

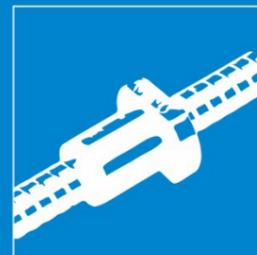
# KY Series

## Rod Type Actuator



### CONTENTS

#### Ball Screw Driven



High Accuracy, High Payload

The screw drive module is easy to achieve high precision, long service life, and high stability;  
 The repeated positioning accuracy can reach up to  $\pm 0.01 \sim \pm 0.005\text{mm}$ ;  
 Provide extremely wide load adaptability ranging from 5kg to 150kg;  
 Widely used in automation equipment and production lines in various industries.

SMALL

KY50



Width: 52mm  
 Max.stroke: 300mm...543  
 Max.payload: 50kg

MEDIUM

KY65



Width: 65mm  
 Max.stroke: 500mm...557  
 Max.payload: 110kg

SMALL

KY50D



Width: 52mm  
 Max.stroke: 300mm...549  
 Max.payload: 30kg

MEDIUM

KY65D



Width: 65mm  
 Max.stroke: 500mm...563  
 Max.payload: 110kg

SMALL

KY50L



Width: 52mm  
 Max.stroke: 300mm...553  
 Max.payload: 30kg

MEDIUM

KY65L



Width: 65mm  
 Max.stroke: 500mm...567  
 Max.payload: 110kg



KY50 1-axis Ball Screw Drive

KY50 1-axis

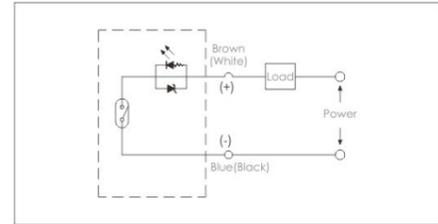


Maximum Stroke 300mm    Maximum Speed 500mm/s    Motor Output 100W    Ball Screw Ø12mm

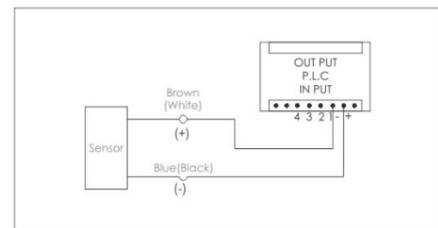
Specification    Sensor Layout

Spec	Repeatability (mm)	±0.01		
	Ball Screw Lead (mm)	5	10	
	Maximum Speed (mm/s)	250	500	
	Maximum Payload	Horizontal (kg)	30	15
		Vertical (kg)	12	5
Rated Thrust (N)	341    170			
Parts	Stroke Pitch (mm) ※1	50-300mm/50 mm Pitch		
	AC Servo Motor Output (w)	100		
	Ball Screw Ø (mm)	C7Ø12		
	Coupling (mm)	7X8		
Home Sensor	Outside	CS-6T(NPN)		

General load : Such as relay or other resistive load



Programmable controller connection diagram



※1 When the stroke is over 200mm, the run-out of the ball screw will occur. We recommend to low down the working speed under this circumstances.  
 \*Operation life is 10,000km when the product is using under the specified conditions.  
 \*Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Anti-rotating Accuracy

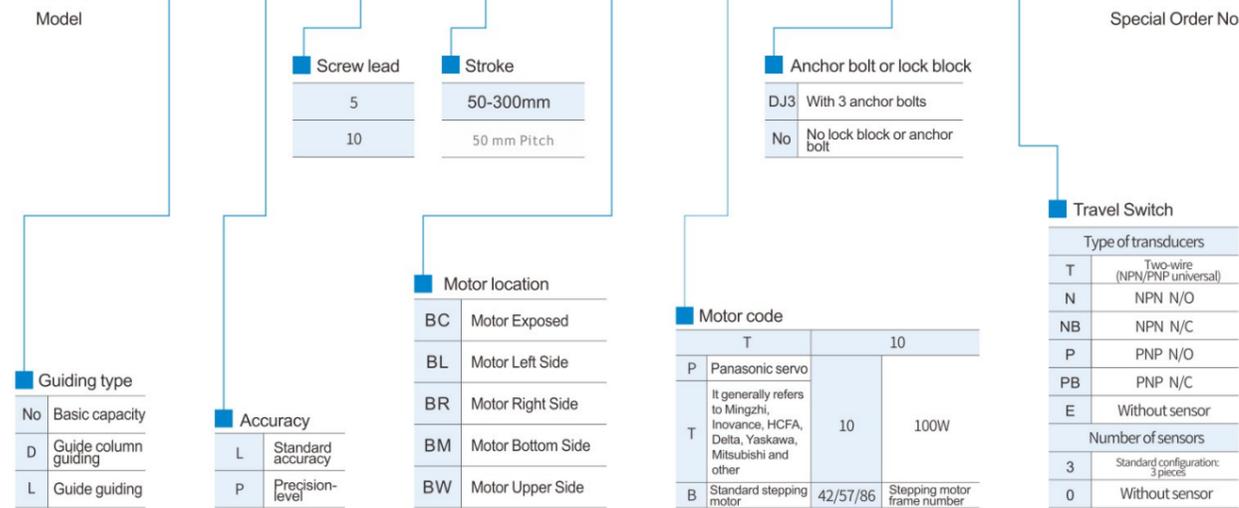
Anti-rotating Accuracy of Rod

Anti-rotating accuracy  
±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.

Ordering Method

KY50 D - L 05 - 100 - BC - P10 - DJ3 - N3 - D123



KY50

1-axis

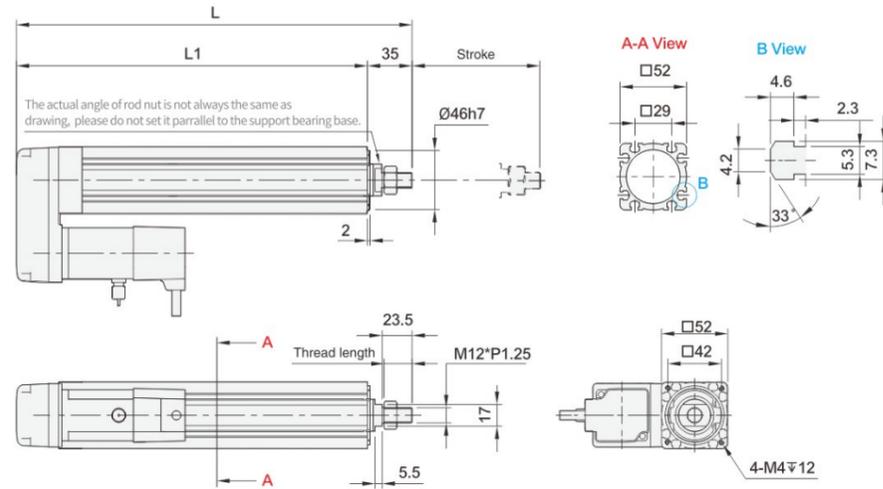
Ball Screw Drive

KY50

1-axis

BL Motor Left Side

(Unit : mm)

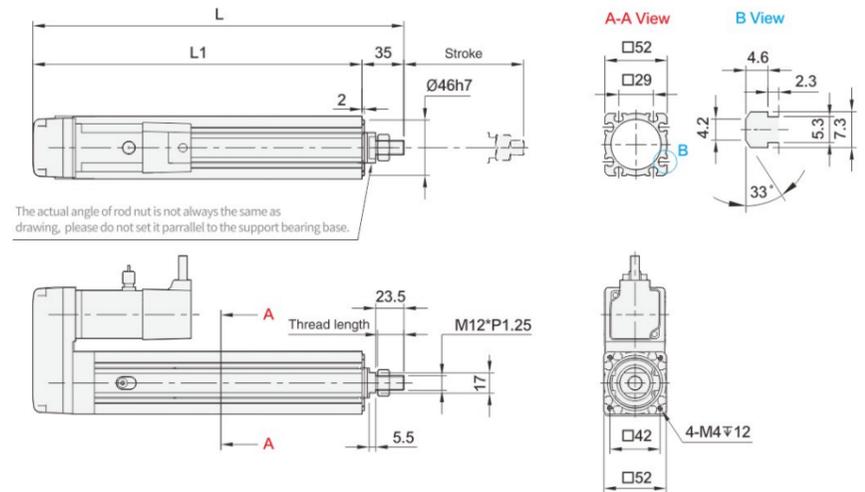


\*Greasing port is at the right side.

