

Translation

EU-Type Examination Certificate

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

EU-Type Examination Certificate Number: **BVS 08 ATEX E 122 X** Issue: **01**

Equipment: **Transmitter-Receiver light barrier, type PP2031* Ex and PP2031*01n* Ex
Diffuse-Reflective Sensor, type JP705/yL Ex and JP7051/yL Ex
Reflex light barrier, type JP705 Ex and JP7051 Ex**

Manufacturer: **Fotoelektrik Pauly GmbH**

Address: **Wahrbrink 6, 59368 Werne, Germany**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the 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 the confidential Report No. BVS PP 08.2156 EU. This issue of the EU-Type Examination Certificate replaces the previous issue of the EC-Type Examination Certificate BVS 08 ATEX E 122 X including supplements 1 and 2.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:



EN IEC 60079-0:2018
EN 60079-1:2014
EN 60079-31:2014

General requirements
Flameproof enclosure "d"
Protection by Enclosure "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance with the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex db IIC T6 Gb**
 **II 2D Ex tb IIIC T80°C Db**

DEKRA Testing and Certification GmbH
Bochum, 2024-02-07

Signed: Oliver Brumm

Managing Director

13 **Appendix**

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15 **Product description**

15.1 **Subject and type**

Reflex light barrier type JP705 Ex and type JP7051 Ex

Type JP705 Ex Reflex light barrier, working range 0...20 m, infrared light

Type JP7051 Ex Reflex light barrier, working range 0...20 m, red light

Diffuse-Reflective Sensor type JP705/yL Ex and type JP7051/yL Ex

Type JP705/yL Ex

y = Upper limit of working range in mm:
100 = working range 30...100 mm, infrared light
200 = working range 30...200 mm, infrared light
300 = working range 30...300 mm, infrared light

Type JP7051/yL Ex

y = Upper limit of working range in mm:
100 = working range 30...100 mm, red light
200 = working range 30...200 mm, red light
300 = working range 30...300 mm, red light

Transmitter-Receiver Light Barrier type PP2031* Ex and type PP2031*01n* Ex

Type PP2031* Ex

* = Function:
S = Transmitter
E = Receiver

Type PP2031*01n* Ex

* = Function:
S = Transmitter
E = Receiver

* = Without influence on the explosion protection

15.2 **Description**

The transmitter-receiver light barrier type PP 2031* Ex and type PP 2031* 01n* Ex, the reflex light barrier type JP705 Ex and type JP7051 Ex as well as the diffuse-reflective sensor type JP705/yL Ex and type JP7051/yL Ex are designed in type of protection Flameproof Enclosure. They consist of a tubular enclosure bottom housing which is equipped on one side with a threaded hole for mounting a separately certified cable gland. On the other side, the enclosure is equipped with a female thread. Into this female thread, the cover is screwed. In the cover a glass pane is mounted. The inside of the cover is provided with an internal thread, into which a tube with external thread is screwed. This tube serves to incorporate the electronics and fixes the glass pane by using a pressure ring.

The transmitter-receiver light barrier, the reflex light barrier, and the diffuse-reflective sensor are equipped with a permanent connected cable. The difference between the types is a different electronic and the operating mode.

Reasons for this issue:

- Change to Directive 2014/34/EU
- Updating the used standards
 - EN 60079-0:2009 to EN IEC 60079-0:2018
 - EN 60079-1:2007 to EN 60079-1:2014
 - EN 60079-31:2009 to EN 60079-31:2014
- Change of manufacturer name:
 - Fotoelektrik Pauly GmbH & Co. KG to Fotoelektrik Pauly GmbH

15.3 Parameters

Rated voltage	DC	24 V
Rated current		40 mA
Max. rated power		1 W
Ambient temperature range	-20 °C ...	+60 °C

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17 Specific Conditions of Use

The dimensions of the flameproof joints are in parts other than the relevant minimum or maximum values of IEC 60079-1:2014. For information on the dimensions of the flameproof joints contact the manufacturer.

18 Essential Health and Safety Requirements

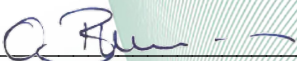
Met by compliance with the requirements mentioned in item 9.

19 Remarks and additional information

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
 In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
 Bochum, 2024-02-07
 BVS-(Ddo)/Kir/Mu A 20230476 / 343107100



 Managing Director