














HYUNDAI ROBOT SERIES










Hyundai Robot Series

Model						
		HA006A	HA006L	HH010L	HH020	
Payload		6 kg	6 kg	10 kg	20 kg	
Max. Reach		1,425 mm	1,994 mm	1,964 mm	1,742 mm	
Degree of freedom		6 Axes	6 Axes	6 Axes	6 Axes	
Installation		Floor / Wall / Ceiling	Floor / Wall / Ceiling	Floor / Wall / Ceiling	Floor / Wall / Ceiling	
Max. Motion Range	S	Swivel	±172°	±185°	±185°	±185°
	H	For/Backward	+180° ~ -78°	+195° ~ -70°	+195° ~ -70°	+195° ~ -70°
	V	Up/Downward	+230° ~ -170°	+260° ~ -170°	+260° ~ -170°	+260° ~ -170°
	R2	Rotation 2	±195°	±195°	±195°	±195°
	B	Bending	±135°	±135°	±135°	±135°
	R1	Rotation 1	±360°	±360°	±360°	±360°
Max. Speed	S	Swivel	230°/s	190°/s	190°/s	190°/s
	H	For/Backward	230°/s	180°/s	180°/s	180°/s
	V	Up/Downward	230°/s	190°/s	190°/s	190°/s
	R2	Rotation 2	430°/s	380°/s	380°/s	380°/s
	B	Bending	430°/s	430°/s	380°/s	380°/s
	R1	Rotation 1	640°/s	640°/s	600°/s	600°/s
Allowable Moment	R2	Rotation 2	1.2 kgf.m	4.0 kgf.m	2.5 kgf.m	4 kgf.m
	B	Bending	1.0 kgf.m	1.0 kgf.m	2.5 kgf.m	4 kgf.m
	R1	Rotation 1	0.6 kgf.m	0.6 kgf.m	1.1 kgf.m	2 kgf.m
Repeatability		±0.04 mm	±0.06 mm	±0.06 mm	±0.06 mm	
Ambient Temperature		0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	
Approximate Weight		150 kg	224 kg	230 kg	225 kg	
Max. Rated Power		4.4 kVA				
Controller Model		Hi5a		Hi5		
Option			Wrist IP54	Wrist IP67	Wrist IP67	
Application	Arc Welding	●	●	●	●	
	Spot Welding					
	Handling	●	●	●	●	
	Sealing	●	●	●	●	
	Others				Press Handling	


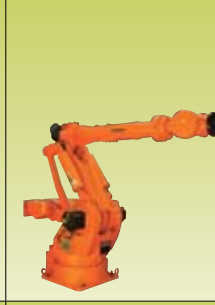


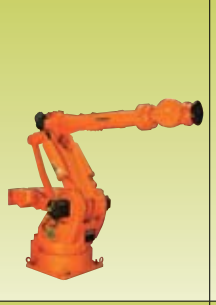


High Speed

						
HH020L	HH030L	HH050	YS080	YS100A	HH100SL	HH130L
20 kg	30 kg	50 kg	80 kg	100 kg	100 kg	130 kg
3,281 mm	2,535 mm	2,239 mm	2,239 mm	2,239 mm	3,507 mm	3,082 mm
6 Axes	6 Axes	6 Axes	6 Axes	6 Axes	6 Axes	6 Axes
Floor / Wall / Ceiling	Floor / Wall / Ceiling	Floor / Wall / Ceiling	Floor / Wall / Ceiling	Floor / Wall / Ceiling	Shelf	Floor
±180°	±180°	±180°	±180°	±180°	±180°	±180°
+180° ~ -65°	+180° ~ -65°	+180° ~ -65°	+180° ~ -65°	+180° ~ -65°	+125° ~ -70°	+155° ~ +10°
+260° ~ -160°	+180° ~ -80°	+180° ~ -80°	+180° ~ -80°	+180° ~ -80°	+190° ~ -80°	+190° ~ -80°
±195°	±360°	±360°	±360°	±360°	±360°	±360°
±135°	±125°	±125°	±125°	±125°	±125°	±125°
±360°	±360°	±360°	±360°	±360°	±360°	±360°
175°/s	150°/s	175°/s	170°/s	150°/s	105°/s	105°/s
175°/s	140°/s	175°/s	140°/s	130°/s	85°/s	85°/s
180°/s	150°/s	175°/s	160°/s	140°/s	95°/s	95°/s
360°/s	250°/s	250°/s	230°/s	200°/s	170°/s	170°/s
380°/s	250°/s	250°/s	230°/s	200°/s	155°/s	155°/s
600°/s	350°/s	350°/s	350°/s	300°/s	270°/s	270°/s
4 kgf.m	20.4 kgf.m	22 kgf.m	40.8 kgf.m	50 kgf.m	105 kgf.m	105 kgf.m
4 kgf.m	20.4 kgf.m	22 kgf.m	40.8 kgf.m	50 kgf.m	105 kgf.m	105 kgf.m
2 kgf.m	10.2 kgf.m	15 kgf.m	20.4 kgf.m	25 kgf.m	50 kgf.m	50 kgf.m
±0.08 mm	±0.08 mm	±0.06 mm	±0.06 mm	±0.06 mm	±0.15 mm	±0.15 mm
0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)
535 kg	650 kg	645 kg	645 kg	645 kg	1,450 kg	1,400 kg
4.4 kVA	8 kVA					
Hi5						
Wrist IP67	Wrist IP67	Wrist IP67	Wrist IP67	Wrist IP67		
			●	●	●	●
●	●	●	●	●	●	●
●	●					
	Press Handling	Press Handling			Press Handling	Press Handling

