



# Linear Motion Products

## Compact Slide Actuators



LACP-16T06LP5

### Description

Self-contained linear actuator designed for light loads in harsh or wet conditions in a very small package. A stainless steel lead screw is embedded in a hard-coated aluminum shaft specially machined to match sliding elements.

### Features

- Compact design
- Replacement components available
- Ready for NEMA 17 motor
- End-of-travel switch mounts
- AISI 6061-T6 Aluminum Alloy, Hard Anodized Slide Shaft. Hard Anodizing Depth 0.0005 to 0.0015"
- AISI 303 Stainless Steel Lead Screw

### Applications

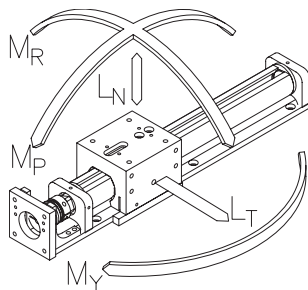
- Space-limiting applications
- Harsh or wet environments
- Light loads
- Speeds up to 20 inches per second

Compact Slide Actuator Specifications									
Part Number	Price	Drive Type	Drive Pitch	Drive Screw Efficiency (%)	Payload Inertia Factor (in <sup>2</sup> )	Constant System Inertia (lb <sub>m</sub> -in <sup>2</sup> )	Travel	Weight (lb)	Fits Motor
LACP-16T06LP5		Lead screw	0.5 in	52	0.0063	0.018	6in	1.8	NEMA 17
LACP-16T12LP5	0.020					12in	2.3		
LACP-16T24LP5	0.023					24in	3.5		
LACP-16T36LP5	0.026					36in	4.5		
LACP-16T06L1		1in	44	0.025	0.032	6in	1.8		
LACP-16T12L1	0.034				12in	2.3			
LACP-16T24L1	0.037				24in	3.5			
LACP-16T36L1	0.040				36in	4.5			

### System Inertia Calculation:

To calculate the inertia reflected to the motor in a particular actuator, multiply the carriage payload by the payload inertia factor and then add the constant system inertia value for that actuator. The constant system inertia value for each system includes the inertia of the shaft coupler, carriage, and lead/ball screw.

- The payload must be in units of lb<sub>m</sub>.



Load rating diagram

Compact Slide Actuator Load/Moment Ratings							
Part Number	Actuator Thrust	Load (lb)*			Moment (lb-in)**		
		Normal – LN		Transverse	Roll	Pitch	Yaw
		Down	Up	LT	MR	MP	MY
LACP-16TxxLP5	51	125	60	125	12	15	33
LACP-16TxxL1	28	125	60	125	12	15	33

\* 30lb is the recommended maximum load capacity if the carriage is not externally supported against rolling. The higher load capacities are possible if the carriage is externally supported.

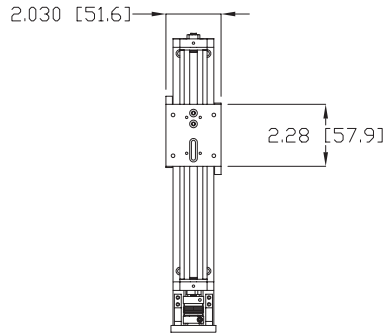
\*\* It is recommended that offset loads be located 5 inches or less from the center of the carriage. When the loads are offset at greater distances, the carriage can vibrate during travel.



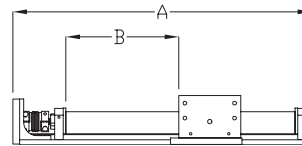
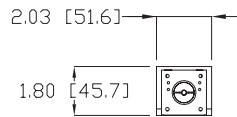
# Linear Motion Products

## Compact Slide Actuators

### Dimensions (in [mm])



PART NUMBER	A	B (TRAVEL)
LACP-16T06LP5	11.20 [284.5]	6.20 [157.5]
LACP-16T12LP5	17.20 [436.9]	12.20 [309.9]
LACP-16T24LP5	29.20 [741.7]	24.20 [614.7]
LACP-16T36LP5	41.20 [1046.5]	36.20 [919.5]
LACP-16T06L1	11.20 [284.5]	6.20 [157.5]
LACP-16T12L1	17.20 [436.9]	12.20 [309.9]
LACP-16T24L1	29.20 [741.7]	24.20 [614.7]
LACP-16T36L1	41.20 [1046.5]	36.20 [919.5]



### LACP-16TxxLxx

See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.

