

G6

High speed and precision
for small component assembly

- Handles payloads up to 6kg
- Available with 450mm, 550mm, or 650mm arm

■ G6 specifications

Arm length	450 mm	550 mm	650 mm
Payload	Rated 3 kg / Max 6 kg		
Standard cycle time	0.35 sec	0.36 sec	0.39 sec
Repeatability	Joint#1, #2	±0.015 mm	
	Joint#4	±0.005°	



■ Specifications

		G6-45**			G6-55***			G6-65***		
Mounting type		Table top	Ceiling	Wall	Table top	Ceiling	Wall	Table top	Ceiling	Wall
Arm length	Arm #1, #2	450 mm			550 mm			650 mm		
Max. operating speed	Joints #1, #2	6440 mm/s			7170 mm/s			7900 mm/s		
	Joint #3				G6-***1**=1100 mm/s / G6-***3**=2350 mm/s					
	Joint #4				2400°/s					
Weight (cables not included)		27 kg		29 kg	27 kg		29 kg	28 kg		29.5 kg
Repeatability	Joints #1, #2				±0.015 mm					
	Joint #3				±0.01 mm					
	Joint #4				±0.005°					
Max. motion range	Joint #1	±152°	±120°	±105°	±152°	±135°	±152°	±152°	±148°	
	Joint #2	Z:0~270 mm±147.5° Z:270~330 mm ±145°	±130°		±147.5°					
	Joint #3	G6-***1**=150 mm / G6-***3**=330 mm (Environment specification is standard-model)								
	Joint #4	G6-***1**=180 mm / G6-***3**=300 mm (Environment specification is cleanroom or Protected-model)								
Payload	Rated				±360°					
	Maximum				3 kg					
Standard cycle time*1		0.35 sec			0.36 sec			0.35 sec		
Joint #4 allowable moment of inertia*2	Rated				0.01 kg·m²					
	Maximum				0.12 kg·m²					
Motor power consumption	Joint #1				400 W					
	Joint #2				400 W					
	Joint #3				200 W					
	Joint #4				100 W					
Joint #3 down force					150 N					
Home					Home-return-less					
Installed wire for customer use					15Pin (D-Sub), 9Pin (D-sub)					
Installed pneumatic tube for customer use					Φ4mm×2, Φ6mm×2					
Installation environment					Standard/Cleanroom*3/Protection*4					
Applicable controller					RC700-A					
Safety standard					CE, KC, UL, ANSI/RIA R15.06-2012, NFPA 79 (2007 Edition)					

*1:Cycle time based on round-trip arch motion (300mm horizontal, 25mm vertical) with 2kg payload (path coordinates optimised for maximum speed).

*2:When payload center of gravity is aligned with Joint #4; if not aligned with Joint #4, set parameters using INERTIA command.

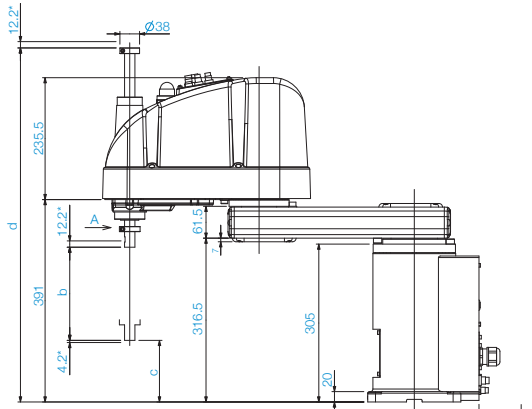
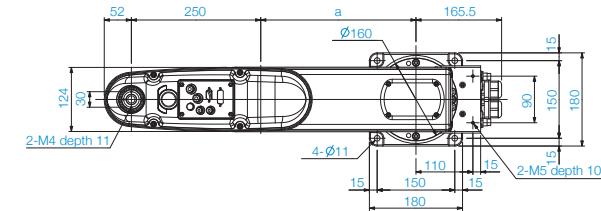
*3:Complies with ISO Class 3 (ISO14644-1) and older Class 1 (less than 10 0.1µm particles per 28,317cm³:1cft) cleanroom standards.

*4:G6-***D* protected type with optional bellows complies with IP54; G6-***P* complies with IP65.

