



# 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 ITS 11.0006X issue No.:1

Certificate history:  
Issue No. 1 (2011-8-17)  
Issue No. 0 (2011-5-19)

Status: **Current**

Date of Issue: 2011-08-17 Page 1 of 4

Applicant: **Dräger Safety AG & Co. KGaA**  
Revalstrasse 1  
D-23560 Lübeck  
Germany  
**Germany**

Electrical Apparatus: **Thermal Imaging Camera TIC 00\*\* and TIC 01\*\***  
*Optional accessory:*

Type of Protection: **Intrinsic Safety 'i'**

Marking: **Ex ib I Mb  
Ex ib IIC T4 Gb  
-30°C ≤Ta ≤+60°C  
IECEX ITS11.0006X**

Approved for issue on behalf of the IECEx  
Certification Body:

A T Austin

Position:

Certification Officer

Signature:  
(for printed version)

Date:

2011-08-17

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:

**Intertek Testing & Certification Limited**  
ITS House, Cleeve Road,  
Leatherhead,  
Surrey, KT22 7SB  
United Kingdom





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Manufacturer: **Dräger Safety AG & Co. KGaA**  
Revalstrasse 1  
D-23560 Lübeck  
Germany  
**Germany**

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 : 2007-10** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition: 5

**IEC 60079-11 : 2006** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition: 5

*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/ITS/ExTR11.0030/00

GB/ITS/ExTR11.0034/00

Quality Assessment Report:

DE/BVS/QAR06.0001/06



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## Schedule

### EQUIPMENT:

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

Thermal Imaging Camera type TIC 00\*\* is a handheld equipment. The camera is equipped with infrared sensor, LCD display, laser pointer, button for power and button for laser pointer with optional keypad. The camera is equipped with additional internal connections for optional radio module and auxiliary module.

The camera includes a USB connection for downloading data from camera. Connection to the camera is permitted only in the non-hazardous area.

The housing of the camera comprises the camera head and the handle with the supply connections and battery compartment. The battery pack is inserted into the battery compartment. The camera enclosure is non-metallic material surrounded by impact protection rubber bumpers.

The enclosure material is coated with anti-static material with surface resistance of less than  $10^9\Omega$ .

Maximum input charging voltage:

Um = 9.5V

Alternative marking for equipment:

Ex ic IIC T4 Gc

### CONDITIONS OF CERTIFICATION: YES as shown below:

USB connection can only be used in the non-hazardous location.

Unit must be visually inspected for any mechanical damage before use in the hazardous area.

Do not charge in the hazardous area.



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

Issue 1 (11/07/2011)

New model of Thermal Imaging camera TIC 01\*\*.

Thermal Imaging Camera type TIC 01\*\* is upgraded version of model TIC00\*\* with additional visual camera module (VIS) and upgraded Detector module with higher resolution infrared camera. Main board adapted to new Detector module has changed non-safety relevant components and Detector PCB is fitted with 36pin two-row connector. VIS module is connected to Main board via flexible tape. VIS module comprises visual camera detector module and a few components fitted on small PCB.

Other components of the camera are identical to model TIC 00\*\*.

Adition of "Do not charge in the hazardous area" in the Conditions of Certification.