Ruggedized Multimode Fiber Optic Switch

FO4663R

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)
- EIA 364-28
- 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

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 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.**

MOOG
COMPONENTS GROUP

SPECIFICATIONS

	Symbol	Min	Typ	Max	Unit
Environmental Ratings					
Operating Temperature Range	T_C	-30	—	85	° C
Storage Temperature Range	T_{STG}	-40	—	85	° C
Humidity	—	—	—	95	% RH
Mechanical Life @ 25° C	—	1.0	—	—	M cycle
Military Standards					
Shock	MIL-S-901				
Vibration	EIA 364-28				
Characteristics @ 25° C					
Actuation Voltage (instantaneous)	—	5.0	5.0	5.5	Vdc
Actuation Current	I	—	70	90	mA
Switch Time	T_{SI}	—	—	15.0	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	820	1320	1380	nm

*Loss without connectors
**Other wavelengths available upon request

PART NUMBERING
FO4663R – ☐ ☐☐☐ – ☐ ☐☐
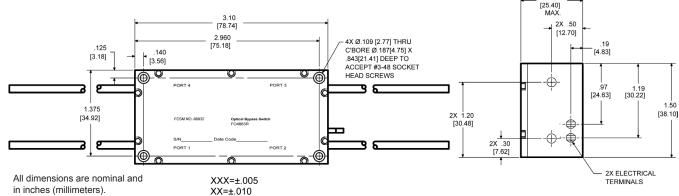
BASIC PART NUMBER

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.

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

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

CONNECTOR
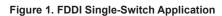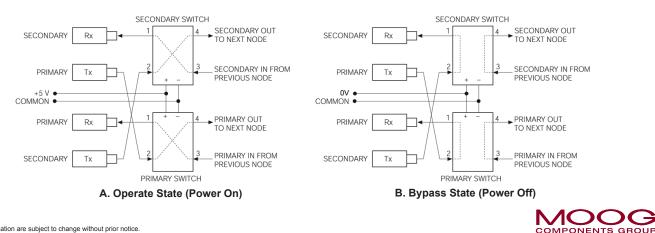| CODE	STYLE
OO	None
ST	ST
FC	FC
SC	SC

Example:
FO4663R–B3ST–100
This is a 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 nominal and in inches (millimeters).

XXX=±.005
XX=±.010

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)

MOOG
COMPONENTS GROUP