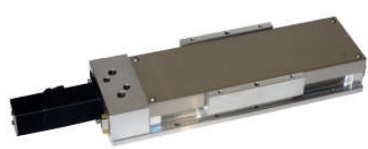


FLEXDRIVE-4®



flexdrive-4

PRODUCT SUMMARY

flexdrive-4® Series linear positioning tables, has a small compact size and its modular design makes it an ideally suited translation module for a large number of applications requiring precision, reliability and ease of integration

- Modular System Positioner
- Travel 50-500mm.
- Environmental Protection
- Laser Calibration Protocol
- Engineered for easy Integration
- 3 year warranty

Flexdrive-4 Features & Benefits

The flexdrive-4 series is an expansion of the product line to a small compact size and the modular design makes it an ideally suited translation module for a larger number of applications requiring precision, reliability and ease of integration. Engineers, system integrators and designer prefer the flexdrive-4 for their superb performance, flexibility to match to the application and assured longevity.

The flexdrive-4 series is a very compact precision stage based on a monolithic high strength aluminum alloy with a 48x100mm envelope and travel range from 50-500mm. The payload capability is rated at 50Kg(100lbs) with a technical limit at 280Kg(600Lbs). The superb positioning performance is supported by square rails with recirculating low noise linear ball bearings and a precision ground ballscrew drive.

Applications

The flexdrive®-series positioning tables have been a very successful translator product for two decades and are recognized for their sustained positioning performance and longevity in many applications like laser machining systems, bio-medical, metrology, instrumentation and automation. The outstanding selection criteria are the reason why professionals prefer the clean, modern international metric design of the flexdrive series stages by NUTEC. The designers preference for these modular concept positioners can be attributed to configurability for specific application requirements, the excellent specifications and the sustained performance coupled with longevity..

	FD-4 SP
Travel Length (mm)	50-500mm
Drive System	NEMA #23 or #17 Servomotor
Maximum Acceleration	Payload Dependent
Maximum Speed Standard Precision	1000 mm/s 200 mm/s
Max. Axial Load	300 N
Recommended Payload Limit	50 kg
Drive Efficiency	80-90%
Parasitic Torque Max.	0.15 Nm
Drive Screw Max.	3600 RPM
TTL resolution	0.5µ /pulse
Construction	Aluminum Alloy Stainless Steel Cover

Flexdrive-4 Specifications

	Standard		Precision	
Travel Length (mm)	50-500 mm		50-500 mm	
Trajectory Control				
Accuracy				
PN Screw Drive	± 3 µm / 25mm		N/A	
Ball / Roll Screw Drive	± 2 µm / 25mm		± 1 µm / 25mm	
Linear Encoder	N/A		± 1 µm / 25mm	
Servo & LIBEC	N/A		± .5 µm / 25mm	
Repeatability				
Ball / Roll Screw Drive	± 2 µm		± 2 µm	
Ball / Roll Screw Drive with Linear Encoder	N/A		± 1 µm	
Lead Screw Drive	± 3 µm		N/A	
Characteristics				
Drive Screw Max. RPM				
Ballscrew	3600 RPM		2000 RPM	
Leadscrew	2000 RPM		N/A	
Rollscrew	3000 RPM		3000 RPM	
Drive Screw Diameter				
50-250 mm	10 mm		10 mm	
250-500 mm	12 mm		12 mm	
	Flatness	Straightness	Flatness	Straightness
Stroke				
50 mm	6 µm	3 µm	4 µm	2 µm
100 mm	8 µm	3 µm	5 µm	3 µm
150 mm	10 µm	5 µm	5 µm	3 µm
200 mm	12 µm	6 µm	6 µm	4 µm
250 mm	14 µm	8 µm	6 µm	4 µm
300 mm	18 µm	10 µm	8 µm	5 µm
350 mm	20 µm	12 µm	8 µm	5 µm
400 mm	24 µm	14 µm	10 µm	6 µm
450 mm	28 µm	15 µm	12 µm	7 µm
500 mm	32 µm	20 µm	14 µm	8 µm

Notes:

- Accuracy Described on Full System Travel
- Straightness/Flatness Described per 50 mm travel
- All trajectory data based on axis uniformly supported over full length on precision mounting surface with vibration isolation.
- Payload capacities are recommended values to achieve maximum lifetime in the worst-case scenario featuring maximum dynamic operation and off-center loading.
- Force, acceleration and speed performance are based on operations with NUTEC ELECTRONIC controls.