1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **CSANe 21ATEX2164X** Issue: **0**

4 Equipment: **Capacitive sensors KFI series**

5 Applicant: **RECHNER Industrie-Elektronik GmbH**

6 Address: Gaußstrasse 8-10
68623 Lampertheim
Germany

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0: 2018 EN 60079-11: 2012

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

II 1 G, II 1 D
II 1 G Ex ia IIC T6...T1 Ga
II 1 D Ex ia IIIC T135°C Da

Signed: J A May

Title: Director of Operations

PRODUCTS RvA C 652

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13 **DESCRIPTION OF EQUIPMENT**

Capacitive sensors KFI series for use in explosive atmospheres caused by the presence of combustible gases or dusts using the concept of intrinsic safety “ia”. The equipment is used for detecting the level of material inside a tank or vessel by means of the principle of capacitive level measurement.

The relation between the ambient temperature, process temperature and temperature class are defined in the tables below:

For Gas:

Sensors for EPL Ga		
Temperature class	Ambient temperature (Ta)	Process temperature
T6	-20 °C... +50 °C	
T5	-20 °C... +60 °C	
T4		
T3		
T2		
T1		

Sensors for EPL Gb				
Temperature class	Ambient temperature (Ta)	Process temperature (Tp) at measuring electrode		
		With TB50	With TB20	Without TB
T6	-20 °C... +50 °C	-20 °C... +85 °C	-20 °C... +85 °C	-20 °C... +70 °C
T5	-20 °C... +60 °C	-20 °C... +100 °C	-20 °C... +100 °C	
T4	-20 °C... +70 °C	-20 °C... +135 °C	-20 °C... +135 °C	
T3		-20 °C... +200 °C	-20 °C... +160 °C	
T2		-20 °C... +250 °C		
T1				

For Dust:

Sensors for EPL Da		
Surface temperature	Ambient temperature (Ta)	Process temperature (Tp) at measuring electrode
T135°C	-25 °C... +60 °C	

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Sensors for EPL Db				
Surface temperature outside the process	Ambient temperature (Ta)	Process temperature (Tp) at measuring electrode		
		With TB50	With TB20	Without TB
T135°C	-25 °C... +60 °C	-20 °C... +250 °C	-25 °C... +160 °C	-25 °C... +70 °C

Electrical data:

Supply (pin 1 = L+ (brown) and pin 4 = L- (blue):
in type of protection intrinsic safety Ex ia IIC and Ex ia IIIC only for connection to a certified intrinsically safe circuit, with the following maximum values:
U_i = 30 V, Ii = 100 mA, Pi = 1 W, C_i =0, L_i = 0,2 mH

14 **DESCRIPTIVE DOCUMENTS**

14.1 **Drawings**

Refer to Certificate Annexe.

14.2 **Associated CSA Group Reports and Certificate History**

Issue	Date	Report number	Comment
0	18 March 2022	R80073040A	The release of the prime certificate.

15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

15.1 The equipment, if placed in a hazardous area, shall be installed and maintained in order that electrostatic discharge caused by; for example, rubbing on non-metallic parts, external radiation and high voltage fields are excluded, refer to Instructions manuals.

15.2 The electrical data is not marked on the marking plate, refer to the Installation instruction.

15.3 The user should be aware that the conditions in the process are not covered by this approval.

15.4 For the relation between temperature class, maximum process temperature and maximum ambient temperature, refer to the tables in this report at section 1.9 and Installation Instruction.

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

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17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.