



EC-TYPE EXAMINATION CERTIFICATE

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

EC-Type Examination Certificate Number : **BAS01ATEX2105U**

Component: **TYPE ZS1 TO ZS9 STAINLESS STEEL ENCLOSURES**

Manufacturer: **HAWKE CABLE GLANDS LTD**

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

This Component and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council 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 components intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report N°

99(C)0836/4 dated 11 July 2001

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 + Amds 1 & 2 EN 50019: 2000 EN 50281-1-1: 1998

The sign "U" placed after the certificate number indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

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.

The marking of the component shall include the following:-

 **II 2 GD EEx e II**

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

File No: **EECS 0500/03/039**

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



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I M CLEARE
DIRECTOR
11 July 2001



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Schedule

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Description of Component

The ZS1 to ZS9 Range of Stainless Steel Fabricated Enclosures comprises 9 different sizes all of essentially rectangular form with hinged covers. The ZS1 to ZS5 have minimum thickness 1.2mm and the ZS6 to ZS9 have minimum thickness 2mm.

The enclosures have the following standard overall dimensions:

Enclosure	Length (mm)	Width (mm)	Depth (mm)
ZS1	233	153	130
ZS2	293	263	160
ZS3	413	263	160
ZS4	425	373	160
ZS5	523	373	160
ZS6	640	450	160
ZS7	760	550	160
ZS8	880	640	160
ZS9	1000	740	160

Other box sizes may be produced with the limitations as specified in the certification drawings.

Enclosures may be joined together as indicated in the certified drawings.

Enclosures may have up to 4 stainless steel gland plates fitted of minimum thickness 3mm sealed to the body by a 3mm thick by 20mm wide silicone rubber gasket. The lid is sealed to the body by means of a 6mm thick by 27mm wide silicone rubber gasket ensuring an ingress protection rating of at least IP66. When required for EMC purposes the exposed surface of the gaskets may be covered with self adhesive fine wire/braid meshing. The IP rating of the enclosure is then reduced to IP65.

Gland plates are secured to the body by either bolts into blind threaded inserts or nuts onto captive studs. The maximum spacing between adjacent fastenings is specified in the drawing for each enclosure. Drawing No. D2534 specifies the requirements for any cable entries fitted to the enclosures.

The hinged lid is secured at the opposite side to the hinge by bolts into threaded inserts. An optional padlock bracket welded to the body passes through a slot in the lid on the side opposite to the hinge. Hinges may be replaced with bolts and threaded inserts. A minimum of four mounting brackets are welded to the enclosure body.

Earthing is provided by an internal/external M10 or M14 stainless steel welded stud located on any face to suit customer applications. The earth studs may be replaced by M10 or M14 x 25mm stainless steel hexagon head set screws securely welded flat to the mating face of the enclosure. The earthing studs are fitted with stainless steel nuts, spring washers and copper shell washers. Optional internal earth studs may be welded to one or more gland plates and/or the lid to suit customer requirements.



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VARIATION ONE

The enclosure lid and body components can also be manufactured from mild steel which shall be coated, with the designation ZMS1 to ZMS9. In this case the minimum thicknesses are ZMS1 and ZMS2 1.2mm, ZMS3 to ZMS5 1.6mm and ZMS6 to ZMS9 2mm.

Note: Gland plates, fixings and earth studs shall remain stainless steel.

VARIATION TWO

When required a component approved breather, drain or breather-drain may be fitted to the enclosure as specified in the certification drawings. When fitted the IP rating of the enclosure is reduced to the IP rating of the device fitted and may no longer be suitable for category 2D.

Fitting a Redapt breather covered by certificate SIRA 99 ATEX 3050U does not affect the IP rating of the enclosure and thus requires no change in marking.

Fitting any of the alternative breathers specified in the certification documents reduces the dust ingress protection to IP5*. The designation of the enclosure will be changed as shown below:

add suffix /I e.g. ZS2 becomes ZS2/I.

The marking of the enclosure shall include the following:-

Ⓔ II 2 G 3D EEx e II

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Schedule of Limitations

1 Only the following breathers are approved for use with these enclosures:-

Manufacturer and type	Certificate No.	Code	Dust IP rating
KRON Type DLP	NEMKO Ex 94C086X	EEx e II	5
Tranberg A.S. TEF7302	NEMKO 88.217	EEx e II	5
Weidmüller BD1	BASEEFA Ex 86B3174U	EEx e II	5
Redapt	SIRA 99 ATEX 3050U	EEx e I/II	6

2 The breathers must be installed in their correct orientation in either the bottom face or bottom face gland plate. The enclosure IP rating shall match the breather if that is lower than the original enclosure rating and must be at least IP54.

3 The enclosures shall not be exposed to temperatures outside the range -40°C to +80°C.

4 Unused cable entries must be fitted with either Hawke Type 375 or Type 387 Stopping Plugs.



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Essential Health and Safety Requirements

None that are not covered by assessment against EN 50014: 1997, EN 50019: 2000 and EN 50281-1-1: 1998.

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DRAWINGS

Number	Sheet	Issue	Date	Description
D2534	1	A	30/4/01	Certification notes
C2525	1	A	10/4/01	General arrangement for ZS1 & ZMS1
C2526	1	A	10/4/01	General arrangement for ZS2 & ZMS2
C2527	1	A	10/4/01	General arrangement for ZS3 & ZMS3
C2528	1	A	10/4/01	General arrangement for ZS4 & ZMS4
C2529	1	A	10/4/01	General arrangement for ZS5 & ZMS5
C2530	1	A	10/4/01	General arrangement for ZS6 & ZMS6
C2531	1	A	10/4/01	General arrangement for ZS7 & ZMS7
C2532	1	A	10/4/01	General arrangement for ZS8 & ZMS8
C2533	1	A	10/4/01	General arrangement for ZS9 & ZMS9
A1267	1	B	5/01	Instructions

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BASEEFA List Keywords
2ENCLOSU



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Component Intended for use on/in an Equipment**
Intended for use in Potentially Explosive Atmospheres - Directive 94/9/EC

3 Supplementary EC - Type Examination Certificate Number: **BAS01ATEX2105U/1**

4 Component: **TYPE ZS1 TO ZS9 STAINLESS STEEL ENCLOSURES**

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. BAS01ATEX2105U to apply to components 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.

The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa (2001) Ltd., Notified Body Number 1180, is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate it has issued.

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

Baseefa (2001) Ltd. Customer Reference No. 0500

Project File No. 03/0453

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.



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Schedule

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Certificate Number BAS01ATEX2105U/1

15 Description of the variation to the Component

Variation 1.1

To allow the use of alternative ATEX approved stopping plugs:

Redapt Plastic Type P0-E-4	SIRA00ATEX3091
Redapt Metal Type P0-U	SIRA00ATEX1094
Raxton Plastic & Metal Types CK, CQ, CF & CB	SIRA00ATEX1073U

16 Report Number

None

17 Schedule of Limitations

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
D2534	1	B	20/5/03	General arrangement