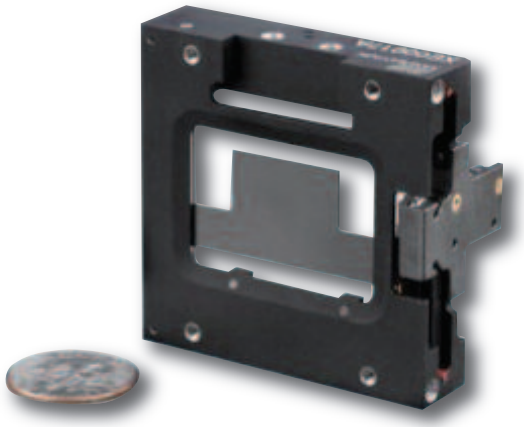
NANOMOTION
A Johnson Electric Company

S787 NUC Shutter

Application Recommendations

- NUC Shutters for thermal sensors



ORDERING INFORMATION

Part Number: S787ARSHTR-00

RELATED PRODUCTS/ ACCESSORIES

Part Number: ASIC-1E-01

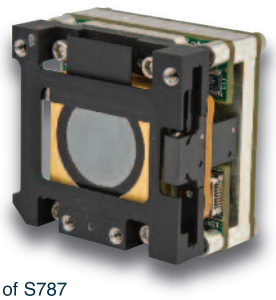
ASIC Drive/Control Component for S787 Shutter

Product Description

Nanomotion's S787 series of NUC shutter is designed to meet the most challenging operating conditions of infrared imaging systems. The S787 shutter operates linearly with a direct drive EDGE motor, providing the lightest weight configuration while maintaining the closest proximity to the FPA.

The S787 series is provided with a 17mm x 15mm leaf that is capable of moving 15mm in 100mseconds. The moving blade is supported by the Edge – Actuator bearing structure on one side and an outboard shaft bearing to eliminate any blade deflection and vibration

Standard configurations utilize Nanomotion's Edge motor with a miniature position sensor, integral to the shutter assembly, for closed loop operation. The shutter is supported by our ASIC that closes the position loop and serves as a drive & control.

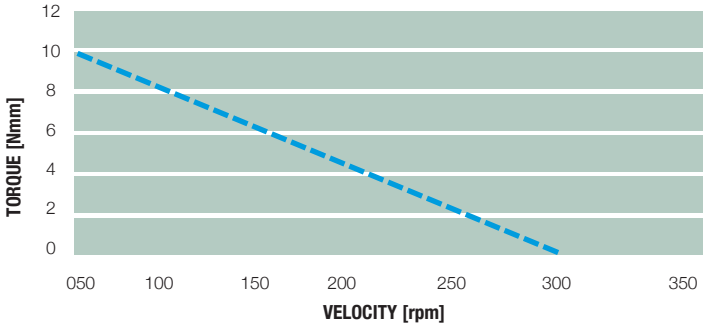


Example of S787 NUC Shutter

NANOMOTION
A Johnson Electric Company

S787 NUC Shutter

VELOCITY/LOAD CHARACTERISTICS



TECHNICAL SPECIFICATIONS

Mechanical
Weight: 15 gr
Dimensions:
Aperture area: 14.7 x 17.0 mm
Moving mass of 1.5 gr
Back working distance: 2.2 mm

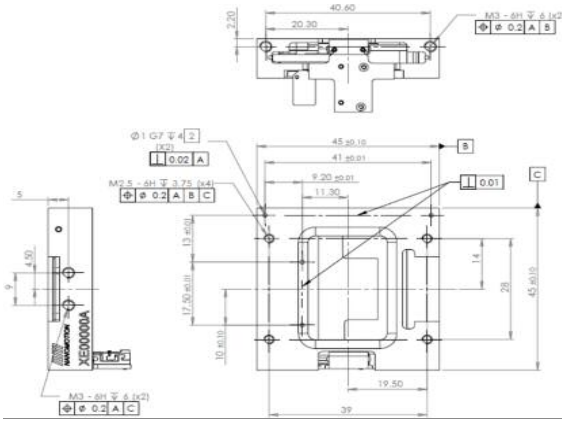
PERFORMANCE

Stroke time: 150msec
Operation from -40 °C to 70 °C
Vibration: 10 g rms (holds position without power)
Shock: 300 g, any orientation
Position holding @ power off: 10g linear acceleration
MTBF: 50,000 hours

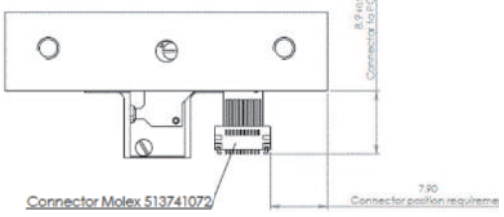
ELECTRICAL

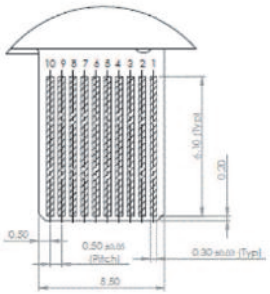
Drive voltage: 4.2V
Power consumption at idle:
Max: 500mW
Idle: 8mW (keeps position)

MECHANICAL DRAWINGS AND INTERFACE



ELECTRICAL INTERFACE





pin number	pin namer	description
1	NC	DI SCONNECTED
2	SC_1	PR1 COLLECTOR
3	GND	GROUND
4	SA_1	PR1 ANODE LED
5	COM	NM MOTOR COMMON
6	P_2	MN MOTOR PHASE 2
7	P_1	NM MOTOR PHASE 1
8	SA 2	PR2 ANODE LED
9	GND	GROUND
10	SC_2	PR2 COLLECTOR

Nanomotion Ltd.
Worldwide Headquarters

Mordot HaCarmel Industrial Park
Yokneam 20692 Israel
t: +972 73 2498000
f: +972 73 2498099
e: nano@nanomotion.com

Nanomotion Inc.
U.S. Headquarters

1 Comac Loop, Suite 14B2
Ronkonkoma, New York 11779
t: (800) 821-6266
t: (631) 585-3000
f: (631) 585-1947
e: nanoUS@nanomotion.com

NANOMOTION
A Johnson Electric Company