



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:** ITS13ATEX17655X

4. **Equipment or Protective System:** Magnetic Resonance Analyser (MOD-8000)

5. **Manufacturer:** Modcon Systems Ltd

6. **Address:** Bornshtein St, South Akko Ind Park, Acre 24222.  
Israel

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. Intertek Testing and Certification Limited, notified body number 0359 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 Intertek Report Ref 10050407A1 dated November 2013.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN 60079-0:2012 & EN 60079-2:2007 except in respect of those requirements referred to at item 16 of the Schedule.

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 in accordance 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 2 G Ex px IIC T4 Gb

**Intertek Testing & Certification Limited**  
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**Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.**

  
**K R Spence**  
Certification Officer  
27 November 2013

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## SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS13ATEX17655X

### 13. Description of Equipment or Protective System

The MOD-8000 is a Nuclei Magnetic Resonance online process analyser. It is designed to analyse the composition of process fluids using magnetic resonance spectroscopic techniques. The enclosure is manufactured from steel or stainless steel and can be divided into four parts and stands approximately 1651mm high, 756 mm depth & 1117 mm wide. The top left section contains no electrical ignition hazards and is not part of the purged enclosure. Similarly the bottom right part of the enclosure houses an ATEX certified air conditioning unit and is not part of the purged enclosure. The bottom left enclosure houses the magnetic resonance and circuitry, the process medium passes through the magnet within a ceramic tube that is considered to be infallible (joints to the pipe remain outside of the purged cabinet). The top right enclosure houses the remaining electronic parts required for analysis of the process medium and is fitted with a Liquid Crystal Display fitted on the front of the enclosure.

The Purge Control Unit (F850S) is mounted on the purged enclosure and is approved as per certificate number BVS 06 ATEX E 088. The MOD-8000 also utilizes flameproof and increased safety equipment covered by CESI certificates CESI 01 ATEX 036 (Ex d) and CESI 03 ATEX 333 (Ex e).

The Purge Control Unit and its peripheral units are fitted on the right hand side of the enclosure.



MOD-8000 (doors closed)



MOD-8000  
(doors open, air conditioning door closed)

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SCHEDULE

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14. **Report Number**

Intertek Report Ref: 10050407A1 dated November 2013.

15. **Conditions of Certification**

(a). Special Conditions for safe use

- No batteries are to be fitted inside the enclosures.
- All blanks used shall be suitably certified to EN 60079-0 or metallic minimum IP40 types.
- Temperatures could exceed 70°C at the cable gland or 80°C at the branching point, suitably rated cable must be selected.

(b). Conditions of Manufacture (Routine tests)

- Functional test of purge shall be carried out in accordance with clause 17.1 of EN 60079-2:2007
- Leakage test to be carried out in accordance with clause 17.2 of EN 60079-2:2007
- Test of infallible containment system to be carried out in accordance with clause 17.3 of EN 60079-2:2007
- Siemens unit fitted internally shall not have blanking plugs fitted.
- All results for the above tests are to be retained.

16. **Essential Health and Safety Requirements (EHSR's)**

The relevant EHSR's have been identified and assessed in Intertek Report 10050407A1 dated November 2013.

17. **Drawings and Documents**

Title	Drawing No.:	Rev. Level:	Date:
Analyser System (pages 1 to 5)	210-22-8101	0	5/8/12
EEx p ATEX Label	210-22-8113	0	12.11.12

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