1x4 Mechanical SM Fiberoptic 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 fiberoptic switches are true switching solution for optical networking applications.

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

PERFORMANCE SPECIFICATIONS

| Parameter	Specifications	
Operating Windows	Single	Dual
Operating Wavelength	1310 ± 40 or 1550 ± 40	1310 /1550 ± 30nm
Insertion Loss	P Grade: ≤ 1.0dB	A Grade: ≤ 1.2dB
Wavelength Dependent Loss	≤ 0.30dB	
Polarization Dependent Loss	≤ 0.10dB	
Channel Crosstalk	≥ 55dB	
Return Loss	≥ 55dB	
Repeatability	± 0.02dB	
Switching Speed (Typ.)	5ms	
Switching Speed (Max.)	≤ 10ms	
Operating Voltage	5V	
Coil Resistance (Pin 1-5 or Pin 6-10)	178 ±10% Ω	
Durability (Cycles)	10Million	
Optical Power	≤ 500mW	
Operating Temperature	0 to +70℃	
Storage Temperature	- 40 to +85℃	
Package Dimensions (LxWxH)	V=26.0x25.5x10.5	

All values referenced are without connector.

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MECHANICAL DIMENSIONS

V Package
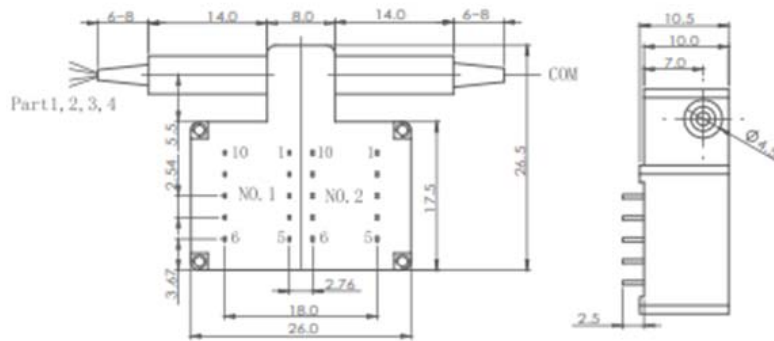
PORT CONFIGURATIONS
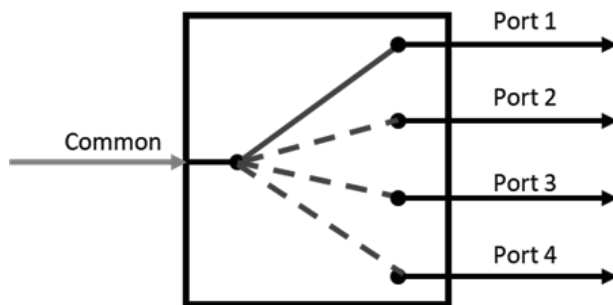
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OPTICAL PATH AND RELAY STATUS

Relay No.	1	2	Switch Status
Relay Status	0	0	Com – Port 1
	1	0	Com – Port 2
	0	1	Com – Port 3
	1	1	Com – Port 4

ELECTRICAL PIN CONFIGURATIONS

Relay Status		Electrical Drive (Pin #)				Sensor Status (Pin #)			
		1	5	6	10	2-3	3-4	8-7	8-9
Latching Type	0 (Reset)	GND	GND	GND	+	Close	Open	Open	Close
	1 (set)	+	GND	GND	GND	Open	Close	Close	Open
Non-Latching Type	0 (Reset)	NC	NC	NC	NC	Close	Open	Open	Close
	1 (set)	+	NC	NC	GND	Open	Close	Close	Open

ORDERING INFORMATION

MS										

Option	Grade	Operating Wavelength	Port	Package	Fiber Type*	Pigtail Style	Fiber Length	In Connector	Out Connector
L=Latching N=Non-Latching	P=P Grade A=A Grade	31=1310nm 55=1550nm 3155=1310/1550nm	104=1x4	V=V Package	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.