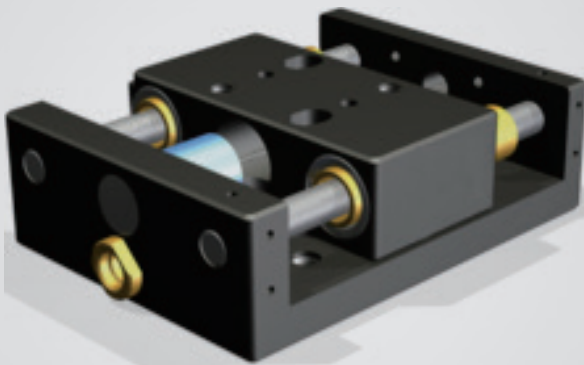


# X axis | MN30-18mm

## Linear Piezo Motor



### Characteristics >>

- Piezo drive
- Small size
- Nanometer resolution
- 18mm travel
- Optional closed-loop version, vacuum version

### Applications >>

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

## Introduction

MN30-18mm linear piezo motor adopts piezo step direct drive, and features long travel and small size. Optional servo sensors (incremental encoder) is for high positioning accuracy and motion platform are available.



**Harbin Core Tomorrow Science & Technology Co., Ltd.**

Tel: +86-451-86268790

Email: [info@coremorrow.com](mailto:info@coremorrow.com)

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin

Fax: +86-451-86267847

Web: [www.coremorrow.com](http://www.coremorrow.com)

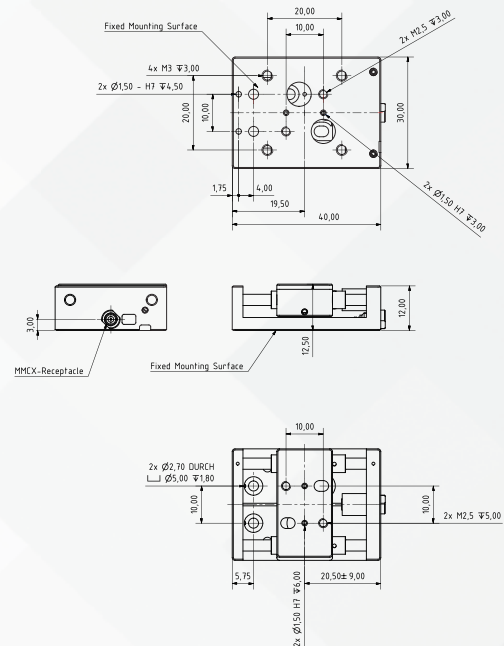
Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai

**Technical Data >>**

Type	MN30-18mm	Units
Width	40	mm
Height	12.5	mm
Depth	30	mm
Travel	18	mm
Speed	1.2	mm/s
Mass	38	g
<b>Load capacity</b>		
Torque Mx	5	Ncm
Torque My	5	Ncm
Torque Mz	5	Ncm
Blocking force Fx	4.5	N
Fy, Fz	30	N
<b>Resolution (cal.)</b>		
Single step	~450	nm
1/16 step	~30	nm
1/64 step	~10	nm
1/2 step	~250	nm
Double steps	~900	nm
<b>Guiding accuracy(unloaded)</b>		
Yaw angle	20	arc sec
Pitch angle	60	arc sec
Vertical deviation	1	μm
Lateral deviation	2	μm

Note: Closed-loop version is available, with larger size. The closed-loop accuracy is up to  $\pm 1\mu\text{m/m}$ . The frequency is up to 400kHz.

Communication via RS-422 port. Operating temperature is 0~55°C. 2-axis or 3-axis motion versions are available

**Drawing(without sensor) >>**

**Optional Sensor >>**

**Recommended Controllers >>**


**E53.D1E/C1K-J**  
 Software control  
 suitable for 1-axis stage  
 Open loop or servo control



**E71.D3E/C3K-J**  
 Software control  
 suitable for 2 or 3-axis stage  
 Open loop or servo control



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