

Fiber Phase Shifter – Piezoelectric

Up to 8π , 400nm to 2600nm

DATASHEET

BUY NOW



The Piezoelectric Fiber Phase Shifter (PIPS) utilizes a piezoelectric fiber squeezing plates to induce fiber birefringence phase retardation. It features ultra low insertion loss, all fiber type accommodation, high power handling, and a large phase change capability. We further offer driver with a coinvent 0-5V control inputs. The device is designed for customers to incorporate it into their systems. We offer two versions: straight and coil. The straight version provide phase shift up to 8π , while the coil can generate large phase shift up to 50π . The PIPS is engineered to meet the operational requirements of fast response and continuous operation, providing an ultimate solution for large fiber phase shifting application.

Features

- Large Phase Shift
- High Reliability
- Low Insertion Loss
- Compact Size
- High Optical Power Handling

Applications

- Fiber Sensor
- Fiber Interferometer
- Fiber Laser
- 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			μs
Operating Optical Power		0.5	1	W
Operation Frequency	DC		20	kHz
Resonance Frequency		35		kHz
Residual Amplitude Modulation			0.02	dB
Polarization Rotation ^[2]	0		8	π
Control Voltage ^[2]	0	20	150	V
Capacitance of Piezo	2	5	12	nF
Operating Temperature		0 ~ 60		°C
Storage Temperature		-40 ~ 85		°C

Notes:

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

[2]. @1550nm

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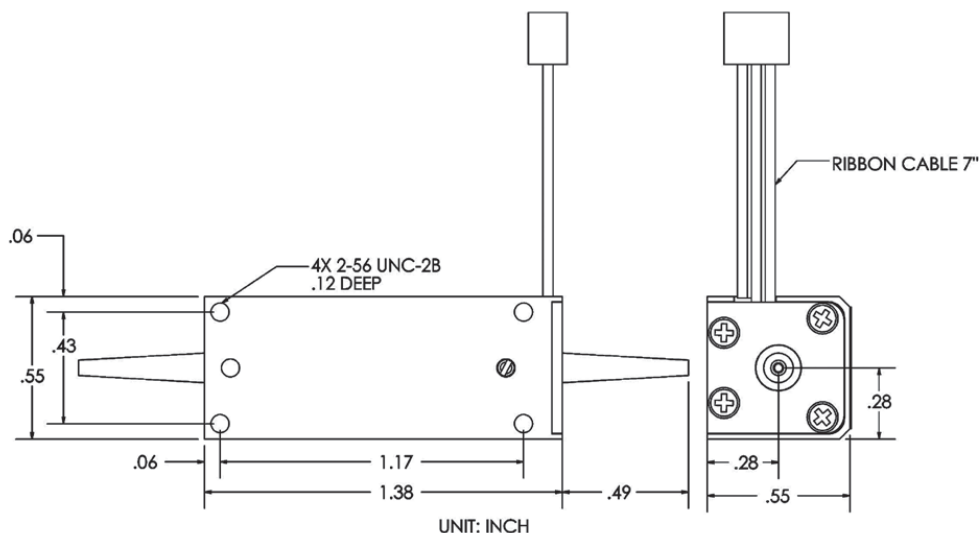
Rev 05/08/24

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Mechanical Dimensions (mm)



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

Electrical Driver Pin Definition

Pin #	Connection
1	+
2	-

Ordering Information

Prefix	Type	Wavelength	Type	Driver	Fiber Type	Fiber Cover	Fiber Length	Connector
PIPS-		1550 nm = 5 1310nm = 3 1060nm = 1 980nm = 9 850nm = 8 Special = 0	Standard = 1 Special = 0	Non = 1 Yes = 2 Special = 0	SMF-28 = 1 Hi1060 = 2 SM980 = 9 SM850 = 8 780HP = 3 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



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Driver PCB
