

Screw Actuator 螺桿致動器



- ✔ 可與電機或機械變速箱連接
- ✔ 可訂製導軌的行程長度、多個滑塊和塗層
- ✔ 表面有鐵氟龍塗層覆蓋，結構可靠耐用

RGS04 Non-Motorized Linear Rails

Screw driven linear rail or linear rail without screw

The non-motorized RGS Series features standard wear compensating, anti-backlash driven carriages to ensure repeatable and accurate positioning. All moving surfaces include Kerkite® engineered polymers running on Kerkote® TFE coating, providing a strong, stable platform for a variety of linear motion applications.



RGS04 Non-Motorized Screw Driven Linear Rail

Identifying the Non-Motorized RGS Part Numbers when Ordering

RG	S	04	K	A	0100	XXX
Prefix RG = Rapid Guide Screw	Frame Style S = Standard	Frame Size Load 04 = 15 lbs (67 N) (Maximum static load)	Coating K = TFE Kerkote X = Special (example: Kerkote with grease)	Drive / Mounting A = None	Nominal Thread Lead Code 0000 = No Screw 0100 = .100-in (2.54) 0200 = .200-in (5.08) 0500 = .500-in (12.70) 1000 = 1.000-in (2.54)	Unique Identifier Suffix used to identify specific motors or a proprietary suffix assigned to a specific customer application. The identifier can apply to either a standard or custom part

NOTE: Dashes must be included in Part Number (-) as shown above. For assistance call our Engineering Team at 603 213 6290. Carriage holes available in metric sizes M3, M4.

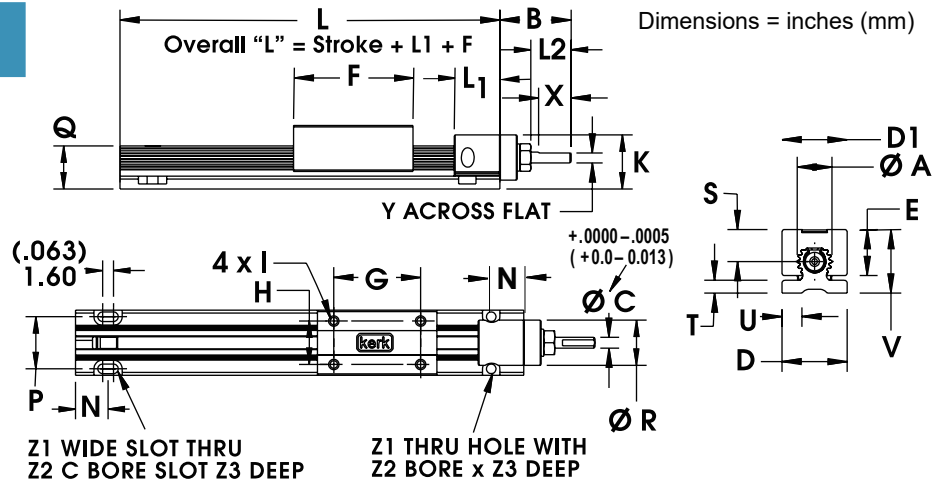
Specifications

RGS04 Non-Motorized with Guide Screw	Inch Lead	Thread Lead Code	Nominal Rail Diam.	Nominal Screw Diam.	Typical Drag Torque	Life @ 1/4 Design Load*	Torque-to-Move Load	Design Load	Screw Inertia
	inch (mm)		inch (mm)	inch (mm)	oz - in (N-m)	inch (cm)	oz-inc/lb (Nm/Kg)	lbs (N)	oz-in-sec ² /in (kg-m-sec ² /m)
.100 (2.54)	0100	0.4 (10.2)	1/4 (6.4)	100,000,000 (254,000,000)	3.0 (0.2)	15 (67)	1.0 (.016)	.3 x 10 ⁻⁵ (6.5 x 10 ⁻⁶)	
.200 (5.08)	0200				4.0 (.03)		1.5 (.023)		
.500 (12.70)	0500				5.0 (.04)		2.5 (.039)		
1.000 (25.40)	1000				6.0 (.04)		4.5 (.070)		

NOTE : RGS assemblies with lengths over 36 inches (914.4 mm) and/or leads higher than .5 inch (12.7 mm) will likely have higher drag torque than listed values.

