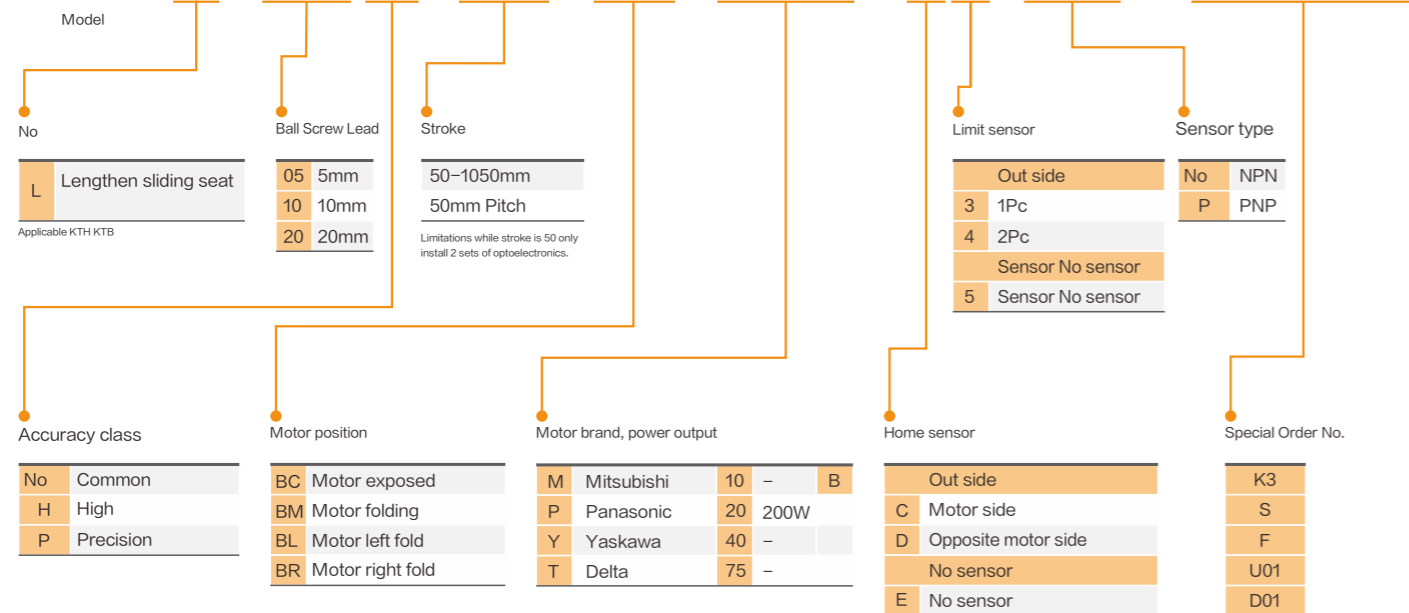


Ball Screw module specification

RTH8 - L10 P - 100 - BC - P20B - C4 (P) - Special



When the stroke is 50mm, the sensor installation has the following restrictions:
 • C4AD4 will not be available for installation (order) option
 • Home sensor and limit sensor has to be installed on the different side of body
 • Both sides of slider need to install the sensor trigger device.

Special Order No.
Refer to the table below

Name	Detailed information
K3	Module mounting with 3:1 reducer
S	Short sliding
F	Dust Cover
U01	Up installation hole customization
D01	Down installation hole customization
UD01	Both up and down installation hole customization
FZZ	Module as Auxiliary Support
TL	Drag Chain
DG	Auxiliary Guide Rail on the Outside of module
DG02	Module Internal Replacement Guide Rail
SL01	Hand Wheel
SL02	Hand Wheel,Self-locking Device
SL03	Hand Wheel,Self-locking Device,Ruler
D20	Replace 20 diameter lead screw
JC	Use of motor with keyway
KG01	Switch Mounting Plate,M2.5 Hole,Spacing 8
KG02	Long Switch Mounting Plate,Spacing 8

RTH Series

Built-in guideway / Ball screw drive

CONTENTS

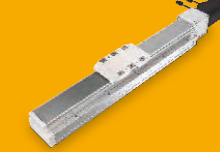
► Built-in self-lubricating series

RTH4



Maximum stroke 850mm
Maximum load 25kg
Body width 44mm

RTH8



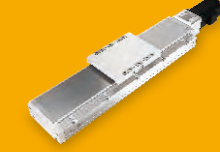
Maximum stroke 1100mm
Maximum load 50kg
Body width 82mm

RTH5



Maximum stroke 850mm
Maximum load 30kg
Body width 54mm

RTH12



Maximum stroke 1300mm
Maximum load 110kg
Body width 120mm

RTH embedded series structure drawing



Rigid reinforcement

The steel body is integrally formed with the sliding seat to improve the rigidity of the original aluminum sliding seat.

Assembly, time saving and convenience

- It can be fixed from top to bottom or from bottom to top without disassembling the steel strip.
- The mounting side of the body is increased by the mounting surface.
- There is a positioning PIN hole at the bottom of the body.

Not easy to dust

Special steel strip structure design reduces dust generation. Can be used in clean indoor environments.

Smaller size

The reduced width allows for less space for device installation.

Self lubricating structure

Self-lubricating structure design, can achieve light maintenance 30000km maintenance-free.

Flat straightness

- Built in linear rail design, Straightness and Flatness are highly improved to $\pm 0.02\text{mm}$.

Straightness of ATH5 is $\pm 0.02\text{mm}$. *Measure length is 800mm.
 Straightness of DG100 is $\pm 0.05\text{mm}$. *Measure length is 800mm.

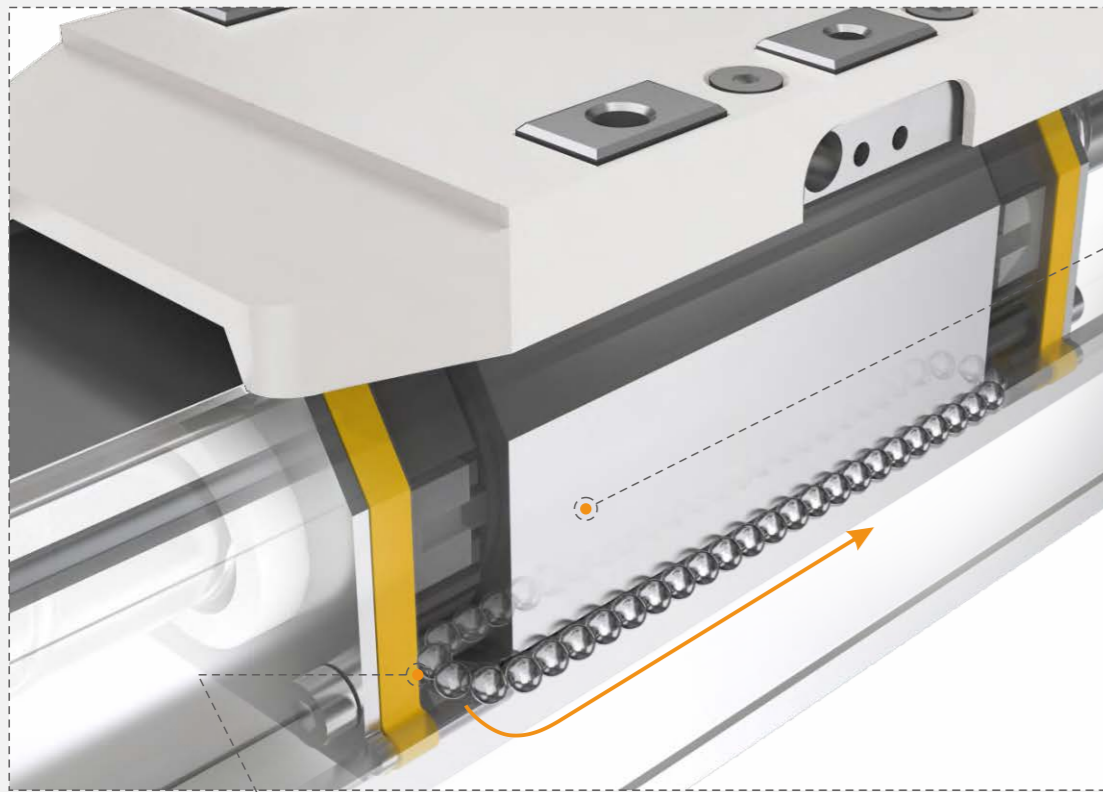
Smaller size

- Reduced width that can be fitted in the compact environments.

ATH5 DG60

➤ Built-in guideway ➤ Ball screw drive

RTH embedded series self – lubricating structure drawing



Rigid reinforcement

- The self-lubricating block has a capillary action to always store and supply the lubricating oil.
- The self-lubricating block is installed between the sealing end cover and the rolling body, and is in direct contact with the channel, and the lubricating oil is supplied on the raceway, and the rolling body passes through the channel to provide lubrication.

Built-in self-lubricating parts

Self-lubricating structure design, can achieve light maintenance 30000km maintenance-free.

Oil groove first conveying lubricant

- The self-lubricating block is directly supplied to the channel.
- The rolling elements circulate in the channel, the lubricating oil will stick to the rolling elements indirectly, and the rolling elements passing through the load area will also stick to the proper amount of lubricating oil.
- Therefore, the load zone can always maintain the optimum amount of oil and maintain lubrication performance for a long time.

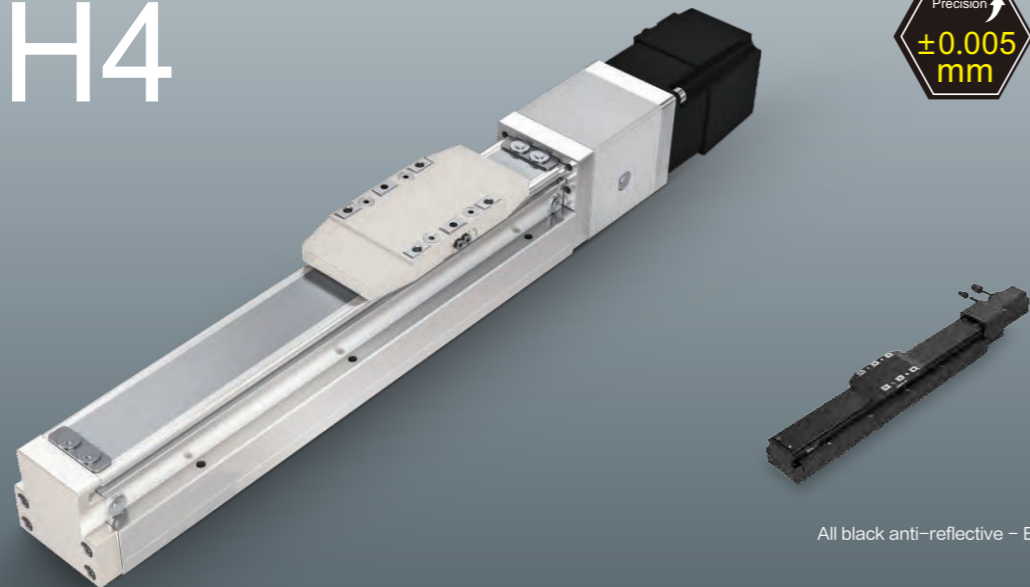
➤ Built-in guideway

➤ Ball screw drive

Built-in self-lubricating series

RTH4

1-axis



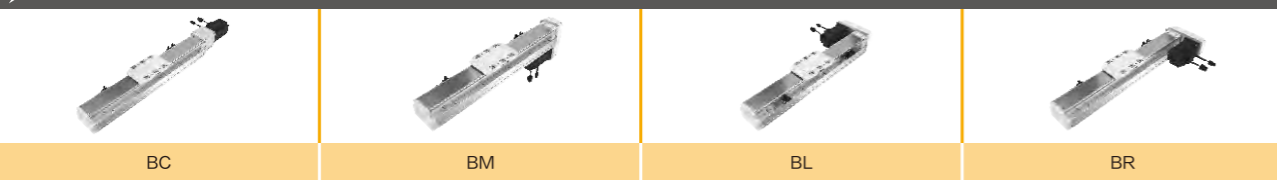
Precision
±0.005 mm

All black anti-reflective - EB

This figure is for reference only, the shipping specifications are detailed in the dimension drawing.

