

Fiber Transmission Products

Forward Contact Closure Transmitter/Receiver

Overview

The contact closure series fiber transmission products support optical transmission of single-channel Bi-directional or Eight-Channel Forward Contact Closure through one fiber either in multi-mode or single-mode. Adjustment and maintenance free, these modules are designed to support data interface.

A cost-effective single unit design, this product is well-suited for in field configuration and also accommodates installation and system growth while delivering long operating distances of up to 60 Km. Featuring robust construction well suited for harsh environments the unit is available in both rack mount and wall mount configuration. Plug-and-Play design ensures ease of installation requiring no electrical or optical adjustments.

Standard Features

Control

- Supports one bi-directional Contact Closure
- Support dry contact or TTL inputs
- Dry Contact Closure outputs (Normal Open)

LEDs

- Duplicated LED indicators on the front and rear of the unit for the convenience of observation

Network management system for rack communications

- Web browser support
- Systems data performance monitoring
- System devices and components Transmitters, Receivers, Modules, etc. status monitoring and operational management
- LAN, Ethernet networking capabilities
- IP addressable
- Alarm activation, execution, message responding and reporting
- Operational level determination and access control
- Network ready for health and connection monitoring

Others

- Adjustment and maintenance free
- Unique modular design for in field configuration to match installation and system growth
- Long distances operation up to 60Km
- No setup just plug-and-play
- Excellent suppression of EMI & RFI and elimination of ground loop
- Transient voltage protection on power supply and all signal inputs & outputs
- Robust design for harsh environment applications

Single-Channel or Eight-Channel

Forward Contact Closure Transmitter/Receiver



Specifications

Contact Closures

	DFCCSMD0001, DFCCSMLD0001 & DFCCMMD0001	DFCCSMF0008, DFCCSMLF0008 & DFCCMMF0008
Number of Channels	1	8
Direction	Bi-directional Duplex	Forward Simplex
Input Type	TTL Logic (positive)/ Dry Contract	TTL Logic (positive)/ Dry Contract
Output Type	Default: Logic LOW/ Normal Open	Default: Logic LOW/ Normal Open
Dry Contact Output Rating	110 VDC/125VAC, 30W/62.5VA max.	110 VDC/125VAC, 30W/62.5VA max.
Contact Output Response Time	2 msec.	2 msec.
Input/Output Indications	LEDs (Green lit/OFF)	LEDs (Green lit/OFF)
Input/Output Connectors	5-pin screw terminals	8-pin screw terminals

Optical

	DFCCSMD0001, DFCCSMLD0001 & DFCCMMD0001	
Wavelength	1350 and 1550	
Number of Fiber	1	
Tx Output Power		
Single Mode (40Km)	1310nm & 1550nm	-9dBm ± 3 dBm
Multi-mode (4Km)	1310nm & 1550nm	-7dBm ± 3 dBm
Optical Budget		
Multi-mode (62.5µm/125µm)	12dB	
Single-mode 9µm/125µm)	18dB (wavelength in 1310nm) 14dB (wavelength in 1550nm)	
Single-mode 9µm/125µm) Long Haul	25dB (wavelength in 1310nm) 19dB (wavelength in 1550nm)	
Transmission Distance		
Multi-Mode (Limited by Fiber Bandwidth)	4Km (DFDMMD0001-TX/RX)	
Single-Mode	40Km	
Single-Mode Long Haul	60Km	
Fiber Connector (Standard Supply)	ST	

Mechanical

Dimensions or Module H x W x D in mm	25.4 x 158.4 x 231.8 1-Slot
Shipping weight	0.74kg 1-Slot

Environmental

Operating Temp	-40 C to +75 C
Storage Temp	-40 C to +85 C
Relative Humidity	0 to 95% non-condensing

Power Requirement

Supply Voltage	12VDC Standalone: Derived from an external adaptor via the 2-pin connector at rear of the module. Rack chassis: derived from the chassis PSU via the 30-pin connector at rear of the module.
Cord protection	Poly Fuse (1A)
Current Consumption	Max. 500mA

Optical

	DFCCSMF0008, DFCCSMLF0008 & DFCCMMF0008	
Wavelength	1310	
Number of Fiber	1	
Tx Output Power		
Single Mode (40Km)	1310nm	-9dBm ± 3 dBm
Multi-mode (4Km)	1310nm	-7dBm ± 3 dBm
Optical Budget		
Multi-mode (62.5µm/125µm)	12dB	
Single-mode 9µm/125µm)	18dB (wavelength in 1310nm) 14dB (wavelength in 1550nm)	
Single-mode 9µm/125µm) Long Haul	25dB (wavelength in 1310nm) 19dB (wavelength in 1550nm)	
Transmission Distance		
Multi-Mode (Limited by Fiber Bandwidth)	4Km (DFVMMF0008-TX/RX)	
Single-Mode	40Km	
Single-Mode Long Haul	60Km	
Fiber Connector (Standard Supply)	ST	

