



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx CML 14.0008X Issue No: 1 Certificate history:
Status: **Current** Page 1 of 4 [Issue No. 1 \(2015-01-23\)](#)
Date of Issue: **2015-01-23** [Issue No. 0 \(2014-04-30\)](#)

Applicant: **Abtech Limited**
199 Newhall Road,
Lower Don Valley,
Sheffield,
S9 2QJ
United Kingdom

Electrical Apparatus: **Nautilus Terminal Boxes**
Optional accessory:

Type of Protection: **Increased safety, Intrinsically safe and Dust**

Marking:
Ex e IIC T5 Gb
Ex ta IIIC T100 ° C Da/Ex tb IIIC T100 ° C Db
Ex ia IIC T5 Ga/Ex ib IIC T5 Gb
-50°C to +55°C

*Approved for issue on behalf of the IECEx
Certification Body:*

M D Shearman FlntMC

Position:

Managing Director

*Signature:
(for printed version)*

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](#).

Certificate issued by:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port
CH65 4LZ
United Kingdom





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Manufacturer: **Abtech Limited**
199 Newhall Road,
Lower Don Valley,
Sheffield,
S9 2QJ
United Kingdom

Additional Manufacturing
location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/CML/ExTR14.0007/00](#) [GB/CML/ExTR14.0009/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0046/06](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Nautilus range of terminal boxes are submersible enclosures and are fitted with an arrangement of suitably certified terminals. The Nautilus terminal enclosures are constructed from a flanged stainless steel enclosure base and flat lid. The lid is fixed in place with stainless steel M12 bolts, and the internal and external joints of the enclosure base are fully welded. Additionally the lid may be hinged.

A solid silicone O-ring gasket is fitted into the base lip and provides sealing with the enclosure lid.

Cable entries may be provided on the base, top, sides or back of the enclosure and an external and optional internal earth stud (M6 or larger) is provided on all enclosure.

Enclosures may also contain slotted metallic or non-metallic trunking.

Additionally, lifting eyelets and mounting lugs can be provided and are welded to the enclosure base and lid.

See Annex for full description and conditions of manufacture

CONDITIONS OF CERTIFICATION: YES as shown below:

Conditions of Certification

1. When used for Ex ia, Ex ib or Ex ta applications, over-power fault protection shall be provided and shall take into account the 'EPL' fault requirements necessary:

- Ex ia - Ga and Ex ta - Da applications – Two countable faults are to be applied to the current and/or voltage limiter.
- Ex ib – Gb applications – One countable fault is to be applied to the current and/or voltage limiter.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1 This Issue introduced the following changes:

- 1 To allow the product reference name to be changed for clarity, from 'SSD Range of Terminal Enclosures' to 'Nautilus range of Terminal Enclosures'. The description and Conditions of manufacture have been updated to include the new reference.

Annex:

[Annex IECEx CML 14.0008X Iss1.pdf](#)

Annexe to: IECEx CML 14.0008X Issue 1
Applicant: Abtech Limited
Apparatus: Nautilus Terminal Boxes



The Nautilus range of terminal boxes are submersible enclosures and are fitted with an arrangement of suitably certified terminals. The Nautilus terminal enclosures are constructed from a flanged stainless steel enclosure base and flat lid. The lid is fixed in place with stainless steel M12 bolts, and the internal and external joints of the enclosure base are fully welded. Additionally the lid may be hinged.

A solid silicone O-ring gasket is fitted into the base lip and provides sealing with the enclosure lid.

Cable entries may be provided on the base, top, sides or back of the enclosure and an external and optional internal earth stud (M6 or larger) is provided on all enclosure.

Enclosures may also contain slotted metallic or non-metallic trunking.

Additionally, lifting eyelets and mounting lugs can be provided and are welded to the enclosure base and lid.

The Nautilus range of terminal boxes are manufactured in the following standard sizes:

Nautilus Ref.	Internal dimensions		
	Length (mm)	Width (mm)	Depth (mm)
NAUT1	130	100	50
NAUT2	230	170	140
NAUT3	340	170	140
NAUT3A	340	220	140
NAUT4	400	210	190
NAUT5	350	250	190
NAUT6	390	310	190
NAUT7A	530	270	210
NAUT7B	430	370	210
NAUT8	490	400	240
NAUT9	630	250	240
NAUT10	690	340	250
NAUT11	1020	570	390

The enclosures may also be manufactured to sizes not specified in the above table. This assumes that any given dimension is not larger than the respective dimension of the largest or smaller than the respective dimension of the smallest enclosure.

Before the terminal box is installed, its total dissipated power for the particular application will be calculated in accordance with IEC 60079-7, Annex E (E.2) and shall not exceed the values given in the table below:

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Company Reg No. 8554022 VAT No. GB163023642



Nautilus Ref.	Internal dimensions			Max. Power Dissipation (W) Ga, Gb, Db	Max. Power Dissipation (W) Da
	Length (mm)	Width (mm)	Depth (mm)		
NAUT1	130	100	50	9.3	4.65
NAUT2	230	170	140	19	9.5
NAUT3	340	170	140	22	11
NAUT3A	340	220	140	29	14.5
NAUT4	400	210	190	32	16
NAUT5	350	250	190	32	16
NAUT6	390	310	190	36	18
NAUT7A	530	270	210	42	21
NAUT7B	430	370	210	42	21
NAUT8	490	400	240	44	22
NAUT9	630	250	240	44	22
NAUT10	690	340	250	50	25
NAUT11	1020	570	390	68	34

Conditions of manufacture

1. The equipment covered by this certificate incorporate the use of previously certified components, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these components. The manufacturer shall notify CML of any modifications to the components that may impinge upon the explosion safety aspects of the Nautilus terminal enclosures.
2. The power rating marking on the label will be allocated in accordance with the table detailed in the ~~q~~Description of Equipment
3. The manufacturer will take all reasonable steps to ensure that the power dissipated by the Terminal box does not exceed the maximum value stipulated the table detailed in the ~~q~~Description of Equipment and shall supply all the relevant information that will allow the installer/user to calculate the power dissipation (Watts) in accordance with IEC 60079-7, Annex E, E.2 for each terminal box.
4. When terminals are supplied with the enclosure, they shall be IECEx approved components, chosen from the Abtech ~~q~~Approved Component Document . Sira 12AAC087 and having a minimum insulation temperature of -50°C to +100°C. All terminals shall be installed in accordance with their Conditions of Safe Use/Schedule of Limitations/Conditions of



Certification and the relevant codes of practice/wiring regulations, specifically to the minimum creepage and clearance requirements and to any limitations to ratings that may be observed due to method of installation.

5. When the Nautilus enclosure is fitted with terminals and components are wired by the manufacturer, a routine electric strength shall be carried out in accordance with the latest edition of the following standards:

Title	International standards
Industrial control equipment	IEC 60947
Measurement, control and laboratory use	IEC 61010