

## 2 x 2 T Optical Switch

### Product features

Low insertion loss,  
wide wavelength range and low crosstalk  
Compact structure and fast switching speed

### Scope of application

Passive optical network optical protection  
system ; measurement system ;  
network monitoring

### Technical parameters



Parameter	Unit	HC-OSW-2×2T
Operating wavelength	nm	SM:1260~1620
Test wavelength	nm	1310 / 1550
Insertion Loss (IL)	dB	≤ 1.0 (typical value: 0.8)
Wavelength dependent loss (WDL)	dB	≤0.25
Temperature Dependent Loss (TDL)	dB	≤0.2
Polarization dependent loss (PDL)	dB	≤0.05
Return Loss (RL)	dB	SM≥50
Crosstalk (CT)	dB	SM≥55
Repeatability	dB	≤±0.02
Switching speed	ms	≤8
Number of switches	times	≥10 million
Operating voltage	V	3.0 or 5.0
Bear optical power	mw	≤500
Operating temperature	℃	-5~+70
Storage temperature	℃	-40~+85

Operating humidity	RH%	5~95
Package size	mm	L27xW12.6xH8.2
Remarks: 1. All parameters were tested in a room temperature operating environment. 2. All parameters do not include the insertion loss of the connector, and each pair of connectors adds a loss of 0.3 dB.		

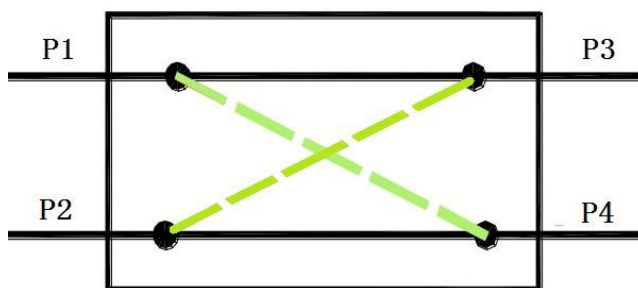
## Drive pin definition

Type	Status	Optical path	Electronically controlled drive				Status indication			
2x2T			Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Self-locking	A	P1-P4, P3-P2	-	-	GND	V+	Close	Open	Open	Close
	B	P1-P3, P2-P4	V+	GND	-	-	Open	Close	Close	Open
Non-self-locking	A	P1-P4, P3-P2					Close	Open	Open	Close
	B	P1-P3, P2-P4	V+	-	-	GND	Open	Close	Close	Open

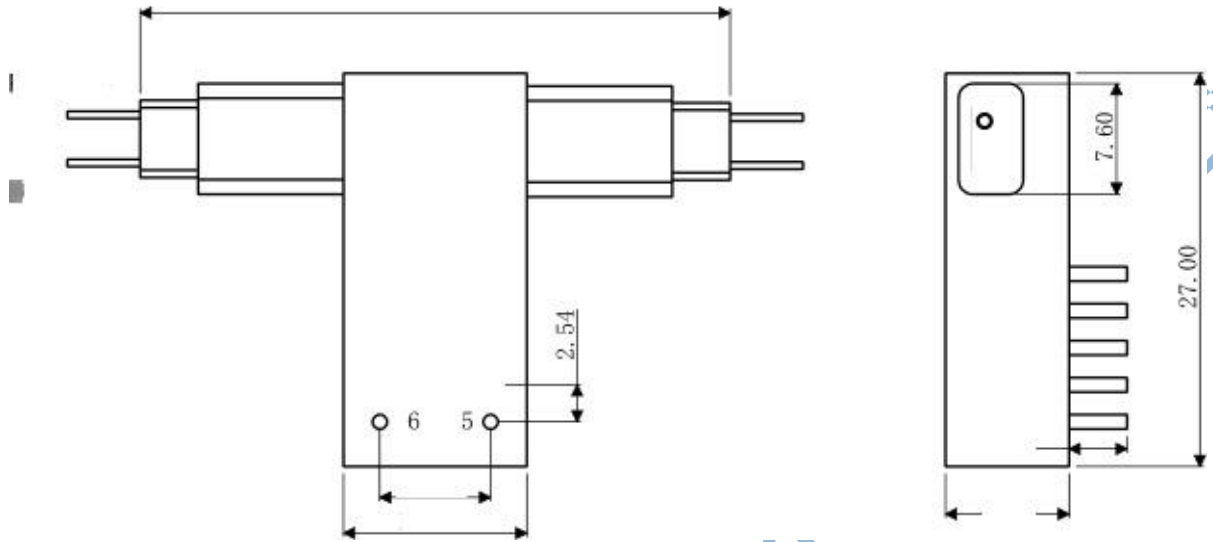
## Electric control parameters

Type	Voltage	Electric current	Resistance
5V Self-locking	4.5~5.5V	36~44mA	125Ω
5V Non-self-locking	4.5~5.5V	26~32mA	175Ω
3V Self-locking	2.7~3.3V	54~66mA	50Ω
3V Non-self-locking	2.7~3.3V	39~47mA	70Ω

## Schematic diagram of optical path



## Dimension (mm)



## Ordering information HC - OSW-2×2T-A-B-C-D-E-F

A	B	C	D	E	F
Test wavelength	Switch type	Fiber type	Fiber diameter	Fiber length	Connector type
1310: 1310nm	3L: Self-locking	SM: Single mode 9/125	025: $\Phi 0.25\text{mm}$	05: 0.5m	00: None
1550: 1550nm	3 N: Non-self-locking	X: Other	09: $\Phi 0.9\text{mm}$	10: 1.0m	FP: FC/UPC
D: 1310/1550nm	5L: Self-locking		X: Other	15: 1.5m	FA: FC/APC
X: Other	5 N: Non-self-locking			X: others	SP: SC/UPC
					SA: SC/APC
					LP: LC/UPC
					LA: LC/APC
					X: others