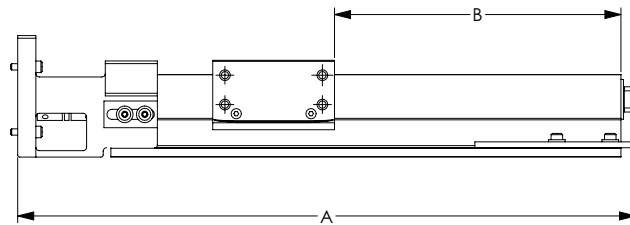
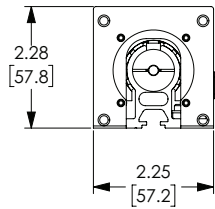
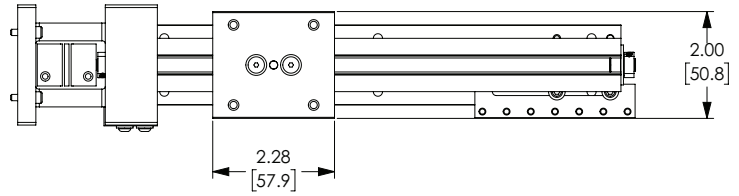


# Linear Motion Products

## Compact Slide Actuators - Generation 2

### Dimensions (in [mm])

PART NUMBER	A	B (TRAVEL)
LACP2-16T06LP5	11.57 [293.8]	6.40 [162.6]
LACP2-16T12LP5	17.57 [446.2]	12.40 [315.0]
LACP2-16T24LP5	29.57 [751.0]	24.40 [619.8]
LACP2-16T36LP5	41.57 [1055.8]	36.40 [924.6]
LACP2-16T06L1	11.57 [293.8]	6.40 [162.6]
LACP2-16T12L1	17.57 [446.2]	12.40 [315.0]
LACP2-16T24L1	29.57 [751.0]	24.40 [619.8]
LACP2-16T36L1	41.57 [1055.8]	36.40 [924.6]



**LACP2-16TxxLxx**

See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.

### Accessories

#### Compact Slide Actuator Accessories

Part Number	Price	Description	Weight (lb)
<b>LACPACC-001</b>		SureMotion motor adapter, NEMA 23 frame. For use with LACP(2)-16 series actuators. 1/4 inch x 4mm coupler included.	0.5
<b>LACPACC-002*</b>		SureMotion repair kit, for use with LACP-16TxxLP5 actuators. Nut, bushings, end bearings and oil syringe included.	0.5
<b>LACPACC-003*</b>		SureMotion repair kit, for use with LACP-16TxxL1 actuators. Nut, bushings, end bearings and oil syringe included.	0.5
<b>LACPACC-004</b>		SureMotion mounting plate, XY type. For use with LACP(2)-16 series actuators.	0.5
<b>LACPACC-005</b>		SureMotion mounting plate, XY type. For use with LACP(2)-16 and LARSB1 series actuators.	0.5
<b>LACPACC-006*</b>		SureMotion repair kit, for use with LACP2-16TxxLP5 actuators. Nut, bushings, end bearings and oil syringe included.	1.0
<b>LACPACC-007*</b>		SureMotion repair kit, for use with LACP2-16TxxL1 actuators. Nut, bushings, end bearings and oil syringe included.	1.0

*\* Repair kits contain replacement components that are the same as the original components in the actuator assemblies.*



**LACPACC-001**



**LACPACC-002(003)**



**LACPACC-004(005)**

Some accessories not shown see [www.AutomationDirect.com](http://www.AutomationDirect.com) for additional product photos.

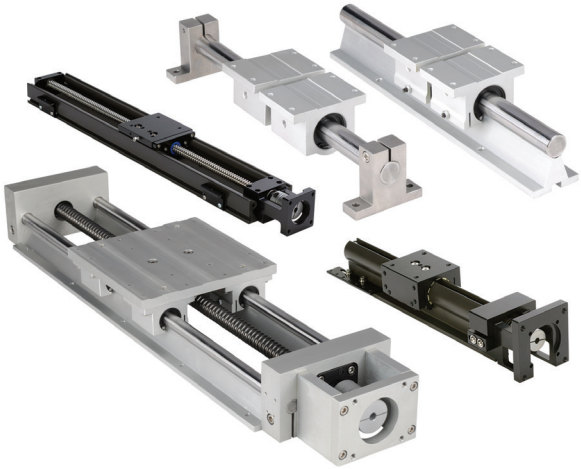


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## Product Overview

### Actuator Overview

SureMotion linear motion offers both motor-ready actuator assemblies, and a versatile assortment of sliding components and accessories to provide a wide variety of motion control solutions.

