

# INSTRUCTIONS FOR SAFE USE

**TC7000/TC7150**  
INTRINSICALLY  
SAFE THERMAL  
IMAGING CAMERA



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# READ THIS FIRST

The CorDEX Instruments TC7000 intrinsically safe thermal imaging camera is designed for non-contact temperature measurement. Read and understand all Warnings and Cautions before using this product.

## Safety Information

This instruction manual contains information and warning that must be observed for safe operation under the conditions described.

## Faults and Damage

If there are any grounds for believe the unit is no longer safe to use, it must be taken out of service and measures taken to prevent its further unintentional use. The safety of the device may be impaired if, for example:

- External damage to the unit is visible
- The device has not been stored correctly
- The unit has suffered transport damage

## Safety Regulations

When using the TC7000, the appropriate regulations must be observed to avoid incorrect operation of the unit.

**ATTENTION!** Ensure that the case is securely fastened when using the device. The device must not be opened in the hazardous area.

## Special Conditions for Safe Use

- The TC7000 Intrinsically safe thermal imaging camera is powered by a Lithium Ion, rechargeable battery pack.
- Do not remove or replace batteries within the hazardous area.
- The battery pack must be removed from the equipment in the safe area when charging and the battery pack can only be charged in the safe area.
- USB terminal must only be connected in the safe area.
- For M2 only, the equipment must be de-energized and removed from the hazardous area by the operator when the presence of a hazardous atmosphere is detected.

## LABELLING

CorDEX Instruments Ltd. 1 Owens Rd, Middlesbrough, TS6 6HE, UK

TC7000- Thermal Camera



I/II M2/2 GD

Ex i.b. IIC T4 GbTamb -10°C to +40°C  
Ex i.b. IIIC T200°C DbTamb -10°C to +40°C  
Ex i.b. I Mb  
ATEX - TRAC12ATEX0037X  
IECEX - IECEX TRC 12.0019X  
Serial Number- XXXX-XX-XXXX  
Year of Construction- YYYY  
Powered by - Refer to Manual



0518

DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE PRESENT

## OPERATIONAL CAUTIONS



The cautions contained in this section do not relate specifically to safe use in hazardous area applications but should be followed to help prevent damage to the device or personnel.

- Keep out of reach of children
- The TC7000 is a precision instrument. Do not drop it, strike it or use excessive force when handling

### Maintenance

For safety critical maintenance, please refer to EN60079-17

# CERTIFICATION

Model	TC7000
ATEX Certificate No.	TRAC12ATEX0037X Standards EN60079-0:2009, EN60079-11:2012
ATEX Coding	 0518   II 2G Ex ib IIC T4 Gb II 2D Ex ib IIIC T200°C Db I M2 Ex ib I Mb Tamb -10°C to +40°C
IECEX Certificate No	IECEX TRC 12.0019X Standards IEC60079-0:2007, IEC60079-11:2011
IECEX Coding	Ex ib IIC T4 Gb Ex ib IIIC T200°C Db Ex ib I Mb Tamb -10°C to +40°C
USB Terminal Parameters	Um= 253V
Ambient Temperature	-10 to +40°C
Power Supply	2 x Lithium Ion cells

# EC DECLARATION OF CONFORMITY

## **CorDEX**

CorDEX Instruments Limited  
1 Owens Road  
Skippers Lane Industrial Estate  
Middlesbrough  
TS6 6HE

Declaration No. SO/10 Rev 1

### EC Declaration of Conformity in accordance with EEC ATEX Directive 94/9/EC

We,

CorDEX Instruments Ltd.

Hereby declare that the products described below

Product: Thermal Imaging Camera  
Model: TC7000

are in conformity with the essential health and safety requirements of Council Directive 94/9/EC relating to equipment intended for use in potentially explosive atmospheres (ATEX Directive) I/II M2 2GD, Ex ib IIC T4 Gb Tamb -10°C to 40°C, Ex ib IIIC T200°C Db, Ex ib I Mb equipment, by the application of the following Standards:-

EN 60079-0:2009 Explosive atmospheres - Equipment: General requirements

EN 60079-11:2012 Explosive atmospheres. Equipment protection by intrinsic safety "i"

as certified by Notified Body Number 0891 TRaC Global Ltd, UK by EC-Type Examination Certificate: TRAC12ATEX0037X and IECEx Certificate: IECEx TRC 12.0019X

and are subject to the procedure set out in Annex VII of Directive 94/9/EC and these procedures are in conformity with the requirements of EN 13980:2002 under the supervision of Notified Body Number 0518, SIRA Certification Service Rake Lane, Ecclestone, Chester, CH4 9JN.

It is ensured through internal measures that the products conform at all times to the requirements of the current EEC Directives and relevant standards.

Signed by: Antony James Holliday

Signature:  Authorised Person

Position: MANAGING DIRECTOR on behalf of CorDEX Instruments Ltd

Date: 15<sup>th</sup> March 2013

# EC TYPE EXAMINATION CERTIFICATE




**1 EC TYPE EXAMINATION CERTIFICATE**

2 Equipment or protective system intended for use in potentially explosive atmospheres – Directive 94/9/EC – Annex III

3 EC Type Examination Certificate No.: **TRAC12ATEX0037X (incorporating variation V1)**

4 Equipment: **Intrinsically Safe Digital Camera DC6000 and TC7000 Thermal Imaging Camera**

5 Manufacturer: **CorDEX Instruments Ltd.,**

6 Address: **Unit 1 Owens Road, Skippers Lane Industrial Estate, Middlesbrough, Cleveland, TS6 6HE, United Kingdom**

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

8 TRAC Global Ltd, Notified Body number 0891 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment or protective system 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 **TRA-010226-33-00A, TRA-010226-33-01A & TRA-017824-33-00A.**

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in section 18 of the schedule to this certificate, has been assured by compliance with:  
**EN60079-0:2009 EN60079-11:2012**

10 If the sign "X" is placed after the certificate number then this indicates that the equipment or protective system is subject to special conditions of 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 in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of this equipment or protective system shall include the following:  
 **II 2G Ex ib IIC T4 Gb Tamb -10°C to 40°C**  
 **II 2D Ex ib IIC T200°C Db**  
 **I M2 Ex ib I Mb**


This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the TRAC Ex Certification Scheme.

*S.P. Winsor*  
 S P Winsor, Certification Officer  
 Issue date: 2014-03-28  
 Copy No.: 1e  
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# IECEX CERTIFICATE OF CONFORMITY



**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 TRC 12-0015K	Issue No. 1	Certificate history: Issue No. 1 (2014-03-28)
Status:	Current	Page 1 of 5	Issue No. 0 (2013-03-22)
Date of Issue:	2014-03-28		
Applicant:	CorDEX Instruments Ltd., Unit 1 Owens Road, Skippers Lane Industrial Estate, Middlesbrough, Cleveland, TS6 6HE United Kingdom		
Electrical Apparatus:	Intrinsically Safe Digital Camera DC6000 and TC7000 Thermal Imaging Camera		
Optional/accessory:			
Type of Protection:	Intrinsic Safety		
Marking:	Ex ib IIC T4 Gb Tamb -10°C to 40°C Ex ib IIC T200°C Db Ex ib I Mb		
Approved for issue on behalf of the IECEX Certification Body:	Stephen Winsor		
Position:	Certification Officer		
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: \_\_\_\_\_

NOTES:

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