

### Description

XH-OSW-1X2 mechanical optical switch is an optical path control device with the function of controlling the optical path and converting the optical path; it can realize 2 optical signal inputs and select the signal output of one of them (supporting bidirectional use). It has an important role in optical communication applications. Optical switch is mainly used for multiple optical monitoring of optical transmission system, automatic switching of multiple sources/detectors in LAN, and multi-point dynamic monitoring system of optical sensing Optical test system is used for optical fiber, optical devices, network and field engineering for optical cable testing; installation and commissioning of optical devices.

### Features

- Low insertion loss, wide wavelength range
- Low channel crosstalk, high stability, high reliability
- Simple control, small size, easy to embed in circuit boards
- Selectable locking and non-locking control types

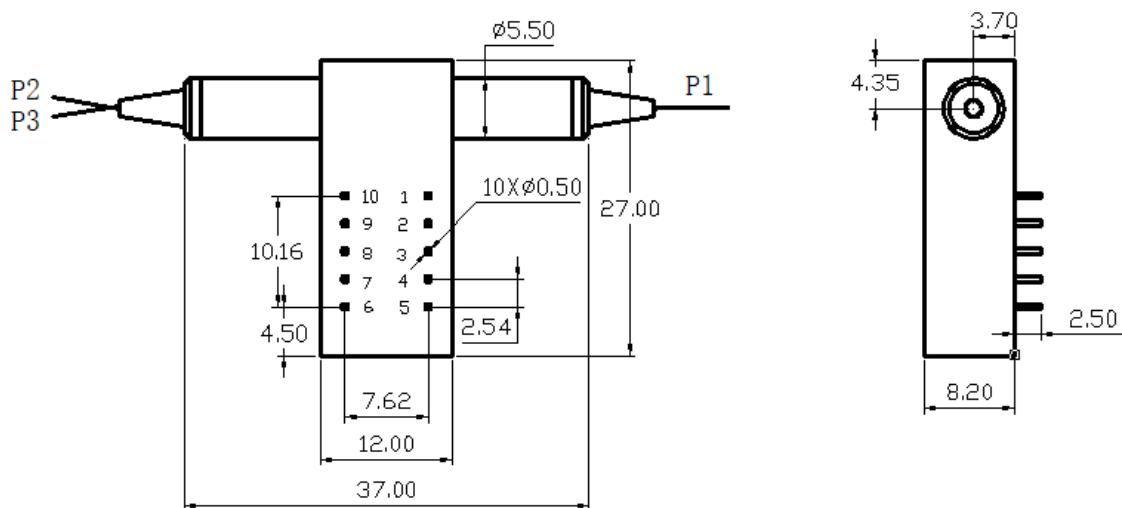


### Performance

Parameters	Parameter Value	
Model	XH-OSW-1X2	
Insertion Loss (dB)	Typ : 0.5 dB Max : 1.0 dB	
Wavelength Range (nm)	532~1064 nm	1260~1650 nm
Wavelength testing (nm)	532/650/780/850/980 nm	1310/1490/1550/1625 nm
Return Loss (dB)	MM ≥ 30 dB SM ≥ 50dB	
Crosstalk (dB)	MM ≥ 35dB SM ≥ 55dB	
PDL (dB)	≤0.05	
WDL (dB)	≤0.25	
TDL (dB)	≤0.25	
Repeatability (dB)	≤±0.02	
Lifetime (Times)	≥10 <sup>7</sup>	
Switching Time (ms)	≤8	
Transmission power (mW)	≤500	
Operating Voltage (V)	3 or 5	
Operating Temperature (°C)	-20~+70	
Storage Temperature (°C)	-40~+85	
Weight	16g	
Dimension (mm)	(L)27.0×(W)12×(H)8.2±0.2	

**Tip:** The above are the commonly used optical switch parameters, if you have other requirements can consult the custom.

