# TYPE EXAMINATION CERTIFICATE



[2] Equipment or Protective System intended for use in Potentially Explosive Atmospheres

Directive 2014/34/EU

- [3] Type Examination Certificate Number: UL 23 ATEX 3065X Rev. 1
- [4] Product: Isolated Barriers, Models KCD0-SD3-Ex#.1545\* and KCD2-SLD-Ex#.1545\*
- [5] Manufacturer: PepperI+Fuchs SE

[1]

- [6] Address: Lilienthalstrasse 200, 68307 Mannheim, Germany
- [7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential report no. DK/ULD/ExTR23.0018/01.

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

#### EN IEC 60079-0:2018

EN IEC 60079-7:2015/A1:2018

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

- [10] 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.
- [11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently
- [12] The marking of the product shall include the following (marking is provided in the Schedule as a part of item 15, if applicable):



## **Certification Manager**

Thomas Wilson

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:** 2024-04-30 **Re-issued:** 2024-12-16

**Certification Body** 

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



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# **Schedule** TYPE EXAMINATION CERTIFICATE No. UL 23 ATEX 3065X Rev. 1

#### [15] **Description of Product:**

The isolated barriers supply power to solenoids, LEDs and audible alarms located in a hazardous area. These devices are controlled with a loop powered signal or a bus powered logic signal. The devices are immune to the test pulses of various control systems. The devices simulate a minimum load at the input. The minimum load can be activated and de-activated. The line fault transparency function can display a line fault in the field by a change in impedance at the switching input of the solenoid driver. Line fault is indicated by a red LED and output via the fault indication.

The devices are designed to be installed in the non-hazardous area or in areas requiring EPL Gc equipment. The hazardous area circuit is galvanically isolated from the non-hazardous area circuit.

#### Type designation:

KCD0-SD3-Ex#.1545\* KCD2-SLD-Ex#.1545\*

"#" = "1" or "2" depending on the number of channels
"\*" = ".SP" and/or "-Y" followed by numeric signs (e.g. -Y1). This "\*" is optional and is used to describe different versions of a module.
These differences do not affect intrinsic safety.

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 1) to the scope of EN 60079-28:2015 .

Temperature range:  $-40^{\circ}$ C ≤ Ta ≤ +70°C (may be changed to any temperature range within these limits.)

#### Electrical data

### Safe Area Connections:

### KCD2-SLD-Ex\*

#### Power Supply:

Connection	Terminals 9(+) and 10(-) resp. Power Rail contacts
Rated Voltage:	1830 V DC
Maximum Voltage Um	250 V

#### Collective error messaging:

Connection:	Power Rail contact PR4
Maximum Voltage Um	250 V

#### Inputs:

Connection:	Terminals 5(+), 6(-) for Channel 1 and Terminals 7(+), 8(-) for Channel 2
Rated Voltage:	030 V DC
Maximum Voltage Um	250 V

#### Outputs:

Connection:	Terminals 1(+), 2(-) for Channel 1 and Terminals 3(+), 4(-) for Channel 2
Rated Current:	052mA
Rated Voltage	025.3V



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[14]

# **Schedule** TYPE EXAMINATION CERTIFICATE No. UL 23 ATEX 3065X Rev. 1

## KCD0-SD3-Ex\*

### Inputs:

Connection	Terminals 5(+), 6(-) for Channel 1 and Terminals 7(+), 8(-) for Channel 2
Rated Voltage:	030 V DC
Maximum Voltage Um	250 V

### Outputs:

Connection:	Terminals 1(+), 2(-) for Channel 1 and Terminals 3(+), 4(-) for Channel 2
Rated Current:	052mA
Rated Voltage	025.3V

# Routine tests: None

#### [16] **Descriptive Documents**

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

#### Specific Conditions of use: [17]

- The device must be installed and operated only in an environment of overvoltage category II (or better) according to EN/IEC 60664-1.
- The device must be installed and operated only in a controlled environment that ensures a pollution degree 2 (or better) according to EN/IEC 60664-1.
- The device must be installed and operated only in surrounding enclosures that:
  - comply with the requirements for surrounding enclosures according to EN IEC 60079-0, and
  - are rated with the degree of protection IP54 according to EN IEC 60529.

## [18]

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

