D2315 Series

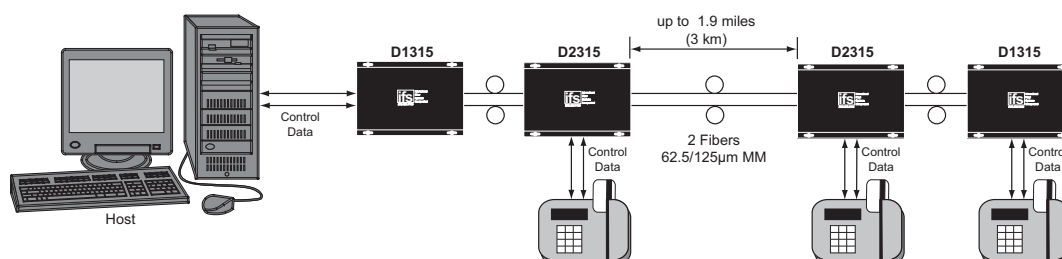IFS RS-485 (4-wire) Drop and Repeat Data Transceivers

OVERVIEW

The IFS D2315 Series data transceivers provide drop and repeat transmission of full-duplex (4-wire) EIA RS-485 data signals over two optical fibers. The transceivers feature optical "drop & repeat" capability that allows the user to easily configure the network operation. The transceivers are transparent to data encoding allowing for broad-range compatibility. The D2315 Series transceivers can be used as line-terminating devices with these modules. 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. Each transceiver incorporates power and transmit/receive data status indicating LED's for monitoring proper system operation. The modules are available in either stand-alone or rack mount versions.

APPLICATION EXAMPLES

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

STANDARD FEATURES

- Meets EIA RS-485 Specifications
- 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 NEMATS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- Automatic Resettable Solid-State Current Limiters
- Power, Transmit and Receive Data Status LED Indicators
- No In-field Electrical or Optical Adjustments Required
- Data rates up to 200 kbps NRZ (400 kbps for -HS option)
- Data Re-clocking
- Transparent to Data Encoding/Compatible with Major Data Protocols
- Drop and Repeat Network Architecture
- 4-Wire (Half-Duplex)
- True Tri-State Output
- Distances up to 20 Miles (33km)
- Comprehensive Lifetime Warranty

SYSTEM DESIGN

interlogix.com

D2315 Series
IFS RS-485 (4-wire) Drop and Repeat Data Transceivers

Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	D2315	RS-485, 4-Wire Repeater (850 nm)	2 In/2 Out	10 dB	1.9 miles (3 km)
	D2315-1300	RS-485, 4-Wire Repeater (1310 nm)	2 In/2 Out	10 dB	6 miles (10 km)
Single Mode 9/125µm	D2315-SM	RS-485, 4-Wire Repeater (1310 nm)	2 In/2 Out	11 dB	20 miles (33 km)
Accessories ♦	PS12VDC1.5A-U	12VDC, 1.5A Plug-in Power supply (110/220VAC) with Universal power plug adapter kit (Included)			
Options	Add '-R3' to Model Number for R3 Rack Mount - No Charge (Requires R3 Rack purchased separately)				

*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.

Specifications

Data

Data Interface:	RS-485 (4-wire)
Data Rate:	DC - 200 Kbps*
Total Network Pulse Distortion:	<1µs

Wavelength

	D2315: 850 nm, Multimode
	All others: 1310 nm, Multimode or Single Mode

Number Of Fibers

	2 In/2 Out

Connectors

Date and Power:	Terminal Block with Screw Clamps
Optical:	ST

Electrical & Mechanical

Power:	
Surface Mount:	12 VAC @ 250 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 1.0 in., 17.8 x 12.5 x 2.5 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)

Agency Compliance

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

FCC PART 15 COMPLIANT CE c UL us

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