### Dimensions

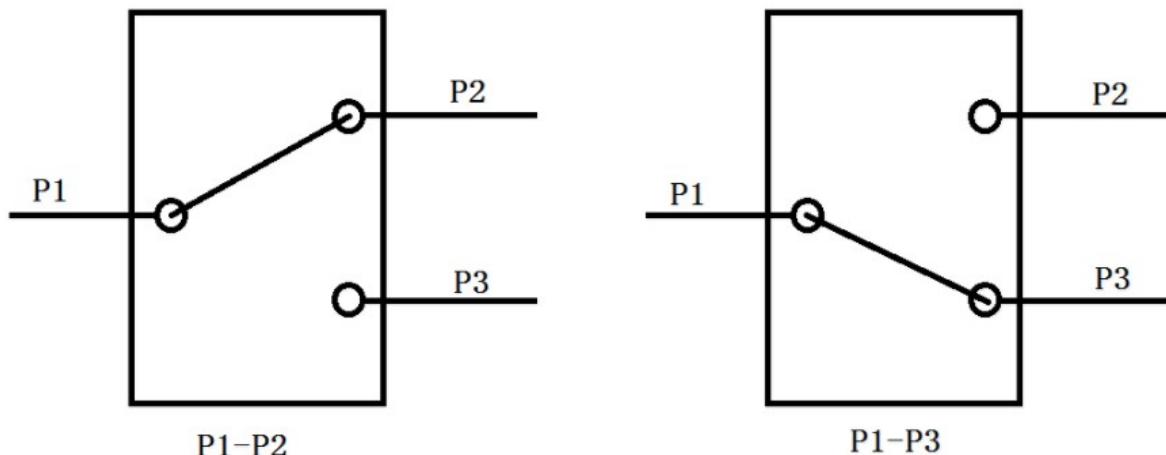


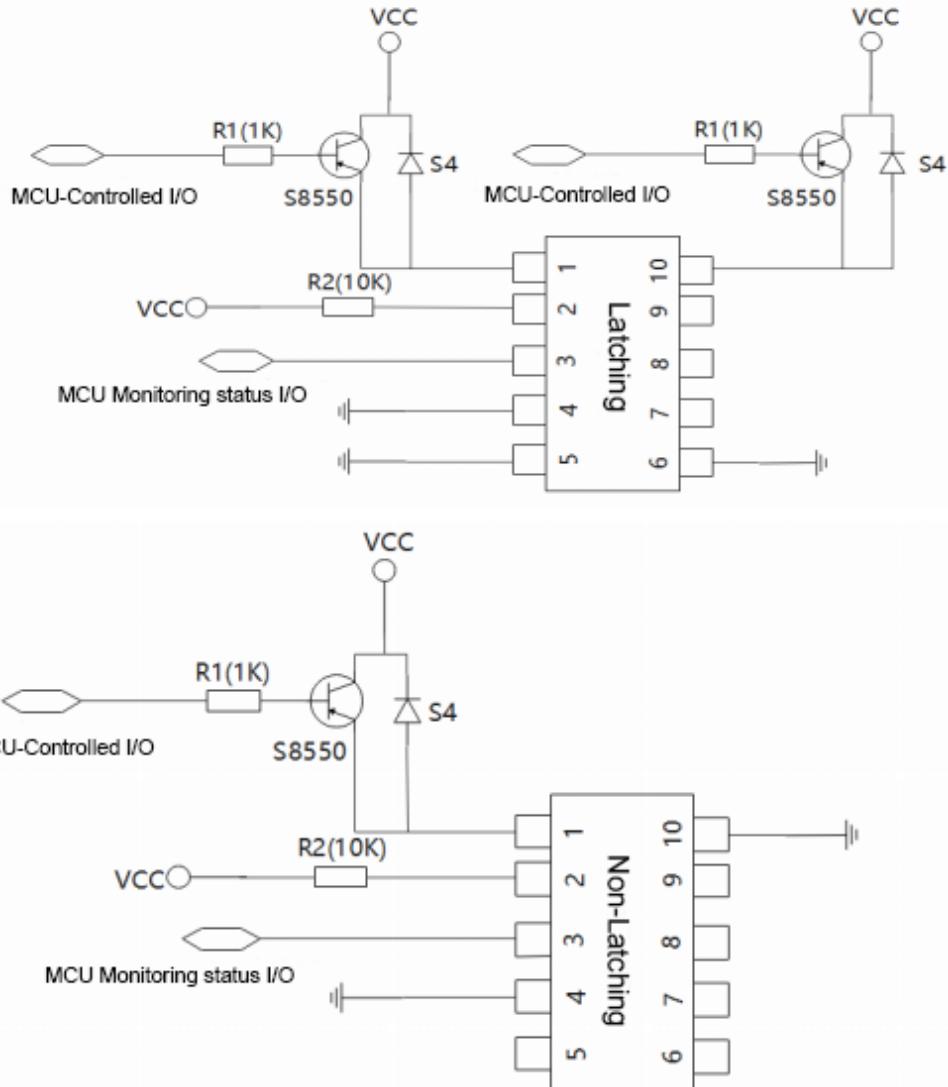
### Pins

Type	Pin	Electric Drive				Sensor Status			
1x2	channel	1	5	6	10	2-3	3-4	7-8	8-9
Latching	P1-P2	--	--	GND	V+	CLOSE	OPEN	OPEN	CLOSE
	P1-P3	V+	GND	--	V+	OPEN	CLOSE	CLOSE	OPEN
Non-Latching	P1-P2	--	--	--	--	CLOSE	OPEN	OPEN	CLOSE
	P1-P3	V+	--	--	GND	OPEN	CLOSE	CLOSE	OPEN

Description: The locking type optical switch only needs to be powered on to control the switching after power off, and the optical path will keep the state after switching after power off; the non-locking type optical switch needs to be kept powered on or off to realize the optical path switching, and the optical path will return to the state before the initial value is powered after power off.

### Optical Route



**Control circuit design reference**

**Ordering Information : XH-OSW-1X2-A-B-C-D-E-F-G**

Wavelength(A)	Fiber Type(B)	Voltage Type(C)	Control Model(D)	Fiber Diameter (E)	Fiber Length(F)	Connector(G)
850:850nm 1310:1310nm 1550:1550nm 1310/1550:1310nm/1550nm X:Others	SM:SM,9/125 M5:MM,50/125 M6:MM,62.5/125	3:3V 5:5V	L=Latching N=Non-Latching	25::250um 90:900um	05:0.5m 10:1.0m 15:1.5m X:Others	NO:无 FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC LP: LC/PC LA: LC/APC X:Others