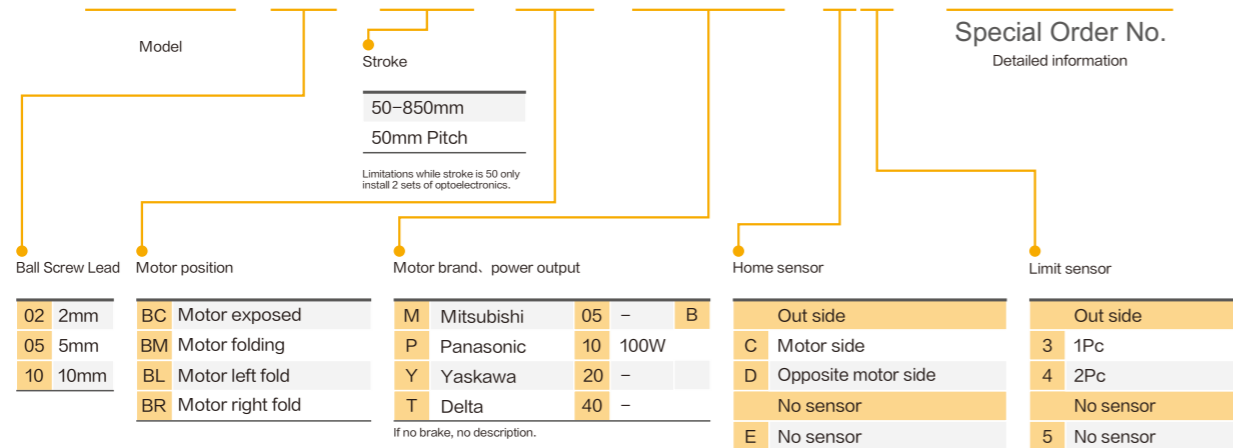
Maximum stroke	850mm	Maximum speed	500mm/s	Motor capacity	100 _w	Ball screw	Ø10mm
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Motor diection



Ordering method

RTH4 - L2 - 100 - BC - P10B - C4 - Special

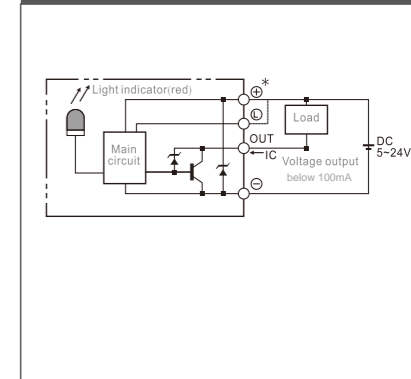


Specification

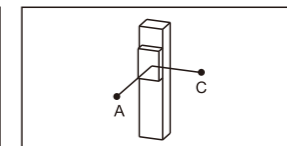
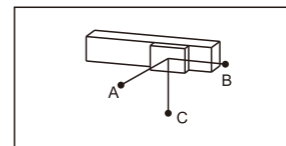
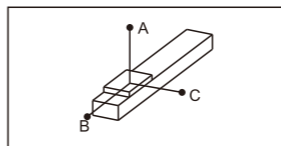
Spec	Motor power	100W				
	Repeatability	mm	±0.005			
	Ball screw lead	mm	2	5	10	
	Maximum speed	mm/s	100	250	500	
	Maximum payload	Horizontal	kg	25	20	12
		Vertical	kg	8	8	3.5
	Rated thrust	N	854	341	170	
Stroke pitch	mm	50-850mm/50 pitch				
Parts	AC Servo motor output	W	100			
	Ball screw	mm	C7 Ø10			
	Coupling	mm	7 × 8			
	Home sensor	Outside	EE-SX674(NPN)			

• When the stroke is over 600mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.
 • Acceleration and deceleration value is set 0.2 second.

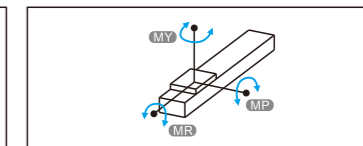
Sensor layout



Allowable overhang



Static loading moment



(Unit:mm)

Horizontal Installation	A	B	C
Lead 2	12kg	1000	55 80
	18kg	750	35 50
	25kg	500	23 32
Lead 5	10kg	550	53 70
	15kg	350	32 45
	20kg	250	22 31
Lead 10	8kg	305	59 75
	10kg	240	45 57
	12kg	195	37 47

(Unit:mm)

Wall Installation	A	B	C
Lead 2	12kg	80	55 1000
	18kg	50	35 750
	25kg	32	23 500
Lead 5	10kg	72	52 550
	15kg	45	32 345
	20kg	31	22 250
Lead 10	8kg	75	59 300
	10kg	45	32 240
	12kg	31	22 250

(Unit:mm)

Vertical Installation	A	C
Lead 2	4kg	195 195
	8kg	100 100
Lead 5	4kg	150 150
	8kg	75 75
Lead 10	2kg	260 260
	3.5kg	150 150

(Unit:N.m)

Motor power	50W/100W
MY	79
MP	79
MR	116

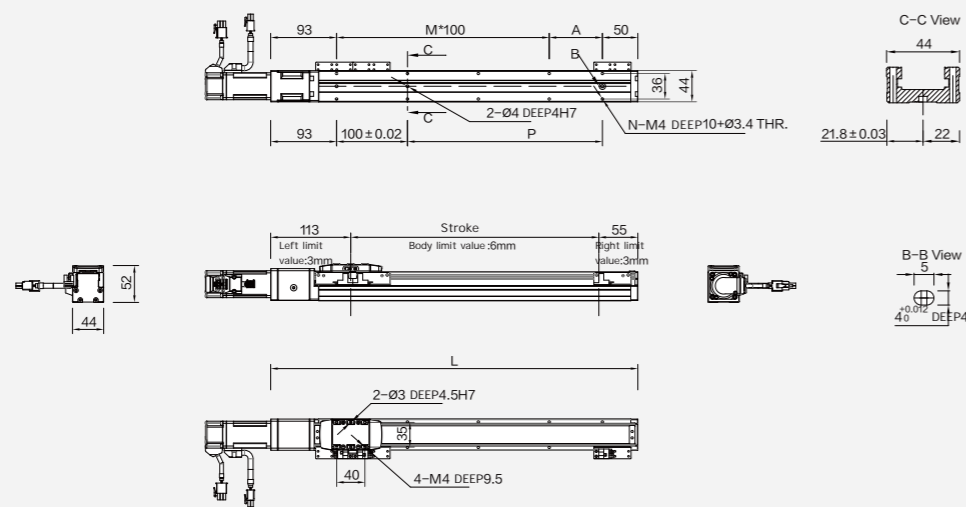
• The torque value in the chart indicate the center of gravity.
 • Operation life is 10,000km when the product is using under the specified conditions.
 • Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Suitable motor brand

Brand	Mark	Brake	Watt	AC-Voltage	Motor model	Driver model
Mitsubishi	M	No brake(Horizontal type)	100	220	HG-KR13	MR-J4-10A
		With brake(Vertical type)	100	220	HG-KR13B	MR-J4-10A
Panasonic	P	No brake(Horizontal type)	100	220	MSMD012G1U	MADHT1505
		With brake(Vertical type)	100	220	MSMD012G1V	MADHT1505
Delta	T	No brake(Horizontal type)	100	220	ECMA-C20401ES	ASD-B20121-B
		With brake(Vertical type)	100	220	ECMA-C20401FS	ASD-B20121-B

Motor exposed / Motor bottom side

1-axis RTH4

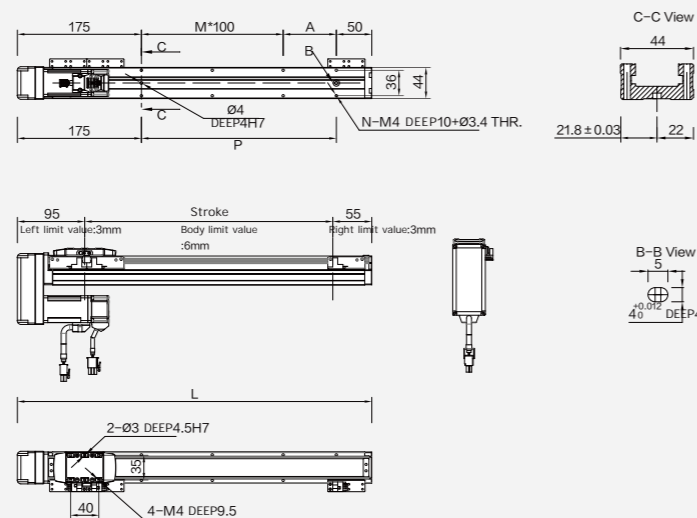


※ When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

Motor exposed	Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
		L	218	268	318	368	418	468	518	568	618	668	718	768	818	868	918	968
A	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
P	75	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775	
KG	0.78	0.95	1.12	1.29	1.47	1.65	1.83	2.01	2.19	2.37	2.55	2.73	2.91	3.09	3.27	3.45	3.63	

BC



※ When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

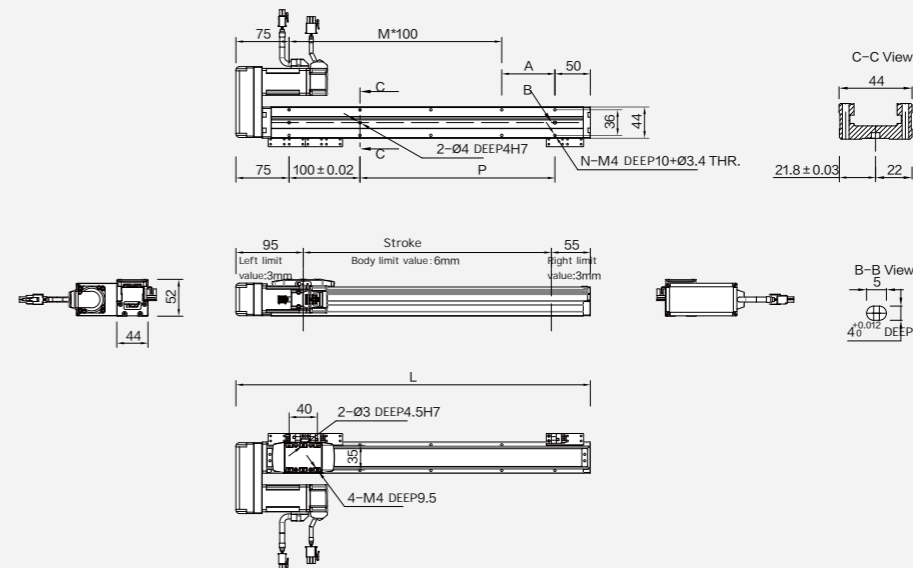
Motor bottom side	Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
		L	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
A	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	
M	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	
N	4	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	
P	75	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775	
KG	0.86	1.04	1.22	1.4	1.58	1.76	1.94	2.12	2.3	2.48	2.66	2.84	3.02	3.2	3.38	3.56	3.74	

BM

※ When motor with brake assembled on lower side, or the total length exceeds the spec limit, it may not use standard pinhole. Please contact our sales department if you need more information.

