



Electrical Apparatus for Explosive Atmospheres

CERTIFICATE OF CONFORMITY

Manufacturer Hyundai Robotics Co., Ltd.
50, Techno Sunhwan-ro 3-gil, Yuga-eup, Dalseong-gun, Daegu 43022,
Korea, Republic of

Product Painting Robot Manipulator with Purge Unit

Type YP015A-**1 (Hi5a-P20)

Marking Ex ib [ib] px IIB T4 Gb

Standard(s) —

Drawing No. R71-015620-6.1, R71-015601-2.0

The drawings, technical documents and the samples are verified and certified according to standard(s) for safety as below:

GB 3836.1-2010	Explosive atmospheres - Part 1: Equipment - General requirements
GB 3836.4-2010	Explosive atmospheres - Part 4: Equipment protected by intrinsically safe "i"
GB/T 3836.5-2017	Explosive atmospheres - Part 5: Equipment protected by pressurized enclosure "p"

Note:

See attached sheet (3 page in total).

Director

Date:

2021-04-12

Valid until:

2026-04-11



CHINA NATIONAL QUALITY SUPERVISION AND TEST CENTER
FOR EXPLOSION PROTECTED ELECTRICAL PRODUCTS

Address: No.20 North Zhongjing Rd, Nanyang, Henan(473008), P.R.China

Tel: 0377-63258564 Fax: 0377-63208175 Web: www.china-ex.com



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This product has been certified, under certificate number IECEx DEK 20.0016, issue 0, dated 2021-02-05 and Test report NL/DEK/ExTR20.0021/00 dated 2021-02-05.

Product Description:

Painting Robot Manipulator with Purge Unit, Type YP015A-**1 (Hi5a-P20) is intended to accomplish the complex task of automotive interior painting finishing.

It consists of a painting robot manipulator in type of protection pressurised enclosure “pxb” and a pressure sensor circuit in type of protection in type of protection intrinsic safety “ib” without any user/field connections.

The purge control unit is located in the non-hazardous area, the pressure sensors are powered by the safety barrier circuit on the purge control board in purge control unit.

the purge control board in the positive pressure control board is installed in the purge control device, and the pressure sensor is powered by the safety barrier circuit on the positive pressure control board.

Ambient temperature range:

0 °C to +40 °C for Painting Robot Manipulator

0 °C to +60 °C for Purge Unit

Type designation:

Painting Robot Manipulator with Purge Unit, Type YP015A-**1 (Hi5a-P20)

<u>Y</u>	<u>P</u>	<u>015</u>	<u>A</u>	-	*	*	<u>1</u>	<u>(Hi5a-P20)</u>
a	b	c	d		e	f	g	h

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Part	Type designation	Remarks
a	Y	Basic model
b	P	Application of equipment P: Painting
c	015	Load capacity (payload) 015: 15 kg
d	A	Ex not relevant
e	22 or 28	Radius of working area 22: 2200 mm 28: 2800 mm
f	L, R, WL or WR	Mounting type L: Floor mounting (Painting Robot Manipulator is mounted at left side on the floor in a basis of working area) R: Floor mounting (Painting Robot Manipulator is mounted at right side on the floor in a basis of working area) WL: Wall mounting (Painting Robot Manipulator is mounted at left side on the wall in a basis of working area) WR: Wall mounting (Painting Robot Manipulator is mounted at right side on the wall in a basis of working area)
g	1	Ex not relevant
h	(Hi5a-P20)	Basic model of controller

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Certificate number: CNEx21.1772

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Pressurization data:

Painting Robot Manipulator, Type YP015A-22*1	Painting Robot Manipulator, Type YP015A-28*1
Total volume of enclosure: 207685 cm ³	Total volume of enclosure: 225367 cm ³
Air supply pressure: 400 to 500 kPa	Air supply pressure: 400 to 500 kPa
Maintenance pressure: 1.6 to 2 kPa	Maintenance pressure: 1.6 to 2 kPa
Minimum overpressure: 200 Pa	Minimum overpressure: 200 Pa
Maximum overpressure: 10 kPa	Maximum overpressure: 10 kPa
Minimum purge flow: 500 l/min	Minimum purge flow: 500 l/min
Purge time: 3 minutes	Purge time: 3 minutes
Maximum leakage flow rate: 50 l/min	Maximum leakage flow rate: 50 l/min

Electrical data:

Painting Robot Manipulator: 220 Vac, 50/60 Hz

Purge Unit: Um = 40 Vdc for the purge control board in the Purge Unit.

Specific Conditions Of Use: see instruction.

Note: This certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed in cover of the certificate.

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