Stroke	50	100	150	200	250	300
L	246	296	346	396	446	496
L1	211	261	311	361	411	461
KG	3.12	3.38	3.64	3.9	4.17	4.34

BW Motor Upper Side

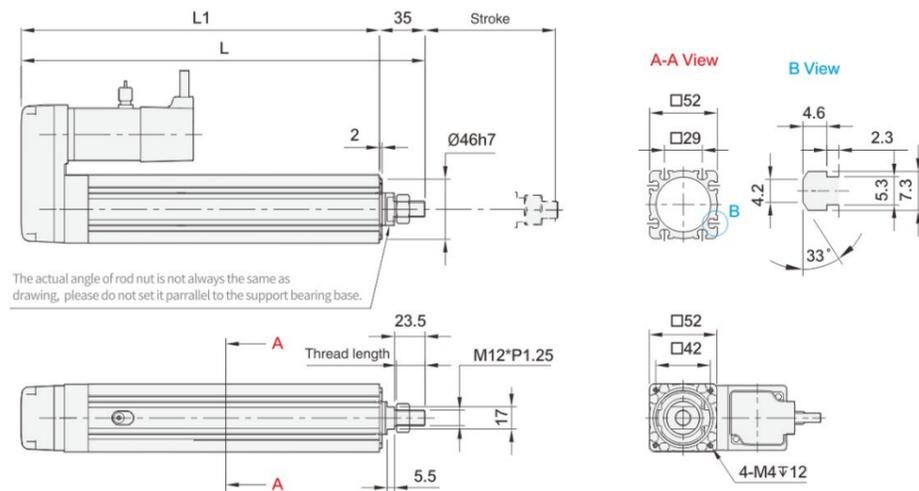
(Unit : mm)



Stroke	50	100	150	200	250	300
L	246	296	346	396	446	496
L1	211	261	311	361	411	461
KG	3.12	3.38	3.64	3.9	4.17	4.34

BR Motor Right Side

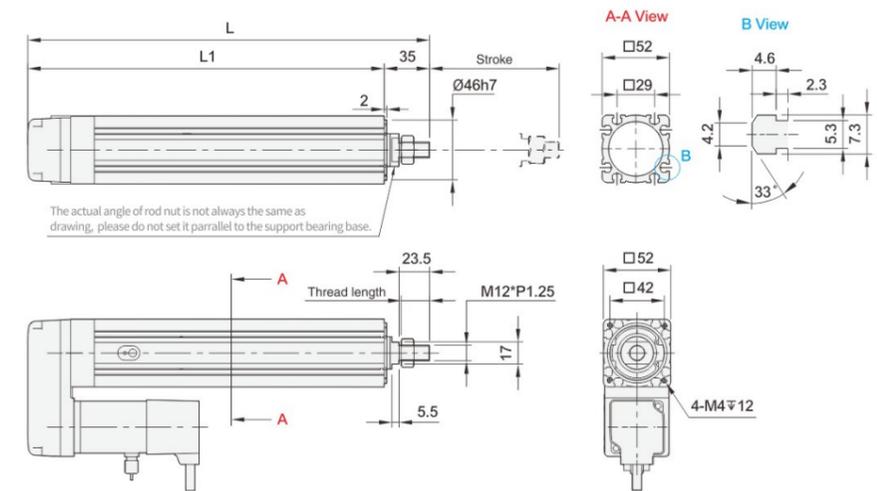
(Unit : mm)



Stroke	50	100	150	200	250	300
L	246	296	346	396	446	496
L1	211	261	311	361	411	461
KG	3.12	3.38	3.64	3.9	4.17	4.34

BM Motor Bottom Side

(Unit : mm)



Stroke	50	100	150	200	250	300
L	246	296	346	396	446	496
L1	211	261	311	361	411	461
KG	3.12	3.38	3.64	3.9	4.17	4.34

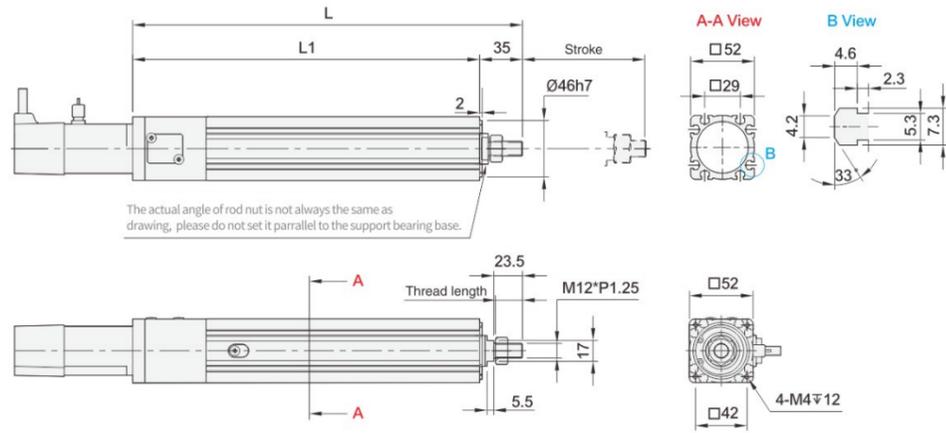
KY50

1-axis

Ball Screw Drive

BC Motor Exposed

(Unit : mm)



Stroke	50	100	150	200	250	300
L	268.5	318.5	368.5	418.5	468.5	518.5
L1	233.5	283.5	333.5	383.5	433.5	483.5
KG	2.12	2.38	2.64	2.9	3.17	3.34

MEMO

KY50D 1-axis Ball Screw Drive

KY50D 1-axis

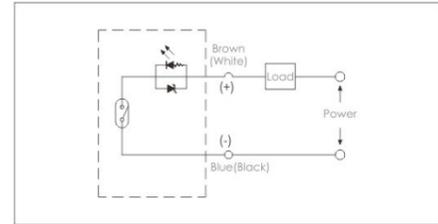


Maximum Stroke 300mm | Maximum Speed 500mm/s | Motor Output 100W | Ball Screw Ø12mm | Dia Of Shaft Ø12mm-2pcs

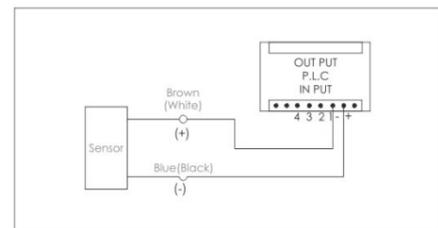
Specification Sensor Layout

Spec	Repeatability (mm)	±0.01		
	Ball Screw Lead (mm)	5	10	
	Maximum Speed (mm/s)	250	500	
	Maximum Payload	Horizontal (kg)	30	15
		Vertical (kg)	12	5
Rated Thrust (N)	341	170		
Parts	Stroke Pitch (mm) ※1	50-300mm/50 mm Pitch		
	AC Servo Motor Output (w)	100		
	Ball Screw Ø (mm)	C7Ø12		
	Coupling (mm)	7X8		
	Home Sensor	Outside	CS-6T(NPN)	