*Determined with load in a horizontal position.

Non-Motorized with Guide Screw Dimensional Drawings



	A	B	C	D	D1	E	F	G	H	I*	K	L1	L2	N	P	Q	R	S	T	U	V	X	Z1	Z2	Z3
inch	0.40	.83	.1250	0.75	0.75	0.53	1.38	1.00	0.50	4.40	0.6	.53	.47	.375	.60	.50	.52	0.37	0.15	0.23	0.7	.38	0.115	0.20	0.09
mm	10.2	21.1	3.175	19.1	19.1	13.5	35.1	25.4	12.7	UNC	15	13.5	11.9	9.53	15.24	12.7	13.2	9.4	3.8	5.8	18.0	9.7	2.92	5.1	2.3

*Metric carriage hole sizes available M3, M4.

WGS06 Non-Motorized Linear Rails

• **Wide, low profile screw driven linear rails**

The non-motorized WGS Series features standard wear compensating, anti-backlash driven carriages to ensure repeatable and accurate positioning. All moving surfaces include Kerkite® engineered polymers running on Kerkote® TFE coating, providing a strong, stable platform for a variety of linear motion applications. Recommended for horizontal loads up to 35 lbs (156 N).



Identifying the Non-Motorized WGS Part Numbers when Ordering

WG	S	06	K	A	0100	XXX
Prefix WG= Wide Guide Screw	Frame Style S = Standard	Frame Size Load 06 = 35 lbs (156 N) (Maximum static load)	Coating K = TFE Kerkote X = Special (example: Kerkote with grease)	Drive / Mounting A = None B = Inline Screw Motor Mount	Nominal Thread Lead Code 0100 = .100-in (2.54) 0200 = .200-in (5.08) 0500 = .500-in (12.70) 1000 = 1.000-in (2.54)	Unique Identifier Suffix used to identify specific motors or a proprietary suffix assigned to a specific customer application. The identifier can apply to either a standard or custom part

NOTE: Dashes must be included in Part Number (-) as shown above. For assistance call our Engineering Team at 603 213 6290.

Specifications

	Inch Lead	Thread Lead Code	Nominal Rail Diam.	Nominal Screw Diam.	Typical Drag Torque	Life @ 1/4 Design Load*	Torque-to-Move Load	Design Load	Screw Inertia
WGS06 Non-Motorized with Guide Screw	inch (mm)		inch (mm)	inch (mm)	oz - in (N-m)	inch (cm)	oz-inc/lb (Nm/Kg)	lbs (N)	oz-in-sec ² /in (kg-m-sec ² /m)
	.100 (2.54)	0100		3/8 (9.5)	4.0 (0.3)	100,000,000 (254,000,000)	1.0 (.016)	35 (156)	1.5 x 10 ⁻⁵ (4.2 x 10 ⁻⁶)
	.200 (5.08)	0200			5.0 (.04)		1.5 (.023)		
	.500 (12.70)	0500			6.0 (.04)		2.5 (.039)		
	1.000 (25.40)	1000			7.0 (.05)		4.5 (.070)		

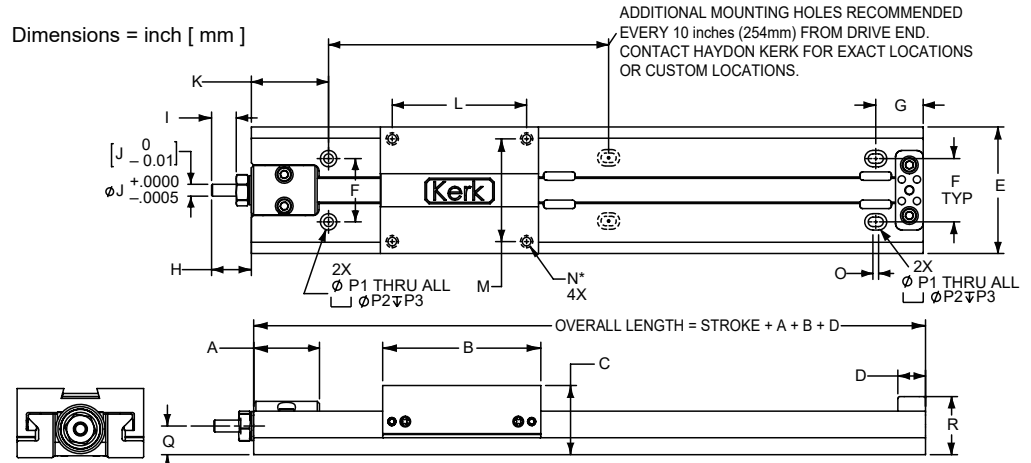
NOTE : WGS assemblies with lengths over 36 inches (914.4 mm) and/or leads higher than .5 inch (12.7 mm) will likely have higher drag torque than listed values.

