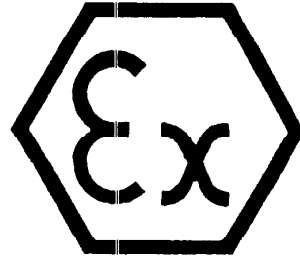





Institut Scientifique de Service Public



- (1) **EC TYPE EXAMINATION CERTIFICATE**
- (2) **Equipment or protective system intended for use
in potentially explosive atmospheres
Directive 94/9/EC**
- (3) EC type examination certificate number : **ISSeP02ATEX050X**
- (4) Equipment or protective system :
NDIR Gas Analyzers - IR 7000BX Series.
- (5) Applicant – Manufacturer – ~~Authorized representative in the Community~~ :
Teledyne Analytical Instruments Inc.
- (6) Address : 16830 Chestnut Street,
City of Industry,
CA 91749 - 1580
U.S.A.
- (7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) ISSeP, notified body n° 492 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 confidential report n° 02109.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014 : 1997 + A1 and A2 : 1999 EN 50018 : 2000
EN 50016 : 1995
- (10) If the symbol "X" is placed after the certificate number, it indicates that the equipment or protective system 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 or protective system in accordance to the Directive 94/9/EC. Further requirements of this Directive may apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- (12) The marking of the equipment or protective system shall include the following indications:
-  II 2 G / EEx pd IIC T6

Colfontaine, 29.10.2002

Renaud Alain
Manager of Colfontaine division

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC
Rue Grande, 60 - B7340 Colfontaine
Tél: ++ 32 65 610811 - Fax: ++ 32 65 610808

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(13)

SCHEDULE

(14)

EC TYPE EXAMINATION CERTIFICATE N^R ISSeP02ATEX050X


(15) Description of the equipment or protective system :

NDIR Gas Analyzers - IR 7000BX Series.

Authorized variations :

- IR 7000BX : NEMA-4 wall-mountable with X-Purge.
- IR 7000BDX : IR 7000BX with dual optical bench.
- IR 7000TBX : IR 7000BX for trace analysis.
- IR 7000TBDX : IR 7000BDX for trace analysis.

Marking :

- Name and address of the manufacturer.
- Manufacturer's type identification.
- Serial number.
- Year of construction.
- Code : EEx pd IIC T6
- Specific marking of explosion protection :  II 2 G
- Indication of the testing station followed by the certificate number and by the symbol X.
- Internal free volume : 380 litres
- Type of protective gas.
- Minimum overpressure at monitoring point : 50 Pa (0.5 mbar)
- Maximum overpressure at monitoring point : 1200 Pa (12 mbar)
- Maximum leakage flow : 15 litres/min at 1200 Pa
- Minimum purging flow rate of protective gas : 225 litres/min
- Minimum purging duration : 4 min
- Category of internal release.
- Minimum flow rate of protective gas : 2.2 litres/min
- Maximum inlet pressure to the containment system.
- Maximum flow rate into the containment system.
- Warnings :
 - "WARNING : THIS ENCLOSURE NORMALLY CONTAINS INERT GAS AND MAY RELEASE FLAMMABLE SUBSTANCE" (if applicable)
 - "CLEAN WINDOW SURFACE ONLY WITH DAMP CLOTH" (or equivalent)
- Marking normally required by the standards of construction of the electrical apparatus.

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SCHEDULE (Continued)

EC TYPE EXAMINATION CERTIFICATE N^R ISSeP02ATEX050X

Routine verifications and tests : (Clause 24 of EN 50014)

The manufacturer shall make the routine verifications and tests necessary to ensure that the electrical apparatus produced complies with the specification submitted to the testing station together with the prototype or sample. He shall also perform the routine tests 15.1, 15.2 and 15.4 of EN 50016 (overpressure test, leakage test and test for containment systems with limited release).

Eventual prescriptions :

According to the Notice 'Operating Instructions for IR7000BX Series - NDIR Gas Analyzers'.

(16) Report n° 02109 of 23.10.2002 (36 pages) and descriptive documents below :

- Drawing C-73784, rev. 0 of 15.08.01 (2 sheets)
- Drawing B-75200, rev.0 of 17.10.2002
- Test Report Expo-Telektron type IR 7000BX of 20.05.02 (3 pages)
- E-mail Expo-Telektron of 24.09.02
- E-mail Expo-Telektron (3 pages)
- E-mail Expo-Telektron of 07.10.2002
- Test Report Teledyne Electronic Technologies of 25.07.2001 (4 pages)
- Notice Operating Instructions for IR 7000BX Series - NDIR Gas Analyzers (78 pages).
- Certificate SIRA02ATEX1129 related to the Minipurge Interface Unit Type MIU/d
- Certificate SIRA01ATEX1104 related the au Purge Controllers - Sub-MiniPurge,....
- Certificate PTB97ATEX1047U related to the Line Bushing Type 07/91...

(17) Special conditions for safe use (Symbol X) :

- The Analyser will be equipped with a flow limiting device according to 10.2 of EN 50016.
- To minimise the risk of static discharge clean window surfaces only with damp cloth.

(18) Essential Health and Safety Requirements :

The Essential Health and Safety Requirements are covered by :

- The conformity to European Standards EN 50014, EN 50016, EN 50018 and EN 50020.
- All safety measures taken by the manufacturer and described in the descriptive documentation listed at (16).

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