![AC Photonics logo] AC Photonics

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1x4 Mechanical Fiberoptic Switch(Latching or Non-Latching)

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.

Key Features

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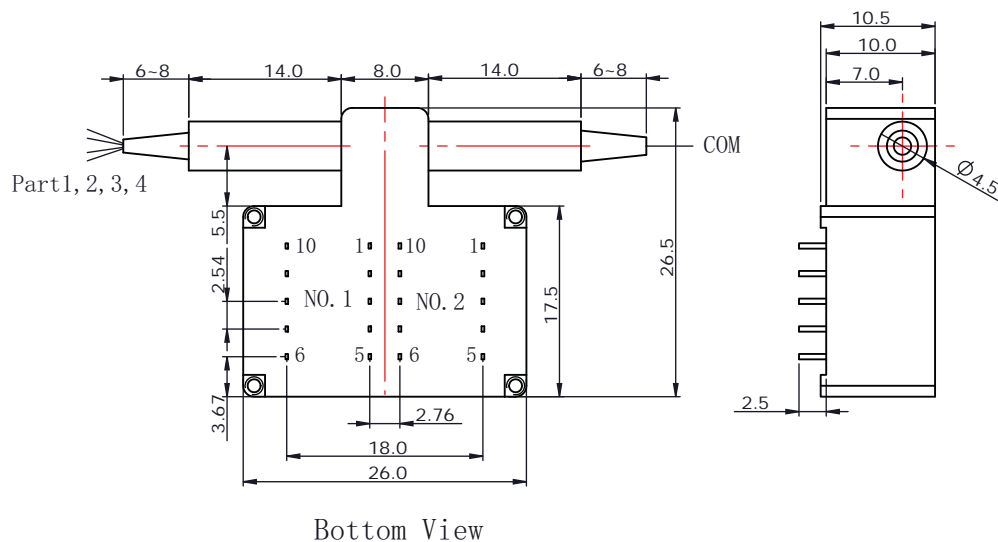- Epoxy Free Optical Path
- Latching or Non-Latching

Applications

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

Performance Specifications

Parameter	Specifications	
Channel Wavelength	1310nm ± 40nm /1490nm ± 10nm / 1550nm ± 40nm	
Insertion Loss	P Grade	A Grade
	≤ 1.0dB	≤ 1.2dB
Wavelength Dependent Loss	≤ 0.30dB	
Polarization Dependent Loss	≤ 0.10dB	
Channel Cross Talk	≥ 55dB	
Return Loss	≥ 55dB	
Repeatability	± 0.02dB	
Switching Speed (Typ.)	≤10 ms	
Operating Voltage	5V	
Coil Resistance (Pin 1-5 or 6-10)	178 ± 10% ohms	
Durability (Cycles)	10 Million	
Optical Power	500mW	
Operating Temperature	0 to +70°C	
Storage Temperature	-40 to +85°C	
Fiber Type	Corning SMF-28e+ or Clear Curve XB fiber	
Fiber Length	1.0m ± 0.1m or Customer specify	
Package Dimensions	L26mm x W25.5mm x H10.3mm	

Mechanical Dimensions

Bottom View

Electrical Pin Configuration

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

Optical Switch Configuration

Relay No.	1	2	Switch Status
Relay Status	0	0	C-Port 1
	1	0	C-Port 2
	0	1	C-Port 3
	1	1	C-Port 4

Ordering Information

MS	☐	☐ ☐	☐ ☐ ☐ ☐	☐	☐	☐	☐ ☐
	Option	**Operating Wavelength**	**Port**	**Grade**	**Pigtail Style**	**Fiber Length**	**In/Out Connector**
	L = Latching N = Non-Latching	15 = 1550nm 13 = 1310nm 35 = 1310 / 1550nm	0104 = 1x4	P = P Grade A = A Grade	1 = Bare Fiber 2 = 900um Jacket	1 = 1.0m 2 = 2.0m	0 = None 1 = FC/APC 2 = FC/PC 3 = SC/APC 4 = SC/PC 5 = ST 6 = LC/UPC 7 = LC/APC