

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

SG Series: High Accuracy GROUND

Ball Screw Actuator



●High Accuracy

Linear motion unit uses 4 Ballway, 4 point-contact structure to assure high rigidity. Guide rail, slide block and ground ball screw shaft are precisely integrated, making accurate positioning possible.

●Space Savings

Slide block is set in U-guide rail, making it possible to reduce the size and space considerably as compared with the usual table type structure.

●High Rigidity

Despite of its compact structure, the rigidity of single axis module has been remarkable improved by using a U-guide rail, so that it can be applied even to a structure supported at only one end. In addition, short block, long block and second block are available to enhance permissible moment.

●No Need for Adjustment

Guide rail and ball screw are integrated into a single axis module, eliminating the need for complicated fine adjustment, thus reducing the number of working processes to a great extent.

VARIATIONS

Model No.		SG20	SG26	SG33	SG3320	SG46	SG55
Performance grade		P: Repeated positioning accuracy ±1μm* H: Repeated positioning accuracy ±3μm*					
Screw shaft dia. (mm)		6	8	10	12	15	20
Lead (mm)	1	◎					
	2		◎	●			
	5	◎	◎	◎		●	●
	10			◎		◎	●
	20				◎	◎	◎

◎ Stocking item ● Manufactured to order

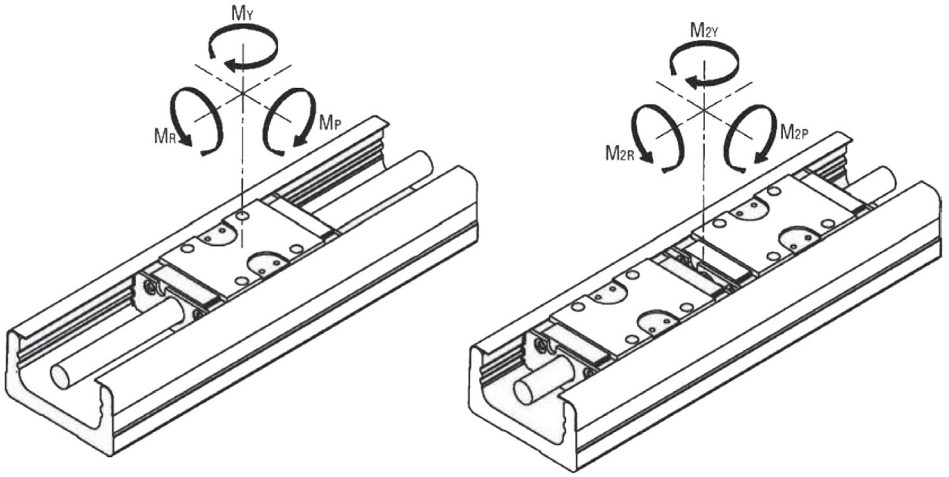
*Astericked items may be different from the values shown above depending on applied options and usage

SPECIFICATIONS

Model No.					SG2001		SG2005		SG2602		SG2605		SG3305		SG3310		SG3320		SG4610		SG4620		SG5520	
Performance grade					H	P	H	P	H	*P	H	*P	H	P	H	P	H	P	H	P	H	P	H	P
Guide	Radial clearance			μm	-3~0	-6~-3	-3~0	-6~-3	-4~0	-8~-4	-4~0	-8~-4	-3~0	-7~-3	-3~0	-7~-3	-3~0	-7~-3	-5~0	-11~-5	-5~0	-11~-5	-6~0	-18~-6
	Long block	Basic dynamic load	C	kN	4.27				7.78				12.6				12.6		29.8		29.8		43.2	
		Basic static load	Co	kN	7.89				14.98				22.7				22.7		51.2		51.2		74.0	
		Static permissible moment	M_P	N·m	35				99				181				181		610		610		1,088	
			M_{2P}		199				550				1,035				1,035		3,285		3,285		5,465	
			M_Y		42				118				215				215		727		727		1,297	
			M_{2Y}		237				656				1,233				1,233		3,914		3,914		6,513	
			M_R		101				255				500				500		1,612		1,612		2,701	
			M_{2R}		201				509				1,000				1,000		3,224		3,224		5,402	
	Short block	Basic dynamic load	C	kN	Not available				Not available				7.8				Not available		19.9		19.9		Not available	
		Basic static load	Co	kN									11.4						28.8		28.8			
		Static permissible moment	M_P	N·m									49						207		207			
			M_{2P}										368						1,336		1,336			
			M_Y										59						246		246			
			M_{2Y}										439						1,593		1,593			
			M_R										250						907		907			
			M_{2R}										500						1,814		1,814			
Ball screw	Shaft diameter			mm	6				8				10				12		15		15		20	
	Lead			mm	1		5		2		5		5		10		20		10		20		20	
	Spacer to ball ratio				—				—				—	0	—	1:1	—	1:1	—	1:1	—	2:1	—	2:1
	Basic dynamic load		Ca	kN	0.63		0.65		2.60		2.35		3.35	2.11	2.20	1.39	2.32	1.46	4.40	2.77	4.40	3.36	5.40	4.12
	Basic static load		Coa	kN	1.34		0.92		3.64		3.30		5.90	2.95	3.50	1.75	4.05	2.03	7.90	3.95	7.90	5.27	10.50	7.00
Fixed side bearing	Model No. of bearing				AC5-14DF or equivalent				AC6-16DF or equivalent				708ADFP5 or equivalent						7001ADFP5 or equivalent				7002ADFP5	
	Basic dynamic load		Cb	kN	1.31				1.79				4.40						6.77				7.74	
	Basic static load		Cob	kN	1.25				1.76				4.36						7.45				9.50	

Static permissible moment, M2P and M2Y, means the values for when 2 slide blocks are used in close contact with each other.
*For your use of P grade model of SG20 and SG26 at small stroke (SG2001: 7mm or less, SG2005: 25mm or less, SG2602: 14mm or less, SG2605: 25mm or less) and at high-frequency reciprocation, consult KURODA.

