# IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

#### EC-TYPE EXAMINATION CERTIFICATE [1]

according to Directive 94/9/EC, Annex III (Translation)



- [2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC
- EC-Type Examination Certificate Number: IBExU06ATEX1073 X [3]

[4] Equipment: SONOCONTROL Type 14 BF6?

Manufacturer: [5]

SONOTEC Ultraschallsensorik Halle GmbH

[6] Address: Nauendorfer Straße 2

06112 Halle **GERMANY** 

- The equipment mentioned under [4] and any acceptable variation there to are specified in the [7] schedule to this EC-Type Examination Certificate.
- IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with [8] article 9 of the Council Directive 94/9/EC of 23rd March 1994, certifies that the under [4] mentioned equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in test report IB-06-3-106 of 22<sup>nd</sup> May 2006.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance [9] with EN 60079-0:2004, EN 60079-18:2004 and prEN 1127-1:2004.
- If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to [10] special conditions for safe use specified under [17] in the schedule to this EC-Type Examination Certificate.
- This EC-Type Examination Certificate relates only to the design and construction of the specified [11] equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.
- The marking of the equipment mentioned under [4] shall include the following: [12]

(Ex) II 2G Ex mb II T4

IBExU Institut für Sicherheitstechnik GmbH

Fuchsmühlenweg 7 - 09599 Freiberg, Germany

Authorised for certifications - Explosion protection -

(Dr. Lösch)

- Seal-

(ID no. 0637)

IBEXU

Institut für Sicherheitstechnik GmbH

enn-Nr. 063

Freiberg, 23th May 2006

Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Schedule

## IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

[13] Schedule

## [14] to EC-TYPE EXAMINATION CERTIFICATE IBEXU06ATEX1073 X

### [15] Description of the equipment

The equipment SONOCONTROL Type 14 BF6? is an ultrasonic sensor for liquid detection and is screwed from outside directly on the tank wall. It is an electronic board and a piezoelectric ceramic are collective encapsulated in a metal casing with a fixed cable connection.

#### Technical data

Connection thread:

M45x1.5

Power supply

18 - 24 V DC

Nominal current:

80 mA

Max. voltage value r.m.s. a.c. or d.c. voltage

U<sub>m</sub> 253 V

Ambient temperature range:

-20 °C to +60 °C

[16] Test Report

The proof of the explosion protection is recorded in detail in the Test Report IB-06-3-106 of 22<sup>nd</sup> May 2006. The test documents are part of the Test Report and are listed there.

Summary of test results:

The equipment SONOCONTROL Type 14 BF6? fulfils the requirements of type of protection Encapsulation ,mb' for electrical equipment of Equipment Group II, Category 2G and Temperature Class T4.

## [17] Special conditions

- The ambient temperature range is specified with -20 °C ≤ T<sub>a</sub> ≤ +60 °C.
- The equipment may only be operated in the installed condition. It must be protected against mechanical impacts, mainly on the sensor surface.

#### [18] Essential health and safety requirements

Confirmed by compliance of standards (see [9]).

By order

Freiberg, 23th May 2006

(Dr. Lösch)