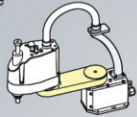


G3

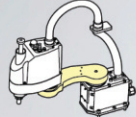
Compact body with rank-above technology for high speed and low vibration

- Handles small, heavy components and payloads up to 3kg
- Available with left- or right-curved arm for greater operating versatility
- A small robot with a long reach

Arm type



Straight arm



Curved arm

Model Number **G3 - 25 1 S □ -R -UL**

Payload
 3 : 3kg

Arm length
 25 : 250mm
 30 : 300mm
 35 : 350mm

Joint #3 stroke
 1 : 150mm
 : 120mm: Cleanroom-model

Environment
 S : Standard
 C : Cleanroom & ESD

UL specification
 : Non UL compliant
 -UL : UL compliant

Type
 : Standard
 R : Right-Curved
 L : Left-Curved

Mounting type
 : Table Top Mounting
 M : Multiple Mounting



Specifications

Model name		G3			
Model number		G3-251□	G3-301□□-□	G3-351□□-□	
Arm length	Arm #1, #2	250 mm	300 mm	350 mm	
Payload	Rated	1 kg			
	Maximum	3 kg			
Repeatability	Joints #1, #2	±0.008 mm	±0.01 mm	±0.01 mm	
	Joint #3	±0.01 mm			
	Joint #4	±0.005 deg			
Standard cycle time ¹		0.41 sec	0.43 sec	0.41 sec	
Max. operating speed	Joints #1, #2	3550 mm/sec	3950 mm/sec	4350 mm/sec	
	Joint #3	1100 mm/sec			
	Joint #4	3000 deg/sec			
Joint #4 allowable moment of inertia ²	Rated	0.005 kg·m ²			
	Maximum	0.05 kg·m ²			
Joint #3 down force		150 N			
Installation environment		Standard /Cleanroom ³ & ESD			
Mounting type		Table top	Table top	Multiple	Table top Multiple
Weight (cables not included)		14 kg			
Applicable Controller		RC700-A			
Installed wire for customer use		15 Pin D-Sub			
Installed pneumatic tube for customer use		Φ6 mm x 2, Φ4 mm x 1 : 0.59 MPa (6 kgf/cm ²)			
Power		AC200-240 V Single phase			
Power Consumption ⁴		1.1 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.

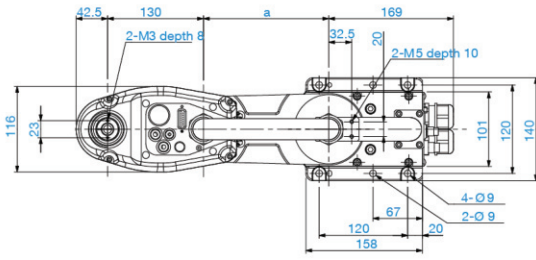
³: Complies with ISO Class 3 (ISO14644-1) and older Class 1 (less than 10 0.1 μm particles per 28,317cm³:1cft) cleanroom standards.

⁴: Varies according to operating environment and program.

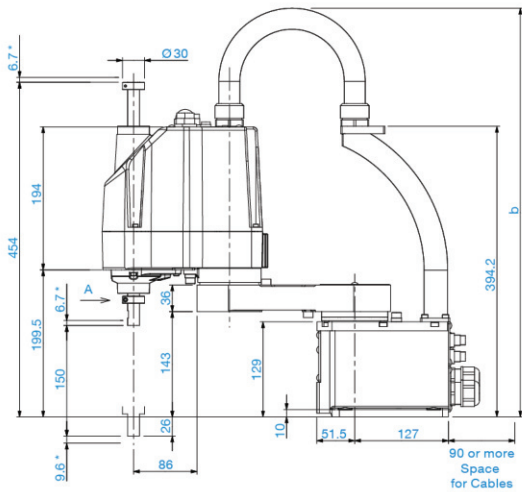
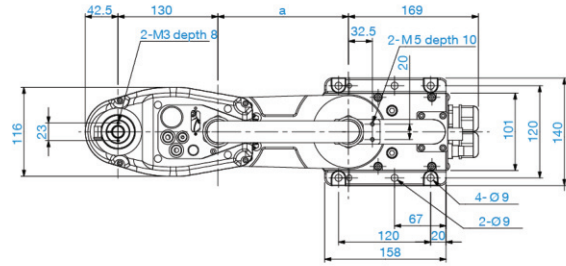
Outer Dimensions (Table Top Mounting)

[Unit: mm]

