

NEMA 11 (28 mm)

Hybrid Stepper Motor Linear Slide Module

TSL-28LS Series

The TSL-28LS Series integrates a compact NEMA 11 hybrid stepper motor, lead screw, guide rail and moving carriage into a ready-to-use linear slide module. It is designed for compact positioning, automation, laboratory equipment and precision motion applications.

Series Highlights

| | |
|---------------------|-----------------------------|
| Frame Size | 28 mm motor |
| Motor Options | 30 / 40 mm body |
| Lead Screw Diameter | 6 mm |
| Lead Options | 1 / 4 / 6 mm per revolution |
| Effective Stroke | 50 - 300 mm |
| Horizontal Load | Up to 5 kg |
| Vertical Load | Up to 1 kg |



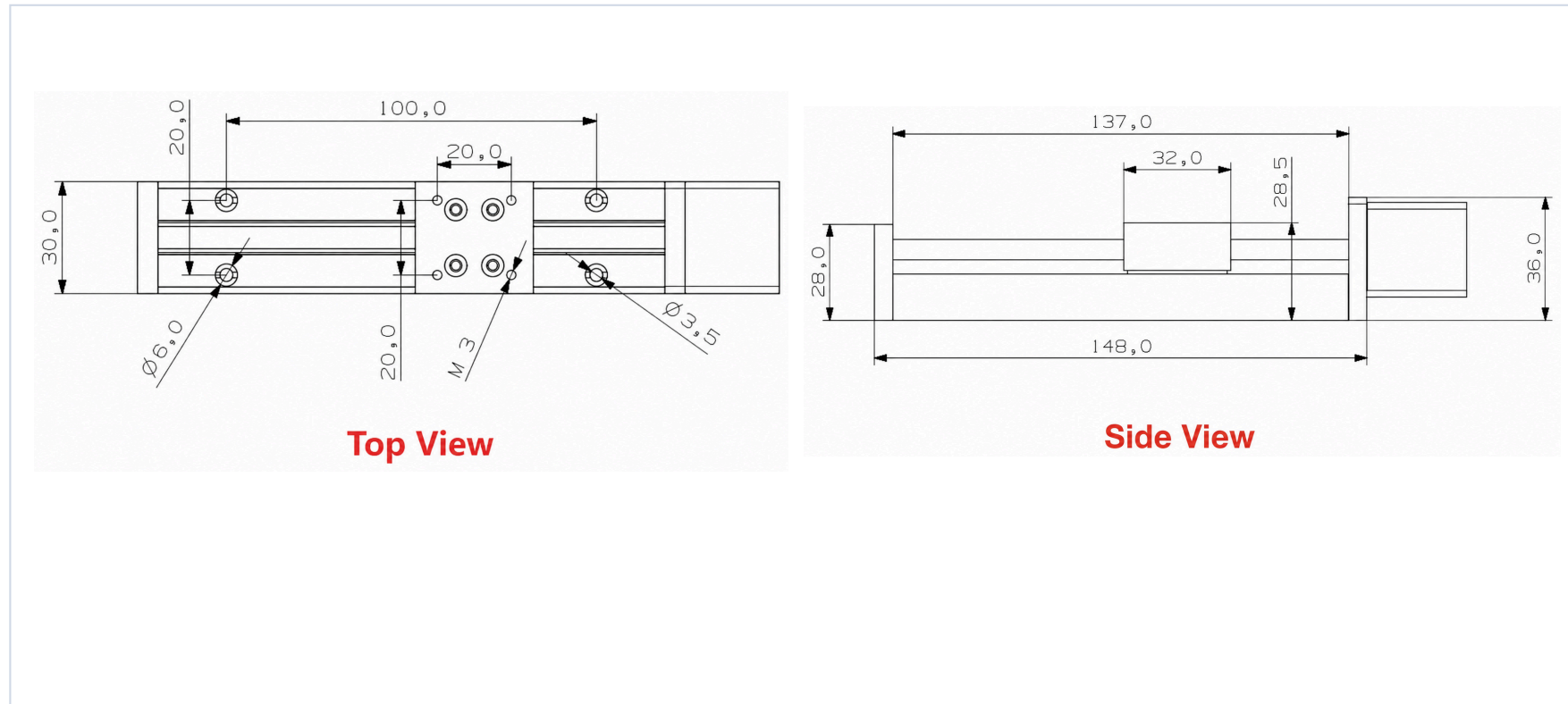
Linear Slide Module

Performance Parameters

| Motor Model | TSL-28LS3006 (30 mm Motor) | TSL-28LS4006 (40 mm Motor) |
|---|-------------------------------------|-------------------------------------|
| Motor Body Length | 30 ± 1 mm | 40 mm |
| Motor Body Width (Max.) | 28.5 mm | 28.5 mm |
| Motor Static Torque | 7 N·cm | 12 N·cm |
| Motor Current | 0.6 A | 0.6 A |
| Motor Weight | 90 g | 120 g |
| Lead Screw Diameter | 6 mm | 6 mm |
| Lead Screw Accuracy | 0.1 mm | 0.1 mm |
| Lead Screw Lead (Distance per Revolution) | 1 / 4 / 6 mm | 1 / 4 / 6 mm |
| Effective Stroke | 50 - 300 mm (Customizable) | 50 - 300 mm (Customizable) |
| Horizontal Load Capacity (Max.) | 5 kg | 5 kg |
| Vertical Load Capacity (Max.) | 1 kg | 1 kg |
| Cable Length | 600 mm | 500 mm |
| Wiring Configuration | Black A+, Green A-, Red B+, Blue B- | Black A+, Green A-, Red B+, Blue B- |

Performance parameters are for reference only and can be customized according to customer requirements.

Mechanical Dimensions



Drawing Notes

- The shown dimensions are representative of one standard configuration.
- Effective stroke is customizable from 50 to 300 mm.
- Lead screw diameter: 6 mm.
- Standard lead options: 1 / 4 / 6 mm per revolution.
- Mounting dimensions should be confirmed before production.

Customization Options

The drawing is for reference only. Ball-screw versions, encoder options, and integrated encoder-and-driver solutions are available according to customer requirements.