

## LATCHING FIBER OPTIC MEMS SWITCH

### OVERVIEW

The **sercalo** s/ series are opto-mechanical latching switches for the most demanding applications in fiber optic communication networks. The switch is available in 1x1, 2x1 and 2x2 variants and offers solid state reliability, accurate precision and fast response time. The switch mechanism is latching and has a very fast response time below 1 ms and only 0.5 dB insertion loss.

In the *SLTS* variant the switch comes with a built in position monitor to sense the state of the switch.

The miniature package withstands rugged environments and is well suited for direct mounting on printed circuit boards. The switch is qualified according to Telcordia GR 1221.

### FEATURES

- reliable
- 0.5 dB insertion loss
- 0.5 ms response time
- low PDL
- 60 dB crosstalk
- miniature size
- latching
- 2x2, 2x1, 1x1 variants

### APPLICATIONS

- Protection Switching
- Reconfiguration
- WDM

#### ORDERING INFORMATION

SL2x2-9N12-16 (900 um loose tube)

SL2x2-9B12-16 (bare fiber)

SL2x2-9C12-16 (2 mm cable)

#### Contact:

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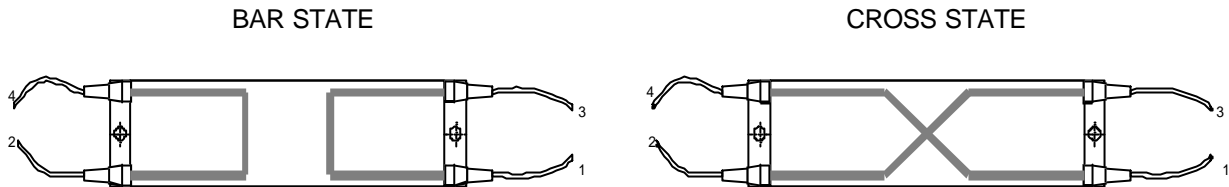
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## DESCRIPTION

The **sercalo** switches are powered by a voltage between 4.0-5.25 V on the supply pin. The switch state is selected with a CMOS or TTL signal on the selector pins. A high pulse during at least 2 ms on one of the selector pins toggles the switch into either cross state or bar state. At 0 V on the selector pins or at power off, the switch remains in the last selected state.

The switching mechanism offers the reliability of a solid state device; it neither wears out nor degrades over time. Even after billions of cycles the switching quality stays constant.



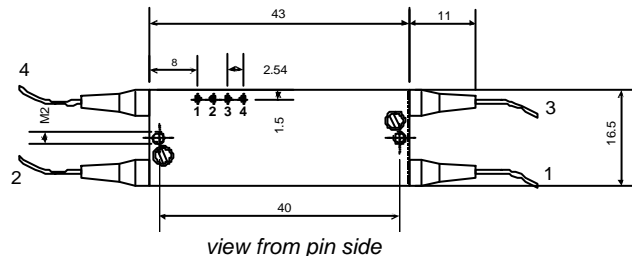
## TECHNICAL SPECIFICATIONS

	Unit	Min	Typ	Max
<b>Switch</b>				
Wavelength Range	nm	1240		1640
Insertion Loss	dB		0.5	0.9
Crosstalk	dB		75	50
Backreflection	dB		55	50
Polarisation Dependent Loss	dB		0.03	0.07
Repeatability <sup>1</sup>	dB			0.002
Switching Time	ms		0.3	1
Fiber Pigtail	µm		9/125/900	
Durability	cycles		no wear out	
<b>Package</b>				
Voltage	V	4	5	5.25
Power Consumption	mW		5	30
Selection Pulse Width	ms	1		
Operation Temperature	°C	0		70
Storage Temperature	°C	-40		85
Size (L x W x H)	mm		43 x 16.5 x 9.5	

<sup>1</sup> value for constant temperature and polarisation

## PIN CONNECTIONS

- 1 5 V supply
- 2 bar state selector
- 3 cross state selector
- 4 ground 0 V



view from pin side

## ORDERING INFORMATION

SL2x2-9N12-16

SL2x1-9N12-16 (port 1 internally terminated)

SL1x1-9N12-16 (ports 1,3 internally terminated)

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