

All-Fiber Polarization Switch



FEATURES:

- Linear mode switching
- Simple current control
- All-fiber
- High return loss
- PCB compatible

APPLICATIONS:

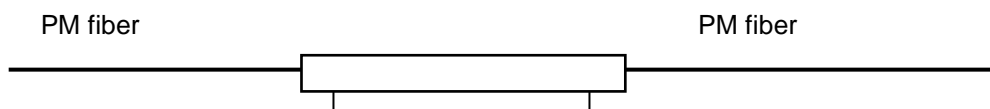
- Polarization control
- State of polarization switching
- Optical fiber sensors
- Test and measurement
- PM variable attenuator

Phoenix Photonics polarization switch enables the conversion of an input linear state aligned on the input polarization maintaining fiber axis to be switched between either of the orthogonal output axes. For example an input on the slow axis can be converted to the fast axis at the output or modulated between the fast and the slow axis. This device has been designed to be flexible and easy to operate requiring only a controlled current source for applications in which control of polarization between orthogonal states is required.

An in-line fiber polarizer integrated at the input to provide a highly linear polarization state is optional.

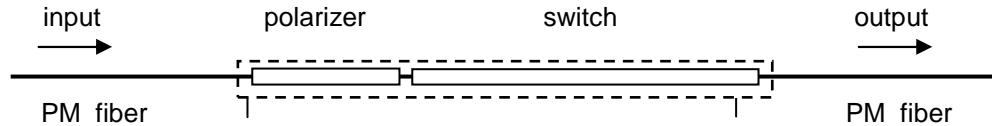
Option 1 Standard:

This version allows switching between either axis of the output fiber for a single axis input.



Option 2 Integrated polarizer:

This option includes an integrated fiber polarizer in front of the waveplate aligned to the slow axis of the input fiber. The role of the polarizer is to ‘clean’ the linear input state.



SPECIFICATION:	Units	Option 1	Option 2
Wavelength range ¹	nm	1300 - 1610	
Insertion Loss ²	dB	<0.5	<1
Polarizer extinction ratio ³	dB	-	>30
Return Loss	dB	>70	>70
Maximum current	mA	70	
Maximum Voltage	V	10	
Switching time	s	<1	<1
Operating Temperature Range	⁰ C	-5 to 70	-5 to 70
Storage Temperature	⁰ C	-40 to +85	-40 to +85
Fiber type		PANDA	PANDA
Input & Output Fiber Lengths	mm	1000	1000

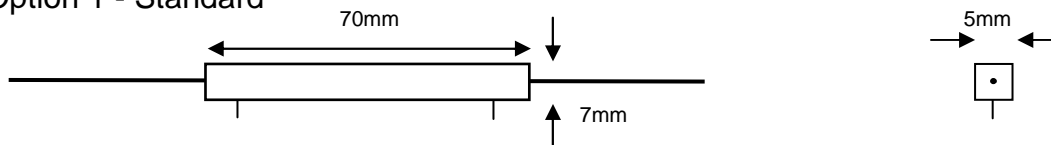
Notes:

1. Devices will operate over full wavelength range, higher current is required at longer wavelengths to achieve switching.
2. Insertion loss for option 2 assumes on-axis alignment of the input polarization. Losses do not include connectors.
3. Extinction ratio is defined as the PDL of the input polarizer.

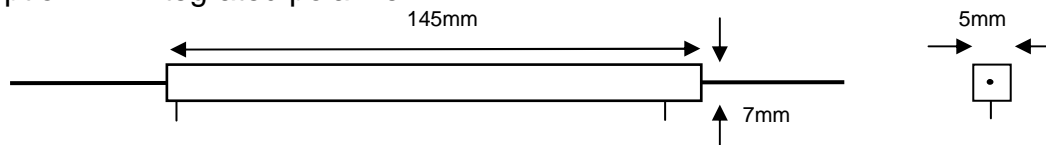
PACKAGING STYLE:

All dimensions are approximate and may vary slightly

Option 1 - Standard



Option 2 – Integrated polarizer



ORDER CODE:

P	S	W	-		-		-		-	
				Option:		Wavelength:		Connectors:		Cable type:
				01 - standard		15 – 1530 – 1610 nm		0 – none		0 – none
				02 - polarizer		14 – 1480 - 1530 nm		1 – FC/SPC		1 – 900µm loose tube
						13 – 1280 - 1330 nm		2 – FC/APC		

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