DIRECTION OF MOMENT



ACCURACY

Model No.	Guide Rail Length (mm)	*Repeated Positioning Accuracy (μm)		Positioning Accuracy (μm)		Traveling Parallelism (μm)		Backlash (μm)		**Starting Torque (N·m)	
		H	P	H	P	H	P	H	P	H	P
SG20	100	±3	±1	50	20	25	10	5	2	0.01	0.012
	150										
	200										
SG26	150	±3	±1	50	20	25	10	5	2	0.015	0.04
	200										
	250										
	300										
SG33	150	±3 (±5)	±1 (±3)	30	15	25	10	5	2	0.07	0.15
	200										
	300			35	20						
	400										
	500			40	25	35	15				
	600		-	70	-		-		-		-
SG46	340	±3 (±5)	±1 (±3)	35	20	35	15	5	2	0.10	0.15
	440										
	540			40	25						
	640										0.17
	740			50	30	40	20				
	840		-	80	-	50	-		-		-
	940										
	1040										
	1140			100							
	1240										
SG55	980	±3	±1	80	35	50	25	5	2	0.12	0.17
	1080										
	1180			100	40		30		-		0.20
	1280		-		-						-
	1380										

*For repeated positioning accuracy, the value in parentheses is for parallel motor mounted configurations
** Above starting torque value is applied when the standard grease is used. The value may change depending on the properties of the grease.
Measurement is to be performed with KURODA's specified motor mounted.

HOW TO INTERPRET MODEL NO.

SG33	05	A	-	150	P	-	A1	N	N	-	N	N	-	PS
①	②	③		④	⑤		⑥	⑦	⑧		⑨	⑩		⑪

① Model ② Lead

① Model	② Lead
SG20	1, 5
SG26	2, 5
SG33	5, 10, 20
SG46	10, 20
SG55	20

③ Slide block

Model	Slide block
SG20	A: With 1 long block B: With 2 long blocks
SG26	A: With 1 long block B: With 2 long blocks
(NOTE 1) SG33	A: With 1 long block B: With 2 long blocks
SG46	C: With 1 short block D: With 2 short blocks
SG55	A: With 1 long block B: With 2 long blocks

④ Guide rail length (NOTE 2) (NOTE 3)

Model	Guide rail length (mm)
SG20	100, 150, 200
SG26	150, 200, 250, 300
SG33	150, 200, 300, 400, 500, 600*
SG46	340, 440, 540, 640, 740, 840*, 940*, 1040*, 1140*, 1240*
SG55	980, 1080, 1180, 1280*, 1380*

⑤ Performance grade

P	Repeated positioning accuracy±1μm
H	Repeated positioning accuracy±3μm

⑥ Motor bracket configuration

Model	Motor bracket configuration
SG20	A0, A1, A3, A5, A6, A8, A9, AA, R0
SG26	A0, A1, A3, A5, A6, A8, A9, AA, R0
SG33	A0, A1, A2, A3, A4, A5, A6, A7, B1, B2, R0, E□, F□
SG46	A0, A1, A2, A3, A4, B0, C0, D0, R0, E□, F□, G□
SG55	A0, A1, A2, A3, A4, R0

⑦ Type of cover

N	Without cover
C	With cover
L	Low housing

⑧ Sensor

Model	Sensor
SG20	N: Without sensor S: Photo-microsensor K, E: Proximity sensor 1: For sensor rails only
SG26	
SG33	Without sensor M, Y, C, P, H, J: Photo-microsensor K, E: Proximity sensor 1, 2, 3: For sensor rails only
SG46	
SG55	

⑨ Surface treatment (Note 4)

N	Standard treatment
L	Anti corrosive black coating

⑩ Grease (Note 5)

Model	Grease
SG20	N: Standard grease S: Dust preventive KURODA S grease
SG26	
SG33	
SG46	
SG55	

⑪ Additional options

Blank	No dowel pin hole
PS	For slide block only
PR	For guide rail only
PSR	For both slide block and guide rail

(Note 1) Short slide block type (Symbol: C, D) is not available in lead 20mm.

(Note 2) For specifications of guide rail with long rails or intermediate stroke with non-standard length, consult KURODA.

(Note 3) Asterisked (*) items in the table apply only to performance grade H.

(Note 4) With standard surface treatment (Symbol: N), guide rails of SG20 and SG26 are not treated with anti corrosive coating. For SG33, SG46 and SG55, only guide rails are treated with black coating as the standard surface treatment.

(Note 5) With standard grease (Symbol: N), Multemp PS No.2 Grease (KYODO YUSHI CO., LTD.) is contained in slide block and ball screw components.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP