

Deterministic Polarization Controller



FEATURES:

- Polarization state tracking once selected
- Scanning half and quarter waveplate
- Selection of 6 key states
- User programmable operation
- Transfer of polarization reference plane

APPLICATIONS:

- Polarization control
- > PDL measurement
- Component testing
- Polarization state stabilization
- Optical fiber polarimetry

Part of the Phoenix Photonics Firebird[™] range of instruments, the deterministic polarization controller allows tracking of any user specified state of polarization in the measurement reference plane. The on-board microprocessor is programmed through via a simple PC interface to provide a range of pre-selected or user defined operations.

Pre-programmed polarization state options include:

- Selection and scanning between; Vertical, Horizontal, Rt. Circular, Lt. Circular, +45, -45.
- Single state selection using Stokes parameters.
- Rotating half-waveplate and quarter waveplate.

The instrument uses a high extinction ratio, Phoenix all-fiber polarizer to reference the polarization state, giving high precision selection of State of Polarization with high effective extinction ratio.



SPECIFICATION:	Units	Each fiber channel
Wavelength range	nm	1530 – 1570; 1570 - 1620
Insertion Loss ¹	dB	<2
Return Loss ¹	dB	>55
Operating Temperature Range	°C	0 to 50
Storage Temperature	°C	-40 to +85
Effective extinction ratio of state	dB	>25 (all states, all wavelengths)
Parameter setting		State of Polarization; pre-selected states, scanning waveplates, user defined setting
Communication interface		USB
Optional additional interface		GPIB, Ethernet, RS232
PC control		Software for full control
Power		External mains 110V to 240V

Notes:

1. Losses do not include connectors.

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