General load : Such as relay or other resistive load

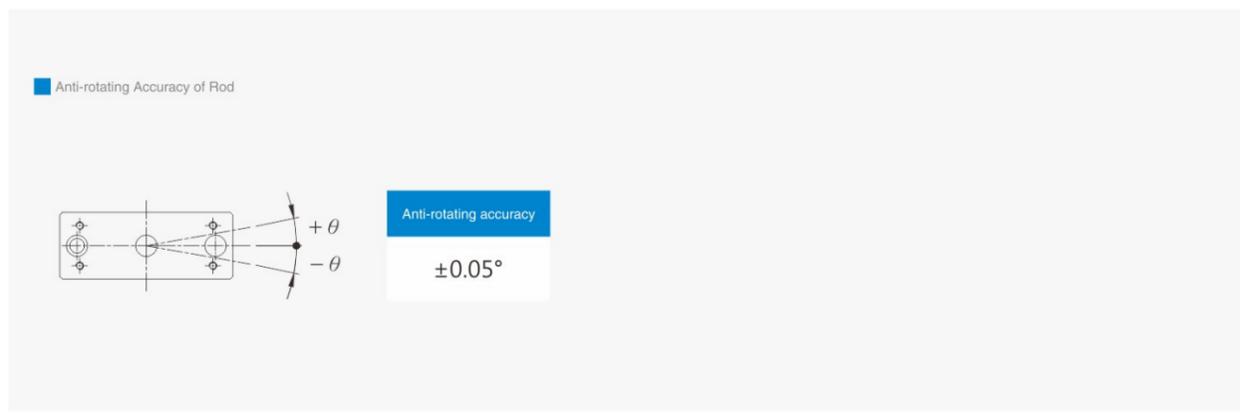


Programmable controller connection diagram



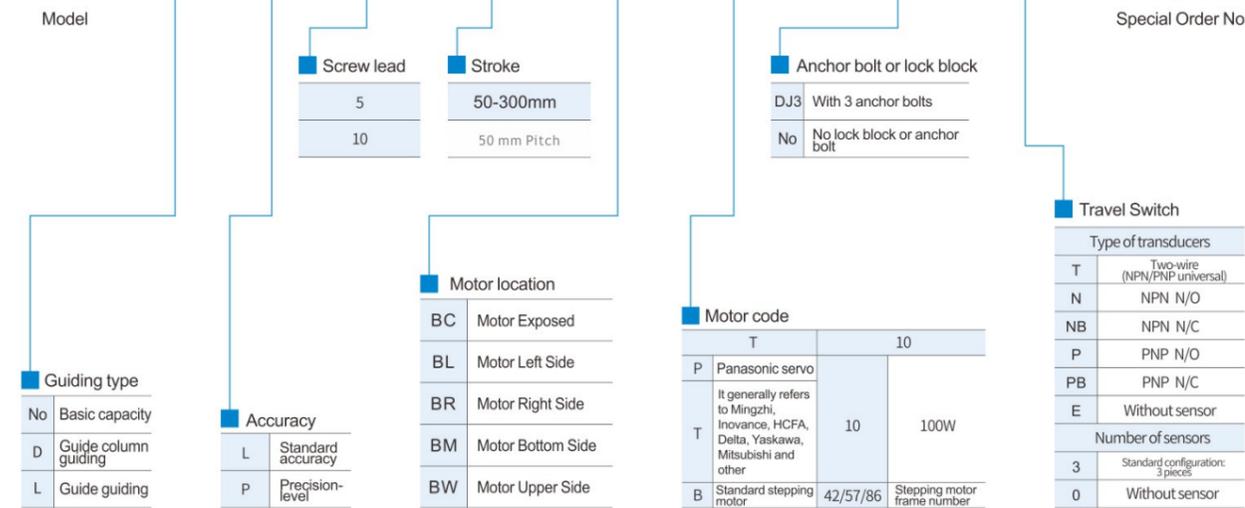
※1 When the stroke is over 200mm, the run-out of the ball screw will occur. We recommend to low down the working speed under this circumstances.  
 \*Operation life is 10,000km when the product is using under the specified conditions.  
 \*Data information is not for ceiling-mount inverse use.Contact us for the details if you want to apply ceiling-mount inverse usage.

Anti-rotating Accuracy



Ordering Method

KY50 D - L 05 - 100 - BC - P10 - DJ3 - N3 - D123



KY50D

1-axis

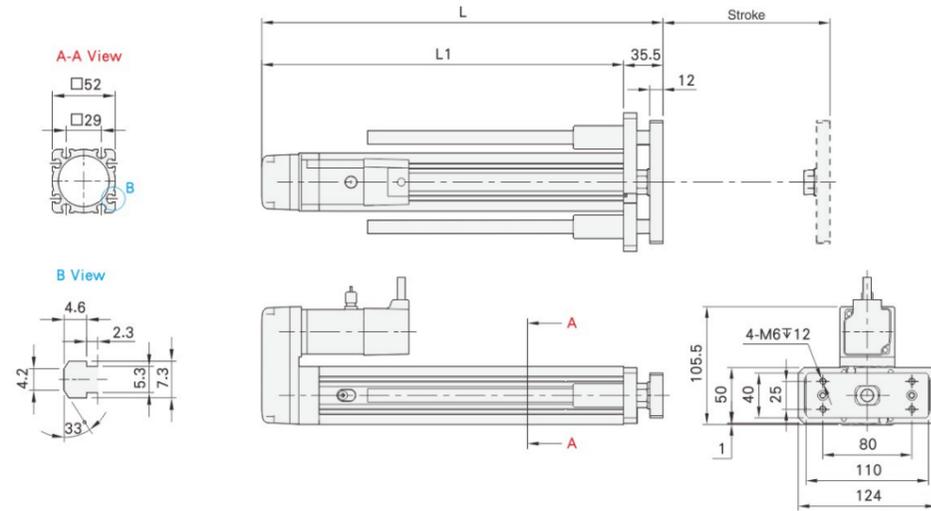
Ball Screw Drive

KY50D

1-axis

BW Motor Upper Side

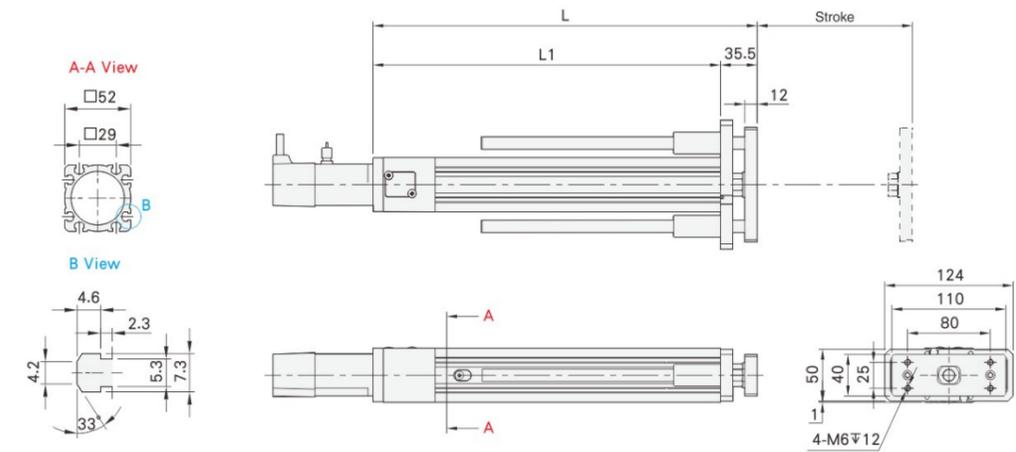
(Unit : mm)



Stroke	50	100	150	200	250	300
L	246.5	296.5	346.5	396.5	446.5	496.5
L1	211	261	311	361	411	461
KG	3.42	3.67	3.93	4.19	4.46	4.63

BC Motor Exposed

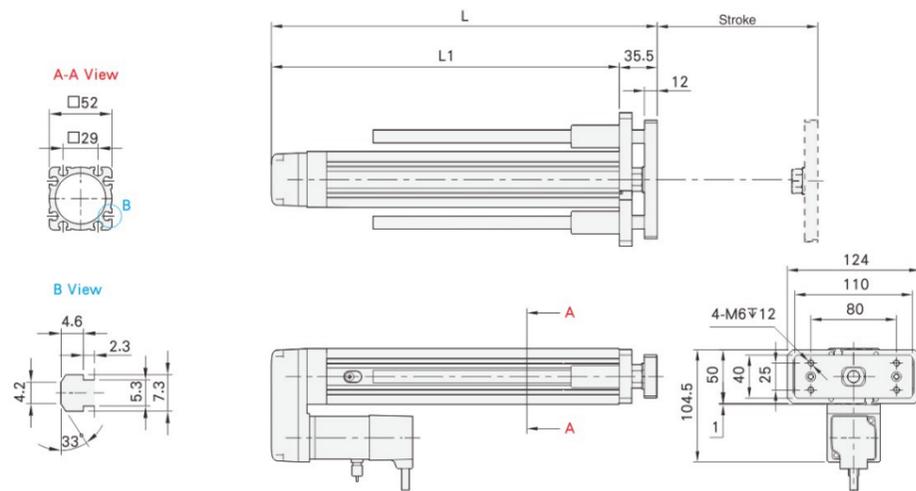
(Unit : mm)



Stroke	50	100	150	200	250	300
L	269	319	369	419	469	519
L1	233.5	283.5	333.5	383.5	433.5	483.5
KG	2.93	3.18	3.44	3.7	3.97	4.14

BM Motor Bottom Side

(Unit : mm)



Stroke	50	100	150	200	250	300
L	246.5	296.5	346.5	396.5	446.5	496.5
L1	211	261	311	361	411	461
KG	3.42	3.67	3.93	4.19	4.46	4.63

KY50L

1-axis

Ball Screw Drive

KY50L

1-axis



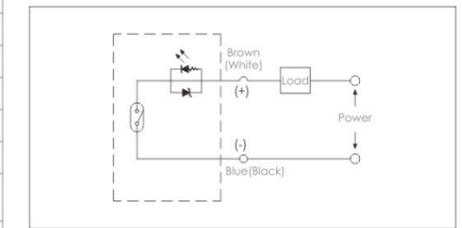
- Maximum Stroke 300mm
- Maximum Speed 500mm/s
- Motor Output 100W
- Ball Screw Ø12mm
- Linear Guide 15x9.5-1pcs

Specification

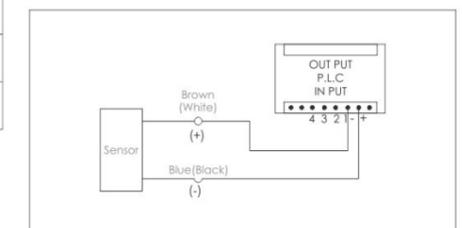
Spec	Repeatability (mm)	±0.01		
	Ball Screw Lead (mm)	5	10	
	Maximum Speed (mm/s)	250	500	
	Maximum Payload	Horizontal (kg)	30	15
		Vertical (kg)	12	5
Rated Thrust (N)	341	170		
Parts	Stroke Pitch (mm) ※1	50-300mm/50 mm Pitch		
	AC Servo Motor Output (w)	100		
	Ball Screw Ø (mm)	C7Ø12		
	Coupling (mm)	7X8		
	Home Sensor	Outside	CS-6T(NPN)	

Sensor Layout

General load : Such as relay or other resistive load



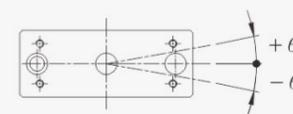
Programmable controller connection diagram



※1 When the stroke is over 200mm, the run-out of the ball screw will occur. We recommend to low down the working speed under this circumstances.  
 \*Operation life is 10,000km when the product is using under the specified conditions.  
 \*Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Anti-rotating Accuracy

