

G6

High speed and precision for small component assembly

- Handles payloads up to 6kg
- Available with 450mm, 550mm, or 650mm arm
- Internal cabling and ducting minimizes interference worries
- IP54/65 dust and water-resistant cleanroom models available
- Tabletop, ceiling, and wall mounting models available



Model Number **G6 - 45 1 S □ - UL**

Payload
 6 : 6kg

Arm length
 45 : 450mm
 55 : 550mm
 65 : 650mm

Joint #3 stroke
 1 : 180mm
 3 : 150mm: (C, D w/ bellows, P)
 3 : 330mm
 3 : 300mm: (C, D w/ bellows, P)

Environment
 S : Standard
 C : Cleanroom & ESD
 D : Protected:IP54 (with bellows option)
 P : Protected:IP65

UL specification
 □ : Non UL compliant
 -UL : UL compliant

Mounting type
 □ : Table Top Mounting
 W : Wall Mounting
 R : Ceiling Mounting

Specifications

Model name		G6											
Model number		G6-45□□□			G6-55□□□			G6-65□□□					
Arm length	Arm #1, #2	450 mm			550 mm			650 mm					
	Payload	Rated			3 kg			Maximum			6 kg		
Repeatability	Joints #1, #2	±0.015 mm											
	Joint #3	±0.01 mm											
	Joint #4	±0.005 deg											
Standard cycle time ¹		0.35 sec			0.36 sec			0.39 sec					
Max. operating speed	Joints #1, #2	6440 mm/sec			7170 mm/sec			7900 mm/sec					
	Joint #3	G6-□□1□□=1100 mm/sec /G6-□□3□□=2350 mm/sec											
	Joint #4	2400 deg											
Joint #4 allowable moment of inertia ²	Rated	0.01 kg·m ²											
	Maximum	0.12 kg·m ²											
Joint #3 down force		150 N											
Installation environment		Standard/Cleanroom & ESD ³ /Protection ⁴											
Mounting type		Table top	Ceiling	Wall	Table top	Ceiling	Wall	Table top	Ceiling	Wall			
Weight (cables not included)		27 kg			29 kg			28 kg			29.5 kg		
Applicable Controller		RC700-A											
Installed wire for customer use		15 Pin D-Sub, 9 Pin D-sub											
Installed pneumatic tube for customer use		Φ6 mm x 2, Φ4 mm x2 : 0.59 MPa (6 kgf/cm ²)											
Power		AC200-240 V Single phase											
Power Consumption ⁵		1.5 kVA											
Cable length		3 m/5 m/10 m/15 m/20 m											
Safety standard		CE, KC, UL											

*1: Cycle time based on round-trip arch motion (300mm horizontal, 25mm vertical) with 2kg payload (path coordinates optimized 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 0.1 μm particles per 28,317cm³:1cft) cleanroom standards.

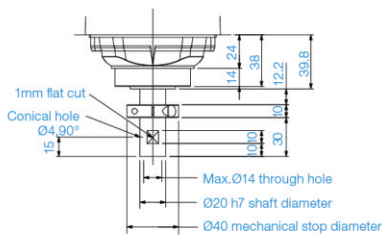
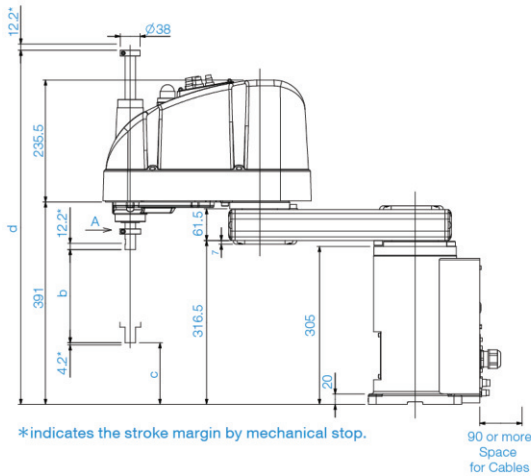
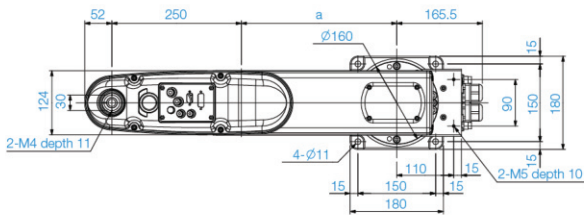
*4: G6-□□□□□□ protected type with optional bellows complies with IP54; G6-□□□□□□ complies with IP65.

