

Description

XH-OSW-1X4 optical switch is an optical path control device, which has the role of controlling the optical path and converting the optical path. It has an important role in optical communication applications. The optical switch is mainly used in optical transmission system for multiple optical monitoring, LAN multi-source/detector automatic switching and optical sensing multi-point dynamic monitoring system optical test system for optical fiber, optical devices, network and field engineering optical cable testing; optical device installation and adjustment.



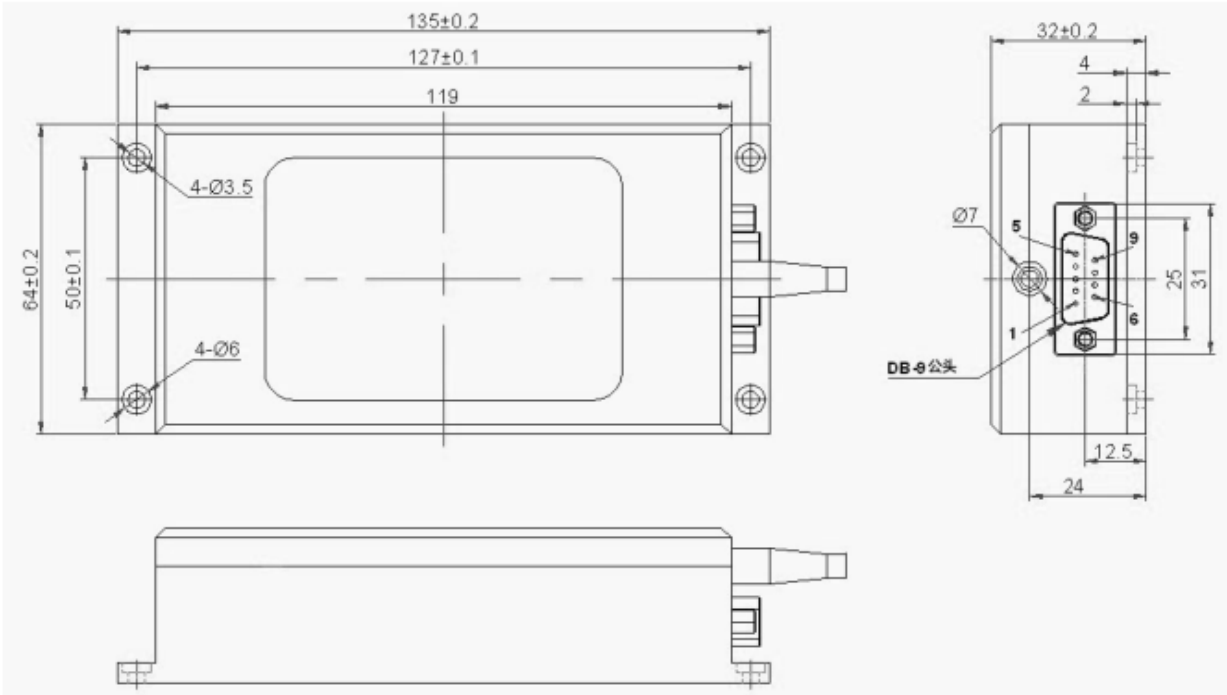
Features

- Low insertion loss, wide wavelength range
- Low channel crosstalk, high stability, high reliability
- Proprietary technology, no glue in the optical path
- Locking and non-locking control types are available

Performance

Parameter	Parameter Values	
Model	XH-OSW-1XN	
Insertion Loss	1<N≤16	
	Typ : 0.5 dB Max : 1.0 dB	
Wavelength Range	532~1064 nm	1260~1650 nm
Wavelength Testing	532/650/780/850/980 nm	1310/1490/1550/1625 nm
Return Loss	MM ≥ 30 SM ≥ 50	
Crosstalk	MM ≥ 70 SM ≥ 70	
PDL	≤0.05dB	
WDL	≤0.25 dB	
TDL	≤0.25 dB	
Repeatability	≤0.02 dB	
Lifetime	≥10 ⁷	
Switching Time	≤8 ms	
Transmission Power	≤500 mW	
Connector	FC、LC、SC、ST	
Control	TTL	
Operating Voltage	5V	
Working Current	500mA	
Operating Temperature	-20 ~ +70	
Storage Temperature	-40 ~ +85	

