

# Ultra Compact Modbus Gateway

Model BB-MESP211T

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## FEATURES

- Connect Modbus devices to the Ethernet network
- RS-232/422/485 to Modbus TCP, ASCII, RTU (masters, slaves)
- Data rate: up to 230.4 kbps
- Remote monitoring, configuration, upgrades via web browser
- Wide operating temperature: -40 to +80 °C
- Compact IP30 metal enclosure is panel or DIN rail mount
- 10-30Vdc power supply required and included

Model BB-MESP211T, Vlinx™ Modbus Gateway, connects Modbus devices to Ethernet networks and lets you monitor and control Modbus devices from anywhere on the Ethernet LAN or WAN. Supporting up to 16 masters and 32 slaves, the gateway features an auto-detecting 10/100 Ethernet copper RJ-45 port and a serial port that supports RS-232/422/485 communications via a removable terminal block connection.

The gateway is built for use in industrial environments with a heavy-duty metal enclosure that is panel (standard) or DIN rail mountable (with optional adapters).

### Power Source (included)

The product requires and operates from a 10-30Vdc range of power inputs. It ships with an included AC wall power supply that features a universal AC input, barrel connector and interchangeable blades for North America, Europe, UK, Australia and China.

### Ease of Use

Configuration, upgrades and monitoring are easy with Vlinx Manager software. It installs on your PC giving access to the device on your desktop/laptop. Remotely manage the Modbus Gateway over a LAN/WAN via the built-in web server. This is helpful for off-site troubleshooting and can be done with an ordinary web browser.

### Software Support

Windows XP (32/64 bit), 2003 Server (32/64 bit), Vista 32/64 bit, 2008 Server (32/64 bit), 7 (32/64 bit), 8 (32/64 bit), 10 (32/64 bit).

## ORDERING INFORMATION

| MODEL NUMBER | PROTOCOL       | SERIAL PORT              | ETHERNET PORT | ETHERNET CONNECTOR |
|--------------|----------------|--------------------------|---------------|--------------------|
| BB-MESP211T  | RS-232/422/485 | Removable Terminal Block | 1             | RJ45               |

## ACCESSORIES - sold separately

**BB-SMI6-12-V-P5** - Power supply, 12V DC, 6 Watt, 5mm plug, International AC input, International AC blades. *One power supply (this model#) included with product.*

**BB-DRAD35** - Optional DIN rail adapter clip (pair)

**BB-232NM9** - Optional null modem crossover cable for DTE to DTE connection

**BB-TBKT2** - Replacement terminal block, 5-position, 5.08mm, 8A, 30

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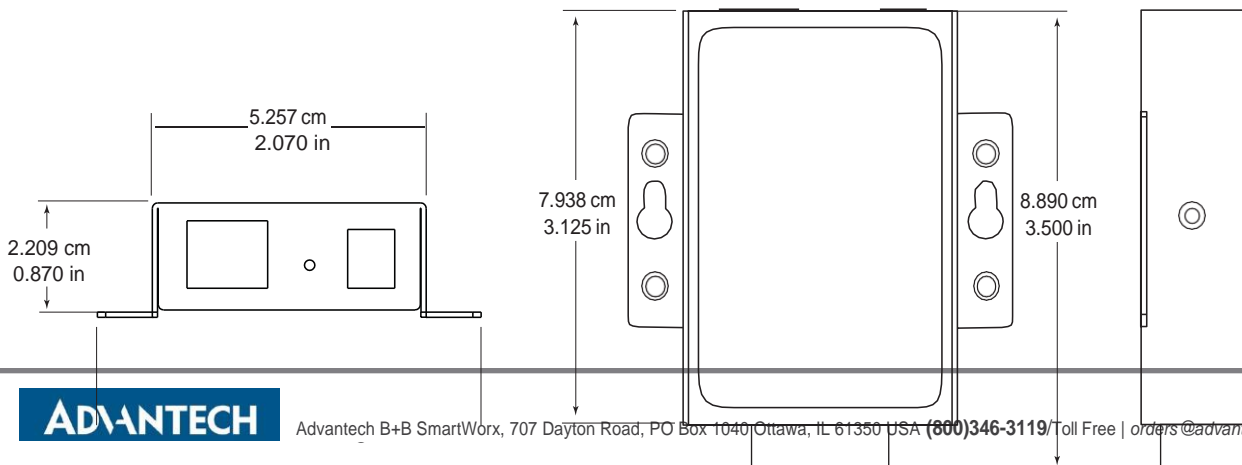
### SPECIFICATIONS

