



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Component intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 06ATEX1240U** Issue: **3**

4 Component: **Range of Cable Entry Components (as defined in section 13)**

5 Applicant: **Hawke International**

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

7 This component and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 50014:1997 (amendments 1 and 2) EN 50018:2000
EN 50281-1-1:1998 EN 50019:2000

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any special conditions for safe use are listed in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

12 The marking of the components is detailed in section 13.

Project Number 52A16502
C. Index 07

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C Ellaby
Certification Officer

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

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Issue 3**

13 DESCRIPTION OF COMPONENT

Male/Female Adaptors and Male/Female Reducers

Hawke Ref. 476/1A and 476/1

These are a range of adaptors and reducers that are used to convert an existing cable entry aperture to a different thread form and/or size. They each comprise a hollow body with a male thread at one end and a female thread at the other. The body profile may be hexagonal or round. The entry thread is between M16 and M120. Thread combinations are such that a maximum of one 'standard' size difference is maintained.

An optional undercut may be provided at the base of the male thread to allow the fitting of an additional 'O' ring or sealing washer.

Material options: Brass to BS 2874:1985
Stainless steel to BS 970: part 4:1970
Mild steel to BS 970: Part 1: 1983
Aluminium to BS 1474: 1987
Glass filled nylon MDF2, black 900

Entry thread options: Metric to BS 3643:1981
ET Conduit to BS 31:1940
PG to DIN 40430:1971
BSPP to BS 2779:1985
BSPT to BS 21:1985
NPT to ANSI/ASME B1.20.1-1983

The marking of the component shall include the following:

Material of construction

Coding

Brass to BS 2874:1985



I M2 II 2GD
EEx de I/IIC

Stainless steel to BS 970: part 4:1970



I M2 II 2GD
EEx de I/IIC

Mild steel to BS 970: Part 1: 1983



I M2 II 2GD
EEx de I/IIC

Aluminium to BS 1474: 1987



II 2GD
EEx de IIC

Glass filled nylon MDF2, black 900



II 2GD
EEx e II

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Male/Male Adaptor and Female/Female Adaptors

Hawke Ref. 476/2

These are a range of adaptors that are used to convert an existing cable entry aperture to a different thread form and / or size. They each comprise a hollow body with either male threads or female threads at each end. The thread forms are between M16 and M75. Thread combinations are such that a maximum of one 'standard' size difference is maintained.

Material options: Brass to BS 2874:1985
Stainless steel to BS 970: part 4:1970
Mild steel to BS 970: Part 1: 1983

Entry thread options: Metric to BS 3643:1981
ET Conduit to BS 31:1940
PG to DIN 40430:1971
BSPP to BS 2779:1973
BSPT to BS 21:1985
NPT to ANSI/ASME B1.20.1-1983

The marking of the component shall include the following:



II 2 G
EEx d IIC.



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Right Angle Adaptors

Hawke Ref. 490/1

These are a range of right angled adaptors, each comprising a brass or stainless steel body with a male thread at one end a female thread machined into the body at 90° to the male thread. The components are designed to provide cable entry options where space is limited or to avoid cable damage, additionally, they may be used to convert an existing cable entry aperture to a different thread form and / or size. Threadforms are between M16 and M75 (to BS 3643:1981) inclusive, the male thread being the same or one standard thread size larger than the female.

Alternatively the component may be machined such as to have female threads at both ends.

Material options: Brass to BS 2874:1985
 Brass to BS 2872:1989
 Stainless steel to BS 970: part 4:1970
 Mild steel to BS 970: Part 1: 1983
 Aluminium bronze to BS 1400AB2

Entry thread options: Metric to BS 3643:1981
 ET Conduit to BS 31:1940
 PG to DIN 40430:1971
 BSPP to BS 2779:1985
 BSPT to BS 21:1985
 NPT to ANSI/ASME B1.20.1-1983

The marking of the component shall include the following:

 II 2G
EEx d IIC



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Insulated Adaptors

Hawke Ref. 478/1

These are a range of insulated adaptors manufactured from glass filled nylon 'Beetle' MDF2 with threaded metallic inserts at either end. The components are intended to insulate a cable gland or termination from the associated apparatus, additionally, they may be used to convert an existing cable entry aperture to a different thread form and / or size. Each threaded insert is threaded into the insulating body and sealed with a cementing compound. Threadforms are between M16 and M75 inclusive, the male thread being the same or one standard thread size larger than the female.

