IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx DEK 22.0012X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2023-04-01		
Applicant:	**GASTAR Co., Ltd.** 3-4, Fukamidai, Yamato-shi Kanagawa 242-8577 **Japan**		
Equipment:	**Laser flammable gas detector, Type LM2B03E-S*A**		
Optional accessory:			
Type of Protection:	**Ex ic and Ex op is**		
Marking:	Ex ic op is [op is T3 Ga] IIA T4 Gc		

Approved for issue on behalf of the IECEx Certification Body:	**R. Schuller**
Position:	**Certification Manager**
Signature: (for printed version)	
Date: (for printed version)	2023-04-01

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
Netherlands

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Manufacturer: **GASTAR Co., Ltd.**
3-4, Fukamidai, Yamato-shi
Kanagawa 242-8577
Japan

Manufacturing locations: **GASTAR Co., Ltd.**
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This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

NL/DEK/ExTR22.0008/00

Quality Assessment Report:

NL/DEK/QAR17.0001/05

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

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 IEC 60079-0 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, eneloop 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

SPECIFIC CONDITIONS OF USE: YES as shown below:
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.