



UNITED KINGDOM CONFORMITY ASSESSMENT

1 **UK TYPE EXAMINATION CERTIFICATE**

2 Equipment Intended for use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 Certificate Number: **CSAE 22UKEX1061X** Issue: **0**

4 Product: **Capacitive sensors KFI series**

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

6 Address: **Gaußstrasse 8-10  
68623 Lampertheim  
Germany**

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

8 CSA Group Testing UK Limited, Approved Body number 0518, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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. 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 has been assured by compliance with:

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

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

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

11 This UK TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall be in accordance with Regulation 41 and include the following:



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

Name: Michelle Halliwell  
Title: Director of Operations



**UKUK  
CANI**

CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK  
This certificate and its schedules may only be reproduced in its entirety and without change

Certificate No. CSAE22UKEX1061X

DQD544.21 Issue 2 (2021-04-23)

Page 1 of 3

**SCHEDULE**

**UK TYPE EXAMINATION CERTIFICATE**

**CSAE 22UKEX1061X  
Issue 0**

**13 DESCRIPTION OF PRODUCT**

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... +60°C	
T5		
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	

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



**SCHEDULE**

**UK TYPE EXAMINATION CERTIFICATE**

**CSAE 22UKEX1061X  
Issue 0**

**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:

$U_i = 30\text{ V}$ ,  $I_i = 100\text{ mA}$ ,  $P_i = 1\text{ W}$ ,  $C_i = 0$ ,  $L_i = 0,2\text{ mH}$

**14 DESCRIPTIVE DOCUMENTS**

**14.1 Drawings**

Refer to Certificate Annexe.

**14.2 Associated Reports and Certificate History**

Issue	Date	Report number	Comment
0	17 March 2022	R80102291A	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 1.8 and Installation Instruction.

**16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)**

In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.

**17 PRODUCTION CONTROL**

- 17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders