

# X axis | N31.X10E/K

## Linear Piezo Motor



### Characteristics >>

- Large blocking force
- Automatic zero position after power-on
- Automatic return after accidental touch for servo version
- Optional grating sensor
- Wear-resistant material, vacuum non-magnetic compatible

### Applications >>

- Wafer inspection
- Profilometry
- Nano lithography
- Nanotechnology and metrology
- Microscopy
- Semiconductor technology
- Surface measurement technique
- Motion in strong magnetic fields or vacuum

## Introduction

N31.X10E/K linear piezoelectric motor adopts stick-slip principle, and piezo step direct drive. The linear motion range can be to 10mm, and the resolution can reach sub-nanometer level. Optional servo sensors (incremental encoder) is for high positioning accuracy and motion platform are available.



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**Technical Data >>**

Type	S-Closed loop K-Open loop	N31.X10E	N31.X10K	Units
Active axes		X	X	
Integrated sensor		Incremental encoder	-	
Travel range		10 or ±5	10 or ±5	mm±0.5mm
Speed limit		5	5	mm/s
Resolution		< 50	1	nm
Linearity		1	-	µm
Repeatability		0.5	-	µm
Push/pull force(Active)		30	30	N
Holding force(Passivity)		40	40	N
Max load (horizontal direction)		5	5	kg
Operating temperature <sup>[1]</sup>		0~50	0~50	°C
Mass with cable		550	550	g±5%
Material		Al, Steel	Al, Steel	
Size(L×W×H)		80×55×30	80×55×30	mm
Cable length <sup>[2]</sup>		1.5	1.5	m±10mm
Sensor/voltage connector		-	-	
Recommended controller		E71.D4E/C4K-H		

Remarks:

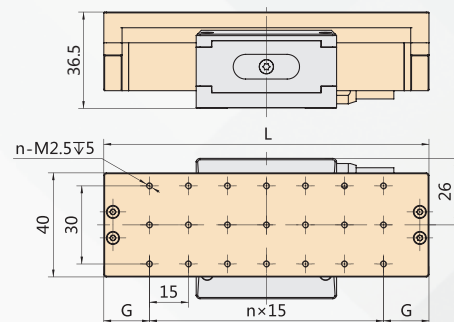
[1] Custom is available.

[2] Custom cable length and connector are available.

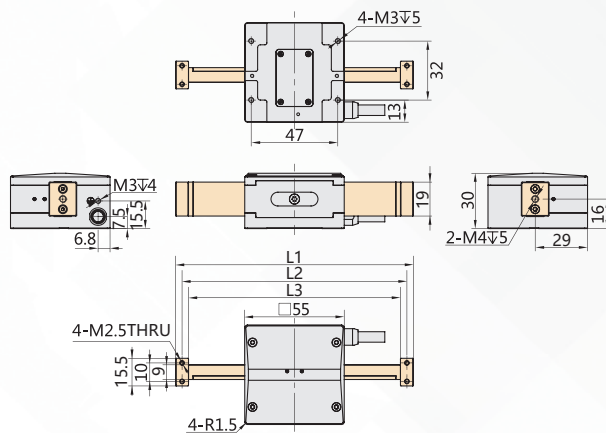
**Optional Motion Platform >>**

**Drawing(With moving surface) >>**

Types	L	G	n×15	n×M2.5
N31.X10E/K	80	10	4×15	15×M2.5


**Drawing >>**

Types	L	L1	L2
N31.X10E/K	80	73	66


**Recommended Controller >>**

**E71.D4E-H/E71.C4K-H**

4 channels output, digital control

USB, RS-422, RS-232 communication

Ave.current to 75mA


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