

# GX10 GX20



For high-speed, high-precision, multi-hand batch handling and packing of heavier loads

- Handles payloads of up to 10/20kg
- Choice of 650mm, 850mm, and 1000mm arm
- Internal cabling and ducting minimizes interference worries
- IP65 dust and water-resistant cleanroom models available
- Tabletop, ceiling, and wall mounting models available



Model Number		GX <input type="checkbox"/> - B <input type="checkbox"/> 65 <input type="checkbox"/> 1 <input type="checkbox"/> S <input type="checkbox"/>	
<b>Payload</b>	<input type="checkbox"/> 10 : 10 kg	<input type="checkbox"/> 20 : 20 kg	
<b>Arm length</b>	<input type="checkbox"/> 65 : 650mm (GX10 series only)	<input type="checkbox"/> 85 : 850mm	<input type="checkbox"/> A0 : 1000mm (GX20 series only)
<b>Mounting type</b>	<input type="checkbox"/> : Table Top Mounting	<input type="checkbox"/> W : Wall Mounting	<input type="checkbox"/> R : Ceiling Mounting
<b>Joint #3 stroke</b>	<input type="checkbox"/> 1 : 180mm: (Standard)	<input type="checkbox"/> 150mm: (Cleanroom & ESD, Protection)	<input type="checkbox"/> 420mm: (Standard)
<b>Environment</b>	<input type="checkbox"/> S : Standard (equivalent to IP20)	<input type="checkbox"/> C : Cleanroom & ESD (anti-static)	<input type="checkbox"/> P : Protection class: IP 65
	<input type="checkbox"/> 4 : 390mm: (Cleanroom & ESD, Protection)		

## Specifications

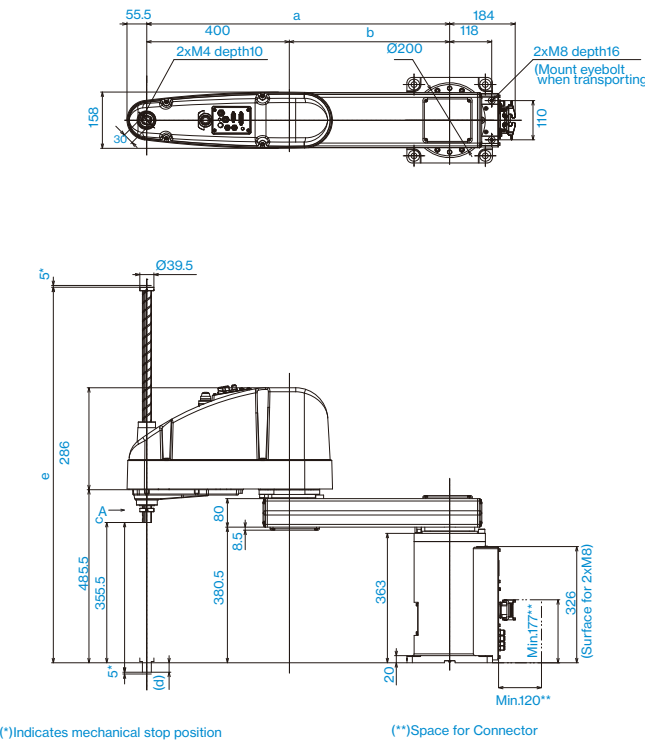
Model name		GX10 / 20			
Model number		GX10-B65□□□	G10-B85□□□	G20-B85□□□	G20-BA0□□□
<b>Arm length</b>	<b>Arm #1, #2</b>	650 mm	850 mm	850 mm	1000 mm
<b>Payload</b>	<b>Rated</b>	5 kg	10 kg	10 kg	20 kg
	<b>Maximum</b>	10 kg			
<b>Repeatability</b>	<b>Joints #1, #2</b>	±0.025 mm			
	<b>Joint #3</b>	±0.01 mm			
	<b>Joint #4</b>	±0.005 deg			
<b>Standard cycle time*1</b>		0.338 sec	0.377 sec	0.365 sec	0.422 sec
<b>Max. operating speed</b>	<b>Joints #1, #2</b>	8800 mm/s	11000 mm/s	11000 mm/s	11500 mm/s
	<b>Joint #3</b>	2350 mm/s			
	<b>Joint #4</b>	2400 deg/s		1700 deg/s	
<b>Joint #4 allowable moment of inertia*2</b>	<b>Rated</b>	0.02 kg·m <sup>2</sup>	0.05 kg·m <sup>2</sup>	0.05 kg·m <sup>2</sup>	0.45 kg·m <sup>2</sup>
	<b>Maximum</b>	0.25 kg·m <sup>2</sup>			
<b>Joint #3 down force</b>		250 N			
<b>Installation environment</b>		Standard (equivalent to IP20), Cleanroom*3 & ESD*4, IP65			
<b>Mounting type</b>		Table top mounting, Wall mounting, Ceiling mounting			
<b>Weight (cables not included)</b>		Table top/Ceiling: 46, Wall: 51	Table top/Ceiling: 49, Wall: 53	Table top/Ceiling: 50, Wall: 55	
<b>Applicable Controller</b>		RC700-E			
<b>Installed wire for customer use</b>		D-sub 15 pin x1, 9 pin x1, 8 pin (RJ45) x1			
<b>Installed pneumatic tube for customer use</b>		Ø4 mm x 2, Ø6 mm x 2: 0.59 MPa (6 kgf/cm <sup>2</sup> )			
<b>Power</b>		AC200-240 V Single phase			
<b>Power Consumption*5</b>		2.4 kVA			
<b>Cable length</b>		Standard: 3 / 5 / 10 / 15 / 20, Flexible: 5 / 10 / 15 / 20			
<b>Safety standard</b>		CE, UKCA, KC, NRTL			

