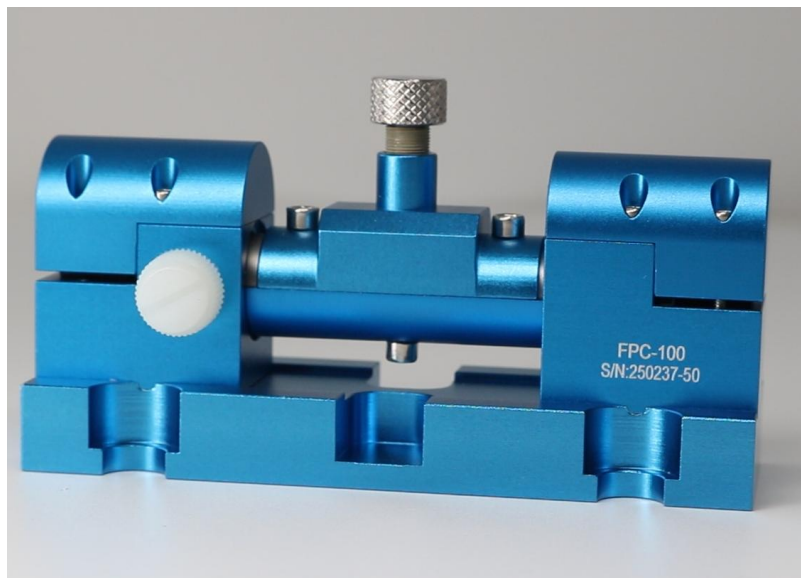


## Micro inline manual plug-in fiberless polarization controller 400–2200nm



### ● Product Description

The polarization controller allows converting any input polarization to any desired output polarization. The device combines compact size and an easy-to-use standard optical system with low cost, low loss, and low back reflection. The controller works by applying pressure through an adjustable clamp. The pressure on the fiber causes internal birefringence in the core, making the fiber act as a quarter-wave plate. Changing the pressure alters the delay between the fast and slow polarization components. The clamp is rotatable, allowing for the direction of applied stress to be changed. This



enables any output polarization to be achieved. The process is simple and fast. An output polarization greater than 30dB can typically be achieved within seconds. The fiber polarization controller works with single-mode fiber at any wavelength. The controller is not suitable for multi-mode or polarization-maintaining (PM) fibers. For multi-mode and PM fiber applications, the standard series of polarization rotators and analyzers (refer to the polarization rotator/controller/analyzer datasheet) is still available. All fiber polarization controllers are available in three versions. The inline polarization controller can be inserted into the customer's own single-mode fiber. We now offer a miniature-sized enclosure for this device, ideal for space-critical applications. It can be used with any wavelength of single-mode fiber. The inline version is designed for 250  $\mu\text{m}$  and 400  $\mu\text{m}$  jacketed fibers only. Additionally, an adapter version is available. This version can be used with any size cable or fiber, and connectors can be selected. Lastly, a connector socket version is available, using a small section of fiber with a female connector. For more information, please contact us.

## ● Product features

No intrinsic loss、 No back reflection、 Compact size – new: miniature enclosure、 Easy to use、 Wavelength insensitive、 Low cost、 Wavelength range: 400-2200nm

