

HYUNDAI ROBOT SERIES



■ Controller Specifications

Item	Specification	
Model Name	Hi5	
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 : 256 / Output : 256 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
Rated Supply Voltage	AC220V ± 10%, 50 / 60 Hz	
Max. Rated Power	8 kVA (Instant Max. 30 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

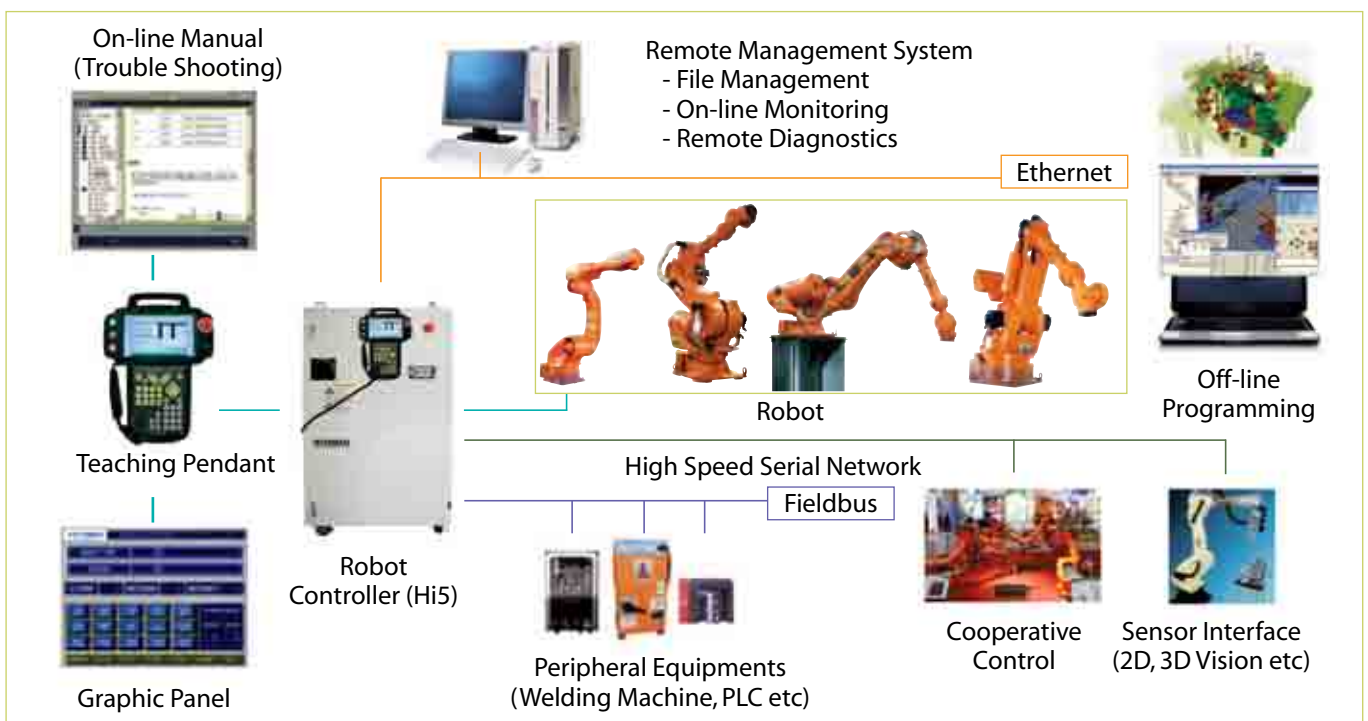
• Safety

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

• Compatibility and connectivity

- Embedded soft PLC
 - Fieldbus : CC-Link, Profibus-DP, Devicenet, Modbus, etc.
 - 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

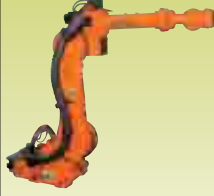

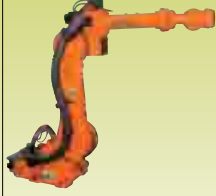






Spot welding robot for train








Hyundai Robot Series

Model						
		HA006	HA010L	HA020	HH030L	
Payload		6 kg	10 kg	20 kg	30 kg	
Max. Reach		1,394 mm	1,986 mm	1,765 mm	2,535 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	±180 °	±180 °	±180 °	±180 °
	H	For/Backward	+150 ° ~ -90 °	+160 ° ~ -105 °	+150 ° ~ -110 °	+155 ° ~ -90 °
	V	Up/Downward	+200 ° ~ -160 °	+240 ° ~ -165 °	+250 ° ~ -155 °	+230 ° ~ -180 °
	R2	Rotation 2	±180 °	±180 °	±180 °	±360 °
	B	Bending	±135 °	±135 °	±135 °	±125 °
	R1	Rotation 1	±360 °	±360 °	±360 °	±360 °
Max. Speed	S	Swivel	170 °/s	170 °/s	170 °/s	150 °/s
	H	For/Backward	170 °/s	165 °/s	165 °/s	140 °/s
	V	Up/Downward	170 °/s	175 °/s	175 °/s	150 °/s
	R2	Rotation 2	335 °/s	350 °/s	335 °/s	250 °/s
	B	Bending	335 °/s	350 °/s	335 °/s	250 °/s
	R1	Rotation 1	500 °/s	600 °/s	600 °/s	350 °/s
Allowable Moment	R2	Rotation 2	1.0 kgf.m	2.5 kgf.m	4 kgf.m	15 kgf.m
	B	Bending	1.0 kgf.m	2.5 kgf.m	4 kgf.m	15 kgf.m
	R1	Rotation 1	0.5 kgf.m	1.1 kgf.m	2 kgf.m	9 kgf.m
Repeatability		±0.05 mm	±0.06 mm	±0.06 mm	±0.1 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		155 kg	245 kg	240 kg	640 kg	
Option				Wrist IP67	Wrist IP67	
Application	Arc Welding		●	●	●	
	Spot Welding					
	Handling		●	●	●	●
	Sealing		●	●	●	
	Others					

