12 Set Up Modbus ID Routing

1. Only use this screen if **Modbus Slave IDs** are to be re-routed.
2. On each line, select the range of **IDs** to re-route. In the first box enter the starting ID. Valid IDs range from 1 to 255.
3. 2nd box: enter the last **ID** of the range to re-route.
4. 3rd box: enter **IP Address** or **Port** with slave devices attached.
5. 4th box shows the IP address of the slave device, if an IP address is chosen in the third box.

13 Set Up Modbus Priority

1. Only use this screen if **Modbus Priority** is to be set.
2. Enter up to five different priorities, based on **Originating IP Address, Modbus ID, Modbus Function Code,** or a combination of these.
3. **IP Address** sets a static IP address for the Modbus gateway.
4. **Modbus ID** has a valid range from 1 to 255.
5. **Function Code** has a valid range from 1 to 99.

14 Save and Log Out

1. If you have completed the configuration, click **Save** to save the configuration to the serial server.
2. To Logout, click the **Logout** button.

15 To Test and Verify Operation

- The primary check for correct operation is the device LEDs. See Section 2 of this document for more information.
- For advanced information, see the **Modbus Configuration Manager** menu at the top of Vlinx Manager screen.
- Select **Diagnostic** for a check of communications status with attached MESR9xx device, and then select the device for which the communications check is desired.
- A report of reply times and ping statistics is generated and can be saved.
- Select **Monitor** to review activity logs of attached MESR9xx device/s, then select the device for which logged information is needed.
- Logged information includes: **Time, Source & Destination, Type of event, Subscriber ID, Data** collected, and Information that the Vlinx Manager program has gathered since current login of the affected device.

Document Number: 710-10632-00_r2_MESR9xx_2118qsg

16 UL Class 1 / Division 2

SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C AND D HAZARDOUS LOCATIONS, OR NONHAZARDOUS LOCATIONS ONLY.
CONVENANT À L'EMPLOI DANS LES SITES DANGEREUX DE CLASSE I, DIVISION 2, GROUPES A, B, C ET D, OU DANS LES SITES NON HASARDEUX SEULEMENT

WARNING - EXPLOSION HAZARD - SUBSTITUTION OF ANY COMPONENT MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.
ATTENTION - DANGER D'EXPLOSION - LA SUBSTITUTION DE COMPOSANTS PEUT ENTRAÎNER UNE ADÉQUATION À LA CLASSE I, DIVISION 2.

The unit is to be powered by a Class 2 power source, of a grounded-type, when power is applied to the barrel connector.
L'unité doit être alimentée par une source d'alimentation de classe 2, de type mise à la terre, lorsque le connecteur du canon est alimenté.

THE POWER CABLE MUST HAVE A MINIMUM RATING OF 80°C.
LE CÂBLE D'ALIMENTATION DOIT AVOIR UNE INDICATION MINIMALE DE 80 °C.

Power cannot be applied to both the terminal block and barrel connectors simultaneously.
L'alimentation ne peut pas être appliquée simultanément aux connecteurs du bornier et du barillet.

The use of coaxial cable for the field wiring shall be in accordance with Class 2/Class 3 requirements in Article 725 of the NEC.
L'utilisation d'un câble coaxial pour le câblage sur site doit être conforme aux exigences de classe 2 / classe 3 de l'article 725 du NEC.

One Conductor Per Terminal
Un conducteur par borne

Use Copper Wire Only
Utiliser uniquement du fil de cuivre

Wire Size: 28 to 16 AWG
Taille de fil: 28 à 16 AWG

Tightening Torque: 5 KG-CM
Couple de serrage: 5 KG-CM

Wire Temperature Rating: 105 °C Minimum (Sized for 60 °C Ampacity)
Indice de température du fil: 105 °C Minimum (calibré pour 60 °C)

80 °C Maximum Surrounding Ambient Air Temperature
80 °C Température ambiante ambiante maximale

B+B SmartWorx
Powered by ADVANTECH

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QUICK START GUIDE

MESR900 series

MESR9xx Modbus Gateway

Before you begin, be sure you have the following:

+ Vlinx™ MESR9xx module
+ CD with Modbus Gateway Manager software and manuals
+ This Quick Start Guide
+ Network Cable/s (not included)
+ Serial Cable/s (not included)
+ Power Supply (not included)

B+B SmartWorx
Powered by ADVANTECH

Fast and easy on the web: ***www.advantech-bb.com***

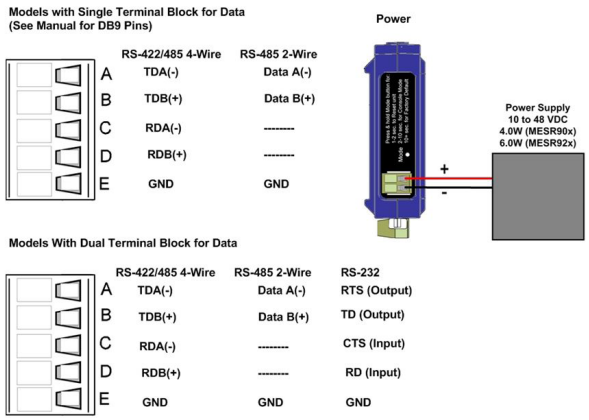
1 Install the Hardware

1. Connect a 10-48 VDC (58 VDC maximum) power supply (sold separately). 4W for MESR90x, 6W for MESR92x.

2. Connect the top RJ45 connector to a network drop using a standard network cable (lower RJ45 is pass-through Ethernet on the model diagram shown below).

