EU Type Examination Certificate CML 18ATEX1356X Issue 0

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **Gas analyser, Type 'GC 866'**

3 Manufacturer **AIRMOTEC/CHROMATOTEC**

4 Address 15 Rue d'Artiguelongue
Saint-Antoine,
33240 VAL de VIRVEE
France

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 CML B.V. , Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0:2018 EN 60079-2:2014

10 The equipment shall be marked with the following:

II 2 G

Ex pxb IIC T4 Gb

Ta= up to -20°C to +55°C (depending on parts fitted)

11 Description

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

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	26/11/2018	R11813A/00	Issue of Prime Certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

13.1 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.

13.2 Each equipment must be submitted to the following Routine Tests

- Functional test (EN 60079-2, cl 17.1)
- Leakage test (EN 60079-2, cl 17.2)
- Test for a containment system with a limited release (EN 60079-2, cl 17.4)

13.3 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.

13.4 The manufacturer shall mark the appropriate ambient temperature on the label, depending on the parts fitted:

- -20° C ≤ Ta ≤ +55° C (without Vortex option)
- -10° C ≤ Ta ≤ +55° C (with Vortex option)

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

14.1 The Gas Analysers shall be used in accordance with the manufacturer's instructions only.

14.2 The manufacturer shall mark the appropriate ambient temperature on the label, depending on the parts fitted:

- -20° C ≤ Ta ≤ +55° C (without Vortex option)
- -10° C ≤ Ta ≤ +55° C (with Vortex option)

Certificate Annex

Certificate Number	CML 18ATEX1356X
Equipment	Gas analyser, Type GC 866
Manufacturer	AIRMOTEC/CHROMATOTEC

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	**Title**
EL/PL/0003-EXGC	1 of 1	01	26/11/2018	4-20 mA internal wiring
EL/PL/04024-ADAM	1 of 1	001	26/11/2018	4-20 mA output wiring
BL/Pl/73912-EXGC	1 of 1	01	26/11/2018	Block diagram MEDOR IECEX EXP
EL/PL/92001-EXGC	1 of 1	01	26/11/2018	Electrical drawing MEDOR IECEX
PLAN-180605-01	1 of 1	B	26/11/2018	COFF-800x600x320-IEx px
CS/MC/80603-FXTN	1 of 1	01	26/11/2018	Enclosure fixation EX GC
EL/PL/00502-EXGC	1 of 1	01	26/11/2018	Ethernet socket
ME/PL/92001-EXGC	1 of 1	01	26/11/2018	G Assy drawing MEDOR IECEX (1/2)
ME/PL/92001-EXGC	1 of 1	01	26/11/2018	G Assy drawing MEDOR IECEX (2/2)
ME/PL/06080-DMNS	1 of 1	01	26/11/2018	General dimensions drawing Medor IECEX
ATEX IECEX analysers GC866	1 to 16	-/-	26/11/2018	Configuration – Options - Specification
EL/PL/90004-EXGC	1 of 1	01	26/11/2018	Input/output socket block EX GC
EL/CP/00001-XLCP	1 of 1	01	26/11/2018	Main switch wiring
ME/PL/00010-ATXC	1 of 1	01	26/11/2018	GC866 Exp IECEX ATEX purge warning label
PN/PL/31001-EXGC	1 of 1	01	26/11/2018	THTMedor IECEX pneumatic diagram
Analyser_option_specification_board_V01	1 to 2	V01	26/11/2018	Type GC 866 Specification of parts fitted (Including Options)