

Ruggedized Multimode Fiber Optic Switch

TYPICAL APPLICATIONS

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

FEATURES

- FO4663R switch direct replacement
- 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, 70 mA 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
- Environmentally rugged construction

FO4665



The FO4665 switch is a form, fit and functional replacement for the highly regarded FO4663R ruggedized multimode switch. Improvements to the switch housing simplifies the manufacturing process, resulting in a more affordable product.

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 μm multimode fiber pigtailed 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.

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SPECIFICATIONS

	Symbol	Min	Typ	Max	Unit
Environmental Ratings					
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	MIL-S-901				
Vibration	MIL-STD1344				
Characteristics					
Actuation Voltage	—	4.75	5.0	5.5	Vdc
Actuation Current	I	—	70	90	mA
Insertion Time	T _{SI}	—	—	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

PART NUMBERING

FO4665 - [] [] [] [] - [] [] []

BASIC PART NUMBER

FIBER			
CODE	SIZE	INDEX	NA
A	50/125	GRADED	.20
**B	62.5/125	GRADED	.28
**C	100/140	GRADED	.29

**Standard

JACKET	
CODE	STYLE
1	900 μm Teflon tube
3	3 mm (Standard) Low smoke/no Halogen
5	2 mm Low smoke/no Halogen

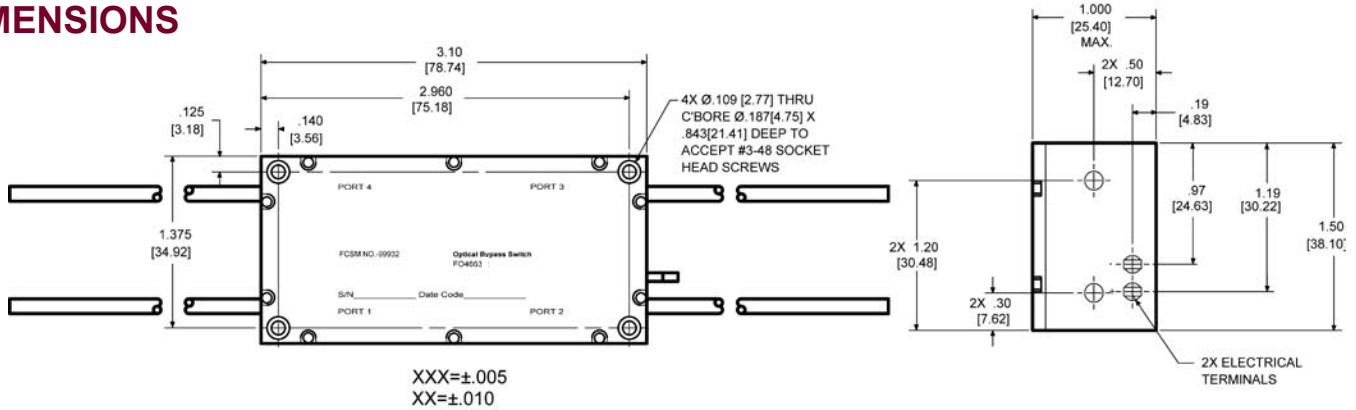
PIGTAIL LENGTH
Enter 3 digit code representing the length in centimeters (+ 10/-00 cm). Maximum length equals 300 cm, for greater lengths and tighter tolerances please consult factory. Minimum length equals 15 cm.

CONNECTOR	
CODE	STYLE
OO	None
SM	SMA 906
95	SMA 905
ST	ST
FC	FC
SC	SC

Example:
FO4665-B3ST-100

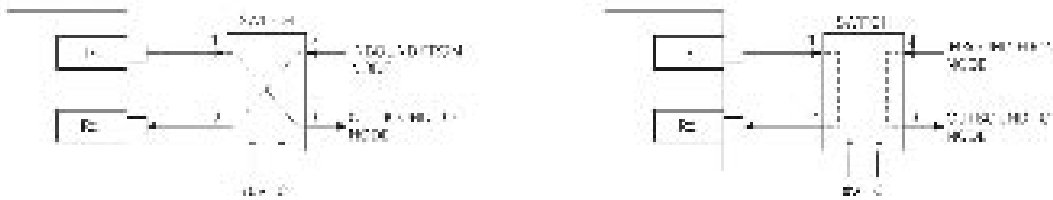
This is a standard 62.5/125 μm fiber switch hard mounted with a 3 mm low smoke/no halogen jacket. The pigtail length is 100 cm (+10, -0) cm, terminated with ST connectors.

DIMENSIONS



All dimensions are in inches (millimeters).

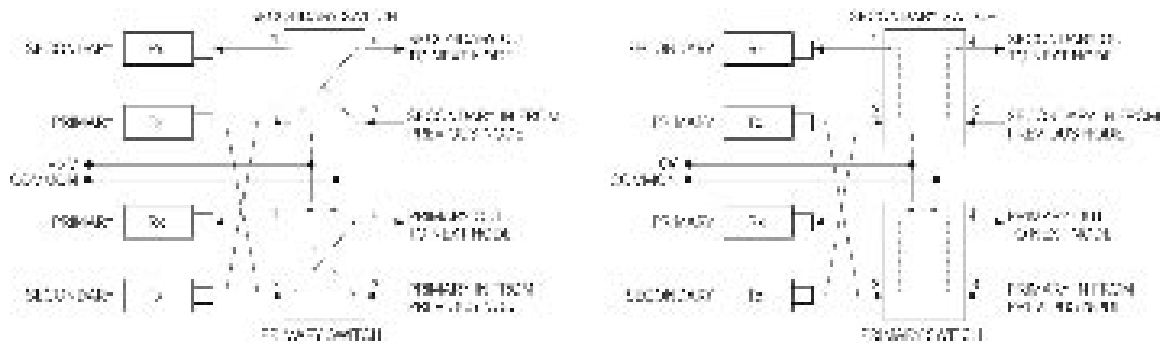
TYPICAL BYPASS SWITCH APPLICATIONS



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)

Specifications and information are subject to change without prior notice.
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