

HS SERIES 350–550 MM

DENSO
robotics

The DENSO HS-Series robots are ideal for applications where size constraints are a key consideration. Their outstanding features include:

- Exceptional repeatability of ± 0.02 to ± 0.015 mm
- Fast cycle time of 0.35 sec.
- Payloads up to 5 kg
- Reaches from 350 to 550 mm
- High maximum allowable moment of inertia
- Compact design saves floor space, facilitates integration
- Floor- or ceiling-mount, with no special hardware needed
- Operation in dusty and wet environments (optional IP65 configuration)
- Operation in cleanrooms (optional cleanroom class 10 configuration)
- ANSI and CE compliance allows global deployment
- UL models available for the US and Canada



HS-4535*G



HS-4545*G



HS-4555*G



CEILING-MOUNT OPTION



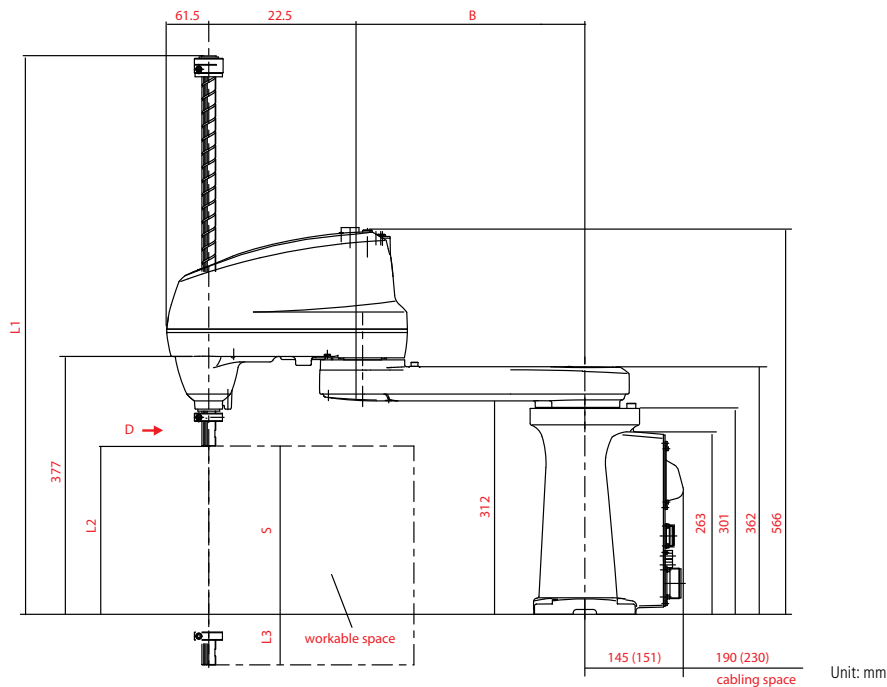
		HS-4535*G	HS-4545*G	HS-4555*G
Number of axes		4		
Maximum arm reach (mm)		350	450	550
First-arm reach (mm)		125	225	325
Second-arm reach (mm)		225		
Range of motion (°)	J1	±155		
	J2	±145		
	Z (mm)	200, 320		
	T	±360		
Position detection		Absolute encoder		
Minimum motion area (mm)		143	136	191
Maximum payload (kg)		5		
Weight, approx. (kg)		25		
Footprint (mm)		150 × 150		
Cycle time (sec.)		0.35 (with 2-kg weight)		
Maximum composite speed (mm/sec.)		7,200	6,300	7,100
Maximum joint speed	J1 (°/sec.)	720	450	
	J2 (°/sec.)	720		
	Z (mm/sec.)	2,000		
	T (°/sec.)	2,400		
Repeatability¹	J1+J2 (mm)	±0.015	±0.02	
	Z (mm)	±0.01		
	T (°)	±0.005		
Maximum force fit (1 sec. or less, N)		98		
Maximum allowable moment of inertia (kgm²)		0.1 (with 5-kg weight)		
Wiring (in-arm integrated)		19 lines (max. 1 A per line)		
Air piping (in-arm integrated)		4 systems (ø4 × 2, ø6 × 2)		
Protection class		Standard: IP40 Options: IP40/65, IP65 (dust- and mistproof), cleanroom class 10 (0.1 µm)²		
Ceiling-mount		-	✓	✓
UL specifications³		✓		

*Placeholder for Z-stroke value. 1. At constant ambient temperature. 2. Floor-mount only.

