



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

Certificate No.: **IECEx CSA 05.0001X** Issue No.: **0**

Status: **Current**

Date of Issue: **2005-01-18** Page **1** of **3**

Applicant: **Crystal Engineering Corp.**
720 Aerovista Place Suite B
San Luis Obispo, CA 93401
United States Of America

Electrical Apparatus: **Series XP2i and XP2i-DD Digital Test Gauges**
Optional accessory:

Type of Protection: **Ex i**

Marking: **IECEx CSA 05.0001X**
Ex ia IIC T4

Approved for issue on behalf of the IECEx
Certification Body:

Joe Gryn

Position:

Director, Conformity Assessment

Signature:
(for printed version)

Date:

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](http://www.iecex.com).

Certificate issued by:

CSA International

178 Rexdale Boulevard
Toronto, Ontario M9W 1R3
Canada
and
1707 - 94th Street
Edmonton, AB T6N 1E6
Canada





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Manufacturer: **Crystal Engineering Corp.**
720 Aerovista Place Suite B
San Luis Obispo, CA 93401
United States of America

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 manufacture'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 : 2000** Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
Edition: 3.1
- IEC 60079-11 : 1999** Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
Edition: 4

*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

IECEX ATR:	File Reference:
CA/CSA/05/TR187869-1596849	187869-1596849



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Series XP2i and XP2i-DD digital test gauges; Temperature Code T4; Maximum Working Pressure 10,000 PSI; Intrinsically Safe when powered by one of the following batteries (3-cells, AA, max 4.95V);

- Rayovac Maximum Plus
- Eveready E91
- Eveready EN91
- Duracell MN1500.

Note: Prefixes and Suffixes are added to denote pressure range and options.

CONDITIONS OF CERTIFICATION: YES as shown below:

- Only the batteries listed above may be used.
- Batteries must be changed in an area known to be non-hazardous.
- Serial interface must not be operated within a hazardous atmosphere.

Annexe:

(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: **KEMA 04ATEX1053**

(4) Equipment or protective system: **Digital Test Gauge Model Series XP2i and XP2i-DD**

(5) Manufacturer: **Crystal Engineering Corporation**

(6) Address: **720 Aerovista Place, Suite B, San Luis Obispo, CA 93401, USA**

(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) KEMA Quality B.V., notified body number 0344 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 no. 2070437.

(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

(10) If the sign "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 according to the Directive 94/9/EC. Further requirements of the Directive 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:

 **II 1 G EEx ia IIC T4**

Arnhem, 10 August 2004
KEMA Quality B.V.



C.G. van Es
Certification Manager

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(13)

SCHEDULE

(14)

to EC-Type Examination Certificate KEMA 04ATEX1053

(15) **Description**

The Digital Test Gauges Model Series XP2i and XP2i-DD are battery powered devices for measuring gauge pressures up to 70000 kPa, 700 bar or 10000 psi. The Test Gauges are provided with a display and buttons for control.

Ambient temperature range -20 °C ... +40 °C.

Electrical data

Supply 3 non-rechargeable AA type batteries
 Rayovac type Max Plus,
 Eveready type E91 and EN91,
 Duracell type MN1500

RS 232 interface may not be used within the hazardous area.

(16) **Report**

KEMA No. 2070437.

(17) **Special conditions for safe use**

None

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

		<u>dated</u>	
1. Drawing No.	3041 (2 sheets)	03.09.2003	
	3042, rev. A (3 sheets)	26.05.2003	
	3068	10.09.2003	
	3168, rev. A	08.06.2004	
	3169, rev. A	08.06.2004	
	3170, rev. A	08.06.2004	
	2891, rev. F (2 sheets)	11.11.2003	
	3031, rev. C (2 sheets)	---	
	2841, rev. F (6 sheets)	---	
	2931, rev. F (2 sheets)	12.11.2003	
	3045, rev. B (2 sheets)	---	
	2. Parts list No.	3042, rev. A	07.01.2004
		2964	03.06.2003
3030, rev. A		10.11.2003	
3044, rev. B		12.11.2003	