



**EC - TYPE EXAMINATION CERTIFICATE**

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

- 3 EC - Type Examination Certificate Number: **Baseefa08ATEX0208X**
- 4 Equipment or Protective System: **Type S1 to S9 and MS1 to MS9 (Size 1 to 9) range of sheet metal Junction Boxes**
- 5 Manufacturer: **Hawke International**
- 6 Address: **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 ExTR08.0131/00**
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 60079-0: 2006 EN 60079-7: 2007 EN 61241-0: 2006 EN 61241-1: 2004**  
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 Exe II Ex tD A21 T(see schedule) T80°C IP66**

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0500**

Project File No. **04/0905**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

**Baseefa**

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**R S SINCLAIR**  
DIRECTOR  
On behalf of  
Baseefa



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## Schedule

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Certificate Number Baseefa08ATEX0208X

### 15 Description of Equipment or Protective System

The Type S1 to S9 and MS1 to MS9 (Size 1 to Size 9) range of sheet metal Junction Boxes consist of the Hawke type ZS1 to ZS9 and ZMS1 to ZMS9 range of sheet metal empty enclosures covered by to Baseefa Certificate Number Baseefa08ATEX0207U and report number GB/BAS/ExTR08.0130/00 coded Exe II.

The enclosures may be fitted with a variety of different rail mounted terminal arrangements. All terminals are covered by their own component certificates and are coded Exe II. The terminals permitted are listed on Drawing Number D9160 held on Baseefa General Technical File 0500 and on the Assembly Instructions. The terminals shall be used within their relevant temperature range and ratings and installed by Hawke International.

The maximum dissipated wattage for the enclosures is as follows:

Enclosure Type	Maximum Dissipated Power (Watts)						Cable length per terminal (m) (Max box diagonal)
	T6	T5	T6	T5	T6	T5	
	Amb 40°C	Amb 55°C	Amb 55°C	Amb 40°C	Amb 65°C	Amb 65°C	
Size 1 (S1 or MS1)	13.95	8.7	19.1	5.2	10.4	0.307	
Size 2 (S2 or MS2)	18.15	11.03	24.9	6.8	13.6	0.425	
Size 3 (S3 or MS3)	23.7	14.8	32.5	8.8	17.7	0.515	
Size 4 (S4 or MS4)	29.95	18.7	41.1	11.2	22.4	0.579	
Size 5 (S5 or MS5)	32.85	20.5	45.1	12.3	24.6	0.662	
Size 6 (S6 or MS6)	40	25	55	15	30	0.792	
Size 7 (S7 or MS7)	52	32.5	71.5	19.5	39	0.945	
Size 8 (S8 or MS8)	65	40.6	89.3	24.3	48.7	1.09	
Size 9 (S9 or MS9)	79.35	49.5	109.1	29.7	59.5	1.238	

The maximum number of terminals that may be fitted into each enclosure is calculated using the following formula:

$$\text{Power} = I^2 \times N(R_t + R_c) \text{ Watts}$$

Where:

I = Actual current through the conductor up to the maximum certified current for that terminal when fitted in an Exe enclosure (Amps)

N = Number of terminals

R<sub>t</sub> = Terminal resistance (Ohms @ 20°C)

R<sub>c</sub> = Resistance of one solid copper conductor (ohms @ 20°C) when using the maximum box diagonal

The Certification Label may be metal that is riveted or screwed, or self adhesive foil, as shown on the certification drawings. Additional labels may be fitted externally or internally for certification or general marking use.

When required, Exe II terminals for intrinsically safe (i.s.) circuits may be fitted complete with an additional external label stating 'Intrinsically Safe Circuits Enclosed'. The i.s. terminals may be blue in colour to suit the application. The ratings on the certification label shall be reduced accordingly.



When required, enclosures containing intrinsically safe (i.s.) circuits may be fitted with non i.s. circuits when the relevant barrier or air gap is included and an additional external label stating 'Intrinsically Safe and Non- Intrinsically Safe circuits enclosed'. The i.s. terminals may be blue in colour to suit the application. The ratings on the certification label shall be reduced accordingly for the I.S. circuits.