■ Outer Dimensions (Table Top Mounting)

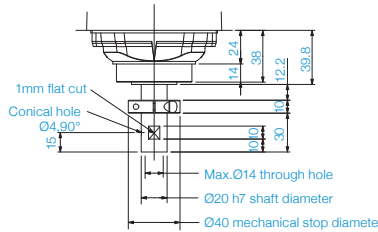
[Unit: mm]

Standard-model

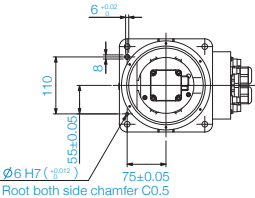


*indicates the stroke margin by mechanical stop.

90 or more
Space
for Cables



Detail of "A"
(Calibration point position of Joints #3 and #4)

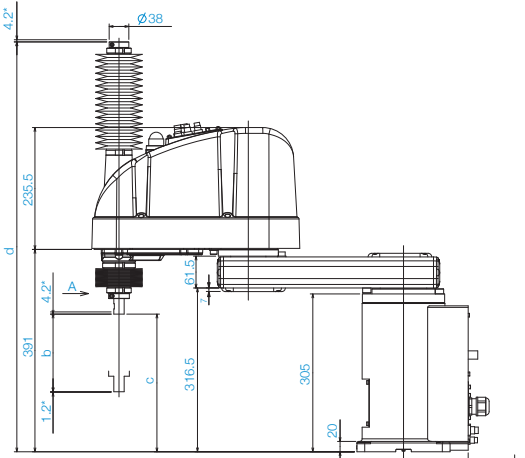
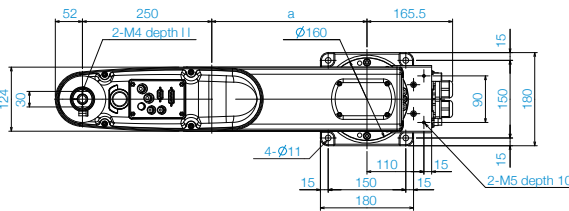


Reference through hole
(View from the bottom of the base)

	G6-45°S	G6-55°S	G6-65°S
a	200	300	400

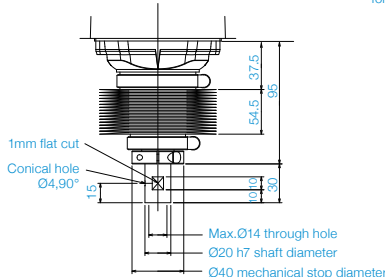
	G6-***1S	G6-***3S
b	180	330
c	119	-31
d	684	834

Cleanroom-model

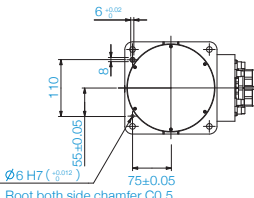


*indicates the stroke margin by mechanical stop.

90 or more
Space
for Cables



Detail of "A"
(Calibration point position of Joints #3 and #4)

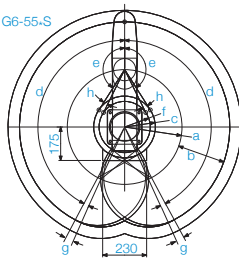


Reference through hole
(View from the bottom of the base)

	G6-45°C	G6-55°C	G6-65°C
a	200	300	400

	G6-***1C	G6-***3C
b	150	300
c	116	-34
d	792	942

■ Motion Range (Table Top Mounting)