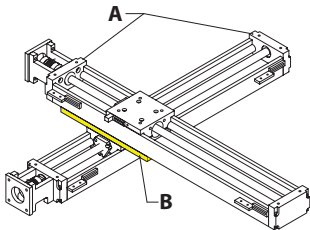


### Linear Slide Actuator Comparisons

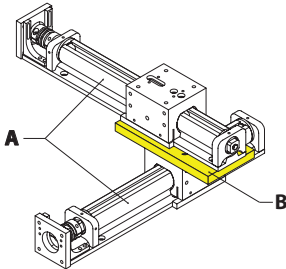
Actuator Series Comparisons						
Actuator Series	Actuator Type	Drive Type	Max Load Capacity (lb)	Max Speed (in/s)	Travel (in)	Relative Price
LARSD2	Twin Round Shaft	Ball Screw	920	6	12, 24	
LACP(2)	Compact Slide	Lead Screw	125	20	6, 12, 24, 36	
LAVL(2)	Value Slide	Lead Screw	110	15	6, 12, 18, 24	

### Available Multi-Axis Configurations

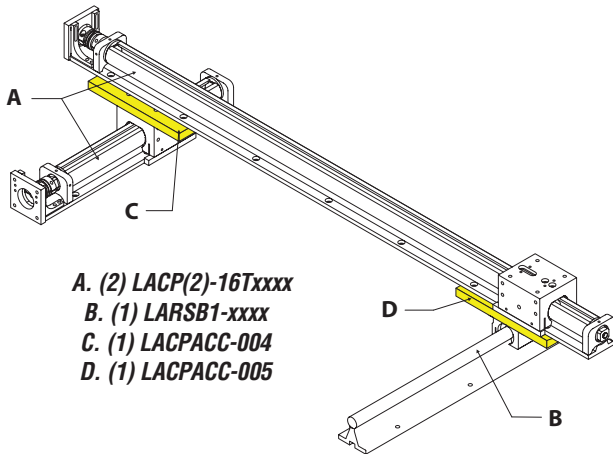
#### X-Y Axis Configurations



A. (2) LAVL(2)-60Txxxx  
B. (1) LAVLACC-004

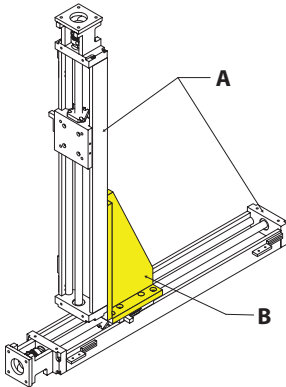


A. (2) LACP(2)-16Txxxx  
B. (1) LACPACC-004



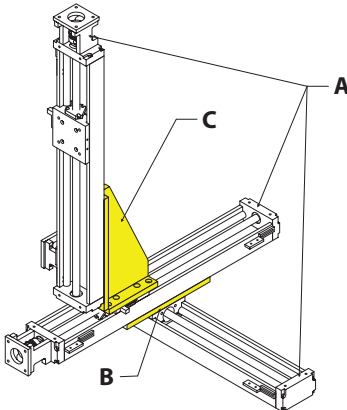
A. (2) LACP(2)-16Txxxx  
B. (1) LARSB1-xxxx  
C. (1) LACPACC-004  
D. (1) LACPACC-005

#### X-Z Axis Configuration

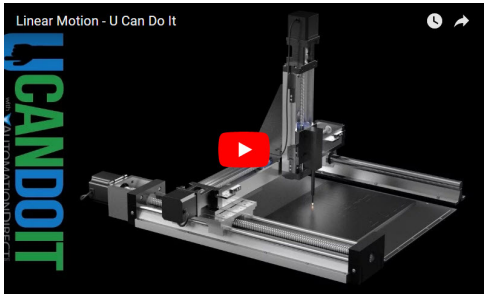


A. (2) LAVL(2)-60Txxxx  
B. (1) LAVLACC-005

#### X-Y-Z Axis Configuration



A. (3) LAVL(2)-60Txxxx  
B. (1) LAVLACC-004  
C. (1) LAVLACC-005



Click on the above video link for a short visual example of how our products can be used.