Model Number Key

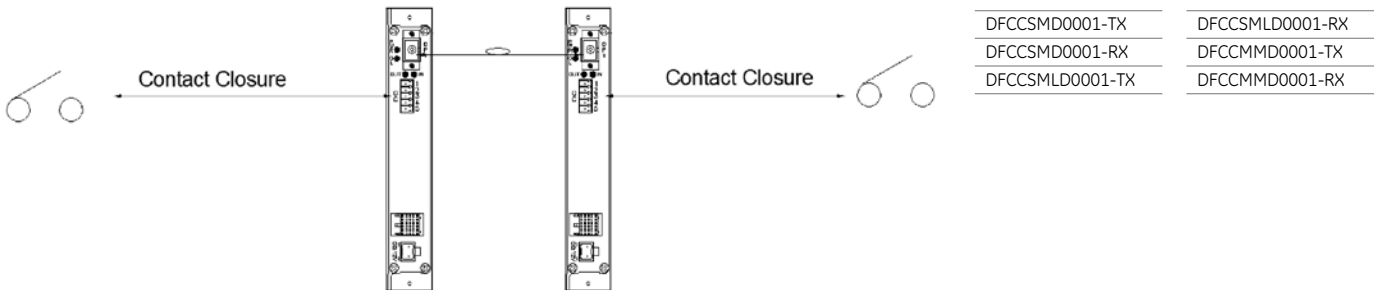
DF	10 bit rack/module
F	8 bit rack/module
MF	8 bit module only
V	Video
D	Data
A	Audio
CC	Contact Closure

SM	Single mode
MM	Multimode
L	Long distance
D	Duplex
F	Forward data 8 CH CC only

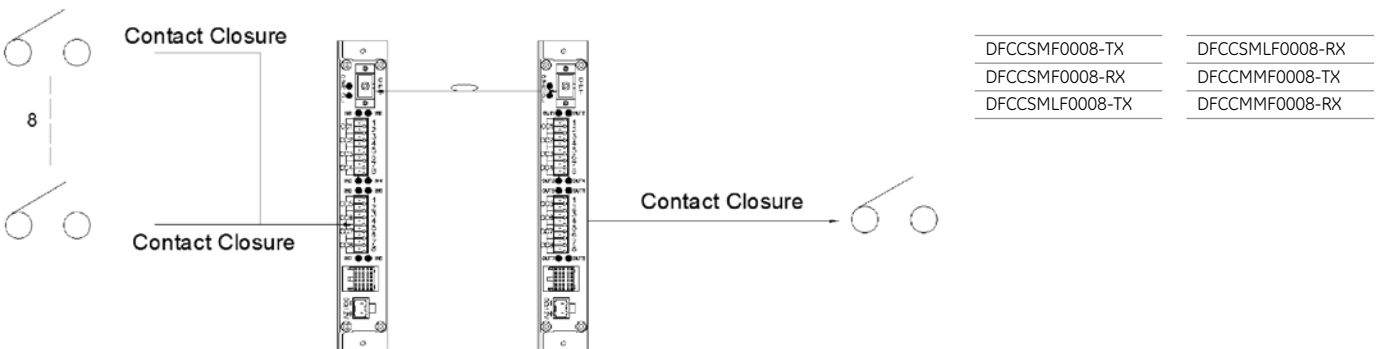
First digit	Number of video channels
Second digit	Number of audio channels
Third digit	Number of data channels
Forth digit	Number of contact closures
T	Transmitter
R	Receiver

Application Diagram

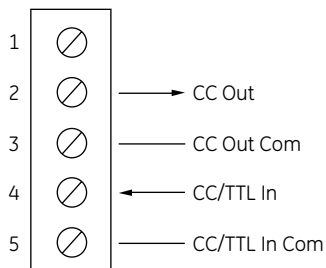
Cable connection of DFCCSMD0001-TX/RX, DFCCSMLD0001-TX/RX and DFCCMMD0001-TX/RX



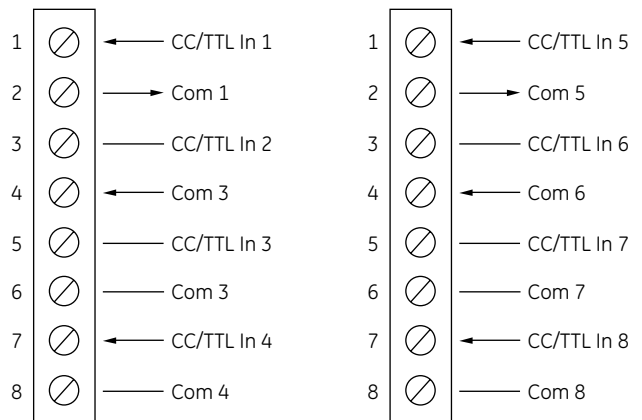
Cable connection of DFCCSMF0008-TX/RX, DFCCSMLF0008-TX/RX and DFCCMMF0008-TX/RX



