

TECHNICAL NOTE – RL2400S

CABLING AN RL-2400S TO WAGO I/O SYSTEM

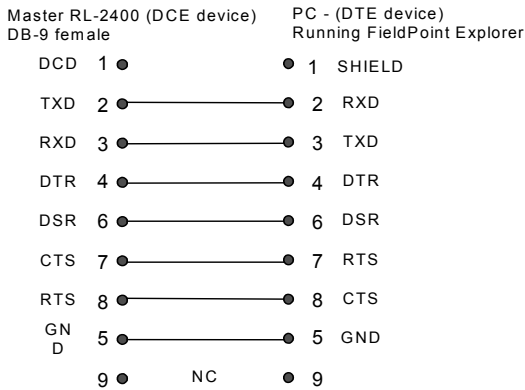
Objective: The following note describes how to interface a Wago I/O system with the RL-2400 radio modems. The RL-2400 radio modems need to be configured in a Point-Multipoint Modbus network.

Cable Configuration to the Wago I/O System

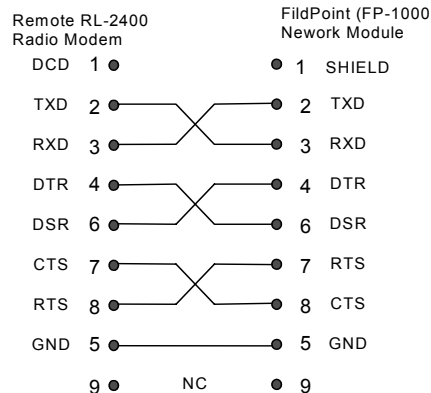
The following hardware was used to cable the RL-2400 radio modem to the Wago 750-814 I/O system.

- 750-814 Wago PFC Modbus controller
- 750-501 2 channel Digital output
- 750-550 2 channel Analog Output
- 750-600 terminating end module
- Power supply and accessories (DB9 standard serial cable and DB9 null modem cable)

Following are the cable configurations needed to communicate from the PC to the Wago Modbus controller module. The cable connection from the PC running Modscan32 to the Master RL-2400 radio modem is a standard, straight through, DB-9 pin serial cable. A null modem cable is needed to connect the Modbus controller to a remote RL-2400 radio modem. Also shown is the pin out for the null modem cable used in this application:

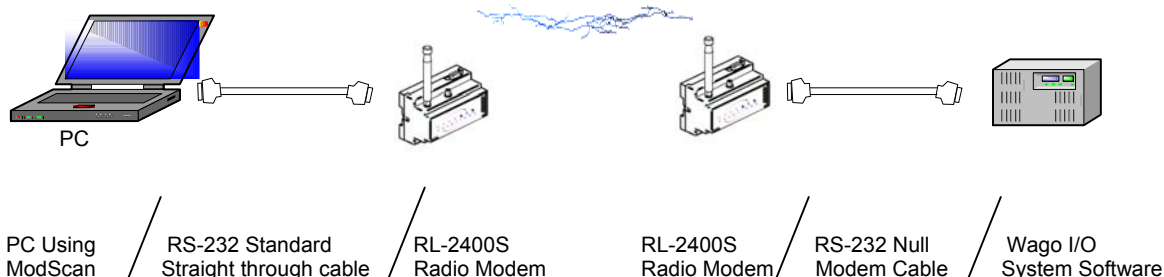


Standard Serial Cable



Null Modem Cable

The diagram below represents a transparent wireless RL-2400 Point-Multipoint Modbus network communicating with a Wago I/O controller.



TECHNICAL NOTE – RL2400S

CABLING AN RL-2400S TO WAGO I/O SYSTEM

Configuring the RL-2400 Radio Modem Settings

The RL-2400 radio modems must be configured as a Point-Multipoint Modbus network.

The following radio settings will help ensure that the radio will communicate to the Wago I/O System:

Set Modbus ID to 1 on the remote radio, Master does not get set.

- Baud Rate - 9600
- Data Bits - 8
- Parity - None
- Stop Bits - 1
- Hardware - None (hardware handshaking)

Once the RL-2400 Radio network is set up, go to network diagnostics and make sure radios are communicating with each other.

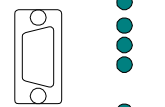



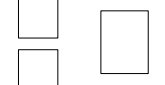
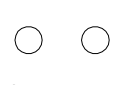


Configuring the Wago I/O System Software to Communicate with the RL-2400 Radio Modem

- Hook up Master radio to PC with regular serial cable
- Put Wago controller on address 1 (rotary dip switches)
- Hook up remote radio to Wago I/O system with null modem cable
- Open ModScan32
- Go to the connection pull down menu and set the following:
 - Com1
 - Baud 9600
 - Word length 8
 - Parity none
 - Stop bits
 - Protocol selection should be "Standard RTU"

Once connections are made and modules are installed as shown below, bits can then be toggled. Under the "MODBUS Point Type" go to "01:Coil Status". Double click on the first address 0001<0>. You can now change the value from ON to OFF, which will then turn the first module 750-501 first LED on and off.

TECHNICAL NOTE – RL2400S

CABLING AN RL-2400S TO WAGO I/O SYSTEM

Modbus	Power Supply	Digital Out	End Module
			
Address  x10			
750-814		750-550	750-600

Wago I/O System