

## 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  $\mu$ s-series 1x8 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  $\mu$ s-series fiber optic switch is designed to meet the most demanding switching requirements of reliability, durability, response, and continuous high frequency switching operation.

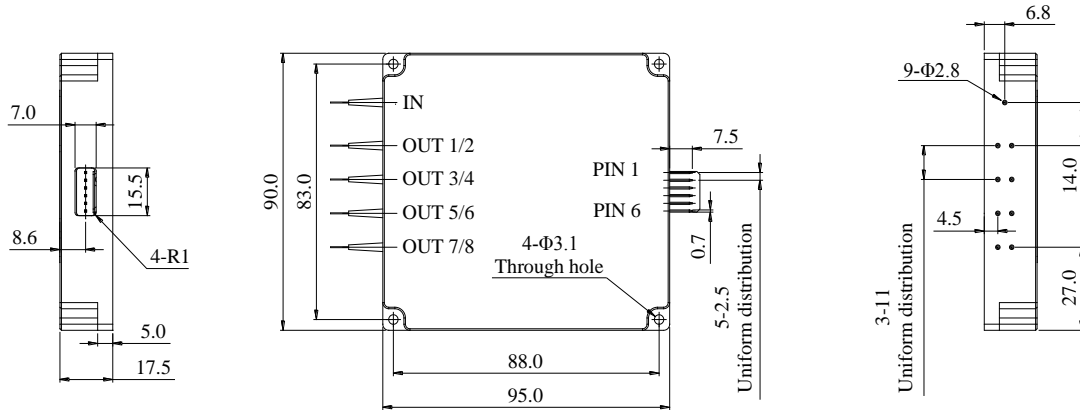
## Specifications

Item	Unit	Parameters		Notes
		Unidirectional	Bidirectional	
Wavelength Range	nm	1525 ~ 1565		Other band optional
Insertion Loss	dB	2.8 (Typ.); 3.2 (Max.)	3.0 (Typ.); 3.5 (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	$\mu$ s	200 ~ 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	95×90×17.5		

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

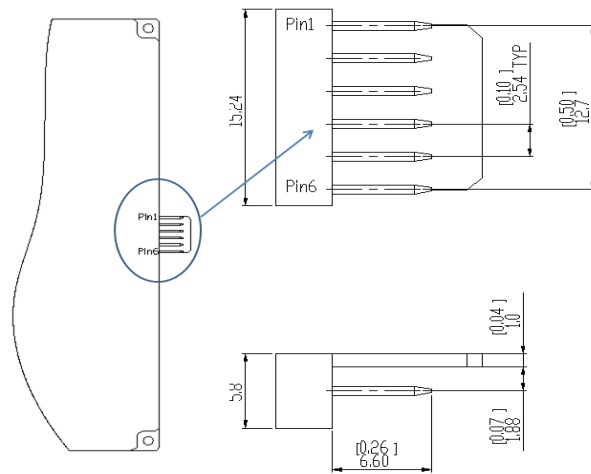
\*\* Specifications are subject to change without notice.

## Dimensions Drawing (mm)



## Electrical Connector Specifications

Vendor:	Molex (P/N: 0022057068)
Housing:	Natural nylon, UL 94V-O
Contact:	Brass, 0.64 mm (.025") square
Plating:	Tin



## Port Mark & Pin Assignment

Ports & Pins	Assignment	Note
IN	The optical input port	-
OUT1, OUT2, OUT3, OUT4, OUT5, OUT6, OUT7, OUT8	The optical output port1, 2, 3, 4, 5, 6, 7, 8	-
Pin 1	VCC	5V
Pin 2	GND	-
Pin 3	Ctrl2	5V TTL
Pin 4	Ctrl1	5V TTL
Pin 5	Ctrl0	5V TTL
Pin 6	NA	NA



## Electrical Specifications

Parameter	Specification	Unit
Power Supply Voltage (VCC)	5 (+/-5%)	V
Inrush Current	< 700	mA
Claim Frequency	600	Hz