Motor left side / Motor right side

1-axis RTH4

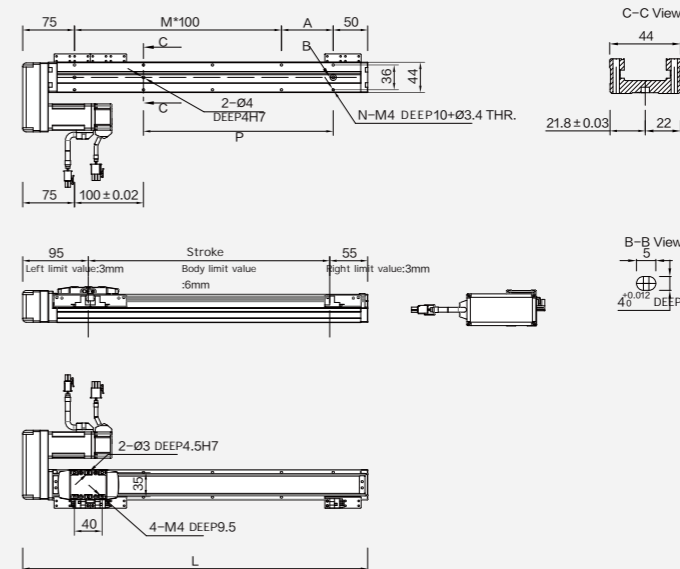


※ When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

Motor left side	Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
		L	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
A	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
P	75	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775	
KG	0.86	1.04	1.22	1.4	1.58	1.76	1.94	2.12	2.3	2.48	2.66	2.84	3.02	3.2	3.38	3.56	3.74	

BL



※ When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

Motor right side	Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
		L	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
A	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
P	75	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775	
KG	0.86	1.04	1.22	1.4	1.58	1.76	1.94	2.12	2.3	2.48	2.66	2.84	3.02	3.2	3.38	3.56	3.74	

BR

※ When motor with brake assembled on lower side, or the total length exceeds the spec limit, it may not use standard pinhole. Please contact our sales department if you need more information.

General/ In-line/ Screw sample
ATH

General/ In-line/ Belt sample
DG
KTH

General/ Electric cylinder sample
DMB
DMB
EMB
FMR

General/ In-line/ Belt sample
RTB

General/ Belt sample
DB
KTB

General/ European/ Belt sample
MB

Clean/ In-line/ Screw sample
ACH
RCH

Clean/ In-line/ Belt sample
KCH

Clean/ In-line/ Belt sample
RCB

Clean/ Belt sample
KCB

General/ KKT/ Screw sample
KKT

General/ Rack and pinion sample
GR

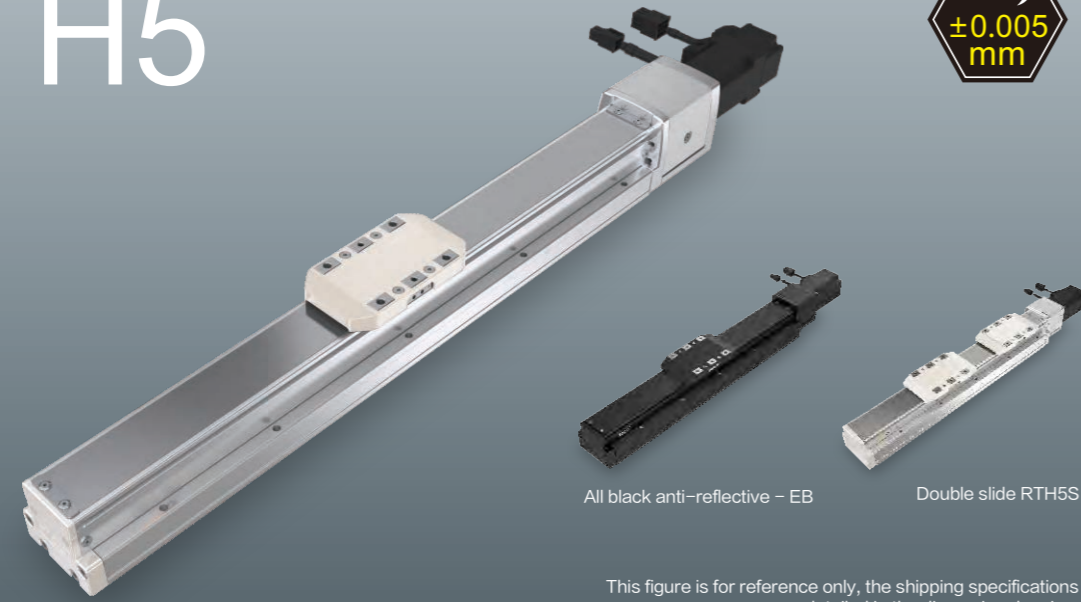
Linear motor sample
LM

Reference

Built-in self-lubricating series

RTH5

1-axis



Precision
±0.005 mm

All black anti-reflective - EB Double slide RTH5S

This figure is for reference only, the shipping specifications are detailed in the dimension drawing.

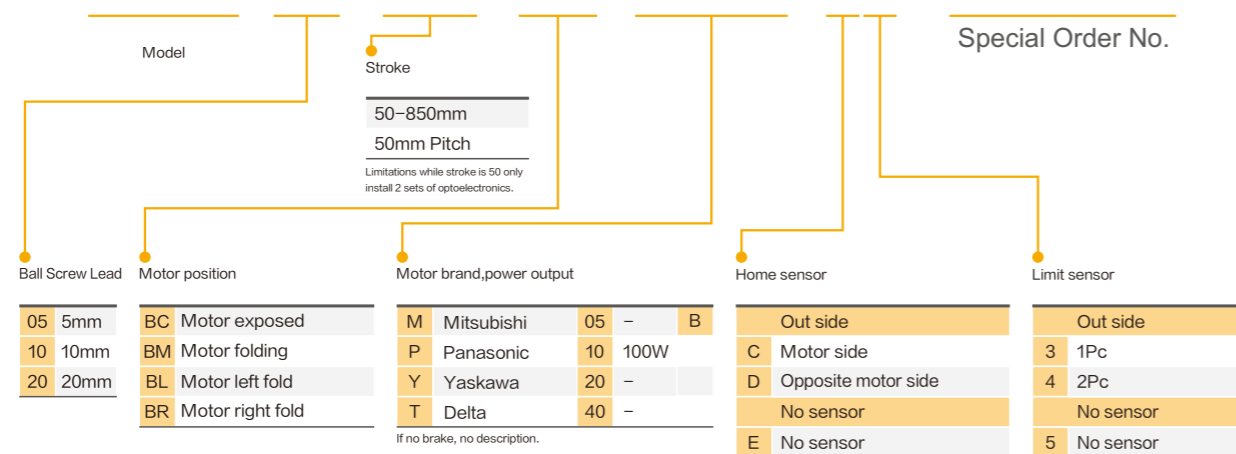
Maximum stroke	850mm	Maximum speed	1000mm/s	Motor capacity	100 _w	Ball screw	Ø12mm
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Motor diection



Ordering method

RTH5 - L5 - 100 - BC - P10B - C4 - Special



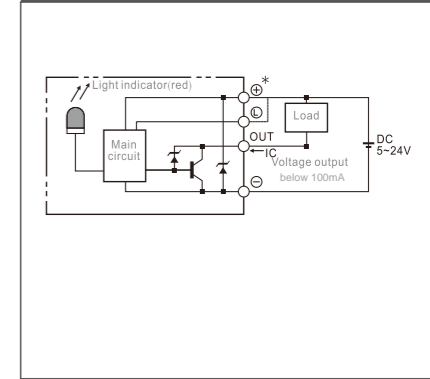
When the stroke is 50mm, the sensor installation has the following restrictions:
 • Home sensor and limit sensor has to be installed on the different side of body.
 • Both sides of slider need to install the sensor trigger device.

Specification

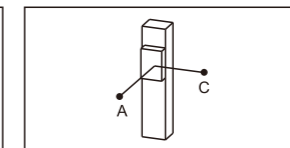
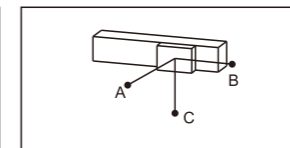
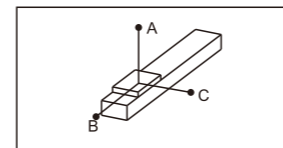
Spec	Repeatability	mm	±0.005			
	Ball screw lead	mm	5	10	20	
	Maximum speed	mm/s	250	500	1000	
	Maximum payload	Horizontal	kg	30	15	10
		Vertical	kg	10	5	2.5
	Rated thrust	N	341	170	85	
Parts	Stroke pitch	mm	50-850mm/50 pitch			
	AC Servo motor output	W	100			
	Ball screw ø	mm	C7 Ø12			
	Coupling	mm	7 × 8			
	Home sensor	Outside	EE-SX674(NPN)			

• When the stroke is over 650mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.
 • Acceleration and deceleration value is set 0.2 second.