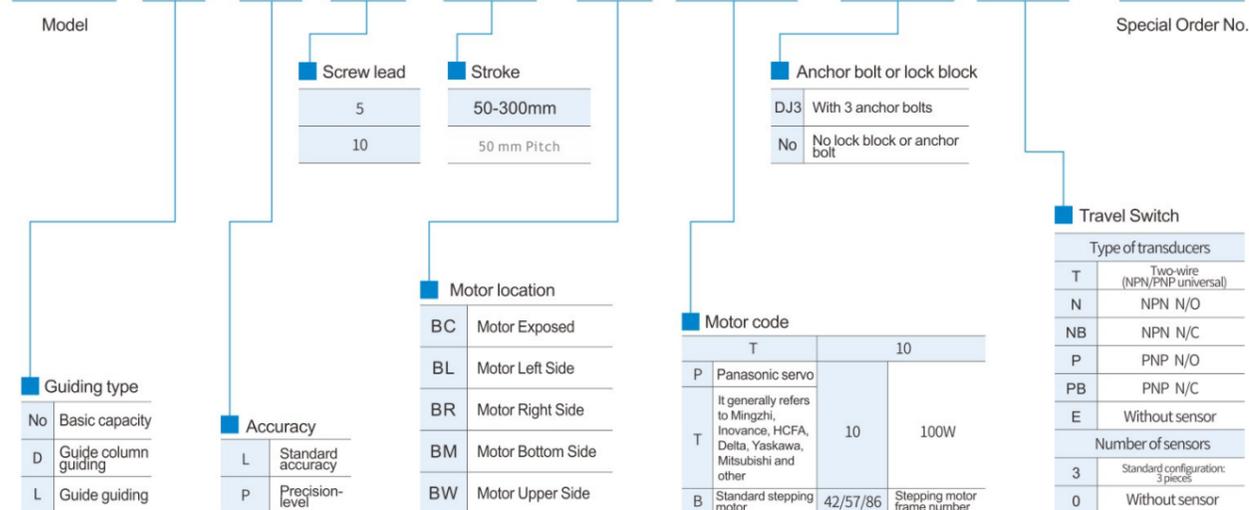
Anti-rotating Accuracy of Rod



Anti-rotating accuracy  
 ±0.05°

Ordering Method

KY50 D - L 05 - 100 - BC - P10 - DJ3 - N3 - D123



- KY50
- KY50D
- KY50L
- KY65
- KY65D
- KY65L

- KY50
- KY50D
- KY50L
- KY65
- KY65D
- KY65L

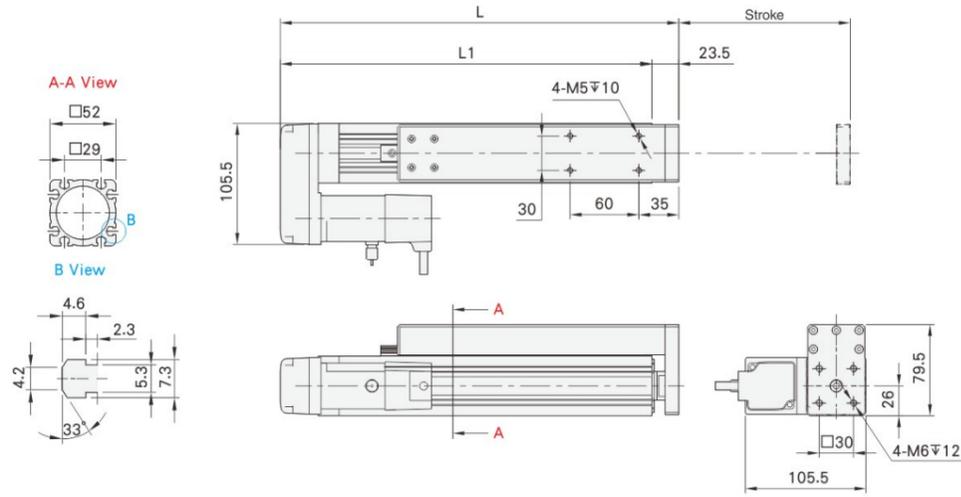
KY50L 1-axis

Ball Screw Drive

KY50L 1-axis

BL Motor Left Side

(Unit : mm)

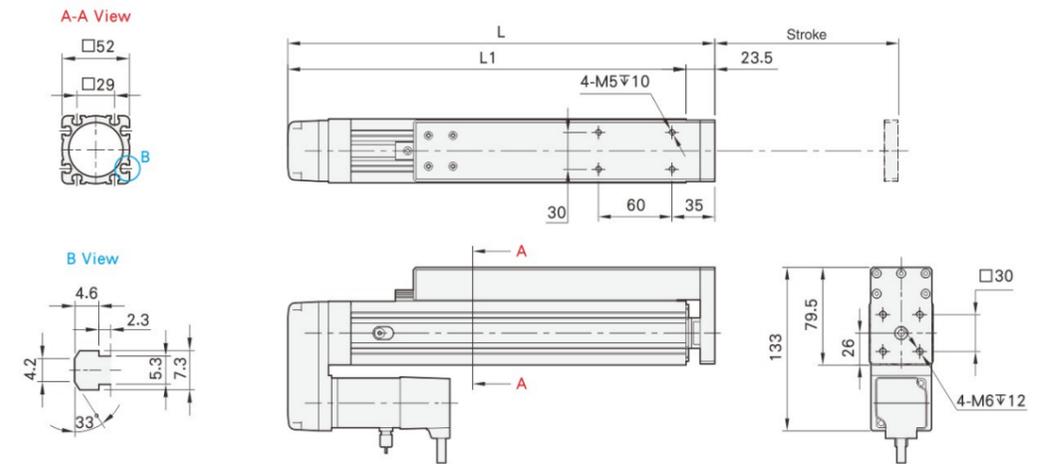


\*Greasing port is at the right side.

Stroke	50	100	150	200	250	300
L	234.5	284.5	334.5	384.5	434.5	484.5
L1	211	261	311	361	411	461
KG	3.12	3.37	3.63	3.89	4.16	4.33

BM Motor Bottom Side

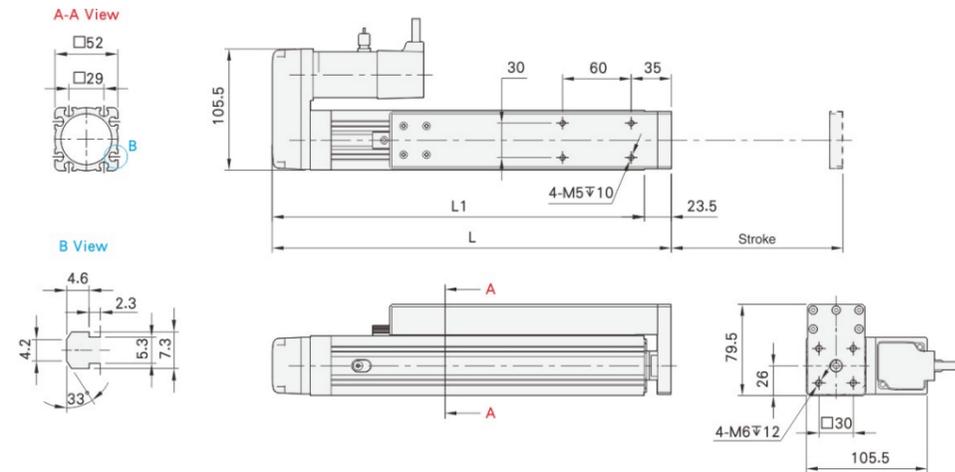
(Unit : mm)



Stroke	50	100	150	200	250	300
L	234.5	284.5	334.5	384.5	434.5	484.5
L1	211	261	311	361	411	461
KG	3.12	3.37	3.63	3.89	4.16	4.33

BR Motor Right Side

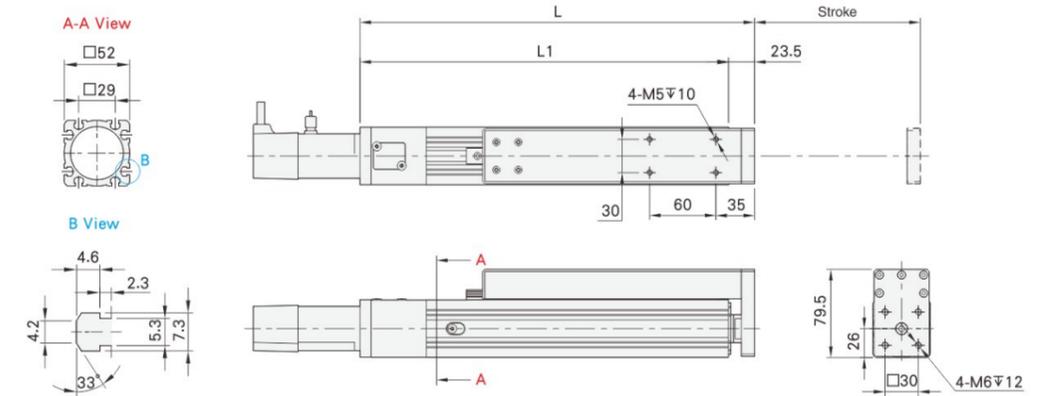
(Unit : mm)