Material options: Brass to BS 2874:1985
 Stainless steel to BS 970: part 4:1970
 Mild steel to BS 970: Part 1: 1983
 Aluminium to BS 1474: 1987

Entry thread options: Metric to BS 3643:1981
 ET Conduit to BS 31:1940
 PG to DIN 40430:1971
 BSPP to BS 2779:1985
 BSPT to BS 21:1985
 NPT to ANSI/ASME B1.20.1-1983

The marking of the component shall include the following:



II 2G
EEx d IIC



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Stopper Boxes

Hawke Ref. 492/1

The Type 492/1 range stopper boxes each comprise a metallic body and sleeve assembly for the interposition between a cable gland and the wall of the associated apparatus. Cables pass through the body which is subsequently filled with potting compound (Borden Putty Pack 3A) thus forming a cable bushing/stopping box. Threadforms are between M16 and M75.

Material options:

- Brass to BS 2874:1985
- Brass to BS 2872:1989
- Stainless steel to BS 970: part 4:1970
- Mild steel to BS 970: Part 1: 1983
- Aluminium bronze to BS 1400:1985 AB2

Entry thread options:

- Metric to BS 3643:1981
- ET Conduit to BS 31:1940
- PG to DIN 40430:1971
- BSPP to BS 2779:1985
- BSPT to BS 21:1985
- NPT to ANSI/ASME B1.20.1-1983

The marking of the component shall include the following:



II 2GD
EEx de IIC



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Earthlead Adaptors and Reducers

Hawke Ref 493/1

These are a range of adaptors and reducers, each comprising a hollow, brass, hexagonal body with a male thread at one end and a female thread at the other. The entry thread is between M16 and M75. Thread combinations are such that a maximum of one 'standard' size difference is maintained.

The components are designed to provide a connection from a cable gland or termination to earth via an earth lead cable riveted and soldered to the body, additionally, they may be used to convert an existing cable entry aperture to a different thread form and / or size.

Entry thread options:

- Metric to BS 3643:1981
- ET Conduit to BS 31:1940
- PG to DIN 40430:1971
- BSPP to BS 2779:1985
- BSPT to BS 21:1985
- NPT to ANSI/ASME B1.20.1-1983

The marking of the component shall include the following:



II 2GD
EEx e II



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Earth Plates

Hawke Ref. 494/1

These are a range of brass plates with a threaded hole through the centre (up to M32) and one or more earth leads riveted to it. The components are intended for interposition between a cable gland and the associated apparatus and are intended to provide an earthing facility.

Thread options: Metric to BS 3643:1981
 ET Conduit to BS 31:1940
 PG to DIN 40430:1971

The marking of the component shall include the following:



II 2GD
EEx e II



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Stopping Plugs Hawke Ref. 495/1, 387/1, 477/1 & 475/1

These are a range of threaded stopping plugs that are used to fill unused entries in the associated apparatus. The plugs have threadforms between M16 and M 100 and are briefly described as follows:

Type 477/1 Round/hexagon socket/internal mounting
Type 475/1 Round/hexagon socket/external mounting
Type 495/1 Hexagon head
Type 387/1 'Mushroom' head

Material options: Brass to BS 2874:1985
 Stainless steel to BS 970: part 4:1970
 Mild steel to BS 970: Part 1: 1983
 Aluminium to BS 1474: 1987
 Glass filled nylon MDF2, black 900

Thread options: Metric to BS 3643:1981
 ET Conduit to BS 31:1940
 PG to DIN 40430:1971
 BSPP to BS 2779:1985
 BSPT to BS 21:1985
 NPT to ANSI/ASME B1.20.1-1983

The marking of the component shall include the following:

Material	477/1	475/1	495/1	387/1
Brass to BS 2874: 1985	I M2 EEx de I	I M2 EEx de I	I M2 EEx de I	I M2 EEx de I
	II 2GD EEx de IIC	II 2GD EEx de IIC	II 2GD EEx de IIC	II 2GD EEx de IIC
	I M2 II 2GD EEx de I/IIC	I M2 II 2GD EEx de I/IIC	I M2 II 2GD EEx de I/IIC	I M2 II 2GD EEx de I/IIC
Stainless steel to BS 970:Part 4: 1970	I M2 EEx de I	I M2 EEx de I	I M2 EEx de I	I M2 EEx de I
	II 2GD EEx de IIC	II 2GD EEx de IIC	II 2GD EEx de IIC	II 2GD EEx de IIC
	I M2 II 2GD EEx de I/IIC	I M2 II 2GD EEx de I/IIC	I M2 II 2GD EEx de I/IIC	I M2 II 2GD EEx de I/IIC
Mild steel to BS 970: Part 1: 1983	I M2 EEx de I	I M2 EEx de I	I M2 EEx de I	I M2 EEx de I
	II 2GD EEx de IIC	II 2GD EEx de IIC	II 2GD EEx de IIC	II 2GD EEx de IIC
	I M2 II 2GD EEx de I/IIC	I M2 II 2GD EEx de I/IIC	I M2 II 2GD EEx de I/IIC	I M2 II 2GD EEx de I/IIC
Aluminium to BS 1474: 1987	II 2GD EEx de IIC	II 2GD EEx de IIC	II 2GD EEx de IIC	II 2GD EEx de IIC
Glass filled nylon MDF2, black 900	II 2GD EEx e II	II 2GD EEx e II	II 2GD EEx e II	II 2GD EEx e II

