Contact Closure DIN Fiber Link System

The Contact Closure DIN Fiber Link system provides transmission of a contact closure signal over one optical fiber. The system comprises of a transmitter (TX) and a receiver (RX), each enclosed in a compact DIN-rail and wall mountable housing. This compact and rugged system provides convenient and easy to read LEDs, supports both single-mode and multi-mode fiber applications, and includes an alarm on the receiver enabling system status monitoring.

This contact closure system is designed to operate over an extreme temperature range, providing reliability in harsh environments. It is made in the U.S.A and covered by our Limited Lifetime Warranty.

Key Features

Environment
Hardened to operate in -40°F to +158°F (-40°C to +70°C)

Power
12-48VDC local power source for each unit
DC power is not polarity sensitive

Application
Available with ST connectors for single or multi-mode fiber
Includes alarm contact for status monitoring
Convenient LED status indicators
Critical, high voltage, remote or un-manned locations operating 24/7/365

Quality
Made in the USA
Covered by our Limited Lifetime Warranty
# Ordering Information

<table>
<thead>
<tr>
<th>Optics</th>
<th>Description</th>
<th>Distance / Distance</th>
<th>Fiber</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multimode</strong></td>
<td>TX Unit</td>
<td>2km / 1.2 mi</td>
<td>62.5/50 µm</td>
<td>1CD-03-1</td>
</tr>
<tr>
<td></td>
<td>RX Unit</td>
<td>Multimode Receiver</td>
<td>62.5/50 µm</td>
<td>1CD-04-1</td>
</tr>
<tr>
<td><strong>Single-mode</strong></td>
<td>TX Unit</td>
<td>15km / 9 mi.</td>
<td>8–9 µm</td>
<td>1CD-20-1</td>
</tr>
<tr>
<td></td>
<td>RX Unit</td>
<td>Single-mode Receiver</td>
<td>8–9 µm</td>
<td>1CD-22-1</td>
</tr>
</tbody>
</table>

- A complete system requires a **TX** unit and a **RX** unit

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## General Specifications

### Optical Wavelength
- **Multimode**: 850nm
- **Single-mode**: 1310nm
- **Single-mode Long Haul**: 1310nm

### Maximum Fiber Attenuation / Distance *
- **Multimode**: 6dB / 1.2 miles (2km)
- **Single-mode**: 8dB / 9 miles (15km)
- **Single-mode Long Haul**: 24dB* / 29 mi. (48 km), min. required loss *-8dB

* **Note**: Distances equated using industry standard fiber and connector attenuation. Fiber condition, splices and connectors may affect actual range.

### Fiber Type
- **ST - Multimode**: 62.5/125µm, 50/125µm
- **ST - Singlemode**: 8–9/125µm

### Wire Connectors
- Pluggable screw clamp terminal block, 16 – 26 AWG

### Input
- **Dry Contact Sensing**
  - Input terminals will provide the sensing current necessary to detect a dry contact closure.

### Input Line Resistance
- 1000 Ohms maximum

### Output Relay
- Common / Normally Open / Normally Closed Relay (SPDT)

### Output Relay Maximum Ratings
- 125 VAC 1.0A, 100VDC 0.6A, 30VDC 2A

### Output Relay Max. Switching Voltage
- 200VDC, 150VAC

### Alarm Relay Output
- Common / Normally Open / Normally Closed Solid State Relay (SPDT)

### Alarm Relay Maximum Ratings

<table>
<thead>
<tr>
<th></th>
<th>Normally Open</th>
<th>Normally Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Impedance</td>
<td>25 Ohms</td>
<td>35 Ohms</td>
</tr>
<tr>
<td>Source Voltage</td>
<td>170V Peak</td>
<td>170V Peak</td>
</tr>
<tr>
<td>Max Load</td>
<td>95mA</td>
<td>80mA</td>
</tr>
</tbody>
</table>

### Response Time
- 6.4ms

### Surge Protection
- PTC thermistors, thyristors, zener diodes and varistors

### Power Requirements
- 12-48VDC

### Power Consumption
- **TX Unit**: 30mA Maximum
- **RX Unit**: 70mA Maximum

### Operating Temperature
- -40° to +158° F (-40° to +70° C), 95% non-condensing

### Mounting
- T35 DIN rail mount or wall mount with the included kit

### Weight
- 1 lb. / 454g

### Dimensions
- 4.93” x 1.2” x 3.5” (100mm x 31mm x 89mm) - Not including connectors

### Warranty
- Limited Lifetime
  - Visit www.fiberopticlink.com for warranty details