



Encoder Lead Wires: 28 AWG

T-Shaped Lead Screw Parameters

- Lead Screw Material: SUS303 (Stainless Steel)
 - Diameter: 4.0 (0, -0.05) mm (Tolerance: +0 / -0.05 mm)
 - Number of Starts: 1 start
 - Pitch: 1.5 mm
 - Thread Direction: Right-hand (RH)
 - Lead: 1.5 mm
- The lead screw and nut are custom-matched by the same manufacturer; the axial backlash (play) between the lead screw and nut is < 0.05 mm.

Coreless Brushed Motor

- Motor Pinout (1 - 2):
 Positive (+): Red
 Negative (-): Black
- Encoder Pinout (1 - 4):
 5V: White
 GND: Yellow
 A+: Green
 B+: Blue
- Magnetic encoder,
 512 PPR (Pulses Per Revolution),
 2 Channels



Motor Performance Parameters

- Motor Type: Coreless Brushed Motor
- Operating Voltage: 9 V
- No-Load Speed: 24000 ± 10 RPM
- No-Load Current: ≤ 0.1 A
- Load Speed: 20000 ± 10 RPM
- Load Torque: ≥ 15 g·cm
- Load Current: ≤ 0.3 A
- Pole Pairs: 1 pole pair (2 poles)
- Operating Temperature: -20 to 80°C
- Noise: ≤ 45 DB
- Maximum Motor Efficiency: 75%

Geared Motor Performance Parameters

- Operating Voltage: 9V
- No-Load Speed: 665 ± 10% RPM
- No-Load Current: ≤ 0.15A
- Load Speed: 555 ± 10% RPM
- Load Torque: ≥ 0.4 kgf·cm
- Load Current: ≤ 0.4A
- Operating Temperature: -20 to 80°C
- Reduction Ratio: 1:36
- Noise: ≤ 60dB (at a distance of 30cm)
- Gearbox Backlash: ≤ 1.5 degrees
- Gearbox Material: Pure Steel (Machined)

This product has a large stall torque, and stall operation is not recommended.

设计		第一视觉画法 	12 mm Planetary Gearbox + 12 mm Coreless Brushed Motor Incremental Encoder <small>< 产品类型 ></small>
审核			TSL-12P1220R-36+MA512-17.2 <small>< 产品类型 ></small>
批准		未注线性与角度尺寸公差： GB/T1804-m eqv ISO 2768-1:m	Tsinglin Micro Motors Limited
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