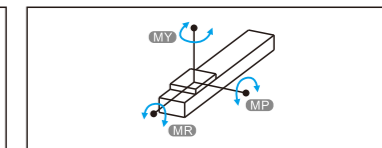
Sensor layout



Allowable overhang



Static loading moment



(Unit:mm)

Horizontal Installation	A	B	C	
Lead 5	10kg	650	75	100
	20kg	440	32	45
	30kg	270	19	25
Lead 10	5kg	600	145	185
	10kg	370	70	85
	15kg	250	42	52
Lead 20	5kg	320	120	130
	8kg	220	70	80
	10kg	175	55	60

(Unit:mm)

Wall Installation	A	B	C	
Lead 5	10kg	100	75	650
	20kg	45	32	420
	30kg	25	19	260
Lead 10	5kg	180	145	600
	10kg	85	68	370
	15kg	52	42	250
Lead 20	5kg	130	120	320
	8kg	75	70	220
	10kg	60	55	170

(Unit:mm)

Vertical Installation	A	C	
Lead 5	6kg	145	145
	8kg	110	110
	10kg	90	90
Lead 10	1kg	800	800
	3kg	260	260
	5kg	155	155
Lead 20	1kg	600	600
	2kg	300	300
	2.5kg	250	250

(Unit:N.m)

MY	103
MP	103
MR	144

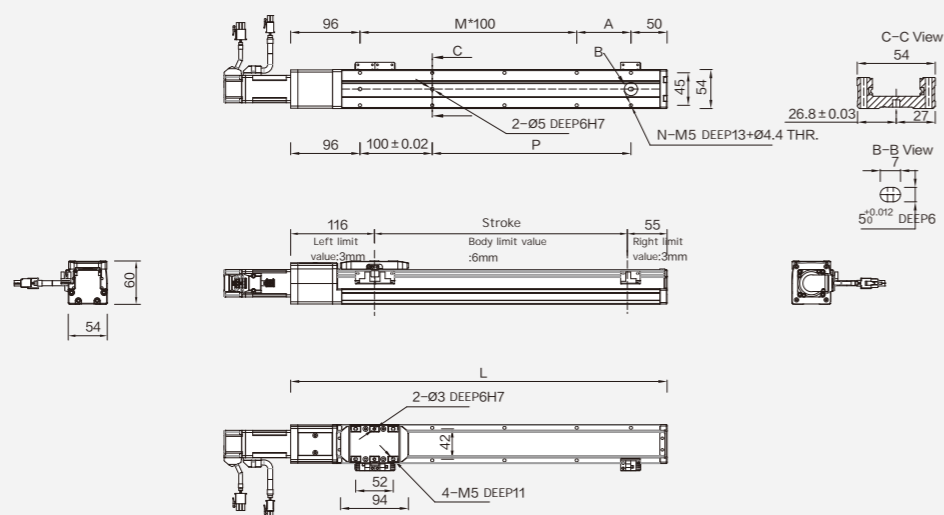
• The torque value in the chart indicate the center of gravity.
 • Operation life is 10,000km when the product is using under the specified conditions.
 • Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Suitable motor brand

Brand	Mark	Brake	Watt	AC-Voltage	Motor model	Driver model
Mitsubishi	M	No brake(Horizontal type)	100	220	HG-KR13	MR-J4-10A
		With brake(Vertical type)	100	220	HG-KR13B	MR-J4-10A
Panasonic	P	No brake(Horizontal type)	100	220	MSMD012G1U	MADHT1505
		With brake(Vertical type)	100	220	MSMD012G1V	MADHT1505
Delta	T	No brake(Horizontal type)	100	220	ECMA-C20404ES	ASD-B20121-B
		With brake(Vertical type)	100	220	ECMA-C20404FS	ASD-B20121-B

Motor exposed / Motor bottom side

1-axis RTH5



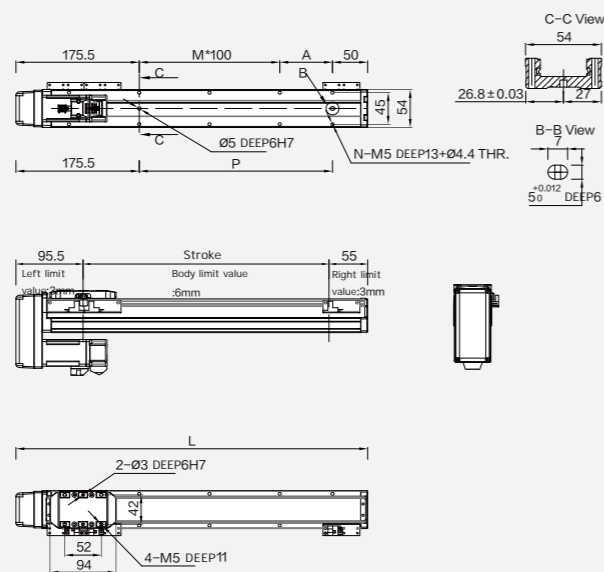
*When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

Motor exposed

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
L	221	271	321	371	421	471	521	571	621	671	721	771	821	871	921	971	1021
A	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
P	75	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
KG	1.51	1.65	1.79	1.92	2.11	2.39	2.5	2.52	2.75	2.86	2.95	3.15	3.28	3.44	3.58	3.71	4.09

BC



*When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

Motor bottom side

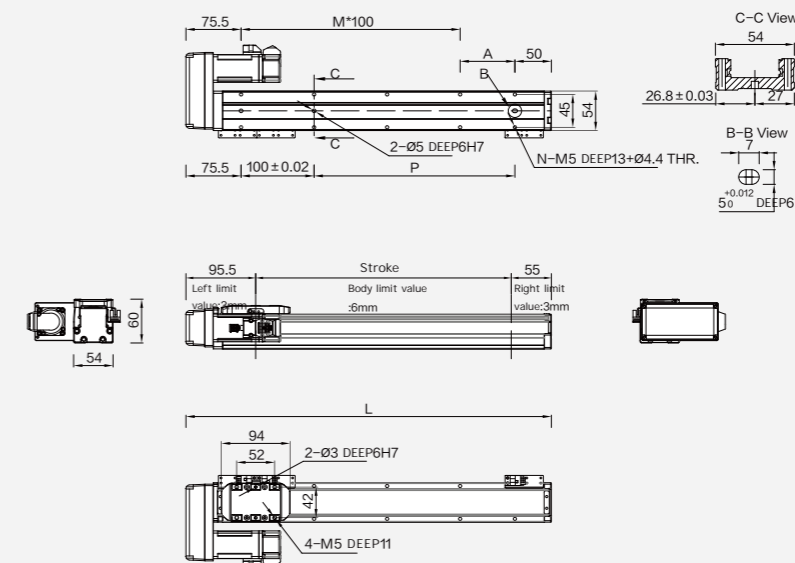
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
L	200.5	250.5	300.5	350.5	400.5	450.5	500.5	550.5	600.5	650.5	700.5	750.5	800.5	850.5	900.5	950.5	1000.5
A	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
M	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
N	4	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
P	75	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
KG	1.56	1.68	1.8	2.03	2.14	2.42	2.53	2.58	2.78	2.89	2.98	3.18	3.31	3.47	3.6	3.74	4.12

BM

* When motor with brake assembled on lower side, or the total length exceeds than spec limit, it may not use standard pinhole. Please contact our sales department if you need more information.

Motor left side / Motor right side

1-axis RTH5



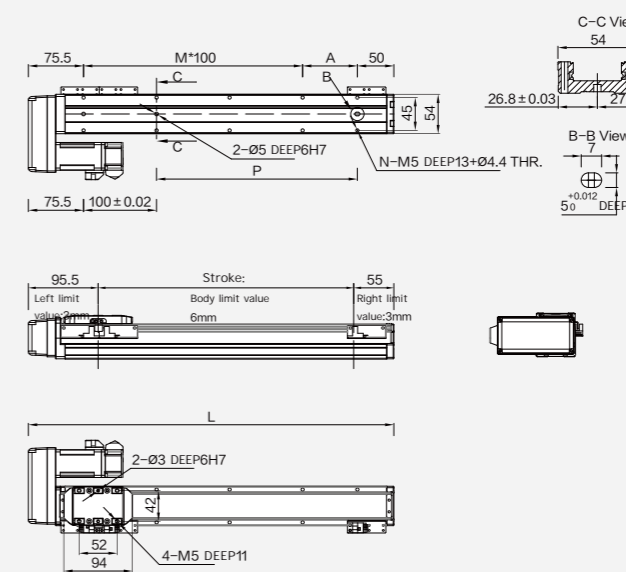
*When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

Motor left side

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
L	200.5	250.5	300.5	350.5	400.5	450.5	500.5	550.5	600.5	650.5	700.5	750.5	800.5	850.5	900.5	950.5	1000.5
A	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
P	75	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
KG	1.56	1.68	1.8	2.03	2.14	2.42	2.53	2.58	2.78	2.89	2.98	3.18	3.31	3.47	3.6	3.74	4.12

BL



* When motor with brake assembled on lower side, or the total length exceeds the spec limit, it may not use standard pinhole. Please contact our sales department if you need more information.

(Unit:mm)

Motor right side

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
L	200.5	250.5	300.5	350.5	400.5	450.5	500.5	550.5	600.5	650.5	700.5	750.5	800.5	850.5	900.5	950.5	1000.5
A	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
P	75	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
KG	1.56	1.68	1.8	2.03	2.14	2.42	2.53	2.58	2.78	2.89	2.98	3.18	3.31	3.47	3.6	3.74	4.12

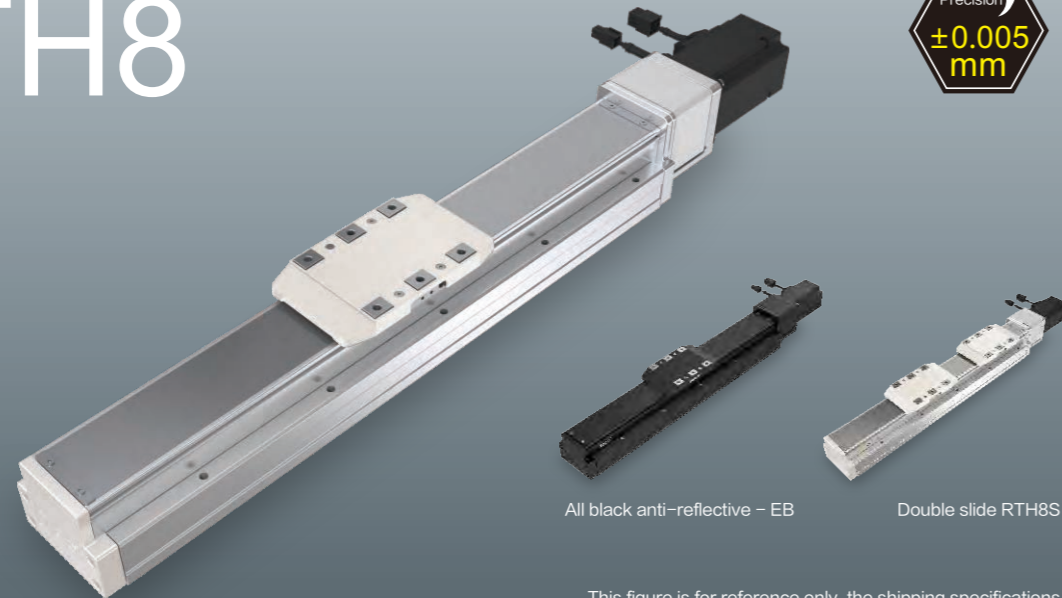
BR

* When motor with brake assembled on lower side, or the total length exceeds the spec limit, it may not use standard pinhole. Please contact our sales department if you need more information.

Built-in self-lubricating series

RTH8

1-axis



Precision
±0.005 mm

All black anti-reflective - EB Double slide RTH8S

This figure is for reference only, the shipping specifications are detailed in the dimension drawing.

