



# 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](http://www.iecex.com)

Certificate No.: IECEx CML 18.0152X

Issue No: 1

Certificate history:

Issue No. 1 (2019-08-28)

Issue No. 0 (2018-11-22)

Status: **Current**

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Date of Issue: **2019-08-28**

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

Equipment: **VisEx Camera Housings**

*Optional accessory:*

Type of Protection: **Flameproof "db", Dust Ignition "tb"**

Marking:

Ex db IIC T\* Gb

Ex tb IIIC T\* Db

(\* Refer to description)

Ta= -60°C≤Ta≤+65°C

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

H M Amos MIET

*Position:*

Technical Manager

*Signature:  
(for printed version)*

*Date:*

August 28, 2019

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](http://www.iecex.com).

Certificate issued by:

**Eurofins E&E CML Limited**  
Unit 1, Newport Business Park  
New Port Road  
Ellesmere Port, CH65 4LZ  
United Kingdom





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Manufacturer: **Abtech Ltd.**  
199 Newhall Road,  
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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 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:

<b>IEC 60079-0 : 2017</b> Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2014-06</b> Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-31 : 2013</b> Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*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/ExTR18.0265/00](#)

Quality Assessment Report:

[GB/CML/QAR16.0021/02](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The VisEx Camera Housings is a range of flameproof and dust protected enclosures which consist of a housing that accommodates a camera or readers together with associated equipment rated up to 60 V DC or 230 V AC.

Refer to Annex for full description and Conditions of Manufacture.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annex for Specific Conditions of Use.



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

Issue 1

1. To update QAR reference

**Annex:**

[Certificate Annex IECEx CML 18.0152X Issue 1.pdf](#)

**Annexe to:** IECEx CML 18.0152X Issue 1  
**Applicant:** Abtech Ltd.  
**Apparatus:** VisEx Camera Housing



## Description

The VisEx Camera Housings is a range of flameproof and dust protected enclosures which consist of a housing that accommodates a camera or readers together with associated equipment rated up to 60 V DC or 230 V AC.

The VisEx camera housing comprises a cylindrical threaded main body and a cylindrical threaded front body forming an M110 x 1.5 threaded joint, both manufactured from stainless steel. The front body is fitted with a glass window which is secured by a threaded, M110 x 1.5, stainless steel retaining ring. The base of the main body is provided with two, metric threaded, cable entries each for the accommodation of a suitably certified cable entry device. The overall dimensions of the Camera Housing are 260 mm long with a diameter of 135 mm.

A mounting bracket is fitted internally to accommodate the camera and its associated equipment, threaded external holes are provided for the fitting of mounting brackets. The main body and front body are screwed together and secured with a locking arrangement incorporating a stainless steel M3 grub screw provided on the periphery of the front body to prevent unauthorised removal. An O-ring is provided between the main and front body and in the window arrangement to provide degree of ingress protection IP6X.

The VisEX POB Reader enclosure is of identical construction to the VisEx Camera Housing except it has three M20 x 1.5 threaded entries. The overall dimensions are 235 mm long with a diameter of 135 mm.

The VisEx Mini Reader enclosure is of identical construction to the VisEx camera housing except it has two M20 x 1.5 cable entries. The overall dimensions are 153 mm long, maximum outer diameter of 135 mm and internal diameter of 70 mm.

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The following table details the power ratings of the equipment together with the essential temperature limitations that apply to these ratings:

Max. ambient temperature	Max. power rating	Temperature classification	Max. external surface temperature for dust	Cable entry temperature warning applied to label
<b>VisEx Camera Housing</b>				
40°C	8 W	T6	T55°C	Not required
55°C	8 W	T6	T70°C	Not required
65°C	8 W	T6	T80°C	Cable entry temperature may reach 80°C, cabling to be suitable
40°C	47 W	T4	T105°C	Cable entry temperature may reach 105°C, cabling to be suitable
55°C	47 W	T4	T120°C	Cable entry temperature may reach 120°C, cabling to be suitable
65°C	47 W	T4	T130°C	Cable entry temperature may reach 130°C, cabling to be suitable
<b>VisEx POB Reader</b>				
65°C	0.77 W	T6	T80°C	Not required
<b>VisEx Mini Reader</b>				
65°C	0.36 W	T6	T80°C	Not required

## Conditions of Manufacture

The following are conditions of manufacture:

- i. The equipment is not provided with an internal earth facility and therefore shall only be fitted with internal components which do not require to be connected to an earth facility.
- ii. The manufacturer shall only install internal components that do not exceed the maximum power ratings listed in the description.

## Specific Conditions of Use

The following are specific conditions of use:

- i. The equipment shall be installed such that is protected from high risk of mechanical danger.
- ii. The equipment incorporates a flameproof spigot joint formed between the glass window and the front body which has dimensions which are other than the relevant maximum or minimum in Table 2 in IEC 60079-1 as shown below:

Part of spigot joint	Minimum width (mm)	Maximum gap (mm)
Plain part	7.325	0.1
Cylindrical part	8.9	0.15

The user shall take these dimensions into account where necessary during maintenance of the equipment.

- iii. When the equipment is not provided with an external earth facility it shall only be connected to wiring systems that do not require an external earth connection.
- iv. Only the connection facilities provided with the internal components shall be used for the connection of the equipment.