

# MESP211

## Vlinx™ Ultra Compact Modbus Gateways

- ✓ Modbus TCP Ethernet, Modbus ASCII & RTU RS-232/422/485
- ✓ Modbus Flexibility – Serial & Ethernet, Masters & Slaves
- ✓ View Messaging Status in Real Time
- ✓ Wide Operating Temperature (-40 to 80C)
- ✓ Wide Voltage input 10 to 30 VDC
- ✓ Ultra Compact IP30 Metal Enclosure
- ✓ Heavy industrial 61000-6-2 EMC Level 3 tested for harsh environments



Vlinx™ MESP211 series Modbus Gateways connect Modbus devices to Ethernet networks and let you monitor and control your Modbus devices from anywhere on the Ethernet LAN or WAN. Supporting up to 16 masters and 32 slaves, the gateways feature an auto-detecting 10/100 Ethernet copper RJ-45 port and a serial port that supports RS-232/422/485 communications via a DB9 male or a terminal block connection. The product is built for use in industrial environments, featuring a heavy duty metal enclosure that is panel (standard) or DIN rail mountable (with optional adapters). The product is supplied with a DC power source ranging from 10 to 30VDC and features a barrel connector.

### Ease of Use

Configuration, upgrades and monitoring of the serial server are simple, easy tasks with Vlinx Manager Software. It installs right on your PC giving you access the serial server via your desktop. Remotely manage the Modbus Gateway over a LAN or WAN via the built-in web server. This is helpful for off-site troubleshooting and can be done with a simple web browser.

### Specifications

| Power                 |                                                                  |                          |
|-----------------------|------------------------------------------------------------------|--------------------------|
| Source                | External power supply included                                   |                          |
| Input Voltage         | 10 to 30 VDC                                                     |                          |
| Connector             | Barrel connector 5.5 x 2.1mm                                     |                          |
| Power Consumption     | 2.5 W                                                            |                          |
| Mechanical            |                                                                  |                          |
| LED Indicators        | Serial Port, Ethernet Link, Ready LEDs                           |                          |
| Switches              | Reset Button                                                     |                          |
| Dimensions            | 3.1 x 0.9 x 2.0 (with ears 2.89) inches                          |                          |
| Enclosure             | Metal, IP 30                                                     |                          |
| Environmental         |                                                                  |                          |
| Operating Temperature | -40 to 80°C (-40 to 176° F)                                      |                          |
| Operating Humidity    | 10 to 95% Non-condensing                                         |                          |
| MTBF                  | 186,310 hours                                                    |                          |
| MTBF Calc Method      | Parts Count Reliability Prediction                               |                          |
| Network               |                                                                  |                          |
| Serial Memory         | 8 KB per port                                                    |                          |
| Network Memory        | 4 KB                                                             |                          |
| IP Port Addresses     | Setting in TCP Mode 8899                                         |                          |
| LAN                   | 10/100 Mbps Auto-detecting , 10BaseT or 100BaseTX                |                          |
| Ethernet              | IEEE 802.3 auto detecting & auto MDI/MDX, 10BaseT and 100Base TX |                          |
| Ordering Information  |                                                                  |                          |
| Model                 | MESP211D                                                         | MESP211T                 |
| Serial port           | RS-232/422/485                                                   | RS-232/422/485           |
| Serial connector      | DB9 Male                                                         | Removable terminal block |
| Ethernet port         | 1                                                                | 1                        |
| Ethernet connector    | RJ45                                                             | RJ45                     |
| Accessories           |                                                                  |                          |
| MDR-40-24             | Din Rail Mount, 24VDC, 40 W                                      |                          |
| DRAD35                | Din Rail Adapter Clip (pair)                                     |                          |
| 232NM9                | Null Modem Crossover Cable                                       |                          |
| TB5P508SR-2PK         | Replacement terminal block for the MESP211T                      |                          |

## Specifications

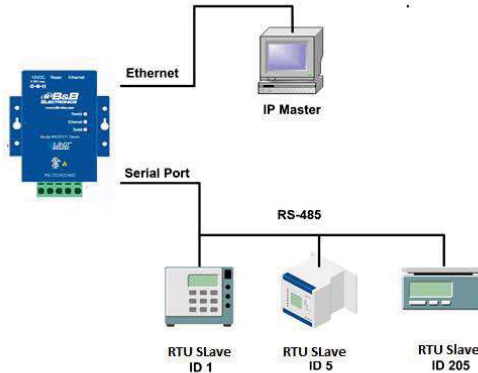
| Serial Technology       |                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| RS-232 (DB9)            | TD, RD, DTR, DSR, RTS, CTS, DCD, Signal Ground                                                                              |
| RS-232 (Terminal Block) | TD, RD, RTS, CTS, Signal Ground                                                                                             |
| RS-485 2-Wire           | Data A(-), Data B(+), GND                                                                                                   |
| RS-422/485 4-Wire       | TDA(-), TDB(+), RDA(-), RDB(+), GND                                                                                         |
| Serial Connector        | DB9M or Removable Terminal Blocks                                                                                           |
| Data Rate               | Up to 230.4 Kbps                                                                                                            |
| 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         | MODBUS RTU Master / Slave, MODBUS ASCII Master/Slave                                                                        |
| Search                  | Serial direct COM and Ethernet Auto Search or specific IP                                                                   |
| Diagnostics             | Display PC IP, ping, save test config (text readable)                                                                       |
| Firmware Upgrade        | Firmware can be updated through the manager software                                                                        |
| Modbus Monitor          | The Manager Software has a Modbus Monitor feature                                                                           |
| Configuration Software  |                                                                                                                             |
| OS Compatibility        | XP (32/64), Vista (32/64), Windows 7 (32/64), Windows 8 (32/64), Server 2003 (32/64), Server 2008 (32/64), Server 2012 (64) |

| Approvals / Certifications |                                      |                                                 |                                            |
|----------------------------|--------------------------------------|-------------------------------------------------|--------------------------------------------|
| Emissions                  | FCC Class B, CISPR Class A (EN55022) |                                                 |                                            |
| 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 |                                            |

