

Motorized vertical-motion stages

Motorized Linear Stages

Motorized vertical-motion stages

Motorized goniometers

2D- or 3D motorized alignment stages

Multi-axis systems

Controllers

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CZF series high precision motorized vertical-motion stages

FAstage



Description:

CZF series products are precise motorized vertical-motion stages designed and manufactured by Zolix to meet the requirements of applications with high-precision and high repeated operation rate. The materials of main body are hard black anodic-oxidation aluminum alloys which ensure higher durability and offers nice appearance. This series stages present higher motion precision which comes from employed linear-slider (or cross-roller) guides whose main characteristics include high strength, high loading capacity and excellent durability. The fine-grinding techniques for surface treatment of guides used in Zolix production lines also contribute to precision performance. It is imported ball screw and two-phase stepping motors (Japanese brands) that guarantee higher resolutions and positioning accuracy. This series products are ideal ones which are integrated in automation equipment or instruments which have strict requirements of space, size and weight. They are also very suitable to be employed with on-site production lines which operate in a short-travel range with higher repetition rate

Main characteristics:

- Ball screws with Japanese stepping motors to provide higher resolution and positioning accuracy
- High strength, heavy load capacity and high durability are offered by linear-slider or cross-roller guides
- Fine-grinding techniques are used on the treatment of installation surface of guides to ensure high motion accuracy
- Three sensors (two for position-limit and one for origin point) works with high flexible cable. Modular cable units make maintenance easier

Naming rules:

CZF 8-60 (-ST528)

Series code:
CZF: High-precision, ball screw, linear-slider or cross-roller guides

Travel range:
8: 8mm
20: 20mm
40: 40mm

Type of motors:
Default: two-phase stepping motors
ST528: five-phase 28 stepping motors

Table dimension (mm):
60: 60x60
120: 120x120
200: 200x200

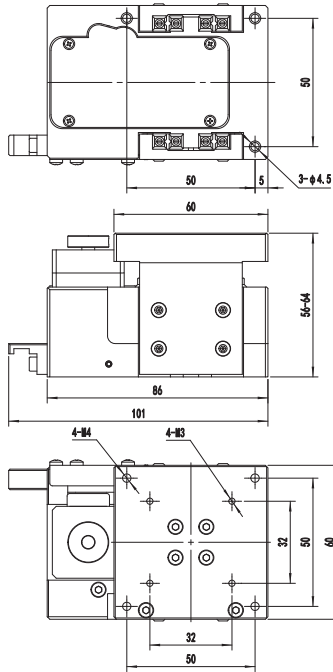
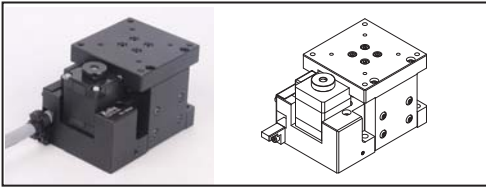
Selection chart:

	Model number	CZF8-60	CZF20-120	CZF40-200
Mechanical specifications	Travel range(mm)	8	20	40
	Table dimensions(mm)	60×60	120×120	200×200
	ball screws	Φ6 lead range 1mm	Φ12 lead range 5mm	Φ16 lead range 10mm
	Transmission ratio	1:1	80:1	120: 1
	Travel range with one rotation of motor (mm)	1	0.0625	≈0.083
	Materials for worm gear	/	Wear-resistant tin bronze	
	Guide	Cross-roller guides	linear-slider guides	
	Main body materials and surface treatments	Black anodic-oxidation aluminum-alloy		
	Shaft coupling	/	19-5-5	30-6.35-6.35
Weight (Kg)	1	4.2	12.5	
Accuracy specifications	Resolution (step/half-step) (μm)	5/2.5	≈0.31/0.155	≈0.42/0.21
	8-fine-subdivision resolution (μm)	0.625	≈0.039	≈0.052
	Highest speed (mm/s) *	10	0.625	0.833
	Repositioning accuracy (μm)	≤±3	≤±2	
	Backlash clearance (μm)	/	≤15	≤15
	Static parallelism (mm)	≤0.1	≤0.12	≤0.12
Electrical specifications	Motor and its stepping angle (°)	Two-phase 28 stepping motor, 1.8	Two-phase 42 stepping motor, 1.8	Two-phase 57 stepping motor, 1.8
	Model number of motor	Shinano,STP-28D1003-1504	Shinano,SST43D2126-10	Shinano, SST-59D3206
	Working current (A)	1.5	1.7	2.8
	Torque of motor (N·m)	0.0785	0.456	1.44
	Model number of stepping driver (optional)	Moons, SR2		Moons, SR4
	Type of plugs for stages	DB9 (pin)		
	Type of cables for stages	High flexible cables (Helukabel, Germany)		
	Length of cables for stages(m)	0.2		
	Position-limit sensors (built-in)	2*GP1S09xHCPI (Sharp, Japan)		
	Origin-point sensors (built-in)	1*GP1S09xHCPI (Sharp, Japan)		
	Voltage of power supply for sensors (V)	DC5~24V ±10%		
	Consuming current (mA)	<60 (total)		
	Output for control	collector of NPN open-circuit output		
	Status of output ports	output ON when sensor is blocked		
Operating load	Horizontal direction (Kg)	4	20	30

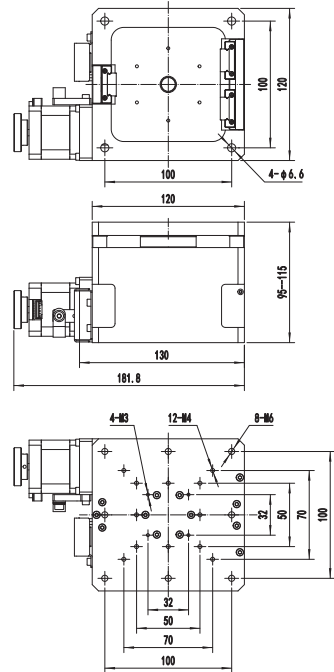
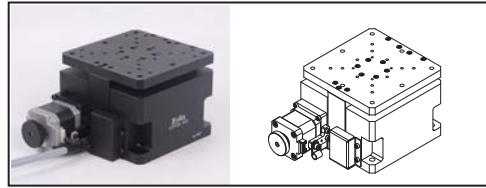
* Highest speed is measured with the conditions of zero-load and motors being worked at 600rpm

Dimensions:

CZF8-60



CZF20-120



CZF40-200