Maximum stroke **1100mm** Maximum speed **1000mm/s** Motor capacity **200W** Ball screw **Ø16mm**

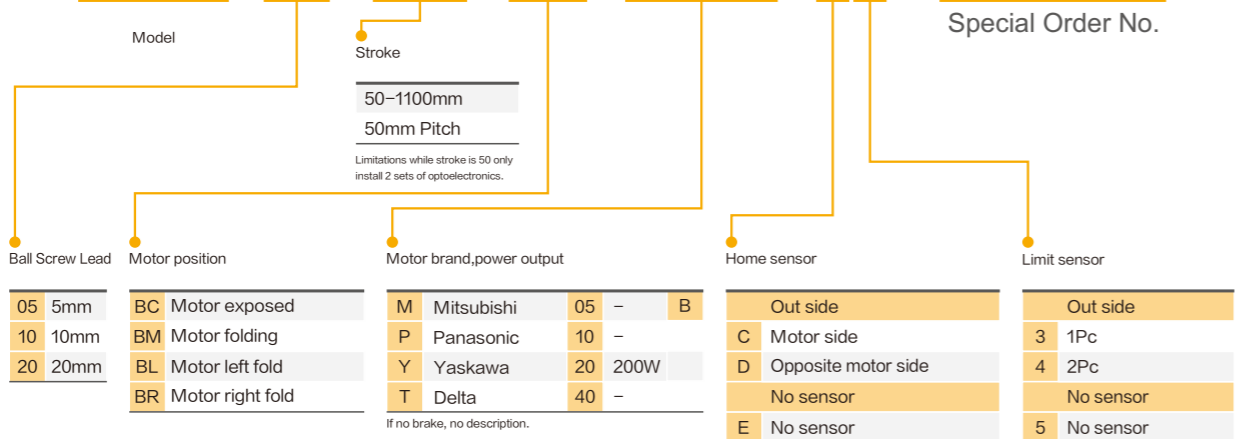
Motor diection



Ordering method

RTH8 - L5 - 100 - BC - P20B - C4 - Special

Special Order No.



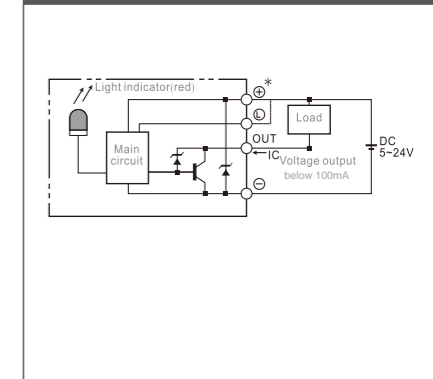
When the stroke is 50mm, the sensor installation has the following restrictions:
 • Home sensor and limit sensor has to be installed on the different side of body.
 • Both sides of slider need to install the sensor trigger device.

Specification

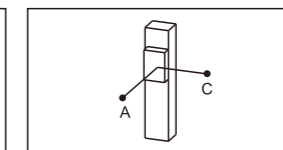
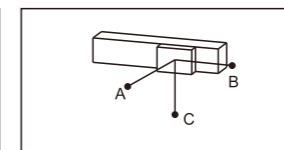
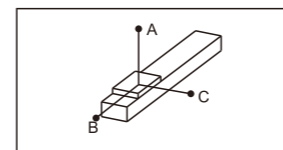
Spec	200W/400W			
	Motor power	200W/400W		
Repeatability	mm	±0.005		
Ball screw lead	mm	5	10	20
Maximum speed	mm/s	250	500	1000
Maximum payload	Horizontal	kg	50	30
	Vertical	kg	15	8
Rated thrust	N	683/1388	341/694	174/347
Stroke pitch	mm	50-1100mm/50 pitch		
AC Servo motor output	W	200/400		
Ball screw	mm	C7 Ø16		
Coupling	mm	10×11(14)/10×14		
Home sensor	Outside	EE-SX674(NPN)		

• When the stroke is over 800mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.
 • Acceleration and deceleration value is set 0.2 second.
 • Motor(200W)Shaft Diameter:Panasonic:Ø11mm;Other:Ø14mm.

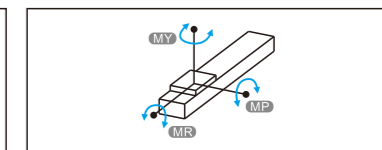
Sensor layout



Allowable overhang



Static loading moment



(Unit:mm)

Motor power	200W/400W			
Horizontal Installation	A	B	C	
Lead 5	20kg	1560/1560	153/153	237/237
	35kg	890/890	81/81	126/126
	50kg	550/550	53/53	82/82
Lead 10	10kg	1730/1730	286/286	412/412
	20kg	839/839	136/136	196/196
	30kg	541/541	86/86	124/124
Lead 20	6kg	1213/1213	403/403	493/493
	9kg	800/800	263/263	323/323
	18kg	592/592	194/194	238/238

(Unit:mm)

Motor power	200W/400W			
Wall Installation	A	B	C	
Lead 5	20kg	214/214	153/153	1435/1435
	35kg	113/113	81/81	845/845
	50kg	74/74	53/53	506/506
Lead 10	10kg	370/370	286/286	1400/1400
	20kg	176/176	136/136	800/800
	30kg	112/112	86/86	495/495
Lead 20	6kg	444/444	403/403	760/760
	9kg	292/292	263/263	277/277
	18kg	214/214	194/194	544/544

(Unit:mm)

Motor power	200W/400W		
Vertical Installation	A	C	
Lead 5	10kg	331/331	331/331
	15kg	220/220	220/220
	-	-	-
Lead 10	5kg	589/589	589/589
	8kg	368/368	368/368
	-	-	-
Lead 20	3kg	935/935	935/935
	-	-	-
	-	-	-

(Unit:N.m)

Motor power	200W/400W
MY	318/318
MP	318/318
MR	626/626

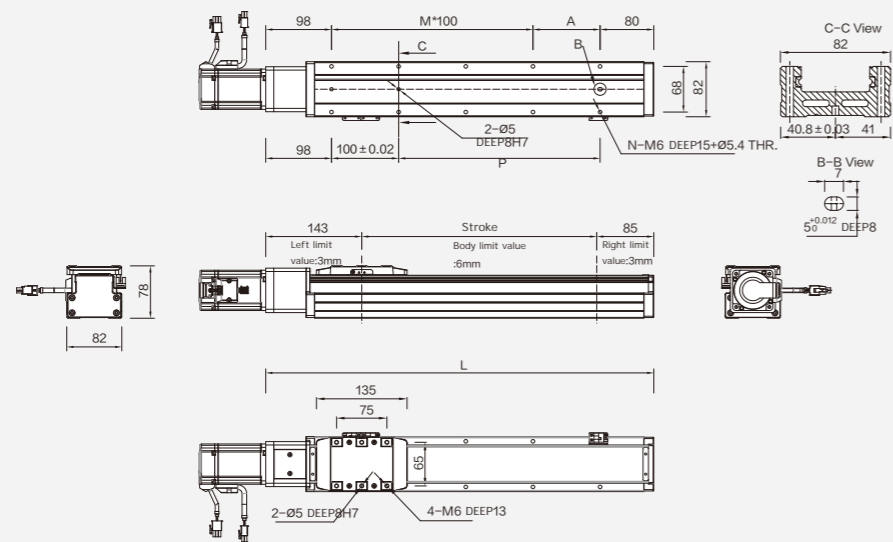
• The torque value in the chart indicate the center of gravity.
 • Operation life is 10,000km when the product is using under the specified conditions.
 • Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Suitable motor brand

Brand	Mark	Brake	Watt	AC-Voltage	Motor model	Driver model
Mitsubishi	M	No brake(Horizontal type)	200/400	220	HG-KR23/HG-KR43	MR-J4-20A/MR-J4-40A
		With brake(Vertical type)	200/400	220	HG-KR23B/HG-KR43B	MR-J4-20A/MR-J4-40A
Panasonic	P	No brake(Horizontal type)	200/400	220	MHMD022P1S/MHMD042G1U	MADHT1207/MBDHT2510
		With brake(Vertical type)	200/400	220	MHMD022P1T/MHMD042G1V	MADHT1207/MBDHT2510
Delta	T	No brake(Horizontal type)	200/400	220	ECMA-C20602ES/ECMA-C20604ES	ASD-B20221-B/ASD-B20421-B
		With brake(Vertical type)	200/400	220	ECMA-C20602FS/ECMA-C20604FS	ASD-B20221-B/ASD-B20421-B

Motor exposed / Motor bottom side

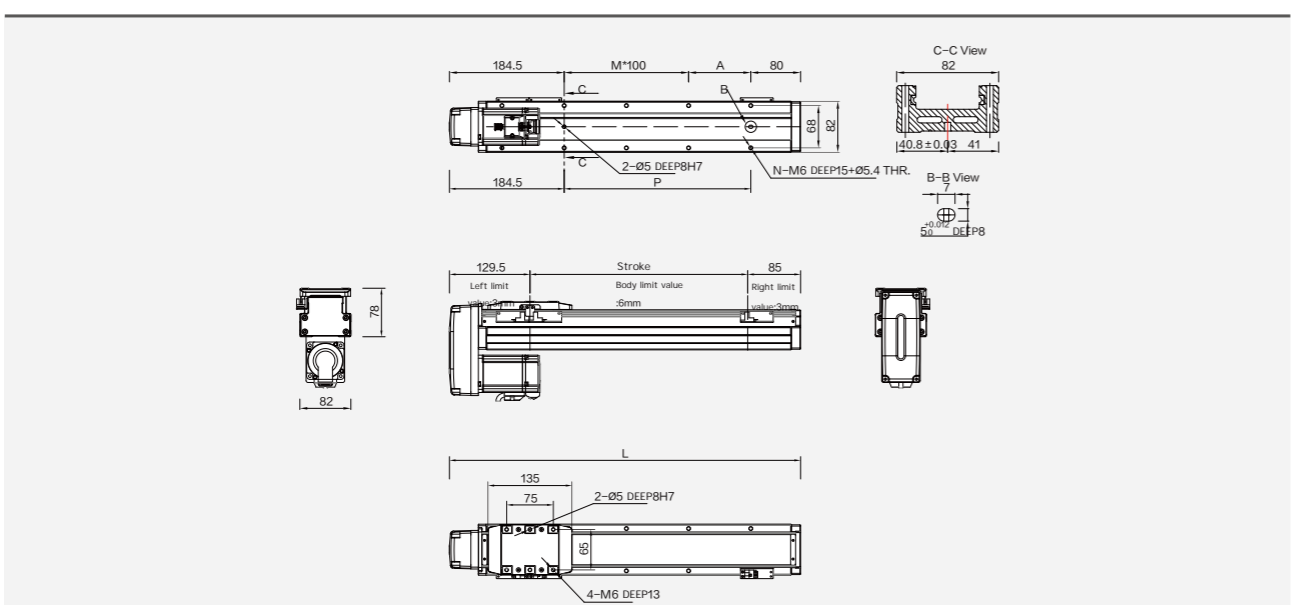
1-axis RTH8



※When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

Motor exposed	Stroke	Stroke																					
		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
BC	L	278	328	378	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078	1128	1178	1228	1278	1328
	A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
	M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11
	N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26
	P	100	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
KG	3.60	3.95	4.30	4.65	5.00	5.35	5.70	6.05	6.40	6.75	7.10	7.45	7.80	8.15	8.50	8.85	9.20	9.55	9.90	10.25	10.60	10.95	