Dimensions



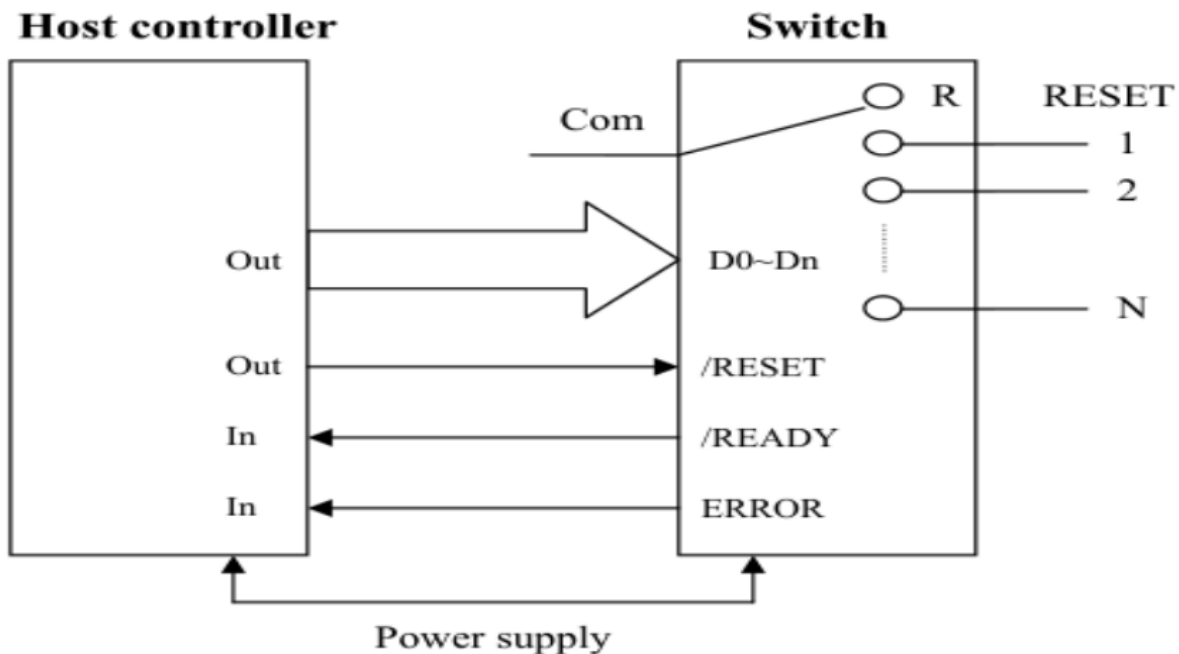
Optical Route



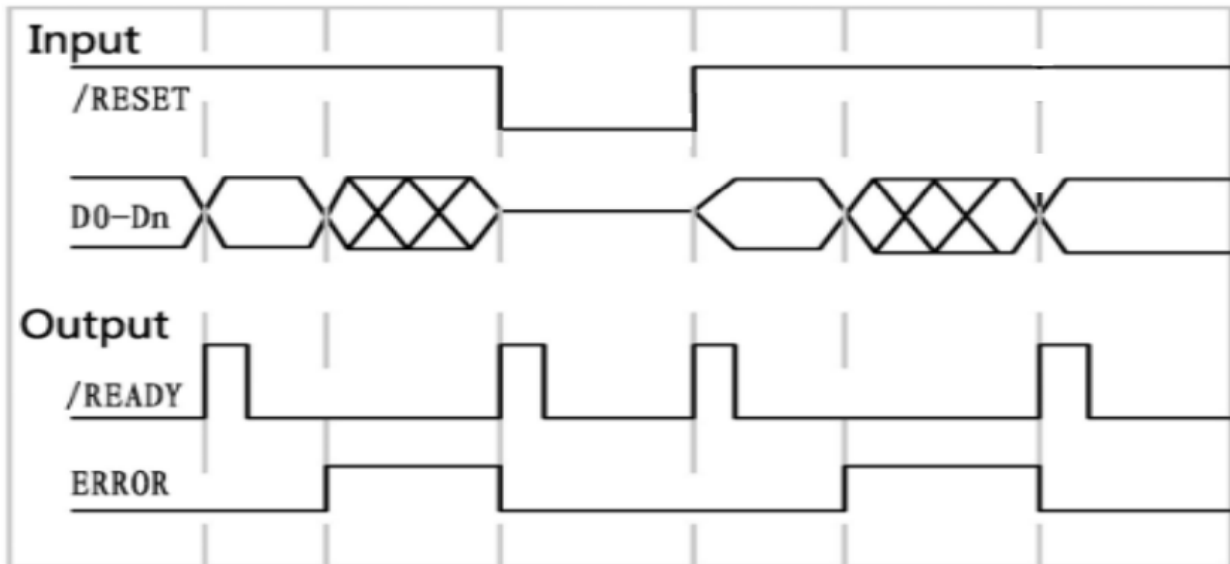
Pins

DB9 male connector			
Pins	Type	Name	Functions
1	Input	D0	D3~D0 are the channel selection data bits, D3 is the high bit, D0 is the low bit
2	Input	D1	
3	Input	D2	
4	Input	D3	
5	Input	RESET	low level indicates that the channel is reset, and a high level indicates that the data bits are active.
6	Out	READY	low level indicates that the optical switch channel switching is completed, and a high level indicates that the optical switch channel is switching.
7	Out	ERROR	low level indicates that the optical switch is operating normally, and a high level indicates that the optical switch channel selection data bit signal is overflowing or there is a fault inside the optical switch.
8	Power	GND	Power supply ground
9	Power	VCC	Positive power supply

Control Schematic



Control timing diagram



Control Logic Table

Channel	D0	D1	D2	D3	RESET
COM-0	x	x	x	x	0
COM-1	0	0	0	0	1
COM-2	1	0	0	0	1
COM-3	0	1	0	0	1
...					1
COM-14	1	0	1	1	1
COM-15	0	1	1	1	1
COM-16	1	1	1	1	1

*0 represents low level 0V, 1 represents high level 5V, the module has internal 5V pull-up resistor to support 3.3V microcontroller chip pin control.

Ordering Information : XH-OSW-1XN-A-B-C-D-E

Channel(N)	Wavelength(A)	Fiber Type(B)	Fiber Diameter(C)	Fiber Length (D)	Connector(E)
N:≤16	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 5 HI1060:HI1060 X:Others	25::250um 90:900um 200:200um X:Others	05:0.5m 10:1.0m 15:1.5m X:Others	OO:None FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC LP: LC/PC LA: LC/APC X:Others