*Determined with load in a horizontal position.

WGS06 Non-Motorized Linear Rails

Non-Motorized with Guide Screw Dimensional Drawings

- Screw Driven
- Wide Frame



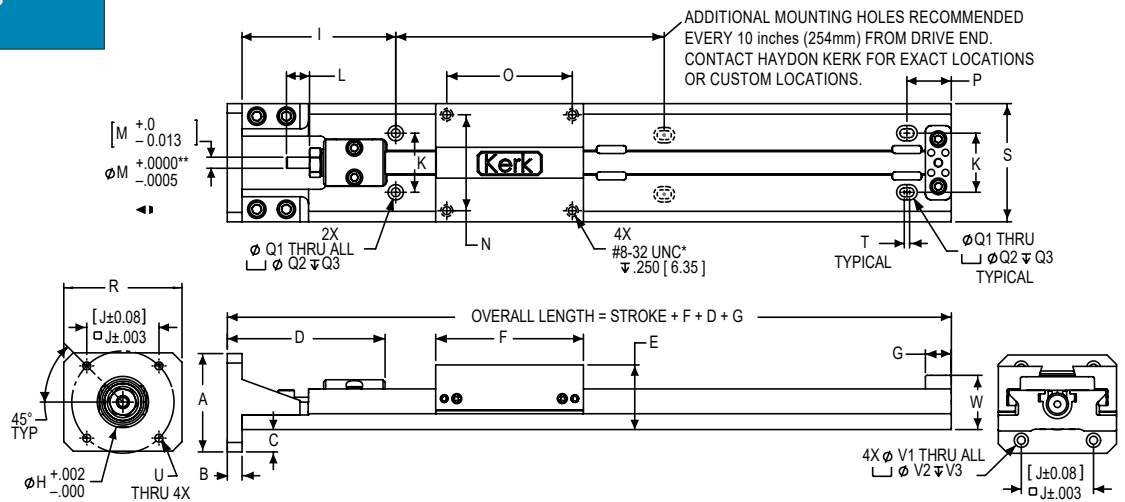
WSG06 Wide Series, Non-Motorized, Screw Driven

	A	B	C	D	E	F	G	H	I	J	K	L	M	N'	O	P1	P2	P3	Q	R
inch	1.0	2.5	1.1	.44	2.0	1.0	.75	.63	.39	.187	1.2	2.1	1.62	8-32	.09	.15	.26	.256	.45	.92
mm	25.4	63.5	28	11.2	50.8	25.4	19.1	16	9.9	4.76	39.9	53.9	41.2	UNC-2B	2.3	3.8	6.6	6.5	11.4	23.3

*Metric carriage hole sizes available M3, M4, M5, M6.

WGS with Size 17 and Size 23 Motor Mounts

Dimensions = inch [mm]



	A	B	C	D	E	F	G	H	I	J	K	L	M**	N	O	P	Q1	Q2	Q3	R	S	T	U	V1	V2	V3	W
-B43	1.66 [42.2]	.25 [6.4]	.38 [9.7]	2.67 [67.8]	1.1 [28]	2.50 [63.5]	.44 [11.2]	.866 [22]	2.60 [66]	1.222 [31.04]	1.000 [25.4]	.39 [9.9]	.1875 [4.763]	1.624 [41.25]	2.124 [53.95]	.75 [19.05]	.150 [3.81]	.260 [6.60]	.256 [6.50]	2.00 [50.8]	2.00 [50.8]	.09 [2.3]	-	.136 [3.45]	.240 [6.09]	.128 [3.25]	.92 [23.3]
-B57	2.20 [55.9]		.65 [16.5]					1.503 [38.18]		1.856 [47.14]									2.20 [55.9]			#8-32 UNC					

* METRIC THREADS ALSO AVAILABLE **MAXIMUM COUPLING SIZE = .846 inch (21.49 mm) DIAMETER X 1.25 inches (31.8 mm) LENGTH

Material Coatings

Kerkite® Polymers

Compounded with lubricants, reinforcements and thermoplastic polymers, Kerkite Polymers are formulated to provide optimum performance in its target conditions and applications.

