



## 1. **EU-TYPE EXAMINATION CERTIFICATE**

2. Equipment and Protective systems intended for use in potentially explosive atmospheres:

### **Directive 2014/34/EU**

3. EU-Type Examination Certificate Number: **KRH 20 ATEX 1001X/01**

4. Equipment or Protective system: **Gas Detector type GTD-5100F**

5. Manufacturer: **GASTRON Co., Ltd.**

6. Address: **23, Gunpocheomdansaneop 1-ro Gunpo-si, Gyeonggi-do, Korea**

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

8. The KRH certifies that this equipment or protective system 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 to the Directive 2014/34/EU of 26 February 2014.

The examination and test results are recorded in the confidential reports listed in section 16.

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

**EN IEC 60079-0:2018 EN 60079-1:2014**

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

11. This EU-Type Examination Certificate relates only to the design and construction of the specified equipment or protective system in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacturing process and supply of this equipment or protective systems. These are not covered by this certificate.

12. The marking of the equipment or protective system shall include the following:



**Ex db IIC T6 Gb (for Tamb : -20 °C to +60 °C)**

**Ex db IIC T5 Gb (for Tamb : -20 °C to +75 °C)**

This certificate is issued at Athens on 2021-01-29, under the authority of the Hellenic Republic of Greece by KR Hellas Ltd., Notified Body No. 2198.



**Dr. Nikos Katiforis**

**Quality Manager of KR Hellas Ltd**

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13.

## SCHEDULE

14. **EU-Type Examination Certificate KRH 20 ATEX 1001X/01**

15. **Description of equipment or protective system**

**The Gas Detector type GTD-5100F is designed for;**

- 1) The Gas Detector type GTD-5100F has been developed to detect a variety of gases so as to prevent serious accidents caused by unexpected gas leaks in hazardous areas such as industrial plants, gas storage facilities and factories in the process of producing or consuming combustible gases and toxic gases.
- 2) This equipment is designed to meet the requirement of flameproof enclosure (Ex “db”) and installed in the hazardous area zone 1 & 2 classified in accordance with EN publications and designed for use with gas group IIC, ambient temperature range -20 °C to +60 °C or +75 °C.
- 3) The Gas Detector type GTD-5100F comprise a cylindrical enclosure cast in aluminium alloy completely with a threaded cover incorporating a glass window. A gas sampling system is located within the enclosure, including a gas sensor and pump assembly with sintered flame arrester plugs at both gas inlet and gas outlet.
- 4) Any suitable certified cable entry devices shall maintain the IP degree of equipment.
- 5) All unused openings shall be closed with suitably certified blanking elements.
- 6) The safety instruction provided by manufacturer shall be strictly respected.
- 7) Type designation

Type	Measuring method
GTD-5100FNNE	Electrochemical
GTD-5100FNNC	Catalytic
GTD-5100FNNS	Semiconductor
GTD-5100FNNP	Photoionization detector (PID)
GTD-5100FNAN	IR

8) **Technical information**

- Voltage : Min. DC 16 V, Nominal DC 24 V, Max. DC 32 V
- Current : Max. 500 mA at 24 Vdc
- Wattage : Max. 7.2 W at 24 Vdc
- Degree of protection (IP code) : IP65 in accordance with IEC 60529





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**16. Descriptive documents**

Report No.: KRH-ATEX-0003-2021

**17. Specific Conditions of Use**

- 1) Ambient temperature : -20 °C to 60 °C for T6, -20 °C to 75 °C for T5
- 2) The dimensions of flameproof joints are tighter than the specified values in standard. The information for dimensions of flameproof joints must be provided by manufacturer prior to any maintenance or repairs.
- 3) The welded parts of the enclosure can be verified by non-destructive testing per cl.16.3 in EN 60079-1:2014.

**18. Essential Health and Safety Requirements**

Refer to covered by standards listed at 9.

**19. Routine Verifications and Tests**

Not applicable

**20. Drawings and Documents**

Number	Issue	Date	Description
Ex-A19010012	1	2020-09-05	Assembly drawing
Ex-A19010013	1	2020-09-05	DC(C)-BODY
Ex-A19010027	0	2019-02-20	GSA-970_Optical Cavity Assy
Ex-A19010022	0	2019-02-20	BLANK CARTRIDGE ASSY
Ex-A19010023	0	2019-02-20	WELDING BODY ASSY
Ex-A19010029	0	2019-02-20	CERTIFICATION LABEL
Ex-A19010018	0	2019-02-20	SHAFT-ASSY
Ex-A19010028	0	2019-02-20	PUMP-300A ASSY
Ex-A19010014	0	2019-02-20	DC(C)-COVER
Ex-A19010025	0	2019-02-20	IM(M)-LCD PLATE
Ex-A19010024	0	2019-02-20	IM(M)-DISPLAY COVER
Ex-A19010015	0	2019-02-20	MC-WFR-M112-90-3.5
Ex-A19010019	0	2019-02-20	MC-SHAFT(A)
Ex-A19010020	0	2019-02-20	MC-SHAFT(B)
Ex-A19010016	0	2019-02-20	GA-RING-109-90-0.5
Ex-A19010017	1	2020-09-05	TG-WINDOW-110-8
Ex-A19010021	0	2019-02-20	ST-10-1.5-ST5 (SINTER-10-12L)
Ex-A19010026	0	2019-02-20	DE-DISPLAY
Ex-A19010031	0	2019-02-20	O-RING-P7-NBR
Ex-A19010032	0	2019-02-20	O-RING-P21-NBR
Ex-A19010030	0	2019-02-20	O-RING-AN159-NBR
GT-025IM00E	2.3	2019-02-25	Instruction manual



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**Certificate No:**  
**KRH 20 ATEX 1001X/01**  
Date of initial issue : 2020-01-24  
Date of reissue : 2021-01-29  
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21. **Details of Certificate changes**

Issue No.	Issue Date	Description
0	2020-01-24	Initial issue
1	2021-01-29	1) Glass on the cover was changed to other glass. 2) Over pressure test was conducted at 4 times the reference pressure. The welded parts of the enclosure can be verified by non-destructive testing per cl.16.3 in EN 60079-1:2014. 3) Metric thread was added on cable entry.

*End of Certificate*

