

# EM4X-S-1

## EDGE-4X Motor

### ORDERING INFORMATION

**Part Number:** EM4X-S-1-0

EM4X-S-1-0 (50mm FPC)

EM4X-S-1-10 (100mm FPC)

**Part Number:** EM4X-V-1-0

EDGE-4X Vacuum Rated Motor

### RELATED PRODUCTS/ ACCESSORIES

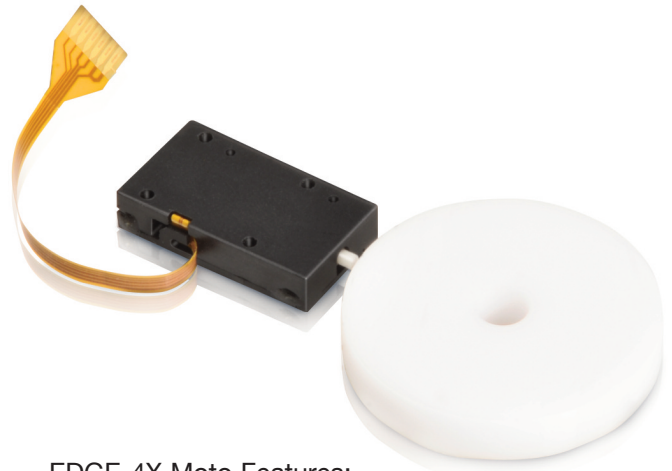
**Part Number:** XCD-E4X-BD1-01  
Controller/Driver for 1 EDGE-4X Motor

**Part Number:** XCD-E4X-BD2-01  
Controller/Driver for 2 EDGE-4X  
Motors in parallel

### Application Recommendations

The EDGE-4X motor expands the Nanomotion's product line of low voltage piezo motors, bringing 4 times the force of the Edge motor. The EDGE-4X provides up to 1.3N force with unlimited travel for linear or rotary applications. Continuing to optimize size, weight and power, the EDGE-4X is well suited to:

- Auto Focus & Zoom Requirements
- Pan & Tilt Gimbal Drive
- Optical Image Stabilization Modules

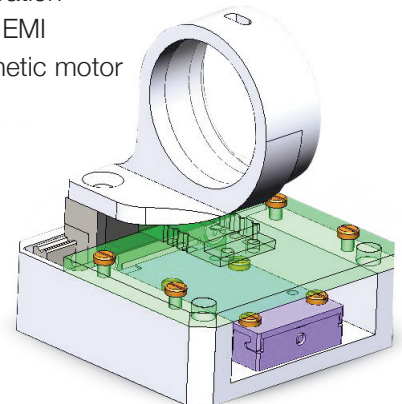


### Product Description

The EDGE-4X motor offers a small footprint for unlimited linear and rotary motion. The EDGE-4X provides 1.3N max force and is capable of achieving 200mm/sec maximum velocity. The EDGE-4X can easily adapt to numerous bearing structures to provide high resolution motion control for a wide range of applications in defense optronics, medical and semiconductor markets.

#### EDGE-4X Moto Features:

- Small operating footprint
- Wide dynamic velocity range
- Zero backlash
- Holds position at power off
- Silent operation
- Negligible EMI
- Non-magnetic motor



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# EDGE-4X Motor

## TECHNICAL SPECIFICATIONS

### Mechanical

Weight/Mass: 2.2g

Dimensions: 22.8 x 12.4 x 4.3 mm

### DYNAMIC

Driving Force (max): 1.3N

Velocity (max): 200mm/sec

### ENVIRONMENTAL

Operation Temperature:

-40 °C to 80 °C

Vibrations: 10g rms

Shock: 350g, 0.8ms half sine

### ELECTRICAL

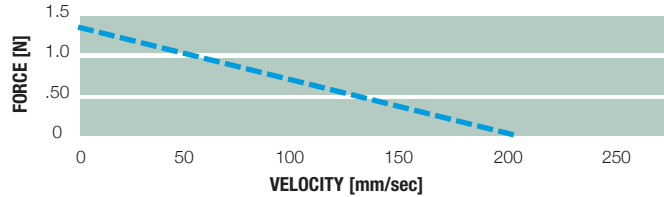
Motor Voltage (max): 14VAC

Motor Current (max): 250mA AC

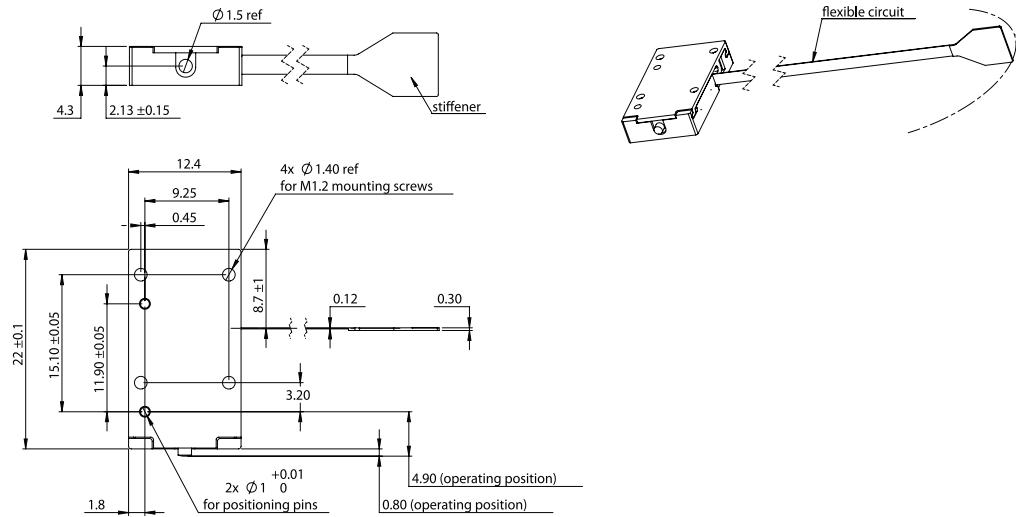
\*5V DC Drive Circuitry Available

## VELOCITY/LOAD CHARACTERISTICS

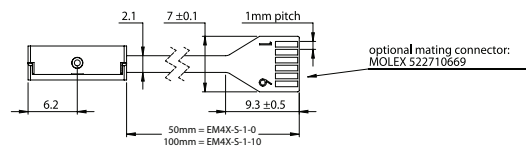
### Load/Speed Characteristics



## MECHANICAL DRAWINGS AND INTERFACE



## ELECTRICAL INTERFACE



pin number	pin name	description
1	NTC OUT	TERMINAL RESISTOR
2	NTC IN	TERMINAL RESISTOR
3	P2	NM MOTOR
4	P1	NM MOTOR
5	COM	NM MOTOR COMMON
5	COM	NM MOTOR COMMON

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