# Switches

## 1x4 Prism Switch

DiCon's 1x4 Prism Switch provides channel selection between a single input fiber and one of four output fibers. Actuated electrically and operating independently of data rate and signal format, the component uses moving prisms between fixed collimators. DiCon's 1x4 Prism switch is housed in a compact, environmentally stable package designed for mounting on a printed circuit board or within a module.
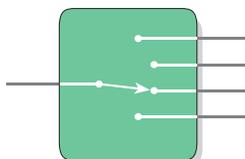
## Features

- Very fast switching speed
- Ultra-low insertion loss
- Built-in position sensor
- Low polarization-dependent loss
- Wide wavelength range

## Applications

1x4 switches are used for network monitoring applications with up to four monitored fibers.

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## Specifications[1]

| | |
|---|---|
| Wavelength range | 1290.0 - 1625.0 nm |
| Insertion loss[2] | 1.0 dB typ., 1.5 dB max. |
| Back-reflection | -55 dB max. |
| Switching time | 20 ms max. |
| Cross-talk | -50 dB max. |
| PDL[2] | 0.1 dB max. |
| Switching voltage | 4.5 VDC min., 5.2 VDC max. |
| Switching current | 300 mA max. |
| Fiber type | 9/125 Corning SMF-28 |
| Fiber jacket | 0.9 mm, tight buffer |
| Operating temperature | -20˚C to +65˚C |
| Storage temperature | -40˚C to +85˚C |
| Humidity | 60˚C/90%RH/14 days |

1. All specifications referenced without connectors.
2. Measured at 1550 nm.

## Ordering Information

SP - 1 - 4 - ☐ - ☐

Connector Type
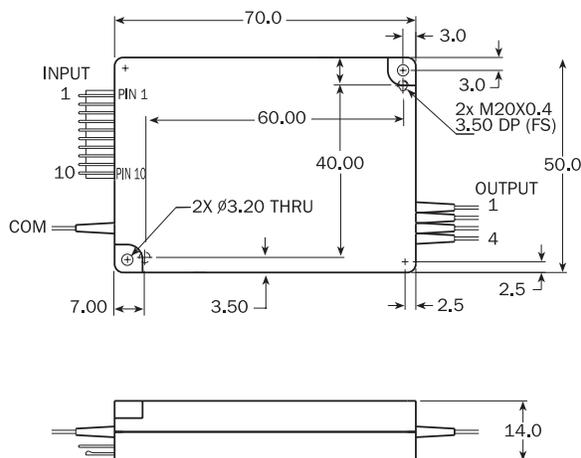FC          FC/SPC
FC/APC      FC/APC
FC/UPC      FC/UPC
SC          SC/SPC
SC/APC      SC/APC
SC/UPC      SC/UPC
ST          ST/SPC
ST/UPC      ST/UPC
LC          LC/UPC
N           None

Pigtail Length
1           1 meter
X           Specify X meters

## Actuation Style

| Actuation Style | Common | Switch Control | Position Sensor | Switch Control | Switch Control | Position Sensor | Switch Control | Switch Control | Position Sensor | Switch Control |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 | Pin 9 | Pin 10 |
| IN-OUT1 | +5VDC | GND | Low[a] | +5VDC | +5VDC | High[b] | GND | +5VDC | High[b] | GND |
| IN-OUT2 | +5VDC | GND | Low[a] | +5VDC | GND | Low[a] | +5VDC | +5VDC | High[b] | GND |
| IN-OUT3 | +5VDC | GND | Low[a] | +5VDC | GND | Low[a] | +5VDC | GND | Low[a] | +5VDC |
| IN-OUT4 | +5VDC | +5VDC | High[b] | GND | GND | Low[a] | +5VDC | GND | Low[a] | +5VDC |

a. Open contact
b. Closed contact

## Housing Dimensions



Units: mm

0040C