

LP/LD Series Quick-Start Guide

This document contains the minimum information to install and run the LP28 positioner and LD28 actuator. Download the complete LP/LD series product manual no. 102-0615-01 from www.parkermotion.com.

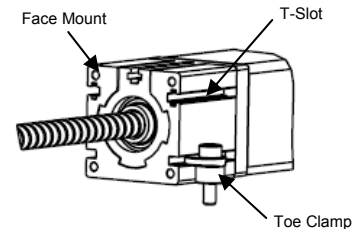
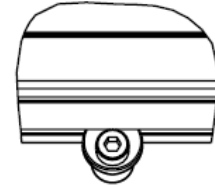
Installation

The LP28 positioner is mounted via accessory toe clamps that engage the bottom slot in the base profile and are intended for use with an M3 screw. The clamps are a cam style that can be loosely installed without the positioner in place, then rotated into the slot and tightened. Minimum toe clamp spacing along the length of the base profile is 150mm. With shorter units, a minimum of four clamps are recommended.

Payload is attached to the LP28 by using M3x.05 tapped holes in the top and side of the load plate. When fastening to the load plate, take precaution in using screws with no more than 5.5mm of engagement, as to not damage the positioner.

The LD28 actuator can be mounted either with toe clamps, with M2 square nuts in the T-slots, or by using the face mount M2.5x0.45 tapped holes. When mounting with toe clamps, four clamps are recommended.

The LD28 leadscrew nut is attached to its mating component using a 7/16-20 male thread on the nut. If the leadscrew nut needs to be removed from the leadscrew in order to install the actuator, preload will need to be reset. Refer to the LP/LD series product manual for instructions.



Motor

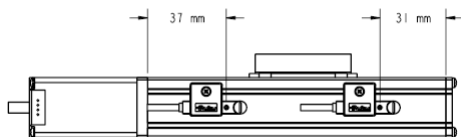
Setup and connection parameters for the motor are given in the table to the right. The NEMA 17 motor (M71xx option) can be wired to operate as either a series or parallel winding.

	M11xx Option	M13xx Option	M71xx Option - Series Wound	M71xx Option - Parallel Wound
Full Step Angle	1.8°			
Torque - Nm (oz-in)	0.06 (9.2)	0.14 (16.6)	0.40 (56.0)	0.40 (56.0)
Rotor Inertia - Kg-cm ² (oz-in ²)	0.009 (0.05)	0.018 (0.10)	0.033 (0.18)	0.033 (0.18)
Peak Current - A/Phase	0.67	0.67	1.14	2.28
RMS Current - A/Phase	0.47	0.47	0.81	1.61
Resistance - Ω/Phase	5.6	8.6	11.1	2.8
Inductance - mH/Phase	3.4	6.7	14.3	3.6
Bus Voltage	48 VDC Max		80 VDC Max	48 VDC Max
Wiring Code for Parker Drives	A+	Red	Red	Red & Blue
	A-	Black	Black	Black & Yellow
	B+	White ⁽¹⁾	White ⁽¹⁾	White & Brown ⁽¹⁾
	B-	Green ⁽¹⁾	Green ⁽¹⁾	Green & Orange ⁽¹⁾
	Notes	None	Link Yellow and Blue, Link Orange and Brown	None

⁽¹⁾ If using Parker ViX drive, default positive direction is opposite other Parker products. To account for this, reverse a phase by interchanging B+ and B- when using ViX drive.

Limit/Home Switch

Setup and connection parameters for the limit and home switch options are given in the table to the right. Limit switch settings to utilize full travel are 37mm and 31mm from the target centerline to the end of the base profile for the motor and end cap locations, respectively.



	H2 or L2 Option	H3 or L3 Option	H4 or L4 Option	H5 or L5 Option
Switch Type	N.C.	N.O.	N.C.	N.O.
Logic	NPN	NPN	PNP	PNP
Part Number Identity	P8S-GMFLX	P8S-GNFLX	P8S-GQFLX	P8S-GQFLX
Operating Voltage	10-30 VDC			
Voltage Drop	2.5 VDC Max			
Continuous Current	100 mA			
Repeatability	100 μm Max			
Reverse Polarity Protection	Yes			
Short Circuit Protection	Yes			
Power-Up Pulse Suppression	Yes			
Wiring Code	Power (+)	Brown		
	Output Signal	Black		
	Ground	Blue		