

# ZMI Linear Interferometer (LI)

P/N	DESCRIPTION
6191-0135-01	Basic linear interferometer
PHYSICAL CHARACTERISTICS	
Dimensions	See Figure
Weight	215 grams (7.6 oz)
Materials	Housing- magnetic stainless steel Optics- BK7, crystalline quartz Adhesives- vacuum grade, low volatility
COMPONENTS	
Included	Polarization Beamsplitter, Retroreflector
Not Included	Target Retroreflector, Fiber Optic Pickup

OPTICAL	
Linear displacement resolution (nominal)	0.62 nm (ZMI 2000) 0.31 nm (ZMI 4000)
Out-of-parallelism of transmitted beam to input beam	≤10 arc min
Maximum error due to tolerances in polarizing optical elements	± 0.8 nm (0.03 μin)
Maximum offset of retroreflector	± 0.4 mm
Maximum tilt of retroreflector	± 4°
Thermal drift coefficient (typical) (change of indicated distance per degree C temperature change)	< 0.022 micrometer/degree C ( < 0.854 microinch/degree C)
Signal Efficiency	74% typical, including target retroreflector 70% minimum, including target retroreflector

