

Electric Actuator

Shipping Date

The shipping date indicates when the product will ship if ordered now.

Contact THK through Omni THK's inquiry form if you need a product sooner or if you need a large quantity.

Set Item/Standalone Items

Actuators are only available as set items.

Electric Actuator

Model No.

KR

The Model KR is a highly rigid and compact actuator that has an inner block, which is a combination of an LM block and ball screw nut, inside a highly rigid, U-shaped outer rail.

SKR

The Model SKR is a highly rigid and compact actuator that has an inner block, which is a combination of an LM block and ball screw nut, inside a highly rigid, U-shaped outer rail. The ball cage enables a long service life and an extended period of maintenance-free operation.

Electric Actuator

Model No.

KRF

The Model KRF is a highly rigid and compact actuator that has an inner block, which is a combination of an LM block and ball screw nut, inside a highly rigid, U-shaped outer rail.

Its full-cover structure prevents any damage caused by foreign materials getting inside.

KSF

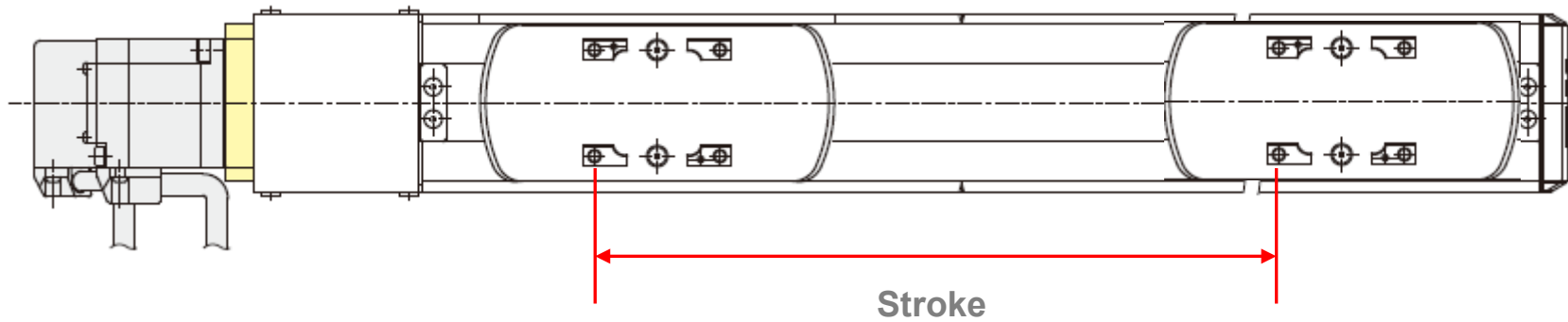
The Model KSF is a highly rigid and compact actuator that has an inner block, which is a combination of an LM block and ball screw nut, inside a highly rigid, U-shaped outer rail.

The ball screw's larger lead enables it to achieve a maximum speed of 2,500 mm/s. (*When using a KSF10 with a lead of 50)

Its compatibility with larger motors enables high acceleration/deceleration transference. (Up to 4G)

Electric Actuator

Stroke



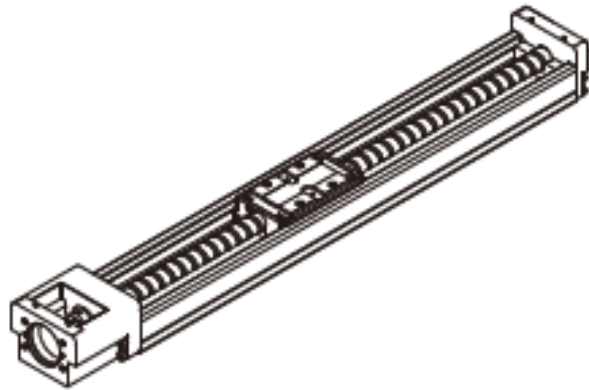
Size

Access the THK catalog from Omni THK's catalog button for more information.