- Injection molded
- High performance
- Exceptional wear properties

Kerkote® TFE Coating

A dry lubricant, Kerkote will not become dry and paste-like, and does not attract dirt or debris. Kerkote differs from conventional plating and coating because it is soft, more evenly distributed than other lubricants, and decreases erratic drag torques and unpredictable wear.

- Reduces friction
- Cost effective
- Long term and maintenance free

Kerkote provides the maximum level of self-lubrication, requiring no additional external lubrication or maintenance.

SRZ Screw Rail® Linear Actuators

- Coaxial Screw and Rail Guides
- Continuous Self-Adjusting Anti-Backlash

Traditionally, linear motion has required separate components to handle drive, support and guidance. The compact Screw Rail combines all functions in a single, coaxial component.

By eliminating the need for external rail-to-screw alignment, the Screw Rail simplifies the design, manufacture and assembly of motion systems. The coaxial design saves as much as 80% of the space used by a two-rail system and is generally less expensive than the equivalent components purchased separately. An added benefit is the ability to get three-dimensional motion from a single Screw Rail.



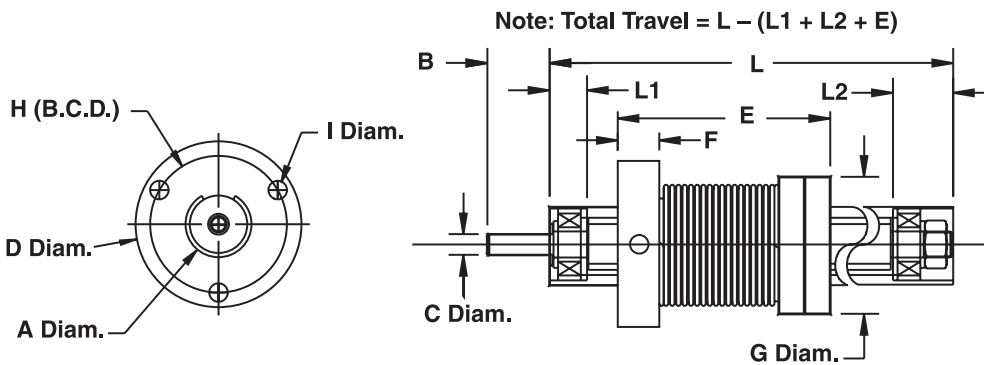
SRZ
Anti-Backlash
Screw Rail Linear Actuator

Identifying SRZ Screw Rail Part Numbers when Ordering

SR	Z	06	K	A	0100	XXX
Prefix SR= Screw Rail	Nut Style Z = Anti-Backlash	Nominal Rail Diam. 03 = 3/8-in (10 mm) 04* = 1/2-in (13 mm) 06* = 3/4-in (19 mm) 08* = 1-in (25 mm)	Coating S= Uncoated K= Kerkote®	Drive / Mounting A= None	Nominal Thread Lead Code 0050 = .05 -in (1.27) SRZ03, SRZ04 0100 = .100-in (2.54) SRZ03, SRZ06, SRZ08 0200 = .200-in (5.08) SRZ06, SRZ08 0250 = .250-in (6.35) SRZ03, SRZ04 0375 = .375-in (9.53) SRZ03 0500 = .500-in (12.70) SRZ04, SRZ06, SRZ08 1000 = 1.00-in (25.4) SRZ04, SRZ06, SRZ08	Unique Identifier Suffix used to identify specific motors or a proprietary suffix assigned to a specific customer application. The identifier can apply to either a standard or custom part.

