Daedal

PROmech™ Series

Miniature Linear Positioners

Catalog 8094/USA

Parker

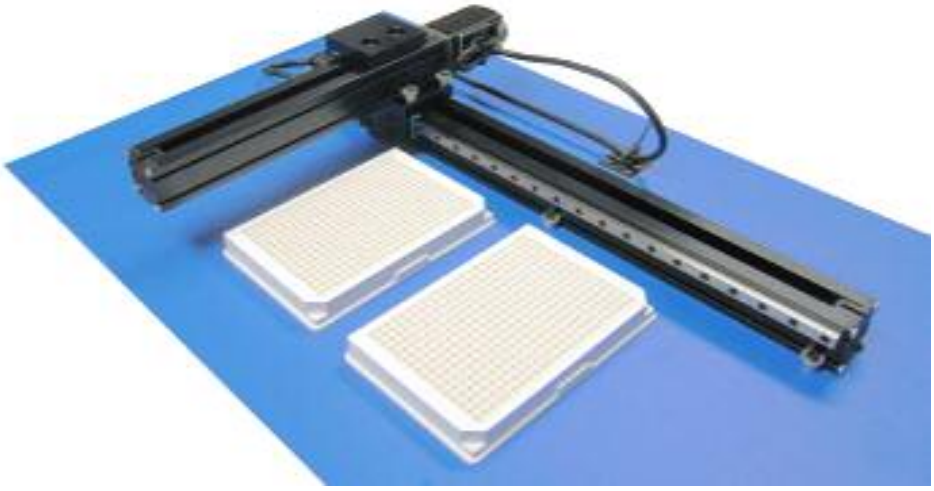
PROmech LP28 Miniature Linear Positioner

Features:

- ❑ Miniature Profile
- ❑ Optimal length to travel ratio
- ❑ Travels from 5mm to 500mm
- ❑ Fully assembled package
- ❑ Multi-axis platform
- ❑ Motor included

Attributes:

- Miniature Cross Section (28mm x 28mm)
- High performance leadscrew drive train
- 1mm, 3mm, 10mm, and 1” screw lead options
- Recirculating linear bearing
- Travels selectable by the mm from 5mm to 500mm
- NEMA11 or NEMA17 stepper motors included as standard
- Fully adjustable home and limit sensors
- Fully assembled package
- Multi-axis platform
- Simple Toe-clamp mounting



Introduction:

Designed for OEMs needing simple positioning solutions for instrument and light industrial applications, the PROmech family of positioners offers a complete positioning solution at a price OEMs can afford to design into their equipment.

The PROmech LP28 is a packaged linear positioner whose completeness reduces OEM component selection and system design time. Further, PROmech positioners minimize re-engineering requirements because the positioner’s design is already fully tested. Together these benefits help engineering teams keep aggressive project time lines on schedule and reduce “time to market”.

Once a design goes into production PROmech positioners help reduce both costs and assembly time. Building a linear motion axis from scratch requires the procurement, tracking, receiving, inventorying, kitting, assembly, and testing of about a dozen parts. Every time a component must be “touched” to help it navigate this process, it consumes part of a resource and adds a hidden cost of both time and money. Instead of a dozen parts, a PROmech positioner is a single piece, sourced from a domestic supplier with short leadtimes. PROmech positioners are easy to procure and once on the assembly floor, are quick to install.

Multiaxis Systems: Beyond the single axis positioner many applications require XY or XYZ configurations. PROmech positioners are designed for multi-axis mounting and include features and accessories to enable this. To further minimize your assembly time, Parker can provide PROmech Systems™ where we mount and align multiple axes together into a system per your specification.

Whether you use 100 axes/year or 10,000 axes/year, Parker’s PROmech Series Positioners offer the flexibility, reliability, and ease of use that will enable you to achieve your company’s business objectives.

PROmech LP28 Miniature Linear Positioner

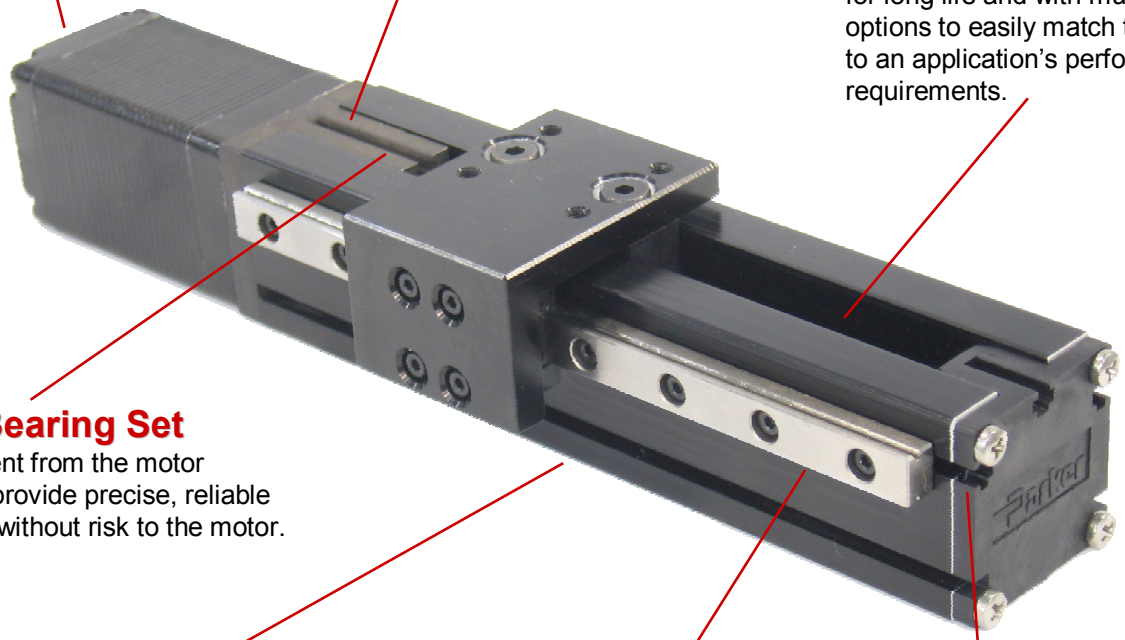
Anatomy of a PROmech LP28

Stepper Motor
is included as part of the positioner to simplify application and installation of a complete motion solution.

Home and Limit Sensors
mount to the external T-slot, and are fully adjustable over travel. (not shown)

Motor Coupling
is integrated into the design to conserve space and provide long life.

Leadscrew Drive Train
for long life and with multiple lead options to easily match the screw to an application's performance requirements.



Thrust Bearing Set
is independent from the motor bearings to provide precise, reliable movements without risk to the motor.

Extruded Aluminum Body
provides structural rigidity, aesthetic appeal, and functionality including T-slots for mounting and attachment of accessories.

Precision Linear Bearings
provide smooth, straight transport of payloads over the life of the positioner.

T-Slots
for mounting accessories including home and limit sensors.

