Optical Bypass Switch   OS-3122/3222

For Secure Fail-Safe Fiber Optic Bypass Applications

The OS-3122 is a "fiber optic relay" that can be electrically controlled. The optical path through the units is purely mechanical. There is no optical to electrical to optical conversion. As a result, there is no data rate limitation or bandwidth limit on the fiber optic path. In addition, since the optical signal is not demodulated the optical data is totally secure. The optical path can be select via a front panel switch or via contact closure input. In event of loss of power, the unit has a fail safe mode that opens the switch.

For applications where two independent optical channels need to be switched, such as dual SONET rings, the OS-3222 is two OS-3122 in a single package. For "Telco" operations, -48 VDC versions are available. These versions are the OS-1202, OS-2202, respectively and only operate from -48 VDC.
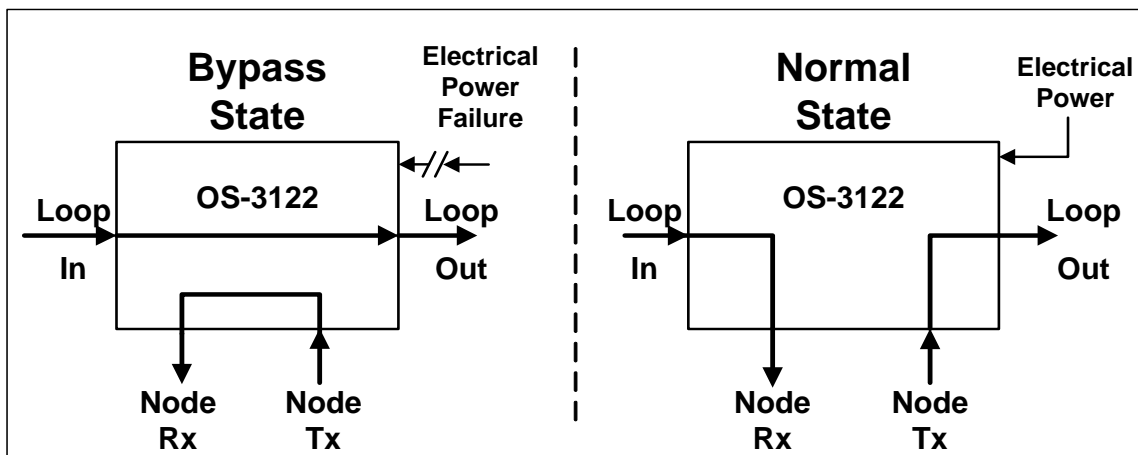
Technical Specifications

Switching Time	< 10 ms
Back Reflection	< -50 dB
Insertion Loss	< 1.1dB
Cross Talk	< -50 dB
Switch Life cycle	> 1 Million cycles
Operating Wavelength	850, 1310 or 1550nm
Optical Connectors	ST, SC, or FCPC
Operating Temperature	0° to +70°C
Humidity	<95% non-condensing
MTBF (per MIL HBK 217)	>120,000 hours
Power Requirements	11-24 VAC/DC @150 mA
Size (mm) Single	5.0" (127) x 3.0" (76) x 1.0" (25.4)
Size (mm) Dual	5.0" (127) x 3.0" (76) x 2.23" (56.6)

Note that all specifications are subject to change without prior notice.

Important Features

- *Switching time < 10 ms*
- *Fail-safe return to bypass mode with loss of power*
- *Small physical footprint*
- *Multimode or single-mode versions*
- *Stand-alone, DIN or Rack Mountable (small unit)*
- *Power and Switch status indicators*

Ordering Information; OS-3122-X   where "X" = Wavelength/Fiber/Connector
-3 = 850/1310nm Multi-mode ST/PC   -4 = 850/1310nm Multi-mode- SC/PC
-5 = 1310/1550nm Single-mode SC/PC -7 = 1310/1550nm Single-mode FC/PC

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