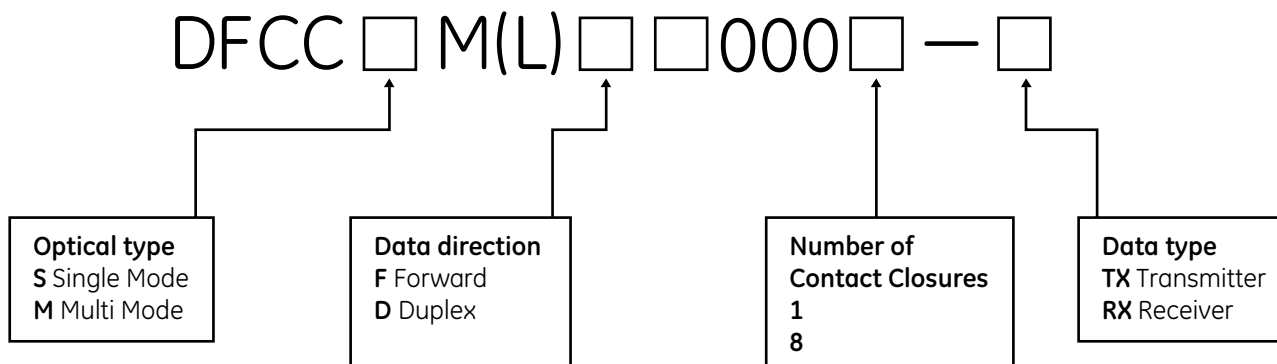
Pin connections for DFCCSMD0001-TX/RX, DFCCSMLD0001-TX/RX and DFCCMMD0001-TX/RX



Pin connections for DFCCSMF0008-TX/RX, DFCCSMLF0008-TX/RX and DFCCMMF0008-TX/RX



Part Number Key



North America
 T 888-GE-SECURITY
 888-437-3287
 F 503-691-7566

Asia
 T 852-2907-8108
 F 852-2142-5063

Australia and New Zealand
 T 613-9239-1200
 F 613-9239-1299

Europe
 T 32-2-719-98-47
 F 32-2-719-98-46

Latin America
 T 305-593-4301
 F 305-593-4300

Specifications subject to
 change without notice.

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Ordering Information

Fiber Type	Part Number	Description	Opt. PWR. Budget dB		Max. Distance (Km)	No. of slots	
			1310nm	1550nm			
(I) Single-mode (9/125µm)	(i) 1CC	DFCCSMD0001-TX	1-Ch. Bi-directional Contact Closure Transmitter	18	14	40	1
		DFCCSMD0001-RX	1-Ch. Bi-directional Contact Closure Receiver	18	14	40	1
	(ii) 8FC	DFCCSMF0008-TX	8-Ch. Forward Contact Closure Transmitter	18	N/A	40	1
		DFCCSMF0008-RX	8-Ch. Forward Contact Closure Receiver	18	N/A	40	1
(II) Single-mode (9/125µm For Long Distance Transmission)	(i) 1CC	DFCCSMLD0001-TX	1-Ch. Bi-directional Contact Closure Transmitter	25	19	60	1
		DFCCSMLD0001-RX	1-Ch. Bi-directional Contact Closure Receiver	25	19	60	1
	(ii) 8FC	DFCCSMLF0008-TX	8-Ch. Forward Contact Closure Transmitter	25	N/A	60	1
		DFCCSMLF0008-RX	8-Ch. Forward Contact Closure Receiver	25	N/A	60	1
(III) Multi-mode (62.5/125µm)	(i) 1CC	DFCCMMD0001-TX	1-Ch. Bi-directional Contact Closure Transmitter	12	12	4	1
		DFCCMMD0001-RX	1-Ch. Bi-directional Contact Closure Receiver	12	12	4	1
	(ii) 8FC	DFCCMMF0008-TX	8-Ch. Forward Contact Closure Transmitter	12	N/A	4	1
		DFCCMMF0008-RX	8-Ch. Forward Contact Closure Receiver	12	N/A	4	1

Accessories DFR. 19' Rack mount chassis purchased separately for housing modules

Options ST type connector is standard

Notes: Transmission distance will suffer if additional losses are introduced by the optical connectors, fusions, splices and the fibers within the network. Operating distance of multimode is limited by the characteristics of the fiber bandwidth

