

FLEXDRIVE-6

Screw Driven Linear Stage



- Environmentally hardened.
- Travel 150-600 mm.
- Precision Ground Ball Screw.
- Optional side motor mounting.
- Engineered for easy Integration.
- 3 year warranty.

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 designer's 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.

Sensor Options

For limit of travel and home position there are 3 LED sensors available, mounted internal to the stage. The electrical connection is at the motor end bulkhead with a DB connector.

The flexdrive-6 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.

Screw Driven Stages

The flexdrive-6 positioning tables 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-6 for their superb performance, flexibility to match to the application and assured longevity.

Superior Mechanical Design

The flexdrive-6 series is a very compact precision stage based on a monolithic high strength aluminum alloy with a 48x100mm envelope and travel range from 100-600mm. The payload capability is rated at 50Kg (110lbs). The superb positioning performance is supported by square rails with recirculating low noise linear ball bearings and a precision ground ballscrew drive.

FLEXDRIVE-6 Specifications

| | FD-6-SP |
|---------------------------|----------------------------|
| Travel | 150 – 600 mm |
| Drive System | NEMA #23 or #17 Servomotor |
| Maximum Acceleration | Payload Dependent |
| Max. Axial Load | 450 N |
| Recommended Payload Limit | 50 kg |
| Drive Efficiency | 80-90 % |
| Parasitic Torque Max. | 0.15 Nm |
| Drive Screw Max. | 3000 RPM |

| | Standard | Precision | | |
|---------------------------------|-------------------------|---------------------|-----------------|---------------------|
| Travel Length | 150 – 600 mm | 150 – 600 mm | | |
| Accuracy | | | | |
| Ball / Roll Screw Drive | ± 2.5 µm / 25 mm | ± 1.5 µm / 25 mm | | |
| Linear Encoder | N/A | ± 0.75 µm | | |
| Servo & LIBEC | N/A | ± 0.25 µm | | |
| Drive Screw | | | | |
| Ball Screw | Max. RPM 3000 | 2000 | | |
| | Repeatability ± 2 µm | ± 2 µm | | |
| Ball Screw Configuration | | | | |
| Ball Screw Diameter | 15 mm | 15 mm | | |
| Ball Screw Lead | 5 mm | 5 mm | | |
| Stroke | Flatness | Straightness | Flatness | Straightness |
| 150 mm | 12 µm | 5 µm | 12 µm | 3 µm |
| 200 mm | 15 µm | 6 µm | 15 µm | 4 µm |
| 300 mm | 20 µm | 10 µm | 18 µm | 5 µm |
| 450 mm | 28 µm | 15 µm | 24 µm | 7 µm |
| 600 mm | 34 µm | 28 µm | 32 µm | 10 µm |