## Pin Control Signal Corresponding to Switching Status:

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

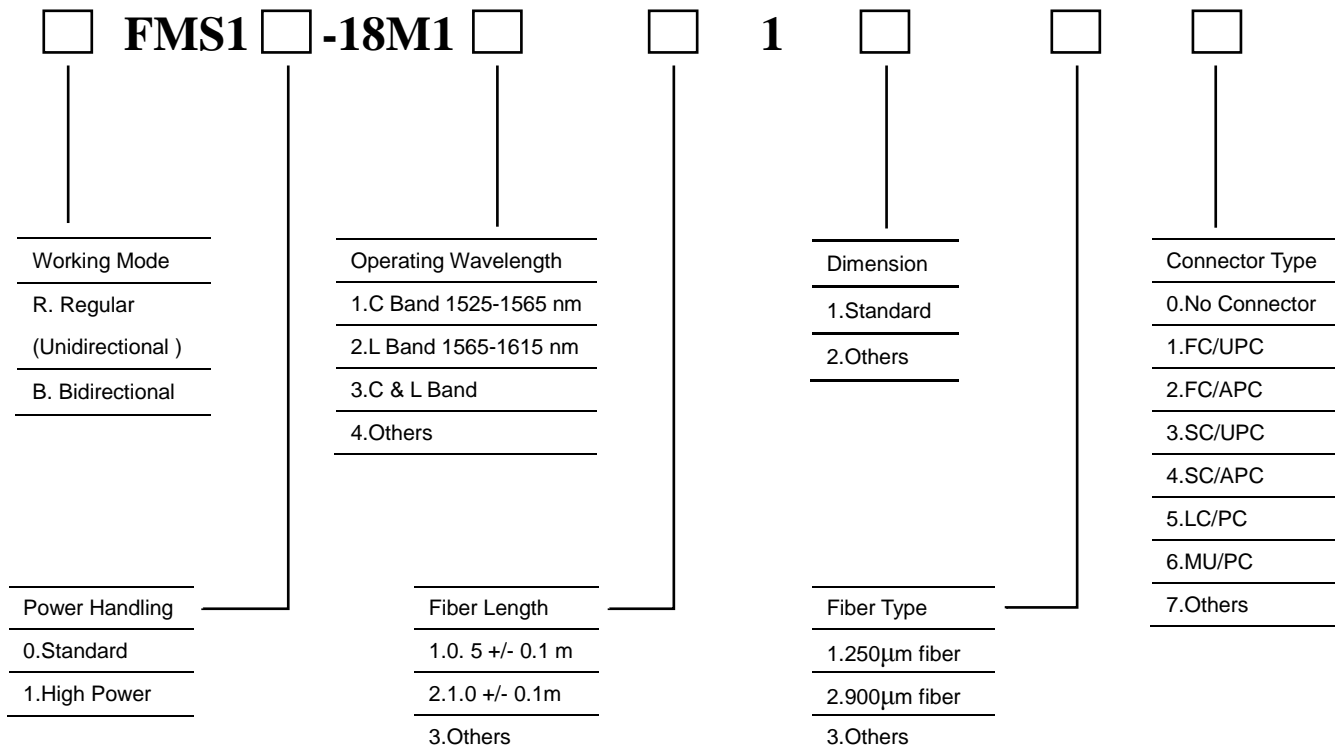
Ctrl 2	Ctrl 1	Ctrl 0	Optical Path
0	0	0	IN → OUT1
0	0	1	IN → OUT2
0	1	0	IN → OUT3
0	1	1	IN → OUT4
1	0	0	IN → OUT5
1	0	1	IN → OUT6
1	1	0	IN → OUT7
1	1	1	IN → OUT8
0	0	0	OUT8 → IN
0	0	1	OUT7 → IN
0	1	0	OUT6 → IN
0	1	1	OUT5 → IN
1	0	0	OUT4 → IN
1	0	1	OUT3 → IN
1	1	0	OUT2 → IN
1	1	1	OUT1 → IN

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

<b>Ctrl0</b>	0	1	0	1	0	1	0	1
<b>Ctrl1</b>	0	0	1	1	0	0	1	1
<b>Ctrl2</b>	0	0	0	0	1	1	1	1
<b>Optical Path</b>	IN ↔ O1	IN ↔ O2	IN ↔ O3	IN ↔ O4	IN ↔ O5	IN ↔ O6	IN ↔ O7	IN ↔ O8



## Ordering Information (Example:RFMS10-18M1121120)



All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. Primanex reserves the right to change at any time without notices the design, specifications, function, fit or form of its products described herein, including withdrawal at any time of a product offered for sale herein. Primanex makes no representations that the products herein are free from any intellectual property claims of others. Please contact Primanex for more information. Primanex and the Primanex logo are trademarks of Primanex Corporation. Other trademarks are the property of their respective holders.