High Reliability

						
YS140D	HS150L	HP160	HS165	HS165S	HS180	HS200
140 kg	150 kg	160 kg	165 kg	165 kg	180 kg	200 kg
1,540 mm	3,082 mm	3,128 mm	2,666 mm	3,090 mm	2,666 mm	2,666 mm
6 Axes	6 Axes	4 Axes	6 Axes	6 Axes	6 Axes	6 Axes
Floor	Floor	Floor	Floor	Shelf	Floor	Floor
±180°	±180°	±180°	±180°	±180°	±180°	±180°
+150°~-65°	+155°~+10°	+135°~-10°	+155°~+10°	+125°~-70°	+65°~-80°	+155°~+10°
+230°~-140°	+190°~-80°	+75°~-65°	+190°~-80°	+190°~-80°	+230°~-130°	+190°~-80°
±360°	±360°	-	±360°	±360°	±360°	±360°
±125°	±130°	-	±130°	±130°	±128°	±125°
±360°	±360°	±360°	±360°	±360°	±360°	±360°
160 %/s	95 %/s	130 %/s	105 %/s	105 %/s	120 %/s	95 %/s
120 %/s	95 %/s	120 %/s	105 %/s	105 %/s	115 %/s	95 %/s
120 %/s	95 %/s	120 %/s	105 %/s	105 %/s	125 %/s	95 %/s
165 %/s	150 %/s	-	150 %/s	150 %/s	185 %/s	135 %/s
165 %/s	145 %/s	-	145 %/s	145 %/s	175 %/s	120 %/s
250 %/s	220 %/s	300 %/s	220 %/s	220 %/s	265 %/s	190 %/s
70 kgf.m	105 kgf.m	-	105 kgf.m	105 kgf.m	110 kgf.m	136 kgf.m
70 kgf.m	105 kgf.m	-	105 kgf.m	105 kgf.m	110 kgf.m	136 kgf.m
35 kgf.m	50 kgf.m	50 kgf.m	50 kgf.m	50 kgf.m	58 kgf.m	72 kgf.m
±0.06 mm	±0.15 mm	±0.2 mm	±0.06 mm	±0.06 mm	±0.06 mm	±0.06 mm
0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)
590 kg	1,295 kg	1,495 kg	1,250 kg	1,540 kg	955 kg	1,300 kg
8 kVA						
Hi5					Hi5a	Hi5
			Wrist IP67			
●	●		●	●	●	●
●	●	●	●	●	●	●
Palletizing						

