

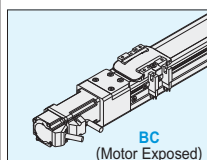
Single Axis Robots

YBSC5 Series

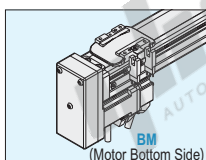
Ball Screw Drive, General Environment

Code	Base		Guide		Slider		Cover		Operating Ambient
	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment	
YBSC5	Aluminum Alloy	Anodize	Iron	—	Aluminum Alloy	Anodize	Aluminum Alloy	Anodize	0~40°C 35~85%RH No Condensation

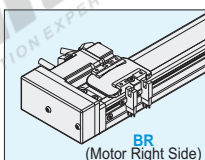
(i) This product does not include a motor, the motor must be purchased separately.



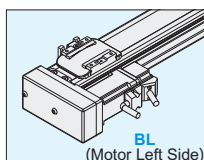
BC
(Motor Exposed)



BM
(Motor Bottom Side)

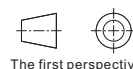
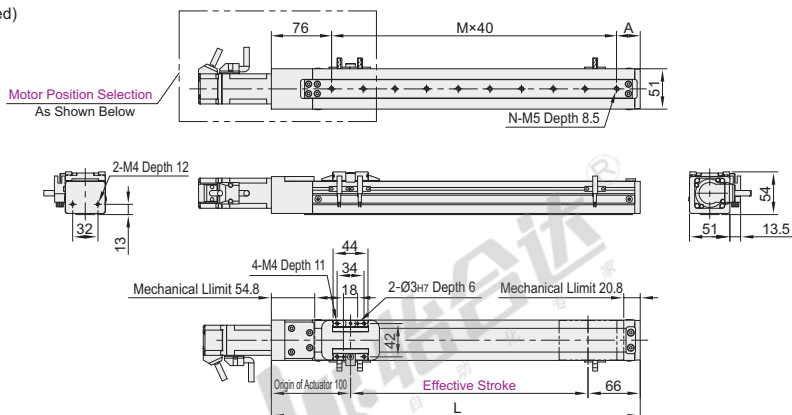


BR
(Motor Right Side)



BL
(Motor Left Side)

Motor Position :
BC(Motor Exposed)



The first perspective

(i) Motor Position Selection

BM (Motor Bottom Side)		BR (Motor Right Side)		BL (Motor Left Side)	

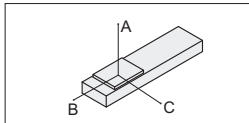
Part Number		Effective Stroke (50 mm Increment)	Motor Position Selection	Motor Brand	Motor Output	Brake	Home Sensor	Limit Sensor
Code	Ball Screw Lead							
YBSC5	5	50~800 Non-standard stroke can be customized	BC (Motor Exposed) BM (Motor Bottom Side) BR (Motor Right Side) BL (Motor Left Side)	P (Panasonic) Y (Yaskawa) M (Mitsubishi) T (Delta) H (Inovance) L (Leadshine)	10 (100W Servo) 42 (42 Stepping) 42 Stepping Only applicable to Leadshine brand.	N (Without Brake) B (With Brake)	Out Side C (Motor Side) D (Opposite Motor Side) No Sensor E (No Sensor)	Out Side 3 (1 Pc) 4 (2 Pcs) No Sensor 5 (No Sensor)
	10							

Specification

Recommended Motor Output		42 Stepping		100W Servo	
Spec	Positioning Repeatability	±0.01		±0.01	
	Ball Screw Lead	5	10	5	10
	Maximum Payload(kg)	Horizontal		10	
	Payload(kg)	Vertical		3	
		1.5		3	
Parts	Rated Thrust (N)	340	170	340	170
	Ball Screw Outer Diameter	12			
	Linear Guide Rail	24x8.5 Single Branch, Single Slide Block			
	Home Sensor	EE-SX672(NPN)			

① Please contact us for OMRON Brand or PNP Sensor.

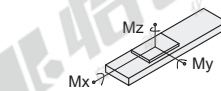
Load allowable moment table (unit: mm)



Horizontal installation		A	B	C
Lead 5	5kg	280	24	55
	10kg	120	10	22
Lead 10	3kg	245	40	78
	5kg	140	22	43

Allowable Moment Table

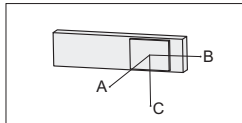
Mxd	19 N.m
Myd	20 N.m
Mzd	16 N.m



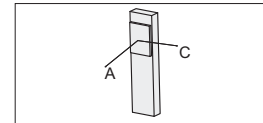
The torque value in the table is dynamic allowable torque based on the running life of sliding table of 10000km.
Torque conditions:
 $Mx/Mxd + My/Myd + Mz/Mzd \leq 1$
(Mx, My, Mz are the actual moments in each direction)

