

mirao™ 52-e

Electromagnetic Deformable Mirror

Technical Specifications

mirao's patented technology, plug-n-play installation, built-in protection (voltage clipping/temperature) and powerful API for C/C++ programmers make it the ideal choice for researchers developing innovative ophthalmic applications using adaptive optics. Even more, mirao is optimized to function with our HASO™4 first wavefront sensors and WaveTune™ control software.

Package contents:

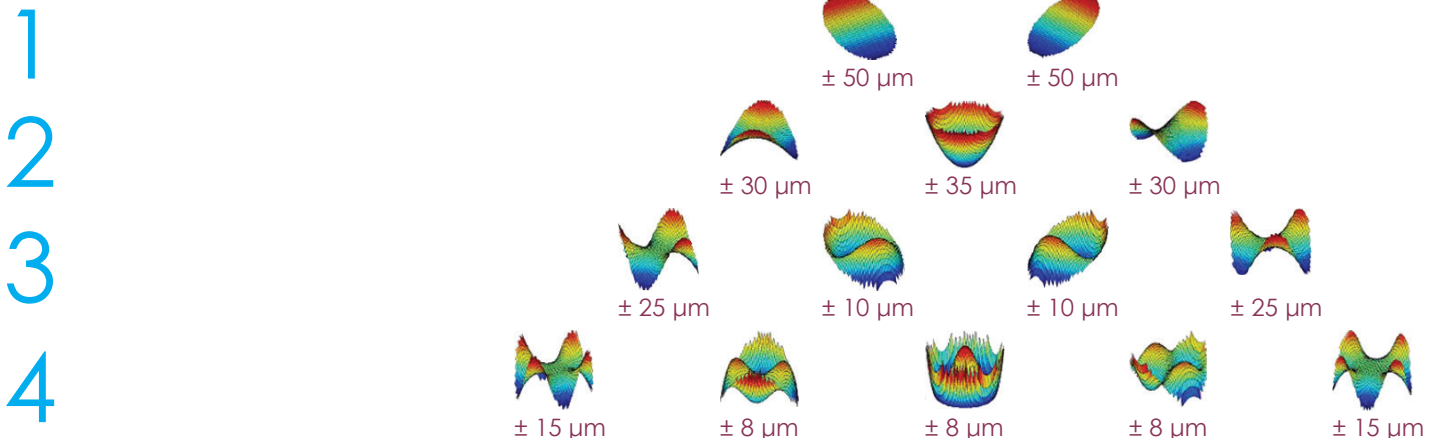
- deformable mirror
- plug-n-play electronic control unit and connection cables
- CD-ROM: mirao 52-e API & examples and demo application
- user manual

Main specifications

Number of actuators	52
Maximum generated wavefront (PV)	50 μm (tilt)
Surface quality (RMS active flat)	0.01 μm
Wavefront quality (RMS active flat)	0.02 μm
Integrated tip/tilt correction	Yes
Spatial frequency correction	Zernike orders up to 6
Effective diameter	15 mm
Linearity	> 95%
Hysteresis	< 2%
Actuator input voltage	$\pm 1\text{V}$ max in each of the 52 channels Sum of absolute voltages < 25 V
Coatings	Protected silver
Power consumption	50 W max.
Dimensions / weight (mirror unit only)	64 x 64 x 23 mm / 490 g
Connectivity /Compatibility	USB 2.0 / Windows® XP, 7 (x32)

Zernike order

Maximum peak-to-valley (PV) wavefront generation



Zernike mode quality:

RMS residual wavefront error: max 0.020 μm

(generation of any Zernike mode of order <5 with an amplitude set at 20% of total dynamic range)



Adaptive optics,
Adapted to eye care