Stroke	50	100	150	200	250	300
L	234.5	284.5	334.5	384.5	434.5	484.5
L1	211	261	311	361	411	461
KG	3.12	3.37	3.63	3.89	4.16	4.33

BC Motor Exposed

(Unit : mm)



Stroke	50	100	150	200	250	300
L	257	307	357	407	457	507
L1	233.5	283.5	333.5	383.5	433.5	483.5
KG	2.62	2.87	3.13	3.39	3.66	3.83

KY65

1-axis

Ball Screw Drive

KY65

1-axis



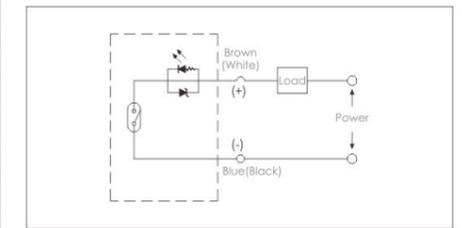
- Maximum Stroke 500mm
- Maximum Speed 1000mm/s
- Motor Output 400W
- Ball Screw Ø16mm

Specification

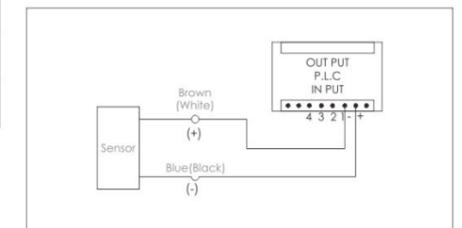
Spec	Repeatability (mm)	±0.01				
	Ball Screw Lead (mm)	5	10	16	20	
	Maximum Speed (mm/s)	250	500	800	1000	
	Maximum Payload	Horizontal (kg)	110	88	48	40
		Vertical (kg)	33	22	10	8
Rated Thrust (N)		1388	694	433	347	
Parts	Stroke Pitch (mm) ※1	50-500mm/50 mm Pitch				
	AC Servo Motor Output (w)	400				
	Ball Screw Ø (mm)	C7Ø16				
	Coupling (mm)	10X14				
Home Sensor	Outside	CS-6T(NPN)				

Sensor Layout

General load : Such as relay or other resistive load



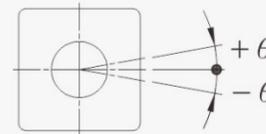
Programmable controller connection diagram



※1 When the stroke is over 300mm, the run-out of the ball screw will occur. We recommend to low down the working speed under this circumstances.  
 \*Operation life is 10,000km when the product is using under the specified conditions.  
 \*Data information is not for ceiling-mount inverse use.Contact us for the details if you want to apply ceiling-mount inverse usage.

Anti-rotating Accuracy

Anti-rotating Accuracy of Rod

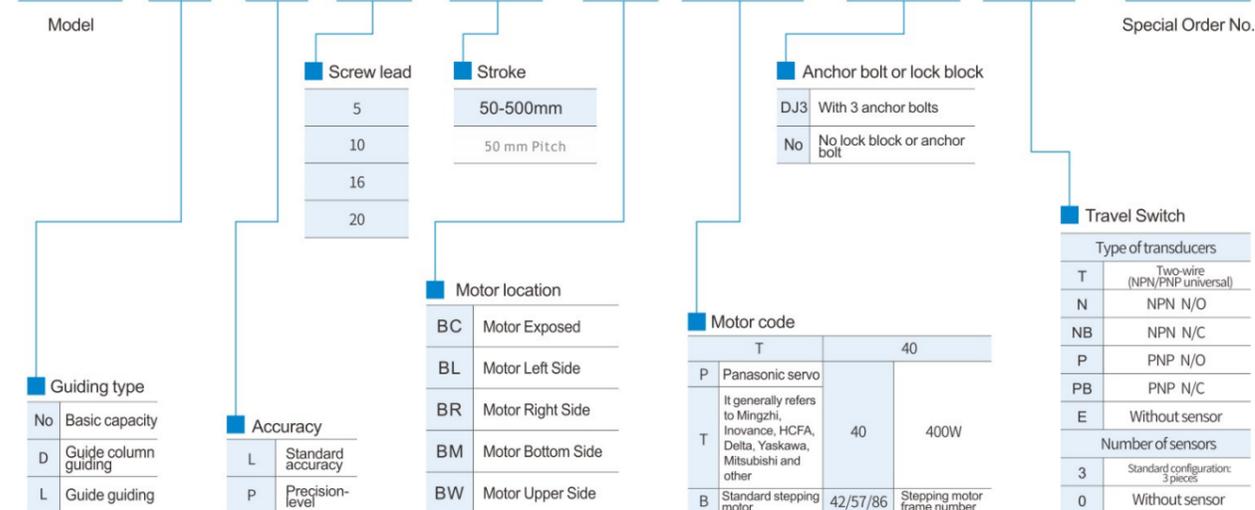


Anti-rotating accuracy  
±1°

※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.

Ordering Method

KY65 D - L 05 - 100 - BC - P40 - DJ3 - N3 - D123



- KY50
- KY50D
- KY50L
- KY65
- KY65D
- KY65L

- KY50
- KY50D
- KY50L
- KY65
- KY65D
- KY65L

KY65

1-axis

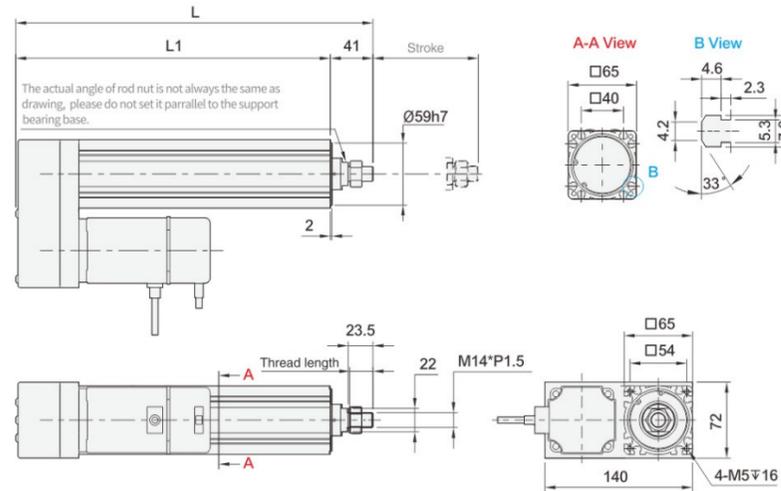
Ball Screw Drive

KY65

1-axis

BL Motor Left Side

(Unit : mm)

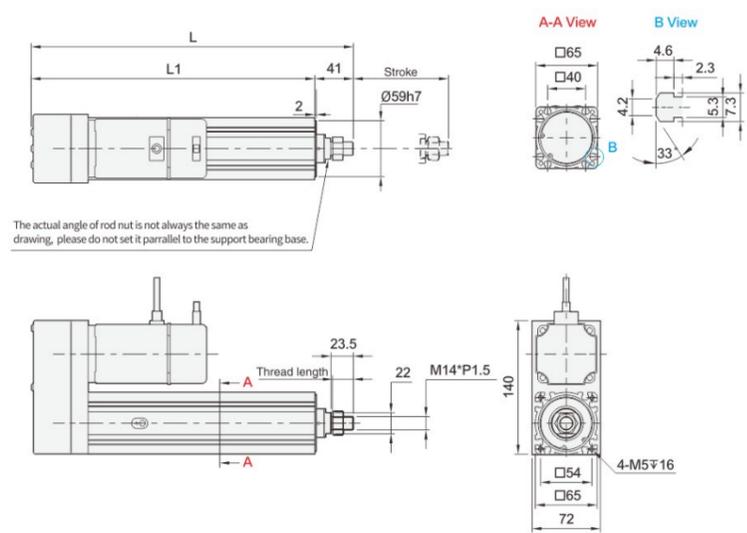


\*Greasing port is at the right side.

