

Standard Ball Screw Actuator

Y43 Y62 Series



[Y43/Y62 Feature]

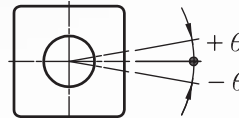
All New Design

External Grease Fitting
Easier Maintenance

Stainless Steel Rod
High Rigidity

Anti Rotation Design
Long Life

Radial Bearing Design
Longer Stroke



Anti Rotation Accuracy
 $\pm 1^\circ$

2nd Gen Affordable Rod Style Actuator

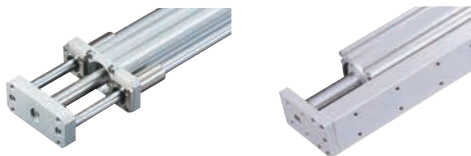
Self made component, lowering down the cost.

Rod Style Ball Screw Actuator



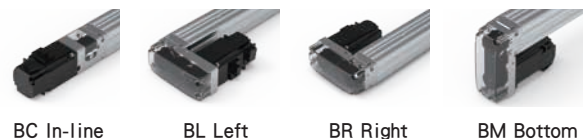
Optional Support

- Optional support rod for better lateral force resistant.
- Special design for anti rotation. Increasing life span.



Multiple Motor Position

- For more flexible design choice.



BC In-line

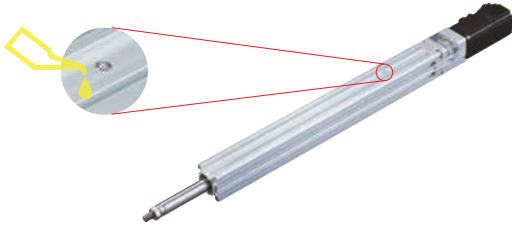
BL Left

BR Right

BM Bottom

External Grease Port

- Easier maintenance. One grease port for all. No disassembly needed.



Transparent coupling housing

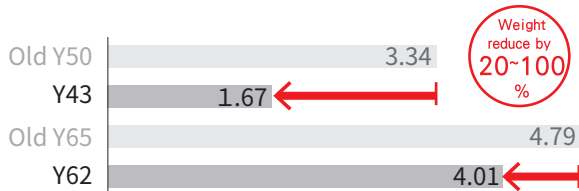
- Live monitoring. Check coupling without stopping the machine.
- Save time.



Reduced Weight

Unit:kg

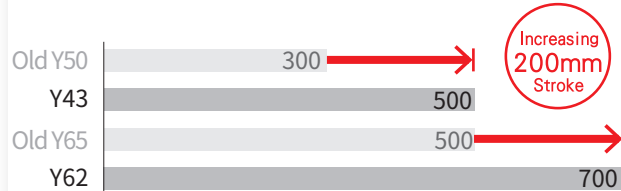
- Stainless rod, better weight distribution than iron rod used in 1st gen. An example of 300mm stroke



Longer Effective Stroke

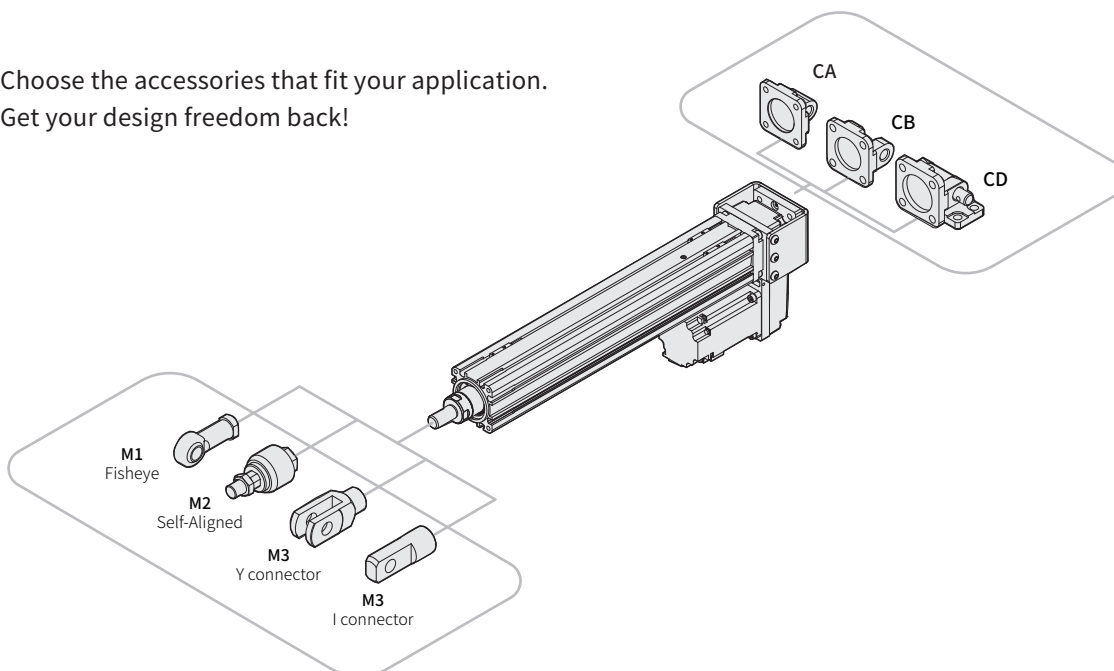
Unit:mm

- Radial bearing design for increasing stroke. Up to 700mm.



[Optional Accessories]

- Choose the accessories that fit your application.
- Get your design freedom back!



Spec Index of Electric Actuator

Y Standard Ball Screw Actuator - Rod Type

Env.	Drive Type	Spec.	Motor Output (w)	Width (mm)	Repeatability (mm)	Ball Screw Spec		Maximum Payload(kg)		Maximum Speed (mm/s)
						Outer Diameter(mm)	Lead(mm)	Horizontal	Vertical	
Standard	Ball screw	Y43	100W	43	±0.01	10	2	40	12	120
							6	30	9	360
							12	20	7	720
		Y43D	100W	43	±0.01	10	2	40	12	120
							6	30	9	360
							12	20	7	720
		Y43L	100W	43	±0.01	10	2	40	12	120
							6	30	9	360
							12	20	7	720
		Y62	400W	62	±0.01	14	6	100	33	360
							12	80	20	720
		Y62D	400W	62	±0.01	14	6	100	33	360
							12	80	20	720
		Y62L	400W	62	±0.01	14	6	100	33	360
							12	80	20	720

*2: Written here is the standard storke' s maximum safe speed. If over this speed, it may casue serious virbration.

Toll-Free Number : Taiwan **0800-800-893**

Application	Standard Ball Screw Type Y
Standard Belt Type ETB / M	
Cleanroom Ball Screw Type GCH / ECH	
Cleanroom Belt Type ECB	
Multi Axis Type XYGT / XTH / XYTB	
Reference	

Stroke(mm) & Maximum Speed(mm/s) ^{*2}																												Speed		Page
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1100	1200	1300	1400	1500	1600	1700			
120						100		50																				006		
360						300		150																						
720						600		300																						
120								80																				010		
360								240																						
720								480																						
120						100		50																				014		
360						300		150																						
720						600		300																						
360							180		90		60																	018		
720							360		180		120																			
360							270		180		90																	022		
720							540		360		180																			
360							180		90		60																	026		
720							360		180		120																			



Max. stroke 500mm

Max. Speed 720mm/s

Motor Output 100W

Ball Screw $\phi 10\text{mm}$

Ordering Method

Y43 - L12 - 300 - BC - M10B - C4N2 - Refer to the right page. - A0001

Model

Stroke

50-500mm
50 mm Pitch

Motor Position

BC	Motor Exposed
BL	Motor Left Side
BR	Motor Right Side
BM	Motor Bottom Side

Motor Brand

M	Mitsubishi	10	100W	B
P	Panasonic	20	-	
Y	Yaskawa	40	-	
T	Delta	75	-	

*If No Brake, No Description.

Home Sensor

Out Side	
C	Motor Side
D	Opposite Motor Side
No Sensor	
E	No Sensor

Limit Sensor

Out Side	
3	1 Pc
4	2 Pcs
6	3 Pcs
7	4 Pcs
8	5 Pcs
9	6 Pcs
No Sensor	
5	No Sensor

Options

Customization Order No.

Output type & Cable length

N2	Three Cable NPN+ 2M Cable
P2	Three Cable PNP+ 2M Cable
-	Two Cable+2M Cable



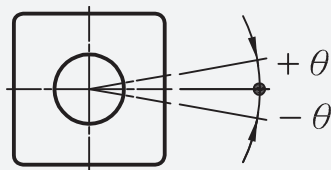
Specification

Performance	Repeatability		mm	±0.01		
	Lead		mm	2	6	12
	Maximum Rotating speed		rpm	3600	3600	3600
	Maximum linear speed		mm/s	120	360	720
	Maximum Payload	Horizontal※1	kg	40	30	20
		Vertical(No regenerative resistor)	kg	12	9	7
		Vertical (External 60W regenerative resistor)	kg	14	12	11
	Rated Thrust		N	854	284	142
	Stroke (increments)		mm	50-500mm /(50 increments)		
	Maximum acceleration		G	0.12	0.37	0.73
Parts	Ball screw	Basic Dynamic load rating Ca	N	2271	2243	1436
		Basic Static load rating Coa	N	4837	3959	2441
	Fixed bearing	Basic dynamic load rating Cr	N	5361		
		Static load rating Cor	N	2880		
	AC Servo Motor Output		W	100		
	Ball Screw Ø		mm	C7Ø10		
	Coupling		mm	7X8		
Parts	Home Sensor	Outside		CS-6T		

※1 If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

Anti-rotating Accuracy

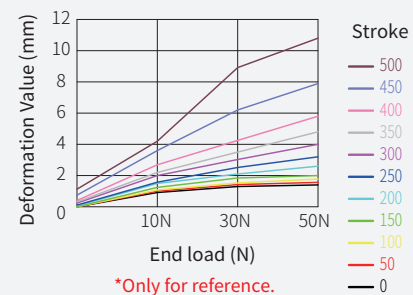
Anti-rotating Accuracy of Rod



Anti-rotating accuracyθ
±1°

※ Avoid using the electric actuator in such a way that rotational torque would be applied to the piston rod.
This may cause deformation of the Anti-rotating guide, abnormal responses of the auto switch, play in the internal guide or an increase in the sliding resistance.

