DiCon’s 1x2 Prism Switch provides channel selection between one input fiber and two output fibers. Actuated electrically and operating independently of data rate and signal format, the component uses a moving prism between fixed collimators. DiCon’s 1x2 Prism Switch can be built with Corning SMF-28, Flexcor 1060 or Polarization Maintaining Panda fiber.

Features
- Ultra low insertion loss
- Built in position sensor
- Flexible fiber types and wavelength ranges

Applications
- 1x2 Prism Switches with Corning SMF-28 fiber can be used for protection switching or reconfigurable optical add/drop multiplexing modules.
- 1x2 Prism Switches with Panda fiber can be used to switch between light sources which use polarization maintaining fiber pigtails.
- 1x2 Prism Switches with Flexcor 1060 fiber can be used to switch between different 980 nm pump laser sources.

Specifications
- Insertion loss: 0.6 dB typ., 1.0 dB max.
- Switching time: 50 ms typ.
- Crossstalk: 70 dB max.
- extinction ratio: 38 dB min.
- Repeatability: ±50.02 dB max.
- PDL: 0.05 dB max.
- Switching voltage: 4.0 VDC min., 6.0 VDC max.
- Switching current:
  - Non-latching 2-pin: 36 mA min., 48 mA max.
  - Latching 2-pin: 65 mA min., 87 mA max.
  - Latching 3-pin: 90 mA min., 120 mA max.
- Coil resistance:
  - Non-latching 2-pin: 125 ± 10% ohm
  - Latching 2-pin: 65 ± 10% ohm
  - Latching 3-pin: 55 ± 10% ohm
- Back-reflection: 35 dB max.
- Operating temperature: 20°C to +75°C
- Storage temperature: -55°C to +125°C

Usage Style
- Non-latching 2-pin control: Requires no power to maintain one position and a constant +5 VDC across pins 1 and 2 to maintain the other position.
- Latching 2-pin control: Changes position when the polarity of the +5 VDC signal to pins 1 and 2 is reversed. When no power is applied to pins 1 and 2, the switch is latched in place.
- Latching 3-pin control:
  - Pins 1, 2 and 3 are used for control. Pin 3 is a center tap. Position changes when pin 1 or pin 2 is held to ground.
  - When no power is applied to pins 1 and 2, the switch is latched in place.
- Position sensor:
  - Sensor output is on pin 4, as either a normal open or closed contact (low or high signal), depending on the switch position.
  - The position sensor is powered with +5 VDC on pin 3.

Housing Dimensions

1. All specifications referenced without connectors.
2. Bottom-mount terminals available upon request.
3. Corning Panda PM 1300 fiber type only.
4. Repeatability for 100 cycles at constant temperature.
5. For SMF-28 fiber type only. Measured at 1550 nm.
6. High power option available by request.
**Fiber Type**

- 9/125
- 50/125
- 62.5/125
- 10 Flexcor 1060
- PM Panda 1300

**Actuation Style**

- N Non-latching 2-pin
- L2 Latching 2-pin
- L3 Latching 3-pin

**Wavelength Range**

1. **13/16**
   - 1290 - 1360 nm
   - 1530 - 1560 nm
   - 1530 - 1560 nm²
   - 1530 - 1560 nm³
   - 1530 - 1610 nm
   - 1530 - 1610 nm²

2. **8/13**
   - 780 - 1350 nm
   - 1290 - 1360 nm
   - 13/16
   - 1290 - 1360 nm
   - 1530 - 1560 nm
   - 1530 - 1610 nm²

3. **15**
   - 1290 - 1360 nm
   - 1530 - 1560 nm
   - 1530 - 1610 nm²

**Connector Type**

- FC
- FC/APC
- FC/SC
- FC/UPC
- SC
- SC/APC
- SC/UPC
- ST
- ST/APC
- ST/UPC
- LC
- LC/SC
- LC/UPC
- MU/UPC
- MU/UPC

**Connector Key Orientation**

- S Slow axis
- F Fast axis
- N Not applicable

**Pigtail Length**

- 1 1 meter
- X Specify X meters

2. Corning Flexcor 1060 fiber with 250 um jacket.
3. Corning Panda PM 1300 fiber with 400 um jacket.
4. Flexcor only.
5. Multimode fiber only.
6. 9/125 fiber only.
7. 9/125 fiber and Panda 1000 fiber only.
8. Applicable to Corning PM 1300 with FC connectors only.