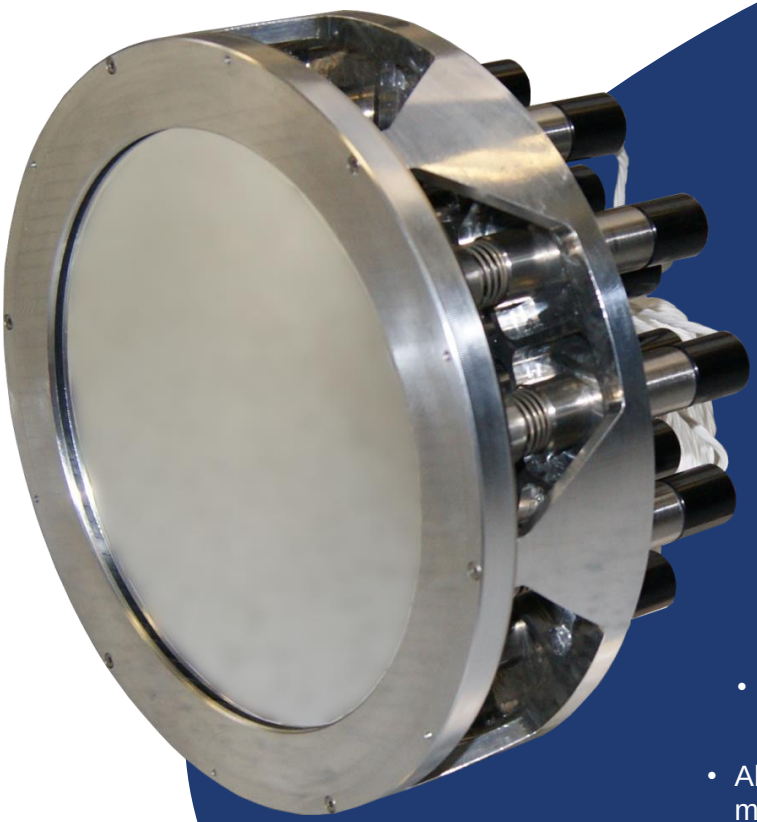
MD-AME SPACE

Deformable Mirror dedicated to wave-front correction in Space applications

MD-AME Space mirrors use µAME-Space* actuators for wave-front correction: the optical surface keeps its shape even when the system is unpowered.



- Improves imaging quality of spatial telescopes
- Very high long-term stability unpowered
  - Low voltage power supply: 24V
  - High redundancy thanks to its design
  - Correction possible with lost actuators.
- Low hysteresis (< 0.1%)
- Very low energy consumption
- Allows a reduction of optics manufacturing constraints
- Space qualified (embedded in satellites)
- Large correction amplitude

***µAME** : Micro Strength Actuator patented by ISP System*

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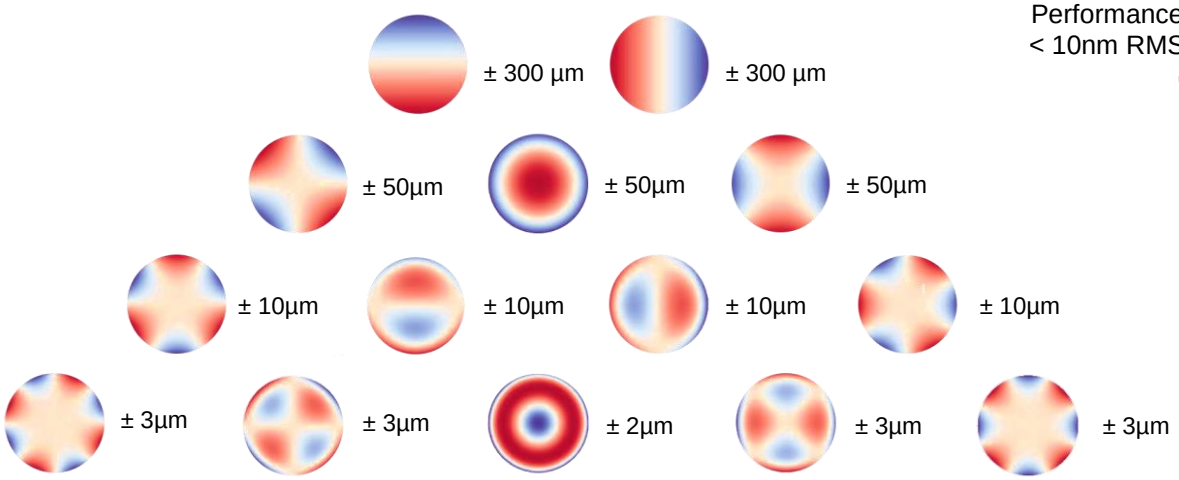
Example Features : MD85-C-31-SPACE

- Working pupil : Diameter 85 mm
- Metallic coating
- 31 actuators (µ-AME12-Space)
- Zernike order 4
- Size Ø180 x 100mm (excluding connectors)
- Weight 4kg

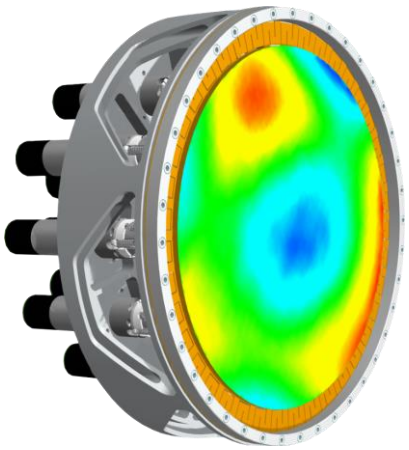
Zernike modes dynamics achievable, Peak to Valley (PtV)

Flattening Performance < 10nm RMS



PtV dynamics are related to a diameter 85mm circular aperture. Depending on the modes, the rms residual wave-front errors represent between 0.1% and 1% of the correction.

Custom solutions



Thanks to its experience and skills, ISP System offers services to design custom solutions in order to meet your requirements. The main customable features are :

- Actuators quantity and Pattern
- Achievable Zernike modes dynamics and order
- Aperture size and angle of incidence, from 0° to 45°
- Optical surface coating (wavelength, damage threshold, reflectivity…)
- Redundant Windings

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