| SERIAL TECHNOLOGY                |   |
|----------------------------------|---|
| RS-232                           | TD, RD, DTR, DSR, RTS, CTS, DCD plus Signal Ground                  |
| RS-485 2-Wire                    | Data A(-), Data B(+), GND   |
| RS-422/485 4-Wire                | TDA(-), TDB(+), RDA(-), RDB(+), GND                                 |
| Serial Protocols & Connectors    | RS-232/422/485 (removeable terminal block)                          |
| Data Rate                        | Up to 230.4 Kbps  |
| MECHANICAL                       |   |
| LED Indicators                   | Serial Port, Ethernet, Ready  |
| Switches                         | Reset button  |
| Dimensions                       | 7.938 x 5.257 x 2.209 cm (3.125 x 2.070 x 0.870 in)                 |
| Enclosure                        | IP30, metal   |
| ENVIRONMENTAL                    |   |
| Operating Temperature            | -40 to +80 °C (-40 to +176 °F)                                      |
| Operating Humidity               | 10 to 95%, non-condensing   |
| MEANTIME BETWEEN FAILURES (MTBF) |   |
| MTBF                             | 1020400 hours   |
| MTBF Calculation Method          | MIL 217 F Parts Count Reliability Prediction                        |
| POWER SOURCE - INCLUDED          |   |
| Included Power Supply            | AC Wall Adapter Power Supply & international blade kit              |
| Output Voltage                   | 12Vdc   |
| Output Current                   | 0.5A, maximum   |
| Output Power                     | 6W, maximum   |
| Ripple & Noise                   | 200mVp-p, maximum   |
| Output Plug                      | Standard DC straight plug; 2.1mm barrel connector                   |
| Input Voltage                    | 90 to 264 V AC  |
| Frequency                        | 47 to 63 Hz   |
| Power Connector Dimensions       | 5.5 x 2.1 mm  |
| Power Consumption                | 2.5 Watts, maximum<br>No load; Level VI = 0.1W; ErP Tier 1 = 0.075W |
| Operating Temperature            | 0 to +40 °C (+32 to +104 °F)  |
| Storage Temperature              | -10 to +70 °C (-14 to +158 °F)                                      |
| Operating Humidity               | 20 to 80%   |
| Storage Humidity                 | 10 to 90%   |
| International Blade Kit          | North America, Europe, U.K., Australia, China, Japan                |

### SPECIFICATIONS- continued

| NETWORK                |   |
|------------------------|---|
| Serial Memory          | 8 KB per port   |
| Network Memory         | 4 KB  |
| LAN                    | 10/100 Mbps auto-detecting, 10BaseT or 100BaseTX  |
| Ethernet               | IEEE 802.3 auto-detecting & auto MDI/MDI-X, 10BaseT & 100Base TX  |
| PROTOCOLS              |   |
| Protocols              | TCP, IPv4, UDP, ARP, HTTP 1.0, ICMP/PING, DHCP/BOOTP  |
| IP Mode                | Static, DHCP  |
| TCP/UDP                | User definable  |
| UDP                    | Unicast or Multicast  |
| 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  |
| Firmware Upgrade       | via Vlinx™ Manager  |
| CONFIGURATION SOFTWARE |   |
| Vlinx™ Manager         | Windows XP (32/64), 2003 Server (32/64), Vista (32/64), 2008 Server (32/64), 7 (32/64), 8/8.1 (32/64), 10 (32/64)   |
| REGULATORY             |   |
| UL                     | UL Listed (File E353510)  |
| FCC                    | FCC Part 15 Class B   |
| CE - Directives        | 2014/30/EU – Electromagnetic Compatibility Directive (EMC) 2014/35/EU – Low Voltage Directive<br>2015/863/EU – Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE) |
| CE - Standards         | EN55032 Class B – Electromagnetic Compatibility of Multimedia Equipment – Emission Requirements<br>EN55024 – Information Technology Equipment - Immunity Characteristics – Limits of methods of measurement                     |
| CE - Safety            | EN 60950-1 +A1 + A11 +A12 + A2  |

### MECHANICAL DIAGRAM - BB-MESP211T



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7.303 cm  
2.875 in

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