



Single Axis Magnetic MEMS Mirror

OVERVIEW

The **sercalo** magnetic mirrors are used for optical beam steering and scanning. The mirrors provide a large reflective surface up to a diameter of 14.2 mm.

Using magnetic actuation, the deflection angle is set linearly with the driving current. The mirror is designed for DC operation as well as scanning up to 200 Hz.

FEATURES

- Large mirror
- Up to $\pm 5^\circ$ static
- Linear control
- Up to 200 Hz

APPLICATIONS

- Static and dynamic Optical Beam Steering
- Optical Scanner Device

ORDERING INFORMATION

MM142-1-AU	<i>Ø14.2mm; Gold surface finish</i>
MM142-1-AL	<i>Ø14.2mm; Aluminum surface finish</i>

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TECHNICAL SPECIFICATIONS MM142-1

	Unit	Min	Typ	Max
Max actuation Current	<i>mA</i>			200
Max actuation Power	<i>mW</i>			250
Coil Resistance	<i>Ohm</i>		6.5	
Surface finish	-		AU/AL	
Reflectivity (800-2000 nm)	%	95		
Mirror Size (<i>round</i>)	<i>mm</i>		14.2	
Mirror Flatness (ROC)	<i>m</i>	10		
Tilt Angle DC (mechanical)	°	± 5		
Tilt Angle Dynamic	°	± 5		
Resonance Frequency	<i>Hz</i>	160	180	
Angle of Incidence	°			45
Operating Temperature	°C	-5		85
Storage Temperature	°C	-40		85

