

# Pigtailed Polarization Controller - PolaRITE™ (PLC-002/M02)

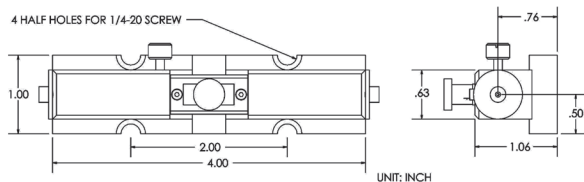


This version of the PolaRITE™ manual polarization controller is conveniently pigtailed with or without connectors. It can be spliced to other components with minimal loss, and is ideal for controlling the polarization state of light in any single mode fiber optic system. It is available in a regular (PLC-002) or miniature (PLC-M02) size for maximum flexibility.

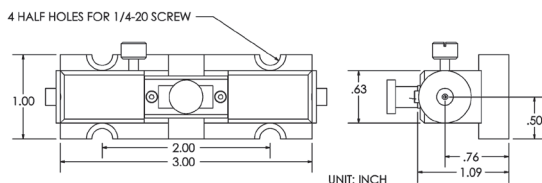
### Specifications:

Intrinsic Insertion Loss	< 0.05 dB
Return Loss	> 65 dB
Operating Wavelength <sup>1</sup>	480 nm, 633 nm, 780 nm, 820 nm, 980 to 1310 nm, 1260 to 1650 nm
Extinction Ratio	> 40 dB
Operating Temperature	-40 to 85 °C
Storage Temperature	-40 to 85 °C
Dimensions	PLC - 002: 4.00" (L) x 1.00" (W) x 1.06" (H) PLC - M02: 3.00" (L) x 1.00" (W) x 1.09" (H)
<p>Note: Values are referenced without connectors</p> <p>1. 1260 to 1650nm and 980 to 1310 nm are the standard wavelength ranges for this product. Please contact General Photonics for information on other wavelength options.</p>	

### Dimensions (in inches):

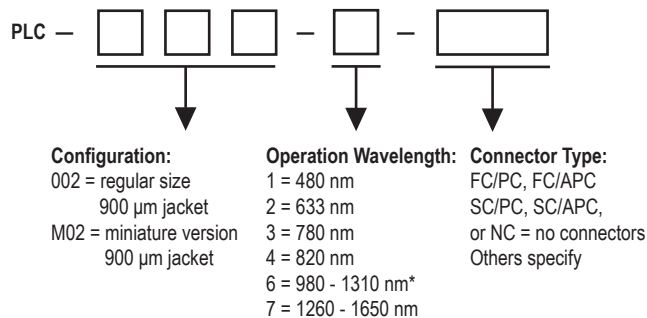


PLC-002



PLC-M02

### Ordering Information:



**Notes:**  
\*This fiber can handle wavelengths up to 1650nm, but if it is coupled to SMF-28 fiber, the performance may not be quite as good as normal due to mode mismatch.

### Features:

- Low Loss
- Low back reflection
- Compact
- Easy to connect
- Low cost
- Insensitive to wavelength variations

### Applications:

- High speed telecommunication systems
- WDM systems
- CATV systems
- Fiber laser
- Fiber sensor systems
- PM fiber systems
- Antenna remoting systems

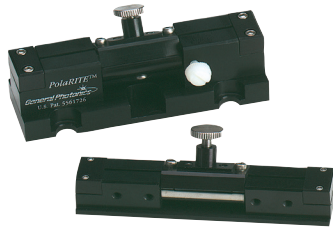
### Related Products:

- Polarization Controllers (PLC-003/006, PLC-004/005)
- Components

### Tech Info:

- What is Polarization?
- Polarization in Fiber Systems: Squeezing out More Bandwidth
- PolaRITE™ Polarization Controllers Application Note

# Drop-in Polarization Controller - PolaRITE™ (PLC-003/006)



This is the in-line version of the PolaRITE™ polarization controller. It can be inserted into a fiber optic system to control the polarization state of light without having to disconnect any part of the system. It can be used by simply inserting a length of fiber into the slot located on top of the device. The miniature version can be inserted in even tighter spaces in a fiber optic module.

### Specifications:

Intrinsic Insertion Loss	< 0.05 dB
Return Loss	> 65 dB
Operating Wavelength	480 nm, 633 nm, 780 nm, 820 nm, 980 nm, 1064 nm, 1260 to 1650 nm
Extinction Ratio	> 40 dB
Operating Temperature	-40 to 85 °C
Storage Temperature	-40 to 85 °C
Dimensions	PLC - 003: 3.00" (L) x 1.00" (W) x 1.09" (H) PLC - 006: 3.00" (L) x 0.63" (W) x 0.67" (H)

### Features:

- Low Loss
- Low back reflection
- Compact
- Easy to connect
- Low cost
- Insensitive to wavelength variations
- Works with fibers of any size

### Applications:

- High speed telecommunication systems
- WDM systems
- CATV systems
- Fiber laser
- Fiber sensor systems
- PM fiber systems
- Antenna remoting systems

