



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 CML 18.0166X

Issue No: 0

Certificate history:

Issue No. 0 (2018-11-26)

Status: **Current**

Page 1 of 3

Date of Issue: **2018-11-26**

Applicant: **AIRMOTEC / CHROMATOTEC**
15 Rue d'Artiguelongue
Saint-Antione
France

Equipment: **Gas analyser type 'GC 866'**

Optional accessory:

Type of Protection: **Purged**

Marking:

Ex pxb IIC T4 Gb

Ta= Up to -20°C to +55°C

*Approved for issue on behalf of the IECEx
Certification Body:*

H M Amos MIET

Position:

Certification Manager

*Signature:
(for printed version)*

Date:

November 25, 2018

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:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Certificate No: IECEX CML 18.0166X Issue No: 0
Date of Issue: 2018-11-26 Page 2 of 3
Manufacturer: AIRMOTEC/CHROMATOTEC
15 Rue d'Artiguelongue
Saint-Antione
France

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 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 : 2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-2 : 2014-07 Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"
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/CML/ExTR18.0241/00](#)

Quality Assessment Report:

[GB/CML/QAR18.0015/00](#)



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Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Gas analyser type 'GC 866', for the measurement of sulphured compound or hydrocarbon or VOC and permanent gas.

See Annex for full description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

See Annex for Specific Conditions of Use

Annex:

[Certificate Annex IECEX CML 18.0166X Issue 0.pdf](#)

Annexe to: IECEx CML 18.0166X Issue 0
Applicant: AIRMOTEC/CHROMATOTEC
Apparatus: Gas analyser type 'GC 866'



Description of Equipment

Gas analyser type 'GC 866', for the measurement of sulphured compound or hydrocarbon or VOC and permanent gas. The arrangement consists of various options detailed below:

The basic GC 866 instrument consists of a stainless steel 'continuous dilution purged' enclosure, fitted with an external mains input switch, gland arrangements, a bulkhead arrangement and input/output sockets.

The GC 866 as analyser additionally includes a purge control system, including controller, feedback vent, gas inlet kit and bypass key arrangement.

Internally, the analyser contains electronic interface boards, an analytical module with valves, power supply, an isothermal oven arrangement, a detector unit and pneumatic/tubing arrangements.

The detector unit forms part of a Gas Containment system.

Optionally, the following additional parts maybe fitted or replace parts of the basic GC 866 arrangement.

GC 866 Version 1 "MEDOR Exp" – fitted with an electrochemical detector:

- Insulation of internal panels of the enclosure
- Enclosure heater 150W 230VAC controlled with two thermostats
- Vortex cooler with thermostat and solenoid valve arrangement

GC 866 Version 2 "chrom exp" – maybe fitted with one or more of the following options:

- Photo Ionization Detector with HV board
- Thermal Conductivity Detector with TCD constant temperature board
- Gradient temperature oven
- Trap
- Piezo valve
- CPREG board
- Alternative enclosure with glass window 6mm (ATEX only)
- An external Joystick
- Pump
- Mass Flow Controller
- airmoREL board
- Control of up to six external solenoid valves
- Second isothermal oven
- Second electrochemical detector
- Ex i manifold system link to Px purge and pressurization system for fast purging phase
- A internal Peltier enclosure cooler
- 24 VDC electrical actuator for injection valve
- Vortex cooler with thermostat and solenoid valve arrangement

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Conditions of Manufacture

The following are conditions of manufacture

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate. As part of the document package, a copy of the certificate and instructions shall be provided for the separately certified parts fitted.
- ii. Each equipment must be submitted to the following Routine Tests:
 - Functional test (IEC 60079-2, cl 17.1)
 - Leakage test (IEC 60079-2, cl 17.2)
 - Test for a containment system with a limited release (IEC 60079-2, cl 17.4)
- iii. The Gas Analysers, Type GC 866 are to be designed in accordance with general electrical & non-electrical safety standards e.g. IEC 60950 or IEC 61010-1 and ISO 4414.
- iv. The manufacturer shall mark the appropriate ambient temperature on the label, depending on the parts fitted:
 - $-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ (without Vortex option)
 - $-10^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ (with Vortex option)

Specific Conditions of Use

The following are conditions of safe use/installation

- i. The Gas Analysers shall be used in accordance with the manufacturer's instructions only.
- ii. Allowable ambient temperature ranges:
 - $-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ (without Vortex option)
 - $-10^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ (with Vortex option)