

Tac LS™ Actuator

LONG STROKE, HIGH SPEED, HIGH FORCE

The Tac LS ball screw linear actuator series was developed for long stroke applications. This high quality, durable linear actuator is constructed using rugged aluminum alloy cylinders and chrome plated heavy wall steel pistons. Its small size, as well as the ease of adapting it to any standard unit mounting style, makes the Tac LS electric linear actuators a good fit in most linear motion industrial applications.



Ideal for a Variety of Applications Including:

- Damper Valve Control
- Motion Simulators
- Conveying / Diverting
- Material Handling
- Pneumatic Replacement
- And More

Key Features:

- Developed for long stroke applications
- Small size easily adapts to any standard unit mounting style
- Long stroke actuator with thrust up to 2,000 lbf
- Velocity up to 40 in/sec, stroke from 24 to 60 inches
- 0.003 in/ft standard lead accuracy
- Standard backlash is 0.004 in maximum

SPECIFICATION CHART FOR THE TAC LS ACTUATOR

Model Number	Thrust Load Rated	Linear Velocity Max. ¹	Travel Length Max. ²	Frame Size	Lead	Ball Screw Diameter	Ball Screw Max. ¹	Torque @ Ball Screw Max.	Dynamic Capacity Per Million Revs	Dynamic Capacity Per Million Inches	Motor Gearhead Frame Supported Max. ²
	lbr	in/s	in	in	in	in	RPM	in-lb	lbr	lbr	in
LS204	400	16	36	2.25	0.500	0.50	1,920	35	1,070	850	3.5
LS209	900	8	36	2.25	0.200	0.63	2,400	32	1,410	825	3.5
LS305	500	40	60	3.25	1.000	1.00	2,400	88	2,300	2,300	4.5
LS310	1,000	20	60	3.25	0.500	1.00	2,400	88	5,350	4,250	4.5
LS320	2,000	10	60	3.25	0.250	1.00	2,400	88	5,475	3,450	4.5

Model Number	Inertia 1:1 Zero Stroke ³	Inertia 1:1 Per Inch of Stroke ³	Inertia 2:1 Zero Stroke ³	Inertia 2:1 Per Inch of Stroke ³	Inertia Inline Zero Stroke ³	Inertia Inline Per Inch of Stroke ³	Unit Weight "U" Motor Mount ⁴	Unit Weight "L" Motor Mount ⁴	Weight Per Inch of Stroke ⁴
	lb-in ²	lb-in ²	lb-in ²	lb-in ²	lb-in ²	lb-in ²	lb	lb	lb
LS204	1.61	0.0023	0.17	0.0006	0.16	0.0023	3.0	2.0	0.50
LS209	1.61	0.0031	0.17	0.0008	0.15	0.0031	3.0	2.0	0.50
LS305	4.37	0.0535	2.30	0.0134	0.41	0.0535	10	7.0	0.83
LS310	4.28	0.0298	2.28	0.0074	0.32	0.0298	10	7.0	0.83
LS320	4.25	0.0216	2.27	0.0054	0.29	0.0216	10	7.0	0.83

¹ Maximum velocity and maximum screw speed may not be achievable at maximum stroke.

² Larger Motor or Gearhead Frames and longer stroke lengths are available upon request.

³ All inertia values are at the input shaft and are representative of typical pulleys, bushings, couplers, etc. Actual values may vary due to motor selection.

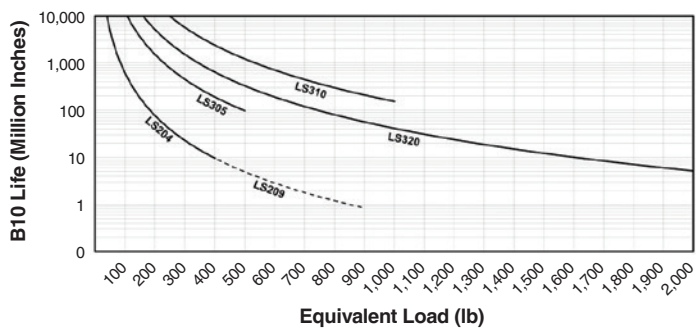
⁴ Weight values are for reference only and vary depending on configuration.

