



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 KDB 24.0011X	Page 1 of 5	<u>Certificate history:</u>
Status:	Current	Issue No: 0	
Date of Issue:	2025-12-17		
Applicant:	Airoptic Sp. z o.o. ul. Rubież 46B 61-612 Poznań Poland		
Equipment:	GasEye Symphony Ex2		
Optional accessory:			
Type of Protection:	Ex pzc		
Marking:	Ex pzc IIC T* Gc Ex pzc IIIC T** Dc		

Approved for issue on behalf of the IECEx
Certification Body:

mgr inż. Piotr Madej

Position:

Head of ExCB

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.



Certificate issued by:

Główny Instytut Górnictwa, Kopalnia Doświadczalna "BARBARA"
(Central Mining Institute Experimental Mine "Barbara")
ul. Podleska 72
43-190 Mikołów
Poland





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Manufacturer: **Airoptic Sp. z o.o.**
ul. Rubież 46B
61-612 Poznań
Poland

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 60079-2:2014 Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"
Edition:6

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:

PL/KDB/ExTR24.0011/00

Quality Assessment Report:

PL/KDB/QAR19.0001/03



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The GasEye Symphony Ex2 analyzer is a comprehensive gas analysis tool for industrial process applications. A gas sample from the process is continuously fed to the analyzer where it is analyzed in real time using laser absorption spectroscopy. The analyzer can be configured to operate in the near infrared (NIR), mid-infrared (MIR) and infrared (IR) wavelengths, thus enabling the measurement of most gases relevant to monitoring industrial processes.

Technical parameters:

Power input Un: 230 VAC (100~240VAC)

Power consumption: < 1000W

Degree of protection: IP 66

Ambient temperature:

$-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

$-30^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ (ET version)

Temperature class of the GasEye Symphony Ex2 (T* for gas) or the maximum surface temperature (T** for dust) depends on the process temperature of the controlled medium:

Temperature class T5

Maximum surface temperature 100°C

Temperature class T4

Maximum surface temperature 135°C

Temperature class T3

Maximum surface temperature 200°C

Technical parameters of the purging system:

Solenoid valve input pressure: 3 barG – 8 barG

Air pre-purge time: 1 h 10 min for minimum flow 95 l/min

Nitrogen pre-purge time: 28 min for minimum flow 95 l/min

Minimum overpressure during continuous operation: 1,4 mbarG

Maximum overpressure: 10 mbarG

The process gas in the internal system is a non-flammable gas (always below the LEL). Protective gas: air or nitrogen.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Temperature class of the GasEye Symphony Ex2 (T* for gas) or the maximum surface temperature (T** for dust) depends on the process temperature of the controlled medium in accordance with the manufacturer's manual.
- The device is suitable for use with non-flammable or flammable gases, with the concentration of flammable gas in air being a maximum of 25% below the lower explosive limit.
- The equipment can be used in places with a low - risk of mechanical danger.



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Equipment (continued):

Additional equipment of GasEYE Symphony Ex2:

- Purge controller (IECEx UL 14.0019X)

Model / Type: 5500-SS-E-VAC-PBC-LBC or 5500-SS-E-VDC-PBC-LBC

Manufacturer: Pepperl+Fuchs

Ex ic ec nC [ic Gc] [pzc Gc] IIC T4 Gc

Ex ic tc [ic IIIC Dc] [pzc Dc] IIIB T80°C Dc

- Vent (IECEx UL 14.0019X)

Model / Type: EPV-5500-SS-03

Manufacturer: Pepperl+Fuchs

Ex ic ec nC [ic Gc] [pzc Gc] IIC T4 Gc

Ex ic tc [ic IIIC Dc] [pzc Dc] IIIB T80°C Dc

- Manifold (IECEx PTB 04.0002X)

Model / Type: 0515

Manufacturer: Nass magnet

Ex mb IIC T5 Gb

Ex mb tb IIIC T95°C Db

- Manual manifold

Model / Type: 7500-MAN-MV-01

Manufacturer: Pepperl+Fuchs

- Junction box (IECEx CML 17.0144X)

Model / Type: GR.TJE.13.18.09.B-S0004

Manufacturer: Pepperl+Fuchs

Ex eb IIC T4 Gb

Ex tb IIIC T130°C Db

- Convection type heater (IECEx EPS 16.0048X)

Model / Type: CREx020

Manufacturer: STEGO France SAS

Ex db IIC T3 Gb

Ex tb IIIC T200°C Db IP66

Ex db I Mb

- Thermostat (IECEx EPS 16.0054X)

Model / Type: REx 011

Manufacturer: STEGO France SAS

Ex db IIC T6 Gb

Ex tb IIIC T85°C Db IP66

Ex db I Mb



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- Breath drain (IECEx ITS 16.0014X)

Model / Type: DP-E-3-0-04-s2

Manufacturer: Eaton

Ex eb IIC Gb
Ex tb IIIC Db IP66

- Breath drain (IECEx IMQ 14.0003X)

Model / Type: BDRVX-1MBNS.K01

Manufacturer: Bimed Teknik Aletler Sanayi Ve Ticaret A.S.

Ex eb IIC Gb
Ex tb IIIC Db

- Cable gland M20 (IECEx BVS 07.0019X)

Model / Type: 1.612.2000.50

Manufacturer: Hummel

Ex eb IIC Gb
Ex ta IIIC Da

- Cable gland M20 (IECEx KEM 07.0014X)

Model / Type: 1.642.2000.50

Manufacturer: Hummel

Ex eb IIC Gb
Ex ta IIIC Da

- Cable gland M16 (IECEx BVS 07.0019X)

Model / Type: 1.612.1600.50

Manufacturer: Hummel

Ex eb IIC Gb
Ex ta IIIC Da

- Cable gland M16 (IECEx KEM 07.0014X)

Model / Type: 1.642.1600.50

Manufacturer: Hummel

Ex eb IIC Gb
Ex ta IIIC Da