*5: t depends on operating environment and operation program.

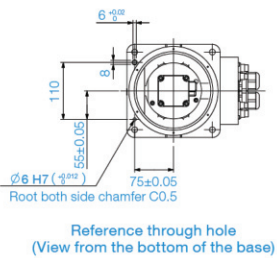
Outer Dimensions (Table Top Mounting)

[Unit: mm]

Standard-model

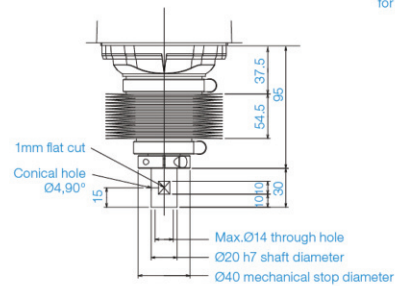
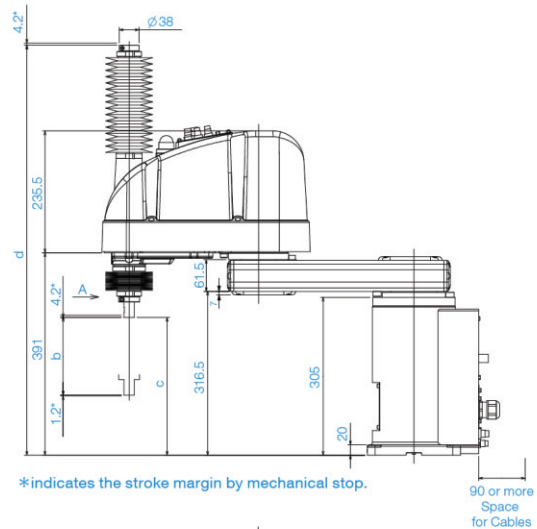
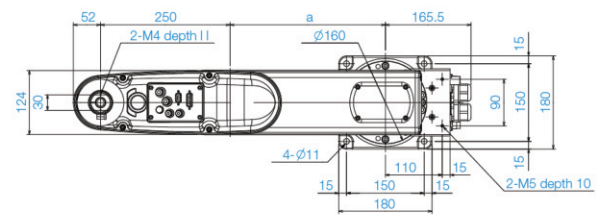


Detail "A"
(Calibration point position of Joints #3 and #4)

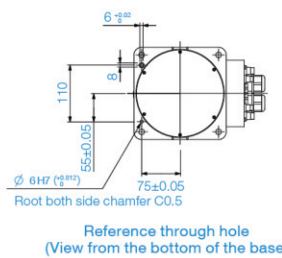


	G6-45□S	G6-55□S	G6-65□S
a	200	300	400
b	180	330	
c	119	-31	
d	684	834	

Cleanroom-model

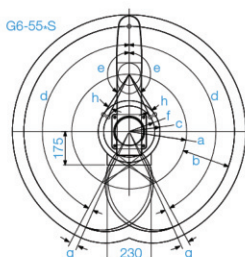


Detail "A"
(Calibration point position of Joints #3 and #4)



	G6-45□C	G6-55□C	G6-65□C
a	200	300	400
b	150	300	
c	116	-34	
d	792	942	

Motion Range (Table Top Mounting)

