

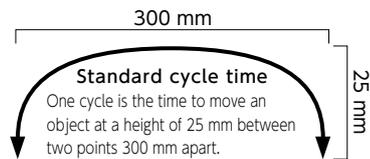
HSR® Series

HSR®048/055/065

Accelerates quickly, runs continuously at high speed, and stops precisely.

“True high speed” has been realized in pursuit of this ultimate basic performance.

Arm reach	480 / 550 / 650 mm
Z-axis stroke	100 / 200 / 320 / 510 mm
Maximum payload	8 kg
Standard cycle time	0.28 / 0.31 sec
Position repeatability	±0.01 / 0.012 mm



Design registration No. 1558886 / No. 1558887

HSR®055

Specifications

Item	Specifications			
Model *1	HSR®048A1-N/S*	HSR®055A1-N/S*	HSR®065A1-N/S*	
Total arm length (J1: No. 1 arm + J2: No. 2 arm)	205 + 275 = 480 mm	275 + 275 = 550 mm	375 + 275 = 650 mm	
Motion range and stroke	1st axis	±130°		
	2nd axis	±143.5°	±150°	±150°
	Z (No. 3 axis) *	* = 10: 100 mm		
		* = 20: 200 mm		
* = 32: 320 mm				
T (No. 4 axis)	±360°			
Axis combinations	J1 (No. 1 axis) + J2 (No. 2 axis) + Z (No. 3 axis) + T (No. 4 axis)			
Maximum payload	8 kg			
Standard cycle time *2	0.28 sec	0.28 sec	0.31 sec	
Maximum joint speed	1st axis	450 deg/sec	450 deg/sec	450 deg/sec
	2nd axis	785 deg/sec	785 deg/sec	785 deg/sec
	Z	10: 1,700 mm/sec, 20: 2,300 mm/sec, 32: 2,475 mm/sec		
	T	2,500 deg/sec		
Position repeatability (at the center of a tool mounting face) *3	1st axis + 2nd axis	±0.01 mm	±0.012 mm	±0.012 mm
	Z	±0.01 mm		
	T	±0.004°		
Maximum pressure input (downward)	98 N (1 second or less)			
Maximum allowable moment of inertia	0.12 kgm ²			
Position detection method	Absolute encoder			
Drive motor / brake	All-axis AC servo motor / Z- and T-axis with brakes			
User air pipe(s)	4 systems (ø4×2, ø6×2)			
User signal line(s)	19 (for proximity sensor signals, etc.) Ethernet (8) *Option			
Air source	Normal pressure	0.05 to 0.35 MPa		
	Maximum allowable pressure	0.59 MPa		
Airborne noise	80 dB or less			
Weight	Approx. 31 kg	Approx. 31.5 kg	Approx. 32 kg	

1: An asterisk [] in a model name indicates Z-axis stroke. *2: Time required for a robot to move a 2 kg payload between two points 300 mm apart at a height of 25 mm.

*3: Position repeatability is the precision at constant ambient temperature.

Legend

HSR [] [] [] A1 - [] [] [] - [] [] [] - N [] [] N [] - N N N N

Model:
HSR: 4-axis robots

Total arm length:
048: 480 mm
055: 550 mm
065: 650 mm

Mounting orientation:
N: Floor
S: Ceiling

Z-axis stroke *1:
10: 100 mm
20: 200 mm
32: 320 mm
51: 510 mm

Protected:
N: Standard type W5: Dust & splash proof type (IP65)
C3: Cleanroom type (ISO class 3)
JN: Bellows type

Compliant standard:
N: Standard specification
U: UL specification

Signal line/Ethernet:
N: Standard specification
A: Embedded Ethernet Specifications

External battery specifications *2:
N: Without
A: With

Grease *3:
N: Standard
H: H1 grease type

*1: Available standard type Z-axis strokes are 100 mm, 200 mm, 320 mm and 510 mm. For other variations, please check the above table. *2: The external battery extension unit is sold separately. *3: Only dust and splash-proof types are available for selection.

The data listed on this page is for the standard type. For other options, see our website.