

## D2×2 Optical Switch



D2×2 SM Optical Switch



D2×2 MM Optical Switch

### Features:

- ◆ Low Insertion Loss
- ◆ Wide Wavelength Range
- ◆ Low Crosstalk
- ◆ High Stability, High Reliability
- ◆ Epoxy-free on Optical Path
- ◆ Latching and Non-latching

### Applications:

- ◆ R&D in Laboratory
- ◆ System Monitoring
- ◆ OADM
- ◆ MAN (Metropolitan Area Network)

### General:

HE-D2×2 Optical Switch, which is famous for its high performance, low insertion loss and compact dimension: (L) 28.5×(W) 12.6×(H) 8.7mm (SM); (L) 27.0×(W) 12.6×(H) 8.2mm (MM). It is an ideal component for OADM, OXC, system monitoring and protection.

With compact package, it can be easy to integrate into a high density optical communication system.

**Specifications: (D2x2 SM)**

Parameters	Unit	HE-D2x2-S
Wavelength Range	nm	1260 ~ 1650
Test Wavelength	nm	1310 / 1550
Insertion Loss <sup>Note1, 2</sup>	dB	Typ.: 1.0    Max.: 1.5
Return Loss <sup>Note1, 2</sup>	dB	≥ 50
Crosstalk <sup>Note1</sup>	dB	≥ 55
PDL	dB	≤0.05
WDL	dB	≤0.25
Repeatability	dB	≤±0.02
Operating Voltage	V	3.0 or 5.0
Durability	Cycles	≥ 10 Million
Switching Time	ms	≤8
Optical Power	mW	≤500
Operating Temperature	°C	-5 ~ +70
Storage Temperature	°C	-40 ~ +85
Relative Humidity	%	5 ~ 95
Weight	g	16
Dimension	mm	(L)28.5×(W)12.6×(H)8.7 ±0.2
<b>Note: 1, Within operating temperature and SOP.            2, Excluding connectors.</b>		

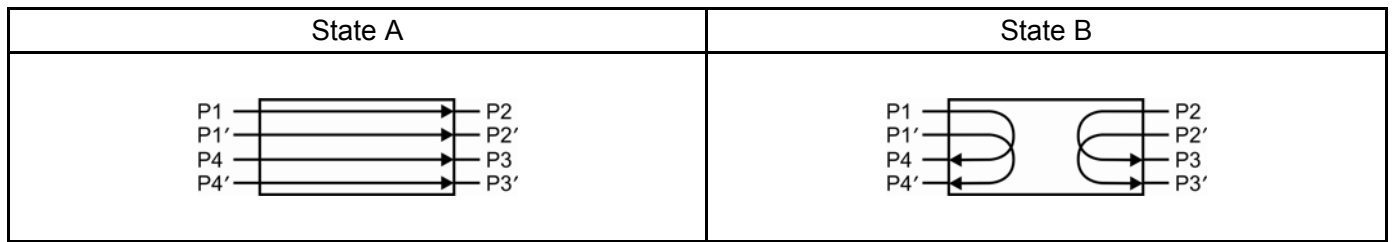
**Specifications: (D2x2 MM)**

Parameters	Unit	HE-D2x2-M	
Wavelength Range	nm	850±40 / 1300±40	1470 ~ 1650
Test Wavelength	nm	850 / 1300	1550
Insertion Loss <sup>Note1, 2</sup>	dB	Typ.: 1.0	Max.: 1.5
Return Loss <sup>Note1, 2</sup>	dB	≥ 30	
Crosstalk <sup>Note1</sup>	dB	≥ 35	
PDL	dB	≤0.05	
WDL	dB	≤0.25	
Repeatability	dB	≤±0.02	
Operating Voltage	V	3.0 or 5.0	
Durability	Cycles	≥ 10 Million	
Switching Time	ms	≤8	
Optical Power	mW	≤500	
Operating Temperature	°C	-5 ~ +70	
Storage Temperature	°C	-40 ~ +85	
Relative Humidity	%	5 ~ 95	
Weight	g	14	
Dimension	mm	(L)27.0×(W)12.6×(H)8.2 ±0.2	
<b>Note: 1, Within operating temperature and SOP. 2, Excluding connectors.</b>			

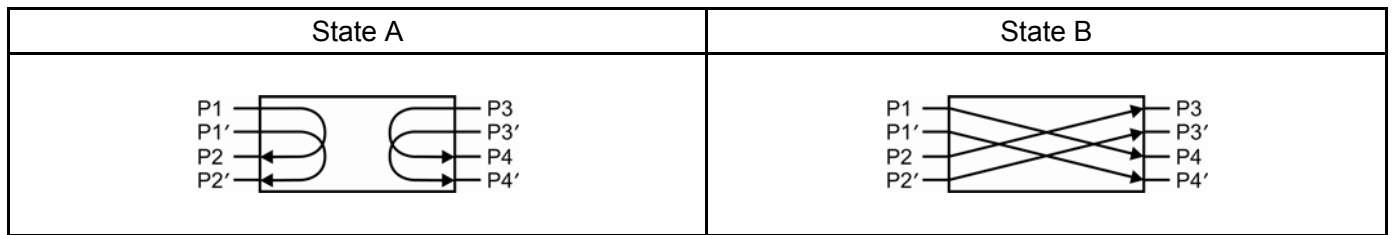
**Pin Configurations:**

Type	State	Optical Route	Electric Drive				Status Sensor			
			Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
D2x2	A	P1-P2,P3-P4	--	--	GND	V+	Close	Open	Open	Close
		P1'-P2',P3'-P4'								
	B	P1-P4,P3-P2	V+	GND	--	--	Open	Close	Close	Open
		P1'-P4',P3'-P2'								
Non-latching	A	P1-P2,P3-P4	--	--	--	--	Close	Open	Open	Close
		P1'-P2',P3'-P4'								
	B	P1-P4,P3-P2	V+	--	--	GND	Open	Close	Close	Open
		P1'-P4',P3'-P2'								

