

**VTMODEMxUS Model Series****Rugged Industrial Telephone Modems****Designed to Work Reliably in the Toughest Environments**

SIXNET Industrial Telephone Modems eliminate the difficulties encountered with installing office-grade modems in industrial settings. These ruggedized modems connect to any PLC, RTU or other industrial equipment and provide the important features you have been looking for.

**Benefits**

- Reduce your design time
- Simplify your installation
- Increase your reliability

**Specifications**

- Rated for -30 to +70 °C operation
- DIN Rail or flat panel mounting
- DC powered – no more bulky AC adapters
- Auto-dials on simple contact closure
- Internal surge protection
- Supports all PLCs, RTUs and other devices
- Five year guaranteed availability for OEMs
- Compliant with telephone systems world-wide
- DIN rail or flat panel mounting

General Purpose	PLC Self-dialing	RS-422/RS-485 & Extended Power	Lease-Line	Advanced 56K (V.92 and V.90)
<b>VTMODEM1xx</b>	<b>VTMODEM2xx</b>	<b>VTMODEM3xx</b>	<b>VTMODEM4xx</b>	<b>VTMODEM5xx</b>
The workhorse for general industrial applications. Dial-up and auto-answer. It supports baud rates up to 33.6K (V.34).	Automatically dials out on a contact closure from any PLC or other device. Auto-answer to 33.6K	Has an RS-422/485 port in addition to the RS-232 port. It also accepts extended power input from 10- 52 VDC.	Supports 2-wire leased-line or direct-wire connections up to 33.6K.	Provides advanced features such as call-back security and remote configuration.



**B&B electronics**  
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### Why an Industrial Telephone Modem?

SIXNET industrial telephone modems are designed for industrial environments. Rugged packaging and protected circuitry keep them working under conditions that may cause cheap office-grade modems to fail. Industrial applications are demanding - it gets hot, it gets cold - the power browns out or spikes wildly. You need a reliable industrial modem that keeps going. Proven for the toughest settings from Alberta pipelines to remote locations in Sweden.

### Industrial modems survive heat & cold

SIXNET industrial modems work reliably through the dead of winter to those hot summer days. Unlike ordinary modems that are intended only for use in air conditioned offices, SIXNET industrial modems are designed for those places that you don't want to be - over the temperature range of -30 to 70°C.

### PC software compatibility guaranteed

SIXNET industrial modems contain an industrial version of the same modem chip-set found in PC internal modems. They support the full set of modem (AT) commands, protocols and operating features, and are 100% Windows software ready.

### Forget the Velcro and makeshift brackets

SIXNET industrial modems can be DIN rail or direct panel mounted. Their compact footprint fits easily into equipment-filled enclosures.

### Lose those bulky power transformers

SIXNET industrial modems run directly on the DC power that you already have in your control cabinet. Get rid of those cumbersome AC outlet transformers. No AC power means fewer safety issues. If you ship your equipment internationally, you can forget about the headaches caused by different line voltages and incompatible power plugs.

### Stop redesigning your OEM products

Have you ever qualified a system only to find that the modem you used is no longer available? SIXNET guarantees availability of these modems for a minimum of five years. Design your system just once!

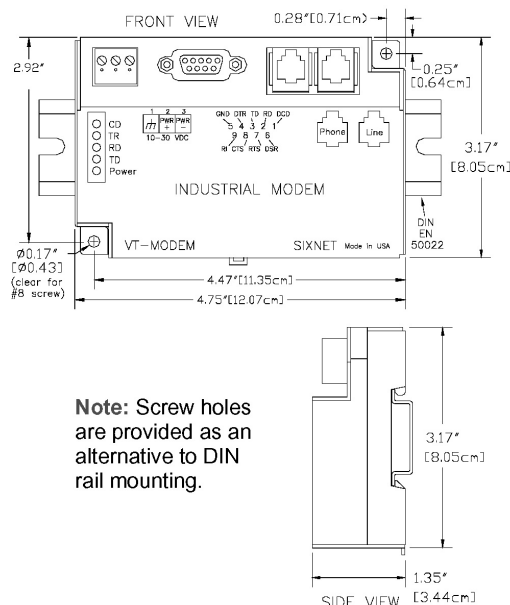
### A simple solution for global business

Forget about the troubles of supplying different modems for each country. SIXNET industrial modems are compliant with telephone systems around the world. Simplify the logistics of your worldwide business and improve your bottom line.

### System Integrators increase profits

System Integrators are putting SIXNET industrial modems in every PLC cabinet they design or service. Now, you can make program changes and get your customer's systems running without leaving your office. Your customers will be delighted with your quick service and you will love the cost savings of not having to make a site visit.