Shaft Output Deformation Value



Options

MM

Selectable Cable Leading Direction		
Code	Instructions	Refer to
MW	Upper side	P.30 ~ P.31
MM	Bottom side	
ML	Left side	
MR	Right side	

CMK

Additional keyway for motor drive parts				
Code	Instructions			Refer to
	Keyway Groove	Motor	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.30 ~ P.31
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Not Applicable	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

M1

Rod End		
Code	Instructions	Refer to
M1	Fisheye	P.32 ~ P.34
M2	Self-aligned	
M3	Y connector	
M4	I connector	

CA

Clevis		
Code	Instructions	Refer to
CA	Convex type	P.32 ~ P.34
CB	Concave type	
CD	Combination type	

Y Series

Y43

Y43D

Y43L

Y62

Y62D

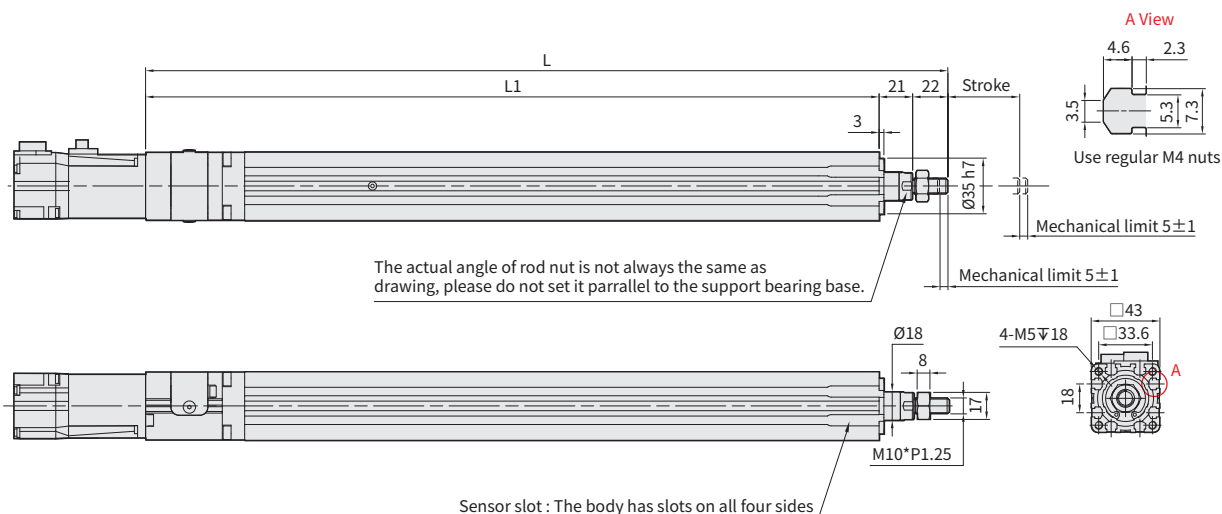
Y62L

BC Motor Hidden In



• Download at www.toyorobot.com •

Unit : mm



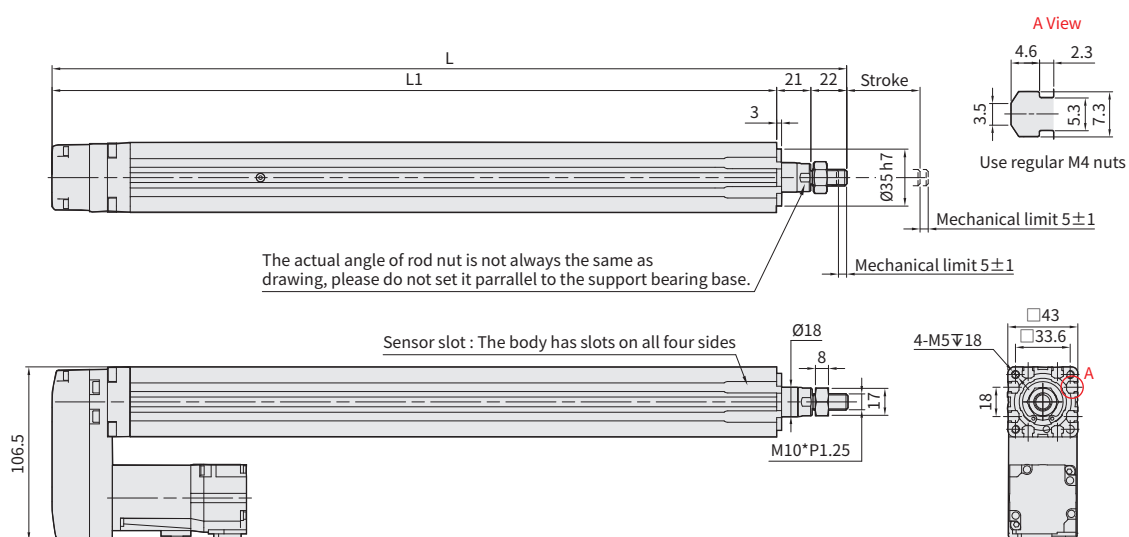
Stroke	50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510
L	252	302	352	402	452	502	552	602	652	702
L1	209	259	309	359	409	459	509	559	609	659
KG	0.82	0.99	1.16	1.33	1.5	1.67	1.84	2.01	2.18	2.35
Linear Speed mm/s	Lead 2		120		100		50			
	Lead 6		360		300		150			
	Lead 12		720		600		300			

BM Motor Bottom Side



• Download at www.toyorobot.com •

Unit : mm

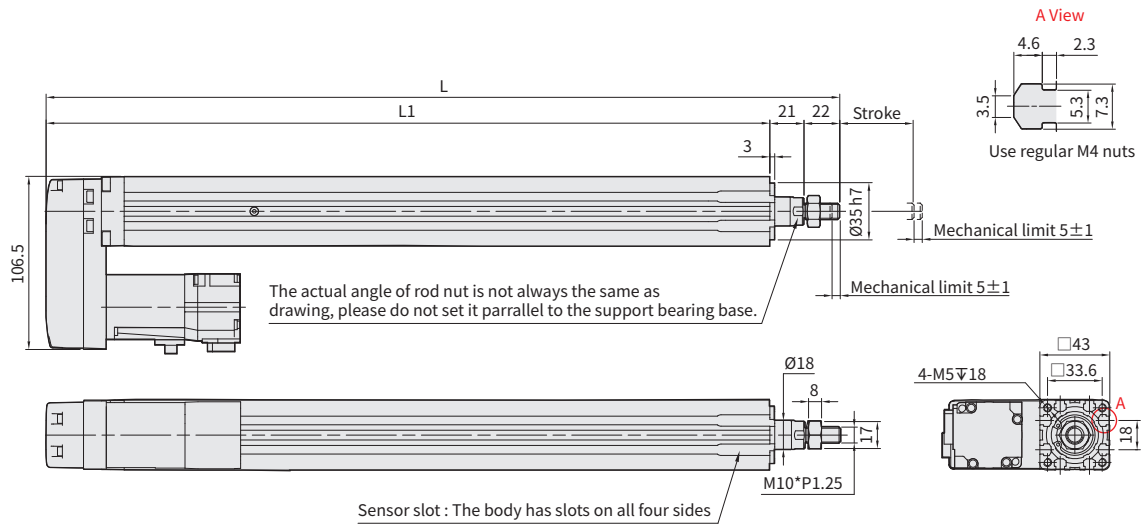


Stroke	50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510
L	238	288	338	388	438	488	538	588	638	688
L1	195	245	295	345	395	445	495	545	595	645
KG	1.08	1.25	1.42	1.59	1.76	1.93	2.1	2.27	2.44	2.61
Linear Speed mm/s	Lead 2		120		100		50			
	Lead 6		360		300		150			
	Lead 12		720		600		300			


BL Motor Left Side

Download at www.toyorobot.com

Unit : mm

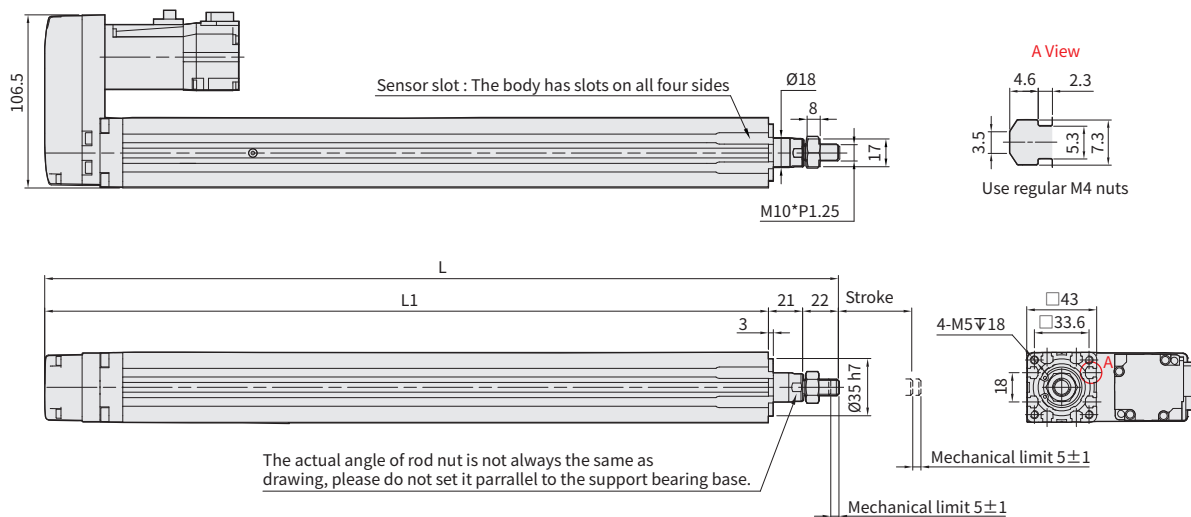


Stroke		50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)		60	110	160	210	260	310	360	410	460	510
L		238	288	338	388	438	488	538	588	638	688
L1		195	245	295	345	395	445	495	545	595	645
KG		1.08	1.25	1.42	1.59	1.76	1.93	2.1	2.27	2.44	2.61
Linear Speed mm/s	Lead 2	120					100		50		
	Lead 6	360					300		150		
	Lead 12	720					600		300		

BR Motor Right Side

Download at www.toyorobot.com

Unit : mm



Stroke	50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510
L	238	288	338	388	438	488	538	588	638	688
L1	195	245	295	345	395	445	495	545	595	645
KG	1.08	1.25	1.42	1.59	1.76	1.93	2.1	2.27	2.44	2.61
Linear Speed mm/s	Lead 2	120					100		50	
	Lead 6	360					300		150	
	Lead 12	720					600		300	

Y Series

Y43

Y43D

Y43L

Y62

Y62D

Y62L

Y43D 1-axis

▶ Ball Screw Drive



Max. stroke 500mm

Max. Speed 720mm/s

Motor Output 100W

Ball Screw $\varnothing 10\text{mm}$

Ordering Method

Y43D - L12 - 300 - BC - M10B - C4N2 - Refer to the right page. - A0001

Model

Stroke

50-500mm
50 mm Pitch

Ball Screw Lead

2	2mm
6	6mm
12	12mm

Motor Position

BC	Motor Exposed
BM	Motor Bottom Side

Motor Brand

M	Mitsubishi	10	100W	B
P	Panasonic	20	-	
Y	Yaskawa	40	-	
T	Delta	75	-	

*If No Brake, No Description.