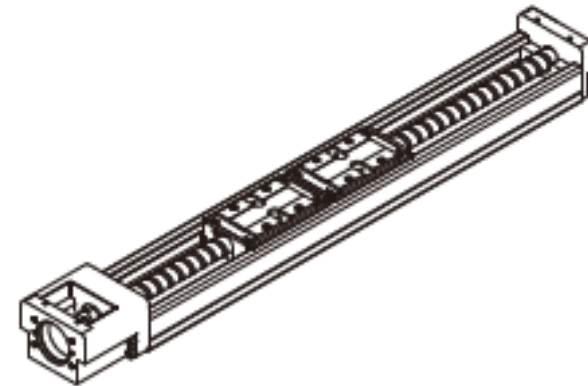
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Slider Types (*SKR/KR only)

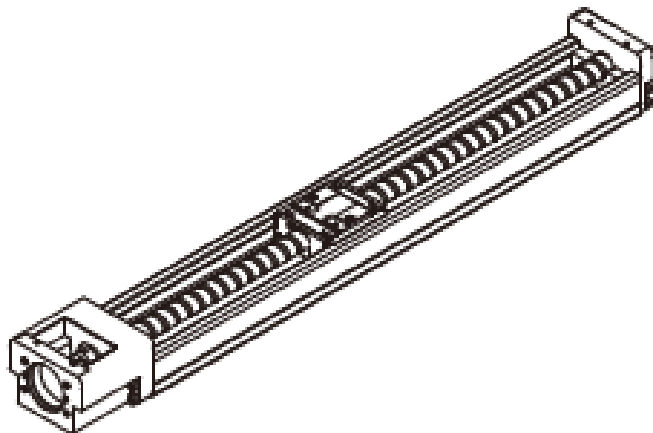
Type A (with a single long nut block)



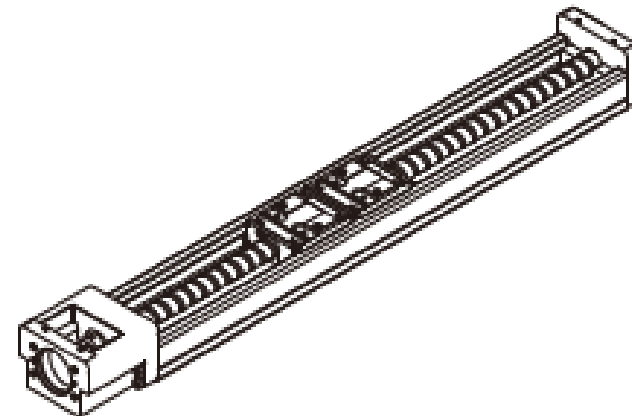
Type B (with two long nut blocks)



Type C (with a single short nut block)



Type D (with two short nut blocks)



Electric Actuator

Ball Screw Lead

The ball screw lead is the amount the nut moves when the screw shaft is rotated once.

Direct motor coupling/wrapping

0: Direct motor coupling

R1: Non-standard side motor wrapping

R2: Standard side motor wrapping

R3: Bottom side motor wrapping



Cover (SKR/KR only)



Without cover



With cover

Electric Actuator

Accuracy (SKR)

Normal Grade (No Symbol)

Unit: mm

Model No.	Stroke	Outer Rail Length	Positioning Repeatability	Positioning Accuracy	Running Parallelism (Vertical Direction)	Backlash	Starting Torque (N·cm)
SKR20	30	100	±0.01	No standard defined	No standard defined	0.02	0.5
	80	150					
	130	200					
SKR26	60	150	±0.01	No standard defined	No standard defined	0.02	1.5
	110	200					
	160	250					
SKR33	210	300	±0.01	No standard defined	No standard defined	0.02	7
	45	150					
	95	200					
	195	300					
	295	400					
	395	500					
SKR46	495	600	±0.01	No standard defined	No standard defined	0.02	10
	595	700					
	190	340					
	290	440					
	390	540					
	490	640					
SKR55	590	740	±0.01	No standard defined	No standard defined	0.05	12
	690	840					
	790	940					
	800	980					
SKR65	900	1080	±0.01	No standard defined	No standard defined	0.05	12
	1000	1180					
	1100	1280					
	1200	1380					
SKR65	790	980	±0.01	No standard defined	No standard defined	0.05	12
	990	1180					
	1190	1380					
	1490	1680					15