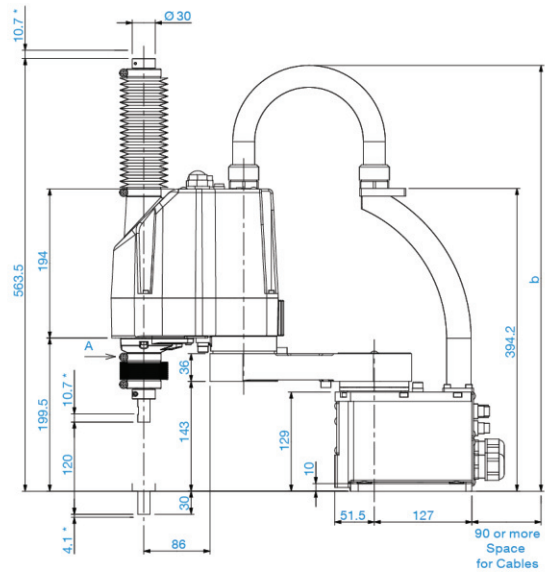
Standard-model



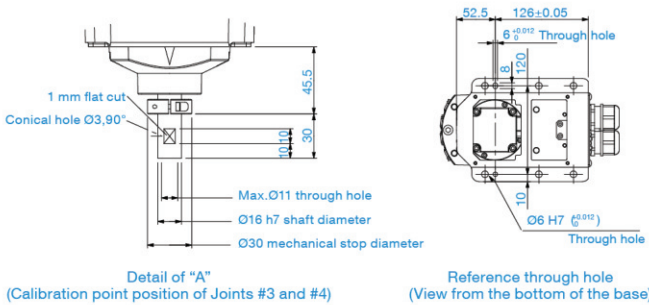
Cleanroom-model



*indicates the stroke margin by mechanical stop.



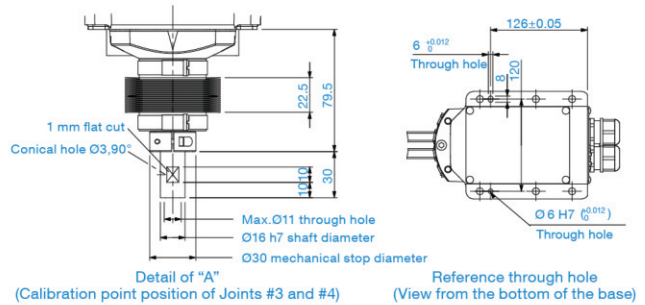
*indicates the stroke margin by mechanical stop.



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

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

	G3_251S	G3_301S	G3_351S
a	120	170	220
b	Max.545	Max.575	Max.595



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

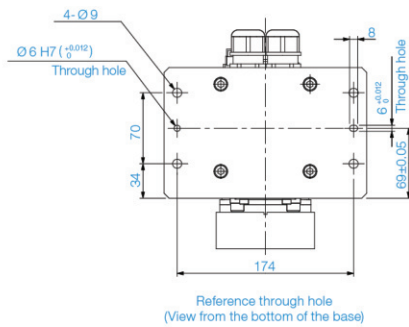
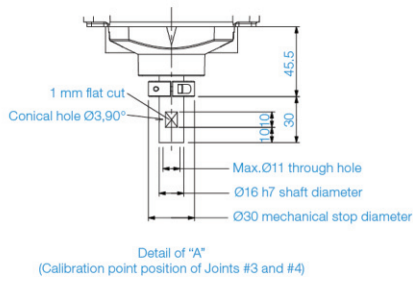
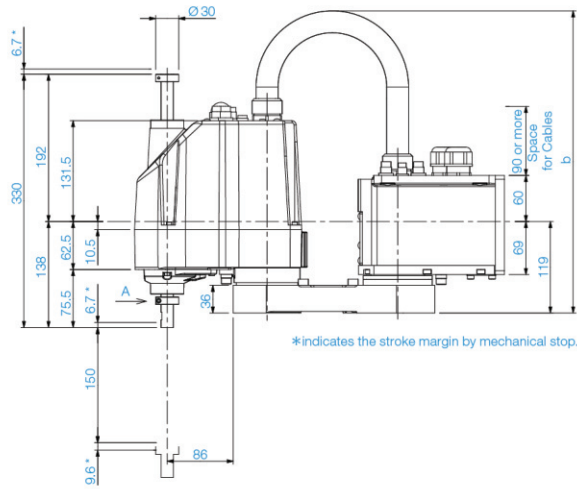
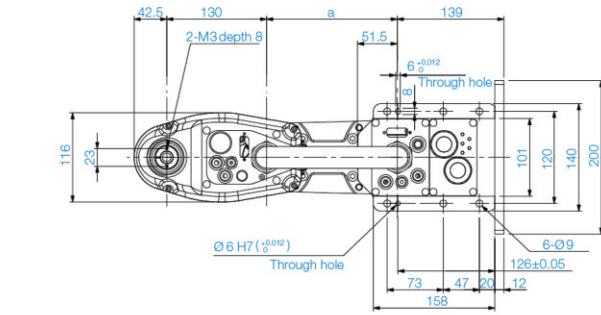
Reference through hole
(View from the bottom of the base)

