(1) # Certificate of Conformity

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 2014/34/EU**

(3) Certificate Number:

EPS 11 ATEX 1 312 X **Revision 0**

(4) Equipment: Redundancy modules:
PS1000-D2-24.20.RM; PS1000-D2-24.40.RM

(5) Manufacturer: Pepperl+Fuchs SE

(6) Address: Lilienthalstraße 200
68307 Mannheim
Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this Certificate of Conformity and the documents therein referred to.

(8) Bureau Veritas Consumer Products Services Germany GmbH certifies based on a voluntary assessment that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive 2014/34/EU. The examination and test results are recorded in the confidential documentation under the reference number 10TH0536.

(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 60079-15:2010

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This Certificate of Conformity relates only to the design and the construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture and supply of this equipment. Those requirements are not covered by this certificate.

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

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

ec: PS1000-D2-24.40.RM
ec nC: PS1000-D2-24.20.RM

Certification department of explosion protection

Hamburg, 2020-09-29

H. Schaffer

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(13) # Annexe

(14) **Certificate of Conformity EPS 11 ATEX 1 312 X** **Revision 0**

(15) Description of equipment:

Redundancy modules are used to isolate the output voltages of the individual power supply of a redundant power supply system. To achieve redundancy, one extra power supply must be installed in order to deliver the required current in case one power supply in the system fails. The redundancy modules have two input channels and one output and utilize diodes or MOSFET´s to isolate the two inputs. They can be used to build 1+1 and N+1 redundant systems.

Electrical data:

PS1000-D2-24.20.RM
Input 1+2:
1: DC 24-28 V, 12 A continuous, 17 A up to 5 s
2: DC 24-28 V, 12 A continuous, 17 A up to 5 s

Output:
24 A continuous, 32.5 A up to 5 s (below 45 °C)
20 A continuous, 32.5 A up to 5 s (below 70 °C)
Derate linearly between +45 °C and +70 °C
Input to output voltage loss: typ. 0.1-0.5 V
depending on load share function
Ensure that the continuous RMS short-circuit current
never exceeds 26 A continuously on the output of the module
Operational temperature range: -40 °C and +70 °C

PS1000-D2-24.40.RM
Input 1+2:
1: DC 12-28 V, 20 A continuous, 32.5 A up to 5 s
2: DC 12-28 V, 20 A continuous, 32.5 A up to 5 s

Output:
40 A continuous, 65 A up to 5 s (below 60 °C)
30 A continuous, 65 A up to 5 s (at +70 °C)
Derate linearly between +60 °C and +70 °C
Input to output voltage loss: typ. 0.072 V
Ensure that the continuous RMS short-circuit current
never exceeds 26 A continuously on the output of the module
Operational temperature range: -40 °C and +70 °C

(16) Reference number: 10TH0536

(17) Schedule of Limitations:

- The equipment shall be installed in an enclosure that provides a degree of protection not less than IP 54 in accordance with IEC 60079-7 or IEC 60079-15.
- The equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1.
- Output power de-rating conditions at high ambient temperatures must be considered according to the manufacturer's instructions.

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(18) Essential health and safety requirements:

Met by standards.

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