



LATCHING FIBER OPTIC MEMS SWITCH

*driven by 5V
TTL/CMOS*

OVERVIEW

The *s/1x4* switch is a opto-mechanical latching switch. At power off it stays in the last selected state. The switch 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 below 1.0 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
- 0.5 ms response time
- low PDL
- 60 dB crosstalk
- miniature size
- latching

APPLICATIONS

- Source Selection
- Protection Switching
- Monitoring
- Wavelength provisioning

ORDERING INFORMATION

SL1x4-9N

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DESCRIPTION

The **Sercalo** switches of the SL series use 5V CMOS or TTL levels to set the state of the switch. At rest the selection pins S1-S6 should be set to ground. A high pulse during at least 2 ms on one of the selector pins toggles the switch into the corresponding state as given in the table below.

TECHNICAL SPECIFICATIONS

	Unit	Min	Typ	Max
Switch				
Wavelength Range	nm	1240		1640
Insertion Loss	dB			1.2
Crosstalk	dB		75	60
Backreflection	dB		55	50
Polarisation Dependent Loss	dB			0.10
Repeatability ¹	dB			0.002
Switching Time	ms		0.3	1
Fiber Pigtail	µm		9/125/900	
Durability	cycles		no wear out	
Package				
Voltage	V	4	5	5.25
Power Consumption	mW		5	30
Selection Pulse Width	ms	2		
Operation Temperature	°C	0		70
Storage Temperature	°C	-40		85
Size (L x W x H)	mm		70 x 50 x 9.5	

¹ value for constant temperature and polarisation

MECHANICAL OUTLINE

Contact pins :

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

Optical Port Selection Table:

1 : 2 ms pulse, high CMOS / TTL
 0: low CMOS / TTL
 x: either 0 or 5 V

	B	A	D	C
S1	1	0	0	1
S2	X	0	1	X
S3	1	X	X	0
S4	0	X	X	1
S5	X	1	0	X
S6	0	1	1	0