Electric Actuator

Accuracy (SKR)

High Accuracy Grade (H)

Unit: mm

Model No.	Stroke	Outer Rail Length	Positioning Repeatability	Positioning Accuracy	Running Parallelism (Vertical Direction)	Backlash	Starting Torque (N·cm)	
SKR20	30	100	±0.05	0.06	0.025	0.02	0.5	
	80	150						
	130	200						
SKR26	60	150	±0.05	0.06	0.025	0.02	1.5	
	110	200						
	160	250						
SKR33	45	150	±0.05	0.06	0.025	0.02	7	
	95	200						
	195	300						
	295	400		0.1	0.035			
	395	500						
	495	600						
SKR46	595	700	±0.05	0.12	0.04	0.02	10	
	190	340		0.1	0.035			
	290	440						
	390	540						
	490	640		0.12	0.04			
	590	740						
690	840							
SKR55	790	940	±0.05	0.15	0.05	0.05	12	
	800	980						
	900	1080		0.18	0.05			
	1000	1180						
	1100	1280						
SKR65	1200	1380	±0.08	0.25	0.05	0.05	12	
	790	980						
	990	1180		0.18				0.05
	1190	1380						
1490	1680	0.28	0.055	15				

Electric Actuator

Accuracy (SKR)

Precision Grade (P)

Unit: mm

Model No.	Stroke	Outer Rail Length	Positioning Repeatability	Positioning Accuracy	Running Parallelism (Vertical Direction)	Backlash	Starting Torque (N·cm)
SKR20	30	100	±0.003	0.02	0.01	0.03	1.2
	80	150					
	130	200					
SKR26	60	150	±0.003	0.02	0.001	0.03	4
	110	200					
	160	250					
SKR33	45	150	±0.003	0.02	0.01	0.03	15
	95	200					
	195	300					
	295	400		0.025	0.015		
	395	500					
	495	600					
SKR46	595	700	±0.003	0.03	0.02	0.03	15
	190	340		0.025	0.015		
	290	440					
	390	540					
	490	640		0.03	0.02		
590	740						
SKR55	800	980	±0.005	0.035	0.025	0.03	17
	900	1080		0.04	0.03		
	1000	1180					
SKR65	790	980	±0.005	0.035	0.025	0.05	20
	990	1180					
	1190	1380		0.04	0.03		

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Accuracy (KR)

Normal Grade (No Symbol)

Unit: mm

Model No.	Stroke	Outer Rail Length	Positioning Repeatability	Positioning Accuracy	Running Parallelism (Vertical Direction)	Backlash	Starting Torque (N-cm)
KR20	30	100	±0.01	No standard defined	No standard defined	0.02	0.5
	80	150					
	130	200					
KR26	60	150	±0.01	No standard defined	No standard defined	0.02	1.5
	110	200					
	160	250					
KR30H	210	300	±0.01	No standard defined	No standard defined	0.02	7
	50	150					
	100	200					
KR30H	200	300	±0.01	No standard defined	No standard defined	0.02	7
	300	400					
	400	500					
KR33	500	600	±0.01	No standard defined	No standard defined	0.02	7
	50	150					
	100	200					
KR33	200	300	±0.01	No standard defined	No standard defined	0.02	7
	300	400					
	400	500					
KR45H	500	600	±0.01	No standard defined	No standard defined	0.02	10
	600	700					
	200	340					
KR45H	300	440	±0.01	No standard defined	No standard defined	0.02	10
	400	540					
	500	640					
KR45H	600	740	±0.01	No standard defined	No standard defined	0.02	10
	700	840					
	800	940					
KR46	190	340	±0.01	No standard defined	No standard defined	0.02	10
	290	440					
	390	540					
KR46	490	640	±0.01	No standard defined	No standard defined	0.02	10
	590	740					
	690	840					
KR55	790	940	±0.01	No standard defined	No standard defined	0.05	12
	800	980					
	900	1080					
KR55	1000	1180	±0.01	No standard defined	No standard defined	0.05	12
	1100	1280					
	1200	1380					
KR65	790	980	±0.01	No standard defined	No standard defined	0.05	12
	990	1180					
	1190	1380					
KR65	1490	1680	±0.012	No standard defined	No standard defined	0.05	15

