

1x2 Mechanical Optical Switch

Product Description:

The 1x2 fiber optic switch connects optical channels by directing or blocking an incoming optical signal into the output fiber. This is achieved using a patent pending opto-mechanical configuration and activated via an electrical control signal. A latching version preserves the selected optical path after the drive signal has been removed, while the non-latching versions default to either the open or closed state when power is removed. The switch has integrated electrical position sensors. The new material based advanced design significantly reduces moving part position sensitivity, offering unprecedented high stability as well as unmatched low cost.

Applications:	Features:
Channel Blocking	Unmatched Low Cost
Configurable Add/Drop	Low Optical Distortions
System Monitoring	High Isolation
Instrumentation	High Reliability
	Epoxy-Free Optical Path

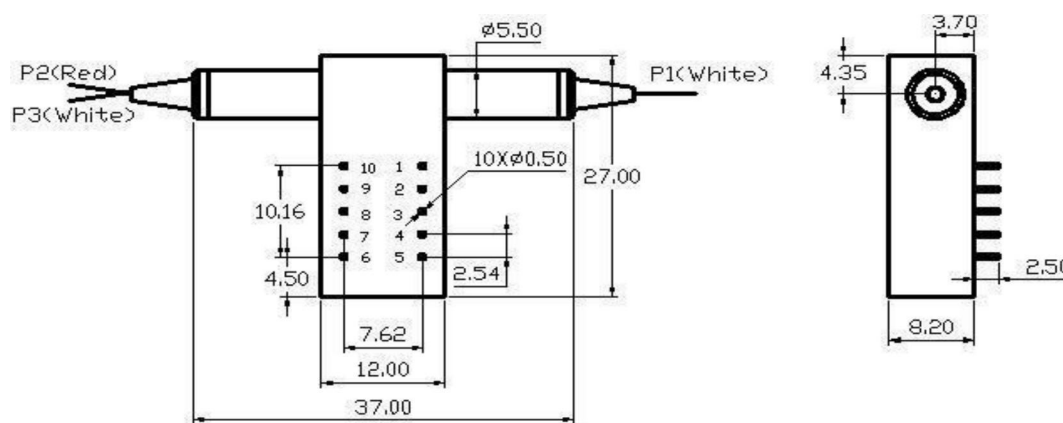
Specifications:

Parameters	Specifications	Unit
Operating Wavelength	1260~1620(SM)、850(MM)	nm
Insertion Loss	≤ 1.0	dB
Wavelength Dependent Loss	≤ 0.25	dB
Polarization Dependent Loss	≤ 0.05	dB
Temperature Dependent Loss	≤ 0.20	dB
Return Loss	SM ≥ 50 MM ≥ 30	dB
Cross Talk	SM ≥ 55 MM ≥ 35	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	27.0L × 12.0W × 8.2H	mm

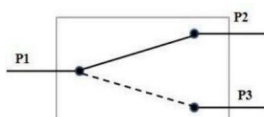
Pin Configurations:

Type	Optical Route	Electric Drive				State Sensor			
		Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Latching	P1-P2	--	--	GND	V +	Close	Open	Open	Close
	P1-P3	V +	GND	--	--	Open	Close	Close	Open
Non-latching	P1-P2	--	--	--	--	Close	Open	Open	Close
	P1-P3	V +	--	--	GND	Open	Close	Close	Open

Mechanical Dimensions (Unit:mm)



Optical Route



Ordering Information:

12	Type	Wavelength	Switch Type	Voltage	Fiber Type	Package	Fiber Length	Connector
Special =00	1060 =1 C+L =2 1310 =3 1410 =4 1550 =5 650 =6 780 =7 1260-1610=A 1310/1550 =9 850=8 Special =0	Latching =1 Non-latching =2 MINI Latching =3 MINI Non-latching =4 Special =0	3V=3 5V=5 Special =0	SM28=1 50/125=5 62.5/125=6 Special =0	Bare fiber=1 900um tube=3 Special =0	0.25m=1 0.5m=2 1.0m=3 Special =0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC/PC=7 Duplex LC=8 Special =0	

2x2 Bypass Mechanical Optical Switch

Product Description:

The 2x2 fiber optic switch connects optical channels by directing or blocking an incoming optical signal into the output fiber. This is achieved using a patent pending opto-mechanical configuration and activated via an electrical control signal. A latching version preserves the selected optical path after the drive signal has been removed, while the non-latching versions default to either the open or closed state when power is removed. The switch has integrated electrical position sensors. The new material based advanced design significantly reduces moving part position sensitivity, offering unprecedented high stability as well as unmatched low cost.

