

CONTROLLER SPECIFICATIONS

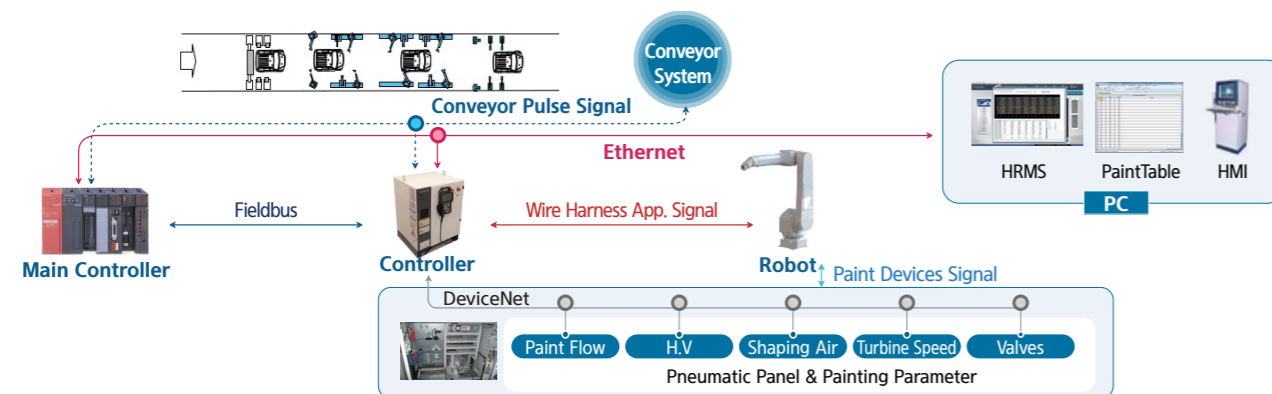
Items	Specifications
Model Name	Hi5a-P10
Operating Mode	Teaching & Playback
Interpolation	Point-to-Point, Linear, Circular
Max. Axes	Max. 16 axes simultaneously
Number of Steps	17,000 Points
External Program Selection	Binary 255 / Discrete 8
Position Detector	Serial Absolute Encoder
Program Back-up	USB Memory
Servo Drive System	Full Digital Servo
Digital Input/Output	Max. 256 / 256
Analog Input/Output	8 / 8
Conveyor Pulse Counter	Differential & Open Collector Type
User / Machine Interface	2 x Ethernet (100 Base-T) 2 x RS232C/RS422 1 x USB (for backup, version-up) 2 x CAN (1 option) 1 x SD Card
Fieldbus(option)	PROFINET IO-Controller / IO-Device EtherNet/IP Scanner / Adapter DeviceNet Master / Slave PROFIBUS-DP Master / Slave CC-Link Slave(V1.10, V2.0) MODBUS(Serial)
Rated Supply Voltage	3 ∅ AC220V ± 10%, 50/60Hz
Max. Rated Power	8kVA(Instant Max. 30kVA)
Size(W x D x H)	650mm(W), 600mm(D), 1,250mm(H)
Environment	Temperature: 0°C~40°C Relative Humidity: 20~95% Non-condensing
IECEX	Ex ib [ib] pxb IIB T4 Gb

TEACH PENDANT SPECIFICATIONS

Items	Specifications
Model Name	TP520 (option)
Operating System	Windows CE
Display	7" Color TFT-LCD / Touch Panel
Operating Mode	Menu Driven and Code Input

- **Easy and simple operation**
 - Programming language similar to BASIC
- **Paint application**
 - Includes application specific software for painting
 - Supports both a bell gun and a spray gun
 - Installs various paint devices such as solenoid valve, FGP, etc. mounted on the upper arm
 - Controls a robot and painting devices simultaneously
 - Employs advanced monitoring systems
- **Easy maintenance**
 - Excellent maintenance ability using on-line display function
- **Advanced control technology**
 - Dynamic control
 - Advanced vibration suppression control
 - Extended torque-velocity control
- **Safety**
 - Compliant with ANSI/RIA15.6_1999 and CE Directives
- **Compatibility and connectivity**
 - Embedded soft PLC

SYSTEM CONFIGURATION



PAINTING ROBOT

EXPLOSION-PROOF PAINTING ROBOT

YP015-28



The best performance for automotive and industrial painting applications

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EXPLOSION-PROOF PAINTING ROBOT YP015-28

YP015-28 is painting robot with excellent performance, combined with high load capacity and high speed/acceleration. **It can reduce cycle time and the amount of paint !**

KEY BENEFITS

- Best in class payload
- Explosion-proof
- Easy to use touch screen teach pendant with paint application
- Outstanding performance axis drives