\*1: Cycle time based on round-trip arch motion (300mm horizontal, 25mm vertical) with 2kg payload (path coordinates optimized for maximum speed).  
 \*2: Set the parameters by the Inertia command according to the load and end effector status (refer to the instruction manual for the parameter calculation method).  
 \*3: Complies with ISO Class 3 (ISO14644-1) and Fed-std209D Class 1 (less than 10 0.1 μ particles per 28,317cm<sup>3</sup>:1cf) cleanroom standards.  
 \*4: Main resin parts of the ESD model use conductive materials or apply plate processing. For the tip of the Manipulator (tool mounting part), we have confirmed that it is +/- 5V or less even immediately after operating the measurement under our standard.  
 \*5: Varies according to operating environment and program.

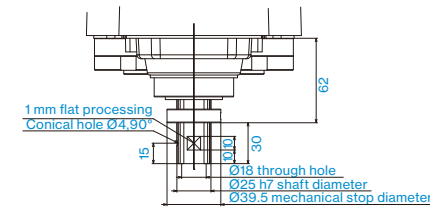
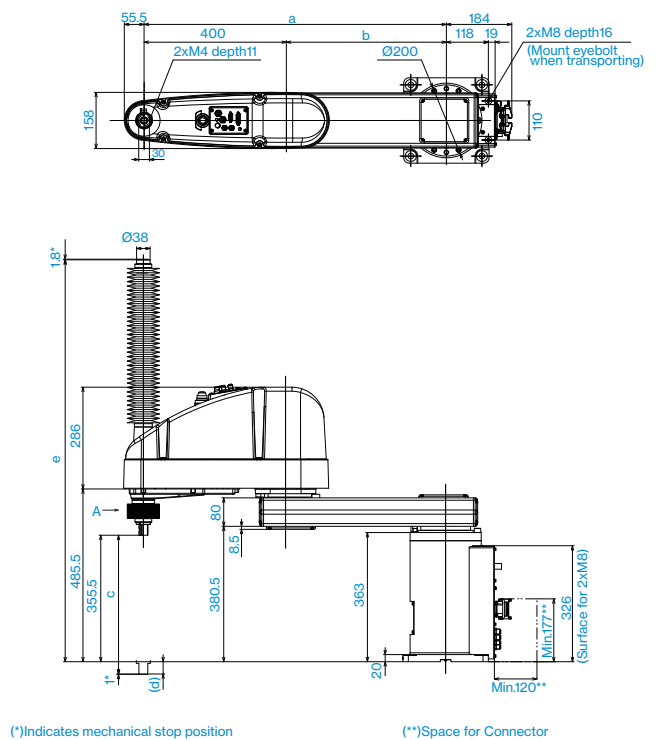
## Outer Dimensions (Table Top Mounting)

[Unit: mm]

### Standard-model



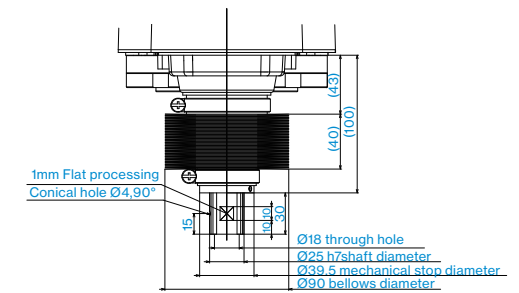
### Cleanroom-model



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

	GX10-□65□S	GX10-□85□S	GX20-□85□S	GX20-□A0□S
a	650	850	850	1000
b	250	450	450	600

	GX10/20-□□1S	GX10/20-□□4S
c	180	420
d	-213.5	26.5
e	813.5	1053.5



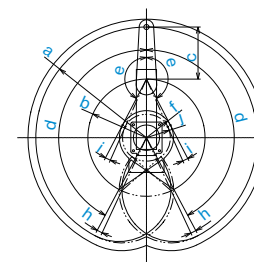
Detail of "A"  
(Calibration point position of Joints #3 and #4)

