



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 CML 23.0053X	Page 1 of 3	Certificate history:
Status:	Current	Issue No: 0	
Date of Issue:	2023-04-28		
Applicant:	CMA (WuHu) Robotics Co., Ltd No.96, East Wanchun Road China(Anhui) Pilot Free Trade Zone Wuhu Area Wuhu Anhui Province, China China		
Equipment:	GR630-1900 Industrial Robot		
Optional accessory:			
Type of Protection:	Purge "Ex pxb"		
Marking:	Ex pxb IIC T4 Gb Ex pxb IIIC T135°C Db Ta = -10°C to +40°C		

Approved for issue on behalf of the IECEx
Certification Body:

A Snowden

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

2023-04-28

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:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **CMA (WuHu) Robotics Co., Ltd**
No.96, East Wanchun Road
China(Anhui) Pilot Free Trade Zone Wuhu Area
Wuhu
Anhui Province, China
China

Manufacturing locations: **CMA (WuHu) Robotics Co., Ltd**
No.96, East Wanchun Road
China(Anhui) Pilot Free Trade Zone
Wuhu Area
Wuhu
Anhui Province, China
China

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 60079-2:2014-07](#) 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:

[GB/CML/ExTR23.0077/00](#)

Quality Assessment Report:

[GB/CML/QAR17.0013/04](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The GR630-1900 is a six-axis industrial spray-gun robot with a working radius of 1900 mm.

Refer to certificate Annex for full description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to certificate Annex for Specific Conditions of Use.

Annex:

[Certificate Annex IECEx CML 23.0053X Iss 0.pdf](#)

Annexe to: IECEx CML 23.0053X, Issue 0
Applicant: CMA (WUHU) Robotics Co., Ltd
Apparatus: GR630-1900 Industrial Robot

Description

The GR630-1900 is a six-axis industrial spray-gun robot with a working radius of 1900 mm. The GR630-1900 industry robot is comprised of a robot mechanism located in a hazardous area and a control cabinet located in a safe area. The robot has a base, big arm, small arm and wrist. The robot base and arms are protected by pressurisation, they are connected by gas pipe, inside robot base and the arms are fitted with a motor, solenoid valve and flow meter. The protective gas comes from compressed air located in the safe area.

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification:

- i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. The GR630 Industry Robotics shall be designed in accordance with general electrical safety standards e.g. IEC 60950 or IEC 61010-1.
- iii. Each product shall be subjected to the following routine testing:
 - Functional test for the performance of safety devices as required by IEC 60079-2:2014 Clause 17.1.
 - A leakage test in accordance with IEC 60079-2:2014, clause 16.3.1. The leakage shall not exceed 30 NI/min.
- iv. The manufacturer shall ensure that the safety and integrity of the purging control system is consistent with a single fault evaluation in accordance with IEC 61511 or similar standard.
- v. A suitably certified purge control unit that provides the function required for 'Ex pxb' type control systems shall be fitted to the pressurised enclosure, and shall be able to deliver and monitor the following parameters:

• Minimum purge flow rate	140 NI/min
• Minimum purge time	360 Seconds
• High pressure setting	0.4 bar
• Low pressure setting	0.2 bar
• Minimum flow rate for leakage compensation	30 NI/min





Specific Conditions of Use

The following relate to the installation and/or safe use of the equipment:

- i. The temperature of the protective gas at the inlet of the enclosure shall not exceed 40°C.
- ii. The float switches are required to be part of a suitably certified intrinsically safe circuit.

Components covered by Ex Certificates issued to older editions of Standards

None