Electric Actuator

Accuracy (KR)

High Accuracy Grade (H)

Unit: mm

Model No.	Stroke	Outer Rail Length	Positioning Repeatability	Positioning Accuracy	Running Parallelism (Vertical Direction)	Backlash	Starting Torque (N-cm)
KR15	25	75	±0.004	0.04	0.02	0.01	0.4
	50	100					
	75	125					
	100	150					
	125	175					
KR20	150	200	±0.005	0.06	0.025	0.01	0.5
	30	100					
	80	150					
KR26	130	200	±0.005	0.06	0.025	0.01	1.5
	60	150					
	110	200					
KR30H	160	250	±0.005	0.06	0.025	0.02	7
	210	300					
	50	150		0.1	0.035		
	100	200					
	200	300					
KR33	300	400	±0.005	0.06	0.025	0.02	7
	400	500					
	500	600		0.1	0.035		
	100	200					
	200	300					
	300	400					
KR45H	400	500	±0.005	0.1	0.035	0.02	10
	500	600					
	600	700		0.12	0.04		
	200	340					
	300	440					
	400	540					
KR46	500	640	±0.005	0.1	0.035	0.02	10
	600	740					
	700	840		0.12	0.04		
	800	940					
	190	340					
	290	440					
KR55	390	540	±0.005	0.1	0.035	0.05	12
	490	640					
	590	740		0.15	0.05		
	690	840					
	790	940					
KR65	800	980	±0.008	0.18	0.05	0.05	12
	900	1080					
	1000	1180		0.2	0.055		
	1100	1280					
1200	1380	0.28	0.055				
790	980						
990	1180						
1190	1380						
1490	1680						

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Accuracy (KR)

Precision Grade (P)

Unit: mm

Model No.	Stroke	Outer Rail Length	Positioning Repeatability	Positioning Accuracy	Running Parallelism (Vertical Direction)	Backlash	Starting Torque (N-cm)
KR15	25	75	±0.003	0.02	0.01	0.01	0.8
	50	100					
	75	125					
	100	150					
	125	175					
KR20	150	200	±0.003	0.02	0.01	0.01	1.2
	30	100					
KR26	80	150	±0.003	0.02	0.01	0.01	4
	130	200					
KR30H	60	150	±0.003	0.02	0.01	0.02	15
	110	200					
	160	250					
	210	300		0.025	0.015		
	50	150		±0.003	0.02		
100	200						
200	300						
300	400	0.025	0.015				
400	500	0.03	0.02				
KR33	500	600	±0.003	0.02	0.01	0.02	15
	50	150					
	100	200					
	200	300		0.025	0.015		
	300	400		0.03	0.02		
KR45H	400	500	±0.003	0.025	0.015	0.02	15
	600	700					
	200	340					
	300	440		0.03	0.02		
	400	540		0.025	0.015		
KR46	500	640	±0.003	0.025	0.015	0.02	15
	600	740					
	190	340					
	290	440		0.03	0.02		
	390	540		0.025	0.015		
KR55	490	640	±0.003	0.025	0.015	0.02	17
	590	740					
	690	840					
	790	940		0.03	0.02		
	800	980		0.035	0.025		
KR65	800	980	±0.005	0.035	0.025	0.05	17
	900	1080					
	1000	1180					
KR65	790	980	±0.005	0.035	0.025	0.005	20
	990	1180					
	1190	1380					

