

# EM1-S-0

## EDGE Motor

### ORDERING INFORMATION

**Part Number:** EM1-S-0  
EDGE Standard Motor

**Part Number:** EM1-V-0  
EDGE-Vacuum Rated Motor

### RELATED PRODUCTS/ ACCESSORIES

**Part Number:** EAE00009  
Nm Asic Blank

**Part Number:** ASIC-1E-00  
ASIC Edge X 1 Driver Component  
Open Loop

**Part Number:** ASIC-1E-BD-00  
Asic Edge X 1  
Driver Board Open Loop

**Part Number:** EDGE150001-01  
ASIC-1e-00 Motherboard

**Part Number:** ASIC-E2-00  
Asic Edge X 2 Dual Axis  
Controller/Driver

**Part Number:** ASIC-E2-BD-00  
ASIC Edge X 2 Dual Axis  
Controller/Driver Board Closed Loop

**Part Number:** XCD-EDGE-BD-00  
Xcd Edge Controller/Driver Board

**Part Number:** XCDE150100-00  
XCD-EDGE-BD-00 Motherboard

**Part Number:** XCD-EVAL-EDGE  
XCD Eval Kit W/Edge Stage

**Part Number:** EDGE-EVAL-LS-RE  
EDGE Evaluation Kit  
L/Slide & 0.1um Encoder

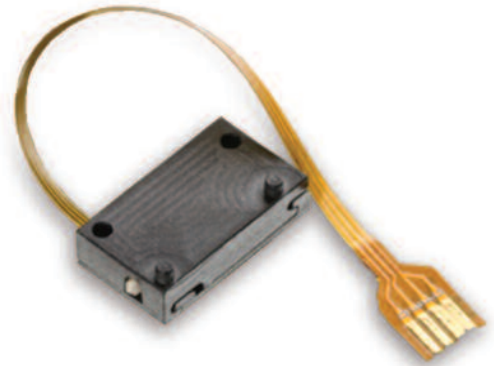
**Part Number:** EDGE-EVAL-LS-0E  
EDGE Evaluation Kit L/Slide -  
Open Loop

**Part Number:** EDGE-EVAL-RS-0E  
EDGE Evaluation Kit Rotary Slide -  
Open Loop

### Application Recommendations

The EDGE motor is well suitable for a large range of applications, excelling in those where weight, form factor and power consumption are of prominence, such as:

- NUC Shutters
- Shutter & Aperture Control Components
- Filter Changer Components
- Auto Focus Modules
- Unattended Ground Sensor Modules
- Optical Image Stabilization Modules
- Mirrors Positioning

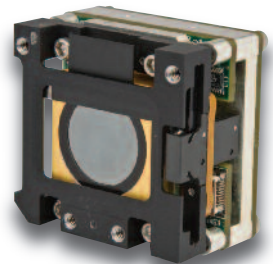


### Product Description

Nanomotion's Edge motor is the smallest industrial motor of its kind available in the marketplace today. Providing unlimited linear or rotary motion, the Edge motor offers extensive opportunities in applications that suit a wide range of industries. The Edge motor works with a uniquely designed, compact ASIC-based driver, and can be operated with any servo controller. The Edge can be easily integrated into most bearing structures, and is ideal for mass production opportunities.

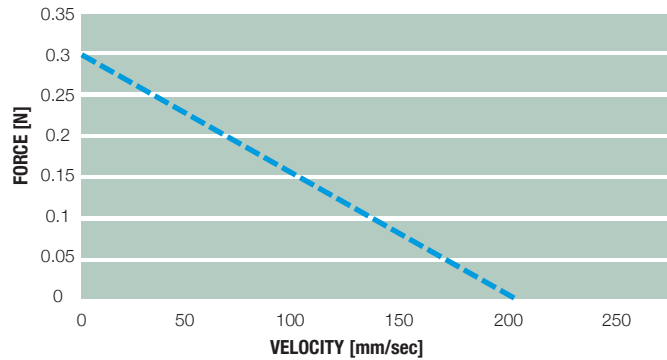
### Edge Motor Key Features:

- Extremely small dimensions
- Excellent move and settle characteristics
- Mil-rated
- ASIC drive and control
- Wide dynamic velocity range
- High resolution
- Zero backlash
- Holds position at power off
- Silent operation
- Negligible EMI



Example of EDGE Motor/Shutter

## VELOCITY/LOAD CHARACTERISTICS



### TECHNICAL SPECIFICATIONS

Mechanical  
 Weight/Mass: 0.55 gr  
 Dimensions: 13.5 x 7.6 x 3.15 mm

### DYNAMIC

Driving Force (max): 0.32N  
 Velocity (max): 200 mm/sec

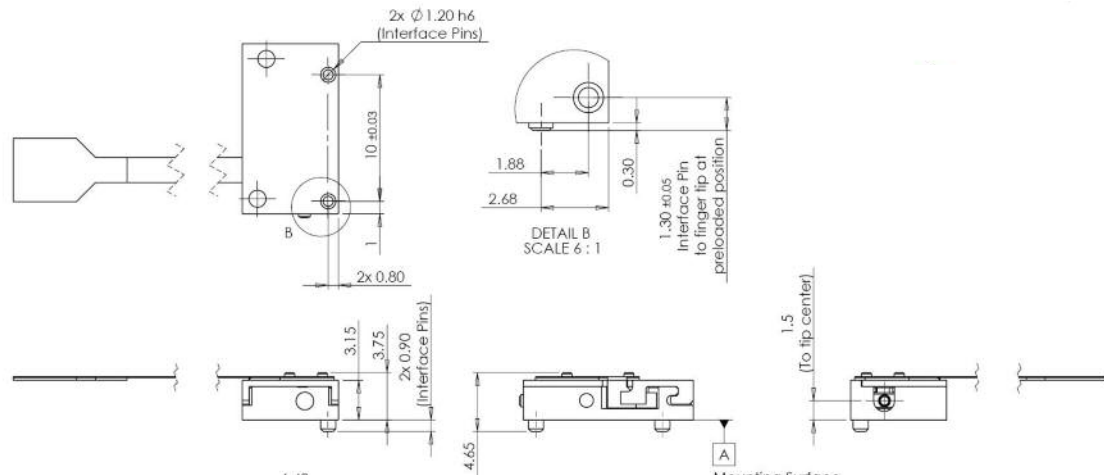
### ENVIRONMENTAL

Operation Temperature:  
 -40 °C ÷ 80 °C  
 Vibrations: 10 g rms  
 Shock: 350 g

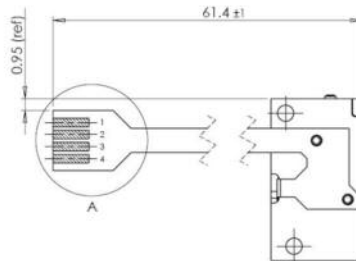
### ELECTRICAL

Motor Voltage (max):  
 8.5 ÷ 11 V AC  
 Motor Current (max):  
 130 mA AC

## MECHANICAL DRAWINGS AND INTERFACE



## ELECTRICAL INTERFACE



pin number	pin name	description
1	P_1	NM MOTOR PHASE 1
2	P_2	NM MOTOR PHASE 2
3, 4	COM	NM MOTOR COMMON

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