

# Refractive Plate Switch

PDF Datasheet #1654839

Dated 11-03

Available as PDF only on <http://www.tycoelectronics.com/fiberoptics>

## DESCRIPTION

The refractive plate switch is a multimode optical switch that is capable of withstanding a 200 G shock with a duration of >8ms without interruption of the signal path.



## APPLICATION

Extreme environments that require absolute product quality on optical installations and optical signal integrity.

## KEY FEATURES

- No Optical path interruption @200 G's for 8 mSec
- Operating wavelength 1270 to 1380 nM (other wavelengths available upon request)
- Operating Temperature range -30 to +85 deg C
- Storage Temperature range -40 to +85 deg C
- Fiber type 62.5 / 125 uM Multi Mode
- >1,000,000 cycles durability
- Successfully passed MIL-S-901D (Navy) Heavyweight Shock Test (Barge Test) as part of a customer's communication network

## FOR MORE INFORMATION

Internet::

<http://www.tycoelectronics.com/fiberoptics>

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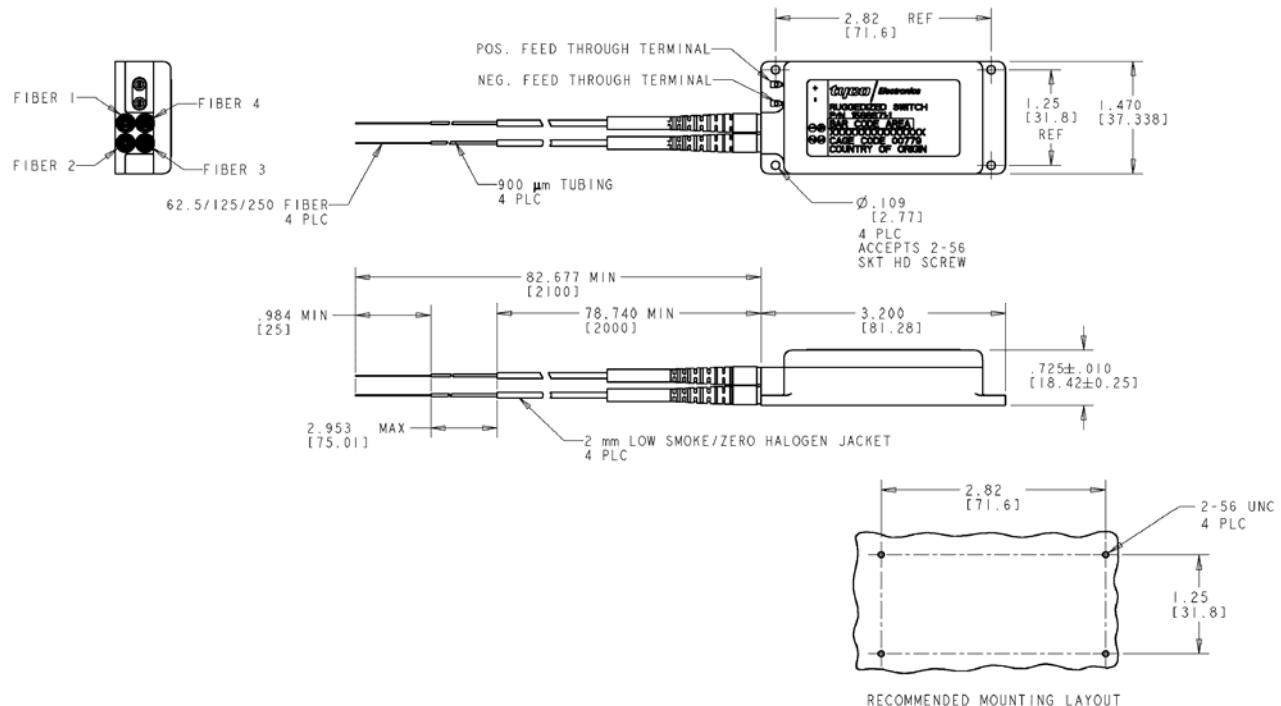
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## PART NUMBER

1588871-1

## PRODUCT DIMENSIONS



## ELECTRICAL PROPERTIES

- Minimum Actuation Voltage 4.75 V
- Maximum Actuation Voltage 5.25 V
- Actuation Current at Typical (5.0 V) Actuation Voltage: 100 mA (maximum)

## ENVIRONMENTAL PARAMETERS

- Operating Temperature range -30 to +85 deg C
- Storage Temperature range -40 to +85 deg C

## TECHNICAL DOCUMENTS

- 108-2128 Non Latching Refractive Plate Switch Design Objectives

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## Design Objectives

Performance (a)	Value	Units
Active Loss, 1-3 Port	0.8	dB (Max)
Bypass Loss, 4-3 Port	0.8	dB (Max)
Active Loss, 4-2 Port	0.8	dB (Max)
Self-Test Loss, 1-2 Port	6.0	dB (Max)
Crosstalk	35	dB (Min)
Operating Wavelength	1270 to 1380	nm
Operating Temperature	-30 to 85	°C
Storage Temperature	-40 to 85	°C
Humidity	95	% RH
Min. Actuation Voltage	4.75	V
Typ. Actuation Voltage	5.0	V
Max. Actuation Voltage	5.25	V
Actuation Current at Typ. Actuation Voltage	100	mA (Max)
Fiber Type	62.5 / 125	μm
Durability	1,000,000	cycles (Min)
Insertion Time (T <sub>SI</sub> )	15	ms (Max)
Media Interruption Time (T <sub>MI</sub> )	5	ms (Max)
Mass (b)	150 ± 10	g
Environmental Stability	0.5	dB
Short Term Stability	0.25	dB

## TECHNICAL DOCUMENTS

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