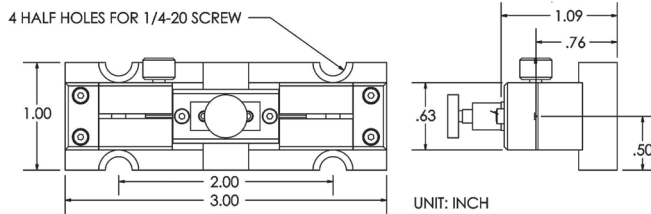
### Related Products:

- Polarization Controllers (PLC-002/M02, PLC-004/005)
- Components

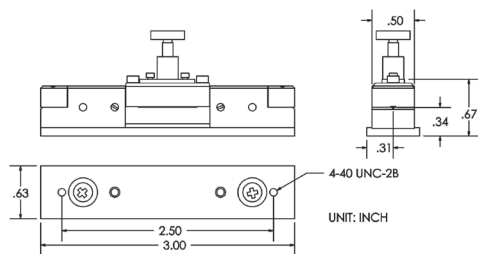
### Tech Info:

- What is Polarization?
- Polarization in Fiber Systems: Squeezing out More Bandwidth
- PolaRITE™ Polarization Controllers Application Note

### Dimensions (in inches):

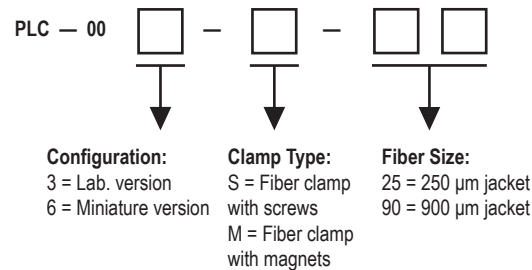


PLC-003



PLC-006

### Ordering Information:



**Notes:**  
 PLC-006 has no 900 μm jacket option  
 Magnet clamp available only for PLC-003 for 250μm fiber  
 900μm fiber version should be used with tight-buffered fiber.

# Fully Connectorized Polarization Controller - PolaRITE™ (PLC-004/005)



This is a fully connectorized polarization controller that comes with either male (PLC-005) or female (PLC-004) connectors, thus eliminating the headaches of fiber pigtailed. Customers can use the bulkhead connectors of their choice. Although the unit comes with FC type connectors, it can interface with ST and SC type connectors with industry standard FC/ST or FC/SC adapters. The device is especially suitable for interconnecting polarization maintaining (PM) fibers using standard connectors without having to align the birefringent axes of the PM fibers. Optional scales allow easy replication of earlier settings, a feature highly desirable in laboratories for repeating polarization adjustments.

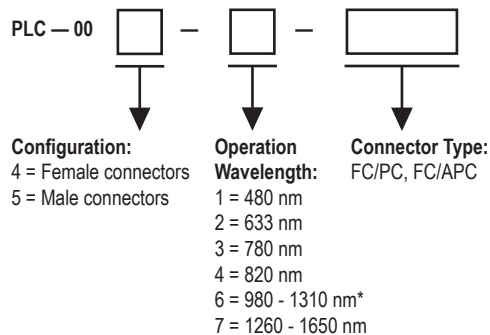
## Specifications:

Insertion Loss	< 0.5 dB with connectors
Return Loss	> 55 dB for APC connectors, > 45 dB for PC connectors
Operating Wavelength <sup>1</sup>	480 nm, 633 nm, 780 nm, 820 nm, 980 to 1310 nm, 1260 to 1650 nm
Extinction Ratio	> 40 dB
Operating Temperature	-40 to 85 °C
Storage Temperature	-40 to 85 °C
Dimensions	4.00" (L) x 1.00" (W) x 1.09" (H)

### Notes:

1. 1260 to 1650nm and 980 to 1310 nm are the standard wavelength ranges for this product. Please contact General Photonics for information on other wavelength options.

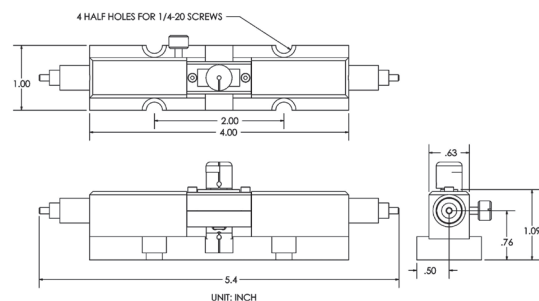
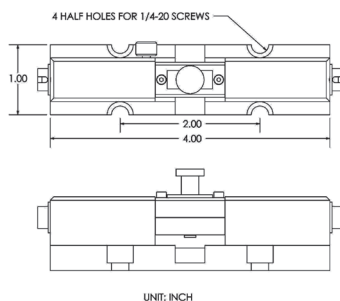
## Ordering Information:



### Notes

\*This fiber can handle wavelengths up to 1650nm, but if it is coupled to SMF-28 fiber, the performance may not be quite as good as normal due to mode mismatch.

## Dimensions (in inches):



## Features:

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- Low back reflection
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## Applications:

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## Related Products:

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- Components

## Tech Info:

- [What is Polarization?](#)
- [Polarization in Fiber Systems: Squeezing out More Bandwidth](#)
- [PolaRITE™ Polarization Controllers Application Note](#)