Summary:

The PROmech design begins with an extruded aluminum body that provides aesthetic appeal, functionality, and structural strength. Internally, the drive train is highly integrated and includes the drive screw, screw nut, independent preloaded thrust bearing set, shaft coupling, and motor. Externally, an optional linear bearing may be used to support heavier or cantilevered payloads. Toe clamp mounting makes installation a snap. And finally, home and limit sensors which are triggered by a magnet in the carriage assembly may be mounted using the T-slot and are fully adjustable over travel.

PROmech LP28 Miniature Linear Positioner

Performance Specifications

The PROmech LP28 is engineered for transport of small payload over distances as short as 5mm and as long as 500mm. The LP28 is commonly used in life sciences, medical, and semiconductor equipment although it is not limited to these markets. Typical applications include transport of 1 to 2 lb. payloads such as microplates, vials, and small syringe pumps. In inspection applications, the LP28 is excellent as a focus axis for adjusting the position of a camera, optics, or payload. The LP28's light weight also makes it suitable for mobile equipment as well.

Common Performance Characteristics

	1.0mm lead	3.0mm lead	10mm lead	1.0" lead
Bidirectional Repeatability – um	+/- 50	+/- 50	+/- 100	+/- 100
Duty Cycle	100%			
Max Accel - m/s² (ips²)	20 (787)			
Normal Load – Kgf (lbs)				
Single Bearing Carriage	5 (11)			
Double Bearing Carriage	10 (22)			
Moment Load – Nm (in-lbs)				
Roll – Single Bearing	0.5 (4.4)			
Roll – Double Bearing	1.0 (8.8)			
Pitch – Single Bearing	0.5 (4.4)			
Pitch – Double Bearing	2.0 (18)			
Yaw – Single Bearing	0.5 (4.4)			
Yaw – Double Bearing	2.0 (18)			
Max Thrust – N (lbs) (1)	45 (10)			
Screw Efficiency - %	40%	65%	75%	80%
Break away Torque – Nm (oz-in)	0.02 (2.8)	0.02 (2.8)	0.03 (4.2)	0.06 (8.5)
Screw Diameter - mm	6.35			
Coefficient of Friction	0.02			

Note 1: See speed/thrust curves for combined motor-screw thrust capacity

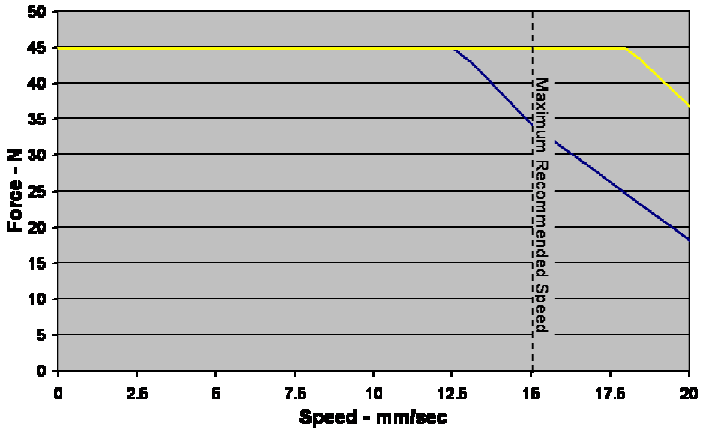
Travel Dependent Performance Characteristics

Travel - mm	Maximum Speed – mm/s				Total Mass – Kg (lbs)		
	1mm lead	3mm lead	10mm lead	1.0" lead	M11xx	M13xx	M71xx
5 mm	15	45	150	375	0.39 (0.85)	0.48 (1.05)	0.52 (1.14)
25 mm	15	45	150	375	0.42 (0.92)	0.51 (1.12)	0.55 (1.20)
50 mm	15	45	150	375	0.46 (1.00)	0.55 (1.20)	0.59 (1.29)
75 mm	15	45	150	375	0.49 (1.08)	0.58 (1.28)	0.62 (1.37)
100 mm	15	45	150	375	0.53 (1.17)	0.62 (1.36)	0.66 (1.45)
150 mm	15	45	150	375	0.61 (1.33)	0.70 (1.53)	0.74 (1.62)
200 mm	15	45	150	375	0.68 (1.50)	0.77 (1.69)	0.81 (1.78)
250 mm	15	45	150	375	0.76 (1.66)	0.85 (1.86)	0.89 (1.95)
300 mm	15	45	150	375	0.83 (1.83)	0.92 (2.02)	0.96 (2.11)
350 mm	15	45	150	375	0.91 (1.99)	1.00 (2.19)	1.04 (2.28)
400 mm	15	45	150	375	0.98 (2.16)	1.07 (2.35)	1.11 (2.44)
450 mm	15	45	150	375	1.06 (2.32)	1.15 (2.52)	1.19 (2.61)
500 mm	15	45	150	375	1.13 (2.49)	1.22 (2.68)	1.26 (2.77)

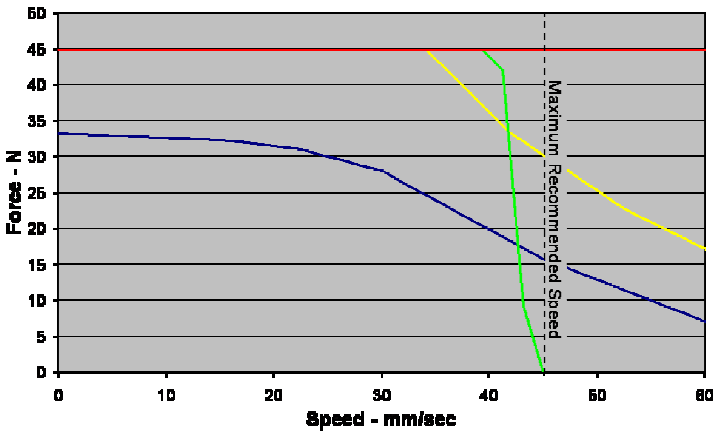
PROmech LP28 Miniature Linear Positioner

Linear Speed versus Force Graphs

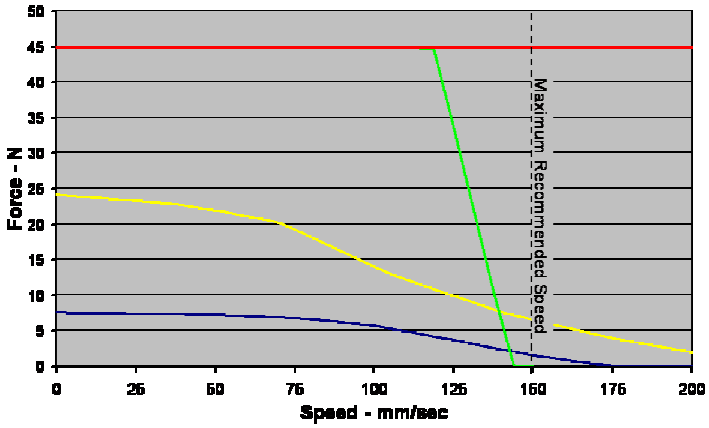
1mm Lead Screw (D01 Option)



