



(1) **EC-TYPE-EXAMINATION CERTIFICATE**
(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 02 ATEX 2179

(4) Equipment: Inspection luminaire, type FOC..

(5) Manufacturer: thuba AG

(6) Address: 4015 Basel, Switzerland

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 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 and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 03-22354.



(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997 + A1 + A2 EN 50018:2000 EN 50019:2000
EN 50284:1999 Dokument 31 WG8/TD3 EN 13463-1:2001

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

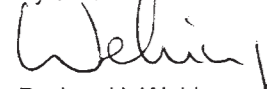
(12) The marking of the equipment shall include the following:

 **II 2 G EEx de IIC T4** (assembly No. 1) and  **II 1 G Ex IIC T6** (assembly No. 2)

Zertifizierungsstelle Explosionsschutz

Braunschweig, February 19, 2003

By order:


Dr.-Ing. H. Wehinger
Direktor und Professor



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EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

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SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 02 ATEX 2179**

(15) Description of equipment

The inspection luminaire, type FOC.. is used for the inspection of tanks in which an explosive atmosphere consisting of gas/air or vapour/air could possibly exist. The inspection luminaire, consists of two assemblies:

1. Assembly No. 1

Flameproof enclosure mounted on a barrow:

The flameproof enclosure contains the source of radiation and the associated monitoring device. The rated voltage is 230 V.

The flameproof enclosure on the barrow shall be marked as follows:

 **II 2 G EEx de IIC T4**

2. Assembly No. 2

Fibre-optic tube package:

The fibre-optic tube package is used for the transmission of light from the flameproof enclosure (area requiring apparatus of category 2) into the tank (area requiring apparatus of category 1). The fibre-optic tube package shall be used only in combination with the flameproof enclosure described above.

The fibre-optic tube package shall be marked as follows:

 **II 1 G Ex IIC T6**

(16) Test report PTB Ex 03-22354

(17) Special conditions for safe use

none


(18) Essential health and safety requirements

met by compliance with the standards mentioned above or with document IEC 31WG8/TD3 respectively, with respect to protection measures against ignition hazard caused by optical radiation.

Zertifizierungsstelle Explosionsschutz

Braunschweig, February 19, 2003

By order:


Dr.-Ing. H. Wehinger
Direktor und Professor



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Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin



1. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 02 ATEX 2179

(Translation)

Equipment: Inspection luminaire, type FOC..

Marking: II 2 G EEx de IIC T4 or II 1 G Ex IIC T6

Manufacturer: thuba AG

Address: Blauensteinerstr. 16, 4015 Basel, Switzerland

Description of supplements and modifications

In the future the inspection luminaire, type FOC.. may also be manufactured and operated as described in the test documents to test report PTB Ex 05-23446.

The modifications concern the internal construction of the assembly " Flameproof enclosure mounted on a sack barrow " , particularly the monitoring device.

The permissible range of the ambient temperature for the inspection luminaire, type FOC.. is -20 °C up to +50 °C.

All further specifications of the EC-type examination certificate PTB 02 ATEX 2179 apply without changes.

Applied standards

EN 50014:1997 + A1 + A2	EN 50018:2000	EN 50019:2000
EN 50284:1999	IEC 60079-28:2005 CDV	EN 13463-1:2001

Test report: PTB Ex 05-23446

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Johannsmeyer
Direktor und Professor



Braunschweig, September 1, 2005

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Konformitätserklärung
Declaration of conformity
Déclaration de conformité
PTB 02 ATEX 2179

Wir / Nous / We,	thuba AG Postfach 431 CH-4015 Basel Switzerland
erklären in alleiniger Verantwortung, dass das Produkt <i>déclarons de notre seule responsabilité que le produit</i>	Faseroptische Inspektionsleuchte Luminaire d'inspection à fibres optiques
bearing sole responsibility, hereby declare that the product	Fibre-optic Inspection Lamp Typ / Type / Type FOC . .
auf das sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder normativen Dokument(en) übereinstimmt: <i>auquel se rapporte la présente déclaration est conforme aux normes ou aux documents normatifs suivants.</i> referred to by this declaration is in conformity with the following standards or normative documents.	
Bestimmungen der Richtlinie <i>Désignation de la directive</i> provisions of the directive	Titel und/oder Nummer sowie Ausgabedatum der Norm(en) <i>titre et/ou No. ainsi que date d'émission de la/des norme(s)</i> title and/or No. and date of issue of the standard(s)
94/9 EG: Geräte und Schutzsysteme zur bestimmungsgemässen Verwendung in explosionsgefährdeten Bereichen <i>94/9 CE: Appareils et système de protection destinés à être utilisés en atmosphère explosibles</i> 94/9 EC: Equipment and protective systems intended for use in potentially explosive atmospheres	EN 50014:2000-02 EN 50018:2001-12 EN 50019:2001-06 EN 50284:2000-02 EN 13463-1:2002-04 EN 1127-1:1997-10 EN 60529:2000-09 EN 60079-14:1998-08 EN 60079-17:1999-08 VDE 0100 Teil 540:1991-11 IEC 60079-28:2005 CDV
89/336 EWG: Elektromagnetische Verträglichkeit <i>89/336 CEE: Compatibilité électromagnétique</i> 89/336 EEC: Electromagnetic compatibility	EN 50081-2:1994-03 EN 50082-2:1996-12
Basel, 6. Januar 2006 Ort und Datum Lieu et date Place and date	 Peter Thurnherr Geschäftsführender Inhaber, Elektroingenieur FH <i>Administrateur délégué, ingénieur HES</i> Managing Proprietor, B. Sc. Electrical Engineer