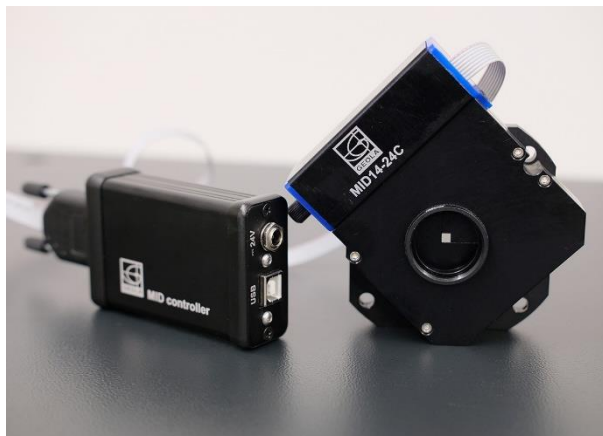


Motorized Iris Diaphragm

The MID14C DATASHEET, June 2025



Motorized Iris Diaphragm MID14C



The MID14C is precise motorized iris diaphragm controlled via PC and intuitive graphic user interface (GUI). Due to the unique design, an aluminum blades forming square diaphragm always remains centered about an “optical axis” including internal SM1–threaded hole. Even while tuned from 0 to 14 mm size, the diaphragm always maintains the centricity of squared aperture to round external diaphragm. The blades are black to reduce unwanted reflections. The MID14C motorized iris diaphragm adjustment precision is $\sim 10 \mu\text{m}$ per min step.

Square Iris diaphragm is also designed to be compatible for both Stand-alone and 30mm standard (for example Thorlabs) Cage System.

Diaphragm Specifications

| Specification | Value |
|---------------------------------------|------------------------------|
| Microstep Size (Default Resolution) | 10 μm |
| Built-in Controller | No |
| Controller supplied | GSMC |
| Repeatability | $\sim 10 \mu\text{m}$ |
| Backlash | $< 30 \mu\text{m}$ |
| Encoder Type | None |
| Closing Speed (Max to Min) | 11 sec |
| Guide Type | Plain bearing |
| Motor Steps Per Revolution | 24 |
| Default Resolution | 1/64 of a step |
| Mechanical Drive System | Lead screw |
| Limit or Home Sensing | Optical switch |
| Axes of Motion | 1 |
| Mounting Interface | M3 threaded holes |
| Optics (objective) Mounting Interface | M25 x 0.5 |
| Operating Temperature Range | -35 to 70 $^{\circ}\text{C}$ |
| Vacuum Compatible | No |
| RoHS Compliant | Yes |
| CE Compliant | Yes |

Motorized Iris Diaphragm

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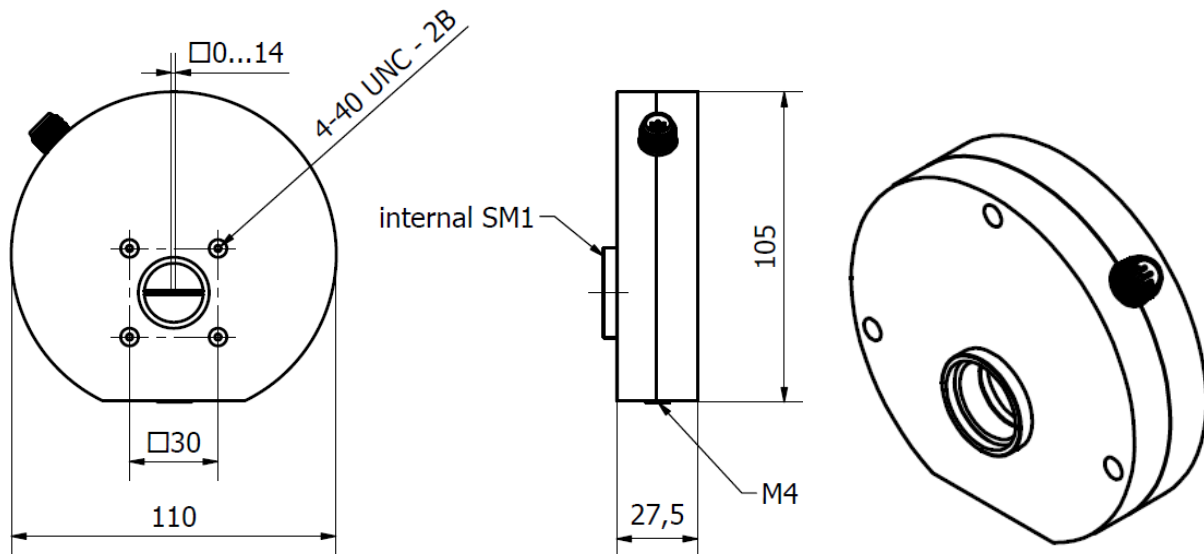


Diaphragm Features

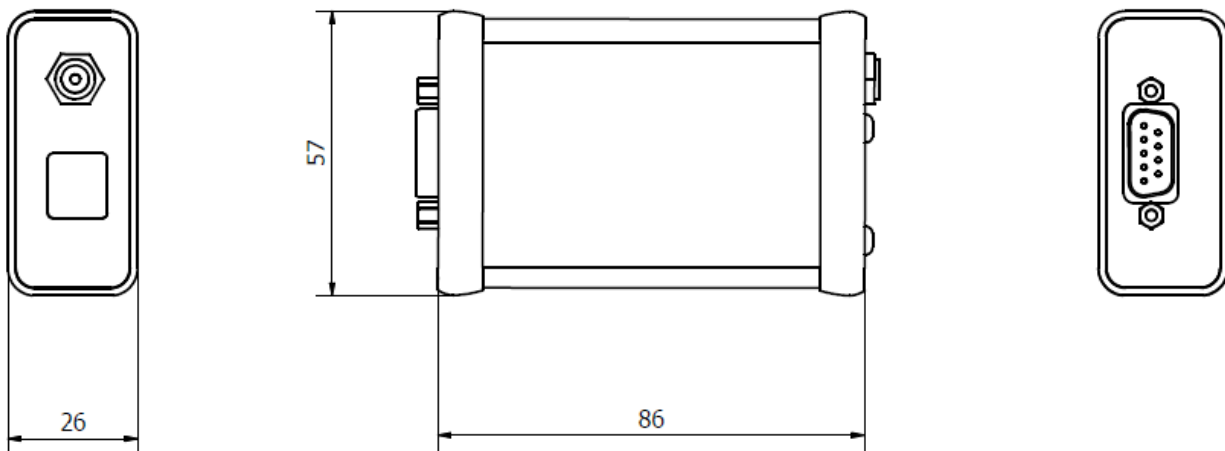
- Always **square** and **centered**!
- **Compatible** with standard **30mm optical cage system**
- Motorized adjustment ranges from **0 to 14 mm**
- Aperture adjustment **precision ~10 µm** within full adjustment range (repeatability)
- Housing contains **SM1-threaded** hole for mounting external optics
- **USB** connection interface for easy PC control
- **A bigger aperture size is available** on request.

Dimensions

The updated MID14C housing has one M4 threaded hole for mounting to general lab post or desired setup.



The GSMC Controller for MID14C diaphragm



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