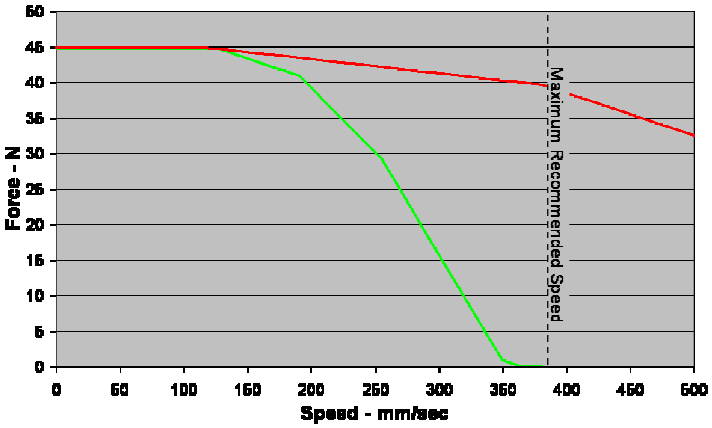
3mm Lead Screw (D03 Option)



10mm Lead Screw (D10 Option)



1.0" Lead Screw (D26 Option)



Performance Graph Notes:

To simplify application, the different aspects of positioner performance including motor torque, motor speed, screw efficiency, friction, safety margin, etc. have been consolidated into these speed versus thrust graphs. To make a selection first use the X axis scale of the different graphs to identify a screw lead that will deliver the desired peak velocity. Next, using the specific screw lead graph, identify the motor with enough torque to deliver the needed thrust to lift or accelerate the payload.

NEMA11 stepper motor curves (M11xx and M13xx options) assume 24VDC bus voltage at 0.67 amps. NEMA17 stepper motor curves (M71xx options) assume 48VDC bus voltage at 1.14 amps for series wound operation and 2.28 amps for parallel wound operation. All graphs are limited to 45N (10 lbs) of thrust due to mechanical limitations. Care should be taken not to stall the axis into the end of travel, particularly with the 1mm lead screw (D01 options) as this motor-screw combination can generate significant amounts of thrust. All curves include a 10% safety margin.

The “Maximum Recommended Speed” is based on a maximum motor speed of 15 rps. Generally, the motors can rotate faster than 15 rps; however, at about 20 rps, they pass through a resonance which adversely and unpredictably affects useable motor torque. For applications requiring higher speeds, Parker recommends using a faster lead or a servo motor. Applications using a stepper motor above this recommended limit must be fully tested and qualified by the user.

PROmech LP28 Miniature Linear Positioner

Features and Options

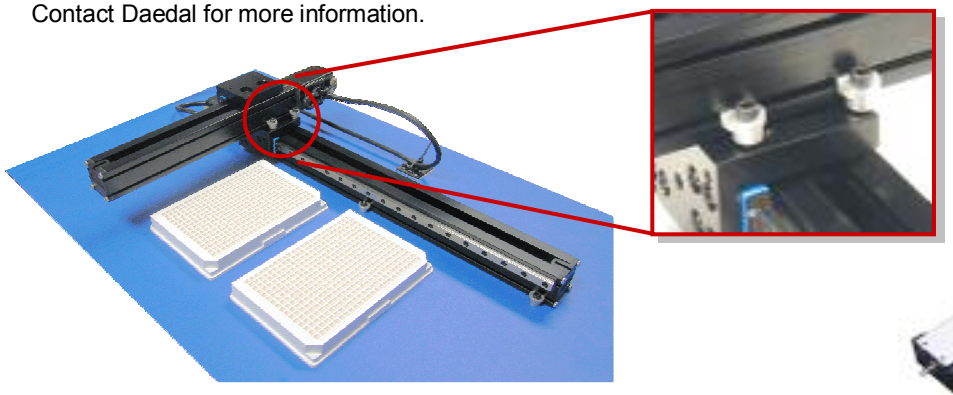
Travel by the mm: Because the LP28 is miniature and must often fit into miniature spaces, the travel of the LP28 is selectable by the millimeter from 5mm to 500mm. This offers the greatest flexibility and enables designs to have the required travel with the minimum overall length.

Independent Thrust Bearings: Because high reliability and long life is a critical requirement of OEM designs, the LP28 includes a pair of independent thrust bearings, dedicated to managing the positioner's axial loads. Some competitive miniaturized drive trains use the radial bearings in the step motor to contain the motor rotor, manage thermal expansion as the motor heats, and bear the axial loads generated by the application. In some cases this is an acceptable practice, but may prove to be a reliability risk down the road. The LP28's bearing design allows thrust bearings to be thrust bearings and motor bearings to be motor bearings resulting in a highly reliable and long life positioner.

Motor Coupling: Integrated into the PROmech design is a motor coupling. The innovative design minimizes part count and overall length. And when necessary, enables a measure of design flexibility when a special motor is required.

Toe Clamp Mounting: Installation of the LP28 is very simple with toe clamps that may be placed anywhere along the base extrusion offering flexibility in the base mounting pattern. The cam style toe clamps can be "loosely" installed without the positioner. This allows fingers to quickly and efficiently place the toe clamps and start the screws without interference. Once started, the positioner can be placed and the toe clamps rotated into the lower slot and tightened. Toe clamps are available as an accessory and may be purchased in a 4 pack (P/N: 002-2530-01) which is ideal for mounting shorter travel units or multiaxis mounting to other LP28s. For OEMs, Toe clamps may be purchased in 100 piece bulk packages (P/N: 002-2531-01).

Multiaxis mounting: The LP28 is designed to mount in XY and cartesian arrangements with only toe clamps. Further short travel Z axes can be attached to an X axis using only toe clamps with longer travels Z axes requiring a standard Z-Bracket. Use toe clamp kit P/N: 002-2530-01 for simple multiaxis mounting. Contact Daedal for more information.



PROmech LP28 Miniature Linear Positioner

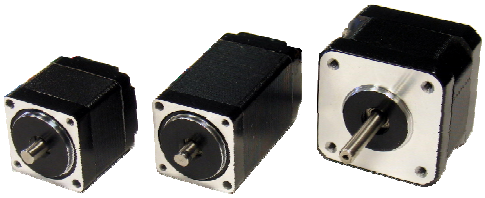
Features and Options

Screw Lead Flexibility: The PROmech Series offers 4 standard screw lead options: 1mm lead, 3mm lead, 10mm lead, and 1.0" lead. Whether your application is slow and precise, long and fast, or somewhere in between, the options will allow you to performance match the drive train to your application.

Linear Bearing Options: The PROmech Series offers 2 standard bearing options: a single linear rail with a single bearing truck or with two bearing trucks. These options provide flexibility to performance match the linear bearing system to your application.

Motor Options: The PROmech Series includes a number of standard motors. For most applications the NEMA11 motor options will easily fulfill requirements. These are available in multiple stack lengths. The motors may include a rear shaft for encoder mounting or for manually positioning the stage. You may also choose between 18" flying motor leads or a 10' long cable. Further, the faster lead screw options will require the higher torque capacities of the standard NEMA17 stepper. If you have special motor requirements such as a servo or DC motor, contact Daedal as these can be accommodated as well.