NOTE: Dashes must be included in Part Number (-) as shown above. For assistance call our Engineering Team at 603 213 6290. Right-hand and left-hand assemblies available.

Dimensional Drawings



Part No.	A Diam.	B	C Diam.	D Diam.	E	F	G Diam.	H (B, C, D)	I	L1	L2	
SRZ03	inch	.364/.367	.38	.1245/.1250	.98	1.1	.28	.73	.75	.094	.37	.38
	mm	9.24/9.32	9.56	3.16/3.18	24.9	27.94	7.2	18.5	19.1	*	9.4	9.66
SRZ04	inch	.489/.492	0.62	.1870/.1875	1.31	1.4	.38	.097	1.03	0.140	0.26	0.36
	mm	12.42/12.5	15.75	4.75/4.76	33.3	36	9.5	24.7	26.2	*	6.6	9.1
SRZ06	inch	.739/.742	0.75	.2490/.2495	1.81	2.0	.50	1.38	1.48	0.173	0.38	0.70
	mm	18.77/18.85	19.05	6.33/6.34	46.0	51	12.7	35.1	37.6	*	9.7	17.8
SRZ08	inch	.989/.992	0.75	.2490/.2495	2.30	2.5	.63	1.72	1.92	0.200	0.48	0.77
	mm	25.12/25.2	19.05	6.33/6.34	58.4	64	15.9	43.7	48.8	*	12.2	19.6

*Metric available as requested.

Assembly Option



When mounted vertically, the Screw Rail can be used to simultaneously lift and rotate (Z-theta motion). With one motor driving the screw and a second rotating the rail, a compact, self-supporting pick and place mechanism can be created.

SRZ Series • SRZ03, SRZ04, SRZ06, SRZ08

Part No.	Inch Lead**		Thread Lead Code	Nominal Rail Diam.		Nominal Screw Diam.		Max Drag Torque		Life @ 1/4 Design Load x 10 ⁶ (Non Anti-Backlash)		Torque-to-Move Lead		Design Load		Screw inertia per Unit Length		Equivalent Diam*	
	inch	mm		inch	mm	inch	mm	oz-in	NM	inch	cm	oz-in/lb	NM/Kg	lbs	NM	oz-in sec ² /in	KgM ² /M	inch	mm
SRZ03	.050	1.27	0050	3/8	10	3/16	5	2.0	0.014	50 to 80	130 to 200	0.5	0.007	10	50	.1 x 10 ⁻⁵	.4 x 10 ⁻⁶	30	7.6
	.100	2.54	0100					2.5	0.018			1.0	0.016						
	.250	6.35	0250					3.0	0.020			1.25	0.019						
	.375	9.53	0375					3.5	0.025			2.0	0.030						
SRZ04	.050	1.27	0050	1/2	13	1/4	6	3.0	0.020	75 to 100	190 to 250	0.5	0.007	25	10	.3 x 10 ⁻⁵	1.3 x 10 ⁻⁶	.39	9.9
	.250	6.35	0250					4.0	0.030			1.5	0.023						
	.500	12.7	0500					5.0	0.040			2.5	0.039						
	1.00	25.40	1000					6.0	0.045			4.5	.070						
SRZ06	.100	2.54	0100	3/4	19	3/8	10	6.0	0.045	90 to 140	230 to 350	1.0	0.016	50	20	1.5 x 10 ⁻⁵	6.5 x 10 ⁻⁶	.60	15.2
	.200	5.08	0200					6.5	0.047			1.5	0.023						
	.500	12.7	0500					7.0	0.050			2.5	0.039						
	1.00	25.40	1000					7.5	0.053			4.5	0.070						
SRZ08	.100	2.54	0100	1	25	1/2	13	8.0	0.057	120 to 160	350 to 410	1.0	0.016	100	45	5.2 x 10 ⁻⁵	20.0 x 10 ⁻⁶	.81	20.5
	.200	5.08	0200					8.5	0.060			1.5	0.023						
	.500	12.7	0500					9.0	0.064			2.5	0.039						
	1.00	25.40	1000					9.5	0.067			4.5	0.070						

*Screw Rail stiffness may be modeled using Classical Beam Deflection Theory with equivalent stainless steel beam of diameter given.

**Other leads available as custom orders.