Applications:	Features:
Channel Blocking	Unmatched Low Cost
Configurable Add/Drop	Low Optical Distortions
System Monitoring	High Isolation
Instrumentation	High Reliability
	Epoxy-Free Optical Path

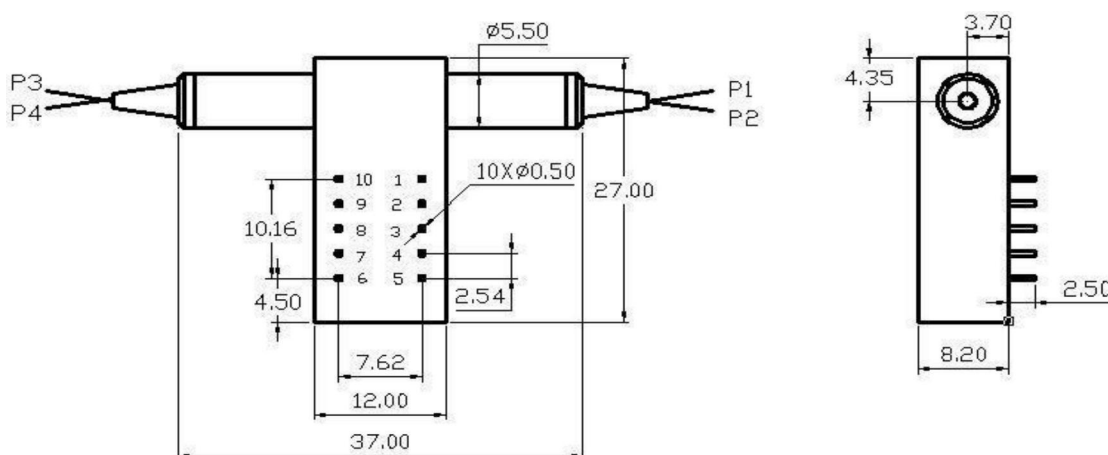
Specifications:

Parameters	Specifications	Unit
Operating Wavelength	1260~1620(SM)、850(MM)	nm
Insertion Loss	≤ 1.0	dB
Wavelength Dependent Loss	≤ 0.25	dB
Polarization Dependent Loss	≤ 0.05	dB
Temperature Dependent Loss	≤ 0.20	dB
Return Loss	SM ≥ 50 MM ≥ 30	dB
Cross Talk	SM ≥ 55 MM ≥ 35	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	27.0L × 12.0W × 8.2H	mm

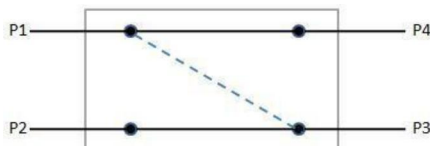
Pin Configurations:

Type	Optical Route	Electric Drive				State Sensor			
		Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
2×2B									
Latching	P1-P3	--	--	GND	V +	Close	Open	Open	Close
	P1-P4、P2-P3	V +	GND	--	--	Open	Close	Close	Open
Non-latching	P1-P3	--	--	--	--	Close	Open	Open	Close
	P1-P4、P2-P3	V +	--	--	GND	Open	Close	Close	Open

Mechanical Dimensions (Unit:mm)



Optical Route



Ordering Information:

22B	Type	Wavelength	Switch Type	Voltage	Fiber Type	Package	Fiber Length	Connector
	Special =00	1060 =1 C+L =2 1310 =3 1410 =4 1550 =5 650 =6 780 =7 1260-1610=A 1310/1550 =9 850 =8 Special =0	Latching =1 Non-latching =2 MINI Latching =3 MINI Non-latching =4 Special =0	3V =3 5V =5 Special =0	SM28 =1 50/125 =5 62.5/125 =6 Special =0	Bare fiber =1 900um tube =3 Special =0	0.25m =1 0.5m =2 1.0m =3 Special =0	None =1 FC/PC =2 FC/APC =3 SC/PC =4 SC/APC =5 ST/PC =6 LC/PC =7 Duplex LC =8 Special =0

Full 2x2 Mechanical Optical Switch

Product Description:

The Full 2x2 fiber optic switch connects optical channels by directing or blocking an incoming optical signal into the output fiber. This is achieved using a patent pending opto-mechanical configuration and activated via an electrical control signal. A latching version preserves the selected optical path after the drive signal has been removed, while the non-latching versions default to either the open or closed state when power is removed. The switch has integrated electrical position sensors. The new material based advanced design significantly reduces moving part position sensitivity, offering unprecedented high stability as well as unmatched low cost.

