Isolated Industrial Ethernet Serial Servers

VESR321 Series

PRODUCT FEATURES

- Three-way, 2 kV isolation
- Ethernet enable serial devices
- Direct IP, virtual COM port, or paired mode
- Ethernet pass-through port available
- Ethernet fiber options
- Serial RS-232/422/485 port
- NEMA TS2 (VESR321)

Take control of your serial devices with Vlinx™ VESR321 Isolated Industrial Ethernet Serial Servers.

Easy to use Vlinx™ Manager software puts access to your whole shop right on your desktop. Configure your serial devices, upgrade firmware and monitor activity from a single location. The data ports are isolated from one another and also from the power supply.

Multiple fiber optic options make integration into any existing network quick and easy. Choose from Multi-mode LC and Single-mode LC.

VESR321 series servers also feature an additional copper pass-through RJ45 port that functions like an unmanaged switch, allowing you to connect another Ethernet device or PC work-station.

Heartbeat connectivity keeps the serial server on-line. If connectivity is lost it attempts to reconnect every five seconds until a connection is regained. A manual reboot is not required when communications are restored.

ORDERING INFORMATION

MODEL NUMBER	ETHERNET PORT	ETHERNET FIBER PORTS
VESR321 †	2 RJ45	0
VESR321-ML	1 RJ45	1 LC multi-mode optical
VESR321-SL	1 RJ45	1 LC single-mode optical

All Models RS-232/422/485
All Models DB9 or Removable Terminal Block
Includes DIN Rail clips and Panel Mount Brackets
† NEMA TS2

