

Serial to Fiber Optic Modem

Model 9PFLST

B+B SMARTWORX

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PRODUCT FEATURES

- Transparent asynchronous RS-232 at 115.2 Kbps
- Full or half-duplex
- Range up to 4 km (2.5 mi)
- TD, RD, RTS and CTS supported
- EMI/RFI transient immunity to surges, spikes, ground loops
- Port powered, no external power required

Model 9PFLST allows any two pieces of RS-232 asynchronous serial equipment to communicate full-duplex over two multi-mode fibers. Typical distances up to 4 km (2.5 miles) are possible with no external power required. The 9PFLST supports both data signals at up to 115.2 kbps as well as the RTS/CTS handshake lines. This means the 9PFLST can replace short haul modems and isolators when connecting remote devices, while providing the EMI/RFI and transient immunity of optical fiber.

RS-232 connections are provided on the same DB9 female connector, while the multi-mode fiber is connected via two ST connectors. The unit is port powered by the RS-232 Transmit Data and handshake lines. When handshake lines are not available, or when using a low power RS-232 port, the 9PFLST can be powered by an external 12VDC supply, drawing 50 mA maximum

ORDERING INFORMATION

MODEL NUMBER	SERIAL CONNECTOR	FIBER CONNECTOR	OUTPUT
9PFLST	DB9 Female	Multi-mode ST	RS-232

Note: Must be used in pairs.

ACCESSORIES

SMI6-12-V-P230-C1 - Power Supply, 12 VDC 6 Watt, 2.5MM Plug, International AC Input, International AC Blades

DFMM-STST-3M - Multi-Mode Duplex Fiber Cable, ST to ST, 9.8 ft. (3 m)

Fiber Optic Benefits

Fiber optic cable carries serial data up to 4 kilometers (2.5 miles), much farther and reliably than conventional copper lines.

Power surges, spikes and ground loops are created by electrical equipment, by nearby lightning strikes, and from other sources. They are easily picked up by copper data lines and transmitted to connected devices, garbling data communications and damaging equipment.

However, fiber optic data transmission uses light in glass fiber cable as a communication medium. Being inherently non-electric, fiber optic cable will not pick up noise and provides the most reliable system possible – ideal for spanning areas with severe interference, such as near heavy electrical equipment, welding or radio transmissions. It does not transmit power spikes or surges and prevents ground loops by not providing a conductive path for the ground.

9PFLST_0217ds

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SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	115.2 kbps maximum
RS-232	
Connector	DB9 female
Signals	TD, RD, RTS, CTS, GND
FIBER OPTIC TECHNOLOGY	
Connector	Multi-mode ST
Typical Range	Up to 4 km (2.5 mi) on multi-mode glass fiber
Transmission Line	Dual multi-mode optical cable
Transmission Mode	Asynchronous, half or full-duplex, point-to-point
POWER	
Source	Port-powered from serial port TD, RTS, and DTR lines
Optional	External 12 VDC
Coupled Power Budget	12.1 dB
Optic Wavelength	820 nm
MECHANICAL	
9PFLST Dimensions	10.9 x 4.3 x 2.4 cm (1.3 x 1.7 x 1.0 in)
Enclosure	Plastic, inline
MTBF	404846 hours
MTBF Calc. Method	MIL 217F Parts Count Reliability Prediction

APPROVALS / CERTIFICATIONS - 485SD9R, 485SD9RJ, 485SD9TB	
FCC Part 15, CISPR, EN 55022: 2010 + AC:2011 Class B Emissions	
CE	
2004/108/EC	Electromagnetic Compatibility Directive
2011/65/EU	Reduction of Hazardous Substances Directive

TYPICAL SETUP

