

## **Turbulence Phase Screens**



#### General

Phase Screens are transmitive or reflective optical elements whose surfaces present an encoded bidimensional aberration. The encoded phase map is a spatial distribution typical of atmospheric turbulence. A plane wavefront passing through emerges distorted according to the encoded aberrations.

## Specifications (1)

Substrate

Diameter: up to 100 mm (150 mm on demand)

Thickness: from 0.5 mm to 10 mm (up to 20 mm on demand)

Material: fused silica (high transmittance from 0.5 to 2.5 microns,

very low refractive index change versus wavelength)

**Encoded Phase Map** 

Data: phase Map data provided by customer.

Pixel size: from 10 x 10 microns<sup>2</sup> to more than 100 x 100 microns<sup>2</sup>

Encoded Phase Profile: etched multilevel profile (up to 512 levels)

OPD PTV: up to 10 microns (transmitive plates), up to 40 microns (reflective plates)

(1) Please contact us for other specifications.

## **Reflective Phase Screen**

Phase Screens are also available with aluminium or gold coating for reflective applications.

#### **Fields**

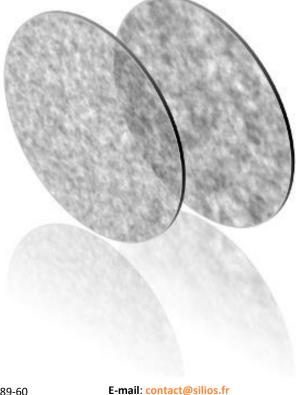
Astronomy
Laser propagation applications

## Category

Phase component

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# **USB Controlled Rotating Mount**



#### General

SILIOS proposes a versatile and low cost phase screen rotating mount for turbulence phase screens operation. The system is controlled by PC via any USB port. The full set of parameters (speed of rotation, step increments, ...) is tuneable thanks to a simple software interface. Smooth and perfectly controlled rotation can be achieved with the system.

## **Specifications**

Reduction ratio  Number of steps / rotation  Max number of micro-steps / rotation  Motor torque (N.m)  Motor size  Nema17, 42mm  Micro-step resolution  1, 2, 4, 8, 16, 32, 64, 128, 256  Guaranteed speed range (rpm)  Typical max speed (rpm)  Rotation (°)  Weight (Kg)  Useful aperture (mm)  Dimensions (mm)  Supply voltage  1, 200  1, 200  1, 200  1, 2, 4, 8, 16, 32, 64, 128, 256  1, 2, 4, 8, 16, 32, 64, 128, 256  1, 2, 4, 8, 16, 32, 64, 128, 256  1, 2, 4, 8, 16, 32, 64, 128, 256  1, 3, 4, 8, 16, 32, 64, 128, 256  1, 4, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		
Max number of micro-steps / rotation 307 200 (256); 76 800 (64)  Motor torque (N.m) 0.44  Motor size Nema17, 42mm  Micro-step resolution 1, 2, 4, 8, 16, 32, 64, 128, 256  Guaranteed speed range (rpm) 0.01 to 97.6 (256 micro-steps)  Typical max speed (rpm) 390 (64 micro-steps)  Rotation (°) 360  Weight (Kg) 2.5  Useful aperture (mm) 95.5  Dimensions (mm) 160 x 205 x 85  Supply voltage 24V, 1A	Reduction ratio	6:1
Motor torque (N.m)  Motor size  Nema17, 42mm  Micro-step resolution  1, 2, 4, 8, 16, 32, 64, 128, 256  Guaranteed speed range (rpm)  Typical max speed (rpm)  Rotation (°)  Weight (Kg)  Useful aperture (mm)  Dimensions (mm)  10.44  Nema17, 42mm  10.01 to 97.6 (256 micro-steps)  390 (64 micro-steps)  390 (64 micro-steps)  360  2.5  Useful aperture (mm)  95.5  Dimensions (mm)  160 x 205 x 85  24V, 1A	Number of steps / rotation	1200
Motor size  Nema17, 42mm  1, 2, 4, 8, 16, 32, 64, 128, 256  Guaranteed speed range (rpm)  Typical max speed (rpm)  Rotation (°)  Weight (Kg)  Useful aperture (mm)  Dimensions (mm)  1, 2, 4, 8, 16, 32, 64, 128, 256  0.01 to 97.6 (256 micro-steps)  390 (64 micro-steps)  360  2.5  Useful aperture (mm)  95.5  Dimensions (mm)  160 x 205 x 85  24V, 1A	Max number of micro-steps / rotation	307 200 (256); 76 800 (64)
Micro-step resolution  1, 2, 4, 8, 16, 32, 64, 128, 256  Guaranteed speed range (rpm)  7ypical max speed (rpm)  800 (64 micro-steps)  Rotation (°)  Weight (Kg)  Useful aperture (mm)  Dimensions (mm)  160 x 205 x 85  Supply voltage	Motor torque (N.m)	0.44
Guaranteed speed range (rpm)  Typical max speed (rpm)  Rotation (°)  Weight (Kg)  Useful aperture (mm)  Dimensions (mm)  160 x 205 x 85  Supply voltage	Motor size	Nema17, 42mm
Typical max speed (rpm)       390 (64 micro-steps)         Rotation (°)       360         Weight (Kg)       2.5         Useful aperture (mm)       95.5         Dimensions (mm)       160 x 205 x 85         Supply voltage       24V, 1A	Micro-step resolution	1, 2, 4, 8, 16, 32, 64 ,128, 2
Rotation (°)       360         Weight (Kg)       2.5         Useful aperture (mm)       95.5         Dimensions (mm)       160 x 205 x 85         Supply voltage       24V, 1A	Guaranteed speed range (rpm)	0.01 to 97.6 (256 micro-ste
Weight (Kg)  Useful aperture (mm)  Dimensions (mm)  160 x 205 x 85  Supply voltage  2.5  24V, 1A	Typical max speed (rpm)	390 (64 micro-steps)
Useful aperture (mm)  Dimensions (mm)  160 x 205 x 85  Supply voltage  24V, 1A	Rotation (°)	360
Dimensions (mm) 160 x 205 x 85 Supply voltage 24V, 1A	Weight (Kg)	2.5
Supply voltage 24V, 1A	Useful aperture (mm)	95.5
	Dimensions (mm)	160 x 205 x 85
I/O port	Supply voltage	24V, 1A
1/0 port	I/O port	USB

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