Ruggedized Multimode Fiber Optic Switch

FO4663R



The multimode 2x2 moving-mirror optical bypass switch meets all the requirements of the FDDI Physical Medium Dependent (PMD) standard and SAFENET specifications for fiber optic data network applications. The highly reliable performance of the device is made possible by its unique silicon micromachine based switch design. A sealed, ruggedized housing isolates the optical components from external shock and vibration effects.

The standard switch has $62.5/125~\mu m$ multimode fiber pigtails that can be ordered with various customer option cables and connectors. Other fiber core sizes are also available.

For more information about our entire line of fiber optic products, please visit our web site at **www.moog.com**.

TYPICAL APPLICATIONS

- FDDI LANs
- · Local area network (LAN) bypass switching
- · Loopback diagnostic testing
- · Ring networks
- · Test sets
- Tactical platforms (ships, aircraft, etc.)

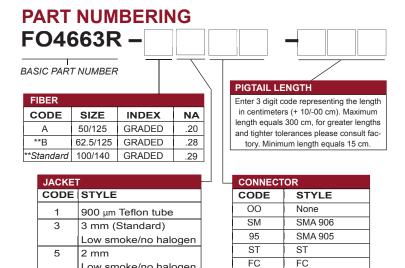
FEATURES

- · FDDI compatible
- · SAFENET compatible
- · Fail-safe operation
- · Built-in loss for loopback testing
- · High reliability
- Bidirectional
- · Low insertion loss
- MIL-S-901D (Hard or shock mounted)
- MIL-S-1344A vibration
- · Low power: 5 Vdc, 70mA nominal
- Switching time <15 ms
- 62.5/125 µm fiber standard
- Low weight: 3.2 oz.
- Stand alone package (see back for details)
- · Variety of cable and connector options

SPECIFICATIONS

	Symbol	Min	Тур	Max	Unit	
Environmental Ratings	ĺ		- 71			
Operating Temperature Range	T _C	-30	_	85	° C	
Storage Temperature Range	T _{STG}	-62	_	85	° C	
Humidity		_	_	95	% RH	
Mechanical Life	_	1.0	_	_	M cycle	
Military Standards						
Shock N	IIL-S-901	S-901				
Vibration M	IL-STD134	STD1344				
Characteristics						
Actuation Voltage	-	4.75	5.0	5.5	Vdc	
Actuation Current	1	_	70	90	mA	
Insertion Time	T _{SI}	_	<u> </u>	15.0	ms	
Media Interruption Time	T _{MI}	_	—	5.0	ms	
Active Loss* 1-3 port		_	0.7	0.8*	dB	
Bypass Loss* 3-4 port	-	_	0.7	0.8*	dB	
Active Loss* 2-4 port		_	0.7	0.8*	dB	
Self-test Loss* 1-2 port		_	_	6.0	dB	
Active Crosstalk		60	—	-	dB	
Bypass Crosstalk		60	—	-	dB	
Operating Wavelength	λ	1270	1320	1380	nm	

*Loss without connectors



Example:

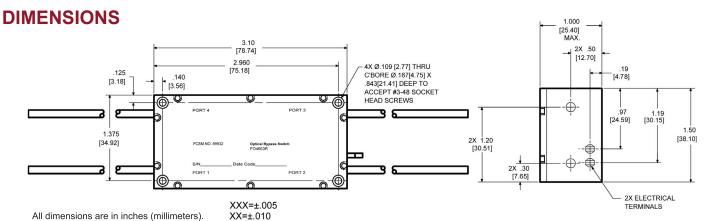
FO4663R-B3ST-100

Low smoke/no halogen

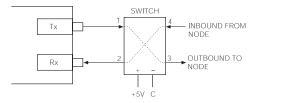
This is a standard 62.5/125 µm fiber switch hard mounted with a 3 mm low smoke/no halogen jacket. The pigtail length is 100 cm (+10, -0) cm, terminated with ST connectors.

SC

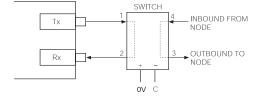
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TYPICAL BYPASS SWITCH APPLICATIONS

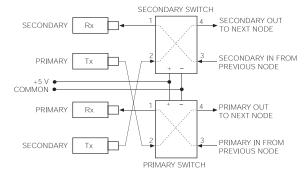


A. Operate State (Power On)

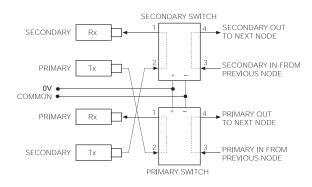


B. Bypass State (Power Off)

Figure 1. FDDI Single-Switch Application



A. Operate State (Power On)



B. Bypass State (Power Off)

