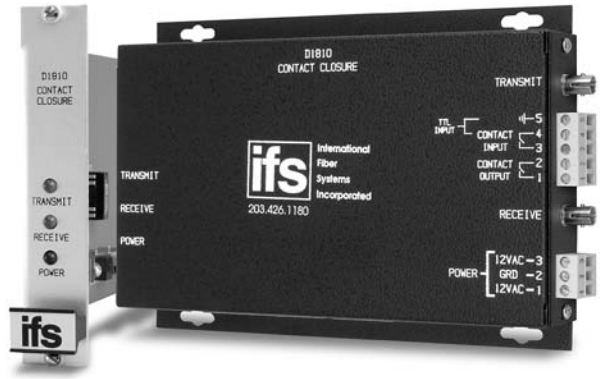
PRODUCT SPECIFICATION
D1800 SERIES
BI-DIRECTIONAL CONTACT CLOSURE TRANSCEIVER



DESCRIPTION

The IFS D1800 Series contact closure transceiver provides one-way or bi-directional transmission of contact closure over one or two multimode or singlemode optical fibers. The transceiver has a contact input and a 0.5 amp contact output. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. Each transceiver incorporates power and transmit/receive status indicating LED's for monitoring confirmation of contact closure. The modules are available in either stand-alone or rack mount versions.

APPLICATION EXAMPLES

- Alarm Event Triggering
- Building Automation and Environmental Control Systems
- Fire & Alarm Systems
- Gate control
- PIR Signal Transmission
- Traffic Signal Control Equipment

FEATURES

- Transmits a Single Contact Closure in One or Two Directions
- Distances up to 37 Miles (60 km)
- 24 VDC, 0.5 Amp Relay Output, Normally Open
- Point-to-Point Transmission Architecture
- Tested and Certified by an Independent Testing Laboratory for Full Compliance with the Environmental Requirements (Ambient Operating Temperature, Mechanical Shock, Vibration, Humidity with Condensation, High-Line/Low-Line Voltage Conditions and Transient Voltage Protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- No In-field Electrical or Optical Adjustments Required
- Power, Transmit and Receive Status LED Indicators
- Hot-Swappable Rack Modules
- Automatic Resettable Solid-State Current Limiters
- Contact Input
- Comprehensive Lifetime Warranty

Available at: www.ifs.com

- A & E Specifications, (CSI)
- AutoCAD Drawings
- Operation Manuals
- Technical Bulletins

ORDERING INFORMATION

	PART NUMBER	DESCRIPTION	FIBERS REQUIRED	OPTICAL PWR BUDGET	MAX. DISTANCE*
MULTIMODE 62.5/125µm**	D1810	Bi-directional Contact Closure Transceiver (850 nm)	2	14 dB	2.5 miles (4 km)
SINGLEMODE 9/125µm	D1825	Bi-directional Contact Closure Transceiver (1310 nm)	2	20 dB	37 miles (60 km)
ACCESSORIES♦	PS-24VACCT 24 VAC C.T. Transformer (included)				
OPTIONS	Add '-R3' to Model Number for R3 Rack Mount (Requires R3 Rack purchased separately) Add '-C' for Conformally Coated Printed Circuit Boards (Extra charge, consult factory)				

*** Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth. ** For 50/125 Fiber, subtract 4 dB from Optical Power Budget.**
♦ All accessories are third party manufactured.

International Fiber Systems, Incorporated ■ DESIGN CENTER (888) 999-9IFS or (203) 426-1180
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With Offices in Asia Pacific ■ Australia ■ Europe ■ Latin America

TECHNICAL SPECIFICATION D1800 SERIES
BI-DIRECTIONAL CONTACT CLOSURE TRANSCEIVER

SPECIFICATIONS

DATA

Contact Interface:	Response Time: 0.5 msec
Input:	Dry Contact Closure
Output:	SPST Relay, 0.5 A Contact Rating, normally open

WAVELENGTH

850 nm, Multimode
1310 nm, Singlemode

NUMBER OF FIBERS

2

CONNECTORS

Optical:	ST
Contacts and Power:	Terminal Plug with screw clamps

ELECTRICAL & MECHANICAL

Power:	
Surface Mount:	24 VAC C.T. @ 150 mA
Rack:	From Rack
Number of Rack Slots:	1
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./ cm.) (LxWxH):	
Surface Mount:	7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 2.5 cm.
Rack Mount:	7.0 x 4.9 x 2.0 in., 17.8 x 12.5 x 5.0 cm.
Shipping Weight:	< 2 lbs./0.9 kg

ENVIRONMENTAL

MTBF:	>100,000 hours
Operating Temp:	-40° C to +74° C
Storage Temp:	-40° C to +85° C
Relative Humidity:	0% to 95% (non-condensing)†

† May be extended to condensation conditions by adding suffix '–C' to model number for conformal coating.

AGENCY COMPLIANCE

FCC PART 15 COMPLIANT CE cULus GSA

Federal Supply Schedule Contract No. GS-07F-0049M

MADE IN THE USA

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

OPTICAL POWER BUDGET

FIBER	WAVELENGTH	TRANSCEIVER			OPTICAL PWR BUDGET	MAX. DISTANCE*
		MODEL	OUTPUT	SENSITIVITY		
Multimode 62.5/125µm**	850 nm	D1810	25 µw (-16 dBm)	1 µw (-30 dBm)	14 dB	2.5 miles (4 km)
Singlemode 9/125µm	1310 nm	D1825	30 µw (-15 dBm)	46 µw (-35 dBm)	20 dB	37 miles (60 km)

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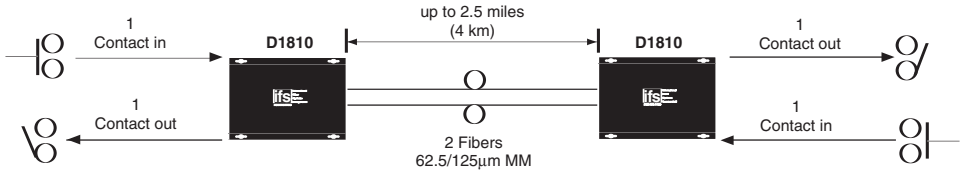
SYSTEM DESIGN



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