

Precision Polarization Controller-USB/RS232



Converting any input polarization states into a specific polarization output

DATASHEET

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The Polarization Controller (POLU) converts incoming light with any polarization state into a specific polarization state on the Poincaré sphere. Inside the POLU, light passes through four step-motor-driven polarization rotators with minimal loss. A high-precision driver allows adjustment and setting of the four rotator values via an intuitive GUI, accessible through USB or RS232. A wall-pluggable DC power supply is included. This polarization controller provides precise and reliable polarization control.

Features

- Large Dynamic Range
- Low Insertion Loss
- High Optical Power Handling
- USB/RS232

Applications

- Polarisation Sélection
- Polarisation Maintaining
- Polarisation Management
- Polarisation Mode Dispersion Compensation
- Instrumentation

Specifications

Parameter	Min	Typical	Max	Unit
Wavelength	400		2650	nm
Insertion Loss ^[1]	0.1	0.5	0.8	dB
Polarization Mode Dispersion			0.05	ps
Return Loss	65			dB
Response Time Rise/Fall	30			ms
Operating Optical Power		0.5	1	W
Operation Frequency	DC		5	Hz
Polarization Rotation ^[2]	0		2	π
Operating Temperature		-30 ~ 60		°C
Storage Temperature		-40 ~ 85		°C

Notes:

- [1]. Excluding connectors. Connectors ad 0.3dB.
- [2]. @ 1550nm

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Mechanical Dimensions (mm)

*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Operation Instruction

- Plug in the accompanied power supply
- Connect an input light

Ordering Information

Prefix	Type	Wavelength	# Plates	Fiber	Output Fiber	Fiber Cover	Fiber Length	Connector
POLU-	1 1	1550 nm = 5 1310nm = 3 1060nm = 1 980nm = 9 850nm = 8 Special = 0	4 = 4 3 = 3	SMF-28 = 1 Hi1060 = 2 SM980 = 9 SM850 = 8 780HP = 7 SM1950 = 4 Special = 0	SMF-28 = 1 Hi1060 = 2 SM980 = 9 SM850 = 8 780HP = 7 SM1950 = 4 PM1550 = 5 PM1310 = 3 PM980 = A PM850 = B PM780 = C PM1950 = D Special = 0	Bare fiber = 1 0.9mm loose tube = 3 Special = 0	0.25m = 1 0.5m = 2 1.0 m = 3 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 LC/PC = L Special = 0