EU Type Examination Certificate CML 20ATEX1065X Issue 1

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **GR6150 Industrial Robot**

3 Manufacturer **CMA (WUHU) Robotics Co. Ltd**

4 Address **No.96, East Wanchun Road,**
China(Anhui) Pilot Free Trade Zone
Wuhu Area,
Wuhu, Anhui Province,
China

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, 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 equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-2:2014

10 The equipment shall be marked with the following:

Ex II 2 G D

Ex pxb IIC T4 Gb

Ex pxb IIC T135°C Db

11 Description

The GR6150 is a six-axis industrial spray-gun robot with a working radius of 2,900 mm. The GR6150 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 and gas source is located in the safe area.

Variation 1

This variation introduced corrections to minor errors.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	13 Mar 2020	R13110A/00	Issue of prime certificate
1	23 Mar 2022	R13110A/01	Issue of Variation 1

Note: Drawings that describe the equipment or component are listed in the Annex.

13 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 shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

ii. The GR6150 Industry Robotics to 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:

iv. Functional test for the performance of safety devices as required by EN60079-2:2014 Clause 17.1.

v. A leakage test in accordance with EN 60079-2:2014, clause 16.3.1, the leakage shall not exceed 30 Nl/min.

vi. 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.

vii. The manufacturer shall ensure that all previously certified equipment and components integrated into this equipment are suitably ATEX and IECEx certified.

viii. A suitably certified purge control unit that provides the function required for ‘pxb’ type controls systems shall be fitted to the pressurised enclosure, and shall be able to deliver and monitor the following parameters:

- Minimum purge flow rate 200 Nl/min
- Minimum purge time 7 minutes
- High pressure setting 0.4 mbar

□	Low pressure setting	0.2 mbar
□	Minimum flow rate for leakage compensation	30 Nl/min

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or 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 need to be part of a suitably certified intrinsically safe circuit

Certificate Annex

Certificate Number	**CML20ATEX1065X**
Equipment	**GR6150 Industrial Robot**
Manufacturer	**CMA (WUHU) Robotics Co. Ltd**

The following documents describe the equipment or component defined in this certificate:

Issue 0 & 1

Drawing No	Sheets	Rev	Approved date	Title
GR6150-EX-001-CE	1 of 1	1	13-03-2020	Key Component Position
GR6150-EX-002-CE	1 of 1	1	13-03-2020	Cable Layout
GR6150-EX-003-CE	1 of 1	4	13-03-2020	Nameplate
GR6150-2900V1-00000	1 of 1	1	13-03-2020	Robot body
GR6150-2900V1-01000	1 of 1	1	13-03-2020	Basement
GR6150-2900V1-02000	1 of 1	1	13-03-2020	Arm 1
GR6150-2900V1-03000	1 of 1	1	13-03-2020	Arm 2
GR-EX-002-CE	1 of 1	1	13-03-2020	Pneumatic Schematic
GR-EX-003-CE	1 of 1	1	13-03-2020	Control Sequence Diagram
EC-C01-A00-V1.0	1 to 14	1	13-03-2020	Atex Purge Electrical diagram