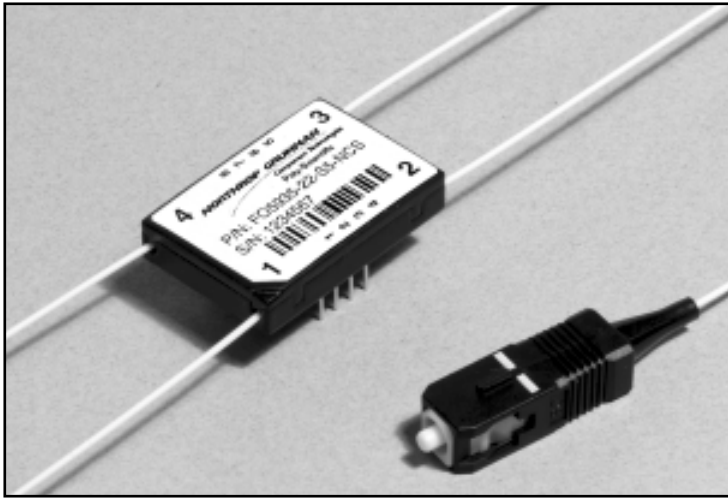


Poly-Scientific



Singlemode Fiber Optic Switch

FO5935

The FO5935 singlemode switch offers unprecedented reliability due to its unique frictionless MEMS*-based latching actuator and moving mirror mechanism. Switches with well over 150 million cycles show no degradation in performance. The two latched optical states, whereby one state allows the light to pass through the switch while the other state blocks or diverts the light into another fiber, can be monitored with integral status sensors.

A simple 5V, 1 ms long pulse on either the SET or RST pins is all that is needed to change and latch the optical state of the switch into the desired state (SET or RST). In addition to a fast optical switching time of 2 ms, the switch offers a 10X improvement in maximum cycle rate for demanding applications.

The small switch size makes board layouts easy without sacrificing the demanding packaging requirements of Telcordia GR-1221. Bi-directional and bit-rate independent operation is achieved due to the optical transparency of the switch.

1x2, 2x2, and on/off configurations with operation at 1300 and 1550 nm are available with standard 9/125/900µm fiber pigtailed. A variety of connectors are also available.

*Micro-Electro-Mechanical Systems

We speak the language of light.™

For more information about our fiber optic products, contact Poly-Scientific, Fiber Optic Products, 1213 North Main Street, Blacksburg, Virginia 24060-3100.

APPLICATIONS

- Optical network switching
- Optical network protection
- Optical network restoration
- Configurable add/drop
- Transmission equipment protection
- Network test access

FEATURES

- MEMS-based actuator
- No wearout with frictionless mechanism
- Small size 1.2" x 0.8" x .25" (31 x 20 x 6 mm)
- < 2 ms switching time
- < 1 dB insertion loss
- 200 Hz maximum cycle rate
- Latching operation
- Switch position monitor
- Printed circuit board mountable
- High reliability

Fiber Optic Products

800-336-2112 ext. 279

SPECIFICATIONS

	Min	Typ	Max	Unit
Environmental Ratings				
Operating Temperature	-40		85	°C
Storage Temperature	-40		85	°C
Humidity (non-condensing)			85	%RH
Characteristics				
Mechanical Life	10			Mcycles
Actuation Voltage	4.75	5.0	10	Vdc
Actuation Pulse Duration	1.0			ms
Actuation Pulse Current			220	mA
Switching Time			2.0	ms
Cycle Rate			200	Hz
Insertion Loss*			1.0	dB
Return Loss	40	50		dB
Polarization Dependent Loss			0.1	dB
Repeatability			0.1	dB
Crosstalk			-80	dB

*Loss without connectors

PART NUMBERING

FO5935 -

BASIC PART NUMBER

INPUT PORTS

CODE	QUANTITY
1	1
2	2

OUTPUT PORTS

CODE	QUANTITY
1	1
2	2

SINGLEMODE FIBER

CODE	TYPE
S	9/125/900 μ m
X	SPECIAL

WAVELENGTH

CODE	λ
3	1300nm
5	1550nm
X	SPECIAL

CONNECTOR

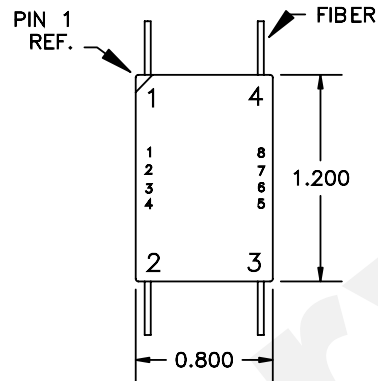
CODE	STYLE
NC	NONE
FA	FC/APC
FU	FC/UPC
LP	LC/PC
SA	SC/APC
SU	SC/UPC
SP	ST/UPC
XX	SPECIAL

PIGTAIL LENGTH

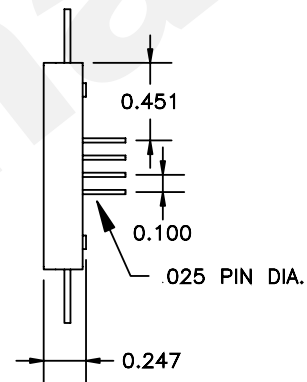
CODE	LENGTH
S	1.5 meters
X	SPECIAL

DIMENSIONS

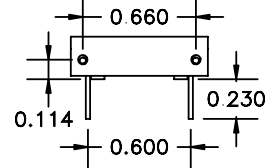
TOP VIEW



SIDE VIEW



END VIEW



SWITCH CONFIGURATIONS (OPTICAL PORTS)

SWITCH TYPE	SET STATE	RST STATE
On/Off	OFF	(1 - 3)
1x2	(1 - 2)	(1 - 3)
2x2	(1 - 2), (3 - 4)	(1 - 3), (2 - 4)

SWITCH PIN CONFIGURATION

PIN NUMBER	DESCRIPTION
1	SET Input
2	RST Input
3	N / C
4	GND
5	Status Out
6	N / C
7	N / C
8	VCC +5V