

ON-OFF Fiber Optic Link



The S.I.Tech Model 2813 ON-OFF fiber optic link contains a fiber optic transmitter that generates a 10 KHz optical square wave. The 2813 fiber optic receiver detects a 10 KHz optical square wave and turns ON a relay. The relay provides 3 sets or Form C (3PDT) relay contacts available on the rear panel via screw terminals. The power input (+24 VDC or +12 VDC) is also via screw terminals.

When power is applied to the Model 2813, the receiver becomes active. If the receiver detects the optic signal it will operate the relay. The transmitter is turned on by an external switch across the input screw terminals. If the fiber cable is broken or removed, the relay will release. The fiber optic input/output is provided on the rear panel via ST receptacles, 905/906 compatible SMA receptacles are available as an option.

The front panel contains 2 indicator LEDs, a green power ON indicator and a green CARRIER (Receiver 10 KHz detected) indicator.

Operation Mode: Full duplex or simplex

Operating Wavelength: 820 nanometers (1300 nm option)

Optical Connector: ST or SMA

Power Requirements: +24 VDC or +12 VDC @ 250 mA

Output: 3 Form C Relay Contacts

See Chart 1

Optical Power Budget: 50 micron fiber, 6 dB

100 micron fiber, 14 dB

Operating Temperature: 0 °C to 50 °C

Plastic Enclosure: 6" X 6.5" X 2.75"

(15.2 X 16.5 X 7 cm)

Weight: 2lbs. (1 kg)

Operating Distance for Fiber Optic Cable

- 1		
Fiber Size (Microns)	Attenuation dB/km	Maximum Distance Feet/Meters
62.5	4.0	6600/2000
50	3.0	6600/2000
10 SM	1.0	16000/5000
	(Microns) 62.5 50	(Microns) dB/km 62.5 4.0 50 3.0

SM - Single mode (1300nm) option

Chart 1: Contact Ratings (Resistive Load)

Max Switching Power	60W / 125VA
Max Switching Voltage	220VDC, 240VAC
Max Switching Current	2ADC, 2A AC
Max Carrying Current	3ADC, 3A AC

Meets FCC Requirements of Class A, Part 15 Computing Device Standard. Specifications subject to change without notice.