Home Sensor

Out Side	
C	Motor Side
D	Opposite Motor Side
No Sensor	
E	No Sensor

Limit Sensor

Out Side	
3	1 Pc
4	2 Pcs
6	3 Pcs
7	4 Pcs
8	5 Pcs
9	6 Pcs
No Sensor	
5	No Sensor

Output type & Cable length

N2	Three Cable NPN+ 2M Cable
P2	Three Cable PNP+ 2M Cable
-	Two Cable+2M Cable



Specification

Performance	Repeatability		mm	±0.01		
	Lead		mm	2	6	12
	Maximum Rotating speed		rpm	3600	3600	3600
	Maximum linear speed		mm/s	120	360	720
	Maximum Payload	Horizontal ^{※1}	kg	40	30	20
		Vertical(No regenerative resistor)	kg	12	9	7
		Vertical (External 60W regenerative resistor)	kg	14	12	11
	Rated Thrust		N	854	284	142
	Stroke (increments)		mm	50-500mm /(50 increments)		
	Maximum acceleration		G	0.12	0.37	0.73
	Ball screw	Basic Dynamic load rating Ca	N	2271	2243	1436
		Basic Static load rating Coa	N	4837	3959	2441
Parts	Fixed bearing	Basic dynamic load rating Cr	N	5361		
		Static load rating Cor	N	2880		
	AC Servo Motor Output		W	100		
	Ball Screw Ø		mm	C7Ø10		
	Coupling		mm	7X8		
	Home Sensor	Outside		CS-6T		

※1 If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

Options

MM

Selectable Cable Leading Direction		
Code	Instructions	Refer to
MW	Upper side	P.30 ~ P.31
MM	Bottom side	
ML	Left side	
MR	Right side	

CMK

Additional keyway for motor drive parts				
Code	Instructions			Refer to
	Keyway Groove	Motor	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.30 ~ P.31
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Not Applicable	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

CA

Clevis		
Code	Instructions	Refer to
CA	Convex type	P.32 ~ P.34
CB	Concave type	
CD	Combination type	

Y Series

Y43

Y43D

Y43L

Y62

Y62D

Y62L

Y43D 1-axis

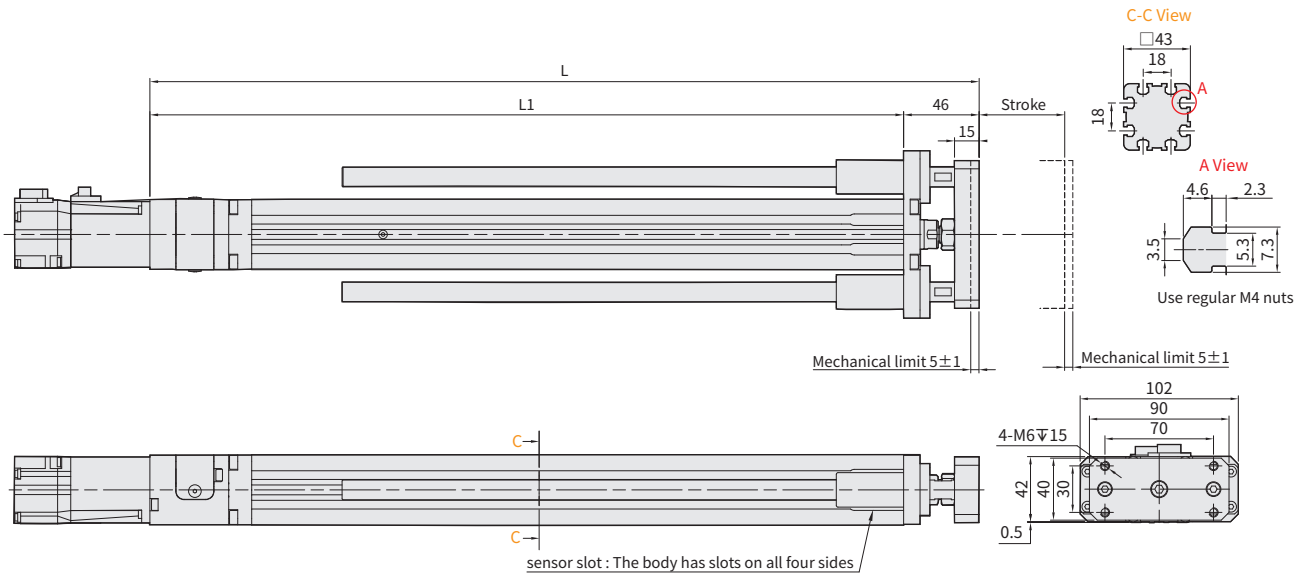
▶ Ball Screw Drive

BC Motor Hidden In



• Download at www.toyorobot.com •

Unit : mm



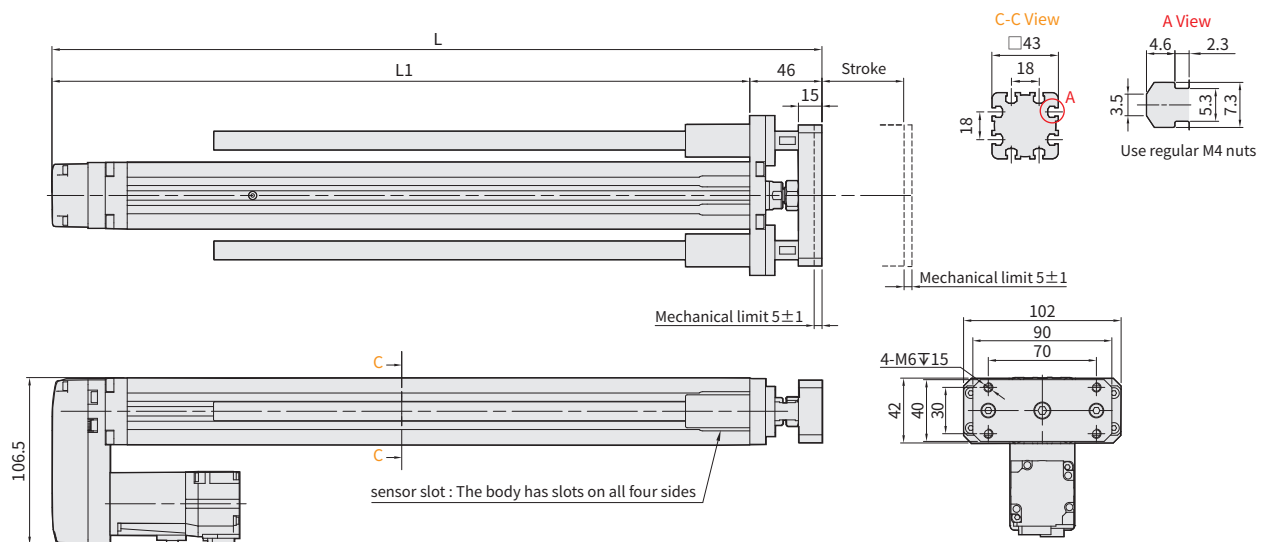
Stroke	50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510
L	255	305	355	405	455	505	555	605	655	705
L1	209	259	309	359	409	459	509	559	609	659
KG	1.4	1.66	1.92	2.18	2.44	2.7	2.95	3.21	3.47	3.73
Linear Speed mm/s	Lead 2	120					80			
	Lead 6	360					240			
	Lead 12	720					480			

BM Motor Bottom Side



• Download at www.toyorobot.com •

Unit : mm



Stroke	50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510
L	241	291	341	391	441	491	541	591	641	691
L1	195	245	295	345	395	445	495	545	595	645
KG	1.66	1.92	2.18	2.44	2.7	2.95	3.21	3.47	3.73	4
Linear Speed mm/s	Lead 2	120					80			
	Lead 6	360					240			
	Lead 12	720					480			



Toll-Free Number : Taiwan **0800-800-893**

Memo

Application	
Standard Ball Screw Type Y	
Standard Belt Type ETB / M	
Cleanroom Ball Screw Type GCH / ECH	
Cleanroom Belt Type ECB	
Multi Axis Type XYGT / XTH / XTB	
Reference	

Y Series

Y43

Y43D

Y43L

Y62

Y62D

Y62L



Max. stroke 500mm

Max. Speed 720mm/s

Motor Output 100W

Ball Screw $\varnothing 10\text{mm}$

Ordering Method

Y43L - L12 - 300 - BC - M10B - C4N2 - Refer to the right page. - A0001

Model

Stroke

50-500mm
50 mm Pitch

Ball Screw Lead

2	2mm
6	6mm
12	12mm

Motor Position

BC	Motor Exposed
BL	Motor Left Side
BR	Motor Right Side
BM	Motor Bottom Side

Motor Brand

M	Mitsubishi	10	100W	B
P	Panasonic	20	-	
Y	Yaskawa	40	-	
T	Delta	75	-	

*If No Brake, No Description.

Home Sensor

Out Side	
C	Motor Side
D	Opposite Motor Side
No Sensor	
E	No Sensor

Limit Sensor

Out Side	
3	1 Pc
4	2 Pcs
6	3 Pcs
7	4 Pcs
8	5 Pcs
9	6 Pcs
No Sensor	
5	No Sensor

Output type & Cable length

N2	Three Cable NPN+ 2M Cable
P2	Three Cable PNP+ 2M Cable
-	Two Cable+2M Cable



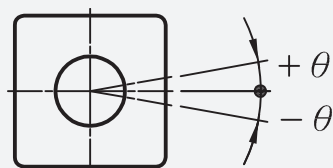
Specification

Performance	Repeatability		mm	± 0.01		
	Lead		mm	2	6	12
	Maximum Rotating speed		rpm	3600	3600	3600
	Maximum linear speed		mm/s	120	360	720
	Maximum Payload	Horizontal ^{※1}	kg	40	30	20
		Vertical (No regenerative resistor)	kg	12	9	7
		Vertical (External 60W regenerative resistor)	kg	14	12	11
	Rated Thrust		N	854	284	142
	Stroke (increments)		mm	50-500mm / (50 increments)		
	Maximum acceleration		G	0.12	0.37	0.73
	Ball screw	Basic Dynamic load rating Ca	N	2271	2243	1436
		Basic Static load rating Coa	N	4837	3959	2441
Parts	Fixed bearing	Basic dynamic load rating Cr	N	5361		
		Static load rating Cor	N	2880		
	AC Servo Motor Output		W	100		
	Ball Screw Ø		mm	C7Ø10		
	Coupling		mm	7X8		
	Home Sensor	Outside		CS-6T		

※1 If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

Anti-rotating Accuracy

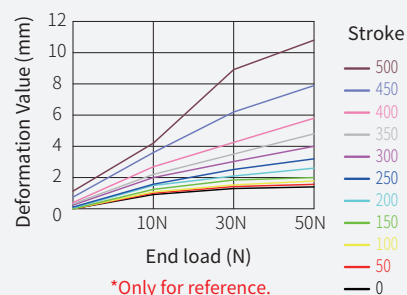
Anti-rotating Accuracy of Rod



Anti-rotating accuracy θ
$\pm 1^\circ$

※ Avoid using the electric actuator in such a way that rotational torque would be applied to the piston rod. This may cause deformation of the Anti-rotating guide, abnormal responses of the auto switch, play in the internal guide or an increase in the sliding resistance.

