

# PSI-MODEM-SHDSL/SERIAL Copper Extender

 [perle.com/products/serial-extenders/psi-modem-shdsl-serial-extender.shtml](http://perle.com/products/serial-extenders/psi-modem-shdsl-serial-extender.shtml)

## RS232/422/485 over copper wire

- Transmit serial data up to 20km [12.4 mi]
- Two SHDSL ports for symmetrical data transmission
- Supports RS232, RS422 and RS485 interfaces
- Protocol Transparent

The PSI-MODEM-SHDSL/SERIAL to Copper Extender transparently extends serial data transmission up to 20 km [12.4 mi] across single twisted pair ( CAT5/6/7 ), coax or any existing copper wiring previously used in alarm circuits, E1/T1 circuits, CCTV and CATV applications.



## Long Distance Serial Data Transmission over Copper

**SHDSL is the technology** of choice for the transmission of digital **data over long distance copper wires** of a network. Although performance depends on the characteristics of the cable used, the reach of SHDSL is much further than any other DSL technology currently available. In addition, upload and download bandwidth is symmetrical boasting data rates as high as **15.3 Mbps over 2-wire copper** and **30 Mbps over 4-wire copper**.

The PSI-MODEM-SHDSL/SERIAL to Copper Extender is **protocol transparent** and supports **RS-232, RS-422 and RS-485** interfaces. With two SHDSL ports you can easily set up point-to-point, redundant point-to-point, linear and star topology networks.

Two software configurable digital outputs are available for external device alarm generation.

Although these devices are “**plug and play**”, should additional device configuration be needed during set-up, power can be supplied via a computer USB cable. The easy configuration software provides online diagnostics, logbook function, individual project configuration and saving of project configurations. Furthermore, to provide on-site technicians with quick device diagnostics, the PSI-MODEM-SHDSL/SERIAL has integrated diagnosis functions, a logbook and clearly visible LEDs.



RS-232



## PSI-MODEM-SHDSL/SERIAL Technical Specifications

### Serial interface

Interface 1

V.24 (RS-232) interface in acc. with ITU-T V.28, EIA/TIA-232, DIN 66259-1

Interface	RS-232
Connection method	D-SUB 9 plug
Transmission length	max. 15 m
Termination resistor	390 $\Omega$ - 180 $\Omega$ - 390 $\Omega$ (can be connected)
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	13
Data flow control/protocols	Software handshake, Xon/Xoff, hardware handshake (RTS/CTS), 3964R-compatible, Modbus (RTU/ASCII), transparent protocol - additional protocols supported
Serial transmission speed	0.11/0.3/1.2/2.4/4.8/9.6/19.2/38.4/57.6/115.2/230.4 kbps, NRZ
<b>Interface 2</b>	<b>SHDSL interface according to ITU-T G.991.2.bis</b>
Connection method	2 x 2-pos. COMBICON plug-in screw terminal blocks
Transmission length	up to 20 km (Depending on data rate and cable cross section)
Serial transmission speed	4-wire operation: 64 kbps ... 30 Mbps
	2-wire operation: 32 kbps ... 15.3 Mbps
<b>Interface 3</b>	<b>USB 2.0</b>
Connection method	Mini-USB type B, 5-pos.
Transmission length	< 5 m (only for configuration and diagnostics)
<b>Interface 4</b>	<b>RS-422 interface in acc. with ITU-T V.11, EIA/TIA-422, DIN 66348-1</b>

