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Union Adaptors

Hawke Ref. 497/1

The range of union adaptors is intended for in-line cable gland connection. Each union comprises two threaded entry components and a 'spinning' internal component. The components are assembled such that flamepaths are formed at both the entry threads and around the 'spinning' components and such that connection at both ends is achieved without twisting the cable.

The threads are between M16 and M75. Thread combinations are such that a maximum of one 'standard' size difference is maintained.

Material options:

- Brass to BS 2874:1985
- Brass to BS 2872:1989
- Stainless steel to BS 970: part 4:1970
- Mild steel to BS 970: Part 1: 1983
- Aluminium Bronze to BS 1400: 1985

Entry thread options:

- Metric to BS 3643:1981
- ET Conduit to BS 31:1940
- PG to DIN 40430:1971
- BSPP to BS 2779:1985
- BSPT to BS 21:1985
- NPT to ANSI/ASME B1.20.1-1983

The marking of the component shall include the following:



II 2G
EEx d IIC



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Variation 1

This variation introduced the following changes:

- i. The introduction of a table that clarifies the specific markings that may be applied to the 495/1, 387/1, 477/1 and 475/1 Stopping Plugs.

Variation 2

This variation introduced the following changes:

- i. The manufacture of one half of the Types 476/1 and 476/2 Adaptors used to convert existing cable entry apertures, having smaller cable gland entry thread apertures. The cable gland entry thread aperture being either: M63, M50, M40, M32, M25, M20 or M16 (or nearest equivalent thread forms as approved). Thus becoming Types BR (male/male), BU and BX (female/female) reducers respectively.

The coding of the devices is  II 2 G EEx d IIC.

Variation 3

This variation introduced the following changes:

- i. The recognition of the Hawke International reference designations.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	22 November 2006	R51A15427A	The release of prime certificate.
1	22 November 2006	R51A15427A	The introduction of Variation 1
2	22 November 2006	R51A15427A	The introduction of Variation 2
3	30 April 2007	R52A16502A	This Issue covers the following changes: <ul style="list-style-type: none">• All previously issued certification were rationalised into a single certificate Issue 3, Issues 0 to 2 referenced above are only intended to reflect the history of the previous certification and have not been issued as actual documents.• The introduction of Variation 3.

14.3 Certificate number Sira 00ATEX1073U last amended 28 April 2005

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15 SPECIAL CONDITIONS FOR SAFE USE

- 15.1 The following condition is applicable to the Type 492/1 stopping boxes:
- 15.1.1 These components shall only be used where the maximum temperature, at the point of mounting, is less than 85°C.
- 15.2 The following condition is applicable to the Type 478/1 Insulated Gland Adaptors:
- 15.2.1 These components shall only be used where the maximum temperature, at the point of mounting, is less than 130°C.
- 15.3 The following conditions are applicable to the Type 494/1 Earth Plates:
- 15.3.1 The cable entry device fitted to the earth plate shall be fitted with a lock nut as shown on the certificate drawing.
- 15.3.2 The earth lead shall be connected to the earth terminal of the enclosure.
- 15.4 The following conditions are applicable to all non-metallic adaptors and reducers and stopping plugs:
- 15.4.1 The components shall be installed with a suitable 'O' ring seal fitted against the shoulder at the base of the thread.
- 15.4.2 These components shall only be used where the temperature, at the point of mounting, is in the range -20°C to +60°C.
- 15.4.3 These components shall not be used for applications where there is a 'high' risk of mechanical damage.
- 15.5 The following condition is applicable to the Types 495/1 and 387/1 stopping plugs:
- 15.5.1 If a Type 495/1 or 387/1 stopping plug is machined with an undercut and is used for an Ex d application, then the wall of the enclosure into which it is fitted shall be such as to maintain five full threads engagement.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 This product shall be uniquely marked with the label identified in section 14.1 of this certificate.

Certificate Annexe

Certificate Number: Sira 06ATEX1240U
Component: Range of Cable Entry Components
Applicant: Hawke International



Issue 0 to 2 inclusive

Number	Rev.	Sheet	Date	Description
3250	A	1 of 1	13 Nov 06	Hawke Manufacture

Issue 3

Number	Rev.	Sheet	Date	Description
3250	B	1 of 1	04 Apr 07	Hawke Manufacture

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