

CERTIFICATE

(1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **DEKRA 22ATEX0013 X** Issue Number: **0**

(4) Product: **Laser flammable gas detector, Type LM2B03E-S*A**

(5) Manufacturer: **GASTAR CO., Ltd.**

(6) Address: **3-4, Fukamidai, Yamato-shi, Kanagawa, 242-8577, Japan**

(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., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

The examination and test results are recorded in confidential test report number NL/DEK/ExTR22.0008/00.

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

EN IEC 60079-0 : 2018

EN 60079-11 : 2012

EN 60079-28 : 2015

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

(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 EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

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



II 3(1) G Ex ic op is [op is T3 Ga] IIA T4 Gc

Date of certification: 1 April 2023

DEKRA Certification B.V.

R. Schuller
Certification Manager

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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 22ATEX0013 X**

Issue No. **0**

(15) **Description**

Laser flammable gas detector, Type LM2B03E-S*A, is a hand-held gas detector for remote measurements of column density for methane and methane containing gases. Gas column density within approximately 0.5 to 30 meters can be measured quickly by directing a laser beam at the portion to be inspected.

The enclosure meets the requirements of IP54 in accordance with EN IEC 60079-0 : 2018 and IEC 60529 to achieve pollution degree 2 for the circuits.

Two laser lights are contained in this product. One is measurement light which comply with Class 1, and the other is guide light which comply with Class 3R in accordance with IEC 60825-1.

The EPL, Group and temperature class of the detector are EPL Gc, IIA, T4, and those of the laser lights are EPL Ga, IIA, T3 in addition to EPL Gc, IIA, T4.

Type LM2B03E-SBA is a detector with Bluetooth communication function, Type LM2B03E-SNA is a detector without Bluetooth communication function.

Ambient temperature range: -17 °C to +50 °C

Electrical data

Power Supply:

AA size secondary nickel metal hydride batteries, enloop series type BK-3HCD, BK-3MCC or EVOLTA series BK-3MLE, BK-3LLB manufactured by Panasonic Corporation, 4 series connection: 4.8 V = 4 x 1.2 V

Memory backup:

Coin (R) type primary lithium battery, type CR1025 manufactured by Panasonic Corporation, 3 V

Installation instructions

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

(16) **Report Number**

No. NL/DEK/ExTR22.0008/00.

(17) **Specific conditions of use**

The equipment shall be protected against mechanical impacts of 2 joule or more for the LCD screen and the Fresnel lens, and 4 joule or more for the other enclosure parts.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR22.0008/00.

(20) **Certificate history**

Issue 0 - 420306900 initial certificate