



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 DEK 20.0016** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-02-05

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

Equipment: **Painting Robot Manipulator with Purge Unit, Types YP015A-**1 (Hi5a-P20)**

Optional accessory:

Type of Protection: **Pressurized enclosure "pxb", intrinsic safety "ib"**

Marking: **Ex ib [ib] pxb IIB T4 Gb**

Approved for issue on behalf of the IECEx
Certification Body:

R. Schuller

Position:

Certification Manager

Signature:
(for printed version)

Date:

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.
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Certificate issued by:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
Netherlands





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

Additional
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 60079-11:2011 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:

[NL/DEK/ExTR20.0021/00](#)

Quality Assessment Report:

[NL/DEK/QAR17.0016/02](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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.

Ambient temperature range:

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

0 °C to +60 °C for Purge Unit

For more information see the attached Annex 1 to Report No. NL/DEK/ExTR20.0021/00.

SPECIFIC CONDITIONS OF USE: NO

Annex:

[510042300-Annex 1_2.pdf](#)

Type designation

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

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

Part	Type designation	Remarks
a	Y	<u>Basic model</u>
b	P	<u>Application of equipment</u> P: Painting
c	015	<u>Load capacity (payload)</u> 015: 15 kg
d	A	<u>Ex not relevant</u>
e	22 or 28	<u>Radius of working area</u> 22: 2200 mm 28: 2800 mm
f	L, R, WL or WR	<u>Mounting type</u> 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	<u>Ex not relevant</u>
h	(Hi5a-P20)	<u>Basic model of controller</u>

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
Maximum purge flow:	500 l/min	Maximum 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.