



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 TUR 25.0062X	Page 1 of 3	<u>Certificate history:</u>
Status:	Current	Issue No: 0	
Date of Issue:	2026-07-07		
Applicant:	Hangzhou Microimage Software Co., Ltd. Room 313, Unit B, Building 2 399 Danfeng Road Xixing Subdistrict Binjiang District Hangzhou China		
Equipment:	Handheld Thermal Imager, Types: FP21, FP21 Pro, FP31		
Optional accessory:			
Type of Protection:	Ex ic, Ex op is		
Marking:	Ex ic IIC T5 Gc Ex ic IIIC T100°C Dc Ex ic op is IIC T5 Gc Ex ic op is IIIC T100°C Dc Ta: -10°C ≤ Ta ≤ +55°C		

Approved for issue on behalf of the IECEx
Certification Body:

Dipl.-Ing. Ron Huo

Ron Huo

Position:

Assigned certifier

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:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany





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Manufacturer: **Hangzhou Microimage Software Co., Ltd.**
Room 313, Unit B, Building 2
399 Danfeng Road
Xixing Subdistrict
Binjiang District
Hangzhou
China

Manufacturing
locations:

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 60079-11:2023 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:7.0

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:

[DE/TUR/ExTR25.0062/00](#)

Quality Assessment Report:

[DE/TUR/QAR23.0005/03](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

General product information:

The Handheld Thermal Imager detects the heat generated by an object and provides a display to show the thermal image. It's powered by a lithium battery and has a plastic enclosure which provides IP66 protection.

The type of protection of the equipment is Ex ic or Ex ic op is. The equipment intends to be used in hazardous areas zone 2 IIC gas group and zone 22 IIIC dust group.

Power supply: replaceable Li-Ion Battery: $U_0 = 3.6V / 3350 mAh$

Ingress protection:

IP66 According to IEC 60079-0 and IEC 60529.

IP67 According to IEC 60529 only.

Type code and Ex marking:

Types	Type descriptions	Ex marking
FP21, HRYXBSZ-256-FP21, HRYXBSZ-256-HMSZK	IR resolution: 256×192, equipped with thermal imaging and temperature measurement function.	Ex ic IIC T5 Gc Ex ic IIC T100°C Dc
FP21 Pro, HRYXBSZ-256-FP21 Pro, HRYXBSZ-256-HMSZKPro	IR resolution: 256×192, with the addition of laser indication, laser ranging, and visible light.	Ex ic op is IIC T5 Gc Ex ic op is IIIC T100°C Dc
FP31, HRYXBSZ-384-FP31, FP31 Pro, HRYXBSZ-384-FP31 Pro, HRYXBSZ-384-HMSZK	IR resolution: 384×288, with the addition of laser indication, laser ranging, and visible light.	Ex ic op is IIC T5 Gc Ex ic op is IIIC T100°C Dc

Note: Only FP21, FP21 Pro and FP31 are the base types, and all the other types are deuterogenic types, with no difference between them and the corresponding base types. The deuterogenic types are used for commercial purposes.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Ambient temperature range: $-10^{\circ}C \leq T_a \leq +55^{\circ}C$.
- The equipment shall only be charged in a non-hazardous area, and only charging within the temperature range of $0^{\circ}C$ to $45^{\circ}C$. The charger shall comply with one of below:
 - Charging via the USB Type-C port. The charger may be supplied by the user, but the charger must comply with the requirements for SELV, PELV, or ES1 as specified in IEC 60364-4-41 and $U_m = 5V$.
 - Charging via the In-truck charger. Only the In-truck charger of type AHCH02-4161 supplied by the manufacturer can be used.
- The battery of equipment is prohibited to be replaced by end users.
- The cover of the Type-C USB port must be securely closed in hazardous areas.
- The equipment shall be protected from exposure to daylight or light from luminaires.
- Resistance to impact was tested corresponding to the low risk of mechanical danger. The device must be protected against strong impacts.