

1X2 Mechanical Optical Switch

Gigalight's GMS series optical fiber switches offer industry leading performance specifications with Telcordia compliant reliability. These switches are designed for use in re-configurable optical add/drop multiplexers, optical cross-connect systems, and network switching for fault protection applications. These patented opto-mechanical switches can be directly mounted on printed circuit boards. The GMS switches are GR-1221 and GR-1073 qualified. Gigalight provides customized design to meet special control and applications.

1. Features

- ◆ Low Insertion Loss
- ◆ Low WDL
- ◆ Low cost
- ◆ High Reliability
- ◆ Fast Switch Speed

2. Applications

- ◆ PON Networks
- ◆ Protection
- ◆ Instrumentation

3. Compliance

- ◆ Telcordia GR-1209-CORE-2001
- ◆ Telcordia GR-1221-CORE-1999
- ◆ RoHS



4. Specifications

Parameters	Value	Unit
Operation Wavelength	850/1310/1550	nm
Insertion Loss	<0.8	dB
Polarization Dependent Loss	<0.2	dB
Return Loss	SM>50 MM>35	dB
Cross talk	SM>50 MM>35	dB
Repeatability	±0.05	dB
Switch time	<10	ms
Operation Temperature	-5~70	°C
Storage Temperature	-40~85	(°C)
Switch Power Voltage	+5	
Dimensions	L27xW12xH8.2	mm

Notes:

1. Specified without connectors.
2. Add an additional 0.2dB loss per connector.

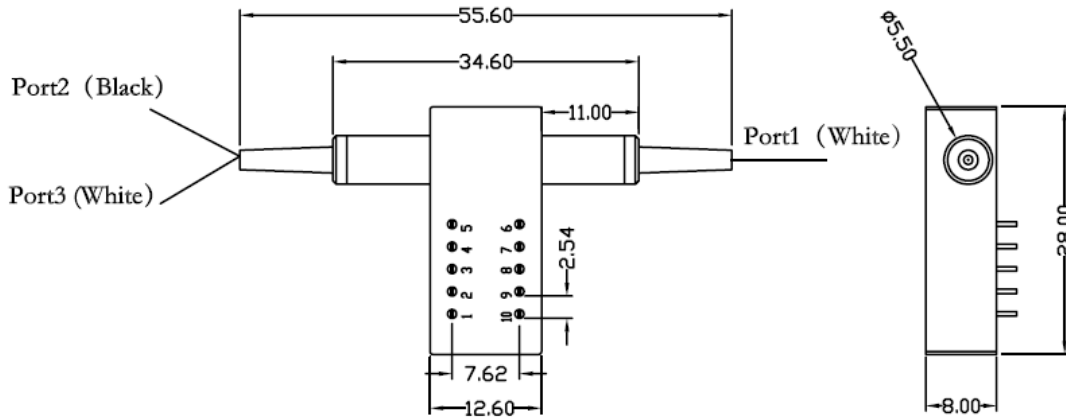
5. Mechanical Dimensions

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v1.1



6. Electrical Connector Configurations

Non-Latching Type

Optical Path	Electric Drive				Status Sensor			
	Pin 5	Pin 6	Pin 1	Pin 10	Pin2-3	Pin3-4	Pin7-8	Pin8-9
Port1→Port2	GND	+5VDC	-	-	open	close	close	open
Port1→Port3	No power		-	-	close	open	open	close

Latching Type

Optical Path	Electric Drive				Status Sensor			
	Pin 1	Pin 5	Pin 10	Pin 6	Pin2-3	Pin3-4	Pin7-8	Pin8-9
Port1→Port2	GND	5VPulse	-	-	close	open	open	close
Port1→Port3	-	-	GND	5VPulse	open	close	close	open



7. Ordering information

GMS	XX		X	X	X	X	XX	X
	Type	Voltage type	Latching Type	Wavelength	Fiber type	Tube type	fiber length	Connector
G=Gigalight	12=1X2	3=3V	1= Latching	1=1310	1=SMF-28	L=900 μ m loose tube	05=0.5m	0=None
M=mechanical		5=5V	2=Non-Latching	2=1550	2=50/125	B=250 μ m bare fiber	10=1.0m	1=FC/PC
S=Switch				3=850	3=62.5/125		12=1.2m	2=FC/APC
				4=1260~1620	0=Special		15=1.5m	3=SC/PC
				5=800~1300			X=Customized	4=SC/APC
				0=Special				5=LC/PC
								6=LC/APC
								X=Customized

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