



芯明天
COREMORROW

ISO 9001
QUALITY MANAGEMENT SYSTEM

Piezo Phaser P77.Z

Features

- Z axis
- Max travel range 20 μ m
- Max load 5kg
- Aperture: Ø106mm



Applications

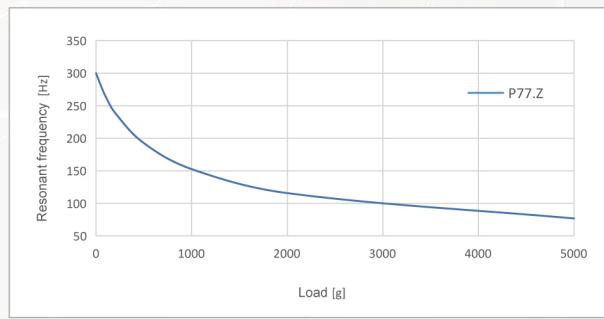
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|----------------------------|-------------------------|
| ➤ Microscopic imaging | ➤ Surface measurement |
| ➤ Interference measurement | ➤ Precision positioning |
| ➤ Phase shifter | ➤ Optical capture |

Large aperture, large load high resonant frequency

P77 series piezo nanopositioning scanners are designed with an excellent flexible hinge guide mechanism, optimized by finite element analysis, with stiffness of 8N/ μ m and no-load resonance frequency of 300Hz.

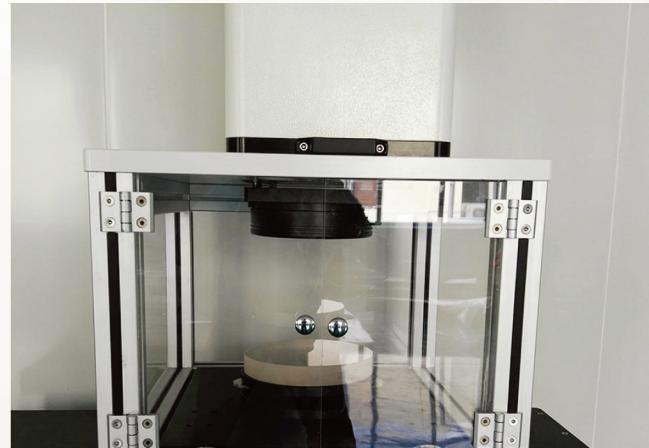
The 106mm aperture of the piezo scanner is the first choice for optical phase shifters. This product has been widely used in laser plane interferometers and other devices.

Frequency vs Loading



Example of application

P77 piezo phase shifter is used in modern interferometers to greatly improve the measurement accuracy of the interferometer.



Recommend Controllers

E00/E01	XE-709	E72
1 channel Computer software, Analog input, Rotary knob Open/closed loop Ave. power: 35W/7W	1 channel Computer software, Analog input Open/closed loop Ave. power: 15W	1 channel Computer software, Analog input Open/closed loop Ave. power: 6W

Technical data

Models	End with S: Closed-loop End with K: Open-loop	P77.Z20S P77.Z20K	Units
Active axes		Z	
Nominal travel range(0~120V)		14	$\mu\text{m}\pm20\%$
Max travel range(-20~150V)		20	$\mu\text{m}\pm20\%$
Integrated sensor		SGS/-	
Aperture		$\varnothing 106$	mm
Closed/open loop resolution		1/0.5	nm
Closed-loop linearity		0.2/-	%F.S.
Repeatability		0.1/-	%F.S.
Pitch/Yaw/Roll		<10	μrad
Push/pull force capacity		120/50	N
Stiffness in motion direction		8	$\text{N}/\mu\text{m}\pm20\%$
Unloaded resonant frequency		300	$\text{Hz}\pm20\%$
Closed/open-loop unloaded Step time		5/2.5	ms $\pm20\%$
Closed-loop Unloaded operating frequency	10% Travel	60	$\text{Hz}\pm20\%$
	100% Travel	10	
Load capacity		5	kg
Electrical capacitance		5.4	$\mu\text{F}\pm20\%$
Material		Aluminum	
Mass		1600	g $\pm5\%$

The technical data are measured by Coremorrow E00 series piezo controller.

Drawings

P77.Z

