LS20

LS-Series SCARA Robots

High Performance and Payloads at a Low Cost

- Fast Cycle Throughput
- Long Reach 800 mm and 1000 mm Arm Lengths
- ISO 4 Clean Models Available

Specifications

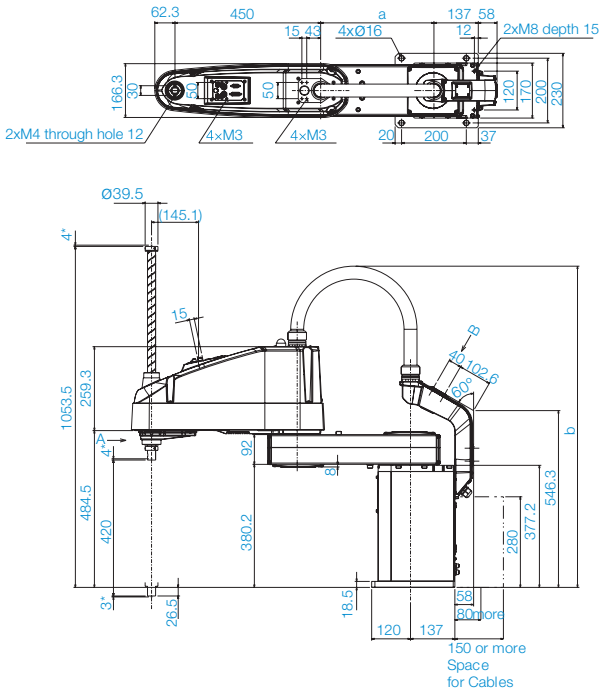
		LS20-804	LS20-A04
Mounting type		Tabletop	
Arm length	Arm #1, #2	800 mm	1000 mm
Max. operating speed	Joints #1, #2	9940 mm/s	11250 mm/s
	Joint #3	2020 mm/s	
	Joint #4	1400°/s	
Weight(cables not included)		47 kg	50 kg
Repeatability	Joints #1, #2	±0.025 mm	
	Joint #3	±0.01 mm	
	Joint #4	±0.01°	
Max. motion range	Joint #1	±132°	
	Joint #2	±152 °	
	Joint #3 (Cleanroom model)	420 mm (390 mm)	
	Joint #4	±360°	
Payload	Rated	10 kg	
	Maximum	20 kg	
Standard cycle time[1]		0.38 sec	0.42 sec
Joint #4 allowable moment of inertia[2]	Rated	0.05kg • m2	
	Maximum	0.45 kg • m2	
Motor power consumption	Joint #1	750 W	
	Joint #2	600 W	
	Joint #3	400 W	
	Joint #4	150 W	
Joint #3 downward force		250 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]	
Applicable controller		RC90	
Safety standard		CE, ANSI/RIA15.06-2012	

1 Cycle time based on round-trip arch motion (300mm horizontal, 25mm vertical) with 1kg 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 4 cleanroom standards.

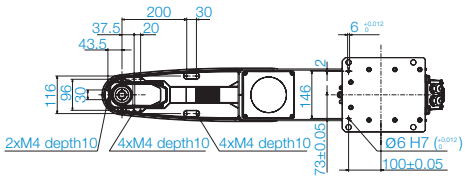
Outer Dimensions (Tabletop Mounting)

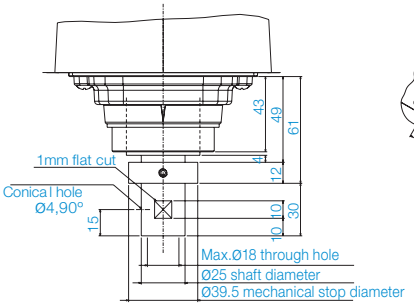
[Units: mm]

Standard-model

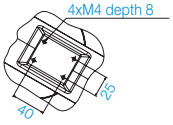


*indicates the stroke margin by mechanical stop.