Shaft Output Deformation Value



Options

MM

Selectable Cable Leading Direction		
Code	Instructions	Refer to
MW	Upper side	P.30 ~ P.31
MM	Bottom side	
ML	Left side	
MR	Right side	

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Additional keyway for motor drive parts				
Code	Instructions			Refer to
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CA

Clevis		
Code	Instructions	Refer to
CA	Convex type	P.32 ~ P.34
CB	Concave type	
CD	Combination type	

Y Series

Y43

Y43D

Y43L

Y62

Y62D

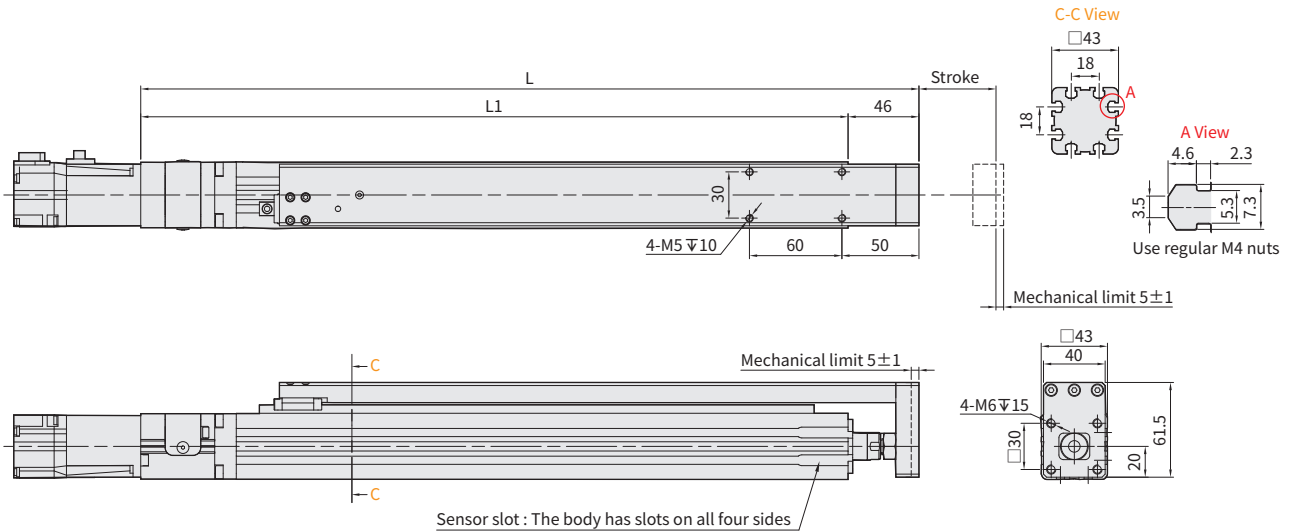
Y62L

BC Motor Hidden In



• Download at www.toyorobot.com •

Unit : mm



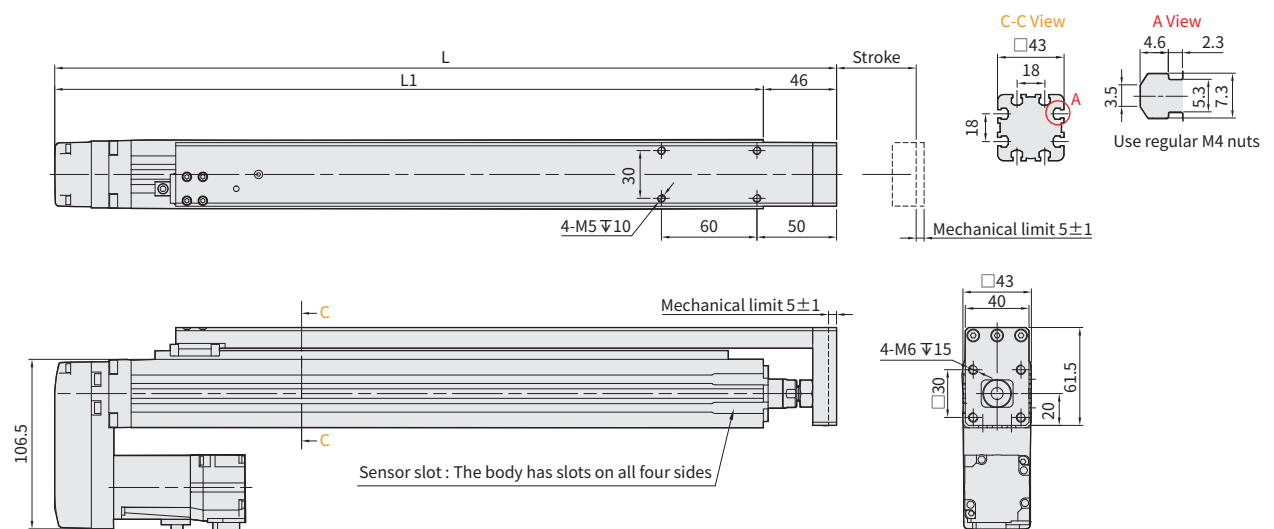
Stroke	50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510
L	255	305	355	405	455	505	555	605	655	705
L1	209	259	309	359	409	459	509	559	609	659
KG	1.14	1.44	1.66	1.92	2.18	2.44	2.7	2.96	3.22	3.48
Linear Speed mm/s	Lead 2	120			100			50		
	Lead 6	360			300			150		
	Lead 12	720			600			300		

BM Motor Bottom Side



• Download at www.toyorobot.com •

Unit : mm

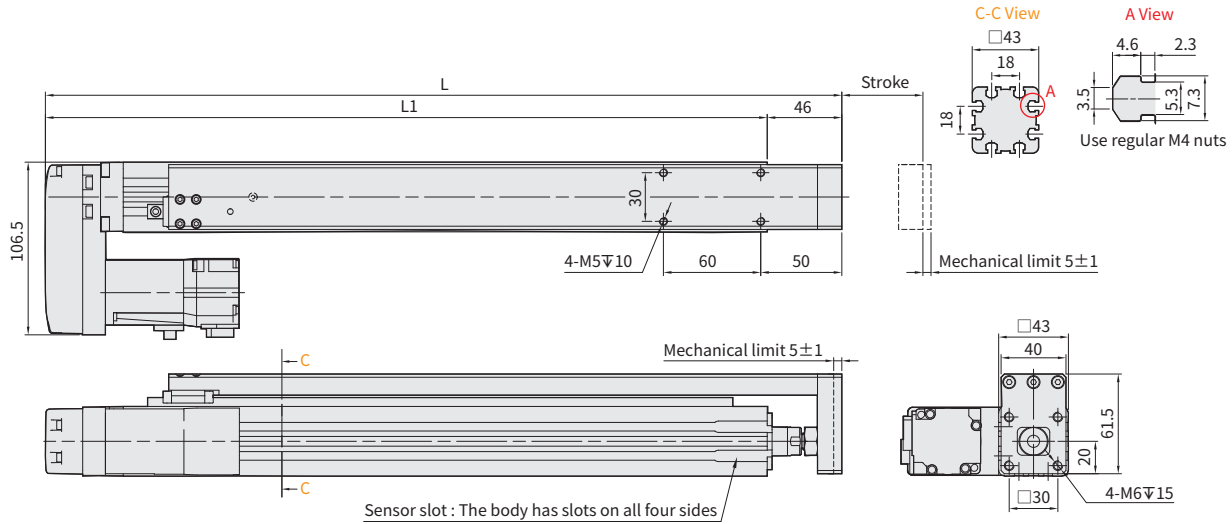


Stroke	50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510
L	241	291	341	391	441	491	541	591	641	691
L1	195	245	295	345	395	445	495	545	595	645
KG	1.08	1.25	1.42	1.59	1.76	1.93	2.1	2.27	2.44	2.61
Linear Speed mm/s	Lead 2	120			100			50		
	Lead 6	360			300			150		
	Lead 12	720			600			300		


BL Motor Left Side

Download at www.toyorobot.com

Unit : mm

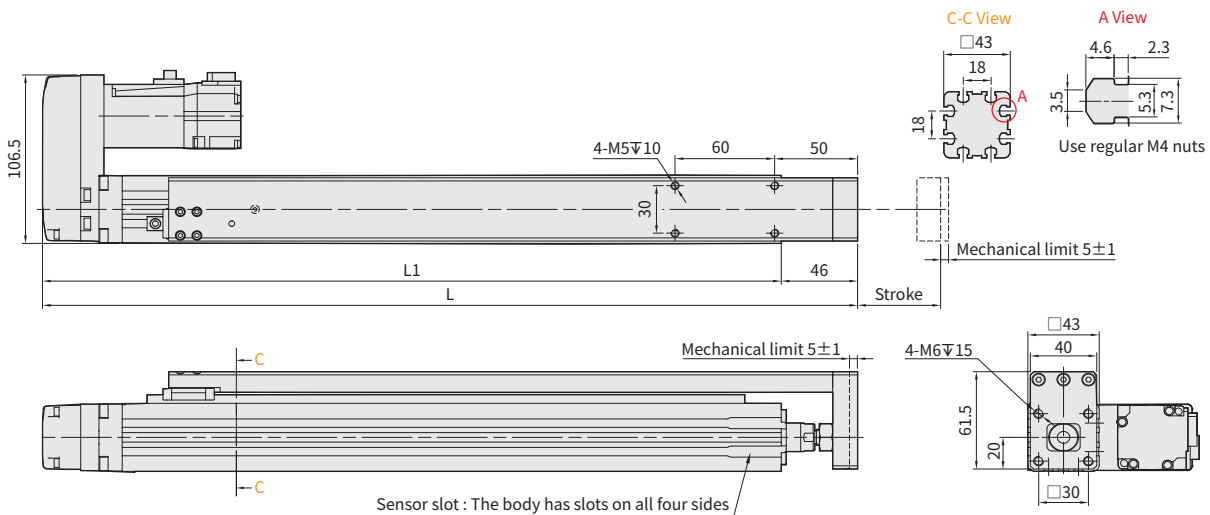


Stroke	50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510
L	241	291	341	391	441	491	541	591	641	691
L1	195	245	295	345	395	445	495	545	595	645
KG	1.08	1.25	1.42	1.59	1.76	1.93	2.1	2.27	2.44	2.61
Linear Speed mm/s	Lead 2					100		50		
	Lead 6					300		150		
	Lead 12					600		300		

BR Motor Right Side

Download at www.toyorobot.com

Unit : mm



Stroke	50	100	150	200	250	300	350	400	450	500
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510
L	241	291	341	391	441	491	541	591	641	691
L1	195	245	295	345	395	445	495	545	595	645
KG	1.08	1.25	1.42	1.59	1.76	1.93	2.1	2.27	2.44	2.61
Linear Speed mm/s	Lead 2					100		50		
	Lead 6					300		150		
	Lead 12					600		300		

Y Series

Y43

Y43D

Y43L

Y62

Y62D

Y62L



Max. stroke 700mm

Max. Speed 720mm/s

Motor Output 400W

Ball Screw ø14mm

Ordering Method

Y62 - L12 - 300 - BC - M40B - C4N2 - Refer to the right page. - A0001

Model

Stroke

50-700mm
50 mm Pitch

Motor Position

BC	Motor Exposed
BL	Motor Left Side
BR	Motor Right Side
BM	Motor Bottom Side

Motor Brand

M	Mitsubishi	10	-	B
P	Panasonic	20	-	
Y	Yaskawa	40	400W	
T	Delta	75	-	

*If No Brake, No Description.