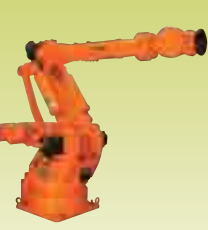

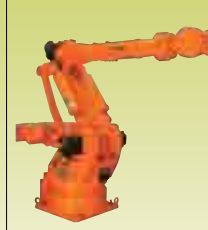

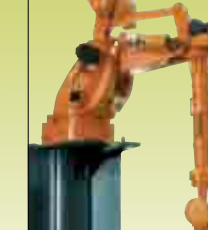

High Speed

						
HH050	HR050P	YS080	YS100	HH100SL	HH130L	HS150L
50 kg	50 kg	80 kg	100 kg	100 kg	130 kg	150 kg
2,239 mm	2,041 mm	2,239 mm	1,701 mm	3,507 mm	3,082 mm	3,082 mm
6 Axes	3 Axes	6 Axes	6 Axes	6 Axes	6 Axes	6 Axes
Floor / Wall / Ceiling	Floor	Floor / Wall / Ceiling	Floor	Shelf	Floor	Floor
±180°	-	±180°	±180°	±180°	±180°	±180°
+155° ~ -90°	+150° ~ -77°	+155° ~ -90°	+250° ~ -90°	+160° ~ -35°	+80° ~ -65°	+80° ~ -65°
+230° ~ -180°	+134° ~ -135°	+230° ~ -180°	+10° ~ -265°	+235° ~ -135°	+265° ~ -135°	+230° ~ -135°
±360°	-	±360°	±360°	±360°	±360°	±360°
±125°	±127°	±125°	±130°	±125°	±125°	±130°
±360°	-	±360°	±360°	±360°	±360°	±360°
175 %/s	-	170 %/s	105 %/s	105 %/s	105 %/s	95 %/s
175 %/s	130 %/s	140 %/s	103 %/s	85 %/s	85 %/s	95 %/s
175 %/s	170 %/s	160 %/s	115 %/s	95 %/s	95 %/s	95 %/s
250 %/s	-	230 %/s	150 %/s	170 %/s	170 %/s	150 %/s
250 %/s	250 %/s	230 %/s	150 %/s	155 %/s	155 %/s	145 %/s
350 %/s	-	350 %/s	250 %/s	270 %/s	270 %/s	220 %/s
21 kgf.m	-	38.8 kgf.m	75 kgf.m	105 kgf.m	105 kgf.m	105 kgf.m
21 kgf.m	18 kgf.m	38.8 kgf.m	75 kgf.m	105 kgf.m	105 kgf.m	105 kgf.m
13 kgf.m	9 kgf.m	20.4 kgf.m	40 kgf.m	50 kgf.m	50 kgf.m	50 kgf.m
±0.1 mm	±0.07 mm	±0.1 mm	±0.2 mm	±0.3 mm	±0.2 mm	±0.25 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)
620 kg	600 kg	620 kg	750 kg	1,450 kg	1,300 kg	1,280 kg
Wrist IP67		Wrist IP67				
		●	●	●	●	●
●	●	●	●	●	●	●
	Palletizing			Press Handling	Press Handling	