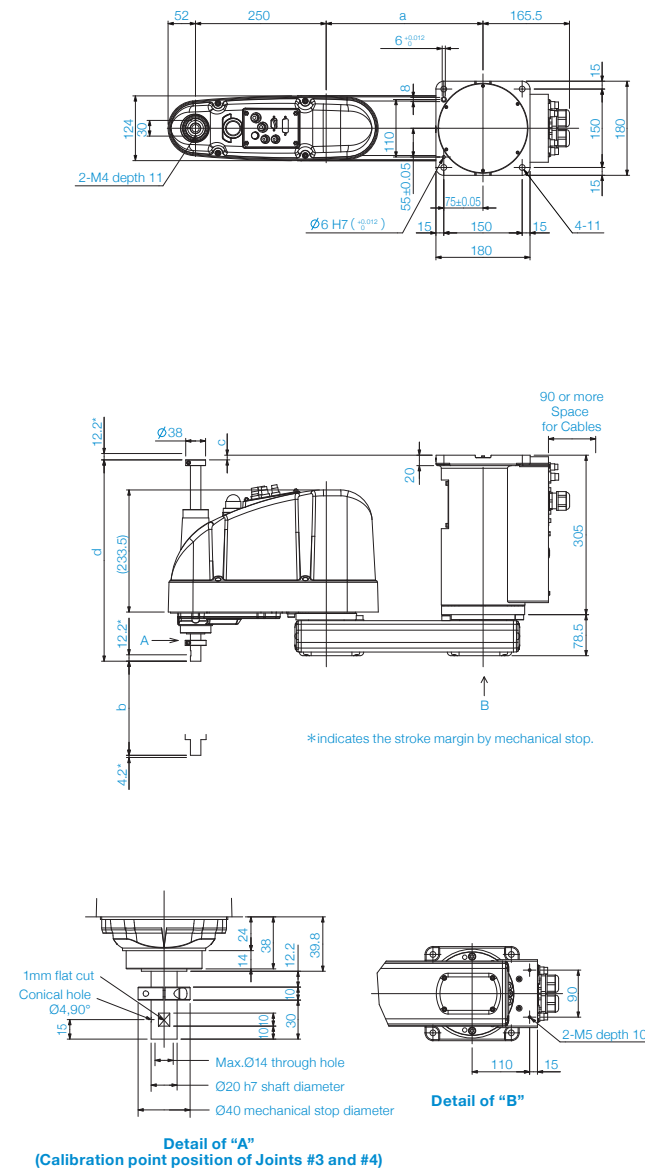


Model	Table Top Mounting			
	G6-45°S/D		G6-45°C/P/D bellows	
a Length of Arm #1 (mm)	200		300	
b Length of Arm #2 (mm)			250	
c Motion range	Z:0~270	134.8	Z:0~240	134.8
	Z:270~330	143.5	Z:240~300	153.9
d Motion range of Joint #1 (°)			152	
e Motion range of Joint #2 (°)	Z:0~270	147.5	Z:0~240	147.5
	Z:270~330	145	Z:240~300	142
f Mechanical stop area			133.8	
g Joint #1 angle to hit mechanical stop (°)			3.5	
h Joint #1 angle to hit mechanical stop (°)	Z:0~270	3	Z:0~240	3
	Z:270~330	5.5	Z:240~300	8.5

■ Outer Dimensions (Ceiling Mounting)

[Unit: mm]

