

Radial expansion | H01.20

Piezo Fiber Stretchers



Characteristics >>

- Radial stroke is 18.5μm
- Resolution of the 1nm
- Radial expansion
- Large displacement

Applications >>

- Fiber stretching
- Fiber optic sensor
- Optical fiber intensity, optical wavelength adjustment

Introduction

H01 piezo fiber stretcher is designed for fiber stretching applications. Its principle is to cause the hinge structure outward expansion by the action of three piezo stacks placed at 120 degrees thereby stretching the optical fiber wound in the outer diameter groove.



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Technical Data >>

Type		H01.20	Units
Motion		Radial expansion	
Travel range (0~120V)	Radial	15	$\mu\text{m}\pm 20\%$
	Fiber/circle	80	
Travel range (0~150V)	Radial	18.5	$\mu\text{m}\pm 20\%$, Cal.
	Fiber/circle	100	
Resolution	Radial	1	nm $\pm 20\%$, Cal.
	Fiber/circle	5	
Radial max. blocking force		600	N
Unloaded resonant frequency		3975	Hz $\pm 20\%$
Stiffness		30	N/ $\mu\text{m}\pm 20\%$
El. capacitance		5.4	$\mu\text{F}\pm 20\%$
Operating temperature ^[1]		-20~80	°C
Material		Steel	
Mass		280	g $\pm 5\%$
Size		Ø80×19.5	mm
Cable length ^[2]		1.5	m $\pm 10\text{mm}$

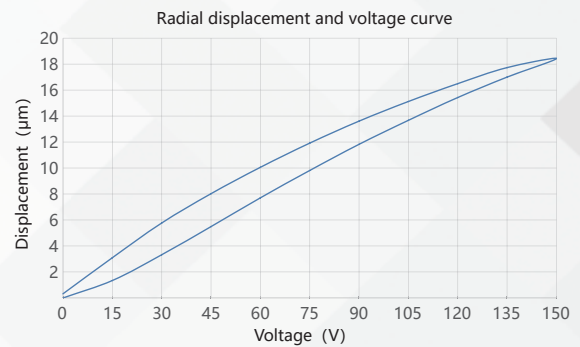
Note: Max driving voltage -20~150V, recommended voltage 0~120V for long-term and high-reliable operation. Technical data is measured by CoreMorrow E00/E01 series piezo controller.

[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

[2] Custom cable length and connector is available.

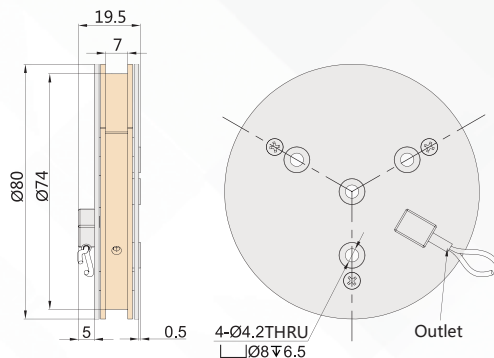
Note: The parallelism of the moving platform is about 20 μm , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

Curves >>



Disclaimer: The data here are typical, only for reference. Some variations will occur for different batch.

Drawing >>



Recommended Controllers >>



E01.C1
 LCD, membrane button, up to 625mA
 RS-232/RS-422/USB interface
 Software secondary development



E53.C
 Small size, 60mA
 RS-232/RS-422/USB interface
 Software secondary development



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