

TYPE EXAMINATION CERTIFICATE



Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- [3] Type Examination Certificate Number: **UL 23 ATEX 3092X Rev. 1**
- [4] Product: **HiC2422****
- [5] Manufacturer: **Pepperl+Fuchs SE**
- [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/ExTR23.0029/01**.
- [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 manufactured.
- [12] The marking of the product shall include the following (marking is provided in the Schedule as a part of item 15, if applicable):

 **II 3 G Ex ec IIC T4 Gc**

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: 2023-11-21
Re-issued: 2024-01-18

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

[13]

[14]

Schedule TYPE EXAMINATION CERTIFICATE No. UL 23 ATEX 3092X Rev. 1

[15]

Description of Product:

The Smart Transmitter Power Supply/Current Driver HiC2422** is a two-channel device designed as increased safety "Ex ec" equipment to be installed in the non-hazardous area or a Zone 2 gas area.

The HiC2422** has two basic modes of operation dependent on the application and connected equipment.

In AI mode each channel of the HiC2422** provides power for a current transmitter placed in the hazardous area and repeats the signal to the safe area.

In AO mode each channel of the HiC2422** transfers a 4...20mA current from the safe area to the hazardous area to drive smart I/P converters, electrical valves, or positioners. Digital communication may be superimposed on the analogue values in both modes and may be transferred in both directions.

The device is intended for use with and is powered at nominal 24V dc via an appropriately certified termination board.

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

The ambient temperature range is -40°C to +70°C.

Any temperature range within these limits may also be printed, e.g. -20°C < Ta < +60°C

Electrical data

Power Supply

Connection: SL1: 1a(-), 1b(-): 2a(+), 2b(+); via termination board
19-30V DC, 110-70mA, max. 2,1 W

SMART Transmitter Power Supply

Inputs

Field side: SL2: 5a(+), 5b(-); 1a(+), 1b(-)

Signal: 0/4...20 mA (U > 15V at 20 mA)

Outputs

Control side: SL1: 8a(+), 7a(-); 10a(+), 9a(-)

Signal: 0/4...20 mA (limited energy source < 30V, < 2A)

SMART Current Driver

Inputs

Control side: SL1: 8a(+), 7a(-); 10a(+), 9a(-)

Signal: 0/4...20 mA (limited energy source < 30V, < 2A)

Outputs

Field side: SL2: 5a(+), 5b(-); 1a(+), 1b(-)

Signal: 0/4...20 mA (650 ohm max)

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.

[17]

Specific Conditions of Use:

- The device must be installed and operated only in an environment of overvoltage category II (or better) according to EN 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 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,
 - are rated with the degree of protection IP54 according to EN 60529.
- Connection or disconnection of energized non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.
- The equipment shall be installed on a suitably certified P+F H-System termination board which incorporates an appropriate mechanical retaining system and transient protection not exceeding 140 % of the peak rated voltage value of the equipment.

[18]

Essential Health and Safety Requirements

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