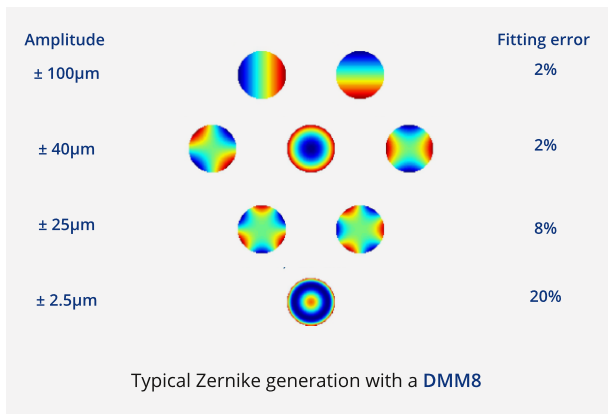


## ZERNIKE CORRECTION

Using **ALPAO DMM**, you can correct the first optical aberrations at large amplitude and with high precision.

**DMM** allow to use adaptive optics as never before. You can, for example, correct alignment errors, use the defocus capability for z-scan or correct large optical aberrations.



## SIMPLE CONTROL

Each control channel corresponds to Zernike. As simply as you would do an auto-focus, you can now do an auto-astigmatism or an auto-spherical.

Straightforward control of an **ALPAO DMM** results in very low residual wavefront errors.

## FEATURES AND BENEFITS

Typical **ALPAO DMM** characteristics:

- First resonance frequency ~200Hz
- Protected Silver coating
- No protective glass
- Surface roughness <15Å RMS
- LIDT for protected silver coating<sup>2</sup>: 880mj/cm<sup>2</sup> (@12ns, 10Hz, 1064nm) / 50W (CW @1064nm)

## INTERFACES

**ALPAO DMM** present a low-voltage and low power consumption embedded electronics, with a standard Ethernet interface (or USB using a dongle).

The control and monitoring are easily performed from any web browser. A simple API based on web-services is provided, it is compatible with any language and operating system. No drivers are required.

Thanks to their standard tube packaging, **ALPAO DMM** are easily integrated into systems.

## ALPAO DMM PERFORMANCES

		DMM7	DMM8
Sizing	Number of control channels	7	8
	Pupil diameter (mm)	13.5	
Quality	Active best flat (nm RMS)	30	
Tip-tilt correction	Stroke (µm PV, wavefront)	100	
	Fitting error (%) <sup>1</sup>	2	
Focus / astigmatism	Stroke (µm PV, wavefront)	40	
	Fitting error (%) <sup>1</sup>	2	
Spherical correction	Stroke (µm PV, wavefront)	n/a	2.5
	Fitting error (%) <sup>1</sup>	n/a	20
Speed	First resonance of the membrane (Hz)	200	150
Mechanical dimensions	Cylinder diameter (mm)	50	
	Cylinder length (mm)	50	

**DMM** can be customized according to your needs (larger stroke, pupil diameter, different coating, etc).

## PRELIMINARY

- ▶ [www.alpao.com](http://www.alpao.com)
- ▶ [contact@alpao.fr](mailto:contact@alpao.fr)
- ▶ +33 476 890 965

Note 1: Ratio of RMS after and before correction  
Note 2: technical note available upon request