Polarization Submodules **Polarization Switch – PolaSwitch™**



Note: Values referenced without connectors.

Dimensions (in inches):

1. Both output states of 90° PM PSW with input polarizer at 23 °C.

General Photonics' all solid-state polarization switch can guickly and repeatably rotate the SOP of incoming light by a fixed angle, either 45 or 90 degrees. Both single mode and PM fiber pigtailed versions are available. With the PM option, the device functions as a TE to TM converter, switching the SOP between being aligned with the slow and fast axes of the PM fiber, or between the slow axis and 45 degrees from the slow axis. With the SM option, the device simply rotates the polarization ellipse either 45 or 90 degrees. The device can be used for polarization sensitive OCT, polarization sensitive OTDR or OFDR, PMD monitoring, polarization modulation, polarization detection, and polarization metrology.

Specifications:

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Operation Wavelength	1550 ± 30nm or 1310 ± 30nm	A
Polarization Rotation (at λc , 23° C)	$45 \pm 0.5^{\circ} \text{ or } 90 \pm 0.5^{\circ}$	
Polarization Rotation (All Wavelengths, All Temp.)	45 ± 5° or 90 ± 5°	
Rotation Angle Temperature Dependence	-0.1 degree / °C for 45° version -0.2 degree / °C for 90° version	
Insertion Loss	< 0.5 dB	
Return Loss	> 55 dB	
Switching Current	< 130 mA	
Switching Voltage	2.5 V	
Latching Current	~ 80 mA	
Latching Voltage	1.5 to 2 V	
Switching Time	100 µs typical	
Extinction Ratio ¹	> 18 dB for PM model	
Operating Temperature	0° to 50 °C	
Storage Temperature	-40° to 85 °C	
Fiber Type	PM Panda, SMF-28 or compatible	
Dimensions	Optical head: 1.57" (L) x 0.69" (W) x 0.53" (H) Board: 1.50" (L) x 1.50" (W) x 0.58" (H)	

Applications:

- Polarization diversified detectors and sensors
- Polarization sensitive OCT
- Polarization metrology
- Polarization sensitive OTDR or OFDR
- PMD monitoring

Jnique Features:

- Fast
- No moving parts
- Low insertion loss

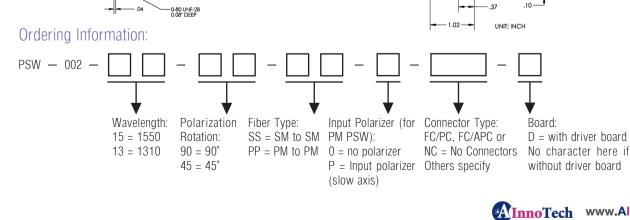
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Compact



MODULES

OCT PRODUCTS





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