Encoder Options: Rotary encoders on the back of the motor are available. Contact Daedal for more information



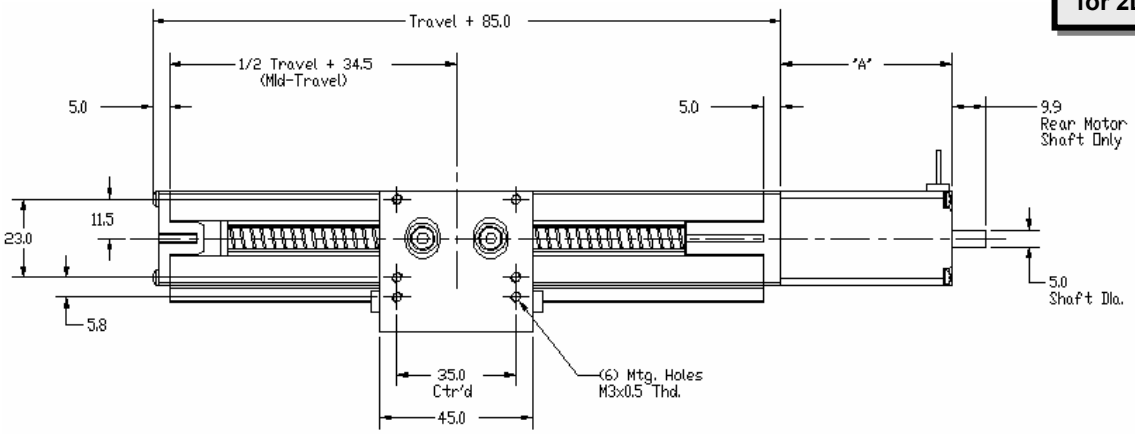
Home and Limit Sensor Options: Home and Limit Sensors are available as a standard option. These attach to the side of the actuator using the T-slot and are activated by a magnet imbedded inside the carriage assembly. Four sensor types are available with all the N.O., N.C., NPN, and PNP variations. The sensors include 3.0 meters of cable. Home sensor options include 1 sensor and mounting hardware. Limit sensor options include 2 sensors and mounting hardware.

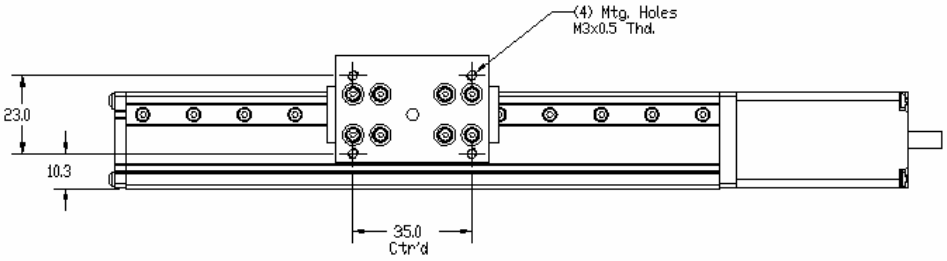
Order Code	Spare Part Number	Switch Type	Logic	Cable Type
H2 or L2	003-3743-07	N.C.	Sinking	3.0 meter to flying leads
H3 or L3	003-3743-05	N.O.	Sinking	3.0 meter to flying leads
H4 or L4	003-3743-08	N.C.	Sourcing	3.0 meter to flying leads
H5 or L5	003-3743-06	N.O.	Sourcing	3.0 meter to flying leads

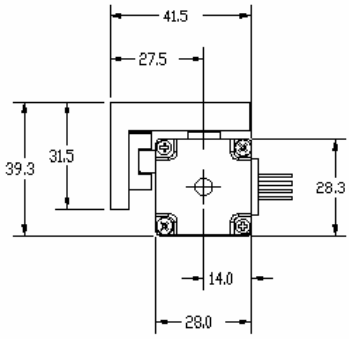
Input Power	10-30VDC
Voltage Drop	<= 2.5V
Cont. Current	100mA
Electrical Protection	Short Circuit, Reverse Polarity, and Power Up Pulse Suppression
Enclosure	IP67 Rated Polyamide Housing with PVC Cable Jacket
Wire Colors	Brown – Power (+) Black – Signal Blue – Ground (-)
Cable Length	3.0 meter to flying leads
Repeatability	0.1 mm max

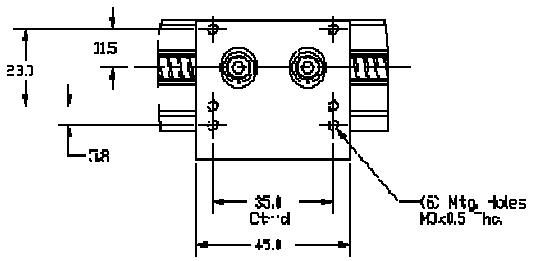
PROmech LP28 Miniature Linear Positioner

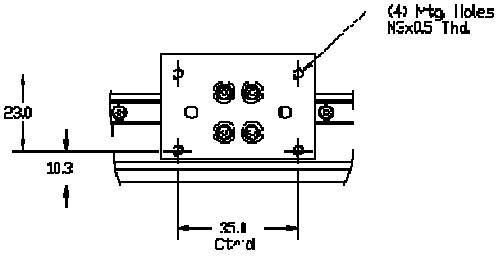
Visit www.parkermotion.com for 2D CAD and 3D Models



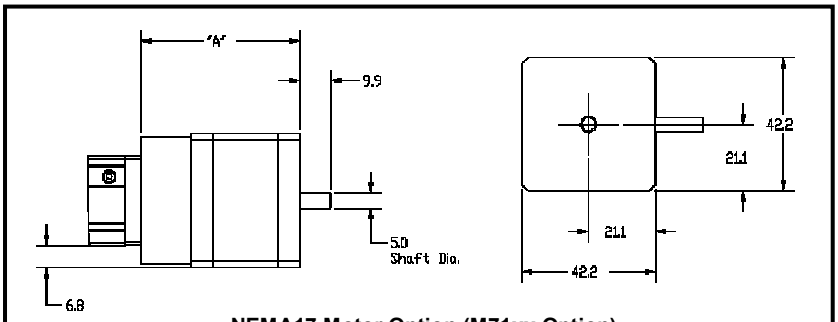




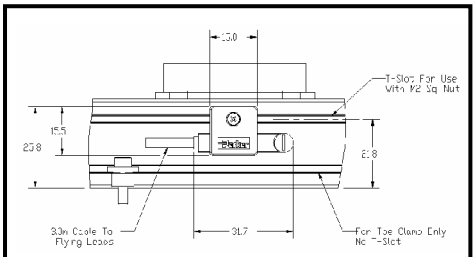




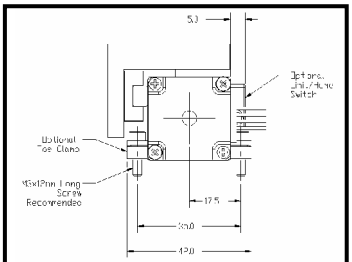
Single Bearing Truck (G21 Option)