※When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

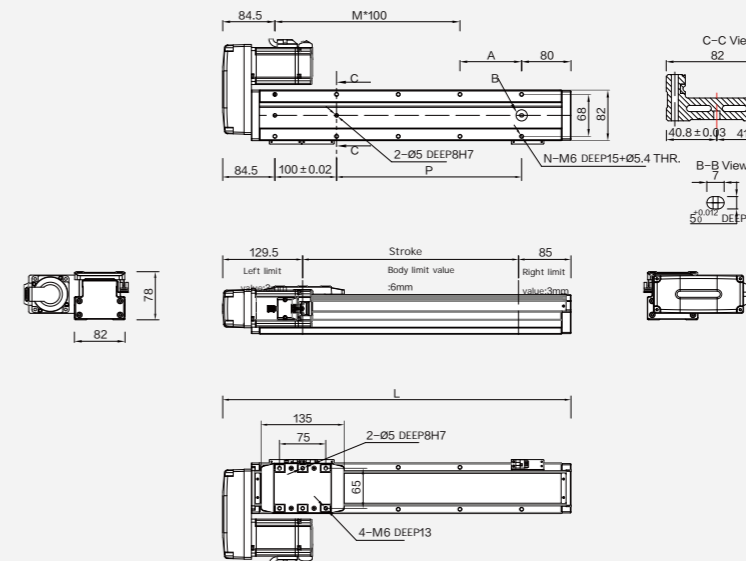
(Unit:mm)

Motor bottom side	Stroke	Stroke																					
		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
BM	L	264.5	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5	814.5	864.5	914.5	964.5	1014.5	1064.5	1114.5	1164.5	1214.5	1264.5	1314.5
	A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
	M	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10
	N	4	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24
	P	100	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
KG	3.80	4.15	4.50	4.85	5.20	5.55	5.90	6.25	6.60	6.95	7.30	7.65	8.00	8.35	8.70	9.05	9.40	9.75	10.10	10.45	10.80	11.15	

※ When motor with brake assembled on lower side, or the total length exceeds the spec limit, it may not use standard pinhole. Please contact our sales department if you need more information.

Motor left side / Motor right side

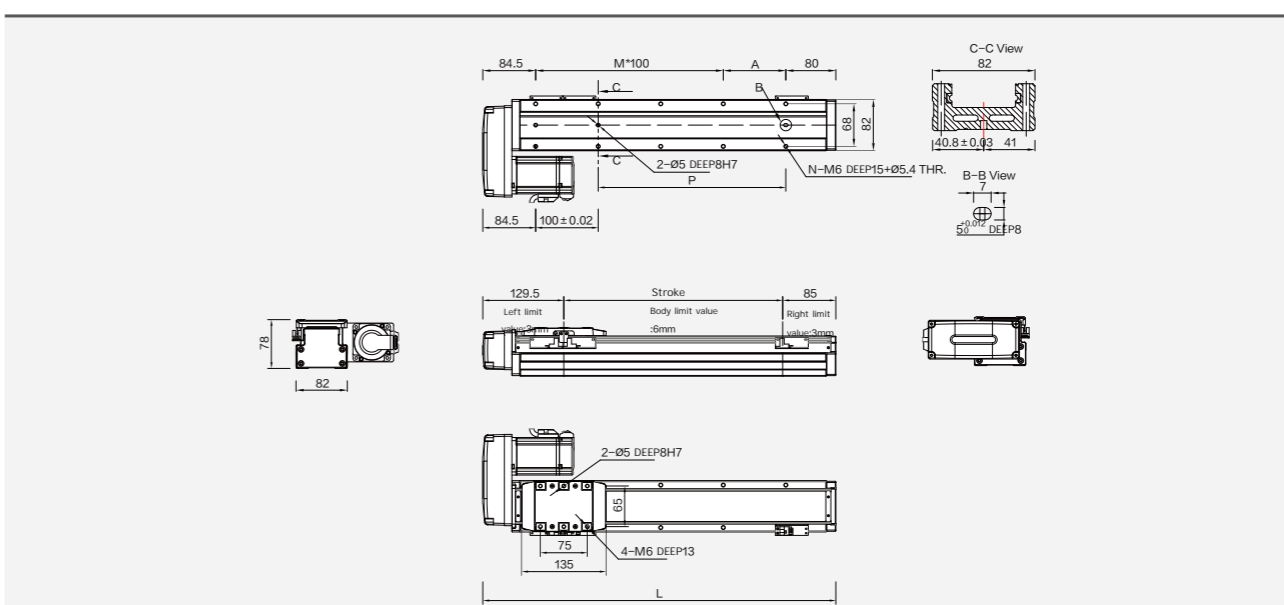
1-axis RTH8



※When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

Motor left side	Stroke	Stroke																					
		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
BL	L	264.5	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5	814.5	864.5	914.5	964.5	1014.5	1064.5	1114.5	1164.5	1214.5	1264.5	1314.5
	A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
	M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11
	N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26
	P	100	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
KG	3.80	4.15	4.50	4.85	5.20	5.55	5.90	6.25	6.60	6.95	7.30	7.65	8.00	8.35	8.70	9.05	9.40	9.75	10.10	10.45	10.80	11.15	



※ When the stroke is 50mm and 100mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

(Unit:mm)

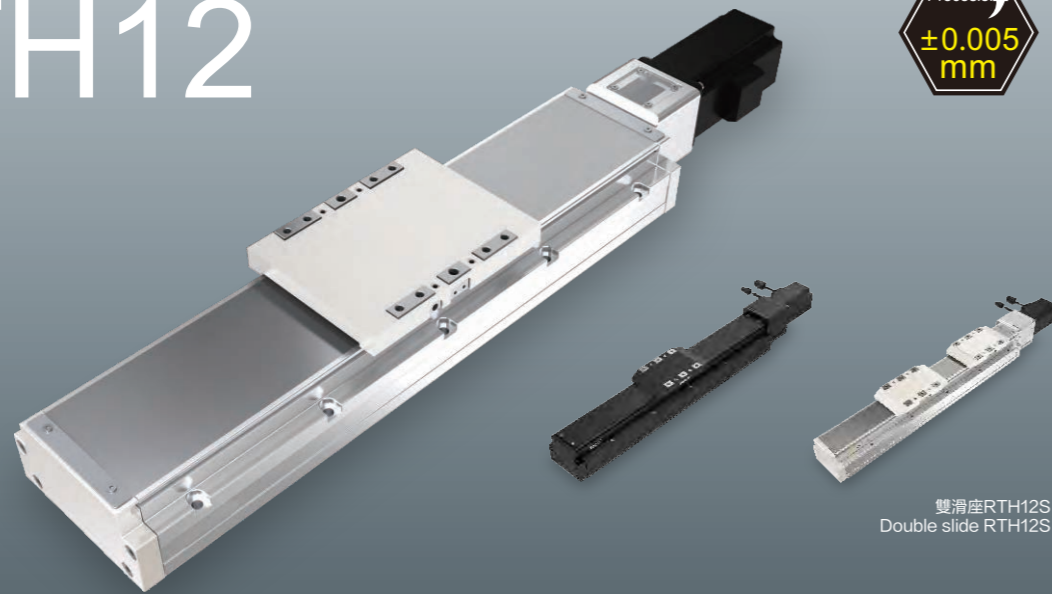
Motor right side	Stroke	Stroke																					
		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
BR	L	264.5	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5	814.5	864.5	914.5	964.5	1014.5	1064.5	1114.5	1164.5	1214.5	1264.5	1314.5
	A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
	M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11
	N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26
	P	100	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
KG	3.80	4.15	4.50	4.85	5.20	5.55	5.90	6.25	6.60	6.95	7.30	7.65	8.00	8.35	8.70	9.05	9.40	9.75	10.10	10.45	10.80	11.15	

※ When motor with brake assembled on lower side, or the total length exceeds the spec limit, it may not use standard pinhole. Please contact our sales department if you need more information.

Built-in self-lubricating series

RTH12

1-axis



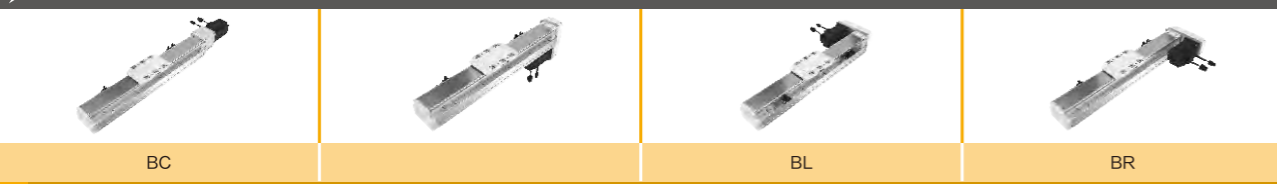
雙滑座RTH12S
Double slide RTH12S

RTH12

ATH3
ATH4
ATH5
ATH8
ATH12
ATH15
RTH4
RTH5
RTH8
DG60
DG100
DG135
KTH13
KTH14
KTH17
KTH22
KTH27
DMB5
DMB10
DMB20
DMB30
DMB40
EMB5
EMB10
EMB20
RTB5
RTB8
RTB12
RTB15
DB100
DB135
KTB14M
KTB17M
KTB22M
MB65
MB80
MB110
ACH4
ACH5
ACH8
ACH12
ACH15
RCH4
RCH5
RCH8
RCH12
KCH14
KCH17
KCH22
RCB5
RCB8
RCB12
RCB15
KCB14
KCB17
KCB22
KKT50
KKT60
KKT86
GR14
GR17
GR22
LM80
LM140
LM170
LM210

Maximum stroke	1300mm	Maximum speed	1600mm/s	Motor capacity	400 _w	Ball screw	Ø16mm
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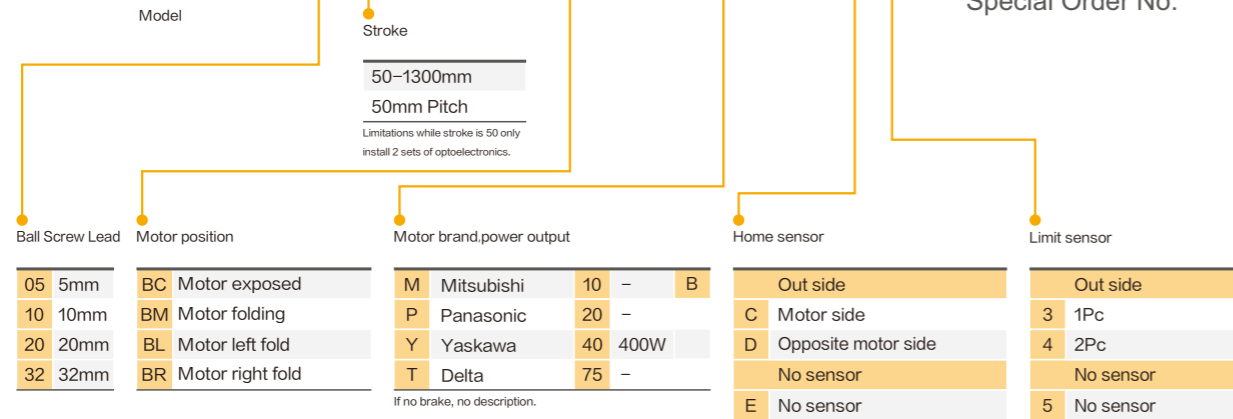
▶ Motor diection



▶ Ordering method

RTH12 - L5 - 100 - BC - P40B - C4 - Special

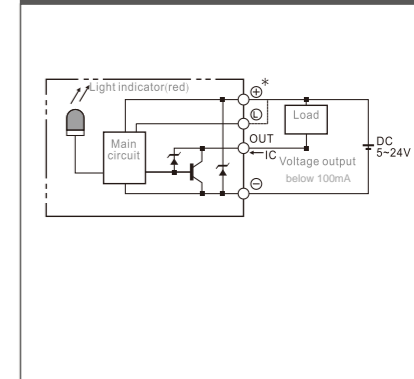
Special Order No.



