

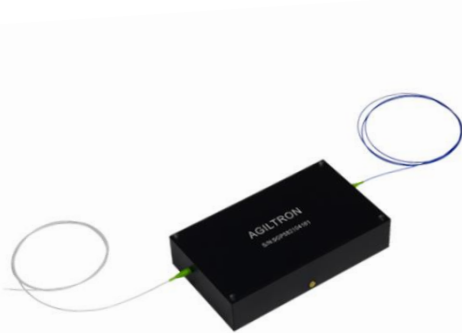
# Automatic Polarization Controller



Converting any input states into one polarized output

DATASHEET

BUY NOW



The Polarization Controller (POLC) transforms incoming light with any polarization state into a fixed polarization state and maintains that state against variations in input. This two-fiber port module, POLC, comprises four piezoelectric fiber-squeezing plates arranged at 45-degree intervals, along with polarization state detectors integrated with an intelligent control circuit. It is a plug-and-play module; simply connect the provided power supply to operate. Engineered to meet the operational requirements of fast response and continuous operation, the polarization controller offers an optimal solution for precise and automatic polarization selection. Please note that this module is not suitable for randomly polarized input light. For alternative solutions, please contact us.

## Features

- Maintain a Fixed Output Polarization
- Large Phase Change
- Low Insertion Loss
- Compact Size
- High Optical Power Handling

## Applications

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

## Specifications

Parameter	Min	Typical	Max	Unit
Wavelength	400		2650	nm
Insertion Loss <sup>[1]</sup>	0.1	0.5	0.8	dB
Output Polarization Direction/Alignment		Slow Axis		
Polarization Mode Dispersion			0.05	ps
Return Loss	65			dB
Response Time Rise/Fall	30			μs
Operating Optical Power		0.5	1	W
Operation Frequency	DC		100	kHz
Polarization Rotation <sup>[2]</sup>	0		4	π
Control Voltage <sup>[2]</sup>	0	35	40	V
Operating Temperature		-30 ~ 60		°C
Storage Temperature		-40 ~ 85		°C

### Notes:

[1]. Excluding connectors. Connectors add 0.3dB.

[2]. @ 1550nm

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Rev 05/07/24

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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	Input Fiber	Output Fiber	Fiber Cover	Fiber Length	Connector
<b>POLC-</b>	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 = 3 SM1950 = 4 Special = 0	PM1550 = 5 PM1310 = 3 PM980 = 9 PM850 = 8 PM780 = 7 PM1950 = 2 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