Home Sensor

Out Side	
C	Motor Side
D	Opposite Motor Side
No Sensor	
E	No Sensor

Limit Sensor

Out Side	
3	1 Pc
4	2 Pcs
6	3 Pcs
7	4 Pcs
8	5 Pcs
9	6 Pcs
No Sensor	
5	No Sensor

Output type & Cable length

N2	Three Cable NPN+ 2M Cable
P2	Three Cable PNP+ 2M Cable
-	Two Cable+2M Cable

Ball Screw Lead

6	6mm
12	12mm



Specification

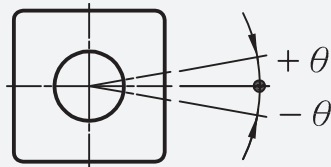
Performance	Repeatability		mm	±0.01	
	Lead		mm	6	12
	Maximum Rotating speed		rpm	3600	3600
	Maximum linear speed		mm/s	360	720
	Maximum Payload	Horizontal ^{※1}	kg	100	80
		Vertical (No regenerative resistor) ^{※2}	kg	33	20
		Vertical (External 60W regenerative resistor)	kg	45	30
	Rated Thrust		N	1156	578
	Stroke (increments)		mm	50-700mm / (50 increments)	
	Maximum acceleration		G	0.37	0.73
Parts	Ball screw	Basic Dynamic load rating Ca	N	7733	5856
		Basic Static load rating Coa	N	14200	10402
	Fixed bearing	Basic dynamic load rating Cr	N	8447	
		Static load rating Cor	N	5060	
	AC Servo Motor Output		W	400	
	Ball Screw Ø		mm	C7Ø14	
	Coupling		mm	10X14	
	Home Sensor	Outside		CS-6T	

※1 If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

※2 Require drive that built-in at least 20W regenerative resistor to meet the vertical performance.)

Anti-rotating Accuracy

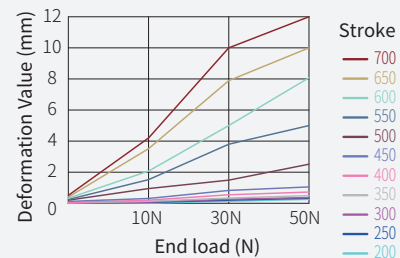
Anti-rotating Accuracy of Rod



Anti-rotating accuracy θ
±1°

※ Avoid using the electric actuator in such a way that rotational torque would be applied to the piston rod.
This may cause deformation of the Anti-rotating guide, abnormal responses of the auto switch, play in the internal guide or an increase in the sliding resistance.

Shaft Output Deformation Value



*Only for reference.

Options

MM

Selectable Cable Leading Direction		
Code	Instructions	Refer to
MW	Upper side	P.30 ~ P.31
MM	Bottom side	
ML	Left side	
MR	Right side	

CMK

Additional keyway for motor drive parts				
Code	Instructions			Refer to
	Keyway Groove	Motor	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.30 ~ P.31
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Not Applicable	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

M1

Rod End		
Code	Instructions	Refer to
M1	Fisheye	P.32 ~ P.34
M2	Self-aligned	
M3	Y connector	
M4	I connector	

CA

Clevis		
Code	Instructions	Refer to
CA	Convex type	P.32 ~ P.34
CB	Concave type	
CD	Combination type	

Y Series

Y43

Y43D

Y43L

Y62

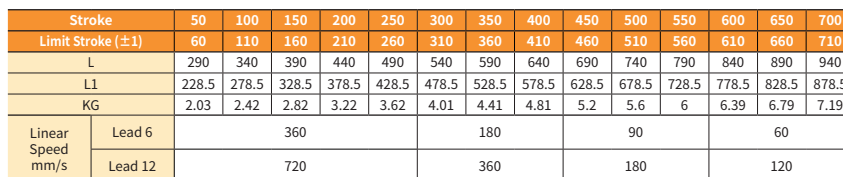
Y62D

Y62L

2D CAD

3D CAD

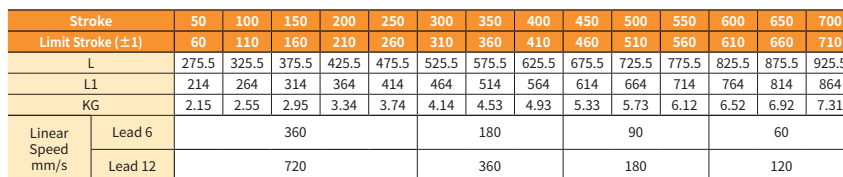
Unit : mm



2D CAD

3D CAD

Unit: mm



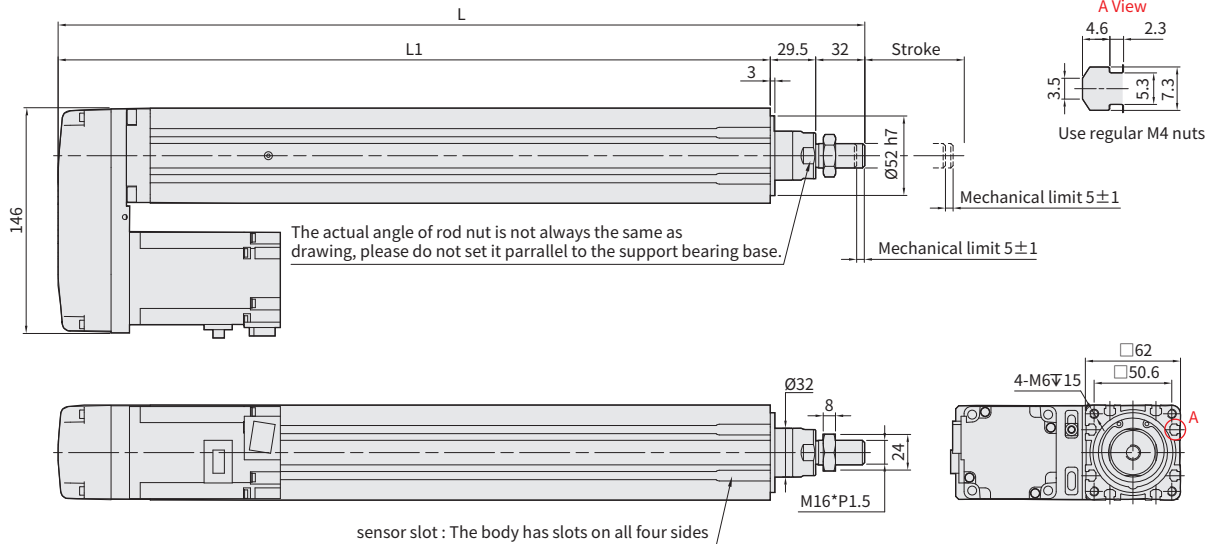


BL Motor Left Side



Download at www.toyorobot.com

Unit : mm



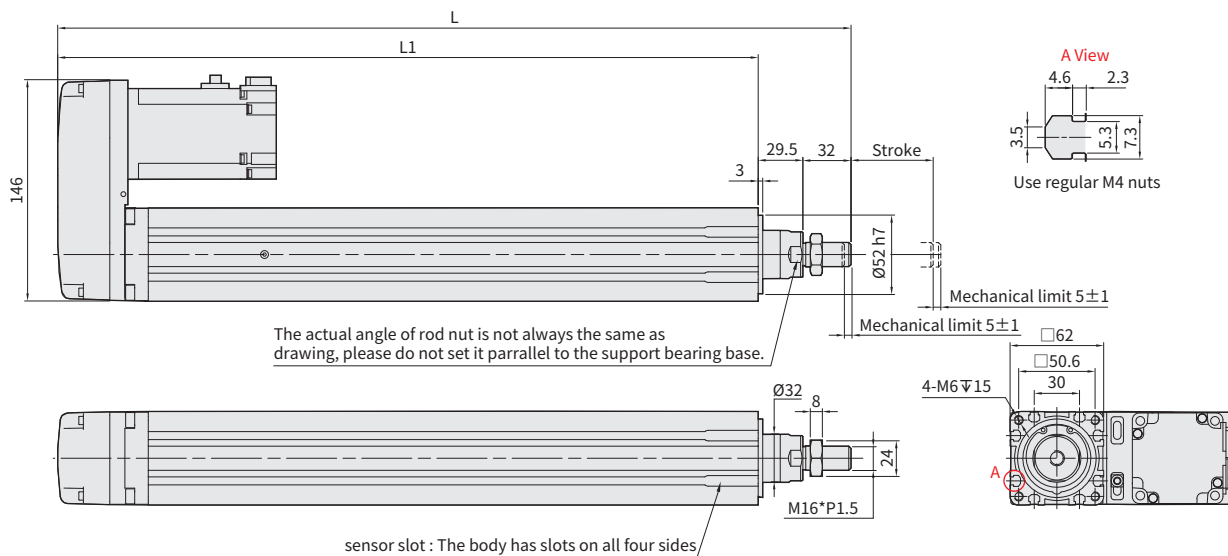
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Limit Stroke (± 1)	60	110	160	210	260	310	360	410	460	510	560	610	660	710
L	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5
L1	214	264	314	364	414	464	514	564	614	664	714	764	814	864
KG	2.15	2.55	2.95	3.34	3.74	4.14	4.53	4.93	5.33	5.73	6.12	6.52	6.92	7.31
Linear Speed mm/s	Lead 6	360			180			90			60			
	Lead 12	720			360			180			120			

BR Motor Right Side



Download at www.toyorobot.com

Unit : mm



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Limit Stroke (± 1)	60	110	160	210	260	310	360	410	460	510	560	610	660	710
L	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5
L1	214	264	314	364	414	464	514	564	614	664	714	764	814	864
KG	2.15	2.55	2.95	3.34	3.74	4.14	4.53	4.93	5.33	5.73	6.12	6.52	6.92	7.31
Linear Speed mm/s	Lead 6	360			180			90			60			
	Lead 12	720			360			180			120			

Y Series

Y43

Y43D

Y43L

Y62

Y62D

Y62L



Max. stroke 700mm

Max. Speed 720mm/s

Motor Output 400W

Ball Screw $\phi 14\text{mm}$

Ordering Method

Y62D - L12 - 300 - BC - M40B - C4N2 - Refer to the right page. - A0001

Model

Stroke

50-700mm
50 mm Pitch

Ball Screw Lead

6	6mm
12	12mm

Motor Position

BC	Motor Exposed
BM	Motor Bottom Side

Motor Brand

M	Mitsubishi	10	-	B
P	Panasonic	20	-	
Y	Yaskawa	40	400W	
T	Delta	75	-	

*If No Brake, No Description.

