

1 **EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa16ATEX0030X**

4 Equipment or Protective System: **A Range of Fibre-Optic Connectors**

5 Manufacturer: **Hawke International**

6 Address: **A Division of Hubbell Limited, A Member of the Hubbell Group of Companies, Oxford Street West, Ashton-under-Lyne, Lancashire, OL7 0NA**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR16.0066/00**

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

EN 60079-0:2012/A11:2013 EN 60079-1:2014 EN 60079-7:2007
EN 60079-28:2015 EN 60079-31:2014

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 equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

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

12 The marking of the equipment or protective system shall include the following :

Ex II 2GD Ex op pr IIC T6 Gb, Ex tb IIIC T85°C Db (T_{amb} = -40°C to +60°C) IP66/67

**Alternative markings include (see schedule) :- Ex [dbe] op pr IIC T6 Gb - for bulkhead/box mount version
Ex [op is] IIC T* Ga - with seperately certified 'op is' source**

Baseefa Customer Reference No. **0500**

Project File No. **15/0211**

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GENERAL MANAGER

On behalf of SGS Baseefa Limited

13

Schedule

14

Certificate Number Baseefa16ATEX0030X

15 Description of Equipment or Protective System

The Fibre^{Ex} Range of Fibre-Optic 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 male mating parts (plug), or a **Type CR In-line Connector** with female mating parts (socket).

The male and female parts are joined with a threaded collar which is fixed to the male half. When separated the connection chambers are closed with dust caps which are secured in the same manner. A locking grub screw is provided at the back of the threaded collar.

The cylindrical body sections house a 4 or 8 way plug & socket arrangement which may be keyed into a range of orientations. The plug and socket insert assemblies are mechanically supported from the rear.

An armour/braid clamping arrangement is provided within the rear of the in-line units. This arrangement has two reversible clamping cone options to accommodate armour/braid sizes from 0 to 1.25mm. In addition the in-line connectors incorporate cable sealing mechanism at the rear

An outer cable clamp arrangement may also be secured to the rear of the inline connectors with two hexagon socket grub screws.

Variation 0.1

A **Type BR Bulkhead Connector** with female mating parts (socket), intended for connection through the bulkhead or walls of flameproof or increased safety enclosures.

At the rear of the bulkhead units is an internal compression/cable sealing element and an M20 or M32 male entry thread. Alternative ½", ¾" or 1" NPT entry threads may be provided.

In this form the coding includes the marking [dbe] to indicate that it may interface with flameproof or increased safety enclosures, without negating the protection concepts.

Variation 0.2

An alternative [op is] marking option to indicate acceptability for use with an external, separately certified 'op is' optical source with a limited energy output. A range of temperature classes are permitted to match the energy limitations of the optical source.

16 Report Number

SGS Baseefa Confidential Report No. **GB/BAS/ExTR16.0066/00**

17 Specific Conditions of Use

1. The protective caps shall be fitted immediately following separation.
2. The Type BR bulkhead connectors may be fitted to Ex d or Ex e enclosures where the interface temperature does not exceed 80°C. The integral cables shall be mechanically protected by the enclosure, or equally effective means.
3. The Type CP/CR In-line connectors are intended for use with resilient cables only, capable of withstanding axial loads in excess of 30N without damage.
4. When used in dust environments, or fitted to increased safety enclosures, the Type BR bulkhead mounting thread shall be sealed in accordance with the installation code of practice to ensure that an ingress protection level of IP6X is maintained.

5. Units coded Ex [op is] shall only be supplied from a separately certified optical source marked with coding to include 'Ex op is'. The marked gas group and 'T' rating shall match (or exceed) those marked on the optical source, as limited by the maximum specified radiated power/irradiance levels (prescribed by Table 2 of IEC 60079-28).

18 Essential Health and Safety Requirements

As follows, in addition to those covered by the standards at item 9.

Clause	Subject	Compliance
1.4.1	External effects	User/Installer responsibility
1.4.2	Aggressive substances, etc.	User/Installer responsibility