	G3_251C	G3_301C	G3_351C
a	120	170	220
b	Max.545	Max.575	Max.595

Outer Dimensions (Multiple Mounting)

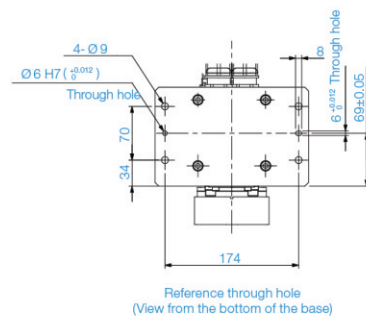
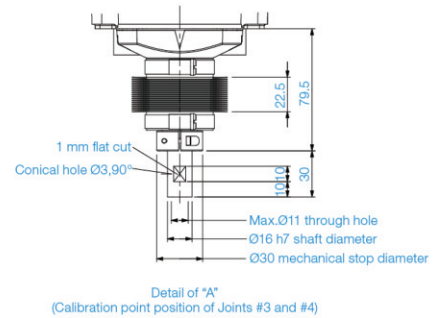
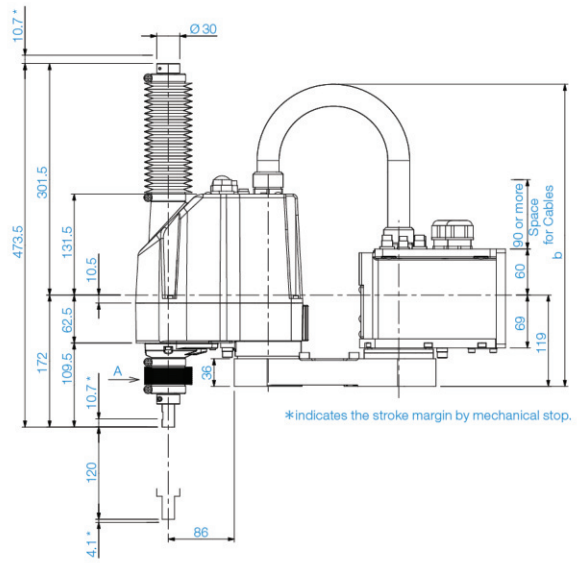
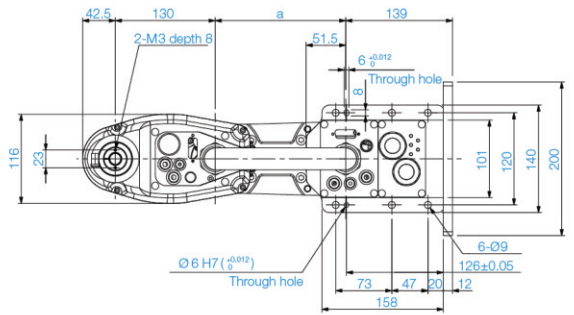
[Unit: mm]

Standard-model



	G3_301SM	G3_351SM
a	170	220
b	Max.410	Max.450

Cleanroom-model



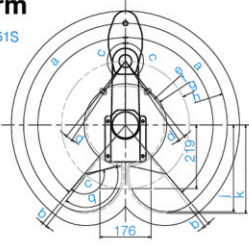
	G3_301CM	G3_351CM
a	170	220
b	Max.410	Max.450

Motion Range (Table Top Mounting)

[Unit: mm]

Straight Arm

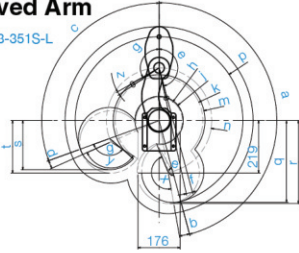
G3-351S



Model	Straight Arm					
	G3-251S	G3-251C	G3-301S	G3-301C	G3-351S	G3-351C
g Length of Arm #1 (mm)	120		170		220	
h-g Length of Arm #2 (mm)	130					
f Motion range	84	92	104.8	107.1	142.3	146.6
a Motion range of Joint #1 (°)	140					
c Motion range of Joint #2 (°)	141	137	142	141	142	
e Mechanical stop area	79.3		96.2		134.2	
b Joint #1 angle to hit mechanical stop (°)	2					
d Joint #2 angle to hit mechanical stop (°)	2.3	6.3	3.8	4.8	3.8	

