

WARRANTY

All fiber optic transmission systems, products and accessories manufactured by Liteway, Inc. and its subsidiaries are fully tested prior to shipment and are warranted against defective materials and workmanship for a period of five full years from the date of the original shipment. Should a problem occur, a Return Material Authorization Number (RMA) must be obtained from Liteway Inc. at (516) 931-2800 and the item returned to Liteway, Inc. 166 Haverford Road, Hicksville, NY 11801, USA, prepaid. Liteway Inc. will then, at its option repair or replace the defective item.

Liteway, Inc. maximum liability under this warranty is limited to the cost of the defective item only. No contingent liabilities of any kind are either assumed or implied.

Any items returned to Liteway, Inc. that have been misused, abused, damaged, modified, connected or adjusted in any way contrary to the instructions furnished by Liteway, Inc. or repaired by unauthorized personnel will not be covered by this warranty. Any non-warranty repairs required will be quoted at the current rate for such services.

Important Notices

CAUTION ! The laser diodes used in all -7 and -9 Fiber Optic Transmission systems manufactured by Liteway, Inc. utilize solid-state laser diodes located in the optical ports of these units. These laser diodes produce invisible radiation which may be harmful to human eyes. As a result one should never look directly into the optical port of any fiber optic unit designed to operate with single-mode optical fiber.

Liteway, Inc. does not authorize or warrant any of its products or accessories for use in critical life support systems or applications of any kind.

OPERATING INSTRUCTIONS

LuxLink[®] Fiber Optic Path Tamper Switch

Model OS-4111

The *LuxLink* OS-4111 consists of a fiber optic switch that disconnects and blocks a fiber optic path when the path has been tampered with, usually indicating a security breach.

The optical path through the unit is purely mechanical. There is no optical-to-electrical-to-optical conversion. As a result there is no data rate limitation or bandwidth limitation on the path. In addition, since the optical path is not demodulated in any way the optical data is totally secure. The state of the optical path can be selected via a front panel switch or via an external contact closure input. In the event of loss of power the unit has a fail safe mode that opens the switch.

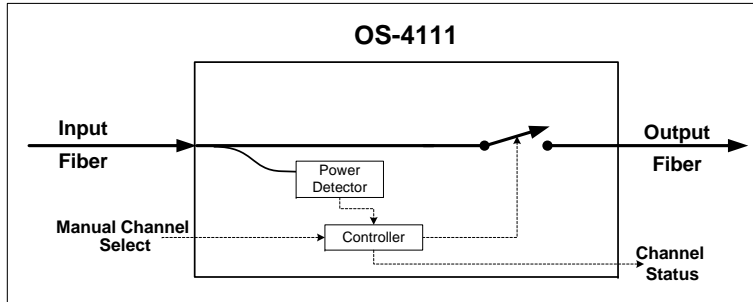
Technical Specifications

Switching time	<10 ms
Back Reflection	<55dB
Insertion Loss	<1.5dB
Cross Talk	<-50 dB
Optical Sensitivity	Selectable from -20 to -38 dBm
Operating Wavelength	850/1310 or 1310/1550 nm
Optical Connectors	ST, SC or FCPC
Fibers Accommodated	1 Multimode (-1,-3), 1 Single-mode (-7,-9)
Temperature Range	0 to +75°C
Power Requirements	11-24 VAC/DC @150 ma.
Physical Size (mm)	5.0"(127)L x 1.0" (25.4)W x 3.0"(7)D

All specifications are subject to change without prior notice.

Installation Instructions

The drawing below is a functional block diagram of the OS-4111 fiber optic tamper switch system.



Power/Output Terminal Block Connections

Pin	Function
1	Power input+ (+12 VDC)
2	Power input - (12 VDC return) also case ground
3	Control Signal. Jumper to pin 5 to force the unit to go to the alarm mode when in auto mode.
4	Alarm. Connected to pin 5 (ground) when optical input signal is lost. Otherwise open.
5	Ground

Be certain to check all connections, settings and voltages before applying power

Indicator Lights

Indicator	Lights when
Pwr	Proper operating power is present.
Alm	The loss of optical signal alarm is activated and there is no optical signal present
Sig	An optical signal is being detected.

Front Panel Slide Switch Settings

Switch	Function
Closed	Light passes through the optical switch (normal).
Open	Light is blocked from passing through the switch.
Auto	Light passes through the switch but can be blocked by the rear panel contact input.

Front Panel Optical Power (+/- 1.0 dBm) Level Switch Setting

Switch	Level	Switch	Level	Switch	Level	Switch	Level
0	Test	4	-35.0	8	-32.2	12	-31.0
1	-43.0	5	-34.0	9	-32.0	13	-30.3
2	-39.0	6	-33.0	10	-31.5	14	-30.0
3	-36.0	7	-32.5	11	-31.3	15	-29.8

Note that the Sig indicator will flash when the signal power level is near the selected switching level. Also note for an optical wavelength of 850nm, the above sensitivity levels will be 3dB lower

Typical Connections

For use with ALM-1000 for Remote Alarm Indications.