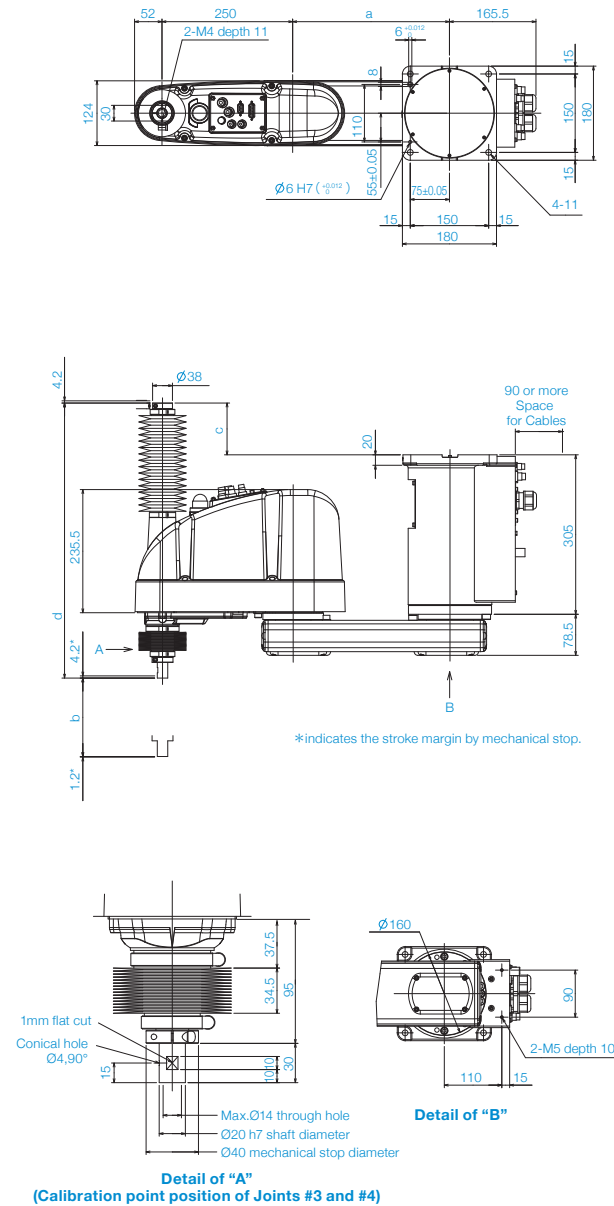
Standard-model



	G6-45°SR	G6-55°SR	G6-65°SR
a	200	300	400

	G6-**1SR	G6-**3SR
b	180	330
c	-9	141
d	385	535

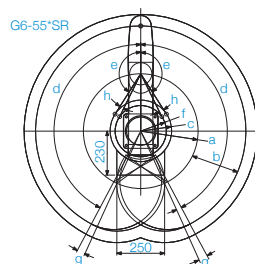
Cleanroom-model



	G6-45°CR	G6-55°CR	G6-65°CR
a	200	300	400

	G6-11°CR	G6-33°CR
b	150	300
c	99	249
d	526	676

■ Motion Range (Ceiling Mounting)

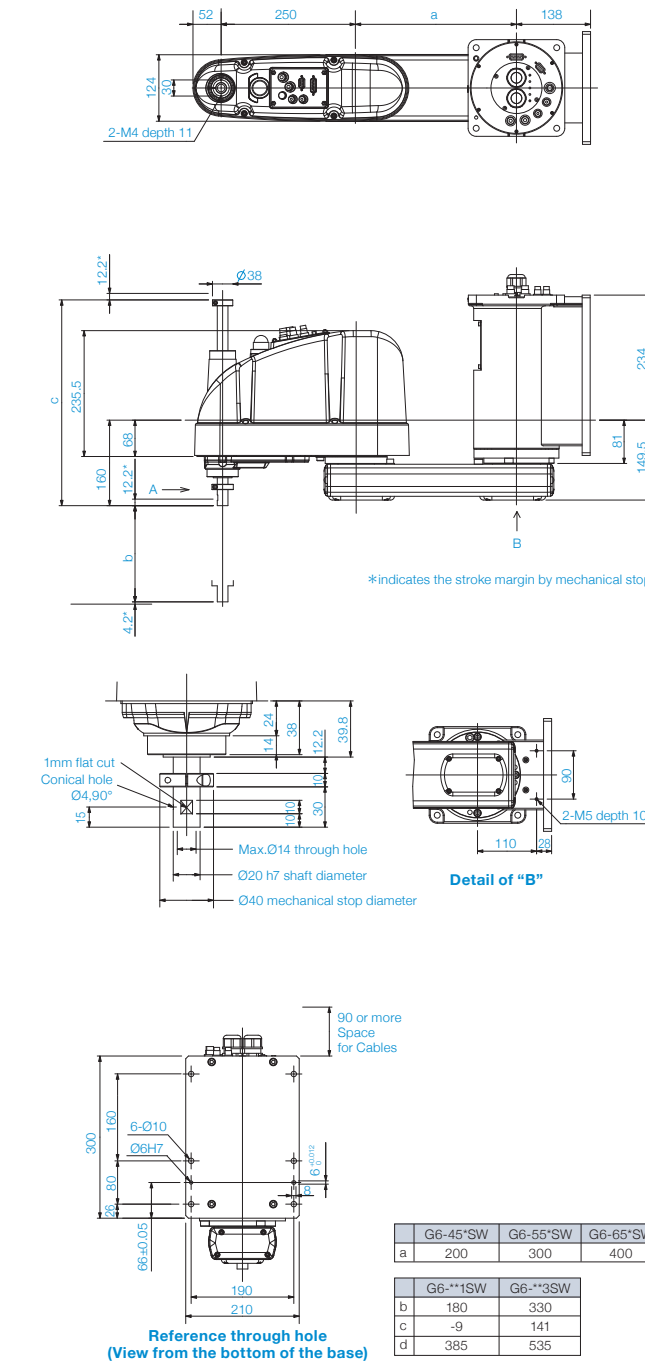


Model	Ceiling Mounting			
	G6-45**R	G6-55*SR/DR	G6-55*CR/PR/DR bellows	G6-65**R
a Length of Arm #1 (mm)	200		300	400
b Length of Arm #2 (mm)		250		
c Motion range	195.5	161.2	172.1	232
d Motion range of Joint #1 (°)	120		152	
e Motion range of Joint #2 (°)	130	147.5	145	147.5
f Mechanical stop area	182.4	146.8		207.5
g Joint #1 angle to hit mechanical stop (°)	5.5		3.5	
h Joint #2 angle to hit mechanical stop (°)	3.8	3.3	5.8	6.3

