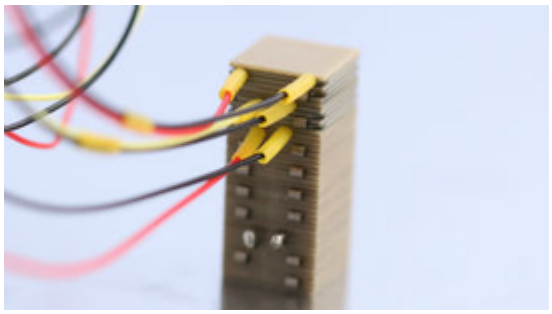
NAC3403-H7.4



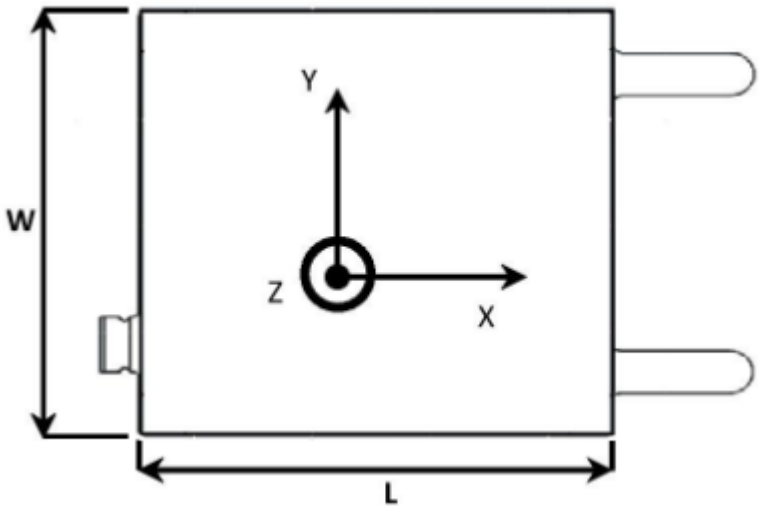
The Noliac shear stack NAC3403-H7.4 features motion in the X/Y/Z-axis. This product is ideal for stick-slip and nanopositioning applications. NAC3403-H7.4 measures 10x10 mm with a height of 7.4 mm and provides free stroke of 1.5/1.5/1.5 µm and a capacitance of 3.3/3.3/21.4 nF. End plates on top and bottom are included. The shear stack has ultra thin electrodes made of standard steel as standard.

SPECIFICATIONS

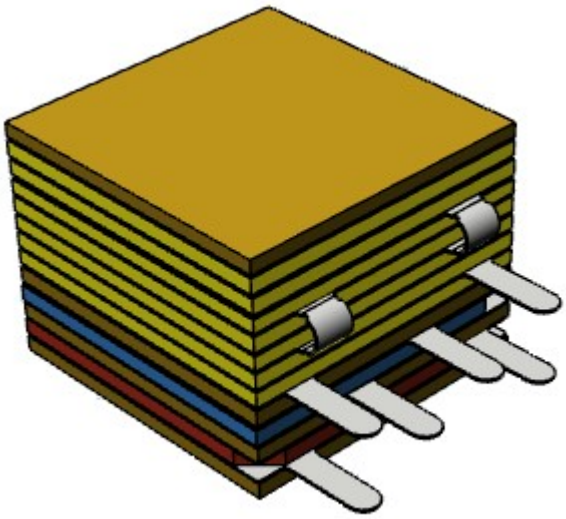
Attributes	Value	Tolerance
Chamfers	X/Y/Z 0.00	
Length / outer diameter	10 mm	+/-0.20 mm
Width / inner diameter	10 mm	+/-0.20 mm
Height	7.4 mm	Whichever is largest: 2% or +/-0.2 mm
Operating voltage, max.	± 320 V	
Free stroke, from -Vmax to +Vmax	1.5 µm	+/- 20%
Capacitance	3.3/3.3/21.4 nF	+/- 20%
Maximum operating temperature	150 °C	
Material	NCE51	
Unloaded resonance frequency	150/150/150 kHz	
Electrodes	-	
Remarks	-	

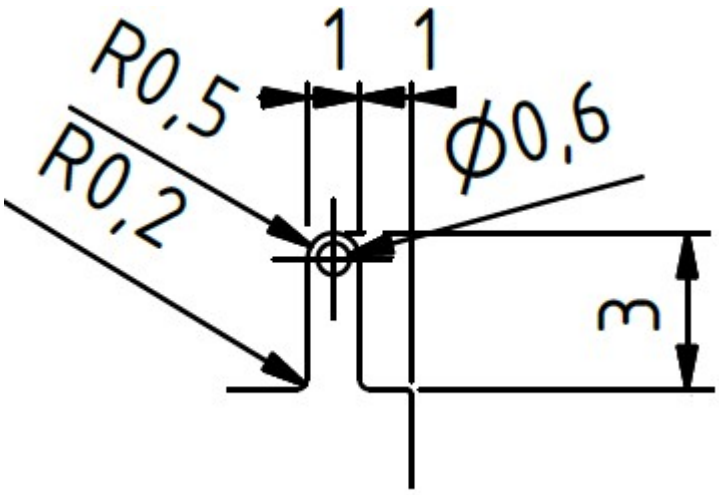
DRAWINGS

Shear stack principle



3D drawing




1
1
R0,5
R0,2
ϕ0,6
m

MOUNT AND CONNECT

Colour code

- Isolation plate: yellow
- Shear plate actuators X-motion: red
- Shear plate actuators Y-motion: blue
- Shear plate actuators Z-motion: clear yellow
- Electrodes: grey

End plates

As standard, the shear stacks are enclosed with 2 isolation end plates made from non-polarized piezoelectric material.

Please contact us for other options. Read more about Noliac end plates.

Operating voltage

From -Vmax = -320 V to +Vmax = +320 V for X, Y and Z motions

Free stroke

Free stroke have been measured at room temperature

Operating temperature

Standard operating temperature from -25 °C to 85 °C

Capacitance

Capacitance is measured at 1 Vpp, 1kHz

WIRES

As standard, the shear stacks are delivered with these wires:

- BS 3G 210 TYPE A, 28 AWG (red for X-motion, blue for Y-motion and yellow for Z-motion)

The types and colours of the wires can be changed upon request.

Please contact us for other wiring options.

Electrodes
As standard, the shear stacks are delivered with with these electrodes:

- Stainless steel 1.4301

Please contact us for other electrode options.

Read more under Mount and connect.