



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: Sira 05ATEX2277X

4 Equipment: H2Obvious™ Model 1001 Water Detector

5 Applicant: Pryce Hindmarch Limited

6 Address: Unit 8  
Mile Oak Industrial Estate  
Maesbury Road  
Oswestry  
Shropshire  
SY10 8GA  
UK

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

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of 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 examination and test results are recorded in confidential report number R52A13918A.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 50014:1997 + Amendments 1 and 2  
EN 50020:2002

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 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 shall include the following:



II 2 G  
EEx ia IIC T4 (Tamb = -40°C to +80°C)

Project Number 52A13918  
Date 12 January 2006  
C. Index 12

C Ellaby  
Certification Officer

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 05ATEX2277X

#### 13 DESCRIPTION OF EQUIPMENT

The H2Obvious™ Model 1001 Water Detector is a battery powered instrument designed to indicate when water is present in the space between a process pipeline and its outer insulating cladding. The instrument comprises a single printed circuit board, an encapsulated fuse, a light emitting diode (LED), a single non-replaceable ½ AA size Lithium-thionyl chloride cell and two sensing contacts. These devices are all housed in a cylindrical enclosure that is connected to a funnel arrangement and has a strap for attaching the instrument to the process pipework. The H2Obvious™ Model 1001 Water Detector is intended to be located on the outside of the pipework cladding thus allowing the funnel arrangement to collect water from behind the cladding and deliver it to a pair of sensing contacts connected to the electronic sensing circuit. The circuit senses the presence of the water and switches on the LED that is visible through the outer enclosure.

#### 14 DESCRIPTIVE DOCUMENTS

14.1	Drawing	Sheet	Rev.	Date	Description
	H2O-007	1 of 2	3	19 Dec 05	Circuit diagram
	H2O-007	2 of 2	4	19 Dec 05	Parts list
	H2O-008	1 of 1	5	19 Dec 05	Internal wiring details
	H2O-009	1 of 1	2	13 Dec 05	General assembly
	H2O-010	1 of 1	2	19 Dec 05	Detector assembly details
	H2O-012	1 of 1	2	19 Dec 05	Battery assembly
	H2O-014	1 of 1	2	13 Dec 05	Label details
	H2O-015	1 of 1	2	19 Dec 05	Enclosure details

14.2 Report number R52A13918A

#### 15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

15.1 The enclosure is non-conducting and may generate an ignition-capable level of electrostatic charges under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.

#### 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in report number R52A13918A.

#### 17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 This certificate relies on the following previously certified products. When used as part of the H2Obvious™ Model 1001 Water Detector, the key attributes listed in the table below shall still be maintained by their original certificate.

Description	Certificate no.	Key attributes
ISF001#/**/\$\$	Sira 05ATEX2274U	EE ia II, Fuse rating: 125 mA at 30 V

17.4 The H2Obvious™ Model 1001 Water Detector shall only be fitted with a Saft type, LST14250-CNR, ½ AA size, Lithium-thionyl chloride cell.

Date 12 January 2006

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**Sira Certification Service**