	GX10-□65□C	GX10-□85□C	GX20-□85□C	GX20-□A0□C
a	650	850	850	1000
b	250	450	450	600

	GX10/20-□□1C	GX10/20-□□4C
c	150	390
d	-205.5	34.5
e	870.5	1129.5

## Motion Range (Table Top Mounting)

GX10/20-85□□

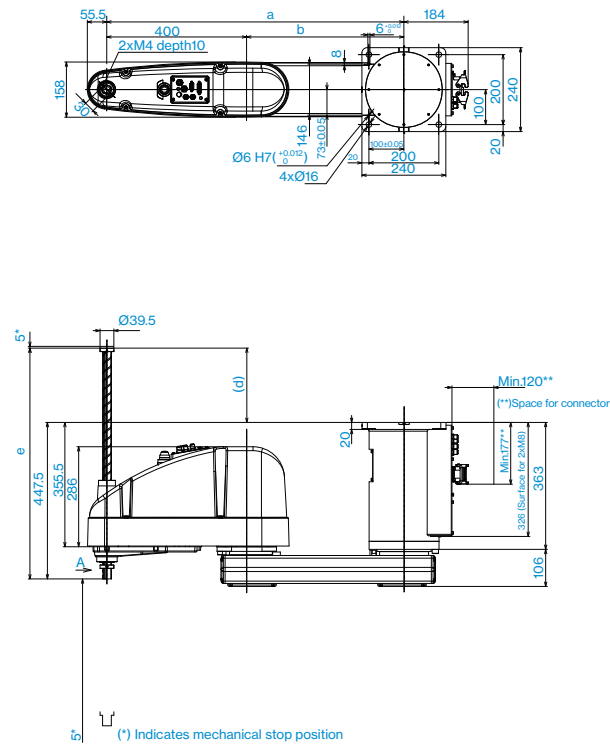


Model	GX10-□65□S GX10-□65□C GX10-□65□P	GX10-□85□S GX20-□85□S	GX10-□85□C GX20-□85□P	GX20-□A0□S GX20-□A0□C GX20-□A0□P
a Length of Arm #1 + Arm #2 (mm)	650	850		1000
b Length of Arm #1 (mm)	250	450		600
c Length of Arm #2 (mm)		400		
d Motion range of Joint #1 (°)	152			
e Motion range of Joint #2 (°)	152.5	152.5	0 ≥ Z ≥ -360	152.5
			-360 ≥ Z ≥ -390	151
f Motion range	212.4	207.8	0 ≥ Z ≥ -360	207.8
			-360 ≥ Z ≥ -390	218.3
h Joint #1 angle to hit mechanical stop (°)	3			
i Joint #2 angle to hit mechanical stop (°)	3.5	3.5	0 ≥ Z ≥ -360	3.5
			-360 ≥ Z ≥ -390	5
j Mechanical stop area	199.4		183.3	285.4

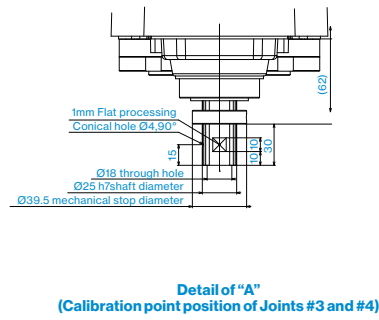
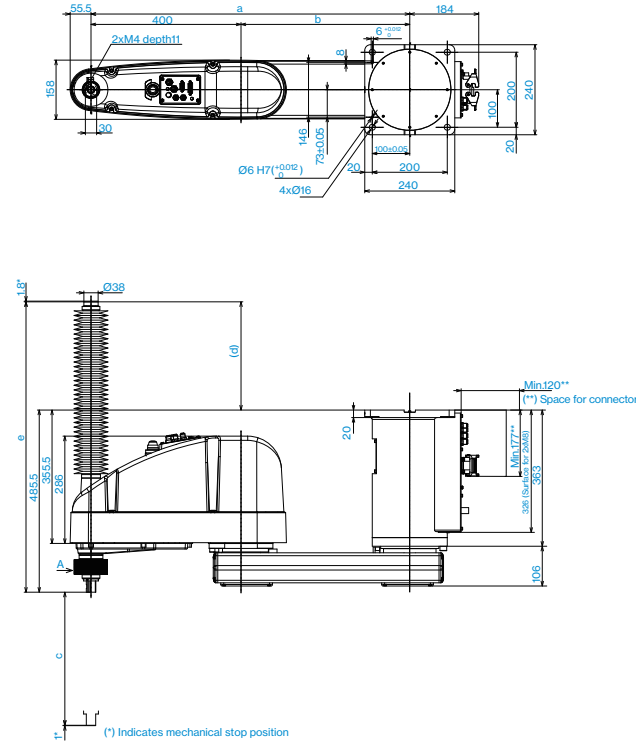
## Outer Dimensions (Ceiling Mounting)

