



Dual 2x2 Mechanical SM Fiber optic Switch

ACP's MS Series switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved using a patent pending opto-mechanical proprietary configuration and activated via an electrical control signal. The Switch offers ultra-high reliability and fast switching speed as well as bi-directional performance. The MS fiber optic switches are true switching solution for optical networking applications.

PERFORMANCE SPECIFICATIONS

Parameter	Specifications			
Operating Windows	Single		Dual	
Operating Wavelength	830±40, 1310±40, 1550±40nm		830/1310±30, 830/1550±30nm 1310/1550±30nm	
Grade	P	A	P	A
Insertion Loss	≤ 0.80dB	≤ 1.0dB	≤ 1.0dB	≤ 1.2dB
Temperature Dependent Loss (TDL)	≤ 0.15dB	≤ 0.20dB	≤ 0.15dB	≤ 0.20dB
Wavelength Dependent Loss	≤ 0.25dB		≤ 0.30dB	
Polarization Dependent Loss	≤ 0.05dB			
Channel Crosstalk	≥ 55dB			
Return Loss	≥ 55dB			
Repeatability	± 0.02dB			
Switching Speed (Typ.)	4ms			
Switching Speed (Max.)	≤ 10ms			
Operating Voltage	5 ± 0.5V			
Durability (Cycles)	10Million			
Optical Power	≤ 500mW			
Operating Temperature	0 to +70°C			
Storage Temperature	- 40 to +85°C			
Package Dimensions (LxWxH)	H Package: 22.3x12.1x11.0 V Package: 25.0x12.6x8.5			

All values referenced are without connector.

FEATURES

- Unmatched Low Cost
- Low Insertion Loss
- High Channel Isolation
- High Stability and Reliability
- Epoxy Free Optical Path
- Latching or Non-Latching

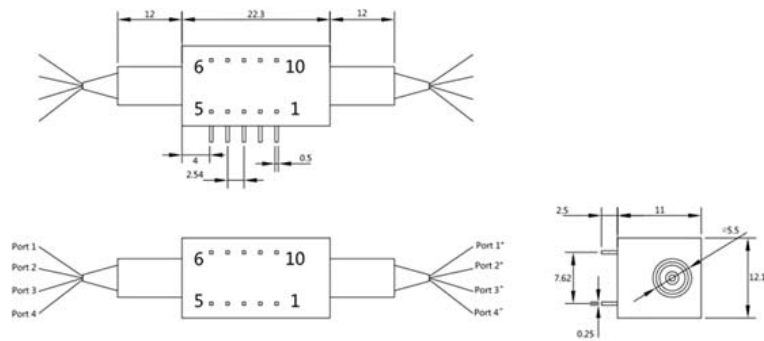
APPLICATION

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

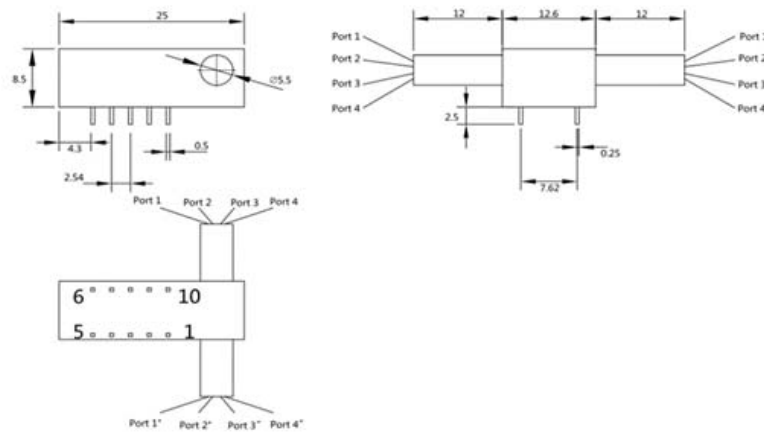
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MECHANICAL DIMENSIONS

