



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 TIIS 22.0002X Page 1 of 3 [Certificate history:](#)
Status: Current Issue No: 0
Date of Issue: 2022-04-01
Applicant: Mitsubishi Heavy Industries, Ltd.
1-1, Wadasaki-cho
1-chome
Hyogo-ku
Kobe
Hyogo, 652-8585
Japan
Equipment: EX ROVR ASCENT ER20GV
Optional accessory:
Type of Protection: Flameproof enclosure "db", intrinsic safety "ib" and pressurized enclosure "pxb"
Marking: Ex db ib pxb IIB+H₂ T3 Gb

Approved for issue on behalf of the IECEx
Certification Body:

Minari Kogane

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

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:

Technology Institution of Industrial Safety
16-26 Hirose-dai 2
Sayama-city
Saitama prefecture
Japan





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Page 2 of 3

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Manufacturer: Mitsubishi Heavy Industries, Ltd.
1-1, Wadasaki-cho
1-chome
Hyogo-ku
Kobe
Hyogo, 652-8585
Japan

Manufacturing locations: Mitsubishi Heavy Industries, Ltd.
1-1, Wadasaki-cho
1-chome
Hyogo-ku
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Hyogo, 652-8585
Japan

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 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-2:2014-07](#) Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"
Edition:6

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:

[JP/TIIS/ExTR22.0002/00](#)

Quality Assessment Report:

[JP/TIIS/QAR22.0002/01](#)



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Page 3 of 3

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

EX ROVR ASCENT is an explosion-proof mobility protected by pressurized enclosure developed for the purpose of automatic patrol and inspection of oil and gas chemical plants. It has a cable-less structure with batteries, and can run remotely using LTE or Wi-Fi, or automatically using a laser range finder. It is equipped with individually certified cameras, gas detectors, microphones, and other sensors.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The flameproof joints of Battery assembly are not intended to be repaired.
- Use hexagon socket head cap bolt properly class "A2-70" for flameproof joints of Battery assembly.
- The Battery assembly can be installed if there is min 2.5/2.0mm clearance between long/short side flange opening and obstacles outside.

Annex:

[Annex_IECEX_TIIS_22.0002X-issue0.pdf](#)

Technology Institution of Industrial Safety

16-26 Hirosedai 2, sayama-city, Saitama prefecture, Japan



Annex to IECEx TIIS 22.0002X issue No. 0

Date: 2022/03/31

This document is an annex to IECEx CoC (IECEX TIIS 22.0002X issue No. 0).

Additional explanation of STANDARDS and EQUIPMENT

Some parts of the equipment have separately certified.

The equipment listed below is used with EX ROVR ASCENT, and is not certified repeatedly.

Standards associated with the following equipment are also listed in the STANDARDS section of this IECEx CoC with an exception as follows.

- IEC 60079-7 and IEC 60079-31 are omitted since these are not used for EX ROVR ASCENT.

Name	Type	CoC	Related standards
Complex gas detection unit, gas detector	SM-4400II-MRT	IECEX CML 20.0171X	IEC 60079-0: 2017 (Ed. 7.0) IEC 60079-11: 2011 (Ed. 6.0)
Complex gas detection unit, insulation barrier	BT-4000II-MRT		
Microphone Speaker	MS-01	IECEX CML 20.0156X	IEC 60079-0: 2017 (Ed. 7.0) IEC 60079-1: 2014 (Ed. 7.0)
Cable Glands for non-armoured & Braided	OS-A2F-U	IECEX PRE 17.0062X	IEC 60079-0: 2017 (Ed. 7.0) IEC 60079-1: 2014 (Ed. 7.0) IEC 60079-31: 2013 (Ed. 2.0) IEC 60079-7: 2017 (Ed. 5.1)