

# 1×2 Opto-Mechanical Switch

## Features:

- Fast Switching Speed
- Broad Wavelength Range
- Ultra-low Loss
- Latching or Non-latching Configuration

## Applications:

- Sub-system Integration
- Configurable OADM
- Test & Measurement Equipment
- Optical Network Protection



## Specifications<sup>1</sup>:

Parameter	Unit	Grade "A"	
Central Wavelength ( $\lambda_c$ )	nm	1310, 1550, 1310&1550	
Bandwidth	nm	100	
Insertion Loss	Typ.	0.35	
	Max.	0.6	
Return Loss	Typ.	60	
	Min.	55	
PDL	Typ.	0.03	
	Max.	0.05	
Switching Time	Typ.	5	
	Max.	8	
Cross-Talk	Typ.	70	
	Min.	60	
Switching Speed	Max.	10 Hz	
Switch Voltage	V	4.5~5.5	
Durability	Min.	cycles	10 million
Repeatability <sup>2</sup>	Typ.	dB	+/- 0.01
	Max.		+/- 0.02
Fiber Type		Corning SMF-28	
Fiber Length	Min.	m	1.0
Power Handling	Max.	mW	1,000
Operating Temperature		°C	0~70
Storage Temperature		°C	- 40~85
Package Dimension	mm		Type C: (L)55×(W)26×(H)12
			Type E: (L)48×(W)17×(H)12

1. Values referenced without connectors.

2. Repeatability measured at room temperature for 100 cycles.

3. On-off switch available.

4. Custom fiber, central wavelength, switch voltage are available upon request.

Package<sup>1</sup>:

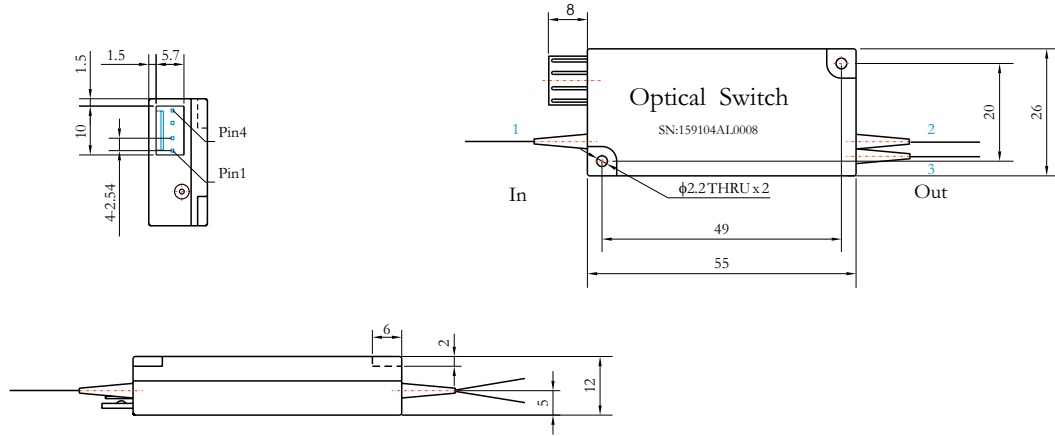


Figure 1. Package Type C

Control Method	In1 - Out2					In1 - Out3				
	Switch Control				Position Indicator	Switch Control				Position Indicator
	Pin1	Pin2	Pin3	Pin4	Pin3 and Pin4	Pin1	Pin2	Pin3	Pin4	Pin3 and Pin4
Non-latching 2-Pin Control	GND	5VDC			Contact Close	GND	GND			Open Contact
Latching 2-Pin Control	5VDC	GND			Contact Close	GND	5VDC			Open Contact
Latching 3-Pin Control	N/A	GND	Pin3		Contact Close	GND	N/A	5VDC		Open Contact
Latching 4-Pin Control	5VDC	GND	N/A	N/A		N/A	N/A	GND	5VDC	

Table 1:Type C Truth Table

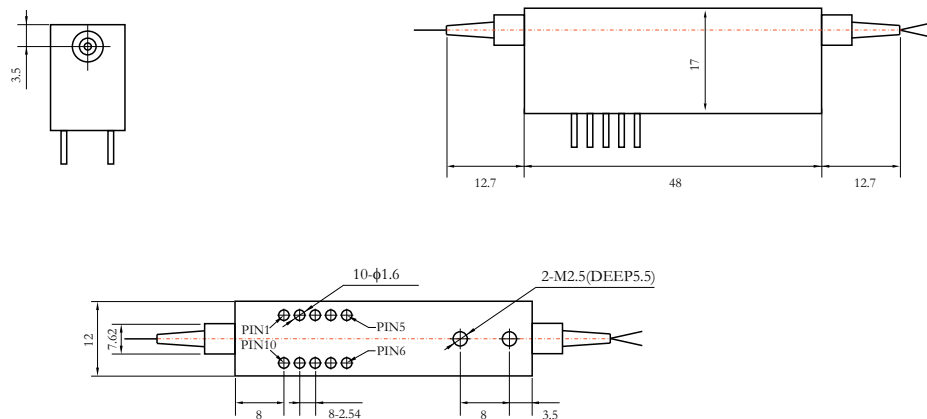


Figure 2. Package Type E

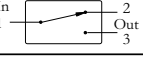
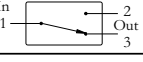
Optical Path	Switch Control				State	Contact Status			
	Pin1	Pin5	Pin6	Pin10		Pin2-3	Pin4-3	Pin7-8	Pin9-8
In1 - Out2	+5V	Gnd	N/A	N/A		Open	Closed	Closed	Open
In1 - Out3	N/A	N/A	Gnd	+5V		Closed	Open	Open	Closed
Switching Current	66.7 mA				Coil Resistance	45 ohm			
Latching 4-pin control: pin1, 5, and 6, 10 are used for control. When no power is applied, the switch is latched in place									

Table 2: Type E Truth Table

**Order Information:**

KSWT - XXX - X - XXXX - XXXX - XX - XX  
                   A      B      C          D      E      F

A	Configuration	1x1=1x1 type
		1x2=1x2 type
B	Package Type	A=Type A
		C=Type C
		E=Type E
		S=Custom
C	Fiber Type	250S=250 μm bare fiber
		900L=900 μm loose tube
		900T=900 μm tight buffer fiber
D	Wavelength	1310=1310 nm
		1550=1550 nm
		1315=1310&1550 nm
E	Connector	N=W/O connector
		Y=With connector <sup>1</sup>
F	Control Method (for Type C only)	N2=Non-latching 2-Pin Control
		L2=Latching 2-Pin Control
		L3=Latching 3-Pin Control
		L4=Latching 4-Pin Control

1. Please specify the type of connector when ordering.