19 Drawings and Documents

	Number	Issue	Date	Description
#	3041 B	A	11/05/01	Clamp Ring, Size B
#	3281 B	A	18/08/09	Middle Nut, Size B
#	3282 Os	B	27/01/11	Backnut Seal, DLS, Size Os
#	3282 O	B	14/03/11	Backnut Seal, DLS, Size O
#	3282 A	B	09/03/11	Backnut Seal, DLS, Size A
#	3282 B	A	05/08/09	Backnut Seal, DLS, Size B
#	3283 O	A	29/04/09	Backnut Clamp, DLS, Size O
#	3283 A	A	16/01/09	Backnut Clamp, DLS, Size A
#	3283 B	A	20/05/09	Backnut Clamp, DLS, Size B
#	3310 O	C	04/11/13	Clamp Ring, DLS, Size O
#	3310 A	C	04/11/13	Clamp Ring, DLS, Size A
*	6363	A	29/04/05	Flange Assembly – 4 Way
*	6364	E	07/04/11	CP Body Shell – 4 Way
*	6365	F	26/09/11	CR Body Shell – 4 Way
*	6367	C	23/07/07	Engaging Nut – 4 Way
*	6370	A	09/03/05	Back Nut, Size O
*	6370 B	A	19/05/14	Back Nut, Size B
*	6372	C	07/01/15	Metallic Materials Specs
*	6373	A	09/03/05	Deluge Boot – 4 Way
*	6374	A	10/03/05	Flange, Dimensions - 4 way
*	6377	A	11/03/05	Cable Grip, Bar
*	6380	A	11/03/05	Cable Grip, Body
*	6381	B	02/06/14	Cable Grip Assembly (alternative), Sizes O/B
*	6382	E	06/08/15	CP Cap – 4 Way
*	6383	E	06/08/15	CR/BR Cap – 4 Way
*	6485	B	02/06/14	Cable Grip Assembly (alternative), Unarmoured, Sizes O/B
*	6539	A	20/05/11	Continuity Spring – 8 Way
*	6611	B	05/08/15	CP Shell - 8 Way
*	6612	B	05/08/15	CR Shell - 8 Way

Number	Issue	Date	Description
* 6613	B	04/08/15	CR/BR Cap – 8 Way
* 6614	A	20/04/11	Engaging Nut – 8 Way
* 6615	B	04/08/15	CP Cap – 8 Way
* 6616	A	20/05/11	Middle Nut, Size A
* 6617	B	15/03/15	Spigot, Size B
* 6618	B	15/03/15	Spigot, Size A
* 6653	B	13/02/06	BR Adaptor Shell, M20
* 6654	B	13/02/06	BR Adaptor Shell, 1/2" NPT
* 6655	D	07/04/11	BR Front Shell - 4 Way
* 6656	A	24/11/05	BR Insert Retainer - 4 Way
* 6657	C	21/01/15	BR Adaptor Shell, 3/4" NPT - 4 Way
* 6659	A	08/02/06	BR Skid Washer, Metric - 4 Way
* 6660	A	08/02/06	BR Seal Compressor - 4 Way
* 6661	A	08/02/06	BR Skid Washer, NPT - 4 Way
* 6685	A	04/04/07	Continuity Spring - 4 Way
* 6962	A	02/06/14	Flange Assembly – 8 Way,
* 6970	A	27/10/11	Middle Nut - 4 Way
* 6971 O	A	27/10/11	Spigot, 5° Size O
* 6971 A	A	27/10/11	Spigot, 5° Size A
* 7023	A	15/10/12	BR Adaptor Shell – 8 Way, M32
* 7024	A	15/10/12	BR Front Shell – 8 Way
* 7025	A	15/10/12	BR Retainer – 8 Way
* 7026	A	16/10/12	BR Compressor – 8 Way
* 7093	A	27/05/14	Skid Washer – 8 Way
* 7094	B	15/03/15	Reducer Spigot, Size O – 8 Way
* 7095	A	25/06/14	Middle Nut, Size O/B – 8 Way
* 7109	A	08/09/14	Skid Washer, NPT - 8 Way
7122	B	11/08/15	General Arrangement - BR Assembly, 8 Way
7123	B	11/08/15	General Arrangement - CP Assembly, 8 Way
7124	B	11/08/15	General Arrangement - CR Assembly, 8 Way
* 7125	A	25/06/14	BR Adaptor Shell, 1" NPT – 8 Way
7126	A	02/07/14	Pin Insert Assembly – 8 Way
7127	A	03/07/14	Socket Insert Assembly – 8 Way
* 7130	A	20/09/12	Back Nut, Size A
* 7132	A	21/03/12	Cable Grip Assembly, Armoured, Size A
* 7133	A	21/03/12	Cable Grip Assembly, Unarmoured, Size A
7135	B	06/08/15	General Arrangement - BR Assembly, 4 Way
7136	B	06/08/15	General Arrangement - CR Assembly, 4 Way
7137	B	06/08/15	General Arrangement - CP Assembly, 4 Way
7150	B	11/08/15	General Assembly - Connector Assemblies & Notes

Number	Issue	Date	Description
7160	A	20/03/13	Pin Holder – 4 Way
7161	A	20/03/13	Socket Holder – 4 Way
7162	A	20/03/13	Contact Retainer, Pin – 4 Way
7163	A	20/03/13	Contact Retainer, Socket – 4 Way
7164	A	30/09/14	BR Rear Seal – 8 Way
7170	A	20/03/13	Pin Holder – 8 Way
7171	A	20/03/13	Socket Holder – 8 Way
7172	A	20/03/13	Contact Retainer, Pin – 8 Way
7173	A	20/03/13	Contact Retainer, Socket – 8 Way
7175	A	16/07/14	Pin Insert Assembly – 4 Way
7176	B	16/07/14	Socket Insert Assembly – 4 Way
7177	A	19/02/15	BR Rear Seal – 4 Way
* 7250	B	15/09/15	Cap Retainer (Chain) – 4 Way
* 7253	A	15/09/15	Cap Retainer (Chain) – 8 Way
7270	A	14/12/15	Labels

All These drawings are common to IECEx BAS 16.0032X

* These drawings (in addition to the certificate noted above) are also common to, and held with, the Instrum^{Ex} Electrical Connectors as detailed by IECEx BAS 06.0018X & Baseefa06ATEX0061X.

