



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:** ITS14ATEX18152X

4. **Equipment or Protective System:** Model 4000 Series – Purge Analyser

5. **Manufacturer:** Teledyne Analytical Instruments Inc.

6. **Address:** 16830 Chestnut Street, City of Industry, California 91748.
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. 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 101510267CHE-001 dated June 2015.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN60079-0:2012+A11:2014 & EN 60079-2:2014 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 pxb IIC T* Gb


-20°C ≤ Ta ≤ +40°C

*See description for T-Class details

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


D G Bosson
Certification Officer
11 June 2015

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SCHEDULE

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13. **Description on Equipment or Protective System**

Equipment performs Hydrocarbon Analysis in gases and liquids utilizing Flame Ionization Detection technology. The purged enclosure is constructed from cold rolled steel or 316 stainless steel and is approximately 36"x30"x36". The enclosure incorporates a Ex e certified window which is 13"x8".

Purge is controlled with the Pepperl+ Fuchs Purge system (IECEx UL 08.0003x) and can be supplied with either Air when in continuous dilution mode or Nitrogen when utilizing leakage compensation.

The temperature classification of the purged enclosure as covered in scope of this certification is T4. For clarity, the equipment can also be marked as T3 to reflect the use of certified equipment installed externally from the purge enclosure, which fall out of the scope of this certificate.

Models covered by this certification are:

- 4080/4020
- 4080/4030
- 4080/4040
- 4080/4060
- 4020B
- 4030B
- 4040B
- 4060B

The enclosure has the following purge parameters.

Minimum Purge Flow Rate	140SLPM N2 or Air
Minimum Purge Duration	13 minutes
Enclosure min. overpressure	1.2 mbar
Enclosure max. overpressure	13 mbar
Supply min overpressure	3 bar
Supply max overpressure	5 bar
Maximum leakage rate	25%
Category of internal release	Limited
Maximum release flow rate	H2 380 SCCM @ 2 bar CH4 1.5 SLPM @ 2 bar

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14. **Report Number**

Intertek Report Ref: 101510267CHE-001 Dated: June 2015

15. **Conditions of Certification**

(a). Special Conditions for safe use

- The end user must supply a flow restriction device that limits the flow to the containment system as follows:
 - i. H2 to 380 SCCM at 2 BarG max
 - ii. CH4 to 1.5 SLPM at 2 BarG max
- Temperatures at the cable entry point could exceed 70°C and 80°C at the branching point. Selection of cable must be appropriate for the ambient temperature range.
- Refer to drawing number D91840 for correct replacement of cable entries.
- The manufacturers operating and maintenance instructions shall always be followed.

(b). Conditions of Manufacture

- Functional test of safety devices shall be verified and recorded.
- Leakage test shall be carried out in accordance with EN 60079-2:2007 clause 16.2 and recorded.
- The containment system shall be tested in accordance with EN 60079-2:2007 clause 16.7 and results recorded.
- Label to stipulate the worst case temperature classification with regards to the specific component utilized.

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

The relevant EHSR's have been identified and assessed in Intertek Report Ref: 101510267CHE-001 Dated: June 2015

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17. Drawings and Documents

Title	Drawing No.:	Rev. Level:	Date:
OUTLINE DIAGRAM STRIPPER UNIT MODEL 4080/ 4000 SERIES (SHEETS 1 TO 5)	D- 91840	3	05/14/15
TOXIC/FLAMMABLE LIQUIDS/GASES ENCLOSURE DANGER TAG	B- 64496	2	6-15-95
PIPING DIAGRAM LHC ANALYSIS SYSTEM MODEL 4080/4020, ATEX CERT	C- 91839	1	08/07/14
TAG DETAIL WARNING LABEL ASPHYXIATION RISK	B- 86356	0	11/04/11
TAG DETAIL WARNING LABEL PRESSURIZED ENCLOSURE	B- 86355	0	11/04/11
WIRING DIAGRAM STRIPPER/ ANALYSIS SYSTEM MODEL 4080/ 4020 (SHEETS 1 TO 6)	D- 91842	3	11/20/14

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