



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 PTB 14.0031** Page 1 of 4 [Certificate history:](#)
Issue 0 (2014-07-30)

Status: **Current** Issue No: 1

Date of Issue: 2020-03-13

Applicant: **Sick AG**
Erwin-Sick-Straße 1
79183 Waldkirch
Germany

Equipment: **Photoelectric reflex sensor, series WL24-2X and WLL24-2X**

Optional accessory:

Type of Protection: **Intrinsic Safety, Protection of equipment and transmission systems using optical radiation**

Marking: Ex ia op is IIC T4 Gb

Approved for issue on behalf of the IECEx
Certification Body:

Dr. F. Lienesch

Position:

**Head of Department "Explosion Protection in Sensor
Technology and Instrumentation"**

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



Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany





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Manufacturer: **Sick AG**
Erwin-Sick-Straße 1
79183 Waldkirch
Germany

Additional
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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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 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:

[DE/PTB/ExTR14.0038/01](#)

Quality Assessment Report:

[DE/TUN/QAR13.0008/07](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Comments and electrical data see the attachment to this certificate.

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

The changes concern the adaptation of the standard and the internal structure.

Annex:

[IECEX PTB 14_0031_DS.pdf](#)



The photoelectric reflex sensor, type WL24-2X or WLL24-2X is a contact free intrinsically safe photoelectric reflex sensor. This device is used for visual object detection, where transmitter and receiver are located in the same enclosure. The photoelectric reflex sensor, type WLL24-2X is intended for the use of fibre-optic cable for the receiver and transmitter side.

The maximum permissible ambient temperature is +60 °C.

Electrical data

Signal and supply circuit

type of protection Intrinsic Safety Ex ia IIC;
for connection to a separately certified in-
trinsically safe circuit only.

Maximum values:

$$U_i = 15.5 \text{ V}$$

$$I_i = 53 \text{ mA}$$

$$P_i = 100 \text{ mW}$$

linear characteristic

$$L_i \text{ negligibly low}$$

$$C_i = 80 \text{ nF}$$