▶ Specification

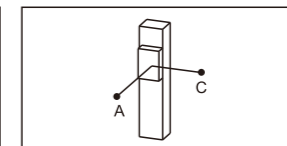
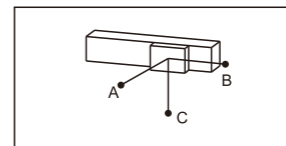
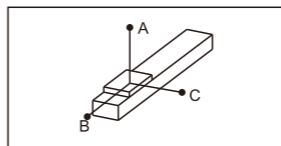
Spec	Repeatability	mm	± 0.005				
	Ball screw lead	mm	5	10	20	32	
	Maximum speed	mm/s	250	500	1000	1600	
	Maximum payload	Horizontal	kg	110	88	40	30
		Vertical	kg	33	22	10	8
	Rated thrust	N	1388	694	347	218	
Parts	Stroke pitch	mm	50-1300mm/50 pitch				
	AC Servo motor output	W	400				
	Ball screw φ	mm	C7 Ø16				
	Coupling	mm	10 × 14				
	Home sensor	Outside	EE-SX674(NPN)				

▶ Sensor layout

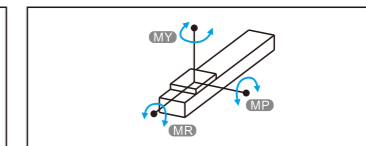


- ▶ When the stroke is over 850mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.
- ▶ Acceleration and deceleration value is set 0.2 second.
- ▶ Motor(200W) Shaft Diameter: Panasonic: Ø11mm; Other: Ø14mm.

▶ Allowable overhang



▶ Static loading moment



(Unit:mm)				(Unit:mm)				(Unit:mm)			(Unit:N.m)			
Horizontal Installation	A	B	C	Wall Installation	A	B	C	Vertical Installation	A	C	MY	MP	MR	
Lead 5	60kg	1560	153	237	55kg	280	280	3300	Lead 5	15kg	1200	1200	606	
	80kg	890	81	126	75kg	200	195	2400		22kg	820	820	606	
	110kg	550	53	82	110kg	130	125	1550		33kg	550	550	1168	
Lead 10	30kg	1730	286	412	Lead 10	35kg	400	410	2500	Lead 10	10kg	1600	1600	
	50kg	839	136	196		55kg	245	250	1550		14kg	1150	1150	
	88kg	541	86	124		88kg	150	150	950		22kg	730	730	
Lead 20	10kg	1213	403	493	Lead 20	12kg	900	1070	3000	Lead 20	7kg	1800	1800	
	22kg	800	264	323		20kg	550	630	1800		10kg	1250	1250	
	40kg	592	194	238		40kg	260	300	900		-	-	-	
Lead 32	15kg	1100	570	550	Lead 32	15kg	440	570	1050	Lead 32	5kg	1600	1600	
	25kg	620	330	320		30kg	210	270	520		8kg	1000	1000	
	30kg	520	270	260										

* The torque value in the chart indicate the center of gravity.
 * 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.

▶ Suitable motor brand

Brand	Mark	Brake	Watt	AC-Voltage	Motor model	Driver model
Mitsubishi	M	No brake(Horizontal type)	400	220	HG-KR43	MR-J4-40A
		With brake(Vertical type)	400	220	HG-KR43B	MR-J4-40A
Panasonic	P	No brake(Horizontal type)	400	220	MHMD042G1U	MBDHT2510
		With brake(Vertical type)	400	220	MHMD042G1V	MBDHT2510
Delta	T	No brake(Horizontal type)	400	220	ECMA-C20604ES	ASD-B20421-B
		With brake(Vertical type)	400	220	ECMA-C20604FS	ASD-B20421-B

Various combinations



Various combinations



Motor mounting size

Motor mounting size						
Motor size	□ 38	□ 60	□ 60	□ 80	□ 42.3	□ 86
Shaft diameter	Ø8	Ø11	Ø14	Ø19	Ø5	Ø14
Capacity w	100W	200W	400W	750W	42 Stepping motor	86 Stepping motor
Flange code	A	C	E	G	I	K
Motor mounting size						
Motor size	□ 40	□ 60	□ 60	□ 80	□ 56.4	□ 86
Shaft diameter	Ø8	Ø14	Ø14	Ø19	Ø8	Ø12.7
Capacity w	100W	200W	400W	750W	57 Stepping motor	86 Stepping motor
Flange code	B	D	F	H	J	L

Note: This table is for reference only, subject to actual size.

Purchase Guide

Ball screw drive/General environment

RTH Series

Built-in self-lubricating series

RTH5		RTH5	
	Maximum stroke 850mm Maximum load 25kg Body width 44mm		Maximum stroke 850mm Maximum load 30kg Body width 54mm

RTH8		RTH12	
	Maximum stroke 1100mm Maximum load 50kg Body width 82mm		Maximum stroke 1300mm Maximum load 110kg Body width 120mm

KTH Series

General screw series

KTH13		KTH14		KTH17	
	Maximum stroke 1050mm Maximum load 70kg Body width 135mm		Maximum stroke 1050mm Maximum load 110kg Body width 135mm		Maximum stroke 1250mm Maximum load 120kg Body width 170mm

KTH22		KTH27	
	Maximum stroke 1500mm Maximum load 150kg Body width 220mm		Maximum stroke 1500mm Maximum load 350kg Body width 270mm

Ball screw drive/General environment

KKT Series

KKT series

KKT50		KKT60		KKT86	
	Maximum track length 300mm Basic dynamic rated load 1813N Basic static load rating 2910N Body width 50mm		Maximum track length 600mm Basic dynamic rated load 3377N Basic static load rating 5625N Body width 60mm		Maximum track length 940mm Basic dynamic rated load 6429N Basic static load rating 11387N Body width 86mm

Rack and pinion/General environment

GR Series

Rack and pinion series

GR14		GR17		GR22	
	Maximum stroke 3500mm Maximum load 88kg Body width 135mm		Maximum stroke 3500mm Maximum load 102kg Body width 170mm		Maximum stroke 3500mm Maximum load 150kg Body width 220mm







Purchase Guide

RTB Series

RTB series:
 1. 1.50mm shorter than ATB series
 2. Compact size for limited installation space.



Inline belt series	
RTB5  Maximum stroke 850mm Maximum load 5kg Body width 54mm	RTB8  Maximum stroke 1750mm Maximum load 15kg Body width 82mm

RTB12  Maximum stroke 1750mm Maximum load 25kg Body width 120mm	RTB15  Maximum stroke 1750mm Maximum load 45kg Body width 155mm
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KTB Series

General belt series		
KTB14M  Maximum stroke 3050mm Maximum load 25kg Body width 135mm	KTB17M  Maximum stroke 3050mm Maximum load 45kg Body width 170mm	KTB22M  Maximum stroke 3400mm Maximum load 85kg Body width 220mm

MB Series

European belt series		
MB65  Maximum stroke 5500mm Maximum load 60kg Body width 65mm	MB80  Maximum stroke 5500mm Maximum load 100kg Body width 80mm	MB110  Maximum stroke 5500mm Maximum load 200kg Body width 110mm



Belt drive/General environment

Simple Selection Table–Single Axis Series

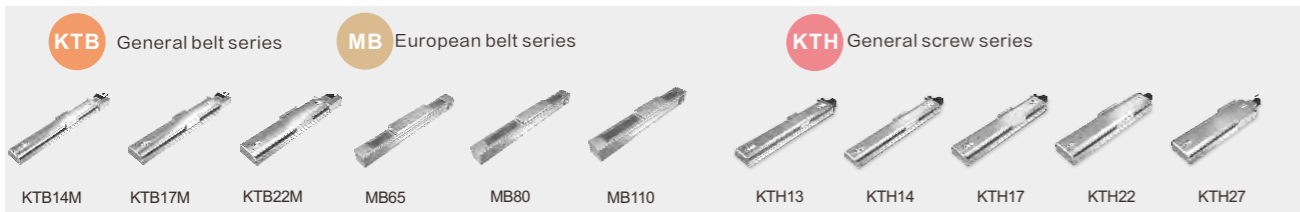


Model Specification	ATH3	ATH4	ATH5	ATH8	ATH12	ATH15		
Motor Output (W)	50	100	100	200/400	400	400	750	
Repeatability (mm)	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005		
Ball Screw Lead (mm)	1/2/5	2/5/10	5/10/20	5/10/20	5/10/20/32	5/10/20/40		
Maximum speed (mm/s)	50/100/300	100/250/500	250/500/1000	250/500/1000	250/500/1000/1600	250/500/1000/2000		
Maximum payload (kg)	Horizontal	5/5/3	25/20/12	30/15/10	50/30/18	110/88/40/30	120/110/75/22	120/120/83/43
	Vertical	3/2/0.8	8/8/3.5	10/5/2.5	15/8/3	33/22/10/8	40/30/14/7	50/40/25/12
Stroke (mm)	10-200	50-800	50-800	50-1050	50-1250	50-1250		

Model Specification	RTH4	RTH5	RTH8	RTH12	
Motor Output (W)	100	100	200/400	400	
Repeatability (mm)	± 0.005	± 0.005	± 0.005	± 0.005	
Ball Screw Lead (mm)	2/5/10	5/10/20	5/10/20	5/10/20/32	
Maximum speed (mm/s)	100/250/500	250/500/1000	250/500/1000	250/500/1000/1600	
Maximum payload (kg)	Horizontal	25/20/12	30/15/10	50/30/18	110/88/40/30
	Vertical	8/8/3.5	10/5/2.5	15/8/3	33/22/10/8
Stroke (mm)	50-850	50-850	50-1100	50-1300	