Explanation :

- The actual load shall meet the following conditions:
 - Meet the maximum load condition in the "Specification" table.
 - Satisfy the torque condition in the "allowable Moment Table" if beyond the conditions of use will greatly reduce the life of the slide table.
- The data in the table is based on the rated life of 10000km.
- The repeated positioning accuracy in the table is a unidirectional value.
- The maximum speed of the lead screw drive slider is reached after a certain travel. Need to be reduced. In order to avoid the resonance of the sliding table, different travel corresponding please refer to the table below for the maximum speed.
- Rated acceleration of the slide table is 0.3G, and the short-stroke slide table may not work reach top speed.
- If the sliding table is used vertically, please choose the belt brake motor.



Wall-mounted installation		A	B	C
Lead 5	5kg	51	30	300
	10kg	20	15	195
Lead 10	3kg	74	37	231
	5kg	40	20	131



Vertical installation		A	B	C
Lead 5	1kg	140	140	
	3kg	47	47	
Lead 10	1kg	125	125	
	1.5kg	83	83	

Maximum Speed

Screw Outer Diameter	Motor Output	Lead	Stroke													
			50	100	150	200	250	300	350	400	450	500	550	600	650	700
12	42 Stepping	5	41													
		10	83													
	100W Servo	5	250										225	220	175	150
		10	500										450	400	350	300

Dimension Table

Motor Position	Dimension	Stroke													
		50	100	150	200	250	300	350	400	450	500	550	600	650	700
BC (Motor Exposed)	L	216	266	316	366	416	466	516	566	616	666	716	766	816	866
	A	60	30	40	50	60	30	40	50	60	30	40	50	60	30
	M	2	4	5	6	7	9	10	11	12	14	15	16	17	19
	N	3	5	6	7	8	10	11	12	13	15	16	17	18	20
	Weight (kg)※	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3	3.1	3.2	3.3	3.4
BM (Motor Bottom Side)	L	208	258	308	358	408	458	508	558	608	658	708	758	808	858
	A	60	30	40	50	60	30	40	50	60	30	40	50	60	30
	M	0	2	3	4	5	7	8	9	10	12	13	14	15	17
	N	1	3	4	5	6	8	9	10	11	13	14	15	16	18
	Weight (kg)※	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3	3.1	3.2	3.3	3.4
BR (Motor Right Side)	L	208	258	308	358	408	458	508	558	608	658	708	758	808	858
	A	60	30	40	50	60	30	40	50	60	30	40	50	60	30
	M	2	4	5	6	7	9	10	11	12	14	15	16	17	19
	N	3	5	6	7	8	10	11	12	13	15	16	17	18	20
	Weight (kg)※	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3	3.1	3.2	3.3	3.4
BL (Motor Left Side)	L	208	258	308	358	408	458	508	558	608	658	708	758	808	858
	A	60	30	40	50	60	30	40	50	60	30	40	50	60	30
	M	2	4	5	6	7	9	10	11	12	14	15	16	17	19
	N	3	5	6	7	8	10	11	12	13	15	16	17	18	20
	Weight (kg)※	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3	3.1	3.2	3.3	3.4

※ Not include motor weight.

List of servo motor which should be matched

Brand	Motor Mark	Brake	Watt	Servo Motor Part Number	Driver Part Number
Panasonic	P	Without Brake(Horizontal)	100W	MSMF012L1U2M	MADLN05SE
		With Brake(Vertical)		MSMF012L1V2M	
Mitsubishi	M	Without Brake(Horizontal)	100W	HG-KN13J-S100	MR-JE-10A
		With Brake(Vertical)		HG-KN13BJ-S100	
Delta(B2)	T	Without Brake(Horizontal)	100W	ECMA-C20401GS	ASD-B2-0121-B
		With Brake(Vertical)		ECMA-C20401FS	

① The part number listed in the table are motor and driver part number sold on our official website. only modular mechanical parts are provided for standard single axis robot models , without motors and drivers. ② Please consult our staff for other types of motor .



Part Number	Effective Stroke	Motor Position	Motor Brand	Motor Output	Brake	Home Sensor	Limit Sensor
Code	Ball Screw Lead	(50 mm Increment)	Selection				
YBSC5	5	60~800	BC(Motor Exposed) BM(Motor Bottom Side) BR(Motor Right Side)	10(100W Servo) 42(42 Stepping)	N(Without Brake) B(With Brake)	Out Side C(Motor Side) D (Opposite Motor Side)	Out Side 3(1 Pcs) 4(2 Pcs)

YBSC5-10-550-BM-M-10-N-C-4



Discount price	Per	1~4	5~
	Price	100%	Additional quotation



Delivery	11
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① Quantity (1~4 Pcs)