



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 SIR 08.0008X** issue No.: **4**

Status: **Current**

Date of Issue: **2014-02-25** Page 1 of 5

Certificate history:
Issue No. 4 (2014-2-25)
Issue No. 3 (2012-11-29)
Issue No. 2 (2011-4-12)
Issue No. 1 (2010-6-1)
Issue No. 0 (2009-1-20)

Applicant: **Rosemount Analytical Inc.**
Emerson Process Management
10241 W Little York Road
Houston
Texas 77040
United States of America

Electrical Apparatus: **Analyzer Model 700 Gas Chromatograph (GC)**
Optional accessory:

Type of Protection: **Flameproof**

Marking: **Ex d IIC T4 Gb**
Tamb = 60°C

Approved for issue on behalf of the IECEx
Certification Body:

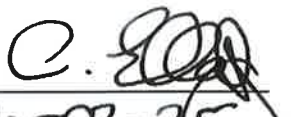
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Position:

Deputy Certification Manager

Signature:
(for printed version)

Date:


2014-02-25

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:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION



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Manufacturer: **Rosemount Analytical Inc.**
Emerson Process Management
10241 W Little York Road
Houston
Texas 77040
United States of America

Additional 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 manufacturer'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 : 2007-10 Explosive atmospheres - Part 0: Equipment - General requirements
Edition: 5

IEC 60079-1 : 2007-04 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition: 6

*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

Test Report:

GB/SIR/ExTR09.0002/00
GB/SIR/ExTR11.0085/00

GB/SIR/ExTR09.0003/00
GB/SIR/ExTR12.0249/00

GB/SIR/ExTR10.0123/00
GB/SIR/ExTR14.0036/00

Quality Assessment Report:

GB/SIR/QAR08.0016/01
GB/SIR/QAR08.0016/04

GB/SIR/QAR08.0016/02
GB/SIR/QAR08.0016/05

GB/SIR/QAR08.0016/03



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Analyzer Model 700 is a gas chromatograph (GC) type analyser that comprises of three main parts, an Analyser Assembly, a Controller Assembly and an Enclosure Connection, see EQUIPMENT (continued) for further details.

CONDITIONS OF CERTIFICATION: YES as shown below:

The user and installer shall comply with the following Conditions of Certification:

1. The maximum constructional gap (ic) is less than that required by Table 2 of IEC 60079-1:2004; therefore, as a result of any maintenance and/or repair, the following gaps shall be maintained:

Flamepath	Maximum Gap (mm)	Comment
Fitting tube adaptor/fitting tube taper	0.000	Taper fit
Fitting tube taper/tubes	0.132	Parallel fit
Pin/Exhaust Assembly	0.07	Cylindrical

2. The enclosure has a non-conducting surface coating and, under certain extreme conditions, may generate an ignition-capable level of electrostatic charges. The user shall 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.
3. Where right angle bend cable adaptors are used they shall be appropriately certified and shall interface with enclosures via appropriate certified barrier glands.



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EQUIPMENT(continued):

Analyser Assembly: The Analyser Assembly (upper enclosure) consists of a GUB 5 flameproof enclosure with a domed cover, manufactured by EGS-Curlee of Houston Texas. This enclosure contains the columns, detectors, pre-amplifier, pneumatically operated stream switching valves and solenoids that make up the analyser assembly. Process pipes enter the analyser assembly through a purpose designed tube entry that is screwed into an M32 X 1.5 ISO threaded entry tapped in the enclosure wall. This device incorporated a tapered, cylindrical flamepath. The interface between the process pipes and the tube entries form a cylindrical flamepath.

Controller Assembly: The controller assembly (lower enclosure) consists of a GUB 5 flameproof enclosure manufactured by EGS-Curlee, modified to give additional depth. This enclosure contains electronics and ports for signal processing, data storage, personal computer (PC) interface and telecommunications. This allows the user to control the GC functions via a PC and appropriate software. Cable entry to the lower enclosure is via two, M32 X 1.5 tapped entries machined into the bottom side of the enclosure.

Enclosure Connection: The upper and lower enclosures are physically connected by a purpose machined aluminium conduit fitting, the conduit fitting consists of two parts, a straight conduit pipe with an M32 X 1.5 male thread machined at each end and a connector nut with a M40 X 1.5 male thread and a through tapped M32 X 1.5 female thread. To connect the enclosures, the straight conduit is screwed into an M32 X 1.5 entry machined into the upper wall of the lower enclosure. The upper enclosure has an M40 X 1.5 entry machined into the base, this entry is placed over the upper thread of the straight conduit and the connector nut is simultaneously screwed into the upper enclosure base and onto the straight conduit upper thread. Flamepaths are formed by the machined threads. The cables connecting the upper and lower chambers pass through the conduit and are sealed by epoxy putty tightly packed through the entire length of the conduit. The putty is keyed to a 3/4" - 14 NPS female thread machined in the conduit.

General: The Analyser Model 700 comprises all of the above equipment, electrically connected and mounted on a metal framework along with non-electrical components. The analyser can be protected from the weather by an optional purpose built shade, in addition, it may have an alternative enclosure lid for the Controller Assembly (lower enclosure) that incorporates a glass window.

Conditions of manufacture

The Manufacturer shall comply with the following:

1. Where right angle bend cable adaptors are used they shall be appropriately certified and shall interface with enclosures via appropriate certified barrier glands.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1 – this Issue introduced the following change:	
1.	To allow the use of external sample valves within a GUB 5 Enclosure
Issue 2 – this Issue introduced the following change:	
1.	The applicant's name was changed from Rosemount Analytical Gas Chromatograph Division to that currently shown.
Issue 3 – this Issue introduced the following change:	
1.	It was recognised that the JCE Component certified enclosure used in the construction of these products, previously covered by certificate number ISSeP03ATEX004U, are now certified under TRAC 12ATEX0008U and IECEx TRC 12.0002U; the design of the enclosure is unchanged. As a result of this drawing number DE-21836 was updated to reflect this change. The enclosure construction is unchanged. A special condition regarding static hazards was introduced based on the Schedule of Limitations from the TRAC certificates.
2.	The Applicant and Manufacturers address was updated from Rosemount Analytical Inc., 5650 Brittmoores Road, Houston, Texas 77041, USA to that shown.
Issue 4 – this Issue introduced the following change:	
1.	The introduction of a new Conditions Of Certification and Condition Of Manufacture to give clarification on the use of appropriate certified right angle cable adaptors with the equipment.