

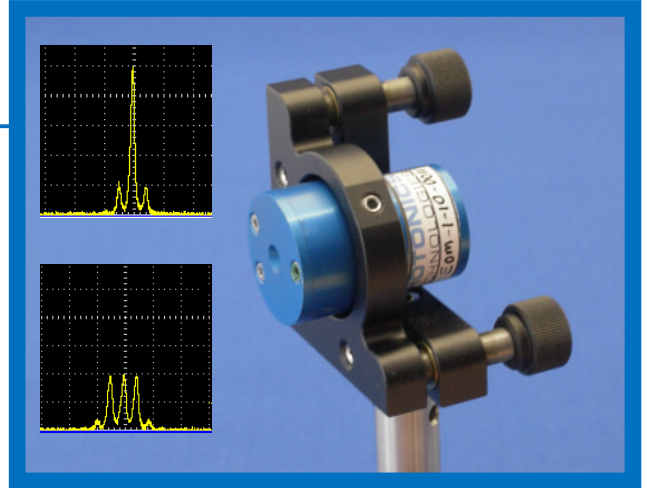


## Electro-Optic Modulator

EOM-01-10-IR

### APPLICATIONS

Generation of side-bands on single-frequency lasers for high resolution locking techniques, such as frequency modulation saturation spectroscopy or stabilization to an optical resonator.



### DESCRIPTION

This low-cost EOM is available as standard at 10 MHz, with other frequencies possible on request. It is the perfect solution for researchers wishing to stabilise single-frequency lasers by modulating a probe beam in a Frequency Modulation spectroscopy set-up, while leaving the main beam unaffected. The EOM can be mounted in a standard 1" mirror mount.

The unit may be supplied with a suitable optional low-voltage oscillator. Coatings for different wavelength ranges are available.

### SPECIFICATIONS EOM-01

<b>Resonant Frequency</b>	10 MHz
<b>A.R. Coated (<math>\lambda</math> range)</b>	1100nm-1500nm
<b>Aperture Diameter</b>	3 mm
<b>Crystal Material</b>	Lithium Niobate
<b>Crystal Flatness</b>	Lambda/10
<b>SWR at resonance</b>	<1.2:1
<b>Impedance at resonance</b>	50 $\Omega$
<b>Modulation Bandwidth</b>	600kHz (-3dB) typical
<b>Diameter</b>	25.4 mm (1")
<b>Length</b>	35 mm

### OPTIONAL DRIVER

<b>Manufacturer</b>	Thurlby Thandar
<b>Model</b>	TG120
<b>Description</b>	Function Generator
<b>Frequency</b>	0.2Hz to 20MHz
<b>Output Voltage</b>	10mV to 20V (pk-pk)