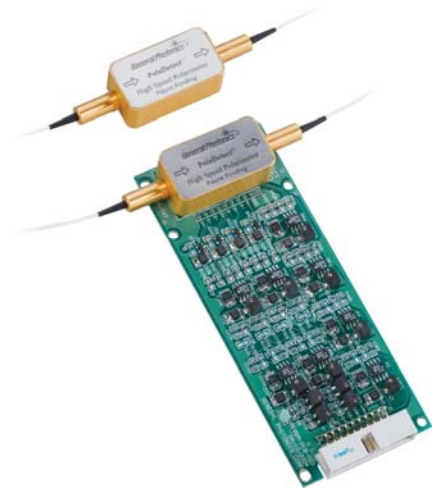


# High Speed In-Line Polarimeter

- PolaDetect™

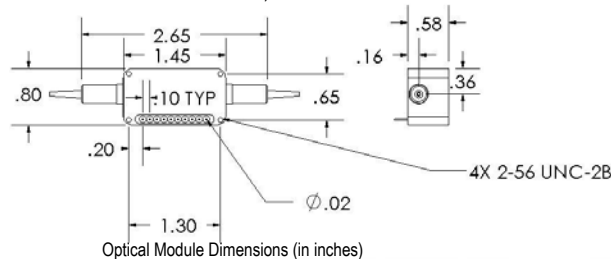
General Photonics' in-line polarimeter is specially designed for low cost, high-speed polarization characterization without interrupting data traffic. It outputs four voltage signals for calculating both the degree of polarization (DOP) and the state of polarization (SOP) of the light passing through the device in microseconds. PolaDetect is ideal for integrating into polarization monitoring and polarization stabilization modules, or in polarization characterization instruments. It comes with a pre-amplification board to provide analog signals for SOP/DOP calculation, feedback control, and computer interface. A calibration matrix is provided with every device for the calculation. Devices without preamplification board and calibration matrix are also available for OEM. The output fiber can either be single mode fiber or PM fiber.



## Preliminary Specifications

Insertion Loss	0.8 dB typical, 1.2 dB max.
Return Loss	55 dB.
PDL	< 0.25 dB
PMD	< 0.1 ps
Wavelength Dependent Loss	0.15 dB across C band
Optical Power Sensitivity	5 µW
Max. Optical Input Power	5 mW
Optical Damage Power	300 mW min.
Measurement Bandwidth	700 kHz
SOP Accuracy <sup>1</sup> (at calibration wavelength)	1% max.
DOP Accuracy <sup>1</sup> (at calibration wavelength)	± 2% max.
Wavelength Range	1550 ± 50 nm or 1310 ± 50nm
Operation Temperature	0° to 40° C
Storage Temperature	-40° to 85° C
Optical Module Dimensions	1.45"(L) x 0.8"(W) x 0.58"(H)
Fiber Types	SM to SM, SM to PM
Electrical Interface	10 pin without preamplifier board 20 pin with preamplifier board
Electrical Power Supply	-5V to -10V without preamplifier board ± 12 V with preamplifier board
Preamplifier Board Dimensions	125 x 50 mm

1. Compared to Agilent 8509C polarization analyzer  
(Values are referenced without connectors)



## Applications:

- Polarization stabilization
- Polarization division multiplexing
- PMD compensation/measurement
- Polarization analysis/monitoring
- Remote sensing

## Unique Features:

- High Speed
- Low loss
- Compact
- No moving parts

## Ordering Information:

POD - XX - XX - XX - XXX

Wavelength:  
13 = 1310 nm  
15 = 1550 nm

Fiber Type:  
SS = SM in/SM out  
SP = SM in/PM out

Connector Type:  
FC/PC, FC/APC  
SC/PC, SC/APC  
Others specify

Configuration:  
01 = w/o preamplifier board  
02 = with preamplifier board

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