# Application Examples

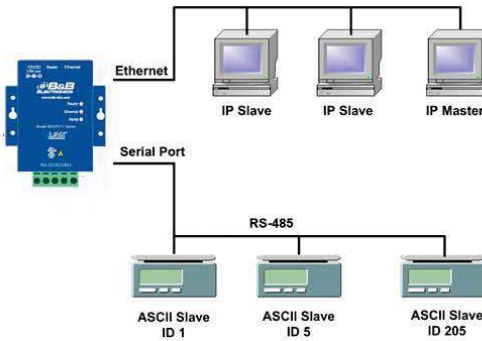
## Ethernet Master Serial Slaves

MESP211 Gateways can be used to integrate serial slave devices on a MODBUS TCP network. This allows TCP Masters to control serial slave devices.



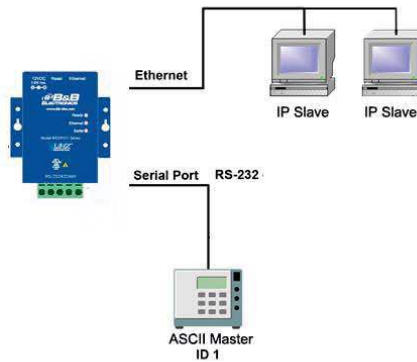
## Ethernet Masters, Serial & Ethernet Slaves

MESP211 Gateways can be used to integrate multiple master devices onto serial and Ethernet networks.

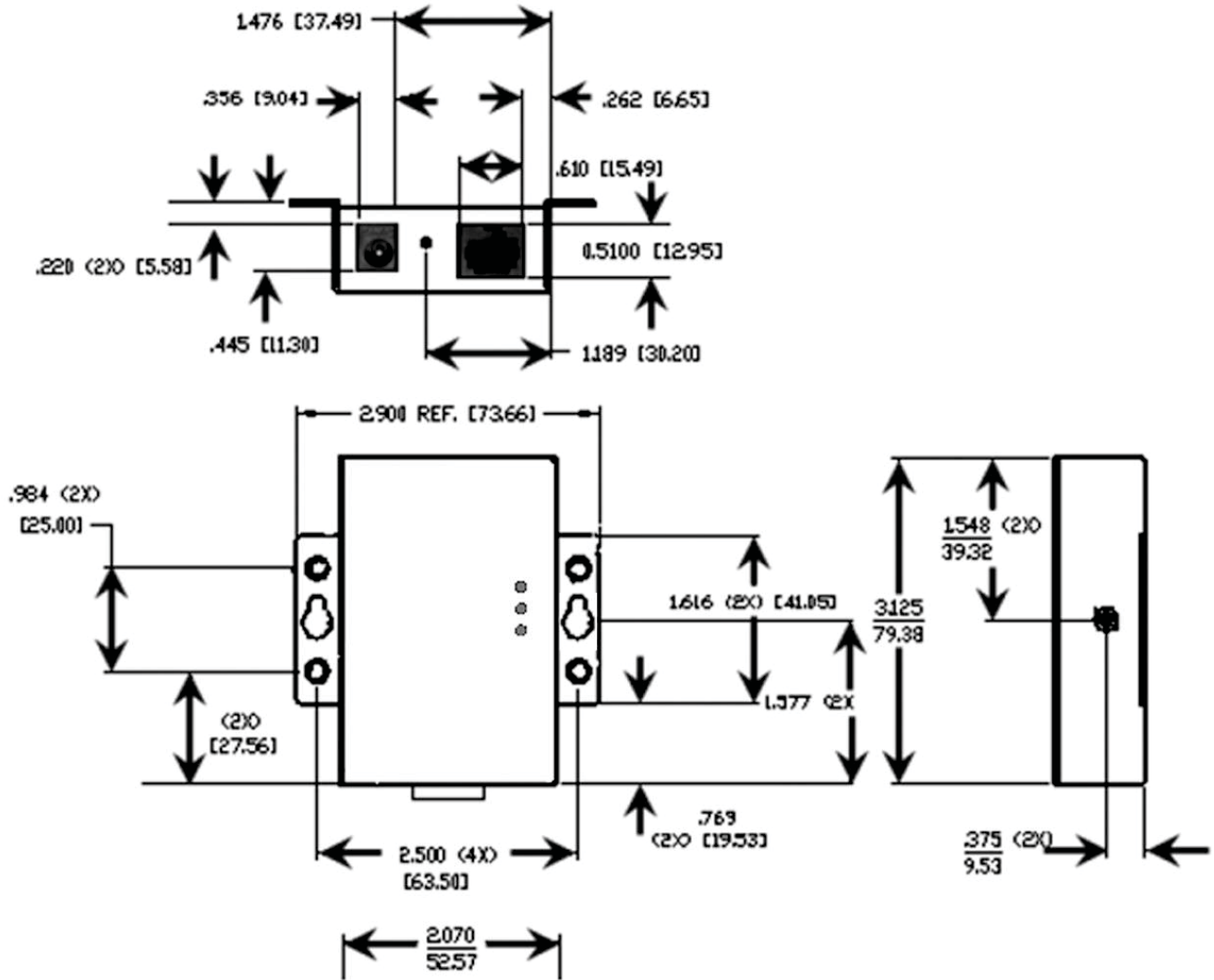


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## Mechanical Diagram



*Dimensional Diagram of an MESP211 Serial Server (dimensions in inches & millimeters)*