3. Connect the serial device(s):
- RS-232 with DB9: straight-through for DCE device; null modem for DTE device.
- RS-232/422/485 with terminal blocks. See Appendix D in User Manual for pin-outs.

UL Installation - See Step #16 for more information.



2 LED Status

LED	STATUS
Ready	Blinks if system is operating correctly, once per second normally, or three times per second for configuration mode, or when reset to factory defaults.
Port 1/Port 1	ON indicates serial port open; blinks when data present (Port 2 present on 2 serial port units only).
E1/E2	ON indicates Ethernet has a link; blinks with data traffic (E2 present on 2 Ethernet port units only).

3 Mode Switch

HOLD MODE SWITCH IN for...	RESULT
0 to 2 seconds	Initiates a Hardware Reset.
2 to 10 seconds	Enters Console Mode.
Over 10 seconds	Reset to Factory Defaults.

4 Install Modbus Gateway Software

1. Insert the included CD and it should autostart.
2. Follow the prompts to install the Modbus Gateway software.

Note: Be sure you have administrative rights and disable firewalls.

5 Set Up Modbus Gateway Software

1. Open Vlinx Manager by clicking:

Start Programs→B&B Electronics→Vlinx→Modbus Gateway Manager→Configuration Manager

The Device Discovery page opens.

NOTE: If the device does not connect, cycle (unplug-replug) the power, then try to connect again.

2. To configure via the network, select **Network**.

3. If you know the IP address, select *"The device is at this address,"* and type in the IP address.

4. If not, select *"I don't know the IP address of the device."*

5. Click **Connect**.

OR...Set Up the Web Interface:

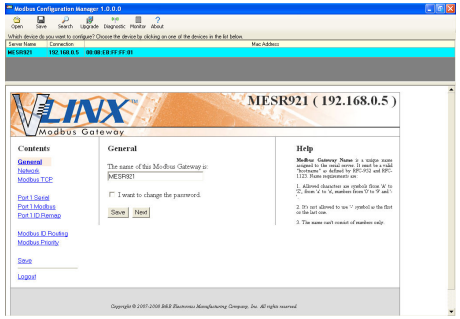
1. Open a browser and type the IP address of the Modbus Gateway in the Address Bar.

2. When the Modbus Gateway is found, the Login window appears

6 Log In

1. Click **Login**. Password is blank from factory; no password is necessary to operate the MESR unit.

The Configuration/General page appears.



7 Set Up Network

I want DHCP is preselected to set up the network using dynamic IP addressing. The Modbus Gateway is factory-set to receive an IP assignment from a DHCP Server. If a DHCP Server is not available on your network, it will default to **169.254.102.39.**

If a DHCP server is not available and the default address does not work on your PC, change your PC network settings to IP Address: 169.254.102.1, Subnet Mask: 255.255.0.0, Default Gateway: 169.254.102.100. If you are not able to use these settings in your installation, refer to the User Manual for directions to change the Modbus Gateway's TCP/IP settings.

8 Set Up Modbus TCP

Modbus TCP Settings:
- **Connect to Port** identifies TCP port used in TCP Client Mode. Valid range is 1 to 65535.
- **Response Timeout** is the maximum response time. Valid range is from 1 to 65535.

TCP Server Settings:
- **Listen on Port** identifies TCP port in TCP Server Mode. Valid range is from 1 to 65535.
- **Limit the Number of Connections** controls the number of simultaneous TCP clients that can be connected.
- "…allow everyone," "…allow specific IP address" & "allow a range of IP addresses" are **Connection Filter Mode** options, controlling which TCP clients can connect.

9 Set Up Port 1 Serial

1. Change the **Description** of the serial port if needed.

2. Set **Mode** to RS-232, RS 422 (4 wire), RS 485 (2 wire) or RS 485 (4 wire).

3. Set **Baud Rate** to control the speed of the port. Valid speeds range between 75 and 230,400 bits per second.

4. Set **Data Bits** to control the number of bits in each character. Only 8 bits is valid when the protocol of the device connected to the port is RTU.

5. Stop Bits controls the number of bits for end of character.

6. Parity controls the error checking mode, with options of No Parity, Odd, Even, Mark and Space.

10 Set Up Modbus TCP

1. Select the **Attached** as **Master** or **Slave**.

2. Select the **Modbus** protocol to be used, either **RTU** or **ASCII**.

3. As needed, check option boxes for "**Enable Modbus broadcast, "Enable OBh exception"** and **"Enable serial message buffering."**

4. Select from 0 to 5 **Modbus Serial Retries.**

5. Enter **Milliseconds Modbus Message Timeout,** from 1 to 65535.

6. Enter **Milliseconds TX Delay,** from 1 to 65535.

7. Set up "Port 2 Modbus" the same (only if it has a Port 2).

11 Set Up Port 1 ID Remap

1. Only use this screen if Modbus Slave IDs are to be remapped.

2. On each line, select a range of serial ports to remap. In the first box, enter the first serial port of the range to remap FROM. Valid port IDs range from 1 to 255.

3. 2nd box: enter the last serial port of the range to remap.

4. 3rd box: enter starting ID of the range to remap TO.

5. 4th box auto-fills based on ranges entered in first three columns.

6. Set up "Port 2 Remap" the same, only if it has a Port 2.