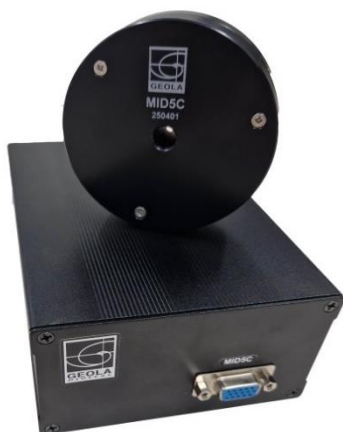


Motorized Iris Diaphragm

The MID-5C DATASHEET, June 2025



Motorized mechanical diaphragm MID-5C



The MID-5C is a high-precision Motorized Iris Diaphragm featuring an adjustable square aperture, controlled via an intuitive PC-based graphical user interface (GUI). Its **unique design** ensures that the metallic blades maintain perfect **on-axis centering** relative to an internal hole—which can optionally be configured with an **SM05-threaded mount**. Even when adjusted from **0 to 5 mm**, the square aperture **remains perfectly centered** within the round external diaphragm. The blades are black anodized to minimize unwanted reflections, ensuring optimal performance. With an aperture adjustment **precision of $<0.5 \mu\text{m}$** and **repeatability of $<1 \mu\text{m}$** across the entire tuning range, the MID-5C delivers **exceptional accuracy**. It is designed for seamless integration into both stand-alone setups and 30 mm cage systems (e.g., Thorlabs).

Diaphragm Specifications

Specification	Value
Diaphragm adjustment range	0 to 5 mm
Microstep Size (Default Resolution)	1 μm
Built-in Controller	No
Recommended Controller	GSMC-E Recommended
Repeatability	$< 1 \mu\text{m}$
Precision	$< 0.4 \mu\text{m}$
Closing speed (max to min)	$\sim 3 \text{ sec}$
Default Resolution	1/512 of a step
Mechanical Drive System	Lead screw
Axes of Motion	1
Mounting Interface	M3 threaded holes
Optics (objective) mounting interface	M25 x 0.5
Operating Temperature Range	-35 to 70 °C
Vacuum Compatible	No
RoHS Compliant	Yes
CE Compliant	Yes

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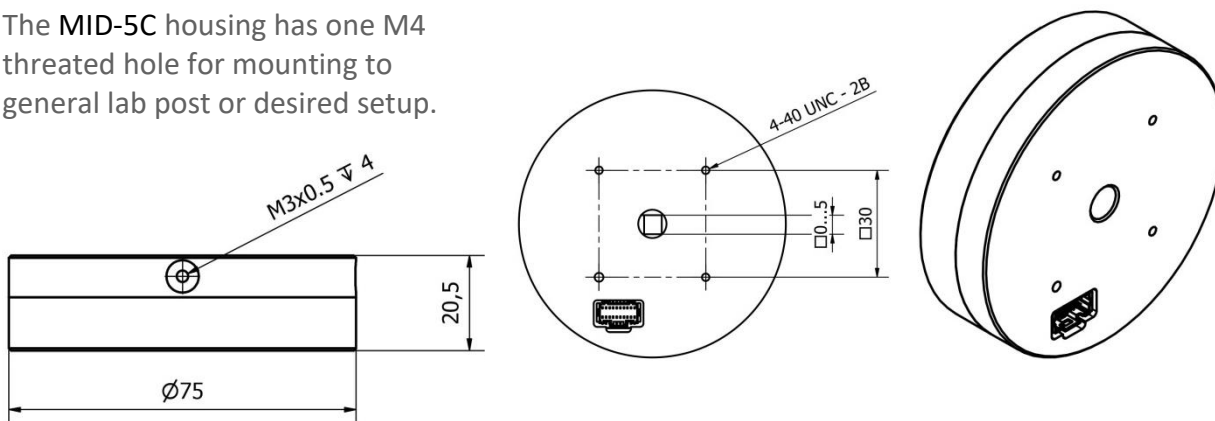
Diaphragm Features

- **Always square** and axis-centered!
- Compatible with 30 mm cage system
- Motorized adjustment range - **0 to 5 mm**
- Adjustment **precision** **<0.5 μm** within full adjustment range
- Adjustment **repeatability** **<1 μm** within full adjustment range
- Housing contains **SM05-threaded** mount for mounting an external optics (**optional**)
- **USB** connection interface for PC

Dimensions

The MID-5C housing

The MID-5C housing has one M4 threaded hole for mounting to general lab post or desired setup.



The GSMC-E Controller