Stroke	50	100	150	200	250	300	350	400	450	500
L	279	329	379	429	479	529	579	629	679	729
L1	238	288	338	388	438	488	538	588	638	688
KG	4.5	4.76	5.02	5.28	5.53	5.79	6.05	6.31	6.57	6.82

BW Motor Upper Side

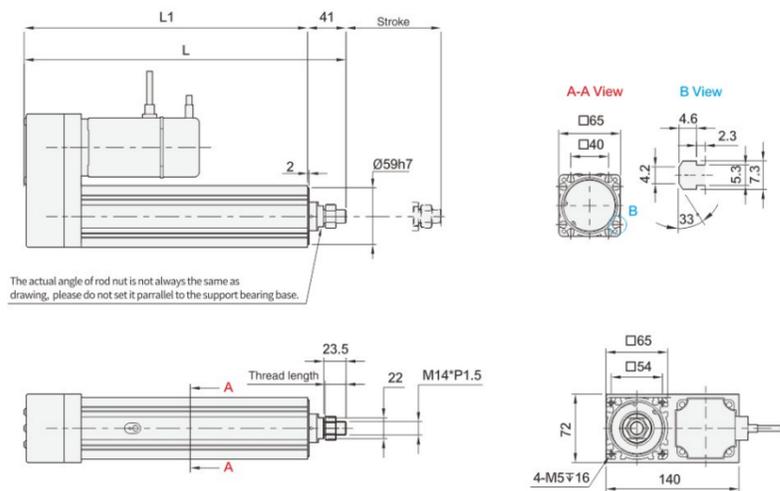
(Unit : mm)



Stroke	50	100	150	200	250	300	350	400	450	500
L	279	329	379	429	479	529	579	629	679	729
L1	238	288	338	388	438	488	538	588	638	688
KG	4.5	4.76	5.02	5.28	5.53	5.79	6.05	6.31	6.57	6.82

BR Motor Right Side

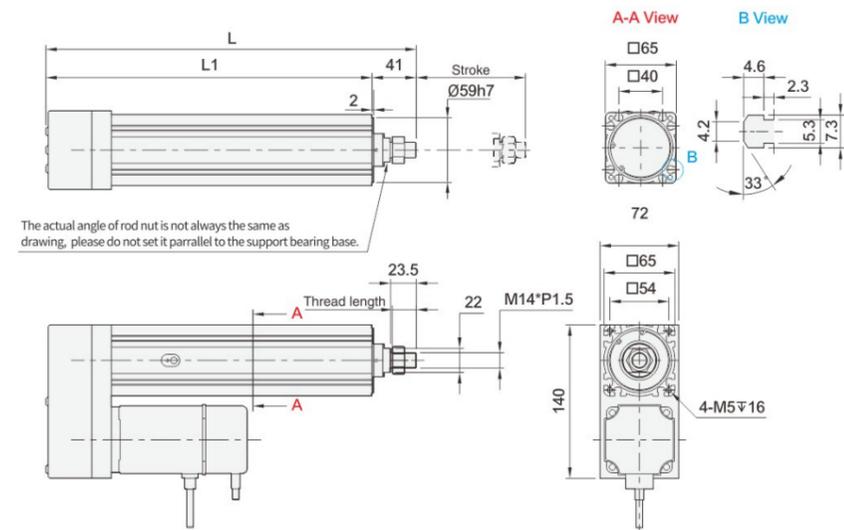
(Unit : mm)



Stroke	50	100	150	200	250	300	350	400	450	500
L	279	329	379	429	479	529	579	629	679	729
L1	238	288	338	388	438	488	538	588	638	688
KG	4.5	4.76	5.02	5.28	5.53	5.79	6.05	6.31	6.57	6.82

BM Motor Bottom Side

(Unit : mm)



Stroke	50	100	150	200	250	300	350	400	450	500
L	279	329	379	429	479	529	579	629	679	729
L1	238	288	338	388	438	488	538	588	638	688
KG	4.5	4.76	5.02	5.28	5.53	5.79	6.05	6.31	6.57	6.82

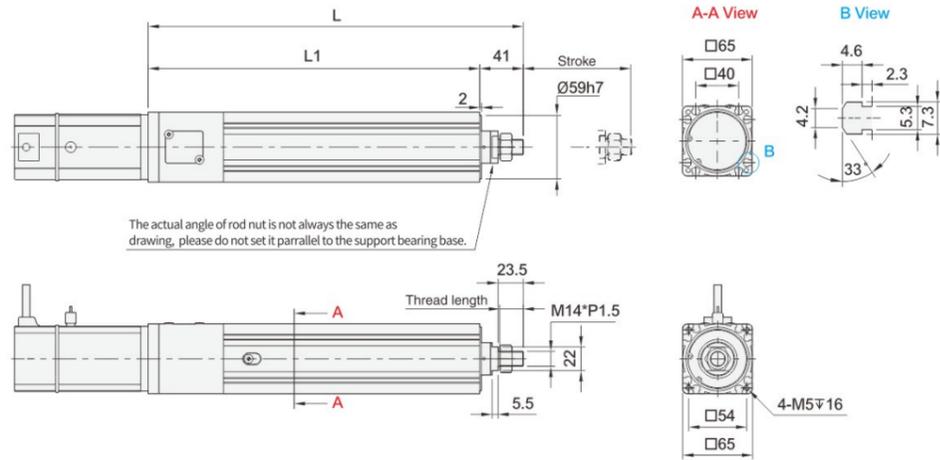
KY65

1-axis

Ball Screw Drive

BC Motor Exposed

(Unit : mm)



Stroke	50	100	150	200	250	300	350	400	450	500
L	299	349	399	449	499	549	599	649	699	749
L1	258	308	358	408	458	508	558	608	658	708
KG	3.5	3.76	4.02	4.28	4.53	4.79	5.05	5.31	5.57	5.82

MEMO

Large empty rectangular area for notes or additional information.

KY65D

1-axis

Ball Screw Drive

KY65D

1-axis



- Maximum Stroke: 500mm
- Maximum Speed: 1000mm/s
- Motor Output: 400W
- Ball Screw: Ø16mm
- Linear Guide: Ø16mm-2pcs

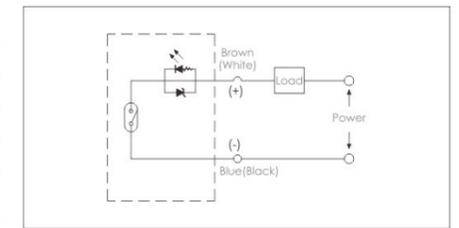
Specification

Spec	Repeatability (mm)	±0.01				
	Ball Screw Lead (mm)	5	10	16	20	
	Maximum Speed (mm/s)	250	500	800	1000	
	Maximum Payload	Horizontal (kg)	110	88	48	40
		Vertical (kg)	33	22	10	8
Rated Thrust (N)	1388	694	433	347		
Parts	Stroke Pitch (mm) ※1	50-500mm/50 mm Pitch				
	AC Servo Motor Output (w)	400				
	Ball Screw Ø (mm)	C7Ø16				
	Coupling (mm)	10X14				
	Home Sensor	Outside	CS-6T(NPN)			

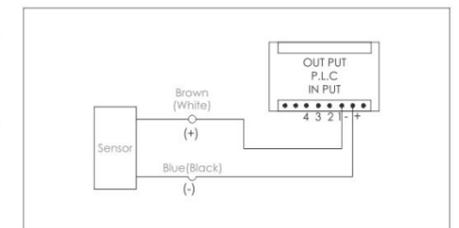
※1 When the stroke is over 300mm, the run-out of the ball screw will occur. We recommend to low down the working speed under this circumstances.  
 \*Operation life is 10,000km when the product is using under the specified conditions.  
 \*Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Sensor Layout