High Reliability

						
HP160	HS165D	HS165C	HS165	HS165S	HS200	HS200S
160 kg	165 kg	165 kg	165 kg	165 kg	200 kg	200 kg
3,128 mm	1,355 mm	866 mm	2,666 mm	3,090 mm	2,666 mm	3,090 mm
4 Axes	6 Axes	5 Axes	6 Axes	6 Axes	6 Axes	6 Axes
Floor	Floor	Floor	Floor	Shelf	Floor	Shelf
±180°	±180°	±30°	±180°	±180°	±180°	±180°
+135° ~ -10°	+120° ~ -70°	+120° ~ -35°	+80° ~ -65°	+160° ~ -35°	+80° ~ -65°	+160° ~ -35°
+15° ~ -125°	+160° ~ -120°	-	+230° ~ -135°	+200° ~ -200°	+230° ~ -135°	+200° ~ -200°
-	±360°	±360°	±360°	±360°	±360°	±360°
-	±130°	±130°	±130°	±130°	±125°	±125°
±360°	±360°	±360°	±360°	±360°	±360°	±360°
120 %/s	100 %/s	100 %/s	105 %/s	105 %/s	95 %/s	95 %/s
130 %/s	90 %/s	95 %/s	105 %/s	105 %/s	95 %/s	85 %/s
130 %/s	90 %/s	-	105 %/s	105 %/s	95 %/s	95 %/s
-	150 %/s	150 %/s	150 %/s	150 %/s	135 %/s	135 %/s
-	145 %/s	140 %/s	145 %/s	145 %/s	120 %/s	120 %/s
300 %/s	220 %/s	180 %/s	220 %/s	220 %/s	190 %/s	190 %/s
-	100 kgf.m	100 kgf.m	105 kgf.m	105 kgf.m	136 kgf.m	136 kgf.m
-	100 kgf.m	100 kgf.m	105 kgf.m	105 kgf.m	136 kgf.m	136 kgf.m
50 kgf.m	50 kgf.m	50 kgf.m	50 kgf.m	50 kgf.m	72 kgf.m	72 kgf.m
±0.5 mm	±0.25 mm	±0.25 mm	±0.2 mm	±0.2 mm	±0.2 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)
1,400 kg	810 kg	510 kg	1,250 kg	1,450 kg	1,270 kg	1,500 kg
			Wrist IP67			
	●	●	●	●	●	●
●	●	●	●	●	●	●
Palletizing						

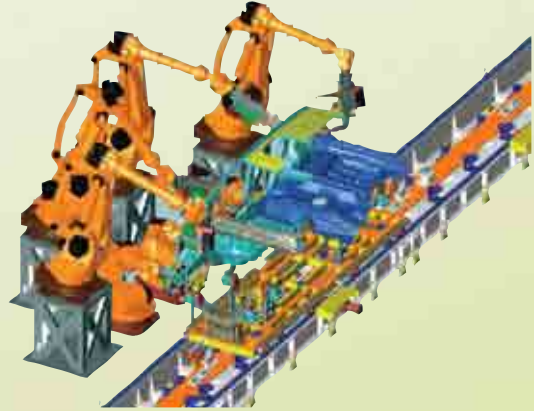
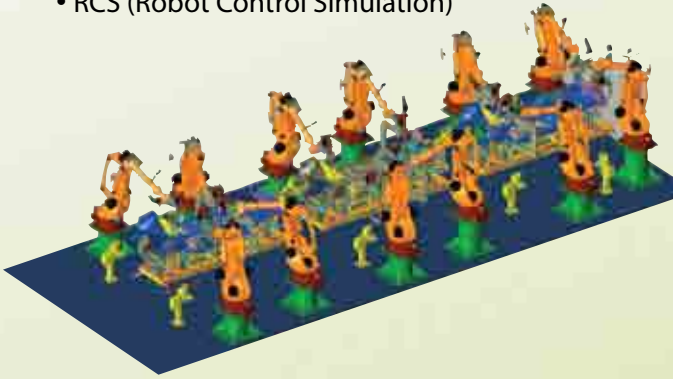
Wide Working Envelope

					
HX200L	HX300	HX300L	HX400	HX400S	HX500
200 kg	300 kg	300 kg	400 kg	400 kg	500 kg
3,056 mm	2,573 mm	3,056 mm	2,573 mm	3,106 mm	2,573 mm
6 Axes	6 Axes	6 Axes	6 Axes	6 Axes	6 Axes
Floor	Floor	Floor	Floor	Shelf	Floor
±180°	±180°	±180°	±180°	±180°	±180°
±75°	±75°	±75°	±75°	+95° ~ -50°	±75°
+30° ~ -125°	+30° ~ -125°	+30° ~ -125°	+30° ~ -125°	+120° ~ -25°	+30° ~ -125°
±360°	±360°	±360°	±360°	±360°	±360°
±120°	±120°	±120°	±120°	±120°	±120°
±360°	±360°	±360°	±360°	±360°	±360°
95°/s	95°/s	90°/s	95°/s	85°/s	90°/s
95°/s	95°/s	90°/s	95°/s	85°/s	80°/s
95°/s	95°/s	85°/s	95°/s	85°/s	80°/s
120°/s	110°/s	110°/s	100°/s	100°/s	100°/s
120°/s	110°/s	110°/s	100°/s	100°/s	100°/s
180°/s	180°/s	155°/s	160°/s	160°/s	160°/s
131.5 kgf.m	170 kgf.m	170 kgf.m	200 kgf.m	200 kgf.m	200 kgf.m
131.5 kgf.m	170 kgf.m	170 kgf.m	200 kgf.m	200 kgf.m	200 kgf.m
61.6 kgf.m	70 kgf.m	70 kgf.m	84 kgf.m	84 kgf.m	84 kgf.m
±0.3 mm	±0.3 mm	±0.3 mm	±0.3 mm	±0.5 mm	±0.5 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)
2,265 kg	2,435 kg	2,685 kg	2,620 kg	2,910 kg	2,800 kg
●					
●	●	●	●	●	●

■ Off-Line Programming

Simulate and create robot applications in your office

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



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



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