Home Sensor

Out Side	
C	Motor Side
D	Opposite Motor Side
No Sensor	
E	No Sensor

Limit Sensor

Out Side	
3	1 Pc
4	2 Pcs
6	3 Pcs
7	4 Pcs
8	5 Pcs
9	6 Pcs
No Sensor	
5	No Sensor

Output type & Cable length

N2	Three Cable NPN+ 2M Cable
P2	Three Cable PNP+ 2M Cable
-	Two Cable+2M Cable



Specification

Performance	Repeatability		mm	±0.01	
	Lead		mm	6	12
	Maximum Rotating speed		rpm	3600	3600
	Maximum linear speed		mm/s	360	720
	Maximum Payload	Horizontal ^{※1}	kg	100	80
		Vertical(No regenerative resistor)	kg	33	20
		Vertical (External 60W regenerative resistor)	kg	45	30
	Rated Thrust		N	1156	578
	Stroke (increments)		mm	50-700mm /(50 increments)	
	Maximum acceleration		G	0.37	0.73
Parts	Ball screw	Basic Dynamic load rating Ca	N	7733	5856
		Basic Static load rating Coa	N	14200	10402
	Fixed bearing	Basic dynamic load rating Cr	N	8447	
		Static load rating Cor	N	5060	
	AC Servo Motor Output		W	400	
	Ball Screw Ø		mm	C7Ø14	
Parts	Coupling		mm	10X14	
	Home Sensor	Outside		CS-6T	

※1 Require drive that built-in at least 20W regenerative resistor to meet the vertical performance)

Options

MM

Selectable Cable Leading Direction		
Code	Instructions	Refer to
MW	Upper side	P.30 ~ P.31
MM	Bottom side	
ML	Left side	
MR	Right side	

CMK

Additional keyway for motor drive parts				
Code	Instructions			Refer to
	Keyway Groove	Motor	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.30 ~ P.31
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Not Applicable	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

CA

Clevis		
Code	Instructions	Refer to
CA	Convex type	P.32 ~ P.34
CB	Concave type	
CD	Combination type	

Y Series

Y43

Y43D

Y43L

Y62

Y62D

Y62L

Y62D 1-axis

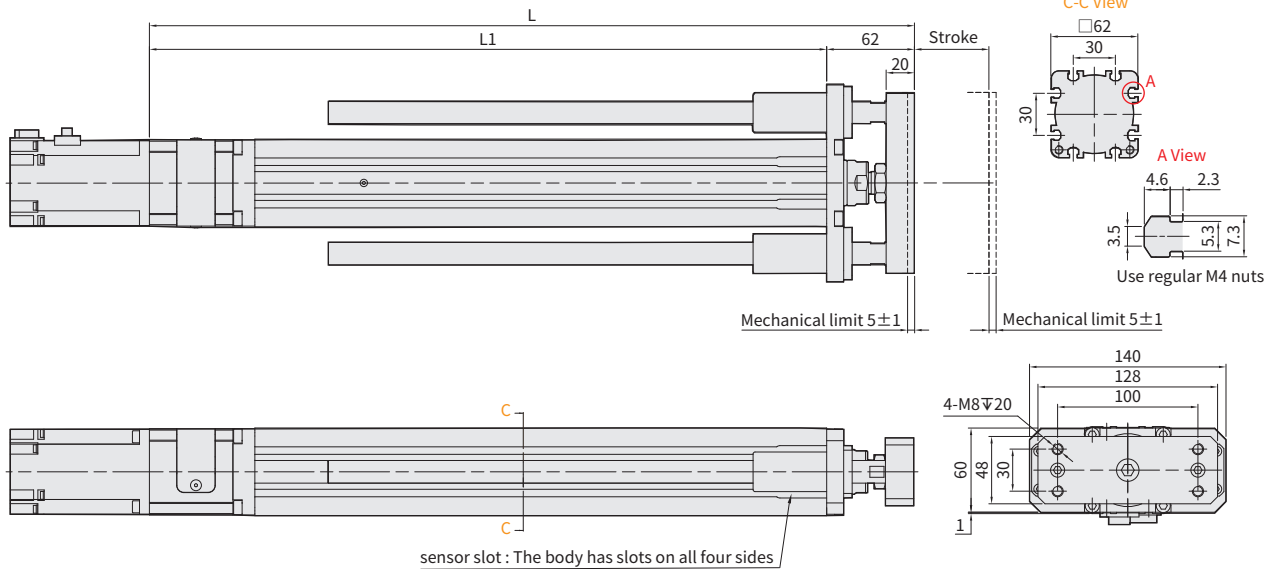
► Ball Screw Drive

BC Motor Hidden In



• Download at www.toyorobot.com •

Unit : mm



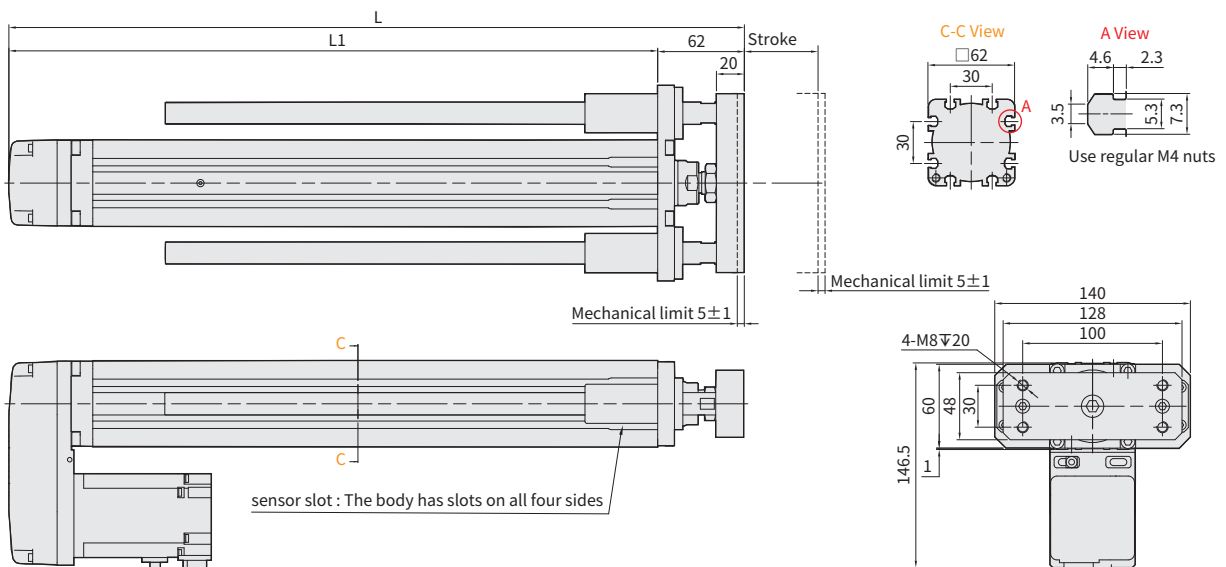
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510	560	610	660	710
L	290.5	340.5	390.5	440.5	490.5	540.5	590.5	640.5	690.5	740.5	790.5	840.5	890.5	940.5
L1	228.5	278.5	328.5	378.5	428.5	478.5	528.5	578.5	628.5	678.5	728.5	778.5	828.5	878.5
KG	3.3	3.85	4.41	4.97	5.53	6.07	6.63	7.19	7.74	8.29	8.85	9.4	9.96	10.52
Linear Speed mm/s	Lead 6	360			270			180			90			
	Lead 12	720			540			360			180			

BM Motor Bottom Side



• Download at www.toyorobot.com •

Unit : mm



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510	560	610	660	710
L	276	326	376	426	476	526	576	626	676	726	776	826	876	926
L1	214	264	314	364	414	464	514	564	614	664	714	764	814	864
KG	3.42	3.98	4.54	5.09	5.65	6.2	6.75	7.31	7.87	8.42	8.97	9.53	10.0	10.64
Linear Speed mm/s	Lead 6	360			270			180			90			
	Lead 12	720			540			360			180			



Toll-Free Number : Taiwan **0800-800-893**

Memo

Application	
Standard Ball Screw Type Y	
Standard Belt Type ETB / M	
Cleanroom Ball Screw Type GCH / ECH	
Cleanroom Belt Type ECB	
Multi Axis Type XYGT / XTH / XYTB	
Reference	

Y Series

- Y43
- Y43D
- Y43L
- Y62
- Y62D**
- Y62L



Max. stroke 700mm

Max. Speed 720mm/s

Motor Output 400W

Ball Screw $\phi 14\text{mm}$

Ordering Method

Y62L - L12 - 300 - BC - M40B - C4N2 - Refer to the right page. - A0001

Model

Stroke

50-700mm
50 mm Pitch

Motor Position

BC	Motor Exposed
BL	Motor Left Side
BR	Motor Right Side
BM	Motor Bottom Side

Motor Brand

M	Mitsubishi	10	-	B
P	Panasonic	20	-	
Y	Yaskawa	40	400W	
T	Delta	75	-	

*If No Brake, No Description.

Home Sensor

Out Side	
C	Motor Side
D	Opposite Motor Side
No Sensor	
E	No Sensor

Limit Sensor

Out Side	
3	1 Pc
4	2 Pcs
6	3 Pcs
7	4 Pcs
8	5 Pcs
9	6 Pcs
No Sensor	
5	No Sensor

Output type & Cable length

N2	Three Cable NPN+ 2M Cable
P2	Three Cable PNP+ 2M Cable
-	Two Cable+2M Cable

Ball Screw Lead

6	6mm
12	12mm



Specification

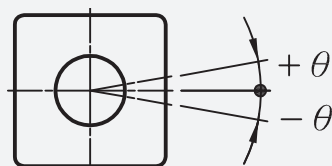
Performance	Repeatability		mm	± 0.01	
	Lead		mm	6	12
	Maximum Rotating speed		rpm	3600	3600
	Maximum linear speed		mm/s	360	720
	Maximum Payload	Horizontal ^{※1}	kg	100	80
		Vertical (No regenerative resistor) ^{※2}	kg	33	20
		Vertical (External 60W regenerative resistor)	kg	45	30
	Rated Thrust		N	1156	578
	Stroke (increments)		mm	50-500mm / (50 increments)	
	Maximum acceleration		G	0.37	0.73
Parts	Ball screw	Basic Dynamic load rating Ca	N	7733	5856
		Basic Static load rating Coa	N	14200	10402
	Fixed bearing	Basic dynamic load rating Cr	N	8447	
		Static load rating Cor	N	5060	
	AC Servo Motor Output		W	400	
	Ball Screw Ø		mm	C7Ø14	
	Coupling		mm	10X14	
Home Sensor	Outside			CS-6T	

※1 If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

※2 Require drive that built-in at least 20W regenerative resistor to meet the vertical performance.)

