



FAST FIBER OPTIC 1x13 SWITCH

OVERVIEW

The **sercalo** fiber optic switch is a very fast opto-mechanical switch based on the MEMS technology. The component makes an optical connection between an optical port and either one of 13 input or output lines. A 1x12 variant is also available. The highly reliable switching mechanism uses integrated micromirrors and features below 1 ms switching time and below 2.0 dB insertion loss. The switch is powered by a 5 V supply voltage. A 5 V TTL or CMOS drive signal is used to control the switching 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. The small 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.

APPLICATIONS

- Optical Reconfiguration
- Instrumentation
- Provisioning

FEATURES

- reliable
- 1.3 dB insertion loss
- 1 ms response time
- 60 dB crosstalk
- miniature size
- non-latching

TECHNICAL SPECIFICATIONS

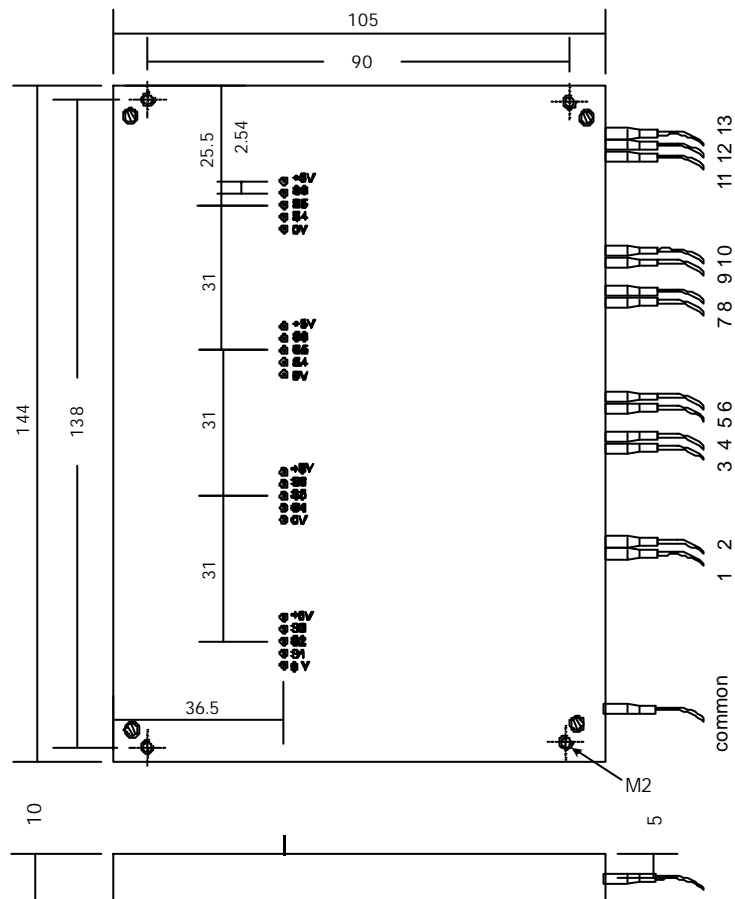
	Unit	Min	Typ	Max
Switch				
Wavelength Range	nm	1240		1640
Insertion Loss	dB		1.3	2.0
Crosstalk	dB		75	60
Backreflection	dB		55	45
Polarisation Dependent Loss	dB			0.15
Repeatability ¹	dB			0.002
Switching Time	ms		0.5	1
Switching Voltage	V			5
Fiber Pigtail	µm		9/125/900	
Durability	cycles		no wear out	
Package				
Power Consumption	MW		150	
Operation Temperature	°C	0		70
Storage Temperature	°C	-40		85
Size (L x W x H)	Mm		144 x 105 x 10	

¹ value for constant temperature and polarisation

Optical Port Selection

S1	S2	S3	S4	S5	S6	Port
0	5	x	0	0	x	1
0	5	x	5	x	5	2
0	5	x	5	x	0	3
0	5	x	0	5	x	4
5	x	0	0	0	x	5
5	x	0	5	x	5	6
5	x	0	5	x	0	7
5	x	0	0	5	x	8
5	x	5	0	0	x	9
5	x	5	5	x	5	10
5	x	5	5	x	0	11
5	x	5	0	5	x	12
0	0	x	x	x	x	13

0 = 0 V (TTL or CMOS level)
 5 = 5 V (TTL or CMOS level)
 x = 0 V or 5 V



ORDERING INFORMATION

SW1x13-9N-12-16

SW1x12-9N-12-16 (without port 13)

Contact:

Sercalo microtechnology ltd
 Landstrasse 151, 9494 Schaan
 Principality of Liechtenstein
 Tel. +423 237 57 97 Fax. +423 237 57 48
 www.sercalo.com e-mail: info@sercalo.com

sercalo