



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

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEX UL 23.0063U** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2023-10-16
Applicant: **SIA MIPEX**
Valkas Iela 2b
Daugavpils 5417
Latvia
Ex Component: Optical Gas Sensor, Model MIPEX-04-B-CC-3.1.

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Intrinsic Safety "ia"**

Marking: Ex ia I Ma
Ex ia IIC Ga

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

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:

UL Solutions (US)
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





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Manufacturer: **SIA MIPEX**
Valkas Iela 2b
Daugavpils 5417
Latvia

Manufacturing
locations: **SIA MIPEX**
Valkas Iela 2b
Daugavpils 5417
Latvia

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 component 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 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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 component listed has successfully met the examination and test requirements as recorded in:

Test Report:

[US/UL/ExTR23.0075/00](#)

Quality Assessment Report:

[DK/ULD/QAR23.0001/00](#)



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Ex Component(s) covered by this certificate is described below:

The Optosense MIPEX-04 Series of optical gas sensor are considered Ex Components with the following I/O parameters $U_i = 5.5 \text{ V}$, $I_i = 200 \text{ mA}$, $P_i = 0.13 \text{ W}$, $C_i = 26 \mu\text{F}$, $L_i = 0$.

The equipment is housed within a non-metallic enclosure which is considered to achieve IP20, a membrane can be applied by the manufacturer which increases the ingress protection rating IP54.

The user/installation manual details the correct method for the end manufacturer to install the device within their equipment.

The equipment must be fitted with the dust filter for use within Group I environments.

Please see Annex for additional information.

SCHEDULE OF LIMITATIONS:

- The MIPEX 04-B-CC-3.1 model of the equipment is housed within a plastic enclosure which requires the following to be placed on the certificate and the following guidance included within the manual: WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD – CLEAN ONLY WITH A DAMP CLOTH.
- All models are suitable for equipment with temperature classes T1 – T6 an ambient temperature range of $-40^\circ\text{C} \leq T_{\text{amb}} \leq +60^\circ\text{C}$.
- The equipment must be fitted with the dust filter for use within Group I environments.

Annex:

[Annex to IECEx UL 23.0063U Issue 0.pdf](#)



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Annex to Certificate No.:

IECEX UL 23.0063U

Issue No.: 0

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TYPE DESIGNATION

MIPEX -04 Sensors:

MIPEX-04	-B	-CC	-D	.E
I	II	III	IV	V

- I MIPEX Model Number
- II Target gas
1 - CH₄ (methane)
2 - C₃H₈ (propane, CmHn – hydrocarbons)
- III Application:
R – calibration gas and range
X – temperature class and variability
- IV Housing type:
3 - “Plastic”
- V Interface:
1 – UART

PARAMETERS RELATING TO THE SAFETY

Ui = 5.5 V, Ii = 200 mA, Pi = 0.13 W, Ci = 26 µF, Li = 0.



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MARKING

Marking has to be readable and indelible; it has to include the following indications:

mipex[®] -40 ≤ Ta ≤ +60°C
TECHNOLOGY
SIA MIPEX
Valkas 2b, Daugavpils,
Latvia, LV-5417

CAUS

MIPEX-04-1-12-3.1
IECEX UL 23.0063U
Ex ia I Ma / Ex ia IIC Ga
UL 23 ATEX 3073U **CE** 0539

Ex I M1 / II 1G Ex ia I Ma / Ex ia IIC Ga

GND **TxD**
GND **RxD**
GND ...
GND **GND**

GND +2,8...5,0 VDC

C I, Div 1, Gr A, B, C, D;
C I, Zone 0, AEx ia IIC Ga; Ex ia IIC Ga

Mfg date: 10.2023
S/n: 0400810871

RoHS
COMPLIANT 