[Unit: mm]

### Standard-model



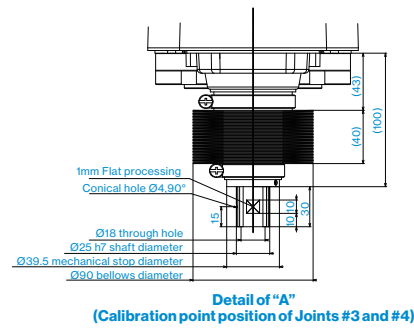
### Cleanroom-model



	GX10-□65□SR	GX10-□85□SR	GX20-□85□SR	GX20-□A0□SR
a	650	850	850	1000
b	250	450	450	600

	GX10/20-□□1SR	GX10/20-□□4SR
c	180	420
d	-27.5	212.5
e	420	660



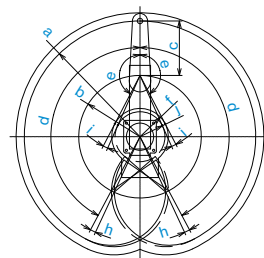
	GX10-□65□CR	GX10-□85□CR	GX20-□85□CR	GX20-□A0□CR
a	650	850	850	1000
b	250	450	450	600

	GX10/20-□□1CR	GX10/20-□□4CR
c	150	390
d	29.5	288.5
e	51.5	774

## Motion Range (Ceiling Mounting)

GX10/20-85□□R

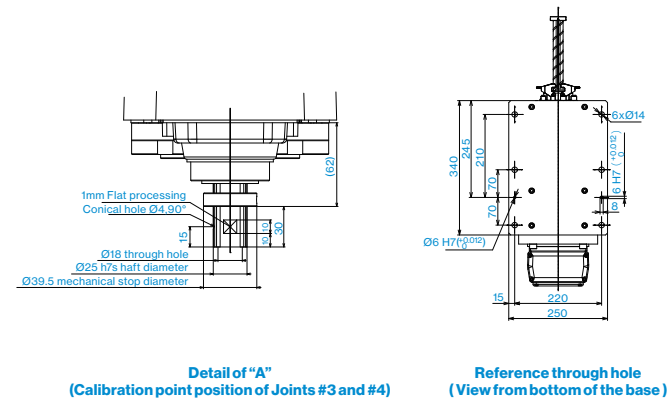
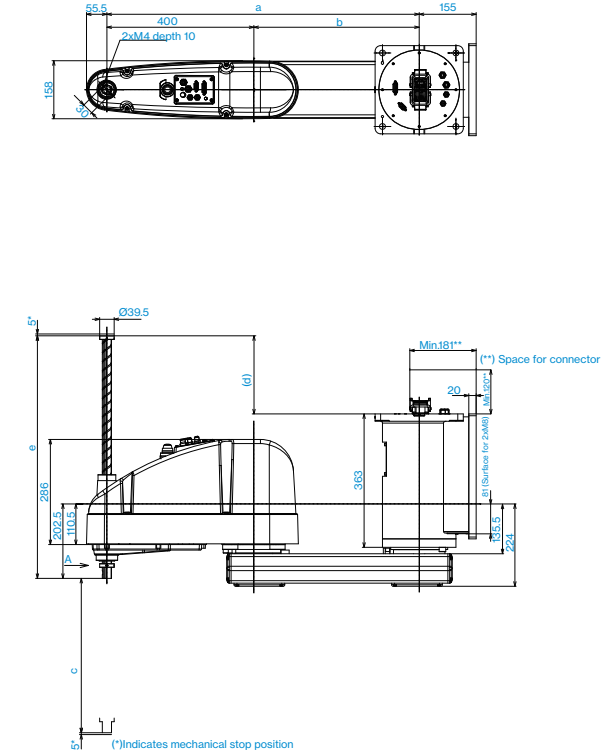