Anti-rotating Accuracy

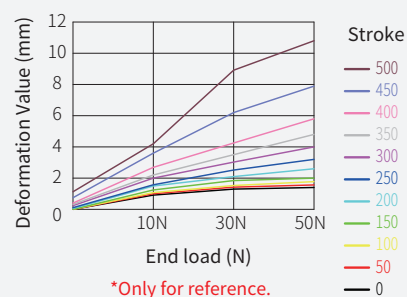
Anti-rotating Accuracy of Rod



Anti-rotating accuracy θ
$\pm 1^\circ$

※ Avoid using the electric actuator in such a way that rotational torque would be applied to the piston rod.
This may cause deformation of the Anti-rotating guide, abnormal responses of the auto switch, play in the internal guide or an increase in the sliding resistance.

Shaft Output Deformation Value



Options

MM

Selectable Cable Leading Direction		
Code	Instructions	Refer to
MW	Upper side	P.30 ~ P.31
MM	Bottom side	
ML	Left side	
MR	Right side	

CMK

Additional keyway for motor drive parts				
Code	Instructions			Refer to
	Keyway Groove	Motor	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.30 ~ P.31
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Not Applicable	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

CA

Clevis		
Code	Instructions	Refer to
CA	Convex type	P.32 ~ P.34
CB	Concave type	
CD	Combination type	

Y Series

Y43

Y43D

Y43L

Y62

Y62D

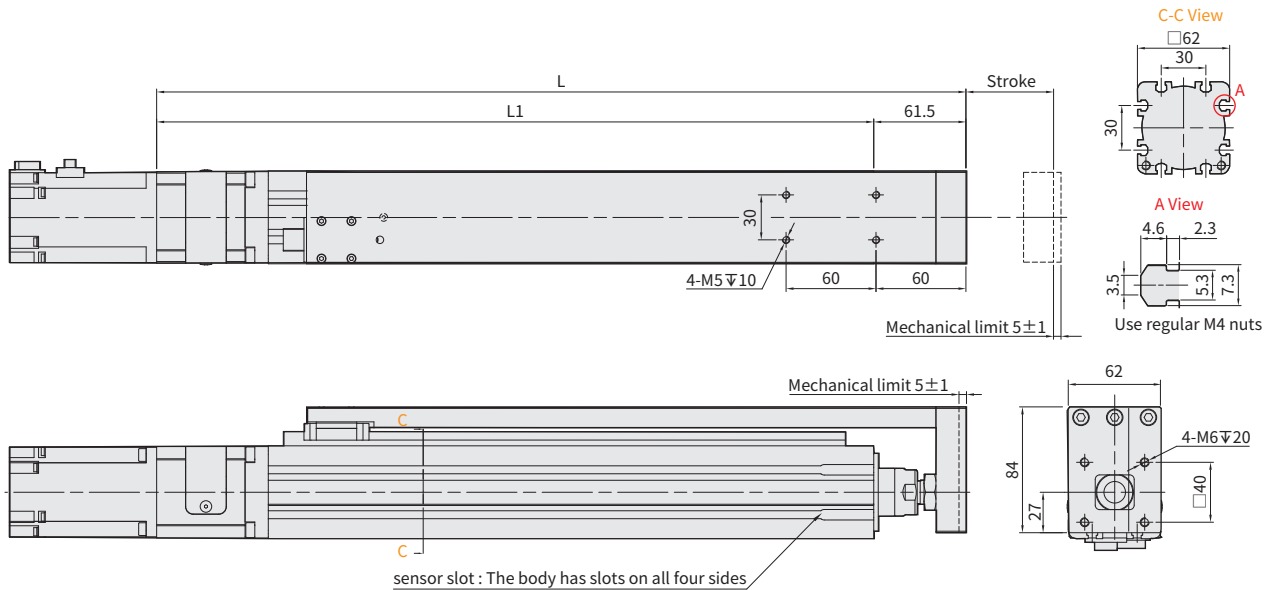
Y62L

BC Motor Hidden In



• Download at www.toyorobot.com •

Unit : mm



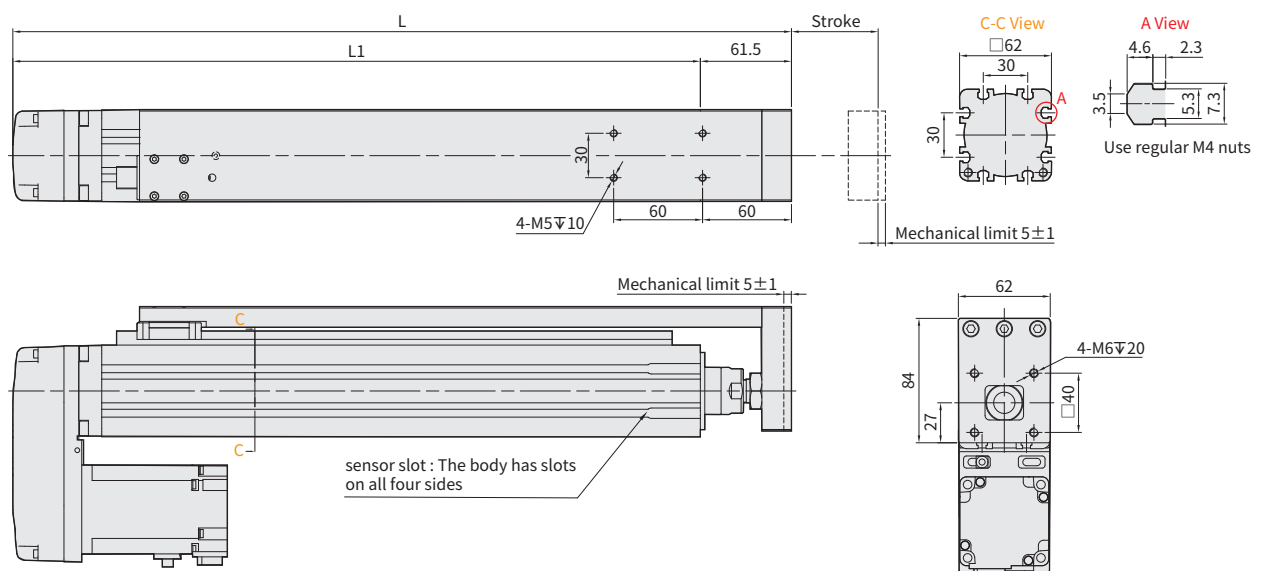
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510	560	610	660	710
L	290	340	390	440	490	540	590	640	690	740	790	840	890	940
L1	228.5	278.5	328.5	378.5	428.5	478.5	528.5	578.5	628.5	678.5	728.5	778.5	828.5	878.5
KG	2.03	2.42	2.82	3.22	3.62	4.01	4.41	4.81	5.2	5.6	6	6.39	6.79	7.19
Linear Speed mm/s	Lead 6	360				180				90		60		
	Lead 12	720				360				180		120		

BM Motor Bottom Side



• Download at www.toyorobot.com •

Unit : mm

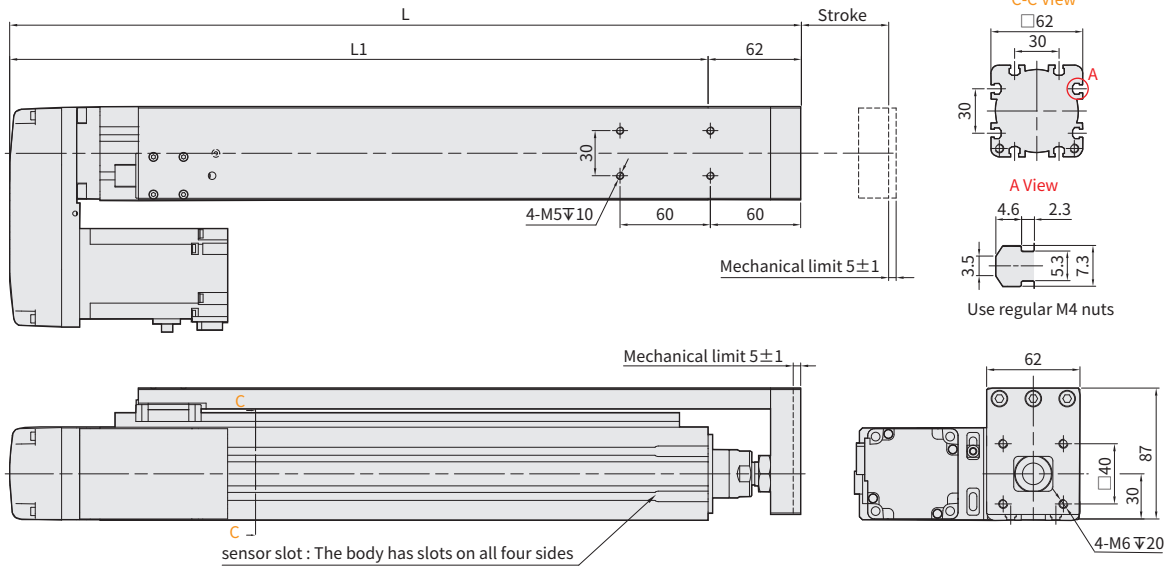


Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Limit Stroke (±1)	60	110	160	210	260	310	360	410	460	510	560	610	660	710
L	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5
L1	214	264	314	364	414	464	514	564	614	664	714	764	814	864
KG	2.15	2.55	2.95	3.34	3.74	4.14	4.53	4.93	5.33	5.73	6.12	6.52	6.92	7.31
Linear Speed mm/s	Lead 6	360				180				90		60		
	Lead 12	720				360				180		120		