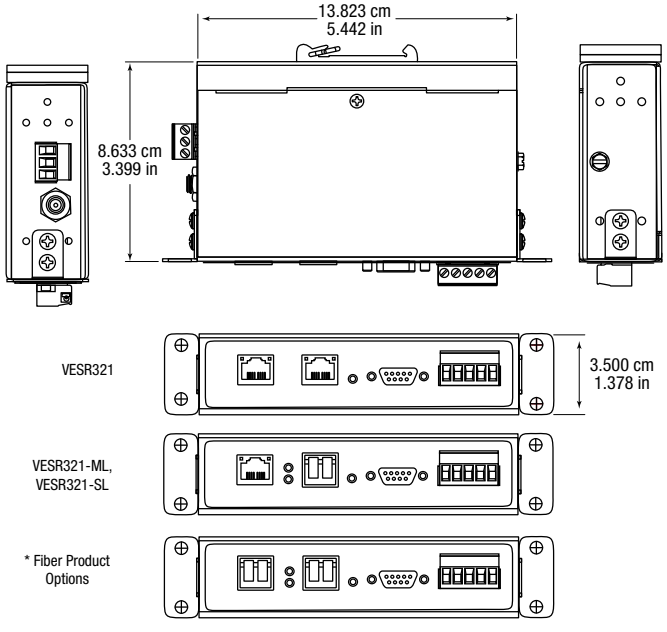
ACCESSORIES

PS12BVLB-INT-MED - Medical Power supply 24VDC 1.7A

TBKT2 - Replacement Terminal block, 5 position

ERS35 - 1M DIN Rail 35mm

MECHANICAL DIAGRAM



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SPECIFICATIONS

PORT TO PORT ISOLATION	
Serial to Ethernet	2 kV
Serial to Power	2 kV
Ethernet to Power	1.5 kV
POWER	
Source	External
Input Voltage	10 to 48 VDC (58 VDC Maximum)
Connector	Removable Terminal Block (12 – 28 AWG and barrel connector)
Power Consumption	4 W
MECHANICAL	
LED Indicators	Ready, Power, Serial Data, Ethernet Speed, Ethernet Link
Switches	Reset Button (Mode)
Dimensions	13.823 x 8.633 x 3.500 cm (5.442 x 3.399 x 1.378 in)
Enclosure	DIN Rail, Panel, metal, IP30
Weight	635 g (1.4 lbs)
ENVIRONMENTAL	
Operating Temperature	-40 to 80°C (-40 to 176°F)
Operating Humidity	10 to 95% Non-condensing
Storage Temperature	-40 to 85°C
MTBF	86,882 hours
MTBF Calc Method	Based on MIL 217F using Parts Count Reliability Prediction
NETWORK	
Serial Memory	8 KB per port
Network Memory	8 KB
LAN	10/100 Mbps Auto-detecting, 10BaseT or 100BaseTX
Ethernet	IEEE 802.3 auto detecting & auto MDI/MDX, 10BaseT and 100Base TX
PROTOCOLS	
Protocols	TCP, IPv4, UDP, ARP, HTTP 1.0, ICMP/PING, DHCP/BOOTP
IP Mode	Static, DHCP
TCP/UDP	User definable
OTHER	
Connection Mode	Server, Client, VCOM, Paired
Client Connection	At power up or upon data arrival
Search	Serial direct COM and Ethernet Auto Search or specific IP
Diagnostics	Display PC IP, ping, test VCOM, save test config (text readable)
Firmware Upgrade	Vlinx Manager

CONFIGURATION SOFTWARE			
Vlinx Manager	Win XP (32/64 bit), 2003 Server (32/64 bit), Vista (32/64 bit), 2008 Server (32/64 bit), Win 7 (32/64 bit), Windows 2008 Server		
ETHERNET PASS-THROUGH PORT			
Standards	IEEE 802.3, 802.3u, 802.3x		
Processing Type	Store and Forward with 802.3x full duplex, non blocking flow control		
Flow Control	IEEE 802.3x flow control, back pressure flow control		
MAC Address Table	2K		
SERIAL TECHNOLOGY			
RS-232	TD, RD, RTS, CTS, DTR, DSR, DTD, GND		
RS-485 2-Wire	Data A(-), Data B(+), GND		
RS-422/485 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), GND		
Serial Connector	DB9M RS-232, Terminal Block RS-422/485		
Data Rate	Up to 230.4 Kbps		
APPROVALS / CERTIFICATIONS			
Emissions	FCC Class B, CISPR Class B (EN55022), NEMA TS2 (VESR321)		
CE	EN61000-6-2:2005	(Heavy Industrial)	
	EN61000-4-2:2008	(ESD)	+/-8kV Contact, +/-15kV Air
	EN61000-4-3:2006	(RI)	10V/m, 80-1000MHz; 3V/m, 1.3 to 2.7 GHz
	EN61000-4-4:2004	(EFT Burst)	+/-2kV DC ports; +/-1kV signal ports
	EN61000-4-5:2005	(Surge)	+/- 0.5 kV DC Ports, +/- 1 kV Signal Ports
	EN61000-4-6:2005	(CI)	10 VRMS, 0.15 to 80 MHz
	EN61000-4-8:2001	(Magnetic)	10A/m, 50Hz & 60Hz
Shock	IEC60068-2-27	50G peak, 11ms, 3 axes	
Vibration	IEC60068-2-6	10-500Hz, 4G, 3 axes	
Freefall (Drop)	IEC60068-2-32	10 total drops from sides, corner and edges, 1M	

FIBER OPTIC SPECIFICATIONS

MODE AND DISTANCE	WAVELENGTH	OUTPUT POWER	RECEIVE SENSITIVITY
Multi-mode (2 km)	1310 nm	-23 to -14 dBm	</= -31 dBm
Single-mode (15 km)	1310 nm	15 to -8 dBm	</= -34 dBm
Single-mode (40 km)	1310 nm	-5 to 0 dBm	</= -35 dBm
Single-mode (80 km)	1550 nm	-5 to 0 dBm	</= -34 dBm

*** Full Fiber Product Options**

These options are possible for large projects:

- Models with 2 fiber optic ports
- Models with long-range fiber optic ports such as 40km and 80km single-mode

Contact B&B Electronics for more information.