

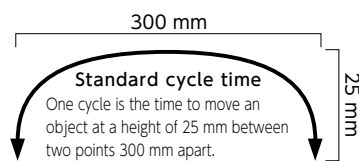
HM Series

RC8A ▶P.42

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



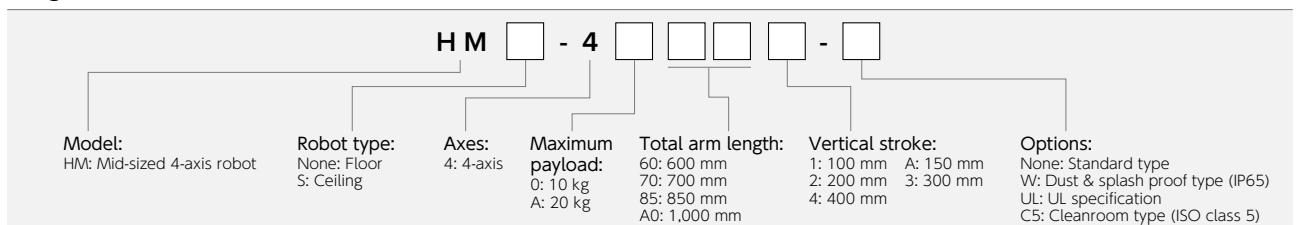
Specifications

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	J1 (No. 1 axis)	±165°							
	J2 (No. 2 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	J1	449.74 deg/sec			412.26 deg/sec		374.78 deg/sec		
	J2	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 (center of end-effector mounting face) ^{*3}	J1 + J2	±0.02 mm				±0.025 mm			
	Z	±0.01 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



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