

## Overview

The IFS DT4000 series active optical star coupler provides bi-directional distribution of an optical signal to three optical ports. The system can be expanded up to 28 optical ports by utilizing the built-in expander connection on the modules. The D1010 and D2100 series transceivers are fully compatible with this module when used as RS-232/422 input/output devices. Models within this series are available for use with multimode or single mode optical fiber. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments for either a single unit or when expanding the system. Each module incorporates power and transmit/receive status indicating LED's for each optical port for monitoring proper system operation. The modules are available as stand-alone versions only.

## Application Examples

- Access Control Systems
- Building Automation and Environmental Control Systems
- Computer/Data Equipment
- ITS Traffic Signalization Networks

## Standard Features

- Bi-directional Distribution of Optical Signals
- System can be Expanded up to 28 Optical Ports
- Star Transmission Architecture
- No In-field Electrical or Optical Adjustments Required
- Power and Optical Port Status LED Indicators
- Automatic Resettable Solid-State Current Limiters
- NTCIP Compatible
- 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.
- Distances up to 26 Miles (42 km)
- Comprehensive Lifetime Warranty

# 4 Port Active Optical Star Coupler

Provides bi-directional  
distribution of an optical signal  
to three optical ports.



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Specifications subject to change without notice

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## Specifications

<b>Data</b>	
Data Interface:	RS-232, RS-422
Data Rate:	DC - 100 Kbps (NRZ)
Bit Error Rate:	<1 in 10 <sup>7</sup>
<b>Wavelength</b>	
	DT4010: 850 nm Multimode DT4020: 1310 nm, Multimode or Single Mode DT4030: 1310 nm, Multimode or Single Mode
<b>Number Of Fibers</b>	
	4 In/4 Out
<b>Connectors</b>	
Data and Power:	Terminal Block with Screw Clamps
Optical:	ST
<b>Electrical &amp; Mechanical</b>	
Power:	
Surface Mount:	+12 VDC @ 250 mA
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm.) (LxWxH)	
Surface Mount:	9.0 x 6.0 x 1.0 in., 23.9 x 15.2 x 2.5 cm
Shipping Weight:	< 2 lbs./0.9 kg
<b>Environmental</b>	
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.

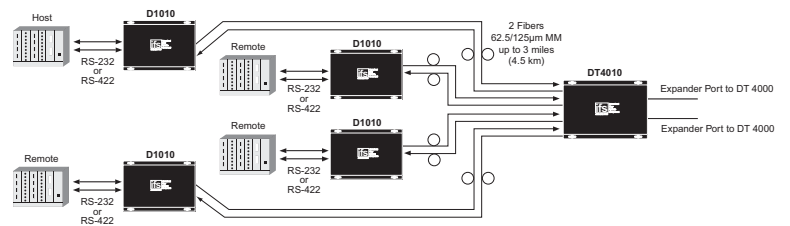
### Agency compliance



### Made in the USA

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

## System Design



## Ordering Information

	Part Number	Description	Fibers Required	Opt. Pwr. Budget	Max. Distance*
Multimode	DT4010	4 Port Active Optical Star (850 nm)	4 In/4 Out	17 dB	3.0 miles (4.5 km)
	DT4020	4 Port Active Optical Star (1310 nm)		13 dB	8 miles (13 km)
Single Mode	DT4025	4 Port Active Optical Star (1310 nm)	4 In/4 Out	14 dB	26 miles (42 km)
Accessories♦	PS-12VDC 12 Volt DC Plug-in Power Supply (Included)				
	PS-12VDC-230 12 Volt DC Plug-in Power Supply, 230 VAC Input (Included if specified at time of order)				
Options	Add '-R3' to Model Number for R3 Rack Mount - No Charge (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.