"U" Parallel offset configuration

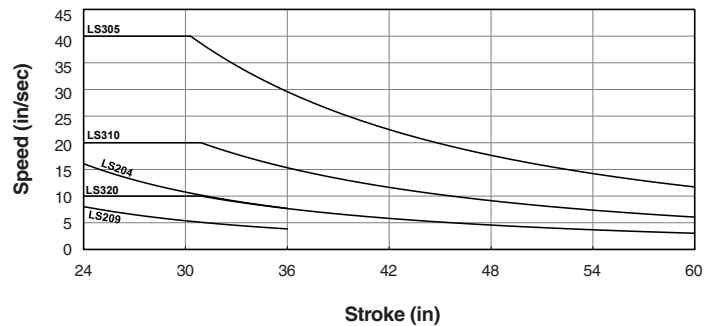
"L" Inline configuration

DATA CURVES FOR THE TAC LS ACTUATOR

Dynamic Capacity: Life Vs. Load



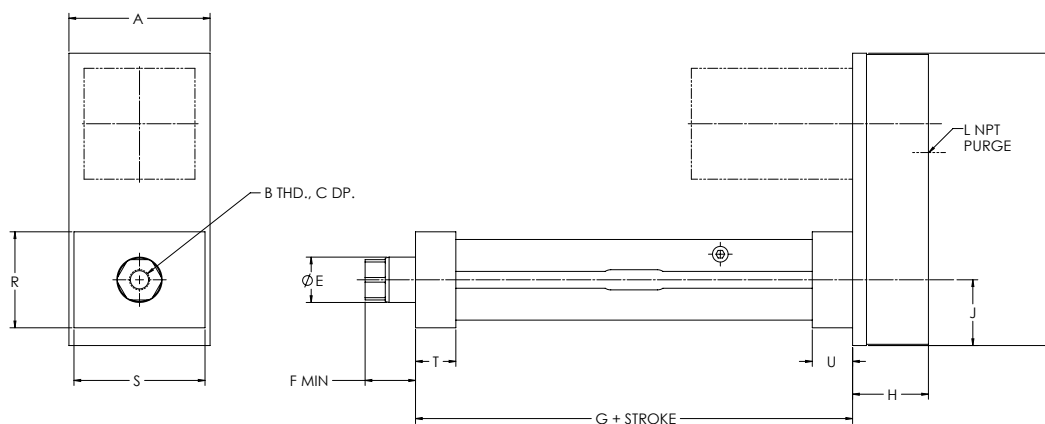
Speed Vs. Stroke



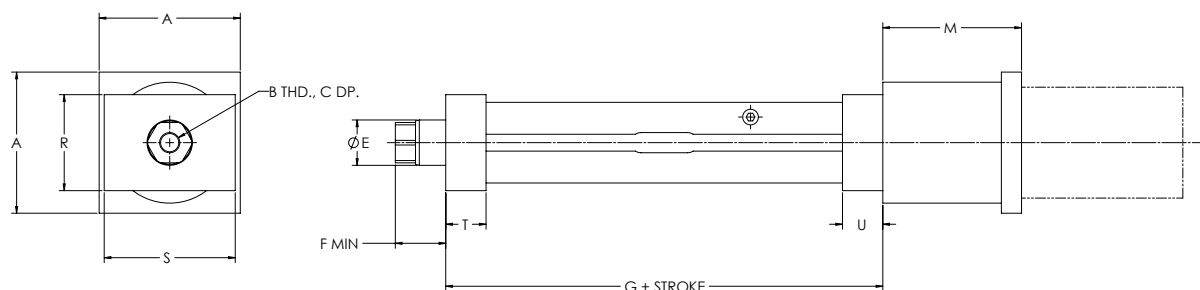
DIMENSIONED DRAWINGS FOR THE TAC LS ACTUATOR

Dimensions are in inches and are subject to change without notice.

U-Parallel Offset Motor Configuration

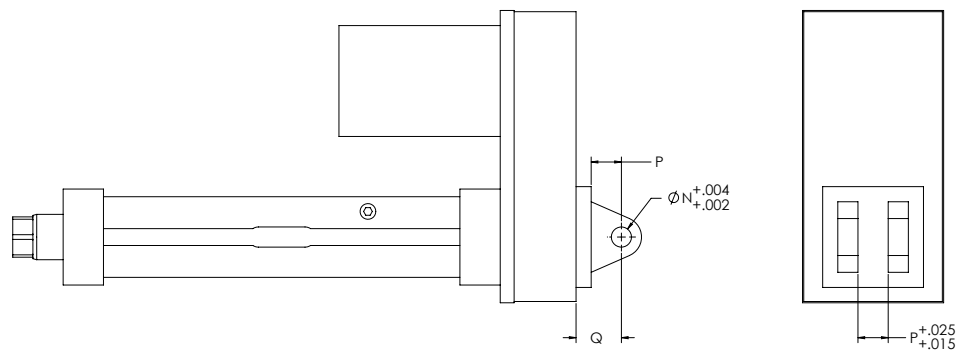


L-Inline Motor Configuration



"M" length may vary depending on motor or gearbox.

