

Technical Specifications HS-035/045/055A1

Item		Specifications		
Model 1		HS035A1-N/*	HS045A1-N/*	HS055A1-N/*
Axes		4		
Position detection		Absolute encoder		
Drive motor and brake		All-axis servo motor / Z- and T-axis brake		
Total arm length (No. 1 arm + No. 2 arm)		350(125+225)mm	450(225+225)mm	550(325+225)mm
Motion range and stroke	J1 (No.1 axis)	±155°		
	J2 (No.2 axis)	±145°		
	Z (No.3 axis)	*=10 : 100mm, *=15 : 150mm, *=20 : 200mm, *=32 : 320mm,		
	T (No.4 axis)	±360°		
Axis combination		J1 (1st-Axis) + J2 (2nd-Axis) + Z (3rd-Axis) + T (4th-Axis)		
Maximum payload		5kg		
Maximum composite speed (at the center of an end-effector mounting face)	Arm end	7,200mm/sec	6,300mm/sec	7,100mm/sec
	T	2,400°/sec		
Cycle time 2		0.29sec		
Position repeatability (center of end-effector mounting face) 3	J1+J2	±0.015mm	±0.02mm	
	Z	±0.01mm		
	T	±0.005°		
Maximum pressure input (downward, for up to 1 s)		98N		
Maximum allowable moment of inertia		0.1kgm ²		
User air piping		4 systems(φ4×2, φ6×2)		
User signal line		19(for proximity sensor signals, etc.)		
Position detection		Absolute encoder		
Air source	Operating pressure	0.05 - 0.35MPa		
	Maximum allowable pressure	0.59MPa		
Airborne noise (equivalent continuous A-weighted sound pressure level)		80 dB or less		
Brake releasing	Models except UL-Listed ones	Press the brake release switch in the direct teaching mode. Enter a brake release command with the teach pendant or mini-pendant.		
	UL-Listed models	Press the brake release switch when the controller power is ON. The teach pendant or mini-pendant cannot release the brakes.		
Degree of protection		Dust & splash proof type : IP65 (option) Cleanroom type ISO class 3 (option)		
Weight		Approx. 25kg		

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.