Model	GX10-□65□□R		GX10/20-□85□□R		GX20-□A05□□R	
	S	C,P	S	C,P	S	C,P
a Length of Arm #1+ Arm #2 (mm)	650		850		1000	
b Length of Arm #1 (mm)	250		450		600	
c Length of Arm #2 (mm)			400			
d Motion range of Joint #1 (°)	107			152		
e Motion range of Joint #2 (°)	130	152.5	151		152.5	
f Motion range	306.5	207.8	218.3		307	
h Joint #1 angle to hit mechanical stop (°)			3			
i Joint #2 angle to hit mechanical stop (°)	3.5	3.5	5		3.5	
j Mechanical stop area	291.2		183.3		285.4	

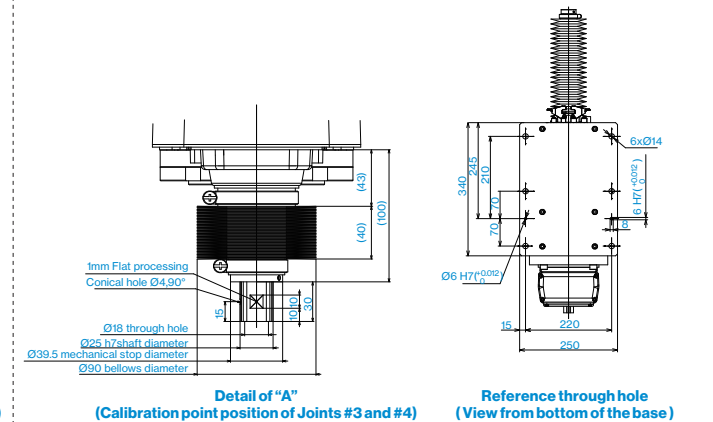
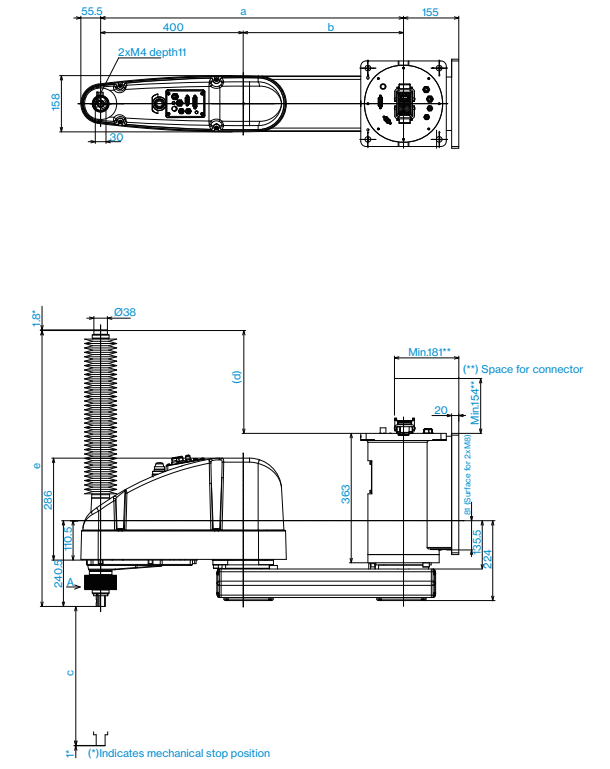
## Outer Dimensions (Wall Mounting)

[Unit: mm]

### Standard-model

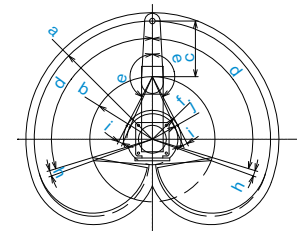


### Cleanroom-model



## Motion Range (Wall Mounting)

GX10/20-85□□W



Model	GX10-□65□□W		GX10/20-□85□□W		GX20-□A05□□W	
	S	C,P	S	C,P	S	C,P
a Length of Arm #1+ Arm #2 (mm)	650		850		1000	
b Length of Arm #1 (mm)	250		450		600	
c Length of Arm #2 (mm)			400			
d Motion range of Joint #1 (°)	107			107		
e Motion range of Joint #2 (°)	130	152.5	151		152.5	
f Motion range	306.5	207.8	218.3		307	
h Joint #1 angle to hit mechanical stop (°)			3			
i Joint #2 angle to hit mechanical stop (°)	3.5	3.5	5		3.5	
j Mechanical stop area	291.2		183.3		285.4	