

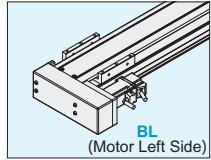
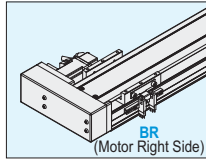
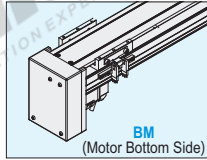
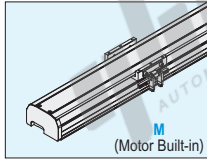
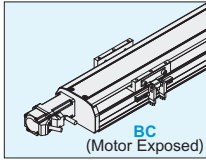
Single Axis Robots

YBSC10 Series

Ball Screw Drive, General Environment

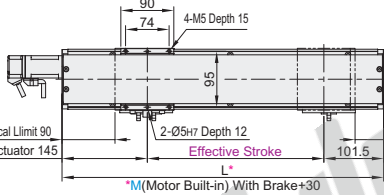
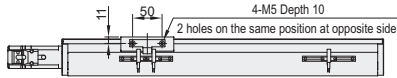
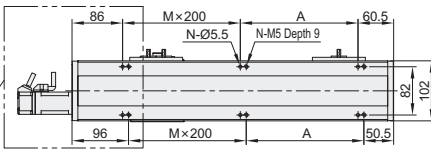
Code	Base		Guide		Slider		Cover		Operating Ambient
	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment	
YBSC10	Aluminum Alloy	Anodize	Iron	—	Aluminum Alloy	Anodize	Aluminum Alloy	Anodize	0~40°C 35~85%RH No Condensation

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

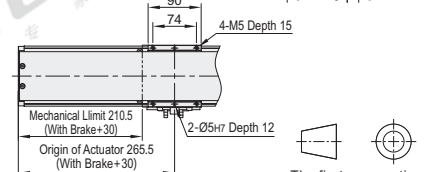
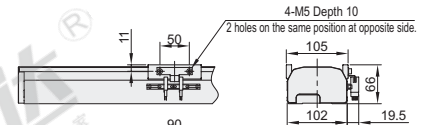
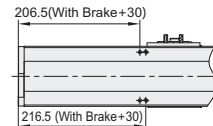


Motor Position :
BC (Motor Exposed)

Motor Position Selection As Shown Below



M (Motor Built-in)



The first perspective

☑ 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							
YBSC10	5	100~1050 Non-standard stroke can be customized	M (Motor Built-in)* BC (Motor Exposed) BM (Motor Bottom Side) BR (Motor Right Side) BL (Motor Left Side) *M (Motor Built-in) Motor Output are not suitable for 57 stepper motors.	P (Panasonic) Y (Yaskawa) M (Mitsubishi) T (Delta) H (Inovance) L (Leadshine)	10 (100W Servo) 57 (57 Stepping) 57 Stepping Only applicable to Leadshine brand. ⓘ If 57 series stepper motors are used, it is recommended to choose the model with the maximum static torque greater than 0.64 N.m.	N (Without Brake) B (With Brake)	In Side A (Motor Side) B (Opposite Motor Side) Out Side C (Motor Side) D (Opposite Motor Side) No Sensor E (No Sensor)	In Side 1 (1 Pc) 2 (2 Pcs) Out Side 3 (1 Pc) 4 (2 Pcs) No Sensor 5 (No Sensor)
	10							
	16							
	20							

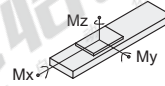
Specification

Recommended Motor Output		100W Servo				
Spec	Positioning Repeatability	±0.01				
	Ball Screw Lead	5	10	16	20	
		Maximum Payload(kg)	Horizontal	50	30	22
		Vertical	12	8	5	3
	Rated Thrust (N)	340	170	106	85	
Parts	Ball Screw Outer Diameter	16				
	Linear Guide Rail	20x17.5 Single Branch, Single Slide Block				
	Home Sensor	Out Side	EE-SX672(NPN)			
		In Side	EE-SX674(NPN)			

Please contact us for OMRON Brand or PNP Sensor.