BL Motor Left Side

Download at www.toyorobot.com

單位 Unit : mm

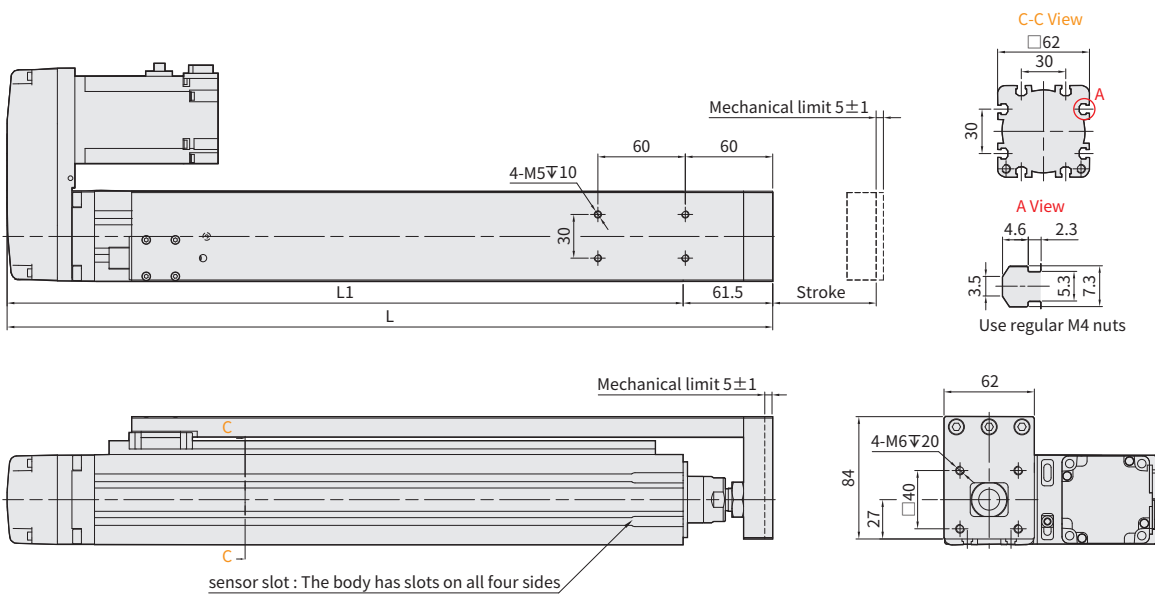


Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Limit Stroke (± 1)	60	110	160	210	260	310	360	410	460	510	560	610	660	710
L	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5
L1	214	264	314	364	414	464	514	564	614	664	714	764	814	864
KG	2.15	2.55	2.95	3.34	3.74	4.14	4.53	4.93	5.33	5.73	6.12	6.52	6.92	7.31
Linear Speed mm/s	Lead 6	360					180					90		
	Lead 12	720					360					180		

BR Motor Right Side

Download at www.toyorobot.com

單位 Unit : mm



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Limit Stroke (± 1)	60	110	160	210	260	310	360	410	460	510	560	610	660	710
L	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5
L1	214	264	314	364	414	464	514	564	614	664	714	764	814	864
KG	2.15	2.55	2.95	3.34	3.74	4.14	4.53	4.93	5.33	5.73	6.12	6.52	6.92	7.31
Linear Speed mm/s	Lead 6	360					180					90		
	Lead 12	720					360					180		

Y Series

Y43

Y43D

Y43L

Y62

Y62D

Y62L

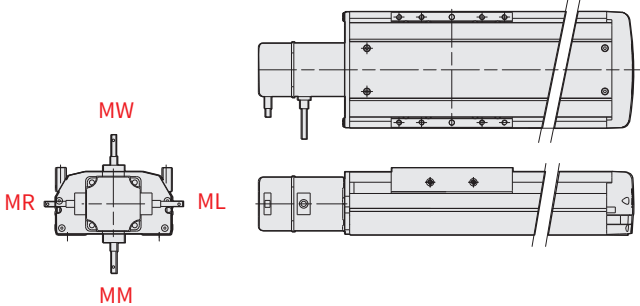
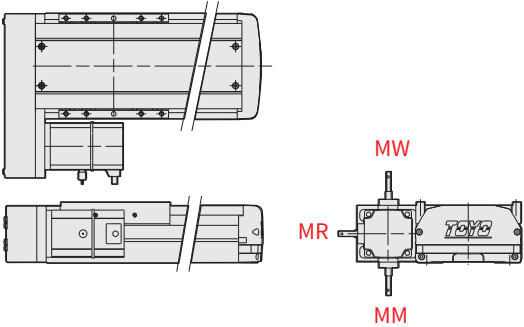
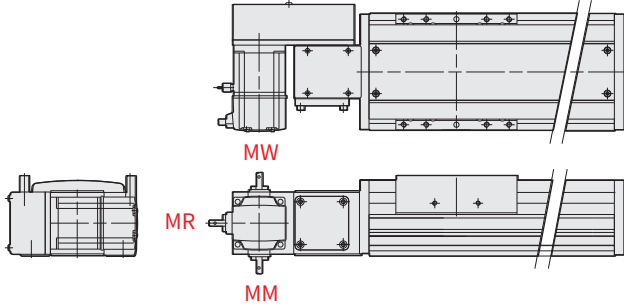
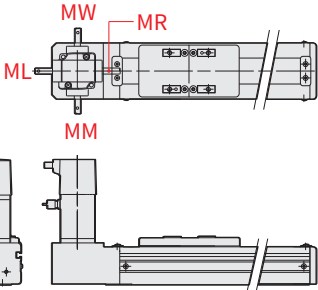
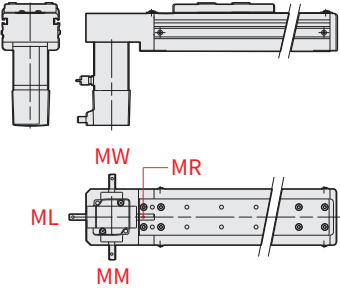
Options-Selectable Motor Cable Leading Direction

Code	Instructions	Diagram
MW	Motor cable leading direction upper side	
MR	Motor cable leading direction Right side	
MM	Motor cable leading direction Bottom side	
ML	Motor cable leading direction Left side	

※ Definition method of the outlet direction 1. The slide table is placed horizontally 2. Face the motor output shaft, judge up, down, left and right

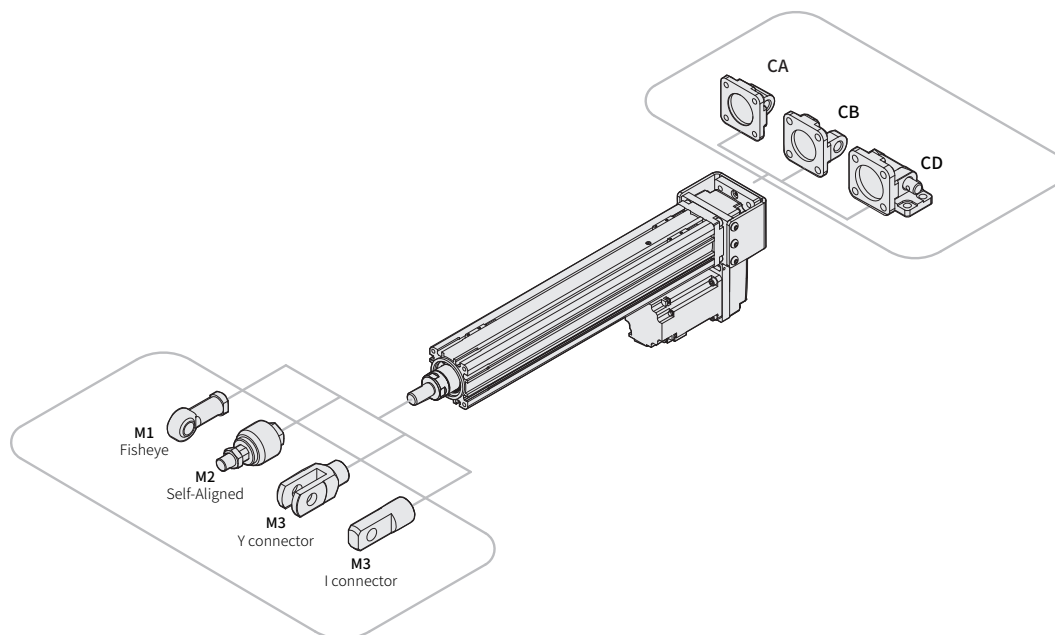
Ball Screw type	Motor position corresponds to power cable direction															
	BC				BL				BR				BM			
Applicable specs	MW	MR	MM	ML	MW	MR	MM	ML	MW	MR	MM	ML	MW	MR	MM	ML
Y43 / Y62 Y43L / Y62L	○	○	○	○	○	○	○	×	○	×	○	○	×	○	○	○
Y43D / Y62D	○	○	○	○	-	-	-	-	-	-	-	-	×	○	○	○

Application
Standard Ball Screw Type Y
Standard Belt Type ETB / M
Cleanroom Ball Screw Type GCH / ECH
Cleanroom Belt Type ECB
Multi Axis Type XYGT / XTH / XTB
Reference

Applicable specs	Provide motor cable leading direction example according to different specifications
GTH series GCH series GTY series GCY series ETH series ECH series Y series	 ※ Using ETH as an example
	 ※ This example cannot be used with ML, it will interfere with the slider
ETB10 above ECB10 above MH series MK series MG series	 ※ Using ETB as an example ※ This example cannot be used with ML, it will interfere with the slider
ETB5 series ECB5 series ETB6 series ECB6 series	 ※ Using ETB6 as an example
	 ※ Using ETB6 as an example

Options-Rod End & Clevis

Y43/62 Accessory Code



Y43 series Rod End

Code	Instructions	Diagram
M1	Fisheye	
M2	Floating joint	
M3	Y connector	
M4	I Connector	

Y62 series Rod End

Code	Instructions	Diagram
M1	Fisheye	
M2	Floating joint	
M3	Y connector	
M4	I Connector	

Options-Rod End & Clevis

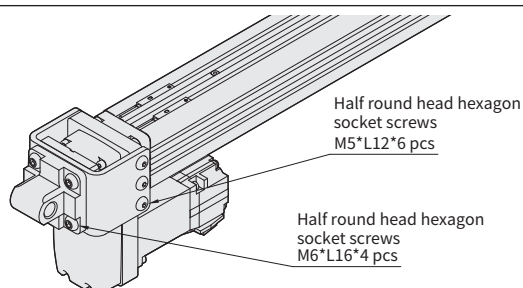
Y43 series Clevis

Code	Instructions	Diagram
CA	Convex type	
CB	Concave type	
CD	Combination type	

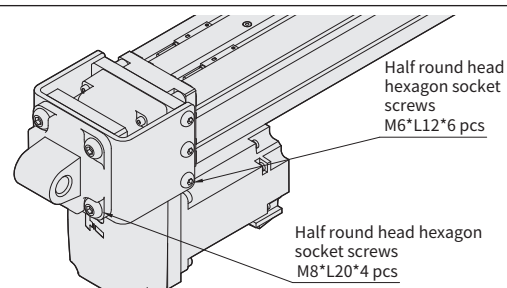
Y62 series Clevis

Code	Instructions	Diagram
CA	Convex type	
CB	Concave type	
CD	Combination type	

Y43 Clevis Mount Nut Spec



Y62 Clevis Mount Nut Spec



Toll-Free Number : Taiwan **0800-800-893**

Memo

Application	Standard Ball Screw Type Y
	Standard Belt Type ETB / M
	Cleanroom Ball Screw Type GCH / ECH
	Cleanroom Belt Type ECB
	Multi Axis Type XYGT / XTH / XTB
	Reference

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