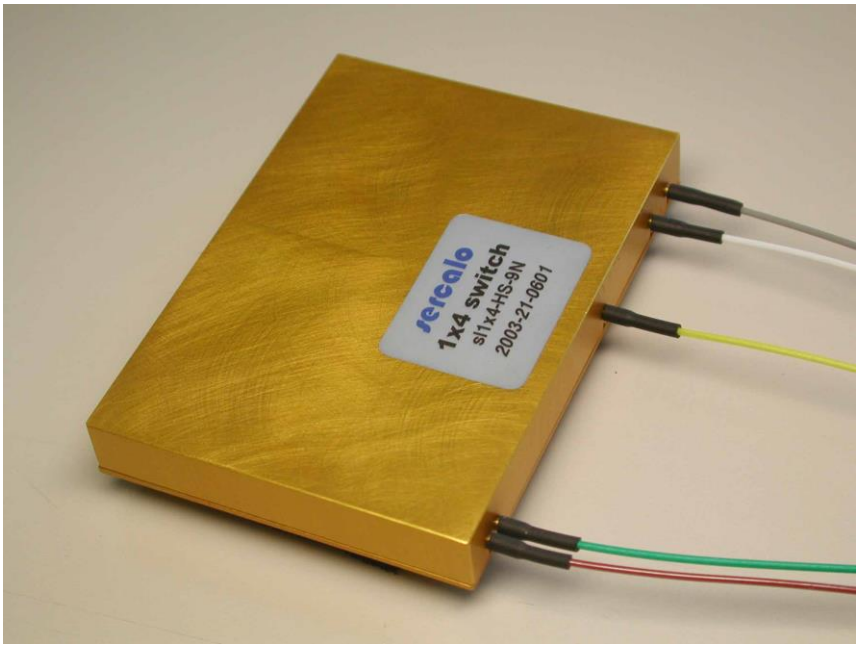


# FAST FIBER OPTIC 1x4 SWITCH

## OVERVIEW

The sercalo 1x4 switch is a very fast opto-mechanical switch working over both telecom wavelength windows from 1240 nm to 1600 nm. The highly reliable switching mechanism is based on micromechanical mirrors and features below 1 ms switching time and below 1.2 dB insertion loss.
The miniature package withstands rugged environments and is well suited for direct mounting on printed circuit boards. The switch is built by cascading 1x2 switches which are qualified according to Telcordia GR1221.

## FEATURES

- reliable
- 0.7 dB insertion loss
- 1 ms response time
- 60 dB crosstalk
- non-latching

## APPLICATIONS

- Source Selection
- Protection Switching
- Monitoring
- Wavelength provisioning

## ORDERING INFORMATION

SN1x4-9N

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| TECHNICAL SPECIFICATIONS | Unit | Min | Typ | Max |
|---|---|---|---|---|
| ***Switch*** | | | | |
| Wavelength Range | nm | 1240 | | 1640 |
| Insertion Loss[1] | dB | | 0.7 | 1.2 |
| Wavelength d. Loss per band | dB | | | 0.2 |
| Temperature d. Loss | dB | | | 0.3 |
| Crosstalk | dB | | 75 | 60 |
| Backreflection | dB | | 55 | 50 |
| Polarisation Dependent Loss | dB | | 0.05 | 0.10 |
| Repeatability[2] | dB | | | 0.001 |
| Max. input power / port | dBm | | | 20 |
| Switching Time | ms | | 0.5 | 1 |
| Fiber Pigtail | µm | | 9/125/900 | |
| Durability | cycles | | no wear out | |
| ***Integrated Driver*** | | | | |
| Supply Voltage *V* | V | 4.75 | 5 | 5.25 |
| Current Consumption *I* | mA | | 2 | 10 |
| Logic Level Low | V | | | 0.8 |
| Logic Level High | V | 0.8 | | |
| ESD protection of pins | | | 500 V Human body model | |
| Maximum Voltage ratings | V | -0.2 | | +6.0 |
| Maximum Current ratings | mA | -10 | | +10 |
| ***Package*** | | | | |
| Operation Temperature | °C | 0 | | 70 |
| Storage Relative Humidity | % | 0 | | 85 |
| Size (L x W x H) | mm | | 70 x 50 x 9.5 | |

*[1] value excluding connectors. Add 0.25 dB to account for temperature and wavelength dependent loss.*
*[2] value for constant temperature and polarisation.*

## ELECTRICAL SPECIFICATIONS

Supply: 4.5 - 5.5 V, 10 mA max
S1 – S3: CMOS or
TTL levels, 0 mA

**Contact pins :**
Length : 4 ±0.5mm
Diameter: 0.59mm
Pitch: 2.54 mm
Centering: 0.2mm

**Optical Port Selection**

| S1 | S2 | S3 | Port |
|---|---|---|---|
| 5V | x | 5V | B |
| 0V | 0V | x | A |
| 0V | 5V | x | D |
| 5V | x | 0V | C |

*view from pin side*