Wide Working Envelope

						
HS200S	HX200L	HS220	HX300	HX300L	HX400	HX400S
200 kg	200 kg	220 kg	300 kg	300 kg	400 kg	400 kg
3,090 mm	3,056 mm	2,666 mm	2,573 mm	3,056 mm	2,573 mm	3,106 mm
6 Axes	6 Axes	6 Axes	6 Axes	6 Axes	6 Axes	6 Axes
Shelf	Floor	Floor	Floor	Floor	Floor	Shelf
±180°	±180°	±180°	±180°	±180°	±180°	±180°
+125° ~ -70°	+165° ~ +15°	+65° ~ -80°	+165° ~ +15°	+165° ~ +15°	+165° ~ +15°	+95° ~ -50°
+190° ~ -80°	+60° ~ -70°	+230° ~ -130°	+60° ~ -70°	+60° ~ -70°	+60° ~ -70°	+60° ~ -70°
±360°	±360°	±360°	±360°	±360°	±360°	±360°
±125°	±125°	±128°	±120°	±120°	±120°	±120°
±360°	±360°	±360°	±360°	±360°	±360°	±360°
95°/s	95°/s	120°/s	95°/s	95°/s	95°/s	85°/s
95°/s	95°/s	105°/s	95°/s	95°/s	95°/s	85°/s
95°/s	95°/s	115°/s	95°/s	95°/s	95°/s	85°/s
135°/s	120°/s	145°/s	110°/s	100°/s	100°/s	100°/s
120°/s	120°/s	145°/s	110°/s	100°/s	100°/s	100°/s
190°/s	180°/s	220°/s	180°/s	160°/s	160°/s	160°/s
136 kgf.m	132 kgf.m	145 kgf.m	170 kgf.m	170 kgf.m	200 kgf.m	200 kgf.m
136 kgf.m	132 kgf.m	145 kgf.m	170 kgf.m	170 kgf.m	200 kgf.m	200 kgf.m
72 kgf.m	62 kgf.m	79 kgf.m	70 kgf.m	70 kgf.m	84 kgf.m	84 kgf.m
±0.06 mm	±0.2 mm	±0.06 mm	±0.15 mm	±0.2 mm	±0.15 mm	±0.2 mm
0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)	0~45°C(273~318K)
1,595 kg	2,265 kg	955 kg	2,435 kg	2,685 kg	2,620 kg	2,910 kg
8 kVA	10.5 kVA	8 kVA	10.5 kVA			
Hi5		Hi5a	Hi5			
●	●	●	●	●	●	●
●	●	●	●	●	●	●

Controller Specifications

Item	Specification	
Model Name	Hi5 / Hi5a	
Control Hardware	Multi Processor System	
Execution Mode	Teaching & Playback	
Interpolation Type	Point-to-Point, Linear, Circular	
Max. Axes	Max. 16 Axes Simultaneously	
Number of Step	17,000 Points	
External Program Selection	Binary 255 / Discrete 8	
Position Detector	Serial Absolute Encoder	
Program Back-up	USB Memory	
Servo Control	Full Digital Servo	
Digital Input / Output	Max. Input : 4096 / Output : 4096 Points	
Analog Input / Output	Input : 8 ch / Output : 8 ch	
Conveyor Pulse Counter	Differential Input / Open Collector Input, 2 ch	
Communication	Ethernet	100 Base T (2 Ports)
	CAN	User 1 / User 2
	Serial	RS232C, RS422 (RS485)
	Field Bus	CC-Link, Profibus-DP, Devicenet, Modbus, Profinet, Ethernet / IP
Rated Supply Voltage	AC220V ± 10%, 50 / 60 Hz	
Max. Rated Power	4.4 kVA, 7.8 kVA, 10.5 kVA	
Cabinet Dimension (WxDxH)	650 mm x 600 mm x 1,100 mm (Except Caster)	
Weight	150 kg (Without Transformer)	
Protection Classification	IP54	
Ambient Temperature	0 ~ 45 °C	

Teaching Pendant Specifications

Item	Specification
Microprocessor	32 bits RISC Processor
Operating System	Windows CE
Display	7" Color TFT-LCD
Operation Mode	Menu Driven and Code Input / Touch Panel

• Easy and simple operation

- Easy/convenient programming language similar to BASIC

• Easy maintenance

- Excellent maintenance ability using on-line display function

• Advanced control technology

- Dynamic control
 - Advanced vibration suppression control
 - Extended torque-velocity control