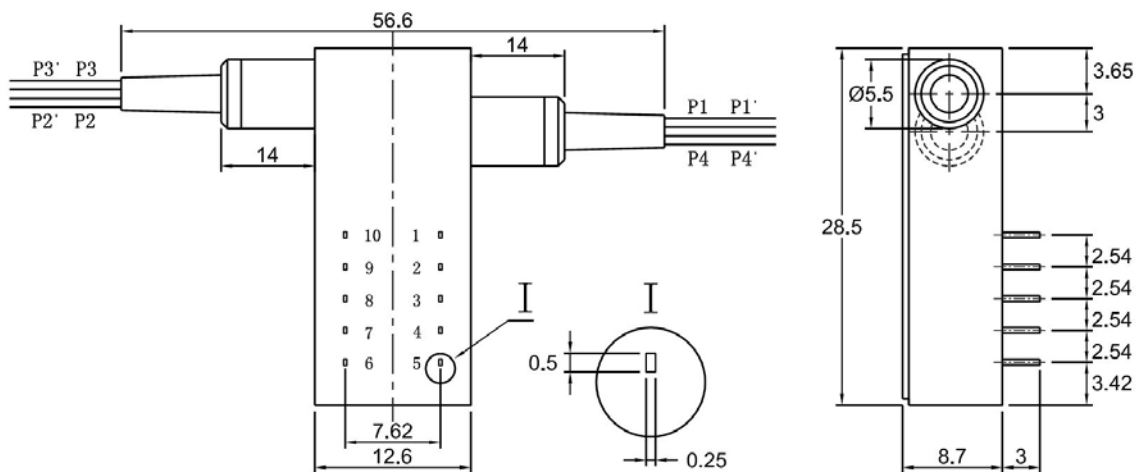
**Optical Route: (D2x2 SM)**



**Optical Route: (D2x2 MM)**

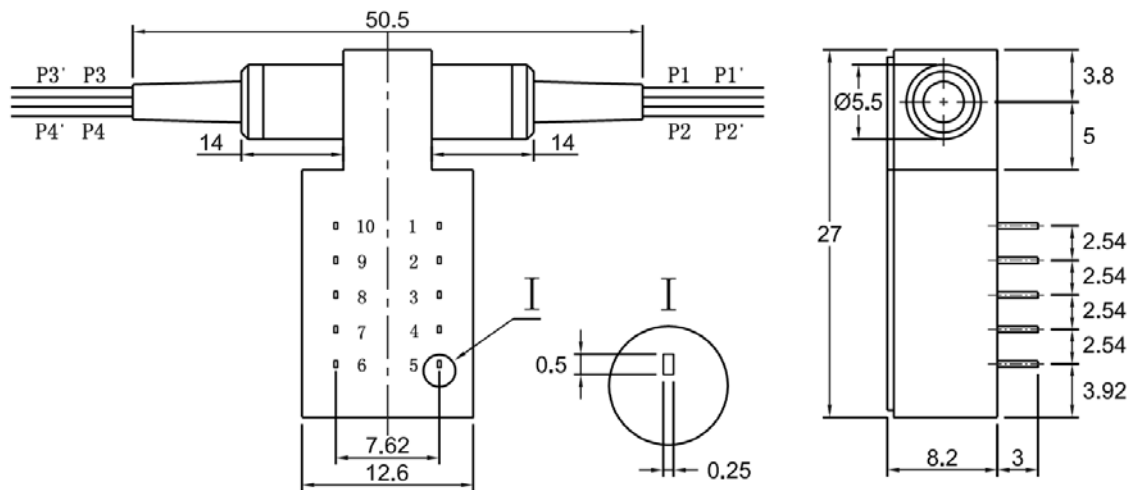


**Dimension: (D2x2 SM)**



P1、P1': White    P2、P2': Black    P3、P3': Red    P4、P4': Blue

**Dimension: (D2x2 SM)**



P1、P1': White    P2、P2': Black    P3、P3': Red    P4、P4': Blue

**Electrical Specification:**

Specifications	Voltage	Current	Resistance
5V latching	4.5~5.5 V	36~44 mA	125 Ω
5V non-latching	4.5~5.5 V	26~32 mA	175 Ω
3V latching	2.7~3.3 V	54~66 mA	50 Ω
3V non-latching	2.7~3.3 V	39~47 mA	70 Ω

**Nomenclature:**

**HE- D2x2-A-B-C-D-E-F-G**

A	B	C	D	E	F	G
Fiber Type	Operating Voltage	Switch Type	Test Wavelength	Tube Type	Fiber Length (Include connector)	Connector
SM: SM, 9/125 M5:MM, 50/125 M6:MM, 62.5/125 X: Others	3: 3V 5: 5V	L: Latching N: Non-latching	850: 850nm 1310: 1310nm 1550: 1550nm 1310/1550:1310/ 1550nm X:Others	25:250um 90:900um X: Others	05: 0.5m±5cm 10: 1.0m±5cm 15: 1.5m±5cm X: Others	OO:None FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC STP: ST/PC STA: ST/APC LP: LC/PC LA: LC/APC X: Others