Allowable Moment Table

Mxd	120 N.m
Myd	110 N.m
Mzd	110 N.m



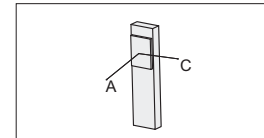
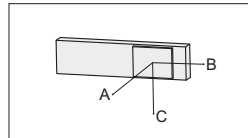
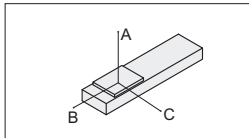
The torque value in the table is dynamic allowable torque based on the running life of sliding table of 10000km.

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:
 (a) Meet the maximum load condition in the "Specification" table.
 (b) 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.

Load allowable moment table (unit: mm)



Horizontal installation	A	B	C	
Lead 5	30kg	547	42	42
	40kg	391	29	29
	50kg	298	22	21
Lead 10	15kg	521	84	80
	25kg	298	47	44
	30kg	242	37	35
Lead 16	5kg	937	282	259
	10kg	487	121	116
	22kg	236	40	44
Lead 20	5kg	675	224	193
	10kg	330	107	93
	18kg	175	55	48

Wall-mounted installation	A	B	C	
Lead 5	25kg	52	53	670
	35kg	35	35	455
	50kg	21	22	298
Lead 10	10kg	124	131	770
	20kg	58	61	382
	30kg	35	37	242
Lead 16	5kg	116	58	605
	10kg	24	26	253
	6kg	160	185	562
Lead 20	12kg	76	88	272
	18kg	48	55	175

Vertical installation	A	C	
Lead 5	5kg	310	310
	8kg	192	192
	12kg	129	129
Lead 10	4kg	344	344
	8kg	172	172
Lead 16	2kg	580	580
	5kg	310	310
Lead 20	2kg	546	546
	3kg	364	364

Maximum Speed

Screw Outer Diameter	Motor Output	Lead	Stroke																					
			100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050		
16	100W Servo	5															250		225	200	175	150	125	100
		10															500		450	400	350	300	250	200
		16															800		720	640	560	480	400	320
		20															1000		900	800	700	600	500	400

Dimension Table

Motor Position	Dimension	Stroke																			
		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
M (Motor Built-in)	L	467	517	567	617	667	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367	1417
	A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
	M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
	N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
	Weight (kg)※	5.5	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3	10.7	11.1	11.5	11.9	12.3	12.7	13.1
BC (Motor Exposed)	L	346.5	396.5	446.5	496.5	546.5	596.5	646.5	696.5	746.5	796.5	846.5	896.5	946.5	996.5	1046.5	1096.5	1146.5	1196.5	1246.5	1296.5
	A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
	M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
	N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
	Weight (kg)※	4.8	5.2	5.6	6	6.4	6.8	7.2	7.6	8	8.4	8.8	9.2	9.6	10	10.4	10.8	11.2	11.6	12	12.4
BM (Motor Bottom Side)	L	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5	1281.5
	A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
	M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
	N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
	Weight (kg)※	4.7	5.1	5.5	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3	10.7	11.1	11.5	11.9	12.3
BR (Motor Right Side)	L	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5	1281.5
	A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
	M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
	N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
	Weight (kg)※	4.7	5.1	5.5	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3	10.7	11.1	11.5	11.9	12.3
BL (Motor Left Side)	L	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5	1281.5
	A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
	M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
	N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
	Weight (kg)※	4.7	5.1	5.5	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3	10.7	11.1	11.5	11.9	12.3

※ Not include motor weight.

Single Axis Robots

YBSC10 Series

Ball Screw Drive, General Environment

☑ 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	

☐ Please consult our staff for other types of motor .

☐ 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.



Part Number		Effective Stroke (50 mm Increment)	Motor Position Selection	Motor Brand	Motor Output	Brake	Home Sensor	Limit Sensor
Code	Ball Screw Lead							
YBSC10	5	100~1050	M(Motor Built-in) BC(Motor Exposed) BM(Motor Bottom Side)	P(Panasonic) Y(Yaskawa) M(Mitsubishi)	10(100W Servo) 57(57 Stepping)	N(Without Brake) B(With Brake)	Out Side C(Motor Side) D (Opposite Motor Side)	Out Side 3(1 Pc) 4(2 Pcs)
	10							

YBSC10-10-550-BM-M-10-N-C-4



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



Quantity (1~4 Pcs)