General load : Such as relay or other resistive load



Programmable controller connection diagram



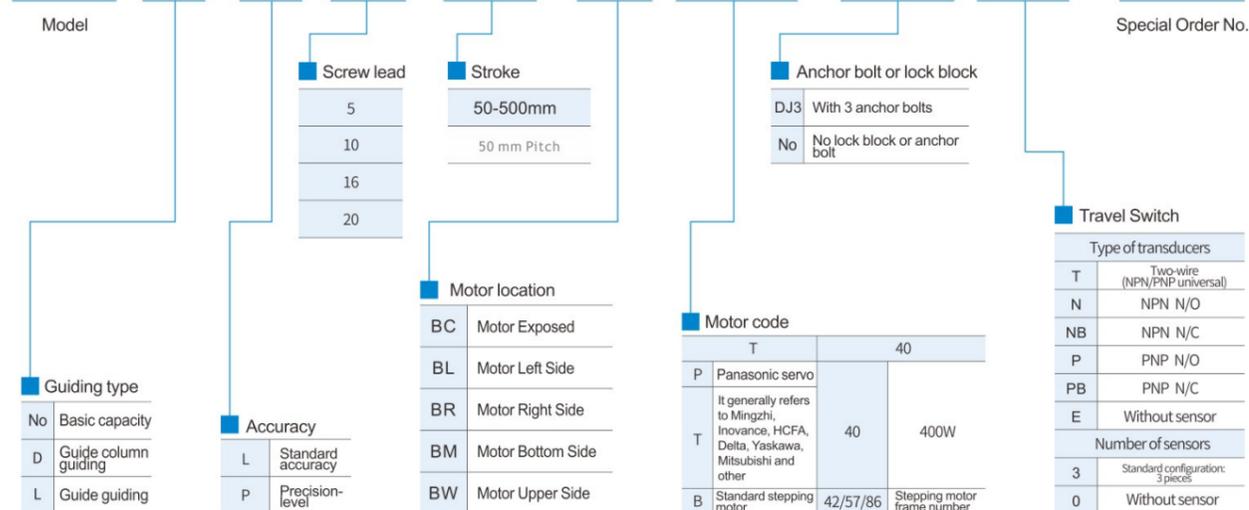
Anti-rotating Accuracy

Anti-rotating Accuracy of Rod

Anti-rotating accuracy: ±0.05°

Ordering Method

KY65 D - L 05 - 100 - BC - P40 - DJ3 - N3 - D123



- KY50
- KY50D
- KY50L
- KY65
- KY65D**
- KY65L

- KY50
- KY50D
- KY50L
- KY65
- KY65D**
- KY65L

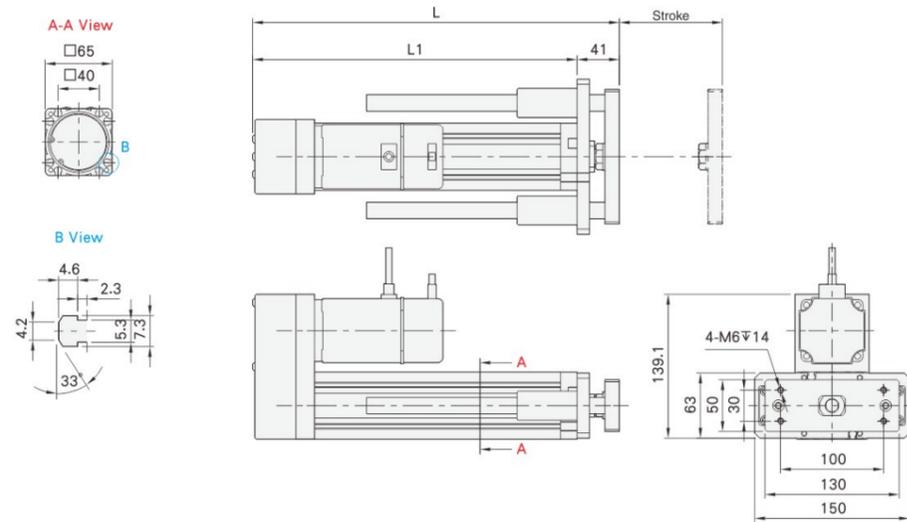
KY65D 1-axis

Ball Screw Drive

KY65D 1-axis

BW Motor Upper Side

(Unit : mm)

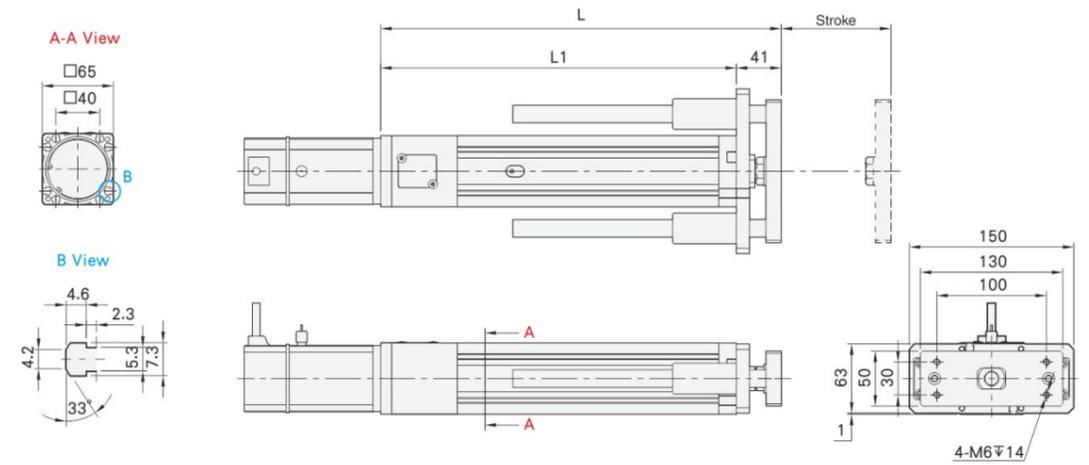


\*Greasing port is at the bottom side.

Stroke	50	100	150	200	250	300	350	400	450	500
L	279	329	379	429	479	529	579	629	679	729
L1	238	288	338	388	438	488	538	588	638	688
KG	6	6.26	6.52	6.78	7.03	7.29	7.55	7.81	8.07	8.32

BC Motor Exposed

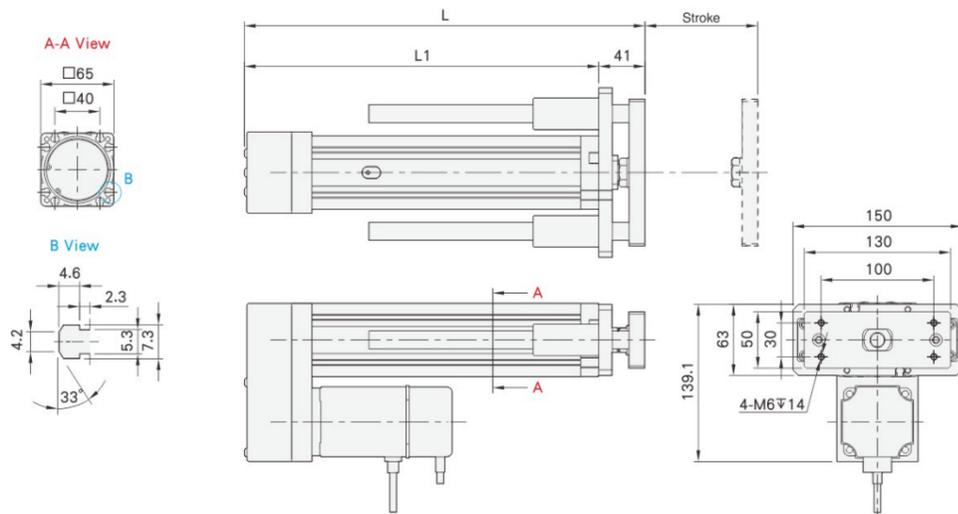
(Unit : mm)



Stroke	50	100	150	200	250	300	350	400	450	500
L	299	349	399	449	499	549	599	649	699	749
L1	258	308	358	408	458	508	558	608	658	708
KG	5.5	5.76	6.02	6.28	6.53	6.79	7.05	7.31	7.57	7.82

BM Motor Bottom Side

(Unit : mm)



Stroke	50	100	150	200	250	300	350	400	450	500
L	279	329	379	429	479	529	579	629	679	729
L1	238	288	338	388	438	488	538	588	638	688
KG	6	6.26	6.52	6.78	7.03	7.29	7.55	7.81	8.07	8.32

KY65L

1-axis

Ball Screw Drive

KY65L

1-axis



- Maximum Stroke: 500mm
- Maximum Speed: 1000mm/s
- Motor Output: 400W
- Ball Screw: Ø16mm
- Linear Guide: 15x9.5-1pcs

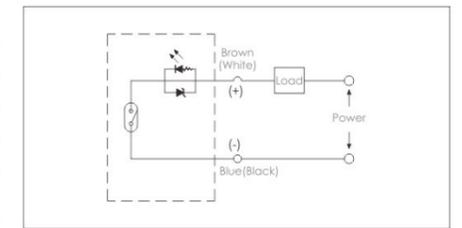
Specification

Spec	Repeatability (mm)	±0.01				
	Ball Screw Lead (mm)	5	10	16	20	
	Maximum Speed (mm/s)	250	500	800	1000	
	Maximum Payload	Horizontal (kg)	110	88	48	40
		Vertical (kg)	33	22	10	8
Rated Thrust (N)		1388	694	433	347	
Parts	Stroke Pitch (mm) ※1	50-500mm/50 mm Pitch				
	AC Servo Motor Output (w)	400				
	Ball Screw Ø (mm)	C7Ø16				
	Coupling (mm)	10X14				
	Home Sensor	Outside	CS-6T(NPN)			

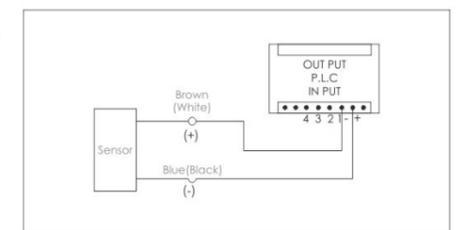
※1 When the stroke is over 300mm, the run-out of the ball screw will occur. We recommend to low down the working speed under this circumstances.  
 \*Operation life is 10,000km when the product is using under the specified conditions.  
 \*Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Sensor Layout