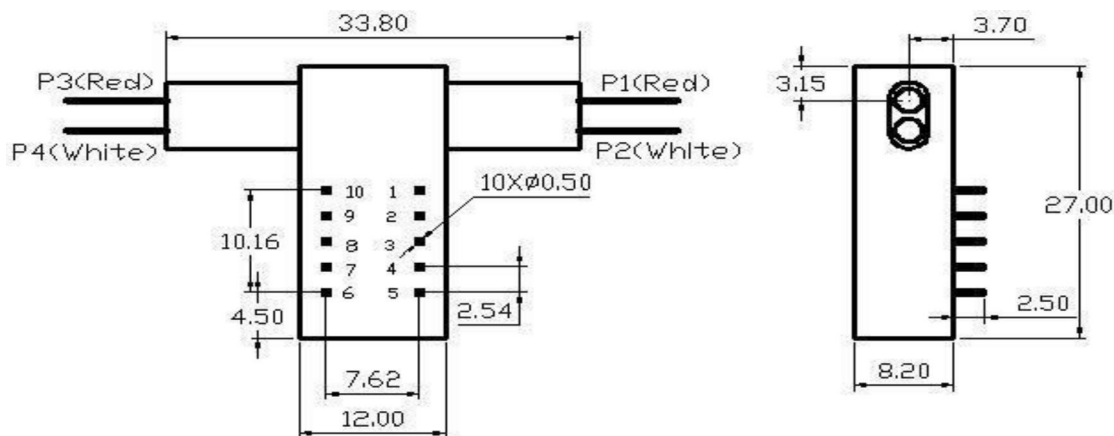
Applications:	Features:
Channel Blocking	Unmatched Low Cost
Configurable Add/Drop	Low Optical Distortions
System Monitoring	Fail-Safe Latching
Instrumentation	High Reliability
	Epoxy-Free Optical Path

Specifications:

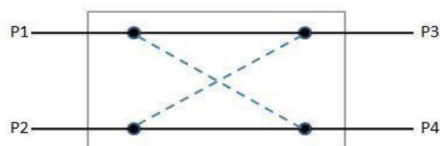
Parameters	Specifications	Unit
Operating Wavelength	1260~1620(SM)	nm
Insertion Loss	≤ 1.0	dB
Wavelength Dependent Loss	≤ 0.25	dB
Polarization Dependent Loss	≤ 0.05	dB
Temperature Dependent Loss	≤ 0.20	dB
Return Loss	SM ≥ 50	dB
Cross Talk	SM ≥ 55	dB
Switch Time	≤ 8	ms
Repeatability	$\leq \pm 0.02$	dB
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	27.0L × 12.0W × 8.2H	mm

Type	Optical Route	Electric Drive				State Sensor			
		Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Full 2×2									
Latching	P1-P4、 P2-P3	--	--	GND	V +	Close	Open	Open	Close
	P1-P3、 P2-P4	V +	GND	--	--	Open	Close	Close	Open
Non-latching	P1-P4、 P2-P3	--	--	--	--	Close	Open	Open	Close
	P1-P3、 P2-P4	V +	--	--	GND	Open	Close	Close	Open

Mechanical Dimensions (Unit:mm)



Optical Route



Ordering Information:

F22	Type	Wavelength	Switch Type	Voltage	Fiber Type	Package	Fiber Length	Connector
	Special =00	1060 =1 C+L =2 1310 =3 1410 =4 1550 =5 650 =6 780 =7 1260-1610=A 1310/1550 =9 850=8 Special =0	Latching =1 Non-latching =2 MINI Latching =3 MINI Non-latching =4 Special =0	3V=3 5V=5 Special =0	SM28=1 50/125=5 62.5/125=6 Special =0	Bare fiber=1 900um tube=3 Special =0	0.25m=1 0.5m=2 1.0m=3 Special =0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC/PC=7 Duplex LC=8 Special =0

Dual 1x2 Mechanical Optical Switch

Product Description:

The dual 1x2 fiber optic switch connects optical channels by directing or blocking an incoming optical signal into the output fiber. This is achieved using a patent pending opto-mechanical configuration and activated via an electrical control signal. A latching version preserves the selected optical path after the drive signal has been removed, while the non-latching versions default to either the open or closed state when power is removed. The switch has integrated electrical position sensors. The new material based advanced design significantly reduces moving part position sensitivity, offering unprecedented high stability as well as unmatched low cost.

