

Features

- No moving parts, best reliability
- Ultra fast switching speed
- Extremely stable latching mode
- Low power consumption
- Easy to route-all fibers on one end
- Exceptional durability and stability



Applications

- Optical switching
- High speed protection
- System monitoring
- Test & measurement
- Fiber-optics sensing system

Product Description

The μ s-series 1x4 solid-state fiber optical switch connects optical channels by redirecting an incoming optical signal into a selected output optical fiber. The switching of the optical light is realized by utilizing Faraday Effect.

This is achieved using a patent protected non-mechanical configuration with solid-state all-crystal design which eliminates the need for mechanical movement. The μ s-series fiber optic switch is designed to meet the most demanding switching requirements of reliability, durability, response, and continuous high frequency switching operation.

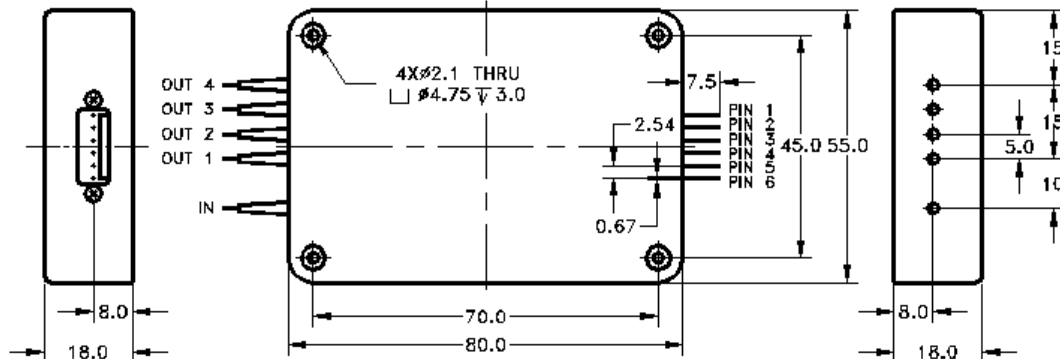
Specifications

Item	Unit	Parameters		Notes
		Unidirectional	Bidirectional	
Wavelength Range	nm	1525~1565		Other band optional
Insertion Loss	dB	1.8 (Typ.); 2.2 (Max.)	2.0 (Typ.); 2.4 (Max.)	Add 1.2dB for high-power version
PDL	dB	0.2 (Typ.); 0.3(Max.)		
Return Loss	dB	40	30	
Crosstalk	dB	40	35	
PMD	ps	0.2		
Repeatability	dB	+/- 0.01		
Durability	cycles	> 30 Billions		
Switching Speed	μ s	100 ~ 400		
Operating Temperature	℃	-5 ~ 70		
Storage Temperature	℃	-40 ~ 85		
Maximum Optical Power	mW	500 (for high-power version: 5W for CW laser, 700W of peak power for ns-scale pulsed laser)		
Dimension(L×W×H)	mm	80×55×18		

*. All the specifications are based on the devices without connector, and guaranteed over wavelength, polarization and temperature.

** Specifications are subject to change without notice.

Dimensions Drawing (mm)



Electrical Specifications

Parameter	Specification	Unit
Switching Speed	200~400	μs
Switching Voltage(VCC)	4.5~5.5	V
Switching Current	< 200	mA
Pulse Width(typical)	1000	μs
Claim Frequency	< 800	Hz

*. for electrical specifications related to other switching speed, please contact Primanex.

Pin Definition

Pin No.	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6
Definition	VCC	GND	Ctrl 2	Ctrl 1	-	-

Pin Control Signal Corresponding to Switching Status:

Table1: Pin control signal corresponding to switching status for unidirectional switch

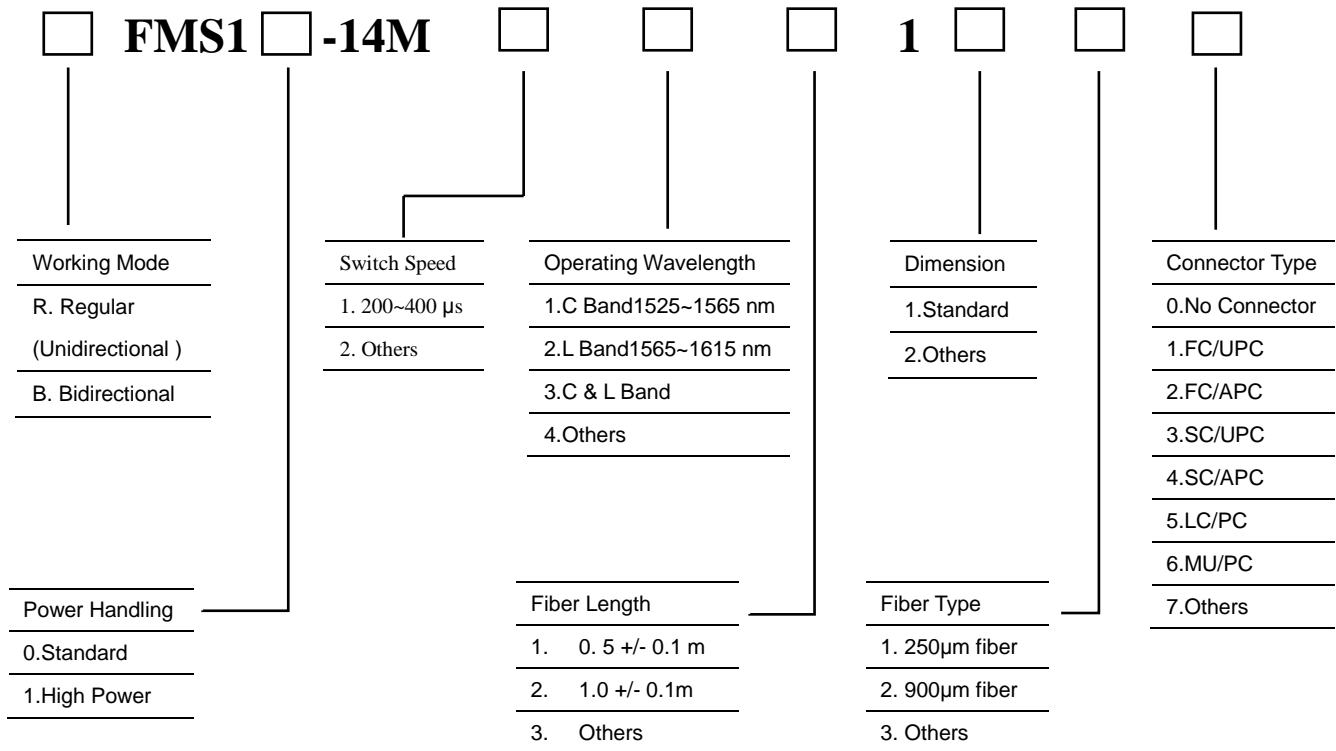
Ctrl1	0	1	0	1	0	1	0	1
Ctrl2	0	0	1	1	0	0	1	1
Optical Path	IN→OUT 1	IN→OUT 2	IN→OUT 3	IN→OUT 4	OUT4→IN	OUT→IN	OUT2→IN	OUT1→IN

Table2: Pin control signal corresponding to switching status for bidirectional switch

Ctrl 1	0	1	0	1
Ctrl 2	0	0	1	1
Optical Path	IN ↔ OUT 1	IN ↔ OUT 2	IN ↔ OUT 3	IN ↔ OUT 4



Ordering Information (Example:RFMS10-14M1121120)



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