General load : Such as relay or other resistive load

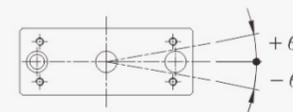


Programmable controller connection diagram



Anti-rotating Accuracy

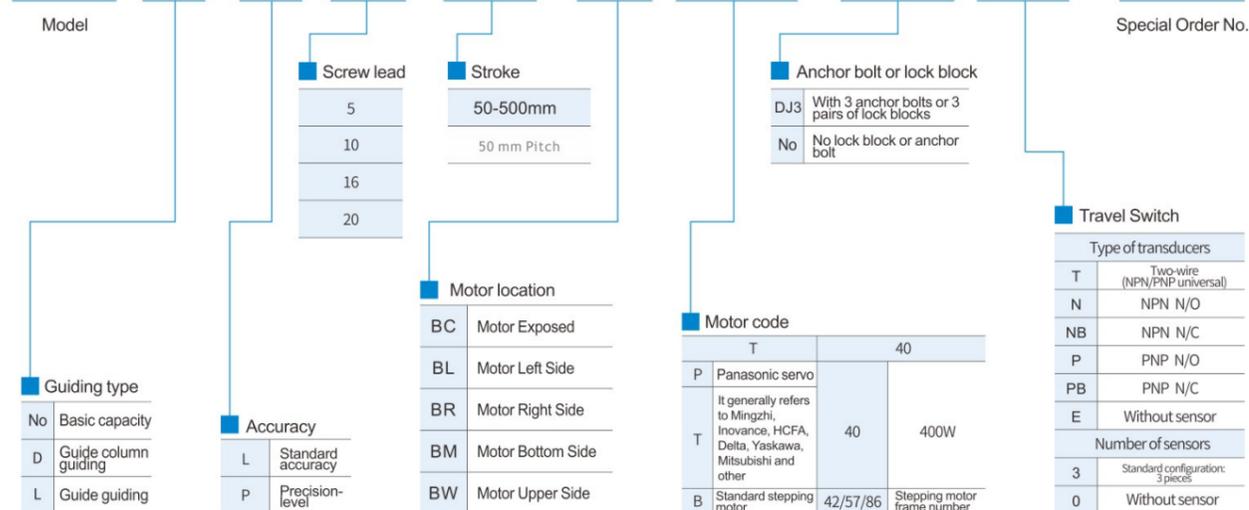
Anti-rotating Accuracy of Rod



Anti-rotating accuracy  
±0.05°

Ordering Method

KY65 D - L 05 - 100 - BC - P40 - DJ3 - N3 - D123



KY65L

1-axis

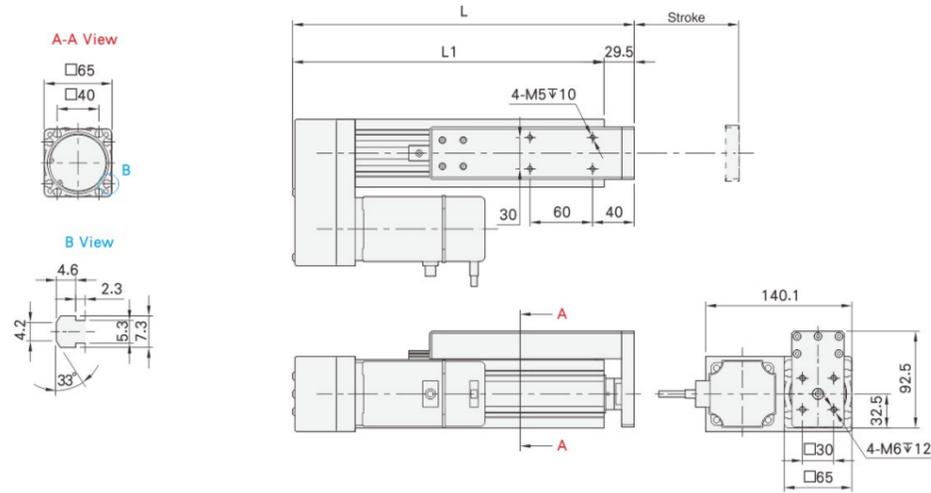
Ball Screw Drive

KY65L

1-axis

BL Motor Left Side

(Unit : mm)

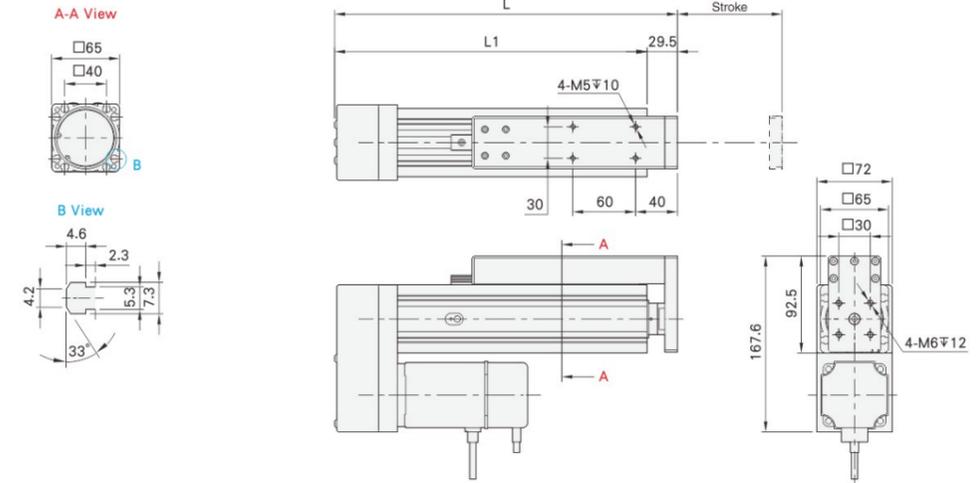


\*Greasing port is at the right side.

Stroke	50	100	150	200	250	300	350	400	450	500
L	267.5	317.5	367.5	417.5	467.5	517.5	567.5	617.5	667.5	717.5
L1	238	288	338	388	438	488	538	588	638	688
KG	5.5	5.76	6.02	6.28	6.53	6.79	7.05	7.31	7.57	7.82

BM Motor Bottom Side

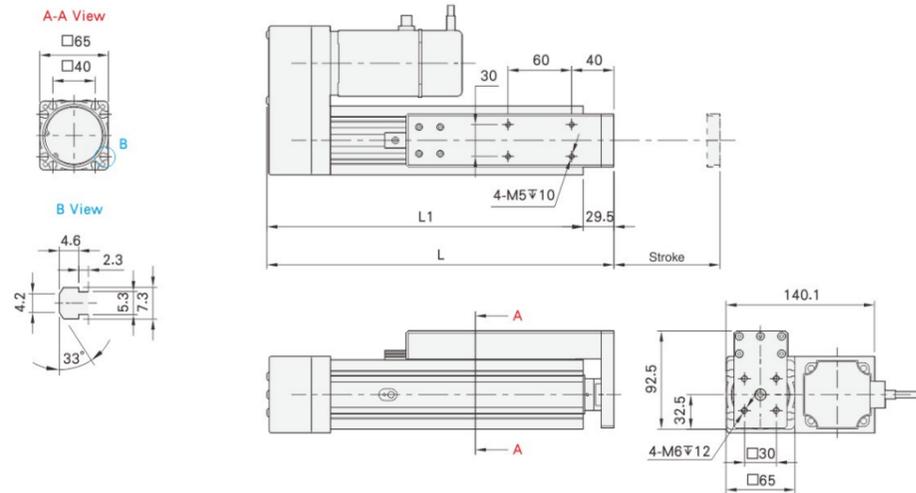
(Unit : mm)



Stroke	50	100	150	200	250	300	350	400	450	500
L	267.5	317.5	367.5	417.5	467.5	517.5	567.5	617.5	667.5	717.5
L1	238	288	338	388	438	488	538	588	638	688
KG	5.5	5.76	6.02	6.28	6.53	6.79	7.05	7.31	7.57	7.82

BR Motor Right Side

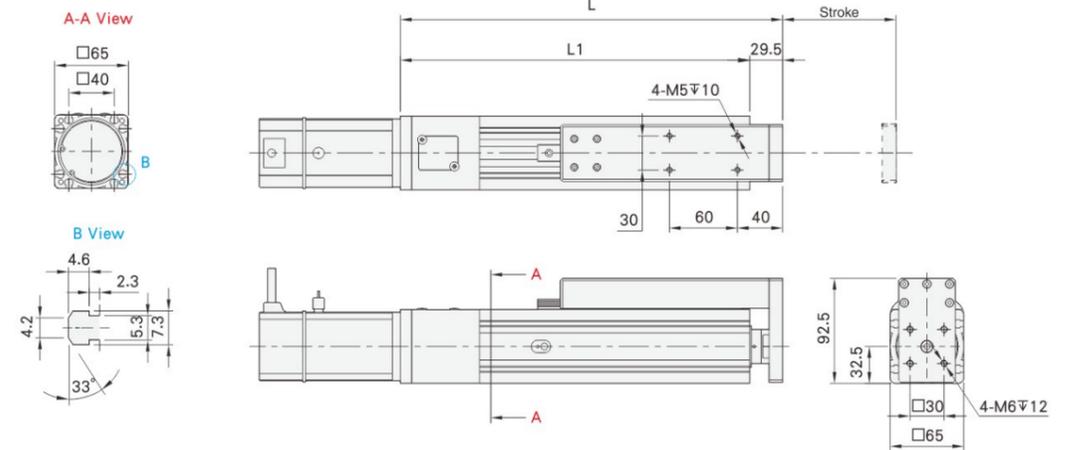
(Unit : mm)



Stroke	50	100	150	200	250	300	350	400	450	500
L	267.5	317.5	367.5	417.5	467.5	517.5	567.5	617.5	667.5	717.5
L1	238	288	338	388	438	488	538	588	638	688
KG	5.5	5.76	6.02	6.28	6.53	6.79	7.05	7.31	7.57	7.82

BC Motor Exposed

(Unit : mm)



Stroke	50	100	150	200	250	300	350	400	450	500
L	287.5	337.5	387.5	437.5	487.5	537.5	587.5	637.5	687.5	737.5
L1	258	308	358	408	458	508	558	608	658	708
KG	5	5.26	5.52	5.78	6.03	6.29	6.55	6.81	7.07	7.32