## ● Part Number

MP-MPC-100-mini

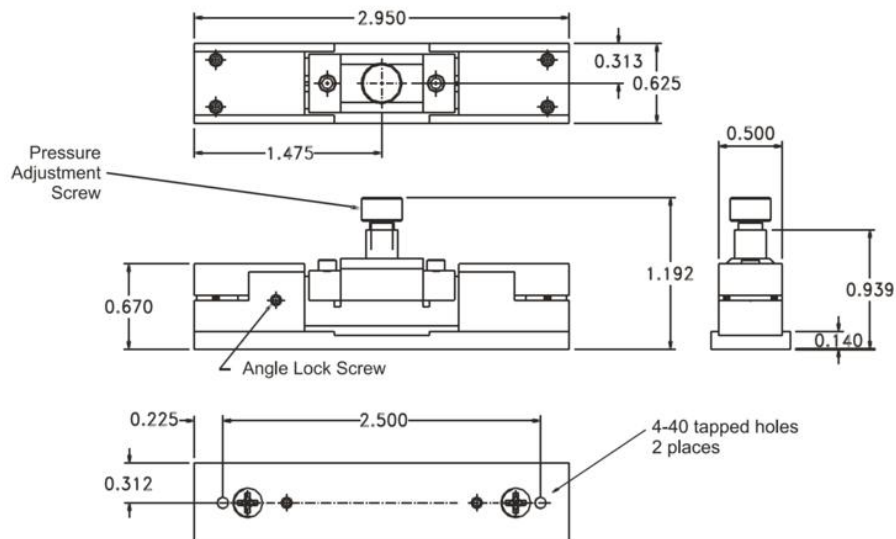
## ● Application area

SM to PM fiber emission 、 PDL measurement 、 Emission to polarization-sensitive devices、 Fiber interferometers、 OCT systems

## ● Core parameters

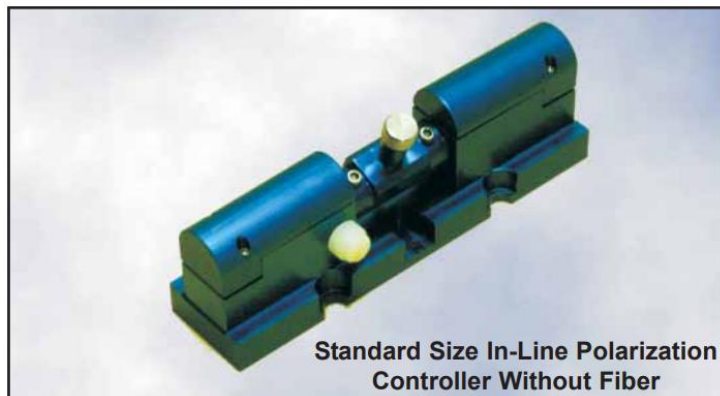
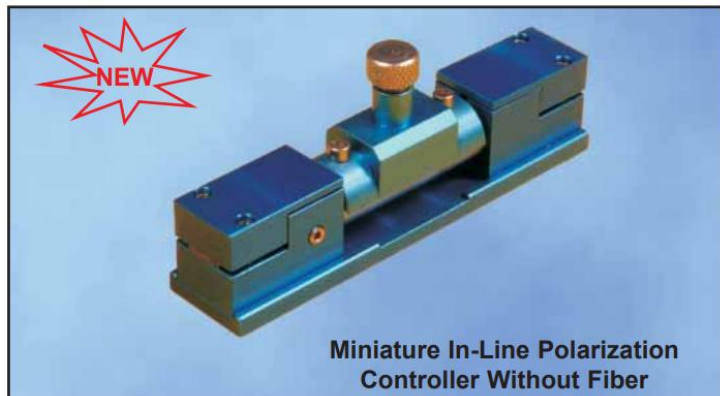
Wavelength	Connector
400-2200nm	FC/APC

## ● Dimension Drawing



Dimensions are in inches

- **General Parameters**





## Technical Parameters

Parameters	Specs
Wavelength	400-2200nm
Fiber diameter	250-400um
Change method	Stress-induced change
<b>Experimental Test Conditions</b>	
Wavelength	1300/1550nm
Temperature	22°C
Input	9/125/900
Output	9/125/900
<b>Experimental Test Results</b>	
Insertion loss	<0.14dB
Output power (mW)	N/A
Repeatability	Passed
Coupling efficiency (%)	N/A
Back reflection (Return loss) (dB)	N/A
Extinction ratio (dB)	37
Stress test (dB)	N/A
PDL(dB)	N/A