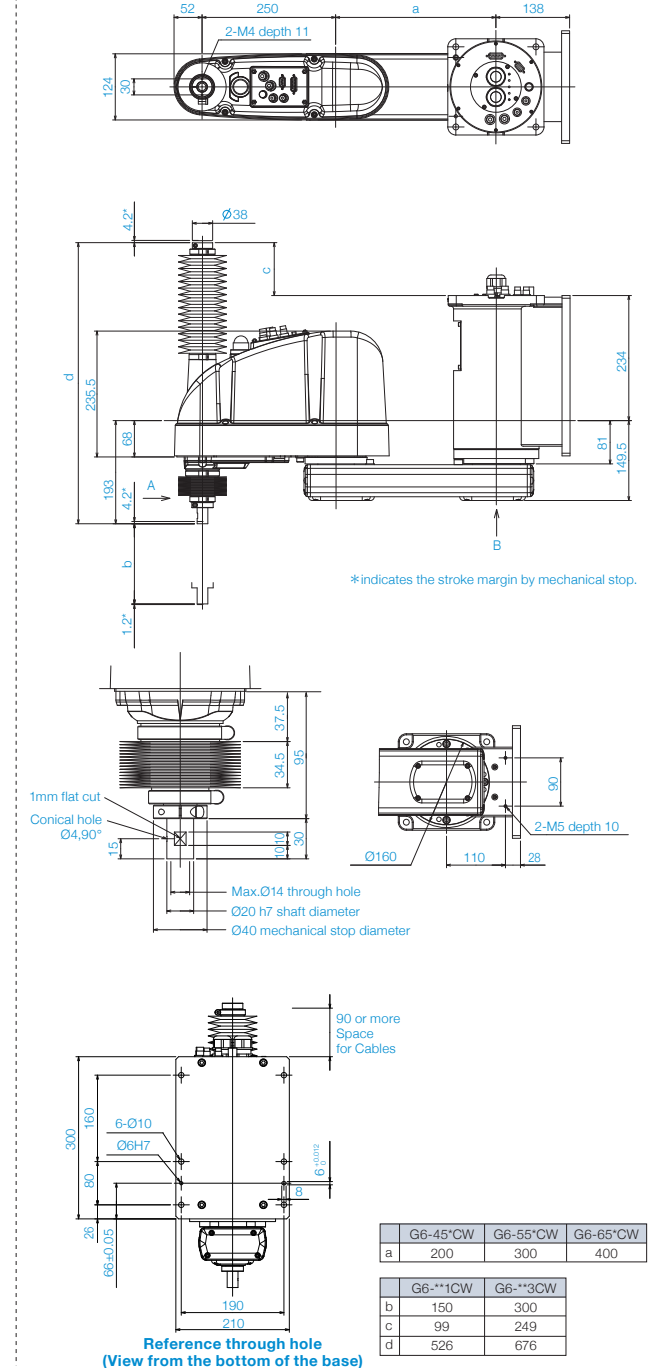
■ Outer Dimensions (Wall Mounting)

[Unit: mm]

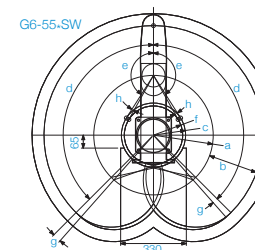
Standard-model



Cleanroom-model



■ Motion Range (Wall Mounting)



Model	Wall Mounting			
	G6-45**W	G6-55**SW/DW	G6-55**CW/PW/DW bellows	G6-65**W
a Length of Arm #1 (mm)	200	300		400
b Length of Arm #2 (mm)	250			
c Motion range	195.5	161.2	172.1	232
d Motion range of Joint #1 (°)	105	135		148
e Motion range of Joint #2 (°)	130	147.5	145	147.5
f Mechanical stop area	182.4	146.8		207.5
g Joint #1 angle to hit mechanical stop (°)	3.5		7.5	
h Joint #2 angle to hit mechanical stop (°)	3.8	3.3	5.8	6.3