

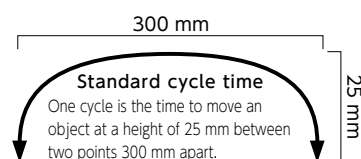
HM Series

RC8A ▶ P.50

HM-4060 / 4A60 / 4070 / 4A70 / 4085 / 4A85 / 40A0 / 4AA0

The HM series consists of a rich line-up of models with the maximum arm length and payload among DENSO 4-axis robots to meet specific needs.

Maximum arm reach	600 to 1,000 mm
Maximum payload	10 / 20 kg
Standard cycle time	0.29 / 0.31 sec
Position repeatability	±0.02 / 0.025 mm



HM-40A0

Specifications

Item		Specifications							
Model *1		HM-4060*	HM-4A60*	HM-4070*	HM-4A70*	HM-4085*	HM-4A85*	HM-40A0*	HM-4AA0*
Axes		4							
Position detection method		Absolute encoder							
Drive motor / brake		All-axis AC servo motor / Z-axis gravity balance air cylinder / Z-axis motor brake							
Total arm length (No. 1 arm + No. 2 arm)		600 (250 + 350) mm		700 (350 + 350) mm		850 (350 + 500) mm		1,000 (500 + 500) mm	
Motion range and stroke	1st axis	±165°							
	2nd axis	±143°		±147°					
	Z (No. 3 axis)	* = 1: 100 mm, * = A: 150 mm, * = 2: 200 mm, * = 3: 300 mm, * = 4: 400 mm							
	T (No. 4 axis)	±360°							
Maximum payload		10 kg	20 kg	10 kg	20 kg	10 kg	20 kg	10 kg	20 kg
Maximum joint speed	1st axis	449.74 deg/sec				412.26 deg/sec		374.78 deg/sec	
	2nd axis	667.5 deg/sec				611.87 deg/sec		556.25 deg/sec	
	Z	2,764.88 mm/sec				2,764.88 mm/sec			
	T	2,229.93 deg/sec	1,544.51 deg/sec	2,229.93 deg/sec	1,544.51 deg/sec	2,229.93 deg/sec	1,544.51 deg/sec	2,229.93 deg/sec	1,544.51 deg/sec
Standard cycle time *2		0.29 sec				0.31 sec			
Position repeatability (at the center of a tool mounting face) *3	1st axis + 2nd axis	±0.02 mm				±0.01 mm			
	Z					±0.025 mm			
	T					±0.005°			
Maximum pressure input (downward, for up to 1 sec)		98 N							
Maximum allowable moment of inertia		0.25 kgm ²	0.45 kgm ²	0.25 kgm ²	0.45 kgm ²	0.25 kgm ²	0.45 kgm ²	0.25 kgm ²	0.45 kgm ²
User air pipe(s)		4 systems (ø 6)							
User signal line(s)		24 (for proximity sensor signals, etc.)							
Air source	Normal pressure	0.05 to 0.35 MPa							
	Maximum allowable pressure	0.59 MPa							
Airborne noise (equivalent continuous A-weighted sound pressure level)		80 dB or less							
Protection grade		Dust & splash proof type: IP65 (option) Cleanroom type: ISO class 5 (option)							
Weight *3		Approx. 53 to 56 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

HM - 4 - 						
Model: HM: Mid-sized 4-axis robot	Robot type: None: Floor S: Ceiling	Axes: 4: 4th axis	Maximum payload: 0: 10 kg A: 20 kg	Total arm length: 60: 600 mm 70: 700 mm 85: 850 mm A0: 1,000 mm	Vertical stroke: 1: 100 mm 2: 200 mm 3: 300 mm 4: 400 mm	Options: None: Standard type W: Dust & splash proof type (IP65) UL: UL specification C5: Cleanroom type (ISO class 5)

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