

ADVANTAGES OF USING A FIBER OPTIC CONTACT CLOSURE SYSTEM

WHITE PAPER

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The RLH Fiber over Contact Closure system is an industrial grade solution for both short and long haul remote on/off applications.

The Contact Closure over Fiber system provides an optical-to-electrical interface between one (simplex) fiber strand and normally-open relay contact output. This versatility makes this system a favorite for security applications, manufacturing and machinery applications such as used the energy and mining sectors, or anywhere that you need to operate an on/off switch over extended distances or in hazardous environments.

The advantages of using a fiber optic contact closure system include:

- Hardened reliability suitable for critical safety or emergency shut-down (ESD) applications
- High noise immunity of contact signal, particularly beneficial in electrically noisy environments and over long distances
- Designed for industrial applications: Available as a 4RU plug in card, stand alone unit or DIN rail model with integrated power supplies
- Optical fiber Isolates equipment from generated RF noise and voltage spikes
- Eliminates the formation of ground loops when two devices are connected to separate power lines or have a difference between their ground voltage potentials
- Total isolation and protection of signal processor's input stage from accidental sensor malfunction (e.g. short to mains voltage or a lightning shock)
- Replaces bulky coaxial cables with compact fiber optic cables – especially important when rewiring existing ducts
- Up to 8 individual contact closure signals may be transmitted over a single fiber
- Interfaces to existing fiber cable – Multi Mode or Single Mode
- Long distance transport of signals: Multimode (62.5/125µm, 50/125µm): 3.4 km/2.0 miles; Single-Mode (9/125µm): 15 km/9 miles; Long Haul 60 km/37 miles

Typical 4 Channel Contact Closure over Fiber Connection Diagram

