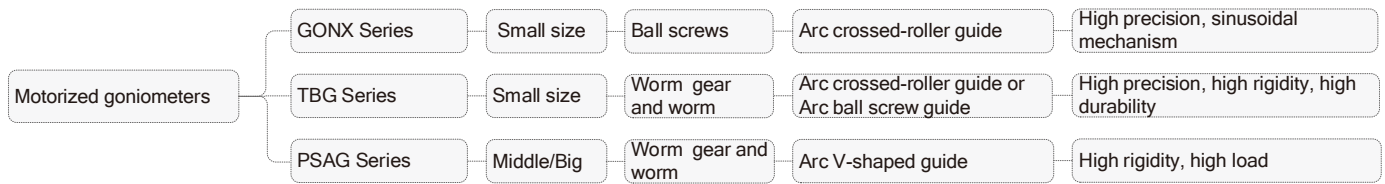


Motorized Goniometers



GONX Series Motorized Goniometers

FAstage™



Description:

GONX is a precise goniometer designed for small size and high frequency use. The main material of this series of products is hard aluminum alloy with black anodized surface, good wear resistance and beautiful appearance. The guide rail adopts arc crossed-roller guide, and surface is treated by Zolix unique precision machining technology, which can guarantee high strength, strong load capacity, good durability. The driving mechanism is driven by ball screw and standard two-phase stepper motor, which can provide high resolution and positioning accuracy. It's a good option for integration in the space, size, weight requirements of high automation equipment, precision instruments.

Features:

- Equipped with durable ball screw mechanism, it can meet the needs of high precision and high frequency use
- The arc crossed-roller guide is used to cooperate with the linear guide to effectively control the position deviation of the space rotation center during swing
- With two-phase stepper motor, stable and reliable

Naming rules:

GONX 100-80 (-ST528)

Series code:
GONX: sinusoidal mechanism,
high precision, aluminum alloy,
Arc crossed-roller guide

Designed
height at
center:
100:100mm
140:140mm

Table dimension:
80:80mm×80mm

Motor type:
None (default): standard
two-phase stepping motors
ST528: optional five-phase 28
stepping motors

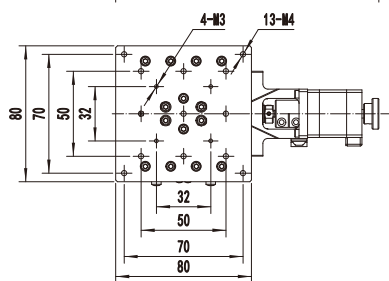
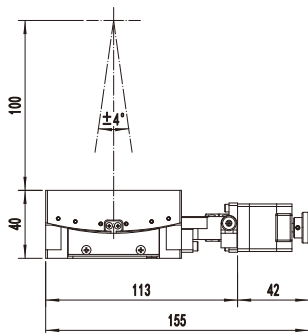
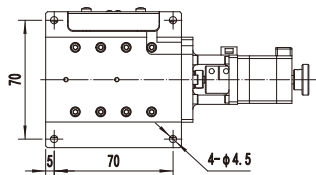
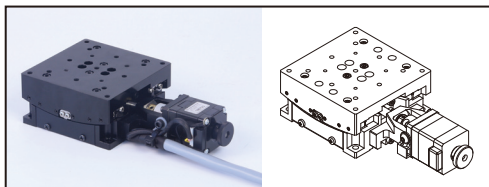
Selection chart:

Model		GONX100-80	GONX140-80
Mechanical specifications	Designed height at center(mm)	100	140
	Stage surface size(mm)	80×80	
	Swing angle range(°)	±4	±3
	Transmission mechanism	Ball screws, $\Phi 6 \times 1$	
	Guide mechanism	Arc crossed-roller guide+linear-slider guides	
	Material	Black anodized aluminum alloy	
	Weight(Kg)	0.9	0.9
	Shaft coupling(OD - OD1- OD2)(mm)	16-3-5	
Accuracy specifications	Step resolution(°)	0.0025	0.0018
	8-fine-subdivision resolution(°)	≈0.0003	≈0.0002
	Highest speed(° /s)*	≈5.03	≈3.72
	Repositioning accuracy(°)	≤±0.001	
	Static clearance(°)	≤0.004	≤0.003
	Backlash(°)	≤0.004	≤0.003
	Swing accuracy at rotation center(mm)	≤0.01	
Electrical specifications	Motor and its stepping angle(°)	Two-phase 28 stepping motor, 1.8	
	Model of motor	STP-28D1003-08	
	Working current(A)	1.3	
	Torque of motor(N·m)	0.079	
	Brand and model number of stepping driver(optional)	Moons, SR2	
	Type of plug for stage	DB9(pin)	
	Type of cable for stage	High flexibility cable(Helukabel, Germany)	
	Length of connection cable(m)	0.2	
	Position-limit sensors(built-in)	2×GP1S09xHCPI(Japan SHARP)	
	Origin-point sensors(built-in)	1×GP1S09xHCPI(Japan SHARP)	
	Sensor voltage(V)	DC5~24V±10%	
	Current consumption(mA)	<60(total)	
	Control output	NPN open controller output DC5 ~ 24V 8mA or less Residual voltage 0.3V or less(when load current is 2mA)	
	Status of output ports	Output ON when sensor is blocked	
Maximum load capacity	Horizontal direction(Kg)	4	5
	Inverted direction(Kg)	1.5	
	Vertical direction(Kg)	2	

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

Dimensions:

GONX100-80



GONX140-80

