Linear Motion Only

Linear PowerProbe

(LPP Series)



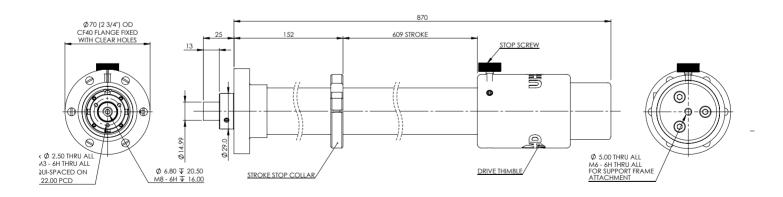
High performance magnetically-coupled linear devices, designed for sample transfer where only linear motion is required and rotation is undesirable. Available in standard stroke lengths from 304mm to 1524mm with motorisation options. The LPP is bakeable to 250°C without removing any components.

LPP KEY ADVANTAGES

- » Internal anti-rotation system ensures straight in-line motion
- » No need for conventional external linear guide bars
- » Unrivalled axial coupling strength
- » Exceptional axial stiffness
- » Zero backlash under low load

The Linear PowerProbe should be selected where only linear motion is required and twisting or turning of the sample would be undesirable.

An anti-rotation system is fitted internally ensuring straight, in-line motion, despite any rotation of the external drive thimble. This removes the need for the unwieldy and bulky external linear guide bars used by other manufacturers and guarantees no rotation during the stroke.



Example Dimensions (mm) LPP40-609-H shown

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LPP Technical Data

SPECIFICATION	VALUE
System mounting flange size up to 1219mm stroke	CF40 (2 3/4" OD) with clear holes
System mounting flange size 1524mm stroke	CF63 (4 1/2" OD) with clear holes
Magnetic linear breakaway thrust	140 N (31.5 lbs)
Available stroke range	250mm to 1219mm
Output shaft - end interface details	14.99/14.96mm with M8 tapped hole and spigot
Bakeout temperature	250 °C with motor removed
Shaft radial run out	N/A
Shaft radial deviation (linearity) over full stroke	+/- 1 degree
Maximum cantilevered load	20 Nm (177 in-lbs)
Maximum working axial load	90 N (20 lbs)
Retracted position switch - type	Bakeable micro switch wire to WD-020
Stepper motor option	AS4118L1805 with P42H (4:1) gearbox
Stepper motor - motor wiring	UTO socket wired to drawing WD-M-003
Stepper motor option - switches	bakeable limit and home switches with lemo socket wired to diagram WD-002
Stepper motor maximum linear speed	25 mm/second (ballscrew option up to 100mm/second)
Linear resolution per 1/2 step	0.00375 mm
Motor option - leadscrew pitch	6mm
DC motor option	24V dc motor with gearbox
DC motor - motor wiring	2 pin generic plug to diagram WD-010
DC motor option - switches	bakeable limit switches with lemo socket wired to diagram 11-6-04
DC motor maximum linear speed	15 mm/second
DC motor gearbox type and ratio	planetary 35:1
Motor option - leadscrew pitch	6mm

For more information:

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