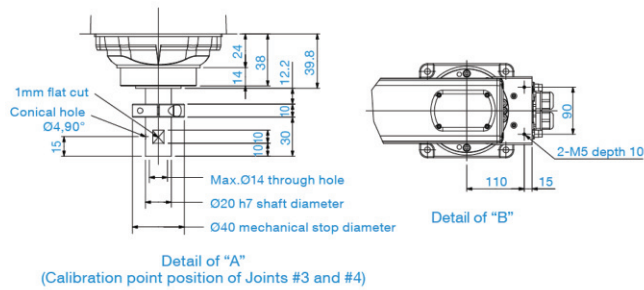
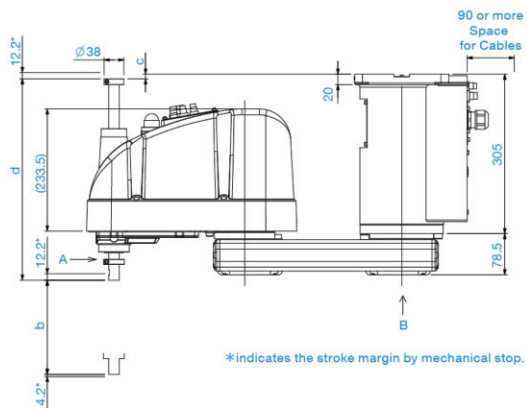
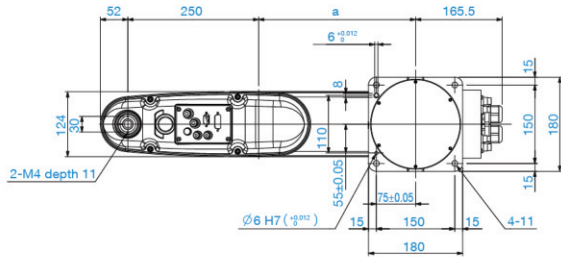


Model	Table Top Mounting					
	G6-45□S/D		G6-45□C/P/D bellows		G6-55□□	G6-65□□
a Length of Arm #1 (mm)	200				300	400
b Length of Arm #2 (mm)	250					
c Motion range	Z:0~-270	134.8	Z:0~-240	134.8	161.2	232
	Z:270~330	143.5	Z:240~300	153.9		
d Motion range of Joint #1 (°)	152					
e Motion range of Joint #2 (°)	Z:0~-270	147.5	Z:0~-240	147.5	147.5	
	Z:270~330	145	Z:240~300	142		
f Mechanical stop area	124.4		133.8		207.5	
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	6.3	
	Z:270~330	5.5	Z:240~300	8.5		

Outer Dimensions (Ceiling Mounting)

[Unit: mm]

Standard-model

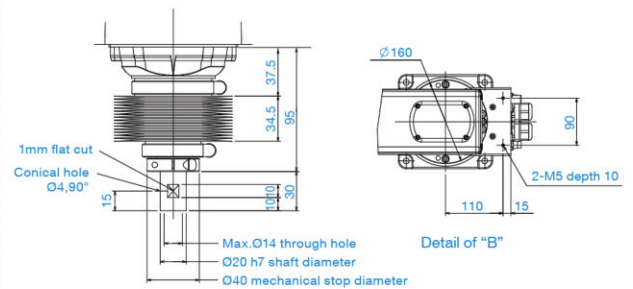
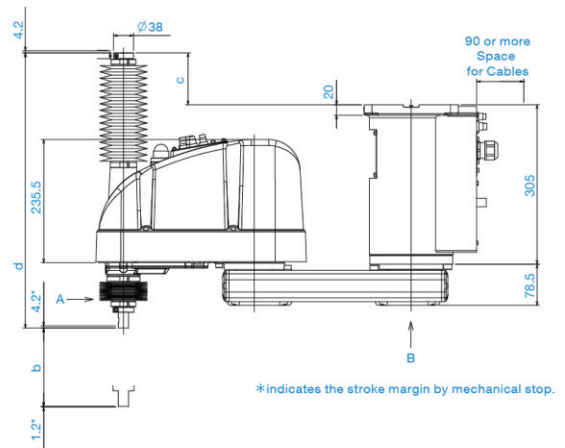
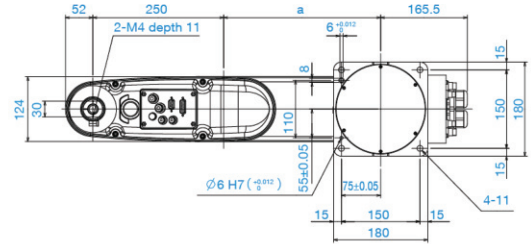