NEMA17 Motor Option (M71xx Option)



Limit Switch Accessories

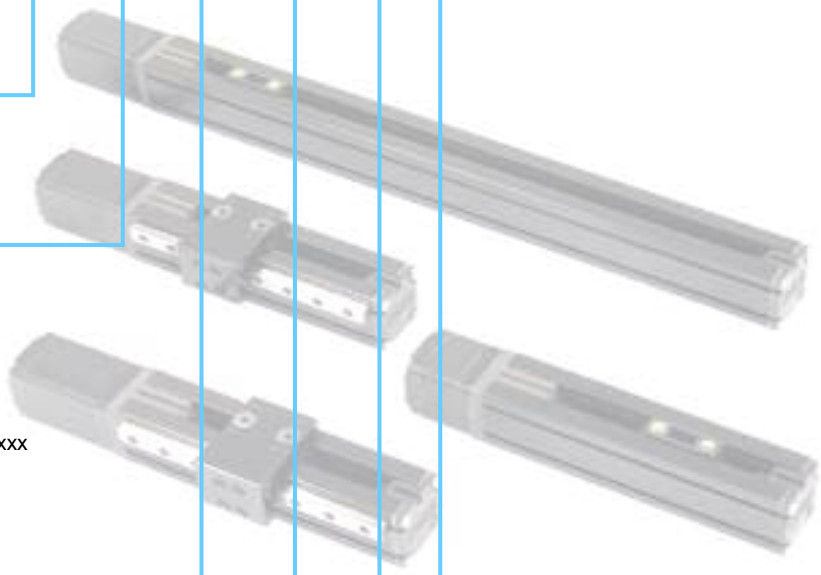


Toe Clamp Accessories

	"A" mm	Amps/ phase	Torque Nm (oz-in)	Resistance ohm/ph	Inductance mH	Rotor Inertia oz-in²	Weight Kg (lbs)	Wire Colors
M11xx	32.0	0.67	0.06 (9.2)	5.6	3.4	0.05	0.11 (0.24)	A+ Red A- Blue B+ Green B- Black
M12xx	45.0	0.67	0.10 (13.7)	7.1	4.8	0.07	0.14 (0.31)	
M13xx	51.1	0.67	0.14 (16.6)	8.6	6.7	0.10	0.20 (0.44)	
M71xx (series)	50.0	1.14	0.40 (56)	11.1	14.3	0.18	0.18 (0.40)	See PROmech Product Manual
M71xx (parallel)		2.28		2.8	3.6			

PROmech LP28 Miniature Linear Positioner

LP28 T0050 D01 G31 M1111 H3 L2



Model

LP28

Travel

xxxx = travel in mm…… Txxxx

Range is 5mm to 500mm

Drive Type

1mm lead screw[1]…… D01

3mm lead screw…… D03

10mm lead screw…… D10

1” lead screw[2]…… D26

(1) D01 not available with M7xxx, (2) D26 not available with M1xxx

Guide System

Linear Rail with 1 Bearing Truck, no seal…… G21

Linear Rail with 2 Bearing Trucks, no seal…… G31

Motor

Stepper, NEMA11, 1 Stack, 18” Leads[2]…… M1111

Stepper, NEMA11, 1 Stack, 10’ Cable[2]…… M1112

Stepper, NEMA11, 3 Stack, Rear Shaft, 18” Leads[2]…… M1321

Stepper, NEMA11, 3 Stack, Rear Shaft, 10’ Cable[2]…… M1322

Stepper, NEMA17, 1 Stack, Rear Shaft, 10’ Cable[1]…… M7122

Home Sensor[3]

No Sensor…… H1

N.C., Current Sinking, 3.0m Cable to flying leads…… H2

N.O., Current Sinking, 3.0m Cable to flying leads…… H3

N.C., Current Sourcing, 3.0m Cable to flying leads…… H4

N.O., Current Sourcing, 3.0m Cable to flying leads…… H5

Limit Sensors (quantity 2)[3]

No Sensor…… L1

N.C., Current Sinking, 3.0m Cable to flying leads…… L2

N.O., Current Sinking, 3.0m Cable to flying leads…… L3

N.C., Current Sourcing, 3.0m Cable to flying leads…… L4

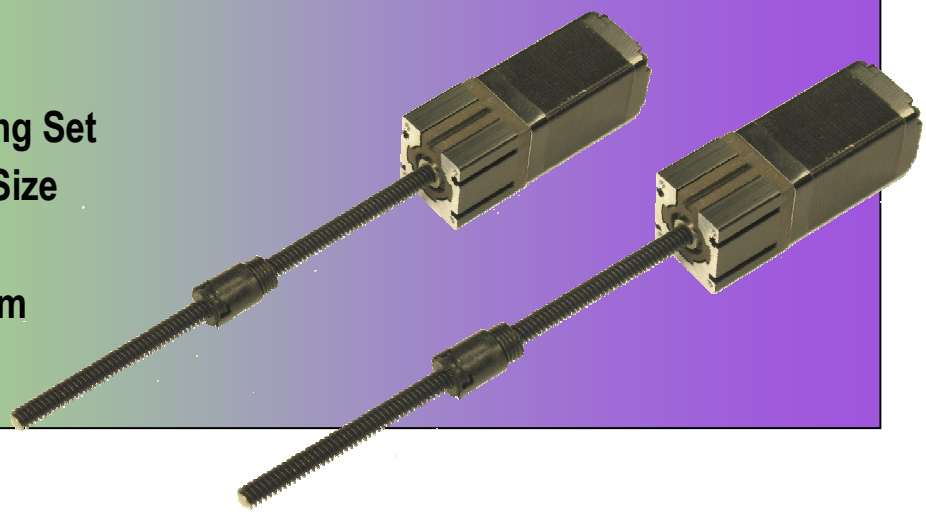
N.O., Current Sourcing, 3.0m Cable to flying leads…… L5

(3) Short travel tables (75mm or less) may have limited sensor adjustability and may be limited to one or two sensor.

