Mini 1x4 Mechanical Optical Switch

GEZHI Series Mini 1x4 fiber optic switch connects optical channels by redirecting an incoming optical Signal into a selected output fiber. This is achieved by using a patented opto-mechanical configuration activated via an electrical control signal. Latching operation preserves the selected optical path after the drive signal has been removed. The switch has integrated electrical position sensors, and the new material based advanced. design significantly reduces moving part position sensitivity, offering unprecedented high stability and longevity, as well as an unmatched low cost. Electrical driver is also available. The switch is bidirectional.

We offer tight-bend-fiber version, which reduces the minimum bending radius from normal 15 mm to 7mm. This feature enables smaller overall foot print.

Features

- Unmatched Low Cost
- Low Optical Distortions
- High Isolation
- High Reliability
- Epoxy-Free Optical Path

Application

- Channel Blocking
- Configurable Add/Drop
- System Monitoring
- Instrumentation

Performance

1x4 Mini Switch		Unit	Min	Typical	Max
Operation Wavelength		nm		1260 ~ 1610nm	
Insertion Loss [1]		dB	0.4	0.6	1.0
Wavelength Dependent Loss		dB		0.2	0.4
Polarization Dependent Loss		dB	0.05	0.1	0.2
Return Loss		dB		>50	
Cross Talk		dB		>50	
Switching Time		ms		4	10
Repeatability				<±0.02	
Operating Voltage		VDC		3V or 5V	
Voltage Pulse Width (Latching)		ms		Typical: 20	
Operating Current[3]	Latching	mA		<26	
	Non-Latching			<36	
Switching Type				Latching / Non-Latching	
Operating Temperature [2]				-5~+70	
Optical Power Handling		mW		Typical: 300mW Max:500mW	
Storage Temperature		℃		-40~+85	
Fiber Type				SMF-28	
Package Dimension		mm		35L x 23W x 10H	

Electrical Driving

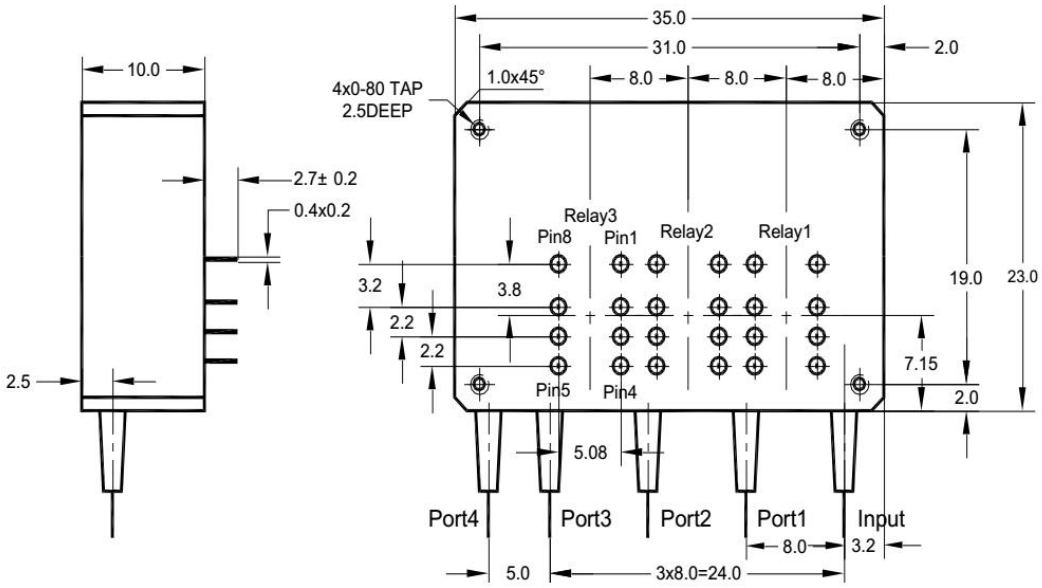
Latching

Optcial Path	Relay	Electrical Drive			Status Sensor		
		Pin 1	Pin 8	Pin 2-3	Pin 3-4	Pin 5-6	Pin 6-7
Input → Port 1	Relay 1	5V Pulse	GND	Open	Close	Close	Open
	Relay 2, 3	N/A	N/A	--	--	--	--
Input → Port 2	Relay 1	GND	5V Pulse	Close	Open	Open	Close
	Relay 2	5V Pulse	GND	Open	Close	Close	Open
	Relay 3	N/A	N/A	--	--	--	--
Input → Port 3	Relay 1, 2	GND	5V Pulse	Close	Open	Open	Close
	Relay 3	5V Pulse	GND	Open	Close	Close	Open
Input → Port 4	Relay 1,2,3	GND	5V Pulse	Close	Open	Open	Close

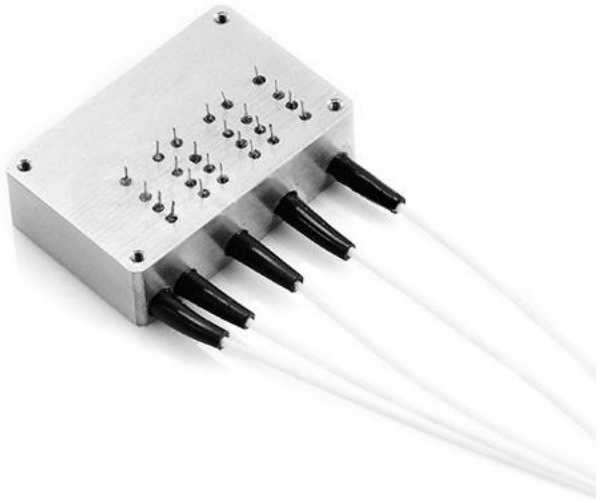
Non-Latching

Optcial Path	Relay	Electrical Drive			Status Sensor		
		Pin 1	Pin 8	Pin 2-3	Pin 3-4	Pin 5-6	Pin 6-7
Input → Port 1	Relay 1	5V Pulse	GND	Close	Open	Open	Close
	Relay 2, 3	No Power		Open	Close	Close	Open
Input → Port 2	Relay 2	5V Pulse	GND	Close	Open	Open	Close
	Relay 1, 3	No Power		Open	Close	Close	Open
Input → Port 3	Relay 3	5V Pulse	GND	Close	Open	Open	Close
	Relay 1, 2	No Power		Open	Close	Close	Open
Input → Port 4	Relay 1,2,3	No Power		Open	Close	Close	Open

Dimension



Picture:



Ordering Information

Type	Wavelength	Control Model	Volatage	Fiber Type	Fiber Diameter	Fiber Length	Connector
M14=1x4 M41=4x1	1=1060nm 2=C+L 3=1310 4=1410 5=1550 35=1310&1550 B=1260~1620 X=Special	L=Latching N=Non-Latching	3=3V 5=5V	1=SMF-28 X=Special	25=250um 90=900um X=Others	1=0.5m 2=1m 3=1.5m X=Others	0=None 1=FC/UPC 2=FC/APC 3=SC/UPC 4=SC/APC 5=ST/UPC 6=ST/APC 7=LC/UPC 8=LC/APC