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Grease (KR/SKR only)

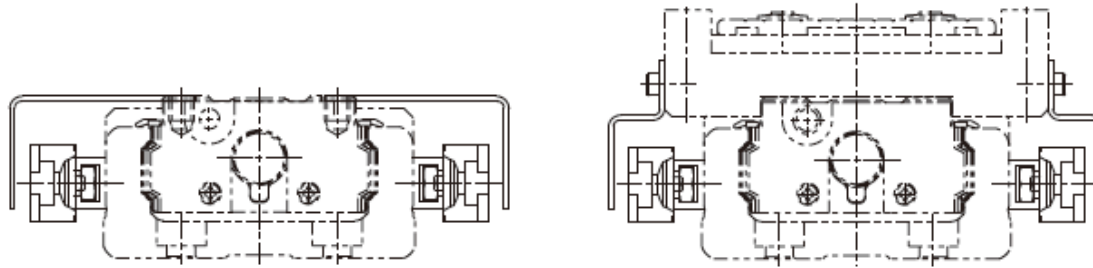
Grease Feature Comparison

Name of Grease		AFF Grease	AFA Grease	AFB-LF Grease
Features		For clean environments	Long service life	All-purpose
Base Oil		High-grade synthetic oil	High-grade synthetic oil	Refined mineral oil
Consistency Enhancer		Lithium-based	Urea-based	Lithium-based
Features	Long Service Life	-	◎	◎
	High Speed	-	○	-
	Micro-vibration/Very Small Stroke	○	-	-
	High Load	-	○	◎
	Low Dust Generation (Clean Environments)	◎	-	-
	Wide Temperature Range	-	◎	-
	Water Resistance	-	◎	◎
	Machine Stability	-	◎	◎

Electric Actuator

Sensor

Installation Example



Sensor Specifications

Symbol	Description	Model	Accessory
0	None	-	-
1	With sensor rail	-	Mounting screws, sensor rail
2	Photo sensor (3 units)	EE-SX671 (Omron Corp.)	Mounting screw/nut, detecting plate, sensor rail, mounting plate, connector (EE-1001)
6	Photo sensor (3 units)	EE-SX674 (Omron Corp.)	Mounting screw/nut, detecting plate, sensor rail, mounting plate, connector (EE-1001)
7	Proximity sensor NO contact (3 units)	APM-D3A1-001 (Azbil Corp.)	Mounting screw/nut, detecting plate, sensor rail
B	Proximity sensor NC contact (3 units)	APM-D3B1-003 (Azbil Corp.)	Mounting screw/nut, detecting plate, sensor rail
E	Proximity sensor NO contact (1 unit) NC contact (2 units)	APM-D3A1-001 (Azbil Corp.) APM-D3B1-003 (Azbil Corp.)	Mounting screw/nut, detecting plate, sensor rail
H	Proximity sensor NO contact (3 units)	GX-F12A (Panasonic Industrial Devices SUNX Co., Ltd.)	Mounting screw/nut, detecting plate, sensor rail
L	Proximity sensor NC contact (3 units)	GX-F12B (Panasonic Industrial Devices SUNX Co., Ltd.)	Mounting screw/nut, detecting plate, sensor rail
J	Proximity sensor NO contact (1 unit) NC contact (2 units)	GX-F12A (Panasonic Industrial Devices SUNX Co., Ltd.) GX-F12B (Panasonic Industrial Devices SUNX Co., Ltd.)	Mounting screw/nut, detecting plate, sensor rail
M	Proximity sensor NO contact (1 unit) NC contact (2 units)	GX-F12A-P (Panasonic Industrial Devices SUNX Co., Ltd.) GX-F12B-P (Panasonic Industrial Devices SUNX Co., Ltd.)	Mounting screw/nut, detecting plate, sensor rail