

Features

- In most applications, one pair of 5940 links will replace 8 standard links and 3 fiber pairs lowering capital and installation costs.
- Packaged in rugged, industrial-quality Galva Neal and powder coated shells
- Conformal coated PCBs
- Powered from Station Battery Bus
- Operates reliably at temperatures of -40°C to 85°C
- Extended distances of 5km over Multi-mode fiber and 25km over Single-mode fiber.
- Multiple Mounting choices with built-in mounting brackets and optional mounting shelf
- Continuous monitoring of Link Status via status LED or built-in logic annunciator
- Each channel has its own diagnostic LED's for easier debug when installing
- Certified to IEEE 1613 and Class 1 Div2



Dymec 5941 and 5942 Data Links are designed as full duplex four channel devices. Four channels have bandwidth of DC to 64k bps (D4 version), and on the (D1 version) three of the channels have bandwidth of DC to 4k bps. Used in point-to-point RS-232 application, 5941 and 5942 Data Links are designed to pass handshaking or flow control signals along with data. These links do not utilize the flow signals for their operation. Like all Dymec digital-to-fiber optic products, they are passive to all software protocols, and simply send the communications signals from one node to the other.

- Sending four RS-232 non-handshaking signals together on a single pair of fibers (provided at least three of the signals are at 4000 baud or slower for the D1 version).
- Interfacing RTUs to radios that require push-to-talk control
- Passing up four contacts bi-directionally or KYZ meter contacts.
- Transmitting data and IRIG-B timing signals with a single Link.
- 1 or 2 Synchronous data ports (D4 model only).

5941 and 5942 Data Links feature a power-on light, a "SYNC" LED, and eight diagnostic LEDs.



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Optical Parameters @ Max Temp		Multimode	Single-Mode
Optical Budget Typical		19.5dB	19dB
Output Power Typical		-10.5 dBm peak	-14.5 dBm peak
Receiver Sensitivity Typical		-30 dBm peak	-33.5 dBm peak
		(62.5µ/125 Multimode)	(9µ/125 Single-mode)
Wavelength		850nm	1310nm
Connector Type		ST	
Compatible Fiber Type		Multimode (50-200µm)	Single-Mode (9-13µm)
Configuration (Switches)		Channel 3 IRIG-B Output/Standard	
		Channel 3 Drive Current Select	
		Channel 4 Sync Indicator/Data Out	
Data Rate	D1 Version	DC to 64kbps Channel 1	
		DC to 4kbps Channels 2,3,4	
	D4 Version	DC to 64kbps all 4 channels	
Data Transmission		Asynchronous, simplex	
		Half or Full Duplex	
Transmission Distance		Up to 5000 meters	Up to 30K meters
		(62.5µ/125 Cable@3dB/km)	(9µ/125 Cable@ .5dB/km)
Bit Error Rate		10-E9 Max.	
Point to Point Latency		25µS	
	D1 Version Only	100µS Channels 2,3,4	
		1µS	
	D4 Version Only	12µS Channels 2,3,4	
Electrical Parameters			
Inputs			
I/O Data Format		EIA RS232; CCITT v.24	
Data Connector		9 pin D-Type Female	
Input Impedance		>3000Ohms	
Input voltage		+/-30 Volts Max	
Outputs			
Output Impedance		>300Ohms	
Driver Output		+/-5Volts into 3000Ohms	
Channel 3		0 to 2.5V @10mA	
		0 to 3V @ 20mA	
Ambient Temperature			
Operating Temperature		-40 to +85 C	-40 to +70 C
Storage Temperature		-40 to 85 C	
Power Required			
	5942	2.4 Watts	3.6 Watts
		35 mA @ 90-250 V	40 mA @ 90-250 V
		170 mA @ 18-60 V	200 mA @ 18-60 V
	5941	2.4 Watts	3.0 Watts
		200mA @ 12Vdc	250mA @ 12Vdc
Power Dissipation BTU/H			
	5942	10.9 BTU/hr	12.3 BTU/hr
	5941	8.2 BTU/hr	10.2 BTU/hr
Physical Parameters			
Weight			
	5941	17 oz.	
	5942	9 oz.	
Dimensions Inches			
	5942	4.1W x 5.1L X 1.3H	
	5941	2.0W x 5.1L X 1.3H	
Indicators			
		Power	
		Sync Status	
		Transmit Each Channel	
		Receive Each Channel	

Ordering Information

Model	EIA Standard	Fiber Type	Input Power Rating	64K Baud Data Rate
5941D1HRT	RS-232/TTL	Multi-Mode	9-15 Vdc	1Channel
5942D1HRT-H	RS-232/TTL	Multi-Mode	90-250Vdc/90-250Vac	1Channel
5942D1HRT-L	RS-232/TTL	Multi-Mode	24-48 Vdc	1Channel
5941SD1HRT	RS-232/TTL	Single-Mode	9-15 Vdc	1Channel
5942SD1HRT-H	RS-232/TTL	Single-Mode	90-250Vdc/90-250Vac	1Channel
5942SD1HRT-L	RS-232/TTL	Single-Mode	24-48 Vdc	1Channel
5941D4HRT	RS-232/TTL	Multi-Mode	9-15 Vdc	4 Channels
5942D4HRT-H	RS-232/TTL	Multi-Mode	90-250Vdc/90-250Vac	4 Channels
5942D4HRT-L	RS-232/TTL	Multi-Mode	24-48 Vdc	4 Channels
5941SD4HRT	RS-232/TTL	Single-Mode	9-15 Vdc	4 Channels
5942SD4HRT-H	RS-232/TTL	Single-Mode	90-250Vdc/90-250Vac	4 Channels
5942SD4HRT-L	RS-232/TTL	Single-Mode	24-48 Vdc	4 Channels

ACC-LCS	Link Cantilever Mounting Bracket
ACC-CBL2	DB9 Male/4 DB9 Female 1 X 4 Interface Cable 1 Foot



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