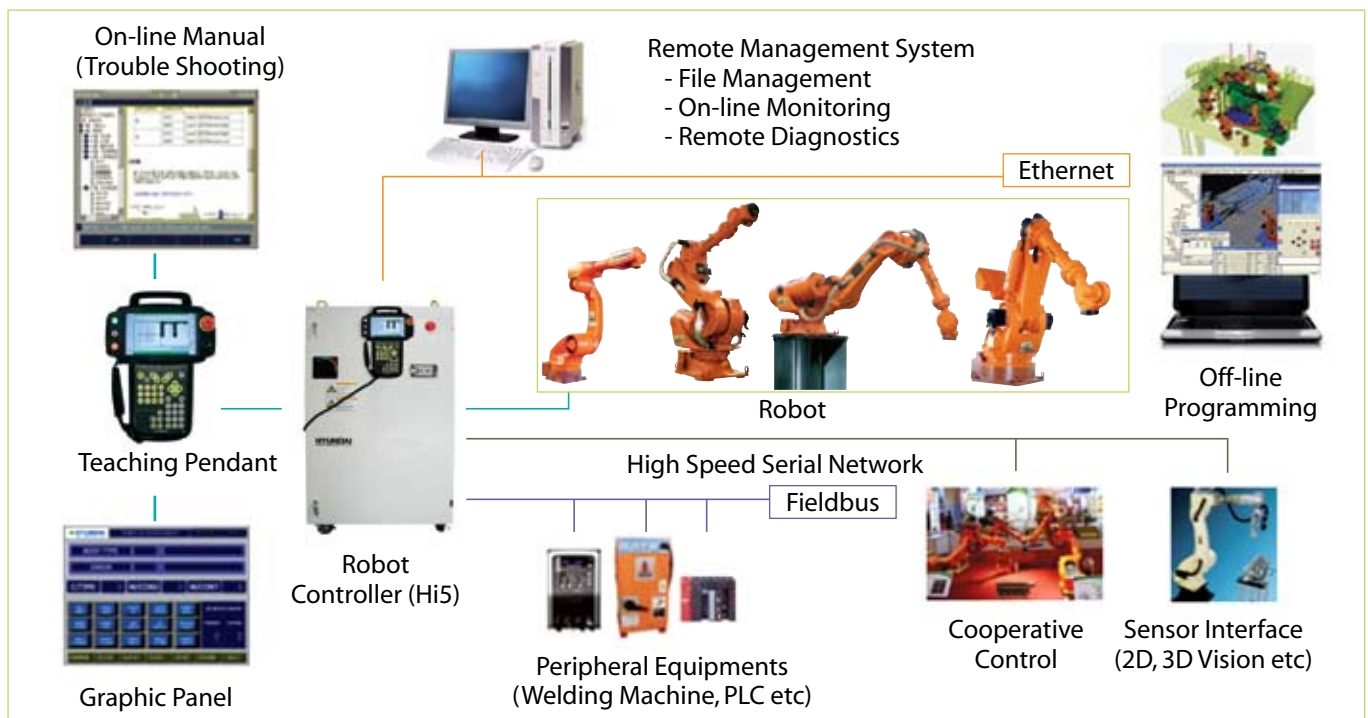
• Safety

- Compliant with ANSI/RIA15.6_1999 and CE Directives

• Compatibility and connectivity

- Embedded soft PLC
 - Fieldbus : CC-Link, Profibus-DP, Devicenet, Modbus, Profinet, Ethernet / IP
 - Ethernet, Serial Communication

System Configuration



Robot Application



Car body line in China



Car body line in Czech



Arc welding robot



Inspection robot system



Handling robot for press line



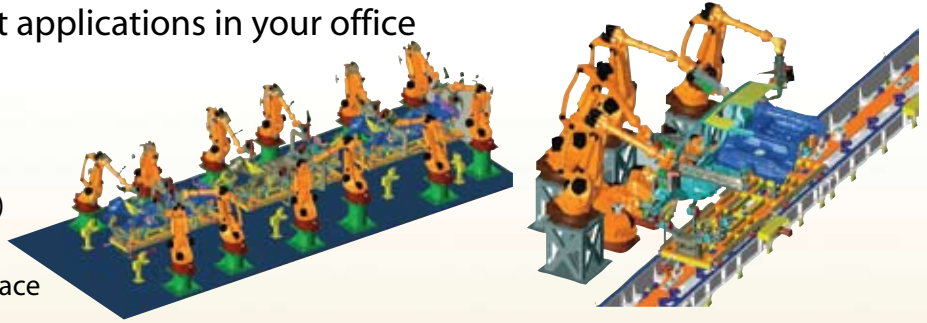
Spot welding robot for train



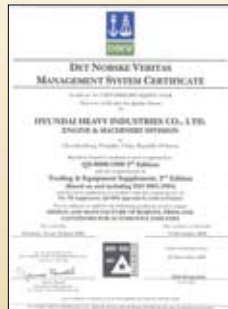
Off-Line Programming

Simulate and create robot applications in your office

- ROBCAD Interface
- Teaching Pendant Interface
- File Up / Down Load
- RCS (Robot Control Simulation)
- ROBCAD/DM - Works/PS/
PowerMill Interface



Certificate (ISO 9001, ISO 14001, QS-9000TE, CE, NRTL)



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