



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 KDB 19.0004

Issue No: 0

Certificate history:

Issue No. 0 (2019-05-31)

Status: **Current**

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Date of Issue: **2019-05-31**

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

Equipment: **GasEye Cross Duct**

Optional accessory:

Type of Protection: **Equipment protection by pressurized enclosure "pzc" and optical radiation "op is"**

Marking:

Ex op is pzc IIC T6 Gc

Ex op is pzc IIIB T85°C Dc

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

mgr inż. Piotr Madej

Position:

Head of ExCB

*Signature:
(for printed version)*

Date:

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:

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

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

IEC 60079-28 : 2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

*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:

[PL/KDB/ExTR19.0004/00](#)

Quality Assessment Report:

[PL/KDB/QAR19.0001/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The laser based GasEye Cross Duct spectrometer is a versatile analyzing tool for industrial process applications. It can be configured to operate in the near-infrared (NIR), mid-infrared (MIR) and infrared (IR) wavelength range thereby covering the majority of all gases of interest in the industrial process monitoring.

The GasEye Cross Duct gas analyzer consists of a pair of cross-duct sensors - a transmitter unit (TX) and a receiver unit (RX). The transmitter unit emits laser radiation directly through the process containing the constituents of interest. The receiver unit collects the radiation on the other side of the process duct. The receiver unit is connected to the transmitter unit by means of a hybrid loop cable (included). The GasEye Cross Duct utilizes an internal in-line reference gas cell or a reference gas in the process for real time verification of the calibration status.

Additional equipment of GasEye Cross Duct spectrometer system:

Purging system (IECEX UL 14.0019X)

Model: 5500-SS-E-VDC-PBC-LBC

Type Z / Ex pzc

Ex ic ec nC [ic pzc] IIC T4 Gc (Ta: -20°C++50°C)

Ex ic ec nC [ic pzc] IIC T6 Gc (Ta: -20°C++40°C)

Ex ic ec nC [ic pzc IIIC] IIIB T80°C Gc (Ta: -20°C++60°C)

Ex ic ec nC [ic pzc IIIC] IIIB T60°C Gc (Ta: -20°C++40°C)

Nass magnet (IECEX PTB 04.0002X)

Type: 1215 30.1-00/6896

Ex mb IIC T5 Gb

Ex mb tb IIIC T95°C

Parameters:

Power impunt: Un = 24VDC

Power consumption: < 25VA

Degree of protection: IP 65

Ambient temperature: -20°C++55°C

Pre-purge time: ≥ 6min



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SPECIFIC CONDITIONS OF USE: NO