SPECIFICATIONS

- 15 kg Payload
- 2,800 mm Horizontal Reach
- ± 0.2 mm Repeatability

APPLICATIONS

- Painting

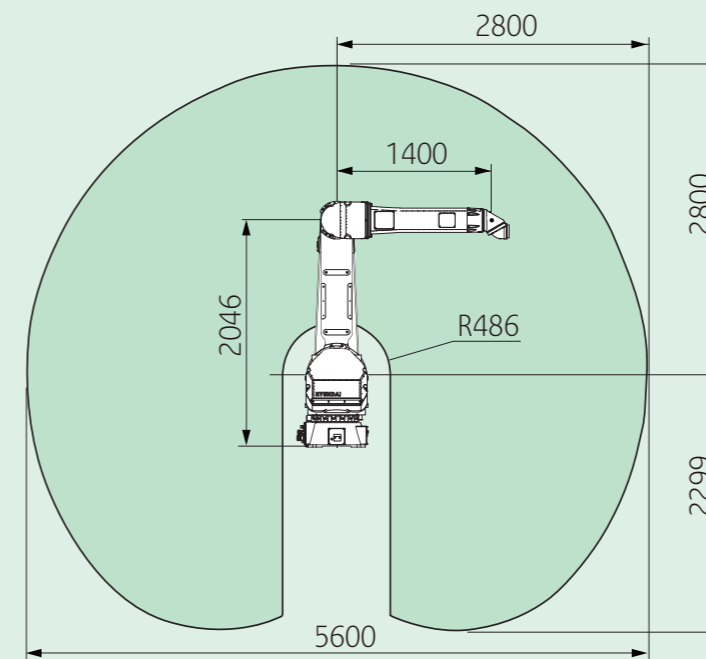


- YP015-28 is ideal for automotive and industrial painting applications.
- It will suit any robotic painting application from one robot paint cell to complete multi-robot integrated finishing systems.
- Our painting robot combines high operational performance with powerful programming flexibility.
- The robot creates smooth, consistent finish with outstanding efficiency.
- Hollow wrist design is ideal for painting parts such as interior/exterior surfaces and well-suited for mounting spray equipment applicators.
- Interference between the hose and parts/fixtures is avoided.

BASIC SPECIFICATION OF ROBOT

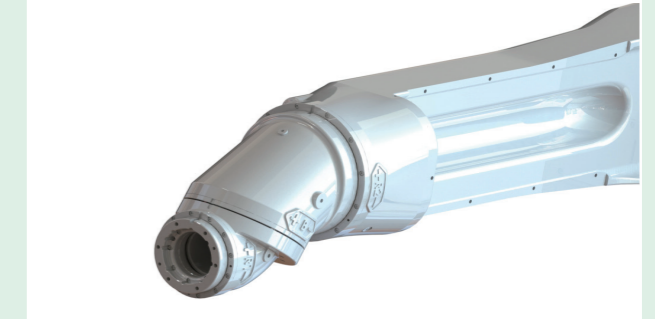
Item		Specification
Model		YP015-28
Max Payload		15 kg
Number of axis		6
Drive System		AC SERVO MOTOR
Working Envelope	Base	S Swivel ± 2.80 rad ($\pm 160^\circ$)
		H Fore/Back $+4.01 \sim -0.87$ rad ($+230^\circ \sim -50^\circ$)
		V Up/Down $+4.54 \sim -1.22$ rad ($+260^\circ \sim -70^\circ$)
	Wrist	R2 Rotation2 ± 6.28 rad ($\pm 360^\circ$)
		B Bend ± 6.28 rad ($\pm 360^\circ$)
		R1 Rotation1 ± 6.28 rad ($\pm 360^\circ$)
Max. Speed	Base	S Swivel 2.79 rad / s (160° / s)
		H Fore/Back 2.79 rad / s (160° / s)
		V Up/Down 2.79 rad / s (160° / s)
	Wrist	R2 Rotation2 7.85 rad / s (450° / s)
		B Bend 9.42 rad / s (540° / s)
		R1 Rotation1 10.45 rad / s (600° / s)
Position Repeatability		± 0.1 mm
Conditions		0 ~ 45° C (273 ~ 318 K)
Weight		580 kg
Installation		Floor / Ceiling / Wall

WORKING RANGE



HOLLOW WRIST DESIGN

Hollow Wrist : I.D 70mm



Hollow wrist arms can be applied with internal hoses, reducing the risk of contaminants in the paint finish. The inner diameter of the hollow wrist is 70mm.

DIVERSE APPLICATIONS

The paint system inside the robot arm. It can reduce the material consumption.



The control system for painting robots can control inner pressure of a manipulator by air-purge control to meet the safety regulation of explosive-proof certification also monitor the status.

For the convenience of usage, exclusive sequence settings and command functions for painting are supported.

For painting simulation, painting visualization and path generation is possible using HRSpace OLP.

The synchronization function of external positioners is possible so that various applications can be applied like part painting.