

# Spatial Light Modulators

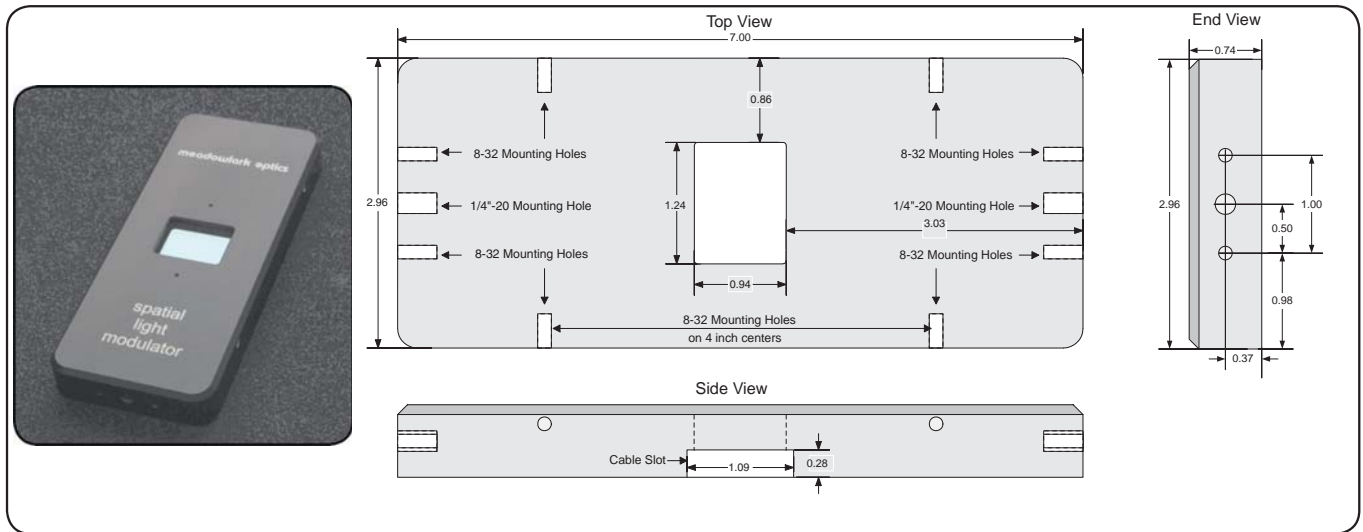


Fig. 6-4 Spatial Light Modulator Mechanical Drawing

SPECIFICATIONS	
Retarder Material	Nematic liquid crystal
Substrate Material	Optical quality synthetic fused silica
Center Wavelength	450-1800 nm (specify)
Modulation Range	
Phase (minimum) Amplitude	1 $\lambda$ optical path difference 0-100%
Retardance Uniformity	$\leq 2\%$ rms variation over clear aperture
Transmitted Wavefront Distortion (at 632.8 nm)	$\leq \lambda/4$
Surface Quality	40-20 scratch and dig
Beam Deviation	$\leq 2$ arc min
Transmittance	$> 90\%$ (without polarizers)
Reflectance (per surface)	$\leq 0.5\%$ at normal incidence
Dimensions (L x W x H)	7.00 x 2.96 x 0.74 in.
Recommended Safe Operating Limit	500 W/cm <sup>2</sup> , CW 300 mJ/cm <sup>2</sup> , 10 ns, 532 nm
Temperature Range	10° C to 45° C
<i>Note that the D3128 is included with purchase of the SLM system, see page 67 for specifications</i>	

ORDERING INFORMATION			
Name	Pixel Geometry	Version	Part Number
1 x 128	98 $\mu$ m x 4mm linear	Phase	SSP - 128P - $\lambda$
		Amplitude	SSP - 128A - $\lambda$
Hexagonal 127	1mm across	Phase	Hex - 127P - $\lambda$
		Amplitude	Hex - 127A - $\lambda$
<i>Please specify your operating wavelength <math>\lambda</math> in nanometers when ordering.</i>			
<i>Two year and three year extended warranty options available, please contact your Meadowlark Optics sales engineer</i>			

OPTIONAL POLARIZERS		
Type	Wavelength Range (nm)	Part Number
Visible	450 - 700	SDP - VIS
Near Infrared 1	775 - 890	SDP - IR1
Near Infrared 2	890 - 1800	SDP - IR2