



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx QPS 21.0021X	Page 1 of 3	Certificate history:
Status:	Current	Issue No: 0	
Date of Issue:	2022-02-24		
Applicant:	AIRMOTEC A.G. 15 Rue d'Artiguelongue 33240 VAL DE VIRVEE France		
Equipment:	Analyzer model Industrial GC866 Ex d		
Optional accessory:			
Type of Protection:	See Annex 1		
Marking:	Ex 60079-46 IIB T4 Gb Ambient temperature range -10 °C to +55 °C		

Approved for issue on behalf of the IECEx
Certification Body:

D. Adams P.Eng.

Position:

Manager, Hazardous Locations Department [Ex Equipment]

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

QPS
Evaluation Services Inc.
81 Kelfield St
Unit 8
Toronto, Ontario M9W 5A3
Canada





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Manufacturer: **AIRMOTEC A.G.**
15 Rue d'Artiguelongue
33240 VAL DE VIRVEE
France

Manufacturing
locations:

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 equipment 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 TS 60079-46:2017 Explosive atmospheres - Part 46: Equipment assemblies
Edition: 1.0

This Certificate **does not** indicate compliance with 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:

CA/QPS/ExTR21.0018/00

Quality Assessment Report:

CA/QPS/QAR21.0004/00



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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Analyzers model Industrial GC866 Exd are designed to measure very low concentrations of sulphur components in gaseous samples.

The assembly consists of:

One flameproof enclosure (certified under IECEx IBE 11.0006X) including industrial PC and the intrinsically safe associated apparatus,

One stainless steel enclosure ensuring mechanical protection including the analyzer components (oven, solenoid valves, electrochemical detector, catharometer) and junction boxes (Ex e, model GRJ161690 and GR13.18.09 certified under IECEx SIR 18.0070U and IECEx CML 17.0039U).

As an option, one or more of the following accessories can be included:

Joystick (Bartec GmbH, model Visual Unit POLARIS Type 1771V, IECEx IBE 11.0007X),

Vortex cooler (Meech Static Eliminator Limited, IECEx BAS16.0087X),

Enclosure heater (STEGO, model CREx 020, IECEx EPS 16.0048X),

External solenoid valve (Burkert, model AC10U3-6 PX23, IECEx PTB 14.0049X).

Power supply: 110/230 Vac; 2.2/1.1 A.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The connections between Ex d and the analytical enclosures including the communication circuits shall be sealed with specific compound as defined in Annex 1 of the 'Set up instructions'.

- Flamepaths of the Ex d enclosure shall not be repaired.

- End user shall take proper actions when Temperature Alarm located inside the Ex d enclosure trips (+60 °C) in order to maintain Ex ia protection method of the different associated equipment located inside the enclosure.

- Installation on-site of the two enclosures shall be done on a metallic frame. The final assembly shall comply with IEC 60079-14:2013. As stated in clause 14.2 of IEC60079-14: 2013, no solid obstacles shall be placed around the flameproof enclosure.

- Any plastic enclosure parts shall be clean only with a damp cloth.

-When optional Vortex option is implemented, following conditions shall be fulfilled:

- Earth continuity is maintained with the enclosure.

- Inlet pressure shall not exceed 5.5 bar (80psi) and Inlet air temperature shall not exceed +55°C.

-When optional joystick is implemented, following conditions shall be fulfilled:

- USB flash drive shall not be used in this application.

- Equipotential bonding shall be insured for the whole Ex i circuits

Annex:

[X35958-1-ExTR21.0018.00-Annex 1_01_03_2022.pdf](#)

This certificate covers a Gas chromatograph system, consisting of devices that have been previously certified using appropriate standards (refer to the IECEx certificate associated with each device). The suitability of the interconnection of the devices has been assured using the relevant code of practice. Listed below are the devices that are used in the assembly of the Gas chromatograph system.

The following IEC 60079-14 Ed. 5. clauses are fully or partially assessed: §4: partial (§4.5 not checked), §5: partial (§5.9, 5.10 not checked), §6: partial (§6.3, 6.6

not checked), §9 partial (§9.1, 9.3.7, 9.3.8, 9.3.9, 9.5 and 9.6 partially checked), §10, §12, §13, §14; §15, §18; Annexes A and B not checked. Details are

described in the ExTR..

Equipment	Model / Type	Manufacturer	IECEx Certificate	Standards list
Control enclosure				
Exd aluminium enclosure	EJB7A Optionnally with F16 window	AD VIGANO	IECEx INE 11.0006X Is.1 Ex d IIB T5 Gb -20°C...+55°C	IEC 60079-0 : 2011 IEC 60079-1 : 2014
Cable gland	PNAR 1M	FEAM	IECEx INE 11.0017X Is.4 Ex db IIC Gb -40°C...+90°C	IEC 60079-0 : 2017 IEC 60079-1 : 2014 IEC 60079-7 : 2006
Drain valve	ECD1MX	FEAM	IECEx EXA 14.0004U Is.1 Ex d IIC Gb Ex e IIC Gb -60°C...+80°C	IEC 60079-0 : 2011 IEC 60079-1 : 2007- IEC 60079-7 : 2006
Voltage repeater	KFD2-VR2-Ex1.50M	PEPPERL&FUCHS	IECEx BAS 06.0011 Is.4 [Ex ia Ga] IIC -20°C...+60°C	IEC 60079-0 : 2011 IEC 60079-11 : 2011
Temperature repeater	KCD2-RR-Ex1	PEPPERL&FUCHS	IECEx BAS 10.0024 Is.4 Ex ia Ga] IIC -20°C...+60°C	IEC 60079-0 : 2017 IEC 60079-11 : 2011
Plug series BL-M	52103123	LAPP	IECEx IBE 13.0029X Is.0 Ex eb IIC -30°C...+90°C	IEC 60079-0 : 2011 IEC 60079-7 : 2006