The internal/external earth stud facilities are as described in the empty enclosure certificate Baseefa08ATEX0207U. The enclosures may be fitted with rail mounted or directed mounted suitably certified earth terminals to suit the application. When required a power terminal may be used as a 'clean earth' to suit the application.

Entry sizes and positions are as described in the empty enclosure certificate Baseefa08ATEX0207U and in the Assembly Instructions. All unused entry holes shall be fitted with a certified stopping plug as listed on the empty enclosure certificate Baseefa08ATEX0207U.

When required, a component certified Breather/Drain device as described in the empty enclosure certificate Baseefa08ATEX0207U may be fitted.

When required, the enclosure may be fitted with optional metallic or plastic trunking inside the junction box providing it is suitable for 80°C, meets the creepage and clearance requirements of EN 60079-7: 2007, does not affect to IP rating of the junction box and the maximum operating current in any circuit will be limited to 1A.

## 16 Report Number

GB BAS ExTR08.0131/00

## 17 Special Conditions for Safe Use

1. Unused entry holes shall be fitted with stopping plugs as specified in the empty enclosure certificate IECEx BAS.08.0064U. The operating temperature range of the enclosure is limited to that of the stopping plug fitted.
2. Only breather/drain devices as specified in the empty enclosure certificate IECEx BAS.08.0064U may be used with these enclosures. The breather/drain devices must be installed in their correct orientation in either the bottom face or bottom face gland plate of the enclosure. The operating temperature range of the enclosure is limited to that of the breather/drain device fitted.
3. When used under dust layers the maximum depth shall be no greater than 50mm.
4. All terminal screws, used and unused, shall be tightened down by the end user.
5. Insulation of conductors must extend to within 1mm of the metal of the terminal throat unless specified otherwise on the terminal certificate.
6. No more than one single or multi-stranded lead shall be connected to either side of any terminal unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated bootlace ferrule, or any method indicated on the terminal certificate.
7. Terminals shall be installed in such a manner that the creepage and clearance distances between the terminal and adjacent components, enclosure walls and covers complying with the requirements of EN 60079-7: 2007 for the rated voltage of the equipment.
8. Terminal temperatures must not exceed the operating range specified on the component certificate.
9. All terminals, and accessories such as cross-connectors, shall be installed in accordance with the terminal manufacturer's instructions. Hawke International will supply the relevant terminal manufacturer's instructions with each junction box covered by this certificate.
10. The maximum voltage, current and dissipated power shown on the rating label must not be exceeded.



11. When connecting conductors of cross section below the maximum allowed for the particular terminal then the maximum amps per pole must be reduced inline with the maximum amps permitted for a terminal equivalent to the conductor size fitted e.g. If a terminal that can take a 6mm<sup>2</sup> conductor at 29Amps is fitted with a 2.5mm<sup>2</sup> conductor then the current shall be reduced to a maximum of 17Amps, or the rating marked on the apparatus label, whichever is the lower.
12. When metallic and non-metallic trunking is provided inside the junction box the maximum operating current in any circuit within the trunking is limited to 1A.
13. When a self adhesive certification label is fitted, the minimum ambient temperature shall be -40°C.

**18 Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

**19 Drawings and Documents**

Number	Issue	Date	Description
C2535	C	10/04/07	ATEX/IECEX Certification General Arrangement

Common to and held on IECEX BAS 08.0065X



**1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

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

**3** Supplementary EC - Type Examination Certificate Number: **Baseefa08ATEX0208X/1**

**4** Equipment or Protective System: **Type S1 to S9 and MS1 to MS9 (Size 1 to 9) range of sheet metal junction boxes**

**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. Baseefa08ATEX0208X to apply to equipment or protective systems 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.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0500**

Project File No. **09/0663**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

A handwritten signature in blue ink, appearing to read "R S Sinclair".

