



Description

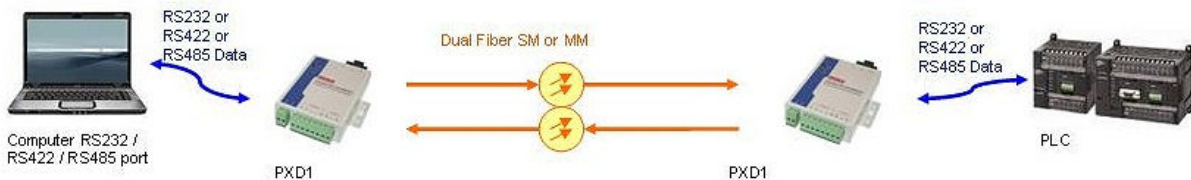
Precision's PD1X Data fibre optic modem transmits RS232 or RS422 or RS485 data over fibre-optic cable over distances of up to 20km on single-mode fibre or 2km on multi mode fibre. The PD1X automatically detects the serial signal baud rate and transparently sends the signal regardless of data rate. The PD1X also has automatic data direction detection for RS-485 signals to control data flow direction. The PD1X is equipped with 15KV, 600Watt surge protection on its data interfaces to protect it against surge damage entering from the copper data network. The PD1X is also field-hardened for operation in harsh field conditions. The low power consumption <2W makes the PD1X ideal to deploy in remote locations where power may be supplied from solar energy or batteries.

Key Features

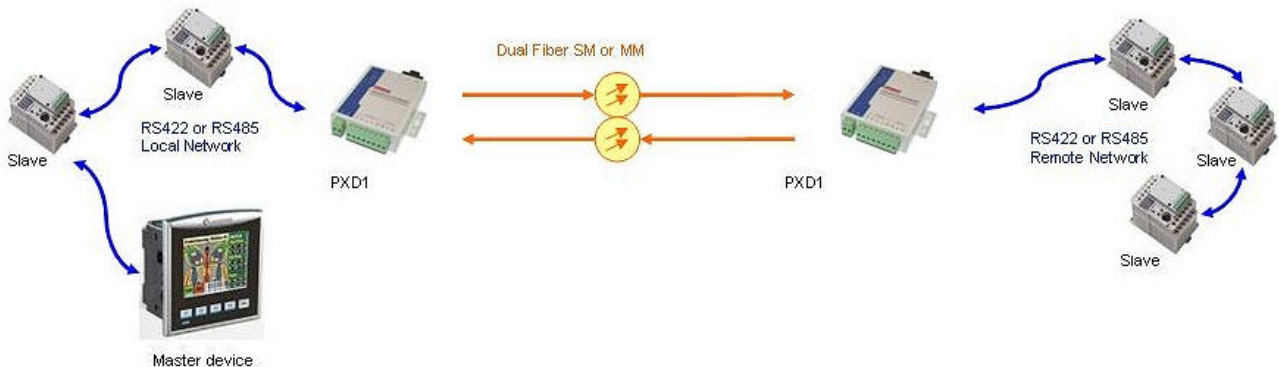
- Field hardened operation -25°C to 70°C
- High data rates up to 500Kbps full duplex
- Automatic baud rate detection
- Automatic signal direction detection for RS485
- Supports RS-232 / RS422 / RS485 formats
- Surge protected data interfaces up to 15KV, 600W
- Extends data up to 20km on single-mode and up to 2km on multi-mode fibre
- Low power consumption <2W
- Wide supply voltage 5V to 40V DC

Typical applications

Typical application: Point to Point RS232 / RS422 / RS485 full duplex link over duplex fibers



Typical application: Network to Network RS232 / RS422 / RS485 full duplex link over duplex fibers



Optic

Optic wavelength	Multi-mode:	1310nm on 2 fibres
	Single-mode:	850nm on 2 fibres
Transmission distance	Multi-mode:	2km
	Single-mode:	20km
Optic Connector	SC Duplex	

Data

Serial standards	RS232 RS422 RS485	Note only one format can be used at a time per converter
RS232 signal pins	TX, RX, GND	
RS422 signal pins	T+, T-, R+, R-, SGND	SGND for one end shield
RS485 signal pins	D+, D-, SGND	SGND for one end shield
Baud rate	500Kbps max	Auto baud rate detect
RS232 copper length	15m max	
RS485/422 copper length	1200m max	
RS485/422 loading	32 stations typ.	Up to 128 possible
Interface protection	15KV static	600W surge
Data connector	8-pin screw terminal	

System

BER	1E-9 max
MTBF	> 50000 Hr

Dimensions

Standalone unit	100mm x 69mm x 22mm
Weight	230g

Power

Supply voltage	5V to 40V DC
Power consumption	2W (170mA @ 12V)



Environmental

Storage temperature	-40°C to +85°C
Operating temperature	-25°C to +70°C
Humidity	0 to 95% (non cond)

Quality standards

ISO9001

Ordering information

Model	Function	Fibre	Description
PD1X Data modems, Duplex Fibre			
PD1XDC-MM-SA220		2xMM	Data transceiver RS232/422/485, MM, 2KM, FC, Standalone with Mains adapter for 110-220V AC 50-60Hz Euro plug.
PD1XDC-SM-SA220		2xSM	Data transceiver RS232/422/485, SM, 20KM, FC, Standalone with Mains adapter for 110-220V AC 50-60Hz Euro plug.

Note: PD1XDC must be used as pairs.

Data Sheet Version

1.0

2009/06/10