

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

[3] EC-Type Examination Certificate Number: **IBExU05ATEX1097 X**

[4] Equipment: Process Transmitter type AX13-CIT400

[5] Manufacturer: BD SENSORS GmbH

[6] Address: BD-Sensors-Str. 1, 95199 Thierstein  
Germany

[7] The design of this equipment mentioned under [4] and any acceptable variation thereto are specified in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 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 intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The test results are recorded in the test report IB-05-3-144 of 18 July 2005.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 50014:1997+A1+A2, EN 50020:2002, EN 50284:1999 and E DIN IEC 61241-11:2001.

[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 under [17] in the schedule to this EC-Type Examination Certificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned under [4] shall include the following

 II (1) GD [EEx ia] IIC

**IBExU** Institut für Sicherheitstechnik GmbH  
Fuchsmühlenweg 7 - D-09599 Freiberg  
Phone: +49 3731 3805-0 - Fax: +49 3731 23650

Authorised for certifications  
-Explosion protection-

By order

(Dr. Lösch)

Freiberg, 19 July 2005



- Seal -  
(ID no. 0637 )

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**

[13] **Schedule**

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU05ATEX1097 X**

[15] **Description of equipment**

The Process Transmitter type AX13-CIT400 is an associated apparatus. It has to install outside of hazard areas. It serves to the galvanic isolated supply and the signal transmission for 2- respectively 3-line sensors in potentially explosive atmospheres, which requires Category 1 Apparatus. The electronic components are placed on a circuit board inside of the enclosure. The electrical connection is carried out with terminals in the front for the top-head rail version and on the back-side for the built-in enclosure. The equipment is fitted out with LC-Display and foil keyboard.

Ambient temperature -20 °C up to +40 °C

**Electrical data**

Supply circuit:  
Terminals 1, 2 and 3

$U_N$	24 VDC res. 230 VAC
$P_V$	app.4 VA
$U_m$	250 VAC (maximum r.s.m)

Signal output:  
Terminals 25 and 26

$U_N$	10 V
$U_m$	250 VAC (maximum r.s.m)

Relais output:  
Terminals 5 up to 13

$U_N$	250 VAC, 6 A
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Sensor circuit:  
Terminals 14, 15 and 16

<b>type of protection EEx ia IIC, IIB res. IIA</b>	
$U_O$	25.2 V
$I_O$	84.8 mA
$P_O$	535 mW
characteristic linear	
maximum values without lumped capacitance / inductance	

	EEx ia	IIC	IIB	IIA
$C_o$		107 nF	820 nF	2900 nF
$L_o$		5.7 mH	20 mH	42 mH

[16] **Test report**

The proof of explosion protection is recorded in details in test report IB-05-3-144. The test documents are part of the test report and listed there.

**Summary of the test results:**

The Process Transmitter type AX13-CIT400 fulfils the requirements of explosion protection for an associated apparatus of Equipment group II and Category (1) GD in type of protection Intrinsic safety for explosive atmospheres of explosion group IIC.

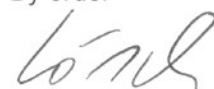
[17] **Special conditions for safe use**

The minimum distance of 50 mm between intrinsically safe terminals and other terminals must be fulfilled by the assembly. It is reachable with use of a partition or insulations and fixations of the single wires (res. shrinkdown plastic tubing).

[18] **Essential Health and Safety Requirements**

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

By order



(Dr. Lösch)

Freiberg, 19 July 2005

**IBExU Institut für Sicherheitstechnik GmbH**  
An-Institut der TU Bergakademie Freiberg

- [1] **1<sup>st</sup> Addition to**  
**EC-TYPE EXAMINATION CERTIFICATE IBExU05ATEX1097 X**  
according to Directive 94/9/EC, Annex III  
**- Translation -**



- [2] Equipment: **Process Transmitter**  
type AX13-CIT400
- [3] Manufacturer: **BD SENSORS GmbH**
- [4] Address: **BD-Sensors-Str. 1**  
**95199 Thierstein**  
**Germany**

[5] **Addition / Alteration**

The additions / alterations of the equipment mentioned in [2] compared with the equipment already certified concern in detail:

- a) Component modification at R7, C13 and D10 on the circuit boards ELQ 1-3 and ELQ 1-6.
- b) The equipment fulfils also the requirements of the current standard series EN 60079:2009.

All other parameters remain unchanged in comparison with the basic certificate.

[6] **Test Report**



The proof of the explosion protection of the equipment mentioned in [2] is documented in the Test Report IB-10-3-183 of 15 November 2010. The test documents are part of the Test Report.

[7] **Test result**

IBExU certifies that the equipment mentioned in [2] fulfils the Essential Health and Safety Requirements fixed in Annex II of the Directive 94/9/EC by compliance with EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007 and EN 61241-11:2006.

The equipment stated under [2] fulfils the requirements of explosion protection for associated electrical equipment in type of protection Intrinsic safety 'ia', Explosion Group IIC and IIIC.

The marking of the equipment stated under [2] shall include the following:

 **II (1)G [Ex ia Ga] IIC**  
 **II (1)D [Ex ia Da] IIIC**

**This addition is only valid in combination with the EC-Type Examination Certificate IBExU05ATEX1097 X of 19 July 2005.**

**The safety instructions are unchanged and have to be taken into account furthermore.**

**IBExU** Institut für Sicherheitstechnik GmbH  
Fuchsmühlenweg 7 - 09599 Freiberg, Germany  
☎ +49 (0) 3731 3805-0 - ☎ +49 (0) 3731 23650

Authorized for certifications  
- Explosion protection -

By order

(Dr. Wagner)



- Seal -

(Identification No. 0637)

Freiberg, 15 November 2010

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