

## Stepper Motor Actuators



**ZST-CAB2**  
Cable Included with Purchase of Actuator

Our ZST actuators provide smooth, precise, linear motion control in a compact package. Powered by a small-diameter, dual-phase stepper motor, these actuators operate at speeds up to 0.5 mm/s and are capable of moving loads of up to 12 lbs. Mounting options include a high-tolerance Ø0.375" mounting barrel for fastening into any application compatible with our precision micrometer heads (see pages 599 – 603), including our popular PT1 translation stages. A 1/4"-80 threaded barrel is also offered for use with any standard manual mirror mount using 1/4"-80 threaded adjusters.

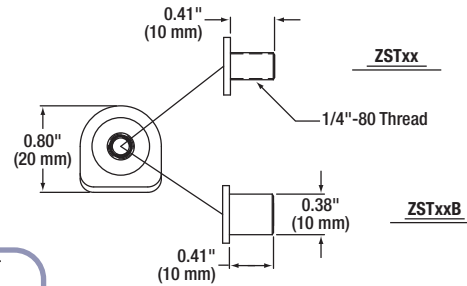
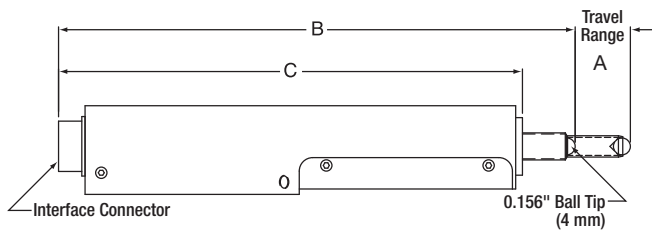
Electromechanical limit switches prevent the unit from being overdriven and provide homing capability with better than 10 µm accuracy. The rear-mounted, high-density push/pull connectors offer a durable, compact connectivity solution.

These Stepper Motor Actuators include a ZST-CAB2 cable, which has a Hirose connector on one end and a 15-Pin, D-type connector on the other end for use with the TST001 Stepper Motor Controller (see pages 630 – 631). Additional replacement cables can be purchased separately.

### Specifications

- **Nominal Supply Current (100% Duty Cycle):** 0.25 A
- **Phase Resistance (20 °C):** 12.5 Ω
- **Phase Inductance (1 kHz):** 5.5 mH
- **Holding Torque (with Nominal Current in Both Phases):** 65 oz/in
- **Operating Mode:** Current Limited
- **Number of Phases:** 2
- **Max Speed:** 0.5 mm/s
- **Full Step Angle:** 15°
- **Steps/Rev of Motor:** 24 (3,072 µsteps/rev)\*
- **Max Load:** 12 lbs (5.5 kg)
- **Gear Reduction:** 76:1
- **Leadscrew Pitch:** 0.5 mm
- **Limit Switch:** Mechanical
- **Max Winding Temp:** 266 °F (130 °C)

\*Based on use with the TST001 series controller.



**GKZ8**

**Note:** It is recommended that the leadscrews of the ZST motors be lubricated every 50,000 cycles or 6 months, whichever comes first. The GKZ8 Greasing Kit provides an easy to use and cost effective solution. See page 448 for more details.

ITEM #	A	B	C
ZST6B	0.26" (6 mm)	4.26" (108 mm)	3.78" (96 mm)
ZST13B	0.51" (13 mm)	4.77" (121 mm)	4.28" (109 mm)
ZST25B	1.00" (25 mm)	5.72" (146 mm)	5.31" (135 mm)

ITEM #	\$	£	€	RMB	TRAVEL	BUSHING
ZST6	\$ 576.30	£ 414.94	€ 501.38	¥ 4,593.11	0.25" (6 mm)	1/4"-80 Threaded
ZST6B	\$ 576.30	£ 414.94	€ 501.38	¥ 4,593.11	0.25" (6 mm)	3/8" Barrel
ZST13	\$ 601.80	£ 433.30	€ 523.57	¥ 4,796.35	0.50" (13 mm)	1/4"-80 Threaded
ZST13B	\$ 601.80	£ 433.30	€ 523.57	¥ 4,796.35	0.50" (13 mm)	3/8" Barrel
ZST25	\$ 627.30	£ 451.66	€ 545.75	¥ 4,999.58	1.00" (25 mm)	1/4"-80 Threaded
ZST25B	\$ 627.30	£ 451.66	€ 545.75	¥ 4,999.58	1.00" (25 mm)	3/8" Barrel
GKZ8	\$ 14.00	£ 10.08	€ 12.18	¥ 111.58	Grease Kit for Z8 and ZST Series Actuators	
ZST-CAB2	\$ 76.50	£ 55.08	€ 66.56	¥ 609.71	Replacement Cable for ZST Actuators	

## Have you seen our...

# T-Cube apt™ USB Single-Channel Controllers and Power Supplies

The unique T-Cube motor controllers are compact, high-resolution, single-channel drivers. The TST001 offers easy manual or automated control of our ZST motor series. All T-Cube controllers feature apt™ software and a USB interface.

For more details, see pages 630 - 631