Analytical enclosure				
Cable gland	CG.PEDS.M20.PA.C.10.K50	PEPPERL&FUCHS	IECEX IMQ 15.0001X Is.3 Ex eb IIC Gb -30°C...+70°C	IEC 60079-0 : 2011 IEC 60079-7 : 2015
Solenoid valve coil type 6014	AC10-U3-6 PX23	BURKERT	IECEX PTB 14.0049X Is.1 Ex mb IIC T4 Gb -40°C...+60°C	IEC 60079-0 : 2011 IEC 60079-18 : 2014
PT1000 temperature sensor	17159-EX CLT	CORREGE	IECEX LCI 11.0031X Is.1 Ex ia IIC T6...T3 Ga -50°C...+130°C	IEC 60079-0 : 2011 IEC 60079-11 : 2011
Pressure sensor	E-10-G-BBD-NP-ZGCXBA-ZZ	WIKA	IECEX DEK 15.0048X Is.2 Ex db IIC T6...T1 Gb -40°C...+102°C	IEC 60079-0 : 2017 IEC 60079-1 : 2014
Distributor coil type 6519	AC10-U3-6 PX26	BURKERT	IECEX PTB 14.0049X Is.1 Ex mb IIC T6, Gb -40°C...+60°C	IEC 60079-0 : 2011 IEC 60079-18 : 2014
Heater cable	ILL30S24CF	QUINTEX	IECEX SIR 14.0083 Is.2 Ex e IIC T4 Gb -40°C...+85°C	IEC 60079-0 : 2011 IEC 60079-30-1 : 2007
Junction box	GRJ07	RAYCHEM	IECEX UL 15.0045U Is.0 Ex e IIC Gb -50°C...+100°C	IEC 60079-0 : 2011 IEC 60079-7 : 2006
Terminal blocks	1SNK505010R0000	TYCO ELECTRONICS	IECEX LCI 08.0031U Is.11 Ex eb -55°C...+105°C	IEC 60079-0 : 2017 IEC 60079-7 : 2017
Main switch	FC4A-221-LCU	P&F	IECEX SIM 07.0001X Ex d IIC T6 IP66 -20°C...+60°C	IEC 60079-0 : 2004 IEC 60079-1 : 2003
Flowmeter	MT3750C	Brooks	IECEX KEM 09.0046 Ex ia IIC Gb -25°C...+65°C	IEC 60079-0 : 2007 IEC 60079-11 : 2006



Options				
Equipment	Model / Type	Manufacturer	IECEx Certificate	Standards list
Vortex cooler	CS_PN_80940-VTEX	MEECH	IECEx BAS 16.0087X Is.0 Ex h IIC T4 Gb -10°C...+55°C	ISO 80079-36 : 2016 ISO 80079-37 : 2016
Vortex thermostat	Rex 011	STEGO	IECEx EPS 16.0054X Is.6 Ex db IIC T6 Gb -60°C...+60°C	IEC 60079-0 : 2017 IEC 60079-1 : 2014
Vortex valve coil type JWxxx	CS_PN_29864-ATEX	BURKERT	IECEx EPS 16.0030X Is.1 Ex eb mb IIC T4 Gb -40°C...+55°C	IEC 60079-0 : 2017 IEC 60079-18 : 2017 IEC 60079-7 : 2017
Joystick	17-71VZ-90000	BARTEC	IECEx IBE 11.0007X Is.4 Ex db eb mb q [ib op pr] IIC T4 Gb -20°C...+50°C	IEC 60079-0 : 2017 IEC 60079-1 : 2014 IEC 60079-11 : 2011 IEC 60079-18 : 2014 IEC 60079-28 : 2015
Enclosure heater	CREx 020	STEGO	IECEx EPS 16.0048X Is.4 Ex db IIC T4 Gb -60°C...+50°C	IEC 60079-0 : 2011 IEC 60079-1 : 2014
PID detector	MiniPID	Ion Science Limited	IECEx BAS 07.0030U Ex ia IIC T4 Ga -40°C to +55°C	IEC 60079-0 : 2017 IEC 60079-11 : 2011
Keyboard	KB153	Gonnheimer	IECEx TUN 19.0016 Ex ib IIC T4 Gb -20°C to +50°C	IEC 60079-0 : 2017 IEC 60079-11 : 2011
Thermoelectric cooler	MVTEC-Ex150EH EPS 19ATEX1160X	Delvalle Global solutions	-20°C to 70°C	EN 60079-2:2012+A11:2013 EN 60079-7:2015/A1:2018