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.

**Application Recommendations**

- NUC Shutters for thermal sensors

**Product Description**

Example of S787 NUC Shutter
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)

VELOCITY/LOAD CHARACTERISTICS

MECHANICAL DRAWINGS AND INTERFACE

ELECTRICAL INTERFACE

pin number | pin name | description
--- | --- | ---
1 | NC | DI SCOOKNECTED
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

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