

8-Channel Fiber Polarization Controller



FEATURES:

- Electronic and manual polarization control
- Simple operation
- Any output SOP achievable
- Low insertion loss
- High return loss
- High extinction ratio maintenance

APPLICATIONS:

- Polarization control
- State of polarization scanning
- Component testing
- Sensor systems
- Optical fiber polarimetry
- PMD emulation

The 8-channel polarization controller provides for polarization state adjustment simultaneously in multiple fiber lines within a single instrument. Packaged in a standard 19" rack configuration, the unit is compatible with optical fiber instrumentation and can be used in conjunction with laser, receiver or other component arrays to create and maintain the optimum state of polarization. Based on the Phoenix Photonics single channel bench top polarization controller, this instrument offers the option of three section manual control or external analog voltage control for each fiber channel. Default condition is manual control through three independent adjustment knobs, for each channel, on the front panel. Connection to analog voltage inputs via a standard D-type connector mounted on the instrument back plate enables remote independent electronic control of each of the three fiber sections along each fiber channel. Control of each individual waveplate describes a complete circle on the Poincaré sphere.

SPECIFICATION:	Units	Each fiber channel
Wavelength range	nm	1300-1640
Insertion Loss ¹	dB	<0.8
PMD	ps	<0.15
Insertion loss variation ²	dB	<0.02
Return Loss	dB	>70
Maximum Voltage ³	V	10
Scan rate ⁴	deg./s	150
Operating Temperature Range	^o C	0 to 50
Storage Temperature	^o C	-40 to +85
Fiber type		SMF28, 900 μ m buffer
Input & Output Fiber Lengths	mm	1000
Power		External mains 110V to 240V

Notes:

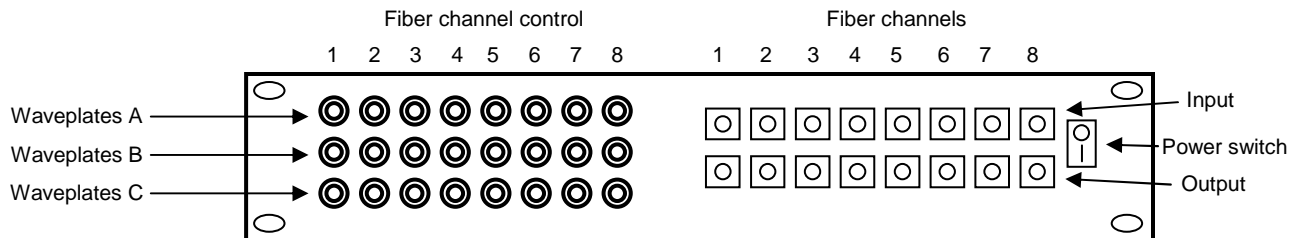
- Losses do not include connectors.
- The variation of output power for full coverage of the Poincaré Sphere.
- Analog drive voltage, 0-10V gives 0-2 π differential phase shift for the waveplate.
- Scan rate is the rate of polarization change for a cycle of the Poincaré sphere for each section

PACKAGING STYLE:

All dimensions are approximate and may vary slightly. Front panel layout may vary according to connector type selection.

Style:	19" rack
Height:	2U
Depth:	340mm

Front Panel layout



ORDER CODE:

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Connectors:

- FC
- SC
- LC

Finish:

- SPC
- APC

Phoenix Photonics Limited

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