Left-Curved Arm

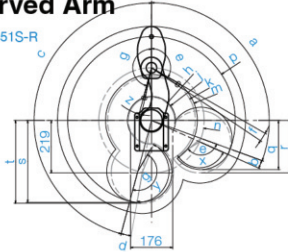
G3-351S-L



Model	Left-Curved Arm			
	G3-301S-L	G3-301C-L	G3-351S-L	G3-351C-L
n Length of Arm #1 (mm)	170			
p-n Length of Arm #2 (mm)	130			
m,j Motion range	120.7, 86.8		191.6, 100.3	
a,c Motion range of Joint #1 (°)	150, 125		165, 110	
e,g Motion range of Joint #2 (°)	150, 135	145, 135	165, 120	160, 120
h,k Mechanical stop area	79.5, 113.2		97.0, 183.0	
b,d Joint #1 angle to hit mechanical stop (°)	3, 6		5, 4	
f,z Joint #2 angle to hit mechanical stop (°)	3.3, 3.3	8.3, 3.8	2.8, 3.8	7.8, 3.8

Right-Curved Arm

G3-351S-R



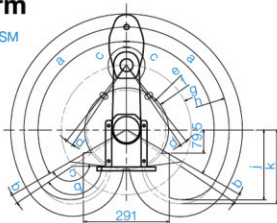
Model	Right-Curved Arm			
	G3-301S-R	G3-301C-R	G3-351S-R	G3-351C-R
n Length of Arm #1 (mm)	170			
p-n Length of Arm #2 (mm)	130			
m,j Motion range	120.7, 86.8		191.6, 100.3	
a,c Motion range of Joint #1 (°)	125, 150		110, 165	
e,g Motion range of Joint #2 (°)	135, 150	135, 145	120, 165	120, 160
h,k Mechanical stop area	79.5, 113.2		97.0, 183.0	
b,d Joint #1 angle to hit mechanical stop (°)	6, 3		4, 5	
f,z Joint #2 angle to hit mechanical stop (°)	3.3, 3.3	3.3, 8.3	3.8, 2.8	3.8, 7.8

Motion Range (Multiple Mounting)

[Unit: mm]

Straight Arm

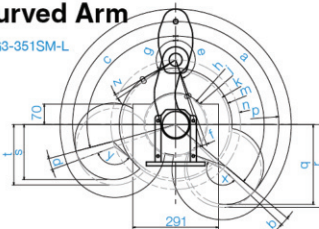
G3-351SM



Model	Straight Arm	
	G3-301SM/CM	G3-351SM/CM
g Length of Arm #1 (mm)	170	220
h-g Length of Arm #2 (mm)	130	
f Motion range	120.7	
a Motion range of Joint #1 (°)	115	120
c Motion range of Joint #2 (°)	135	
e Mechanical stop area	112	134.2
b Joint #1 angle to hit mechanical stop (°)	4	
d Joint #2 angle to hit mechanical stop (°)	3.8	

Left-Curved Arm

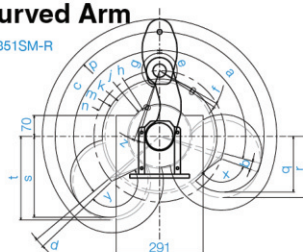
G3-351SM-L



Model	Left-Curved Arm	
	G3-351SM-L	G3-351CM-L
n Length of Arm #1 (mm)	220	
p-n Length of Arm #2 (mm)	130	
m,j Motion range	191.9, 107.5	
a,c Motion range of Joint #1 (°)	130, 105	
e,g Motion range of Joint #2 (°)	160, 120	150, 120
h,k Mechanical stop area	103.3, 183.0	
b,d Joint #1 angle to hit mechanical stop (°)	3.3, 5	2, 5
f,z Joint #2 angle to hit mechanical stop (°)	2.8, 3.8	12.8, 3.8

Right-Curved Arm

G3-351SM-R



Model	Right-Curved Arm	
	G3-351SM-R	G3-351CM-R
n Length of Arm #1 (mm)	220	
p-n Length of Arm #2 (mm)	130	
m,j Motion range	191.9, 107.5	
a,c Motion range of Joint #1 (°)	105, 130	
e,g Motion range of Joint #2 (°)	120, 160	120, 150
h,k Mechanical stop area	103.3, 183.0	
b,d Joint #1 angle to hit mechanical stop (°)	5, 3.3	5, 2
f,z Joint #2 angle to hit mechanical stop (°)	3.8, 2.8	3.8, 12.8