

## ETHERNET EXTENSION UP TO 13 Km OVER 1 OR 2 TWISTED PAIRS



Distribué par :

**HVS.**  
PRECONISATEUR DE SOLUTIONS DEPUIS 1986

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**etic**  
TELECOMMUNICATIONS

The SHDSL "XSLAN" range of switches enables two distant Ethernet networks to be connected using a twisted pair, or two pairs to double data-flow or guard against failure of one of the two lines.

On one voice-grade pair, the speed is 128 Kb/s to 2.3 Mb/s depending on the distance and the quality of the line. It can reach 4.6 Mb/s if two pairs are used.

The product can also function as an IP router, filter broadcast frames and manage flow priority (QoS), optimising use of the line.

It is designed for demanding applications: wide temperature range, low consumption, double power supply, overvoltage protection.

A few DIP-switches are all that is required for installation. Advanced features are adjusted using an html server.

Depending on the model, there are 4 10-100 BT Ethernet ports or 2 Ethernet ports and 2 serial ports.

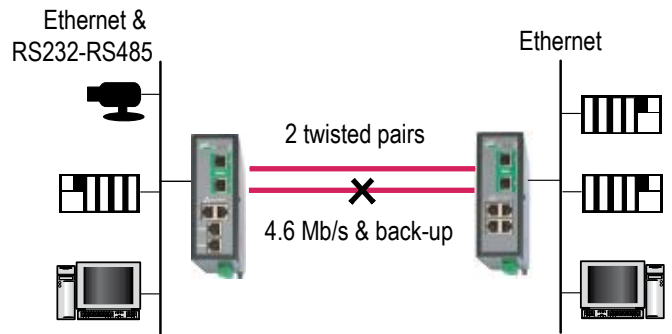
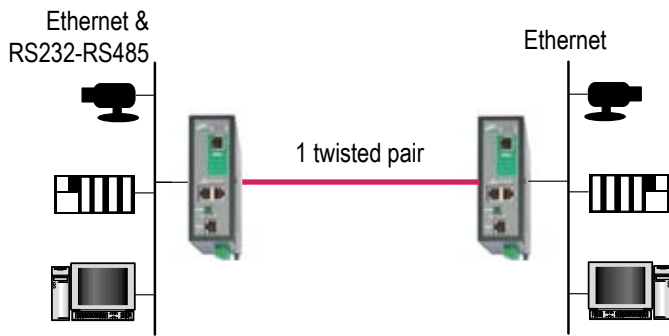
### Key features

- Up to 13 Km over a 0.9 mm line
- Up to 2.3 Mb/s (2 wires product)
- Up to 4.6 Mb/s (4 wires product)
- 4 ethernet 10/100 ports
- IP router
- DiffServ Quality of service
- RS232-RS485
- DIP-switches or web configuration

### Applications

- Industrial ethernet network extension

# XSLAN SHDSL Switch



## General characteristics

<b>Dimensions</b>	135 x 47 x 115 mm (HxWxD)
<b>Installation</b>	DIN rail 35 mm
<b>Protection class</b>	IP20
<b>Power</b>	<ul style="list-style-type: none"> <li>■ 9 to 40 VDC / 200 mA at 24 VDC</li> <li>■ Reverse polarity protection</li> </ul>
<b>Output</b>	Relay 1 A @ 24VDC max.
<b>EMC immunity</b>	<ul style="list-style-type: none"> <li>■ ESD : EN61000-4-2 : 6 KV contact discharge</li> <li>■ RF field : EN61000-4-3 : 10V/m &lt; 2 GHz</li> <li>■ Fast transient : EN61000-4-4</li> <li>■ Surge V. : EN61000-4-5 : 4KV line / earth</li> </ul>
<b>Safety</b>	EN 60950 & UL1950
<b>Banned substances</b>	2002/95/CE RoHS european union directive
<b>Humidity</b>	5 to 95 % RH non condensing
<b>Operating T°</b>	-20°C/+60°C 95%

## Transmission

<b>Cable</b>	1 twisted pair (2 wires) or 2 twisted pairs
<b>Wire diam.</b>	0.4 mm to 1 mm
<b>Modulation</b>	UIT-T G.911.2
<b>Data transmission</b>	802.3ah : 2BaseTL
<b>Data rate 2 wires</b>	128 Kb/s up to 2.3 Mb/s
<b>Data rate 4 wires</b>	256 Kb/s up to 4.6 Mb/s
<b>Data rate adaption</b>	Automatic or manual
<b>Latency</b>	4 ms at 2,3 Mb/s & 6 ms at 512 kb/s

## Distance in Km

<b>Data rate (2 wires)</b>	128 Kb/s	1.15 Mb/s	2.3 Mb/s
<b>Data rate (4 wires)</b>	256 Kb/s	2.3 Mb/s	4.6 Mb/s
<b>Distance (Ø 0.9 mm)</b>	13 Km	8 Km	6 Km
<b>Distance (Ø 0.4 mm)</b>	7 Km	4 Km	3 Km

## Ethernet /Switching / VLAN

<b>Bridging</b>	IEEE 8021d transparent bridging
<b>MAC @ learning</b>	2048
<b>VLAN</b>	VLAN IEEE802.1Q pass through

## TCP/IP / management (except XSLAN-140)

<b>Management</b>	SNMP V2 standard MIB
<b>Quality of Service</b>	4 priority levels management <ul style="list-style-type: none"> <li>■ DiffServ compliant</li> </ul>
<b>IP Router</b>	<ul style="list-style-type: none"> <li>■ Static routes &amp; RIP</li> <li>■ Broadcast filtering</li> </ul>
<b>Configuration</b>	■ DIP switches for basic functions & Html server

## RS232-RS485 gateway (option)

<b>RS232-RS485</b>	<ul style="list-style-type: none"> <li>■ Raw client &amp; server- Multicast - Telnet serv.</li> <li>■ Modbus master &amp; slave</li> <li>■ 2 serial ports (see ordering infos)</li> <li>■ 1200 to 115200 b/s 8 bits parity N/O/E</li> </ul>
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## Interfaces

<b>Ethernet</b>	<ul style="list-style-type: none"> <li>■ 10-100 Mb/s auto MDI / MDIX</li> <li>■ 2 or 4 RJ45</li> </ul>
<b>RS232-RS485</b>	1200 à 115 200 b/s 8 bits parity N/O/E
<b>USB</b>	Host and device
<b>Alarm</b>	Voltage free output
<b>Power</b>	Double power supply voltage input
<b>Shdsl</b>	1 or 2 RJ45 - cables provided



2 wires products	XSLAN -140	-1400	-1220	-1230
<b>2 wires - 2.3 Mb/s</b>	Y	Y	Y	Y
<b>10-100 ethernet port</b>	4	4	2	2
<b>RS232</b>	0	0	1	2
<b>RS485</b>	0	0	1	0
<b>SNMP, IP Router , QoS</b>	N	Y	Y	Y

4 wires products	XSLAN -2400	-2220	-2230
<b>4 wires - 4,6 Mb/s</b>		Y	Y
<b>Line backup</b>		Y	Y
<b>10-100 ethernet port</b>		4	2
<b>RS232</b>		0	1
<b>RS485</b>		0	1
<b>SNMP, IP Router, QoS</b>		Y	Y

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