



EX

EU-TYPE EXAMINATION CERTIFICATE



- [1]
- [2] **Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 2014/34/EU**
- [3] EU-Type Examination Certificate Number: **DEMKO 14 ATEX 1315X Rev. 1**
- [4] Product: **EX series of Active Opto-electronic Protective Devices (AOPD)**
- [5] Manufacturer: **SICK Inc.**
- [6] Address: **6900 W. 110th Street, Bloomington, MN 55438**
- [7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in confidential report no. **SR3295068**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 60079-0:2012+A11:2013 EN 60079-1:2014 EN 60079-31:2013**
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to special conditions for safe use specified in the schedule to this certificate.
- [11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.
- [12] The marking of the product shall include the following:

 II 2 G Ex db IIB T6
 II 2 D Ex tb IIIC T56°C Db IP6X

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2014-12-12
Re-issued: 2016-12-18



Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com

EX

Schedule
EU-TYPE EXAMINATION CERTIFICATE No.
DEMKO 14 ATEX 1315X Rev. 1

[13]

[14]

[15] Description of Product

EX series of Active Opto-electronic Protective Devices (AOPD) are provided with a variety of light curtains for motion sensory detection inside an enclosure with protection types 'd' and 'tb'. The deTec4 light curtain is for applications that do not require features such as blanking or cascading of multiple light curtains. The C4000 Select light curtain is for applications that require features such as floating blanking, cascading of multiple light curtains or highly visible LEDs. The C4000 Advanced light curtain is for applications that require features such as floating blanking, fixed blanking, cascading of multiple light curtains or PSDI.

Nomenclature:

I - Series Designation

EX – Explosion Proof Enclosure

II – Type of Unit

S – Sender

E – Receiver

P – Pair

– Any alphanumeric character (does not affect construction or ratings)

III – Protective Height of Enclosure

06 – 600 mm

09 – 900 mm

12 – 1200 mm

– Any alphanumeric character (does not affect construction or ratings)

IV – Safety Light Curtain

B – C4000 Select

C – C4000 Advanced

D - deTec4 Core

– Any alphanumeric character (does not affect construction or ratings)

V – Protective Height of Light Curtain

02 – 2 Beams

03 – 3 Beams

04 – 4 Beams

05 – 5 Beams

06 – 6 Beams

07 – 7 Beams

08 – 8 Beams

60 – 300 mm

61 – 450 mm

62 – 600 mm

63 – 750 mm

64 – 900 mm

65 – 1050 mm

66 – 1200 mm

67 – 1350 mm

68 – 1500 mm

– Any alphanumeric character (does not affect construction or ratings)

VI – Resolution of Light Curtain

00 – Not Available

01 – 14 mm Resolution

03 – 30 mm Resolution

– Any alphanumeric character (does not affect construction or ratings)

VII – Beam Coding

A – Not Available

B – uncoded

C – Code 1

D – Code 2

– Any alphanumeric character (does not affect construction or ratings)

EX

[13]

Schedule

[14]

EU-TYPE EXAMINATION CERTIFICATE No. DEMKO 14 ATEX 1315X Rev. 1

VIII – Cable Length

- 00 – No Cable
- 02 – 30 m
- 05 – 5 m
- 10 – 10 m
- 15 – 15 m
- 20 – 20 m
- 30 – 2 m
- Any alphanumeric character (does not affect construction or ratings)

IX – Customer's Type

- 0 – SICK
- 1 – Private Label
- Any alphanumeric character (does not affect construction or ratings)

X – Optional suffix (does not affect construction or ratings)

A letter character, may be followed by one, two, or three numbers.

The optical radiation output of the apparatus with respect to explosion protection, according to Annex II Clause 1.3.1 of the Directive 2014/34/EU is not covered in this certificate

Temperature range

The ambient temperature range is: 0 °C to +55 °C for C4000 Select and Advanced models
-20 °C to +55 °C for deTec4 model

Electrical data

Voltage input - 24 Vdc \pm 20% for C4000 Select and deTec4
24 Vdc for C4000 Advanced

Maximum wattage – 12 W max for C4000 Advanced
20 W max for deTec 4

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17]

Specific conditions of use:

- Equipment shall be installed so that the flange joints are not within 30 mm of a solid object that is not part of this equipment.
- Flameproof joints are other than the relevant minimum and maximum specified in Table 1 of EN 60079-1. Contact manufacturer for joint dimensions.

[18]


Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The EX series of AOPDs has in addition passed the tests for Ingress Protection to IP 6X in accordance with EN60529:1991+A1:2000+A2:2013.



The trademark  will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.