### Mounting Dimensions



<b>Model #:</b>	<b>Description:</b>	<b>Usage Locations:</b>
VTMODEM1US	General purpose; dial-up to 33.6K (V.34)	US, Canada, Mexico, Central and South America
VTMODEM1EC	General purpose; dial-up to 33.6K (V.34)	Europe, Asia, Africa, Australia and New Zealand
VTMODEM2US	PLC self-dialing and auto-answer to 33.5K	US, Canada, Mexico, Central and South America
VTMODEM2EC	PLC self-dialing and auto-answer to 33.5K	Europe, Asia, Africa, Australia and New Zealand
VTMODEM3US	RS-422/RS-485 port and 10-52 VDC power	US, Canada, Mexico, Central and South America
VTMODEM3EC	RS-422/RS-485 port and 10-52 VDC power	Europe, Asia, Africa, Australia and New Zealand
VTMODEM4US	Leased-line and direct connect to (2-wire)	US, Canada, Mexico, Central and South America
VTMODEM4EC	Leased-line and direct connect to (2-wire)	Europe, Asia, Africa, Australia and New Zealand
VTMODEM5US	Advanced 56K (V.92 and V.90)	US, Canada, Mexico, Central and South America
VTMODEM5EC	Advanced 56K (V.92 and V.90)	Europe, Asia, Africa, Australia and New Zealand

NOTE: All modems include an RS-232 modem DB9 cable and complete Windows Software on CD, at no extra charge.

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## Performance Specifications

Telephone Line	
Max. Baud Rate	33.6 kbps for -1, -2, -3, -4; 56 kbps for -5
Compatibility	V.90, V.92 (-5 only); V.34, V.32 bis, V.32, V.22, V.22A/B, V.23, V.21, Bell 212A and 103
Data Compression	V.44 (-5 only); V.42 bis, MNP 5
Error Correction	V.42 MNP 2-4
Max. Fax Rate	14.4 kbps for -1, -2, -3, -4; 33.6 kbps for -5
Fax Capabilities	Group 3 (V.33, V.17, V.29, V.27 ter, V.21)
Ringer & Jacks	0.3 and RJ11 (line and auxiliary)
RS-232 Port	
Max. RS-232 Rate	115.2 kbps for -1, -2, -3, -4; 230 kbps for -5
RS-232 (DCE)	TD, RD, CTS, RTS, CD, DTR, DSR, RS, GND
Command ST	Standard AT and S register (see help)
Status LEDs	CD, DTR, RD, TD, Power
PLC Discrete I/O Interface (VT-MODEM-2 Only)	
"Trigger" Input	Starts auto-dialing when TRUE
Voltage Range	9 to 30 VDC (6.5 mA at 24 VDC)
Max. OFF Voltage	5 VDC
"On-line" Output	Output is ON when connection exists
Output Type	Sourcing – switches supply power
Output Current	100 mA maximum
RS-422 / RS-485 Port (VT-MODEM-3 only)	
RS-422 Mode	Supports 4-wire full-duplex
RS-485 Modes	2 or 4 wire party-line operation
Signal Rate	Standard rates up to 115.2 kbps
RS-422/485	Up to 0.5 miles
General Characteristics	
Input Voltage	10-30 VDC for -1, -2, -4, -5; 10-52 VDC for -3
Input Current	65 mA @ 24 VDC typical; (Sleep mode: 30 mA for -1, -2, -3 and 50 mA for -4, -5)
Operating Temperature	-30 to 70 °C (Storage -40 to 85 °C)
Humidity	5% to 95% RH (non-condensing)
Flammability	UL 94 V-0 materials
Telecom Ratings	FCC Part 68, Industry Canada CS03-8, CTR21 (98/482/EC); ACA TS 001; ACA TS 002
Electrical Safety	UL 508, CSA C22.2/14; EN61010-1 (IEC1010), IEC 950, AS/NZS3260
EMI Emissions	FCC Part 15, ICES-003, Class A; EN55022; AS/NZS3548
EMC Immunity	EN50082-1 (IEC801-2, 3, 4)
Surge Withstand	IEEE-472 (ANSI C37.90)
Vibration	IEC68-2-6
Certifications	ISO9001, UL Class 1 Div2 Celenelec Zone 2(hazardous locations), CE, UL508 for Controllers, DNV Marine & Offshore
Hazardous Locations (Zone 2)	UL1604, CSA C22.2/213 (Class I, Div 2, Groups A, B, C, D); Cenelec, EN50021 (EEx nA II T4)
Mounting	DIN rail or panel mount



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