2015	Standards update to of EN 60079-1:2014 and EN 60079-31: 2014 and is documented in Test Report No. GB/BAS/ExTR 15.0018/00
Baseefa06ATEX0062X/5	18 June 2015	Variation to allow use of certified elbow components. and is documented in Test Report No. GB/BAS/ExTR 15.0115
Baseefa06ATEX0062X/6	27 January 2022	To assess the PowerEx Range of in-line plug and socket connectors against the requirements of IEC 60079-0:2017 Ed 7. To remove Ex components: M50 Component Elbow Type 492, 493, 494 and 495 along with related drawings: 492, 493, 494 and 495 from the certificate. The changes are documented in Test Report No. GB/BAS/ExTR 21.0231-00
For drawings applicable to each issue, see original of that issue.		