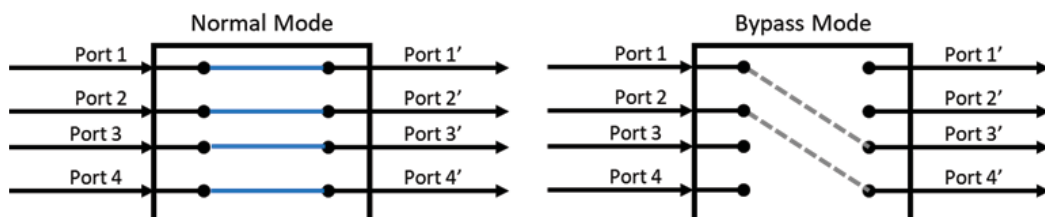
H Package



V Package



PORT CONFIGURATIONS



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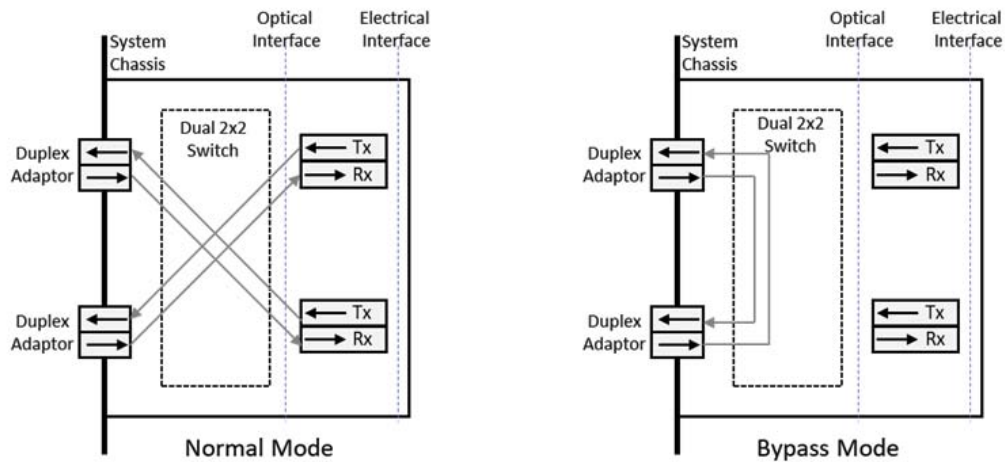
OPTICAL PATH AND ELECTRICAL PIN CONFIGURATION

Optical Path		Port 1 to 3' and Port 2 to 4'		Port 1 to 1' and Port 2 to 2' Port 3 to 3' and Port 4 to 4'	
Electrical Drive	Non-Latching	Pin 1	Pin 10		
	Latching	Pin 1	Pin 5	Pin 6	Pin 10
		V+	GND	GND	V+
Sensor Status	Non-Latching and Latching	Pin 2-3, Pin 8-9 Open		Pin 2-3, Pin 8-9 Close	
		Pin 3-4, Pin 7-8 Close		Pin 3-4, Pin 7-8 Open	

ELECTRICAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Switch Voltage	4.5	5.0	5.5	V
Switch Current		≥ 40		mA
Pulse Duration		≥ 20		ms

APPLICATION



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ORDERING INFORMATION

DMS									
Option	Grade	Operating Wavelength	Port	Package	Fiber Type*	Pigtail Style	Fiber Length	In Connector	Out Connector
L=Latching	P=P Grade	83=830nm	0202=Normal	H=H Package	2=SMF-28 Ultra	1=Bare fiber	05=0.5m	0=None	0=None
N=Non-Latching	A=A Grade	31=1310nm	B2P2=Bypass	V=V Package	(G.657.A1)	2=900um	10=1.0m	1=FC/APC	1=FC/APC
		55=1550nm			3=ClearCurve	loose tube	.	2=FC/PC	2=FC/PC
		8331=830/1310nm			ZBL(G.657.B3)		.	3=SC/APC	3=SC/APC
		8355=830/1550nm					.	4=SC/PC	4=SC/PC
		3155=1310/1550nm					20=2.0m	5=ST	5=ST
								6=LC/UPC	6=LC/UPC
								7=LC/APC	7=LC/APC

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