Detail of "A"
(Calibration point position of Joints #3 and #4)

	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

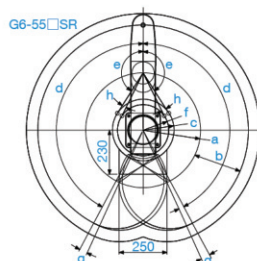


Detail of "A"
(Calibration point position of Joints #3 and #4)

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

	G6-□□1CR	G6-□□3CR
b	150	300
c	99	249
d	526	676

Motion Range (Ceiling Mounting)

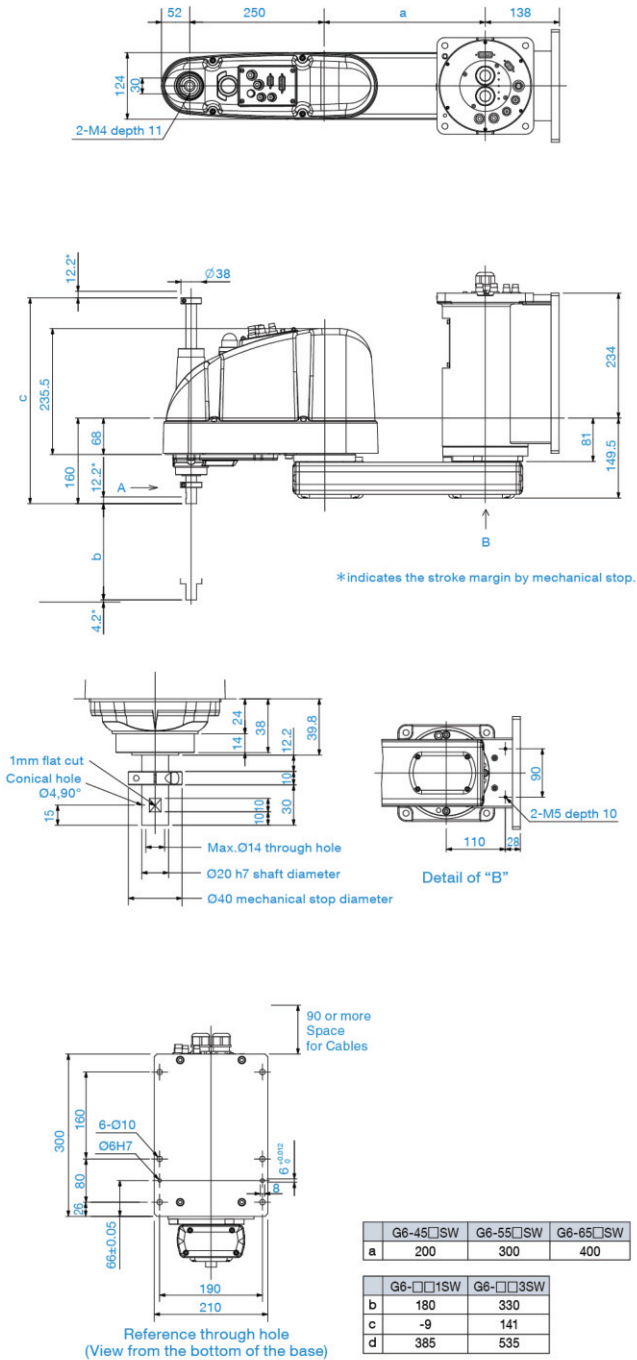


Model	Ceiling Mounting			
	G6-45□□R	G6-55□□SR/DR	G6-55□□CR/PR/DR bellows	G6-65□□R
a Length of Arm #1 (mm)	200	300	400	
b Length of Arm #2 (mm)	250			
c Motion range	195.5	161.2	172.1	232
d Motion range of Joint #1 (°)	120	152		
e Motion range of Joint #2 (°)	130	147.5	145	147.5
f Mechanical stop area	182.4	146.8		
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