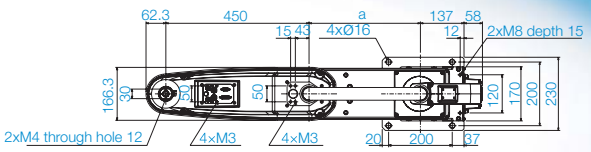


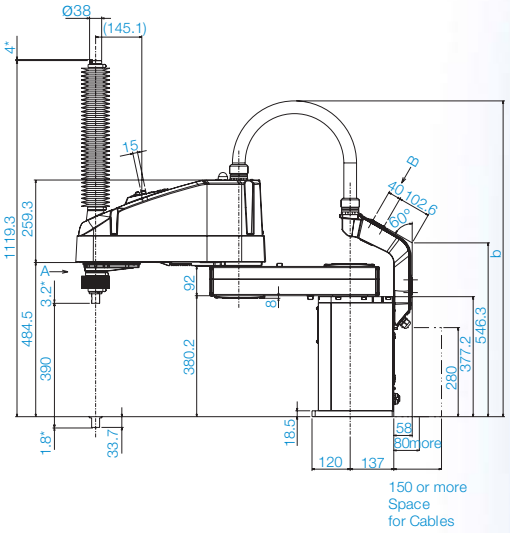
Detail of "A"



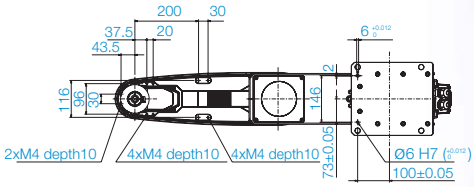
Detail of "B"

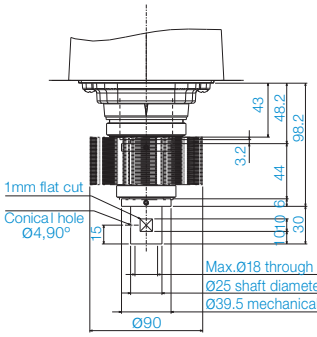
Cleanroom-model



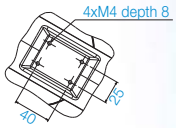


*indicates the stroke margin by mechanical stop.





Detail of "A"

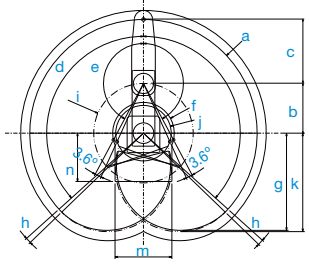


Detail of "B"

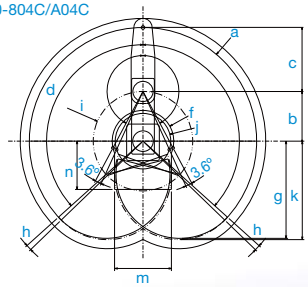
	LS20-804*C	LS20-A04*C
a	350	550
b	1000	1100

Motion Range (Tabletop Mounting)

LS20-804S/A04S



LS20-804C/A04C



Model	Standard		Cleanroom	
	LS20-A04S	LS20-804S	LS20-A04C	LS20-804C
a Length of Arm #1 +Arm #2 (mm)	1000	800	1000	800
b Length of Arm #1 (mm)	550	350	550	350
c Length of Arm #2 (mm)	450		450	
d Motion range of Joint #1 (j)	132		132	
e Motion range of Joint #2 (j)	152		152	
f Motion range	260.7	216.5	260.7	216.5
g Motion range at the rear	818	684.2	818	684.2
h Joint #1 angle to hit mechanical stop (j)	2		2	
i Joint #2 angle to hit mechanical stop (j)	3.6		3.6	
j Mechanical stop area	232.8	195.3	232.8	195.3
k Mechanical stop area at the rear	832.1	693.1	832.1	693.1
m Motion range	290	400	330	400
n Motion range	265	340	265	340