



# 1x2 Solid-State Fiberoptic Switches

AC Photonics' SW Series switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved using patent pending electro-mechanical proprietary configurations and activated via an electrical control signal. The Solid-state operation offers ultra-high reliability and fast switching speed as well as bi-directional performance. The SW fiberoptic switches are true switching solution for optical networking applications.



## Features

- Fast Switching Speed
- Ultra-High Reliability
- Latching
- High Repeatability
- Low Cost

## Applications

- Optical Signal Routing
- Optical Network Protection/Restoration
- Configurable Optical Add/Drop
- Transmitter and Receiver Protection
- Network Test Systems
- Instrumentation

## Performance Specifications

Parameter	Specification	
	Unidirectional	Bidirectional
Operating Wavelength (nm)	1525~1565 or custom wavelengths	
Insertion Loss (dB)	≤1.1	≤1.3
PDL (dB)	≤0.2	
Polarization Mode Dispersion (ps)	≤0.2	
Cross Talk (dB)	≥40	≥35
Return Loss (dB)	≥40	≥30
Switching Speed (us)	200~400, (50 speed optional)	
Durability(Cycle)	>30 billions	
Repeatability (dB)	+/- 0.01	
Maximum Optical Power (mW)	500	
Switching Type	Latching	
Operating Temperature(°C)	-5~+70	
Storage Temperature(°C)	-40~+85	
Dimensions (mm) (LxWxH)	39x9.0x9.5	

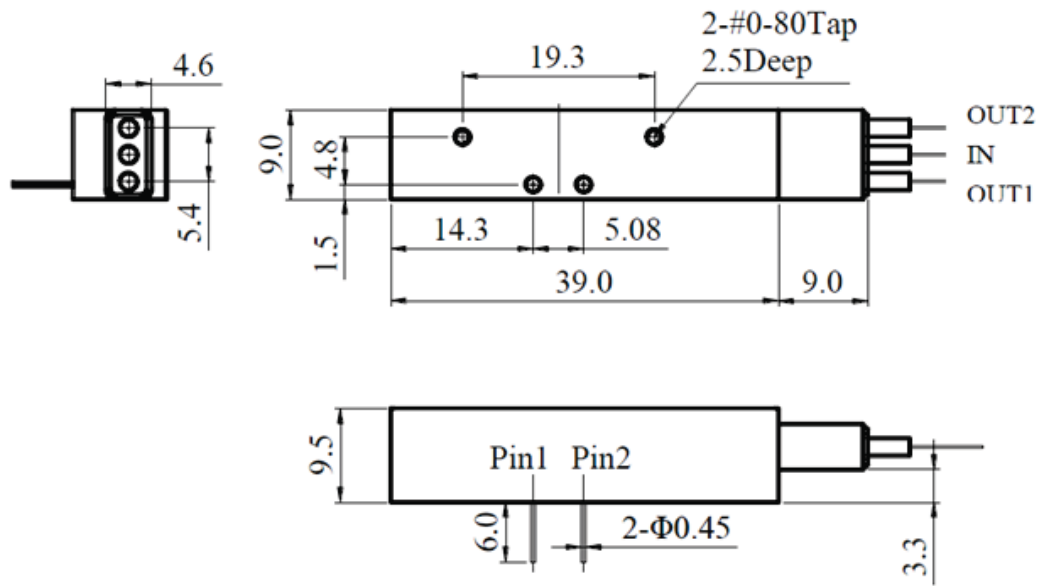
Specifications may change without notice.

## Ordering Information

SW	Direction	Operating Wavelength	Port	Switching Speed	Pigtail Style	Fiber Length	In/Out Connector
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	U=unidirectional B=Bidirectional	15=1550nm	0102 = 1x2	1=200 to 400us 2=10 to 30us	1=Bare Fiber 2=900um Jacket	1=1m 2=2m	0=None 1=FC/APC 2=FCPC 3=SC/APC 4=SC/PC 5=ST 6=LC/UPC 7=LC/APC



## Dimension (mm)



## Electric Configuration

Parameter	Specifications	
Switching Speed	200 to 400 $\mu$ s	10 to 30 $\mu$ s
Switching Voltage(Vcc)	5 $\pm$ 5%V	6 to 7V
Switching Current	< 200mA	< 350mA
Pulse Width(typical)	1000 $\mu$ s	20 $\mu$ s
Claim Frequency	< 800Hz	< 3000Hz

## Pin Configuration

Pin 1	Pin 2	Optical Path
1(Voltage=VCC)	0(Voltage=GND)	IN to OUT1
0(Voltage=GND)	1(Voltage=VCC)	IN to OUT2
1(Voltage=VCC)	0(Voltage=GND)	OUT2 to IN
0(Voltage=GND)	1(Voltage=VCC)	OUT1 to IN