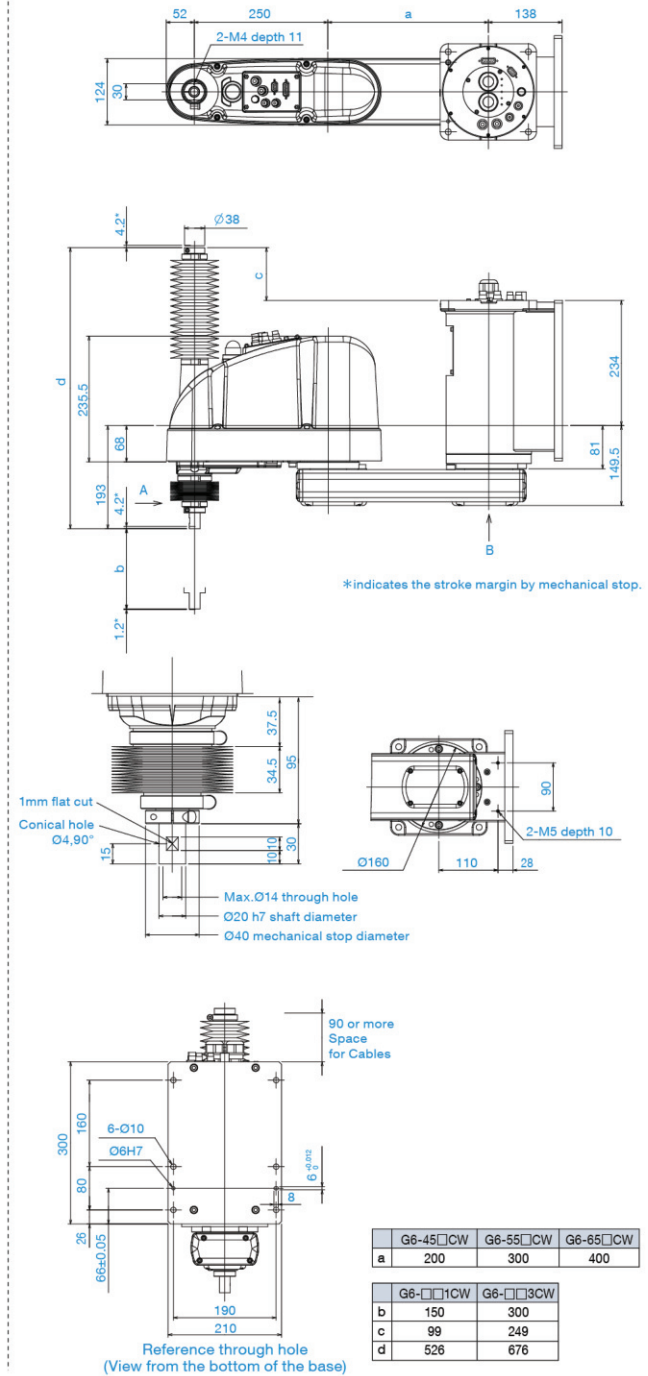
Outer Dimensions (Wall Mounting)

[Unit: mm]

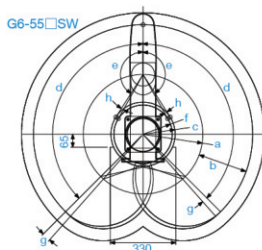
Standard-model



Cleanroom-model



Motion Range (Wall Mounting)



Model	Wall Mounting			
	G6-45□CW	G6-55□SW/DW	G6-55□CW/PW/DW bellows	G6-65□CW
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