Rear Clevis



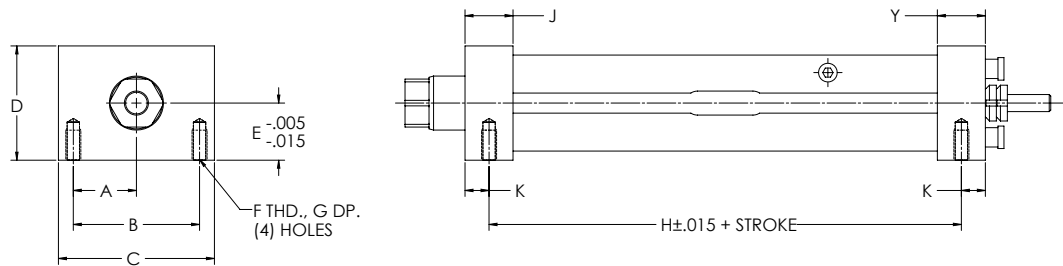
LS U-Parallel Offset, L-Inline and Rear Clevis Dimensions

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
LS204	3.50	1/2-20	0.63	2.25	1.13	1.25	7.84	1.88	1.63	7.25	1/8	3.44	0.50	0.75	1.13	2.38	3.25	1.00	1.00
LS209	3.50	1/2-20	0.63	2.25	1.13	1.25	7.84	1.88	1.63	7.25	1/8	3.44	0.50	0.75	1.13	2.38	3.25	1.00	1.00
LS305	4.50	3/4-16	0.88	3.25	1.75	1.50	10.16	2.47	2.38	9.63	1/8	3.97	0.75	1.25	1.88	3.38	4.50	1.25	1.38
LS310	4.50	3/4-16	0.88	3.25	1.75	1.50	10.16	2.47	2.38	9.63	1/8	3.97	0.75	1.25	1.88	3.38	4.50	1.25	1.38
LS320	4.50	3/4-16	0.88	3.25	1.75	1.50	10.16	2.47	2.38	9.63	1/8	3.97	0.75	1.25	1.88	3.38	4.50	1.25	1.38

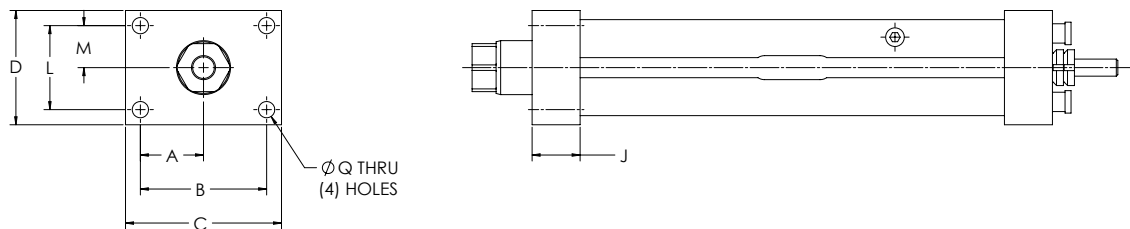
DIMENSIONED DRAWINGS FOR THE TAC LS ACTUATOR

Dimensions are in inches and are subject to change without notice.