PROmech LD28 Miniature Linear Actuator

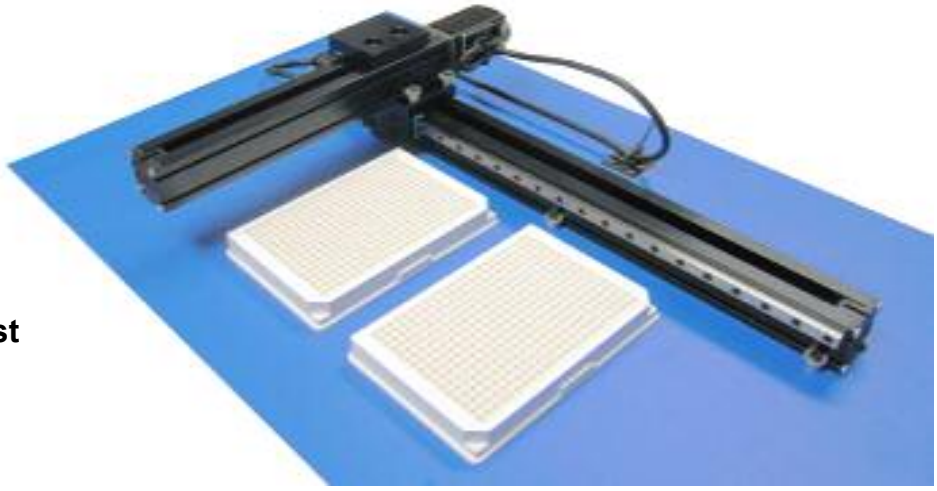
Features:

- ❑ Miniature Profile
- ❑ Independent Thrust Bearing Set
- ❑ High Thrust per Package Size
- ❑ Stepper or Servo Motor
- ❑ Stroke from 5mm to 300mm
- ❑ Backlash Compensation



Attributes:

- **Miniature Cross Section (28mm x 28mm)**
- **High performance leadscrew drive train**
- **1mm, 3mm, 10mm, and 1” screw lead options**
- **Anti-backlash nut design**
- **Travels selectable by the mm from 5mm to 300mm**
- **NEMA11 or NEMA17 stepper motors included as standard**
- **Independent, preloaded thrust bearing set for long life**
- **Fully assembled package**
- **Simple Toe-clamp mounting**



Introduction:

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Customizable: Beyond the standard configurations, PROmech LD28 Actuators can be customized to address the unique requirements of a particular high volume application. These modifications may further reduce the installed cost and could include special motors (stepper, servo, or DC); special screws (finer leads, ballscrews, special nuts, etc.); environmental preparation (vacuum, high temp., etc.) just to mention a few.

Whether you use 100 axes/year or 10,000 axes/year, Parker’s PROmech Series Positioners offer the flexibility, reliability, and ease of use that will enable you to achieve your companies business objectives.

PROmech LD28 Miniature Linear Actuator

Performance Specifications

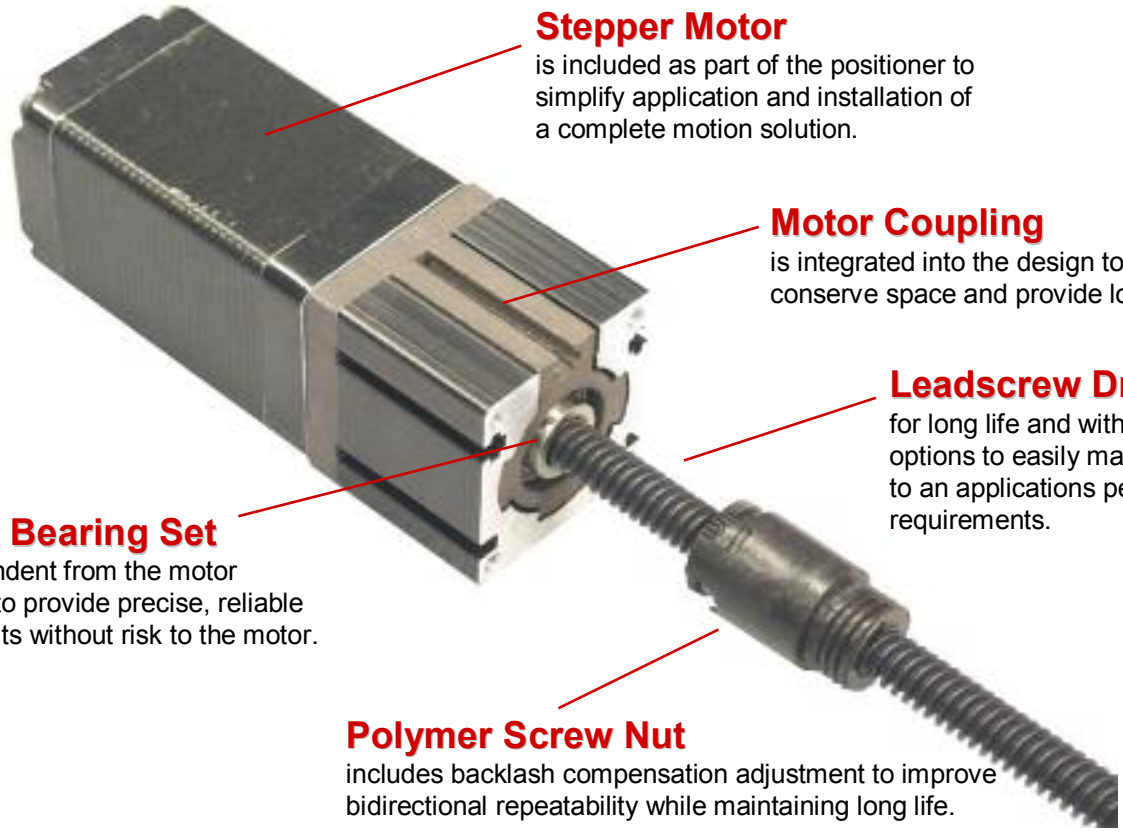
Common Performance Characteristics

	1mm lead	3mm lead	10mm lead	1.0" lead
Bidirectional Repeatability - um	+/-50	+/-50	+/- 100	+/- 100
Duty Cycle	100%			
Max Accel - m/s (in/sec)	20 (787)			
Max Axial Load – N (lbs) (1)	45 (10)			
Screw Efficiency - %	40%	65%	75%	80%
Break away Torque – Nm (oz-in)	0.02 (2.8)	0.02 (2.8)	0.03 (4.2)	0.06 (8.5)
Screw Diameter - mm	6.35			

Note 1: See LP28 speed/thrust curves for combined motor-screw thrust capacity

Travel Dependent Performance

Travel - mm	Maximum Speed – mm/s			
	1mm lead	3mm lead	10mm lead	1.0" lead
5 mm	15	45	150	375
25 mm	15	45	150	375
50 mm	15	45	150	375
75 mm	15	45	150	375
100 mm	15	45	150	375
150 mm	15	45	150	375
200 mm	15	45	150	375
250 mm	15	45	150	375
300 mm	15	45	150	375



Stepper Motor
is included as part of the positioner to simplify application and installation of a complete motion solution.

Motor Coupling
is integrated into the design to conserve space and provide long life.

Leadscrew Drive Train
for long life and with multiple lead options to easily match the screw to an applications performance requirements.

Thrust Bearing Set
is independent from the motor bearings to provide precise, reliable movements without risk to the motor.

Polymer Screw Nut
includes backlash compensation adjustment to improve bidirectional repeatability while maintaining long life.

Summary:

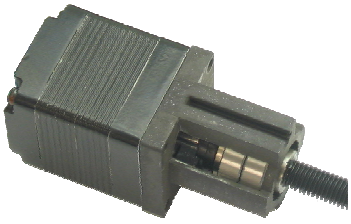
The PROmech LD28 is engineered for thrusting small payload over distances as short as 5mm and as long as 300mm. The LD28 is commonly used in life sciences, medical, and semiconductor equipment although it is not limited to these markets. Typical applications include syringe pumps and positioning stages. The LD28's light weight also makes it suitable for mobile equipment as well.

