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 ! AVOID DIRECT EXPOSURE TO BEAM.
All –5, -7, -8, and -9 Models use laser diodes. These solid-state laser diodes are located in the optical ports of these units. Laser diodes produce invisible radiation that may be harmful to human eyes. Never look directly into the optical port of any fiber optic unit designed to operate with single-mode optical fiber.

NOT FOR LIFE SUPPORT SYSTEMS
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

Litelink®
Fiber Optic Wiegand®/Contact Transmission System

Model WCT-7001
Model WCR-7001

The ***Litelink***® WCT/WCR-7001 system consists of the WCT-7001 transmitter and WCR-7001 receiver. Both units utilize digital encoding techniques to transmit and receive the Wiegand interface and a contact closure over a single optical fiber conductor. The Wiegand interface industry standard, SIA AC-01 (1996.10), defines a commonly used interface between card readers and control panels used for Access Control, Security, Time and Attendance, and other related industries.

Technical Specifications

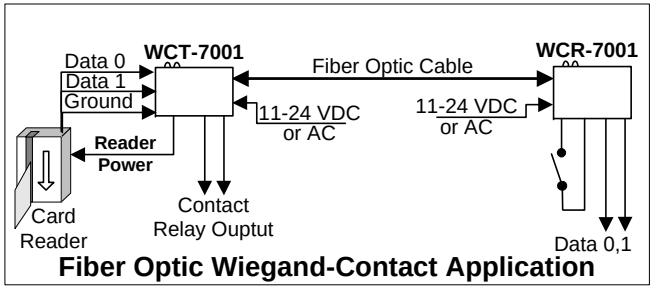
Protocol	Wiegand[1]
Channels	Data 0 and Data 1
Input / Output Level	5 volts and 0 volts
Input / Output Impedance	1 K ohms
Data Pulse Width	20 to 100 usec typical
Data Pulse Interval	200u to 2 msec typical
Transmitter DC output	+5 VDC @500 mA(max)
Operating Wavelength	850nm (-1), 1310nm (-3,-7), 1550nm (-9)
Optical Output	-14dBm (multimode) -10 dB (single-mode)
Optical Loss Budget	0 - 15 dB (multimode) 0 - 18 dB (single-mode)
Fibers Accommodated	1 Multimode (-1,-3), 1 Single-mode (-7,-9)
Temperature Range	-35º to +75ºC
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.
Wiegand® is a trademark of EMERSON ELECTRIC CO, and is used here to indicate the "Access Control Standard - Wiegand™ Card Reader Interface: SIA AC-01 (1996.10)"

Litelink®
Fiber Optic Transmission Systems
www.LiteLink.com
USA 516-931-2800

Installation Instructions

The diagram below shows the typical installation of the WCT-7001 and WCR-7001.



Fiber Optic Wiegand-Contact Application

As a convenience, the WCT-7001 provides a 5 VDC output, which can be used to power the peripheral that is transmitting to the WCT-7001. This voltage is available pin 5. The common for this voltage is pin 3 (ground). Peripherals that require 12 VDC will require a separate power supply.

Power Terminal Block Connections

Pin	Function
1	Alarm output for use with optional Alarm Sensing Unit ALM-1000. No other connections should be made to this terminal
2	+11 to 24 DC or AC Volts input
3	AC or DC return (Common to Housing)

Note that the terminal blocks are removable to allow easy wire hookup. e certain to check all connections, settings and voltages before applying power

Data Terminal Block Connections

Pin	Label	Description
1	D 0	Data Zero input/output. A high to low pulse on this conductor indicates a D0 data bit is being transmitted or received.
2	D 1	Data One input/output. A high to low pulse on this conductor indicates a D1 data bit is being transmitted or received.
3	Gnd	Ground (and common data return).
4	N/C	No connection
5	V out	+5 VDC (100 mA max) output (WCT-7001 only). This output can only be used to power external Wiegand code readers that operate from 5 volts DC.

Note that ground (or signal common) must be connected for proper operation

Contact Terminal Block Connections

Pin	Label	Description
1	Cnt	Contact input (WCR-7001 only). This pin must be connected to pin 2 to transmit a contact closure.
2	Cnt	Contact input (WCR-7001 only). This pin must be connected to pin 1 to transmit a contact closure.
3	Com	Output contact common (WCT-7001 only). This pin is the common output contact.
4	NO	Output contact NO (WCT-7001 only). This pin is disconnected from pin 1 internally when no contact is transmitted.
5	NC	Output contact NC (WCT-7001 only). This pin is connected to pin 1 internally only when a contact closure is transmitted.

Note that ground (or signal common) must be connected for proper operation

Indicator Lights

Indicator	Lights when
Pwr	Proper operating power is present.
Alrm	There is no valid fiber optic link.
Link	There is a valid fiber optic link
Data 1	A Data 1 signal is being transmitted or received.
Data 0	A Data 0 signal is being transmitted or received.
Contact	A contact closure is being transmitted or received.

Alarm Mode Selection

With Alarm On, the alarm will be active when there is no link detected

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