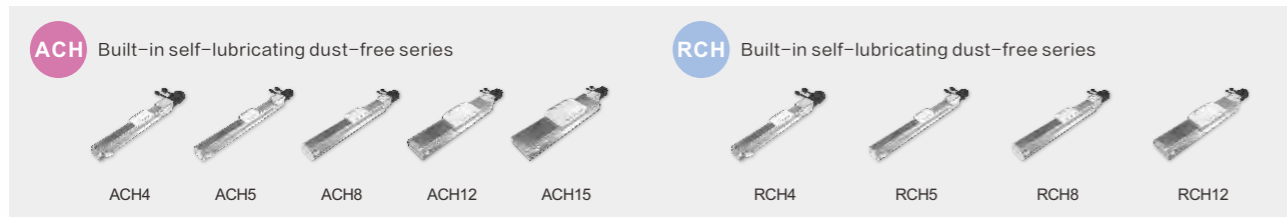
Model Specification	RTB5	RTB8	RTB12	RTB15	
Motor Output (W)	100	200	200	400	
Repeatability (mm)	± 0.04	± 0.04	± 0.04	± 0.04	
Ball Screw Lead (mm)	30/60	33/66	36/72	42/84	
Maximum speed (mm/s)	1500/3000	1650/3300	1800/3600	2100/4200	
Maximum payload (kg)	Horizontal	5	15	25	45
	Vertical	-	-	-	-
Stroke (mm)	50-850	50-1750	50-1750	50-1750	



Model Specification	KTB14M	KTB17M	KTB22M	MB65	MB80	MB110	
Motor Output (W)	200	400	750	400	400/750	750	
Repeatability (mm)	± 0.04	± 0.04	± 0.04	± 0.1	± 0.1	± 0.1	
Ball Screw Lead (mm)	40	40	40	130	200	280	
Gearbox Ratio	-	-	-	3:1/5:1/7:1/10: 1	5:1/7:1/10:1	10:1/15:1/20:1	
Maximum speed (mm/s)	2000	2000	2000	2166/1300/928/650	2000/1428/1000	1400/933/700	
Maximum payload (kg)	Horizontal	25	45	85	30/45/55/60	40/60/100	100/150/200
	Vertical	-	-	-	9/15/16/17	14/21/24	23/36/50
Stroke (mm)	50-3050	50-3050	50-3400	100-5500	100-5500	100-5500	

Model Specification	KTH13	KTH14		KTH17		KTH22	KTH27		
Motor Output (W)	200/400	200	400	400	750	750	750	1000	
Repeatability (mm)	± 0.005	± 0.005		± 0.005		± 0.005	± 0.005		
Ball Screw Lead (mm)	5/10/20/32	5/10/20/32		5/10/20/40		5/10/25/32	5/10/20/32		
Maximum speed (mm/s)	250/500/1000/1600	250/500/1000/1600		250/500/1000/2000		250/500/1250/1600	250/500/1000/1600		
Maximum payload (kg)	Horizontal	70/47/24/13	95/75/35/15	110/88/40/30	120/110/75/22	120/120/83/43	150/150/105/60	250/200/100/50	350/300/200/100
	Vertical	17/12/6/-	27/18/7/-	33/22/10/8	40/30/14/7	50/40/25/12	55/45/20/20	100/80/40/20	140/120/80/40
Stroke (mm)	50-1050	50-1050		50-1250		50-1500	100-1500		

Simple Selection Table-Single Axis Series



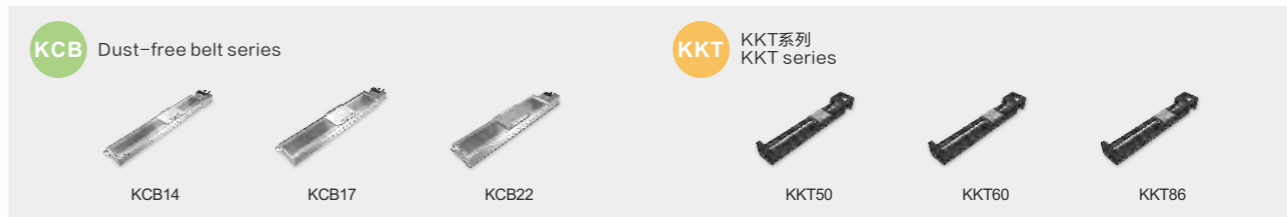
Model Specification	ACH4	ACH5	ACH8	ACH12	ACH15	
Motor Output (W)	100	100	200/400	400	400	750
Repeatability (mm)	±0.005	±0.005	±0.005	±0.005	±0.005	
Ball Screw Lead (mm)	2/5/10	5/10/20	5/10/20	5/10/20/32	5/10/20/40	
Maximum speed (mm/s)	100/250/500	250/500/1000	250/500/1000	250/500/1000/1600	250/500/1000/2000	
Maximum payload (kg)	Horizontal	25/20/12	30/15/10	50/30/18	110/88/40/30	120/110/75/22
	Vertical	8/8/3.5	10/5/2.5	15/8/3	33/22/10/8	40/30/14/7
Stroke (mm)	50-800	50-800	50-1050	50-1250	50-1250	

Model Specification	RCH4	RCH5	RCH8	RCH12
Motor Output (W)	100	100	200/400	400
Repeatability (mm)	±0.005	±0.005	±0.005	±0.005
Ball Screw Lead (mm)	2/5/10	5/10/20	5/10/20	5/10/20/32
Maximum speed (mm/s)	100/250/500	250/500/1000	250/500/1000	250/500/1000/1600
Maximum payload (kg)	Horizontal	25/20/12	30/15/10	50/30/18
	Vertical	8/8/3.5	10/5/2.5	15/8/3
Stroke (mm)	50-850	50-850	50-1100	50-1300



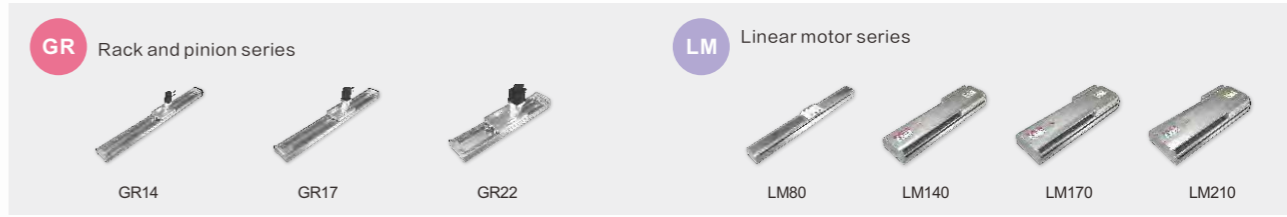
Model Specification	KCH14		KCH17		KCH22
Motor Output (W)	200	400	400	750	750
Repeatability (mm)	±0.005		±0.005		±0.005
Ball Screw Lead (mm)	5/10/20/32		5/10/20/40		5/10/25/32
Maximum speed (mm/s)	250/500/1000/1600		250/500/1000/2000		250/500/1250/1600
Maximum payload (kg)	Horizontal	95/75/35/15	110/88/40/30	120/110/75/22	120/120/83/43
	Vertical	27/18/7/-	33/22/10/8	40/30/14/7	50/40/25/12
Stroke (mm)	50-1050		50-1250		50-1500

Model Specification	RCB5	RCB8	RCB12	RCB15
Motor Output (W)	100	200	200	400
Repeatability (mm)	±0.04	±0.04	±0.04	±0.04
Ball Screw Lead (mm)	30/60	33/66	36/72	42/84
Maximum speed (mm/s)	1500/3000	1650/3300	1800/3600	2100/4200
Maximum payload (kg)	Horizontal	5	15	25
	Vertical	-	-	-
Stroke (mm)	50-850	50-1750	50-1750	50-1750



Model Specification	KCB14	KCB17	KCB22
Motor Output (W)	200	400	750
Repeatability (mm)	±0.04	±0.04	±0.04
Ball Screw Lead (mm)	40	40	40
Maximum speed (mm/s)	2000	2000	2000
Maximum payload (kg)	Horizontal	25	45
	Vertical	-	-
Stroke (mm)	50-3050	50-3050	50-3400

Model Specification	KKT50	KKT60	KKT86
Motor Output (W)	100	100	100/200
Repeatability (mm)	±0.01	±0.01	±0.01
Ball Screw Lead (mm)	2	5/10	10/20
Maximum speed (mm/s)	270	390/790	520/1050
load	Dynamic load rating(N)	1813	3377/2107
	Rated static load(N)	2910	5625/3234
Lehgth (mm)	150/200/250/300	150/200/300/400/500/600	340/440/540/640/740/940



Model Specification	GR14	GR17	GR22
Motor Output (W)	400	750	750
Repeatability (mm)	±0.04	±0.04	±0.04
Gearbox Ratio	3:1/5:1/7:1/10:1	3:1/5:1/7:1/10:1	3:1/5:1/7:1/10:1
Gear lead (mm)	33.32/19.99/14.28/10.00	48.87/29.32/20.94/14.66	48.87/29.32/20.94/14.66
Maximum speed (mm/s)	1665/1000/715/500	2443/1466/1047/733	1633/966/700/486
Maximum payload (kg)	Horizontal	30/40/64/88	31/63/83/102
	Vertical	8/10/18/22	9/18/25/33
Stroke (mm)	1000-3500	1000-3500	1000-3500

Model Specification	LM80	LM140			LM170			LM210			
Standard thrust	82	81	152	218	122	230	330	161	302	435	
Repeatability (mm)	MG±0.005/RG±0.003	MG±0.005/RG±0.003			MG±0.005/RG±0.003			MG±0.005/RG±0.003			
Maximum speed (mm/s)	4000	3000			3000			3000			
Thrust	Continuous thrust (N)	82	81	152	218	233	230	330	161	302	435
	Peak thrust (N)	256.7	265	534	791	417	840	1241	568	1146	1700
Stroke (mm)	100-1900	72-3816	82-3730	96-3648	72-5832	85-5746	96-5664	72-3816	82-3730	96-3648	

Lim-Tec[®]

Feb.25,2016 Lim-tec successfully landed on NEEQ with the code 836388, leading the new height of linear motion development in China.

Ever since 2005, Joint Venture Enterprise Lim-tec (Beijing) Transmission Equipment Co.,Ltd was set up by Limtec Group and Beijing Reloh International Trade Co., Ltd to introduce European most advanced linear motion technology and the concept of modular combination design, guide the new direction of development for domestic screw jack, electric actuator and slide industry.

Based in Beijing China, we have more than 10 offices distributed throughout the country to provide high-quality products, full range of technical support and prompt after-sales service at home and abroad.Up to now, there were more than 100000 sets of products successful used in automobile equipment, automation assembly, metallurgical industry,aerospace industry,port machinery and other industries.

Established automation assembly department in the year of 2008,Lim-tec has researched and developed six-DOF platform,servo pressure system, simulator and some other non-standard automation equipment.

With the gradual popularization of industry strategy 4.0 and the development of industry 5.0,green and sustainable products lead the tread in society.As the essential components supplier for industry automation robot,Lim-tec products will get considerable development.It's just a starting for Lim-tec second take-off on NEEQ,80 millions RMB have been re-invested to bring in advanced processing equipment and expand production capacity to more than 50 thousand sets per year,to build Lim-tec the world's most competitive and professional linear actuator/screw jack/servo actuator /electric slide manufacturing base.