PROmech LD28 Miniature Linear Positioner

Features and Options

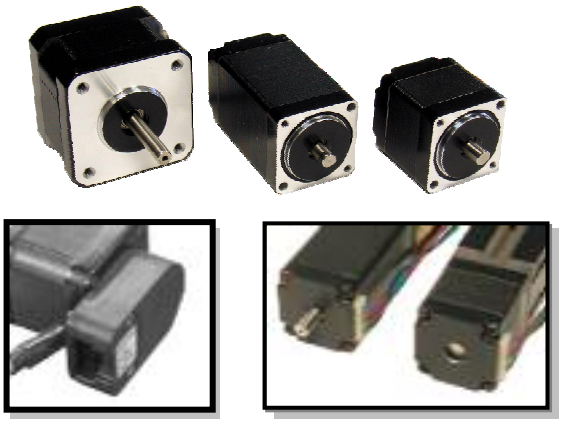
Screw Lead Flexibility: The PROmech Series offers 4 standard screw lead options: 1mm lead, 3mm lead, 10mm lead, and 1.0" lead. Whether your application is slow and precise, long and fast, or somewhere in between, these options will allow you to performance match the drive train to your application.

Travel by the mm: Further because the LD28 is miniature and must often fit into miniature spaces, the travel of the LD28 is selectable by the millimeter from 5mm to 300mm. This offers the greatest flexibility and enables designs to have the required travel with the minimum overall length.



Independent Thrust Bearings: Because high reliability and long life is a critical requirement of OEM designs, the LP28 includes a pair of independent thrust bearings, dedicated to managing the positioner's axial loads. Some competitive miniaturized drive trains use the radial bearings in the step motor to contain the motor rotor, manage thermal expansion as the motor heats, and bear the axial loads generated by the application. In some cases this is an acceptable practice, but may prove to be a reliability risk down the road. The LP28's bearing design allows thrust bearings to be thrust bearings and motor bearings to be motor bearings resulting in a highly reliable and long life positioner.

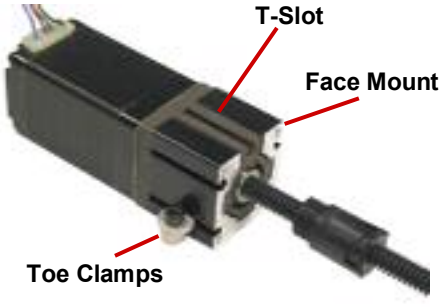
Motor Coupling: Integrated into the PROmech design is a motor coupling. The innovative design minimizes part count and overall length, and when necessary, enables a measure of design flexibility when a special motor is required.



Motor Options: The PROmech Series includes a number of standard motors. For most applications the NEMA11 motors options will easily fulfill requirements. These are available in multiple stack lengths. The motors may include a rear shaft for encoder mounting or for manually positioning the stage. You may also choose between 18" flying motor leads or a 10' long cable. Further, the faster lead screw options will require the higher torque capacities of the standard NEMA17 stepper. If you have special motor requirements such as a servo or DC motor, contact Daedal as these can be accommodated as well.

Encoder Options: Rotary encoders on the back of the motor are available. Contact Daedal for more information

Toe Clamp or Tapped Face Mounting: Installation of the LD28 is very simple with the option to use toe clamps or T-Slots for mounting on surfaces that are parallel with the axis or a tapped face mount for surfaces that are perpendicular to the axis. The cam style toe clamps can be "loosely" installed without the positioner allowing fingers to quickly and efficiently place the toe clamps and start the screws without interference. Once started, the actuator can be placed and the toe clamps rotated into the lower slot and tightened. Toe clamps are available as an accessory and may be purchased in a 4 pack (P/N: 002-2530-01) or in bulk (P/N: 002-2531-01). The T-Slot enables a bolt to come through a surface into a T-nut and for the face mount, the LD28 includes four M2.5 tapped holes in a 23.1mm square pattern.



Parker Hannifin Corporation
Electromechanical Automation Division
Irwin, Pennsylvania

PROmech LD28 Miniature Linear Actuator

LD28 T0050 D01 M1111

Model

LP28

Travel

xxxx = travel in mm…… Txxxx

Range is 5mm to 300mm

Drive Type

1mm lead screw[1]…..... D01

3mm lead screw……..... D03

10mm lead screw..... D10

1” lead screw[2]…..... D26

(1) D01 not available with M7xxx, (2) D26 not available with M1xxx

Motor

Stepper, NEMA11, 1 Stack, 18” Leads[2]…….. M1111

Stepper, NEMA11, 1 Stack, 10’ Cable[2]…….. M1112

Stepper, NEMA11, 3 Stack, Rear Shaft, 18” Leads[2]…. M1321

Stepper, NEMA11, 3 Stack, Rear Shaft, 10’ Cable[2]…. M1322

Stepper, NEMA17, 1 Stack, Rear Shaft, 10’ Cable[1]…. M7122

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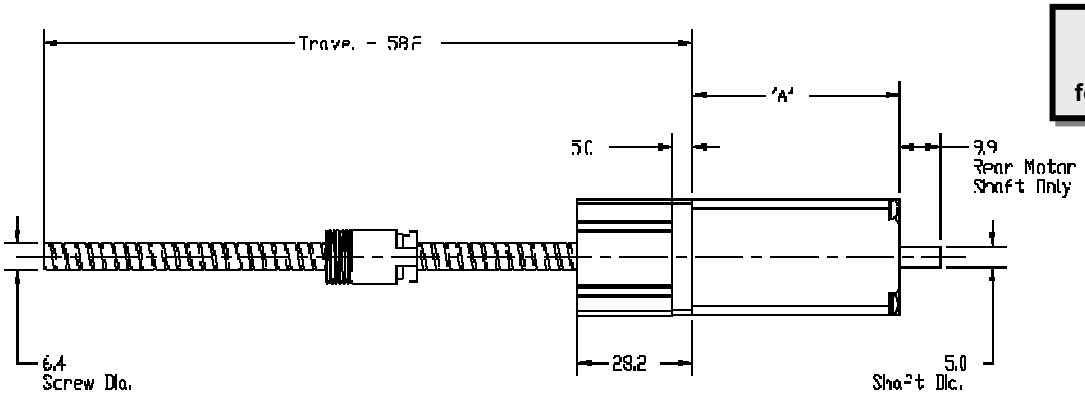
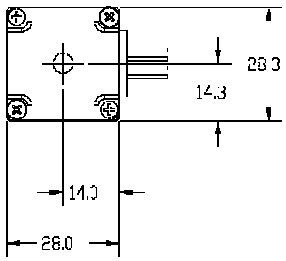
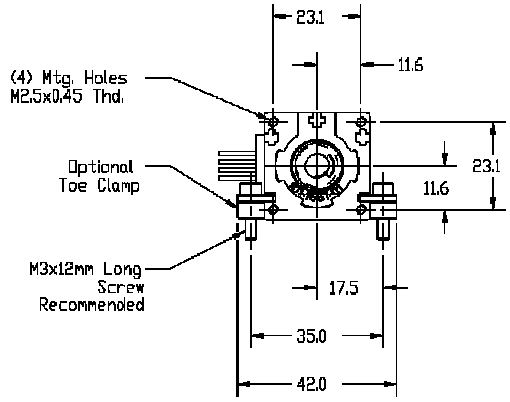
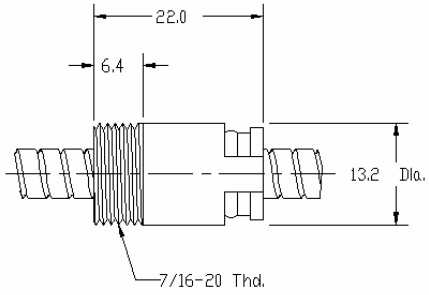