These drawings are common to multiple certificates and are controlled by & held with, IECEx Report UK/BAS/04/0259/00 to GB/BAS/ExTR04.0259/20 and BAS01ATEX2060U.

1 **SUPPLEMENTARY EU - TYPE EXAMINATION CERTIFICATE**

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

3 Supplementary EU - Type Examination Certificate Number: **Baseefa16ATEX0030X /1**

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: **A Range of Fibre-Optic Connectors**

5 Manufacturer: **Hawke International**

6 Address: **A Division of Hubbell Limited
A Member of the Hubbell Group of Companies, Oxford Street West,
Ashton-under-Lyne, Lancashire, OL7 0NA**

7 This supplementary certificate extends EC – Type Examination Certificate No. **Baseefa16ATEX0030X** to apply to products 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 Baseefa, Notified Body number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the product, as modified by this supplementary certificate, 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.

SGS Baseefa Customer Reference No. **0500**

Project File No. **16/0428**

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R S SINCLAIR
TECHNICAL MANAGER

On behalf of SGS Baseefa Limited



13

Schedule

14

Certificate Number Baseefa16ATEX0030X/1

15 Description of the variation to the Product

Variation 1.1

Additional drawings to clarify the keyway detail for the 'op is' variants

16 Report Number

SGS Baseefa Confidential Report No **GB/BAS/ExTR16.0066/01**

17 Specific Conditions of Use

None additional to those listed previously

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Issue	Date	Description
7255	A	06/08/15	CP Body Shell – 8 Way, Single Keyway (op is, Position 6)
7256	A	06/08/15	CR Body Shell – 8 Way, Single Keyway (op is, Position 6)
7257	A	06/08/15	BR Body Shell – 8 Way, Single Keyway (op is, Position 6)
7260	A	06/08/15	CP Body Shell – 4 Way, Single Keyway (op is, Position 6)
7261	A	06/08/15	CR Body Shell – 4 Way, Single Keyway (op is, Position 6)
7262	A	06/08/15	BR Body Shell – 4 Way, Single Keyway (op is, Position 6)
7264	A	08/10/15	General arrangement BR Assembly – 4 Way, Single Keyway
7265	A	06/08/15	General arrangement CR Assembly – 4 Way, Single Keyway
7266	A	06/08/15	General arrangement CP Assembly – 4 Way, Single Keyway
7267	A	06/08/15	General arrangement BR Assembly – 8 Way, Single Keyway
7268	A	06/08/15	General arrangement CP Assembly – 8 Way, Single Keyway
7269	A	06/08/15	General arrangement CR Assembly – 8 Way, Single Keyway

These drawings are common to, and held with, IECEx BAS 16.0032X

1 **SUPPLEMENTARY EU - TYPE EXAMINATION CERTIFICATE**

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

3 Supplementary EU - Type Examination Certificate Number: **Baseefa16ATEX0030X/2**

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: **A Range of Fibre-Optic Connectors**

5 Manufacturer: **Hawke International**

6 Address: **A Division of Hubbell Limited
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7 This supplementary certificate extends EC – Type Examination Certificate No. **Baseefa16ATEX0030X** to apply to products 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 Baseefa, Notified Body number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the product, as modified by this supplementary certificate, 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.

SGS Baseefa Customer Reference No. **0500**

Project File No. **17/0484**

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A handwritten signature in black ink, appearing to read 'R S Sinclair', with a stylized flourish.

R S SINCLAIR
TECHNICAL MANAGER

On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa16ATEX0030X/2**

15 **Description of the variation to the Product**

Variation 2.1

Introduction of alternative 8 ways fibre-optic seal into the 8 way Fibre Optic BR Assembly and 4 ways Instrumex BR Seal sizes A to D only in to the 4 Way Fibre Optic BR Assembly.

16 **Report Number**

SGS Baseefa Report Reference Number: - GB/BAS/ExTR17.0199/00

17 **Specific Conditions of Use**

None additional to those listed previously

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
610296	1	A	29/06/2017	8 way fibre-optic seal
7135	1	C	03/07/2017	4 Way Fibre Optic BR Assembly
7122	1	C	03/07/2017	8 Way Fibre Optic BR Assembly
*6662	1	A	08/02/2006	Instrumex BR Seal –Sizes A to D only

These drawings are common to this certificate and are held with IECEx BAS 16.0032X.

*This drawing is common to Baseefa16ATEX0030X, IECEx BAS 16.0032X, Baseefa06ATEX0061X and IECEx BAS 06.0018X and is held with the latter.