**Baseefa**

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**R S SINCLAIR**  
DIRECTOR  
On behalf of  
Baseefa



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## Schedule

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Certificate Number Baseefa08ATEX0208X/1

### 15 Description of the variation to the Equipment or Protective System

#### Variation 1.1

Add a new range of junction boxes type: EJB1 and EJB2 in stainless steel and MEJB1 and MEJB2 in mild steel.

This range of junction boxes consists of the Hawke type ZEJB 1 and ZEJB2 in stainless steel and ZMEJB1 and ZMEJB2 in mild steel sheet metal empty enclosures covered by Baseefa Certificate Number Baseefa08ATEX0207U and report Numbers GB/BAS/ExTR08.0130/00 and GB/BAS/ExTR09.0210/00 coded Exe II.

The junction boxes may be fitted with a variety of different rail or direct mounted terminal arrangements. All terminals are covered by their own component certificates and are coded Exe II. The terminals permitted are listed on Drawing Number D9160 held on Baseefa General Technical File 0500 and on the Assembly Instructions. The terminals shall be used within their relevant temperature range and ratings and installed by Hawke International.

The maximum dissipated wattage for the junction boxes is as follows:

Junction box Type	Maximum Dissipated Power (Watts)						Cable length per terminal (m) (Max box diagonal)
	T6	T5	T6	T5	T6	T5	
	Amb 40°C	Amb 55°C	Amb 55°C	Amb 40°C	Amb 65°C	Amb 65°C	
EJB1 and MEJB1	4.74		2.96	6.5	1.7	3.5	0.185
EJB2 and MEJB2	6.64		4.15	9.1	2.4	4.9	0.228

The maximum number of terminals calculation, certification label fixing, use of intrinsically safe (i.s.) circuits, internal/external earth stud requirements, breather drain requirements, trunking options, are as specified for the Size 1 to 9 junction boxes.

Entry size and positions are as described in the empty enclosure certificate Baseefa08ATEX0207U and in the Assembly instructions. All unused entry holes shall be fitted with a certified stopping plug as listed on the empty enclosure certificate Baseefa08ATEX0207U.

#### Variation 1.2

Add an optional alternative label fixing method using a stainless steel blind and clinch seal nut sert.

#### Variation 1.3

Add mid range sizes in landscape orientation. The enclosures will be coded as follows: S\*L e.g. S4L or MS\*L e.g. MS4L

### 16 Report Number

GB/BAS/ExTR10.0096/00

### 17 Special Conditions for Safe Use

None additional to those previously specified.



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**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
C2535	1 of 2	D	20/04/10	ATEX/IECEX certification general arrangement (S1 to S9, mS1 to MS9, EJB1, EJB2, MEJB1 and MEJB2) junction boxes
C2535	2 of 2	D	20/04/10	ATEX/IECEX certification general arrangement (S1 to S9, mS1 to MS9, EJB1, EJB2, MEJB1 and MEJB2) junction boxes



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

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

3 Supplementary EC - Type Examination Certificate Number: **Baseefa08ATEX0208X/2**

4 Equipment or Protective System: **Type S1 to S9 and MS1 to MS9 (Size 1 to 9) range of sheet metal junction boxes**

5 Manufacturer: **Hawke International**

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

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa08ATEX0208X to apply to equipment or protective systems 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.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0500**

Project File No. **10/0718**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

**Baseefa**

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R S SINCLAIR   
DIRECTOR  
On behalf of  
Baseefa



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## Schedule

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Certificate Number Baseefa08ATEX0208X/2

15 **Description of the variation to the Equipment or Protective System**

### Variation 2.1

Addition of a further Special Condition for Safe Use regarding closing of unused entries.

16 **Report Number**

GB/BAS/TR10.0270/00

17 **Special Conditions for Safe Use**

Unused entries may be fitted with alternative stopping plugs and or breather drains to those listed in the schedule. The user is responsible for ensuring that the protection concept, temperature class and relevant IP rating are maintained.

18 **Essential Health and Safety Requirements**

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

19 **Drawings and Documents**

None