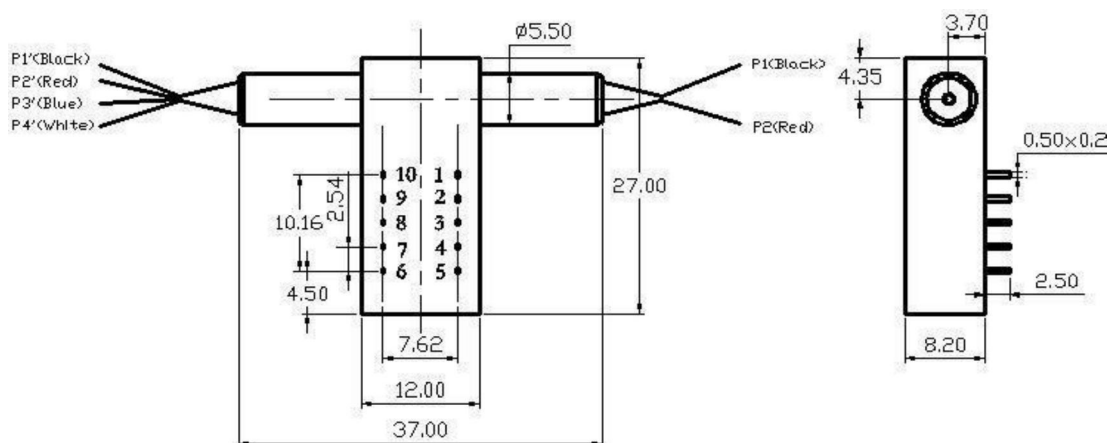
Applications:	Features:
Channel Blocking	Unmatched Low Cost
Configurable Add/Drop	Low Optical Distortions
System Monitoring	High Isolation
Instrumentation	High Reliability
	Epoxy-Free Optical Path

Specifications:

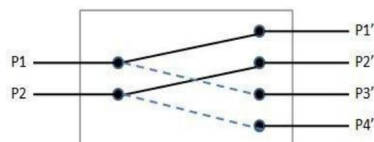
Parameters	Specifications	Unit
Operating Wavelength	1260~1620(SM)、850(MM)	nm
Insertion Loss	≤ 1.0	dB
Wavelength Dependent Loss	≤ 0.25	dB
Polarization Dependent Loss	≤ 0.05	dB
Temperature Dependent Loss	≤ 0.25	dB
Return Loss	SM ≥ 55 MM ≥ 35	dB
Cross Talk	SM ≥ 55 MM ≥ 35	dB
Switch Time	≤ 8	ms
Repeatability	$\leq \pm 0.02$	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	27.0L × 12.0W × 8.2H	mm

Type	Optical Path		Electric Drive				Status Sensor			
			Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Latching	P1-P3'	P2-P4'	--	--	GND	V+	Close	Open	Open	Close
	P1-P1'	P2-P2'	V+	GND	--	--	Open	Close	Close	Open
Non-Latching	P1-P3'	P2-P4'	--	--	--	--	Close	Open	Open	Close
	P1-P1'	P2-P2'	V+	--	--	GND	Open	Close	Close	Open

Mechanical Dimensions (Unit:mm)



Optical Route



Ordering Information:

D12	Type	Wavelength	Switch Type	Voltage	Fiber Type	Package	Fiber Length	Connector
	Special =00	1060 =1 C+L =2 1310 =3 1410 =4 1550 =5 650 =6 780 =7 1260-1610=A 1310/1550 =9 850=8 Special =0	Latching =1 Non-latching =2 MINI Latching =3 MINI Non-latching =4 Special =0	3V=3 5V=5 Special =0	SM28=1 50/125=5 62.5/125=6 Special =0	Bare fiber=1 900um tube=3 Special =0	0.25m=1 0.5m=2 1.0m=3 Special =0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC/PC=7 Duplex LC=8 Special =0

Dual 2x2 Bypass Mechanical Optical Switch

Product Description:

The Dual 2x2 Bypass Mechanical Fiber optic switch is an integrated single device with 8 fiber ports. Based on Ephotics's pending patent, the switch is designed especially for protection and restoration applications. The switch is activated by a 5V pulse between two states, and the latching operation preserves the selected optical path after the drive signal has been removed. The switch has integrated electrical contact based position sensors. The simple 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.