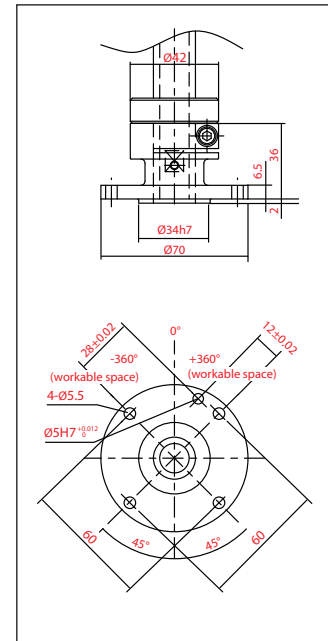


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Flange (option) mounting face

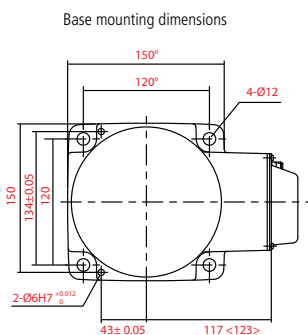


Unit: mm

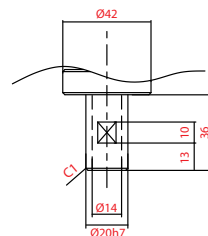
S (mm)	Type	L1	L2	L3
*200	Standard	697	246	46
	Dust- and mistproof	790	206	6
	Cleanroom	798		
*320	Standard		246	-74 ¹
	Dust- & mistproof		206	-114 ¹
	Cleanroom			

Model	A	B	C
HS-4535*G	350	125	143
HS-4545*G	450	225	136
HS-4555*G	550	325	191

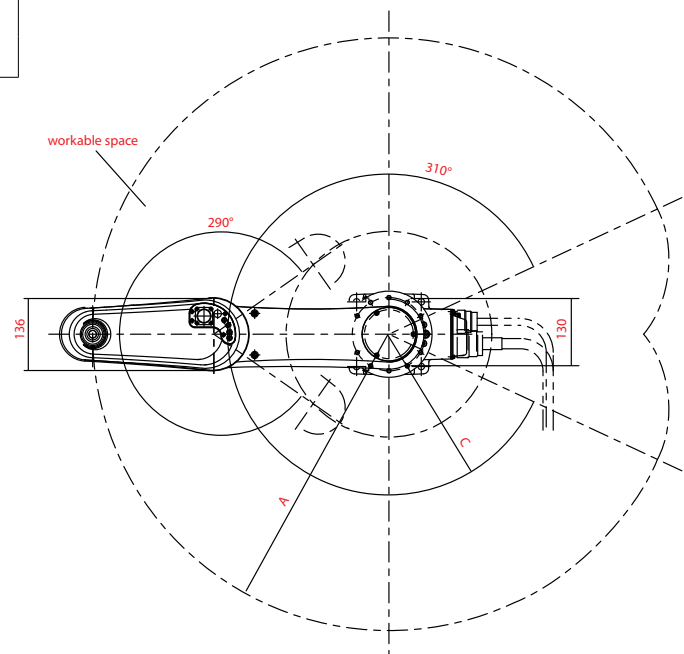
1. With Z-axis stroke of 320 mm, bottom of Z axis may reach below base mounting face.



Detail of hand mounting face (viewed from D)



Note: Value in angle brackets denotes dimensions for dust- and mistproof or cleanroom models.



DENSO ROBOTICS

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