

Product Description

The Series 1x8 fiber optic switch connects optical channels by redirecting an in-coming optical signal into a selected output fiber. 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 as well as an unmatched low cost. Electronic driver is available for this series of switches.

Features

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

Applications

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



Specifications

Parameters	Specifications	Unit
Operating Wavelength	1260~1620(SM)、850(MM)	nm
Insertion Loss	≤ 1.2	dB
Wavelength Dependent Loss	≤ 0.35	dB
Polarization Dependent Loss	≤ 0.05	dB
Temperature Dependent Loss	≤ 0.25	dB
Return Loss	SM ≥ 50 MM ≥ 30	dB
Cross Talk	SM ≥ 55 MM ≥ 50	dB
Switch Time	≤ 8	ms
Repeatability	$\leq \pm 0.02$	dB
Durability	$\geq 10^7$	times
Operating Voltage	3 or 5	V
Switch Type	Non-Latching/Latching	
Operating Temperature	-20~+70	°C
Storage Temperature	-40~+85	°C
Optical Power	≤ 500	mW
Dimension	35.0L×35.0W×9.0H ± 0.2	mm

Pin Configurations

Latching Type:

Type	Optical Route	Relay	Electric Drive				State Sensor			
1×8			Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Latching	Input- Port 1(Black)	Relay1	--	--	GND	V+	Close	Open	Open	Close
		Relay2	--	--	GND	V+	Close	Open	Open	Close
		Relay3	V+	GND	--	--	Open	Close	Close	Open
	Input- Port 2 (red)	Relay1	--	--	GND	V+	Close	Open	Open	Close
		Relay2	V+	GND	--	--	Open	Close	Close	Open
		Relay3	--	--	GND	V+	Close	Open	Open	Close
	Input- Port 3(blue)	Relay1	--	--	GND	V+	Close	Open	Open	Close
		Relay2	--	--	GND	V+	Close	Open	Open	Close
		Relay3	--	--	GND	V+	Close	Open	Open	Close
	Input- Port 4(White)	Relay1	--	--	GND	V+	Close	Open	Open	Close
		Relay2	V+	GND	--	--	Open	Close	Close	Open
		Relay3	V+	GND	--	--	Open	Close	Close	Open
	Input- Port 5(Black)	Relay1	V+	GND	--	--	Open	Close	Close	Open
		Relay2	--	--	GND	V+	Close	Open	Open	Close
		Relay3	V+	GND	--	--	Open	Close	Close	Open
	Input- Port 6 (red)	Relay1	V+	GND	--	--	Open	Close	Close	Open
		Relay2	V+	GND	--	--	Open	Close	Close	Open
		Relay3	--	--	GND	V+	Close	Open	Open	Close
	Input- Port 7(blue)	Relay1	V+	GND	--	--	Open	Close	Close	Open
		Relay2	--	--	GND	V+	Close	Open	Open	Close
		Relay3	--	--	GND	V+	Close	Open	Open	Close
	Input- Port 8(White)	Relay1	V+	GND	--	--	Open	Close	Close	Open
		Relay2	V+	GND	--	--	Open	Close	Close	Open
		Relay3	V+	GND	--	--	Open	Close	Close	Open

Non-Latching Type

Type	Optical Route	Relay	Electric Drive				State Sensor			
1×8			Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Non-Latching	Input- Port 1(Black)	Relay1	--	--	--	--	Close	Open	Open	Close
		Relay2	--	--	--	--	Close	Open	Open	Close
		Relay3	V+	--	--	GND	Open	Close	Close	Open
	Input- Port 2 (red)	Relay1	--	--	--	--	Close	Open	Open	Close
		Relay2	V+	--	--	GND	Open	Close	Close	Open
		Relay3	--	--	--	--	Close	Open	Open	Close
	Input- Port 3(blue)	Relay1	--	--	--	--	Close	Open	Open	Close
		Relay2	--	--	--	--	Close	Open	Open	Close
		Relay3	--	--	--	--	Close	Open	Open	Close
	Input- Port 4(White)	Relay1	--	--	--	--	Close	Open	Open	Close
		Relay2	V+	--	--	GND	Open	Close	Close	Open
		Relay3	V+	--	--	GND	Open	Close	Close	Open
	Input- Port 5(Black)	Relay1	V+	--	--	GND	Open	Close	Close	Open
		Relay2	--	--	--	--	Close	Open	Open	Close
		Relay3	V+	--	--	GND	Open	Close	Close	Open
	Input- Port 6 (red)	Relay1	V+	--	--	GND	Open	Close	Close	Open
		Relay2	V+	--	--	GND	Open	Close	Close	Open
		Relay3	--	--	--	--	Close	Open	Open	Close
	Input- Port 7(blue)	Relay1	V+	--	--	GND	Open	Close	Close	Open
		Relay2	--	--	--	--	Close	Open	Open	Close
		Relay3	--	--	--	--	Close	Open	Open	Close
	Input- Port 8(White)	Relay1	V+	--	--	GND	Open	Close	Close	Open
		Relay2	V+	--	--	GND	Open	Close	Close	Open
		Relay3	V+	--	--	GND	Open	Close	Close	Open

Figure 1: Mechanical drawing of the relay assembly. The top view shows a central rectangular body with a width of 27mm and a height of 9mm. It has two side ports with diameters of 5.5mm. The bottom view shows a 35mm wide base with three relay sections (Relay1, Relay2, Relay3) and a central port. Dimensions include 2.78mm for the base width of each relay section, 7.62mm for the spacing between them, and 3.87mm for the port width. Pin numbers 1-10 are listed for each relay section.

Diagram illustrating a 1-to-8 bus multiplexer. An input signal is distributed to eight output ports (Port 1 through Port 8). The output lines are labeled Port 1, Port 2, Port 3, Port 4, Port 5, Port 6, Port 7, and Port 8.

A	B	C	D	E	F
Test Wavelength	Type	Fiber Type	Fiber Dimension	Fiber Length	Connector
850: 850nm	3L: Latching	SM: Single Mode	025: Φ0.25mm	05: 0.5m	00: None
1310: 1310nm	3N: Non-latching	M1:Multi-mode 50/125	09: Φ0.9mm	10: 1.0m	FP: FC/UPC
1550: 1550nm	5L: Latching	M2:Multi-mode62.5/125	X: other	15: 1.5m	FA: FC/APC
D: 1310/1550nm	5N: Non-latching	X: other		X: other	SP: SC/UPC
X: other					SA: SC/APC
					LP: LC/UPC
					LA: LC/APC
					X: other