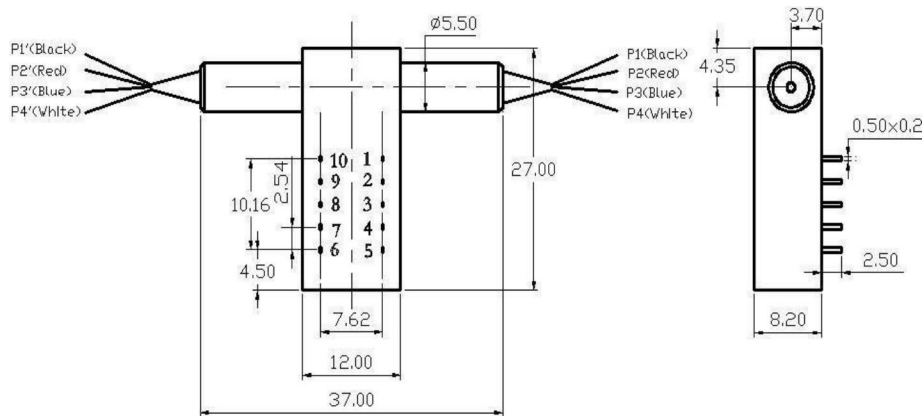
Applications:	Features:
Protection	Low Cost
Instrumentation	Low Optical Distortions
	High Isolation/ Reliability
	Fail-Safe Latching
	Epoxy-Free Optical Path

Specifications:

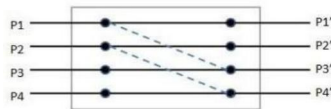
Parameters	Specifications	Unit
Operating Wavelength	1260~1620(SM)、850(MM)	nm
Insertion Loss	≤ 1.0	dB
Wavelength Dependent Loss	≤ 0.25	dB
Polarization Dependent Loss	≤ 0.05	dB
Temperature Dependent Loss	≤ 0.20	dB
Return Loss	SM ≥ 50 MM ≥ 35	dB
Cross Talk	SM ≥ 55 MM ≥ 35	dB
Switch Time	≤ 8	ms
Repeatability	$\leq \pm 0.02$	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	27.0L × 12.0W × 8.2H	mm

Type	Optical Path	Electric Drive				Status Sensor			
		Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Latching	Port 1 → Port 1' Port 2 → Port 2' Port 3 → Port 3' Port 4 → Port 4'	V+	GND	--	--	Open	Close	Close	Open
	Port 1 → Port 3' Port 2 → Port 4'	--	--	GND	V+	Close	Open	Open	Close
Non-Latching	Port 1 → Port 1' Port 2 → Port 2' Port 3 → Port 3' Port 4 → Port 4'	V+	--	--	GND	Open	Close	Close	Open
	Port 1 → Port 3' Port 2 → Port 4'	--	--	--	--	Close	Open	Open	Close

Mechanical Dimensions (Unit:mm)



Optical Route



Ordering Information :

D22B	Type	Wavelength	Switch Type	Voltage	Fiber Type	Package	Fiber Length	Connector
	Special =00	1060 =1 C+L =2 1310 =3 1410 =4 1550 =5 650 =6 780 =7 1260-1610=A 1310/1550 =9 850 =8 Special =0	Latching =1 Non-latching =2 MINI Latching =3 MINI Non-latching =4 Special =0	3V =3 5V =5 Special =0	SM28 =1 50/125 =5 62.5/125 =6 Special =0	Bare fiber =1 900um tube =3 Special =0	0.25m =1 0.5m =2 1.0m =3 Special =0	None =1 FC/PC =2 FC/APC =3 SC/PC =4 SC/APC =5 ST/PC =6 LC/PC =7 Duplex LC =8 Special =0