

# CERTIFICATE

(1) **Type Examination**

(2) **Product or Protective System intended for use in potentially explosive atmospheres - UKSI 2016:1107 (as amended) - Schedule 3A, Part 6**

(3) Type Examination Certificate Number: **DEKRA 21UKEX0177X** Issue Number: **0**

(4) Product: **Universal Converter, Type 9116A1, Type 9116A2, Type 9116B1 and Type 9116B2**

(5) Manufacturer: **PRElectronics A/S**

(6) Address: **Lerbakken 10, 8410 Rønede, Denmark**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., 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 Schedule 1 of the Regulations 2016, UKSI 2016:1107 (as amended).

The examination and test results are recorded in confidential report NL/KEM/ExTR10.0020/05.

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

**EN IEC 60079-0 : 2018**

**EN 60079-7 : 2015 + A1 : 2018**

**EN IEC 60079-15 : 2019**

except in respect of those requirements listed at item 18 of the Schedule to this certificate.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

(12) The marking of the product shall include the following:



**II 3 G**

**Ex ec nC IIC T4 Gc**

Date of certification: 9 June 2022

DEKRA Certification B.V.

R. Schuller  
Certification Manager

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(13) **SCHEDULE**

(14) **to Type Examination Certificate DEKRA 21UKEX0177X**

Issue No. **0**

(15) **Description**

Universal Converter, Type 9116A1, Type 9116A2, Type 9116B1 and Type 9116B2, for rail mounting are 24 V powered isolating barriers, interfacing temperature sensors and loop supplied transmitters located in an explosive atmosphere.

The output to safe area is a 0/4 ... 20 mA signal together with a normally open relay contact.

The Universal Converter is supplied via terminals at the front of the module, or via Power Rail Type 9400. Removable display module 4501 can be used for programming of the Converter.

Ambient temperature range -20 °C to +60 °C.

**Electrical data**

If the Universal Converter is installed in an explosive atmosphere where the use of apparatus of equipment category 3 G is required, the following electrical data applies:

Supply (terminals 31, 32 and rear contacts):  $U = 19,2 \dots 31,2 \text{ Vdc}$ .

Outputs (terminals 11, 12):  $I = 0/4 \dots 20 \text{ mA}$ .

Relay output (terminals 13, 14):  $U \leq 32 \text{ Vac}$  or  $30 \text{ Vdc}$ ,  $I \leq 2 \text{ Aac}$  or  $I \leq 2 \text{ Adc}$  respectively.

Status-Relay output (terminals 33, 34):  $U \leq 32 \text{ Vac}$  or  $32 \text{ Vdc}$ ,  $I \leq 0,5 \text{ Aac}$  or  $I \leq 1 \text{ Adc}$  respectively.

For all circuits above:  $U_m = 253 \text{ Vac}$  (max. frequency 400 Hz).

**Installation instructions**

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

NL/KEM/ExTR10.0020/05.

(13) **SCHEDULE**

(14) **to Type Examination Certificate DEKRA 21UKEX0177X**

Issue No. 0

(17) **Specific conditions of use**

The Universal Converter shall be installed in a controlled environment with suitably reduced pollution, limited to pollution degree 2 or better.

The non-intrinsically safe circuits may only be connected to an overvoltage category I or II power source, as defined in EN 60664-1.

If the Universal Converter is installed in an explosive atmosphere where the use of apparatus of equipment category 3 G is required, the following specific conditions of use additionally apply:

The Universal Converter shall be installed in an enclosure in type of protection Ex e, providing a degree of protection of at least IP54 according to EN 60079-0. Cable entry devices and blanking elements shall fulfill the same requirements.

Removable Display Module 4501, when connected to the Universal Converter, may not be damaged and shall be free of dust and moisture.

(18) **Essential Health and Safety Requirements**

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, compliance with all other requirements is demonstrated in the report.

(19) **Test documentation**

As listed in Report number NL/KEM/ExTR10.0020/05.