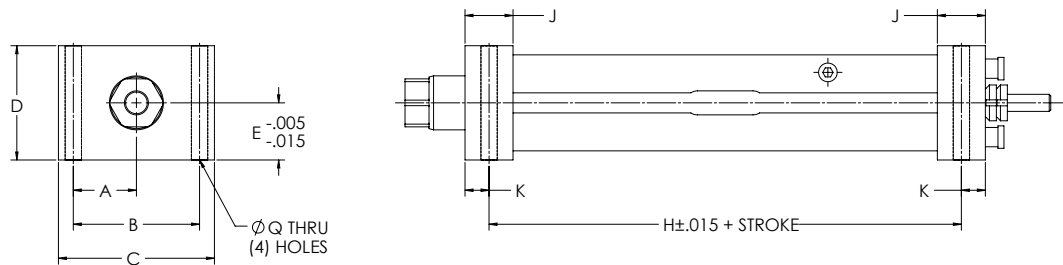
Bottom Mount Dimensions



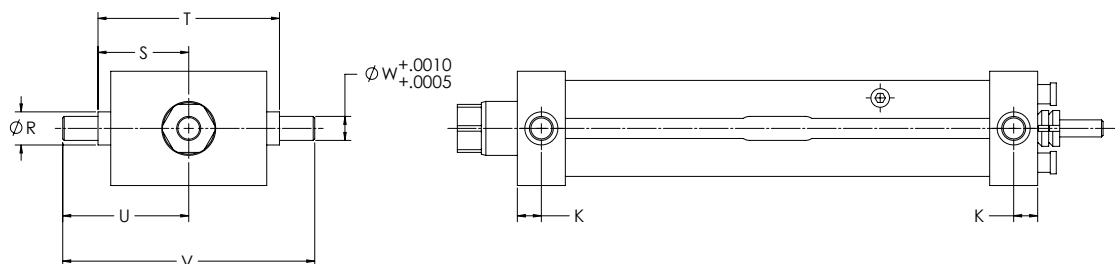
Front Flange Dimensions



Foot Mount Dimensions



Trunnion Mount Dimensions



LS Unit Mounting Dimensions

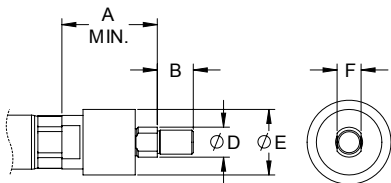
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
LS2	1.31	2.63	3.25	2.38	1.19	5/16-18	0.63	6.84	1.00	0.50	1.75	0.88	2.25	0.25	0.34	0.69	1.89	3.78	2.63	5.25	0.50	4.22	1.00
LS3	1.88	3.75	4.50	3.38	1.69	3/8-16	0.75	9.16	1.25	0.50	2.63	1.31	3.25	0.25	0.41	0.94	2.52	5.03	3.50	7.00	0.75	6.28	1.38

DIMENSIONED DRAWINGS FOR THE TAC LS ACTUATOR

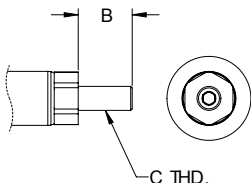
Dimensions are in inches and are subject to change without notice.

Rod End Options

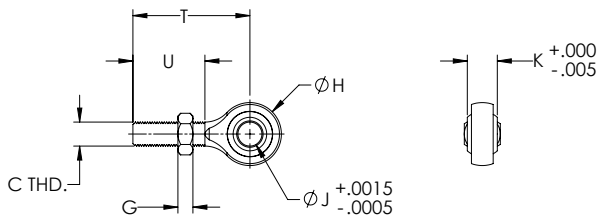
Self-Aligning Coupler



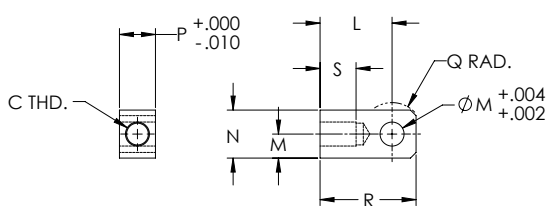
Male Thread



Spherical Rod Eye



Female Eye



LS Rod End Dimensions																			
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
LS2	2.00	0.75	1/2-20	0.63	1.37	0.50	0.31	1.31	0.50	0.63	1.50	0.50	1.00	0.75	0.50	2.00	0.75	2.44	1.50
LS3	2.31	1.13	3/4-16	0.97	2.00	0.75	0.42	1.75	0.75	0.88	2.06	0.75	1.50	1.25	0.75	2.81	1.13	2.88	1.75

ORDERING GUIDE FOR THE TAC LS ACTUATOR

Ordering Information

Base No. (Capacity)	Unit Mounting Option	Motor Position	N.C. Switch Qty
LS204 (400 lbf)	MB: Bottom Mount	1, 2, 3, 4 0 = In-Line	0, 1, 2, 3, etc.
LS209 (900 lbf)	MF: Foot Mount		
LS305 (500 lbf)	CR: Rear Clevis**		
LS310 (1,000 lbf)	FF: Front Flange**		
LS320 (2,000 lbf)	TF: Front Trunnion**		
	TR: Rear Trunnion**		

Std. Stroke Length*	Rod End Option	Gearbelt Reduction	N.O. Switch Qty
24: 24 in.	E: Female Eye	00: In-Line/Direct Coupled	0, 1, 2, 3, etc.
30: 30 in.	F: Female Thread	10: 1:1	
36: 36 in.	A: Self-Aligning Coupler	20: 2:1	
42: 42 in.	M: Male Thread		
48: 48 in.	S: Spherical Rod Eye		
54: 54 in.			
60: 60 in.			

Configuration	Switch Type
L: In-Line	A: Hall Sourcing PNP
U: Parallel Offset	B: Hall Sinking NPN
	C: Reed
	X: No Switches

For custom stroke lengths, contact EDrive.

* LS204 – LS209 are available with stroke lengths up to 36 in.

LS305 – LS320 are available with stroke lengths from 30 in. to 60 in.

** Vertical Mounting Only