	“A” mm
M11xx	32.0
M12xx	45.0
M13xx	51.1
M71xx	50.0

Note: See the LP28 drawings for complete motor data

PROmech Stepper Drive Accessories

Features:

- ❑ Full Digital Microstepping Drive
- ❑ 24 to 80VDC Input Voltage Range
- ❑ Optional CANopen/RS485 Interface
- ❑ Stepper or Servo Motor Control
- ❑ PROmech LP28 and LD28 Compatible
- ❑ Resolutions to 51,200 steps/rev

Small, Intelligent and Powerful Digital Stepper Drive/Controller

The ViX family is a compact, high performance family of programmable stepper and servo drives. You are able to mix steppers and servos in an applications while taking advantage of the same DC power supply, connections, wizard front end software and compact size. Of particular interest to PROmech users is ViX250IM which is power matched to the PROmech stepper motors and provides ample programmability and connectivity to solve a broad array of applications. The control capabilities include advance features such as stall detection, position maintenance, registration, and following.

ViX Stepper Drive/Controller General Features

- Wizard-based configuration
- Up to 80 VDC bus voltage
- Compact size: 4.9 x 1.65 x 3.35 inches
- CE (EMC & LVD), UL compliant

ViX Stepper Drive/Controller Programming Features

- Storage of up to 16 sequences
- Registration, following, position maintenance, stall detection and conditionals
- Standard RS232C ASCII interface
- Single command multi-axis daisy chain configuration
- Optional RS485/CANbus interface

ViX Stepper Drive/Controller Performance Features

- Integer selectable resolutions from 200 to 51,200 steps/rev
- 5 digital inputs, 3 digital outputs, 1 analog input
- Differential encoder input
- Anti-resonance circuitry suppresses mid-range instability
- Recommended motor inductance range of 0.5 mH to 20 mH

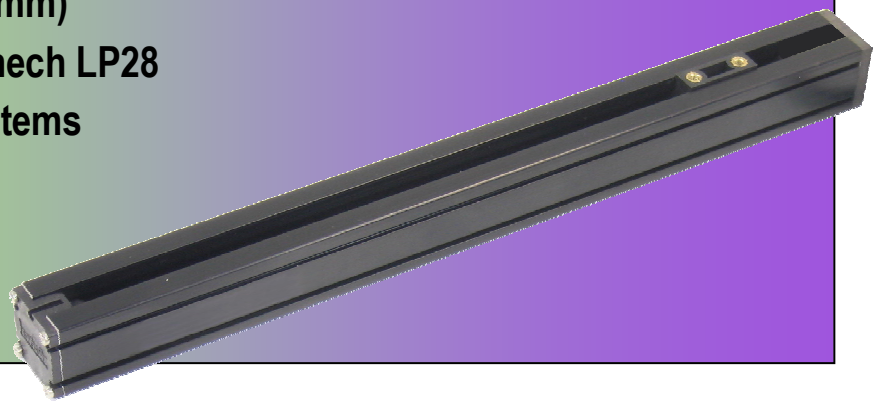
ViX Stepper Drive/Controller Part Numbering System

ViX	500	I	M
ViX Digital Drive Series	***Current Motor Power Level***	***Control Type***	***Drive Type***
Example: VIX500IM	250 – current: 4.0 A pk (2.8 Arms) Motor supply: 24-80 VDC 500 – current: 8.0 A pk (5.6 Arms) Motor supply: 48-80 VDC	I – Drive/controller C – Drive/controller with CANopen/ RS485	M - Stepper

PROmech Miniature Idler

Features:

- ❑ Miniature Profile (28mm x 28mm)
- ❑ Complementary to the PROmech LP28
- ❑ Ideal for Building Gantry Systems
- ❑ Multiple Bearing Options
- ❑ Stroke from 5mm to 500mm
- ❑ Simple Toe Clamp Mounting



Introduction:

Designed to complement the PROmech LP28, the PROmech Idler facilitates construction of gantry and other multiaxis systems where the payload is dimensionally large or a cantilevered load is greater than the LP28's rating. The PROmech Idler is similar to the LP28 except it does not include a drive train (screw, thrust bearings, motor, etc.). It is typically mounted in parallel with another axis and provides support for the payload over the full axis travel. The PROmech Idler helps engineers minimize design time in these applications with more complex load requirements by enabling them to quickly build multiaxis systems that are aesthetically consistent.

LP28 | T0050 | D00 | G31 | M0000 | H1 | L1

Model

LP28

Travel

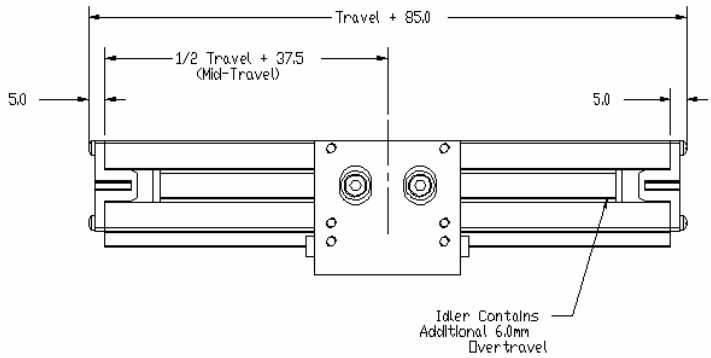
xxxx = travel in mm……Txxxx

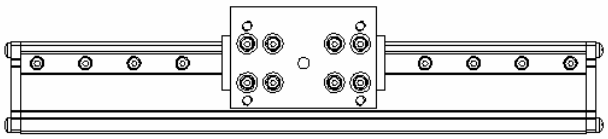
Range is 5mm to 500mm

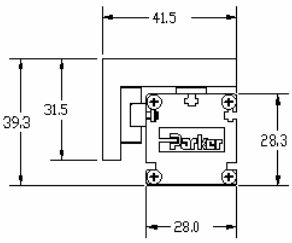
Guide System

Linear Rail with 1 Bearing Truck, no seal……G21

Linear Rail with 2 Bearing Trucks, no seal……G31







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Note: See the LP28 Drawings for Additional Carriage Details

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