

1x4 Solid-State SM Fiber optic Switch

ACP's SW Series switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved using patent pending non-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 fiber optic switches are true switching solutions for optical networking applications.

PERFORMANCE SPECIFICATIONS

Parameter	Specifications	
Port Configuration	Unidirectional	Bidirectional
Operating Wavelength	1525 ~ 1565 or Custom Wavelengths	
Insertion Loss	≤ 2.2dB	≤ 2.4dB
Polarization Dependent Loss (PDL)	≤ 0.30dB	≤ 0.30dB
Polarization Mode Dispersion (PMD)	≤ 0.20ps	≤ 0.20ps
Channel Crosstalk	≥ 40dB	≥ 35dB
Return Loss	≥ 40dB	≥ 30dB
Repeatability	± 0.01dB	
Switching Speed (Typ.)	200 ~ 400us	
Durability (Cycles)	≥ 30 Billion	
Optical Power	≤ 500mW	
Operating Temperature	-5 to +70°C	
Storage Temperature	- 40 to +85°C	
Package Dimensions (LxWxH)	90x76x17.5	

All values referenced are without connector.

FEATURES

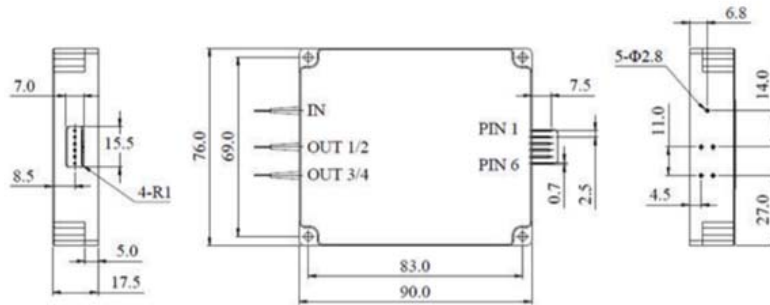
- Fast Switching Speed
- Ultra-High Reliability
- Latching
- Highly Repeatability
- Low Cost

APPLICATION

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

1x4 Solid-State SM Fiberoptic Switch

MECHANICAL DIMENSIONS



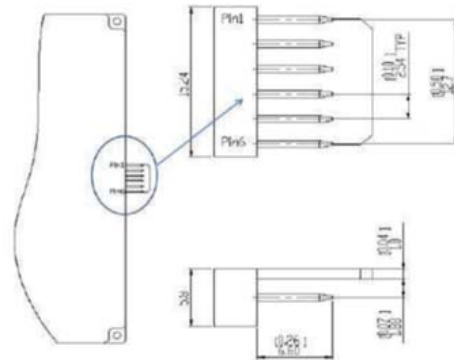
ELECTRICAL CONNECTOR SPECIFICATIONS

Vendor: Molex (P/N: 0022057068)

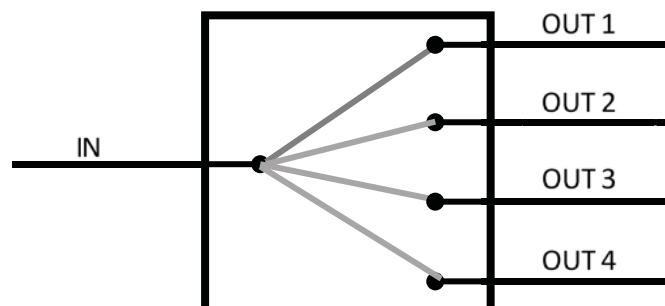
Housing: Natural nylon, UL 94V-O

Plating: Tin

Contact: Brass, 0.64mm (.025") square



PORT CONFIGURATIONS



1x4 Solid-State SM Fiberoptic Switch

OPTICAL PATH AND ELECTRICAL PIN CONFIGURATION

Unidirectional Configuration				
Ctrl 0	0	0	1	1
Ctrl 1	0	1	0	1
Optical Path	IN to OUT 1	IN to OUT 2	IN to OUT 3	IN to OUT 4

Bidirectional Configuration								
Ctrl 0	0		0		1		1	
Ctrl 1	0		1		0		1	
Optical Path	IN to OUT 1	Out 4 to IN	IN to OUT 2	Out 3 to IN	IN to OUT 3	Out 2 to IN	IN to OUT 4	Out 1 to IN

Pin #	1	2	3	4	5	6
2Name	Vcc	GND	Ctrl 0	Ctrl 1	N/A	N/A

ELECTRICAL SPECIFICATIONS

Optical Path	Unit	Specifications
Switching Speed	us	200 ~ 400
Switching Voltage (Vcc)	V	5 ± 5%
Switching Current	mA	≤ 200
Pulse Width (Typical)	us	1,000
Claim Frequency	Hz	≤ 800

ORDERING INFORMATION

Configuration	Switching Speed	Operating Wavelength	Port	Fiber Type*	Pigtail Style	Fiber Length	In Connector	Out Connector
U=Unidirectional B=Bidirectional	1=200~400us	55=1525 ~ 1565m	104=1x4	2=SMF-28 Ultra (G.657.A1) 3=ClearCurve ZBL(G.657.B3)	1=Bare fiber 2=900um loose tube	05=0.5m 10=1.0m . . . 20=2.0m	0=None 1=FC/APC 2=FC/PC 3=SC/APC 4=SC/PC 5=ST 6=LC/UPC 7=LC/APC	0=None 1=FC/APC 2=FC/PC 3=SC/APC 4=SC/PC 5=ST 6=LC/UPC 7=LC/APC

*1=SMF-28(G.652) is available upon request.