

April 22, 2003

DL4000-MMX: Modbus MASTER RTU Serial to Modbus SLAVE ASCII Interface

The DL4000-MMX allows for Modbus Master RTU devices to communicate to multiple Modbus Slave ASCII Devices. This will allow a Modbus RTU (Master) to communicate with multiple Modbus ASCII Slaves.

Easy Configuration

See attached [app note](#) for configuration of the Operating Parameters

Serial Interfacing

CHA - RS232, RS422 and RS485 Interface to Modbus RTU

CHB - RS232, RS422 and RS485 Interface to Modbus ASCII

Physical Dimensions

Size: 1.2"H x 4.75"L x 3.2"W
(30.4 mm x 120.7 mm x 81.3 mm)

Weight: 0.45lbs (0.205 kg)

Power: DC: 9-27 VDC; Less than 2 Watts

Installation

Metal enclosure; Freestanding, DIN rail mounting clips, or #8 bolts

Environment

Operating: +32 F to 122 F (0 C to +50 C)

Storage: -40 F to +185 F (-40 C to +85 C)

Humidity: 5% to 95% non-condensing

Indicators

Green LED for power-on

Red/Green BI-Color LED's for communications

Pushbuttons

Reset and Configure/Diagnostics mode pushbuttons

Communications

CHA: Modbus RTU, 300 baud to 230.4 Kbaud

CHB: Modbus ASCII, 300 baud to 230.4 Kbaud

Connectors

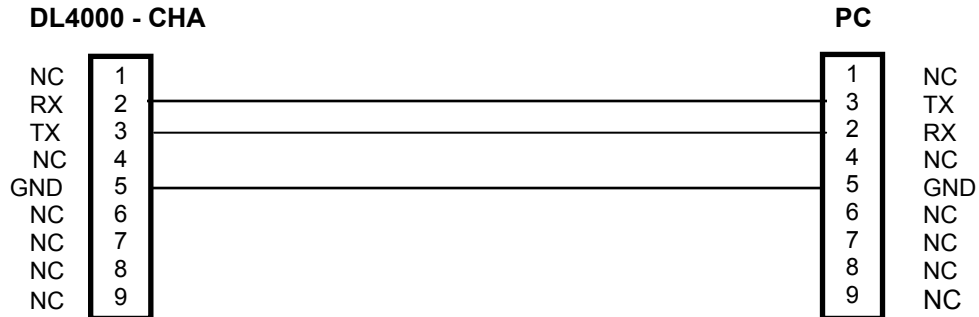
CHA: 9-pin RS232, 4-pin RS422/RS485

CHB: 9-pin RS232, 4-pin RS422/RS485

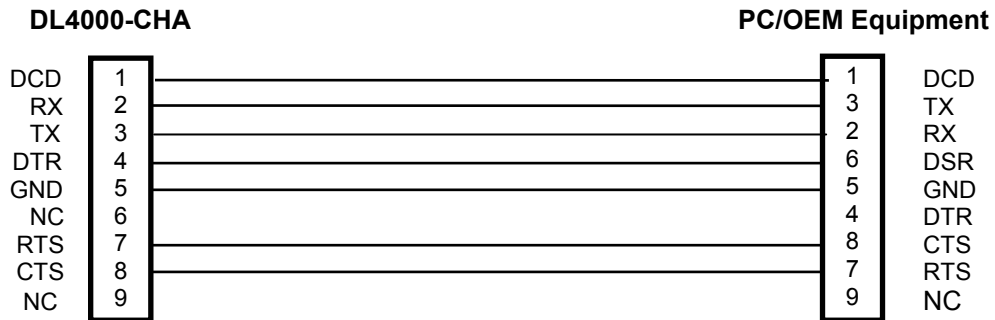
Power: 2-pin Phoenix Euro

Wiring Diagrams:

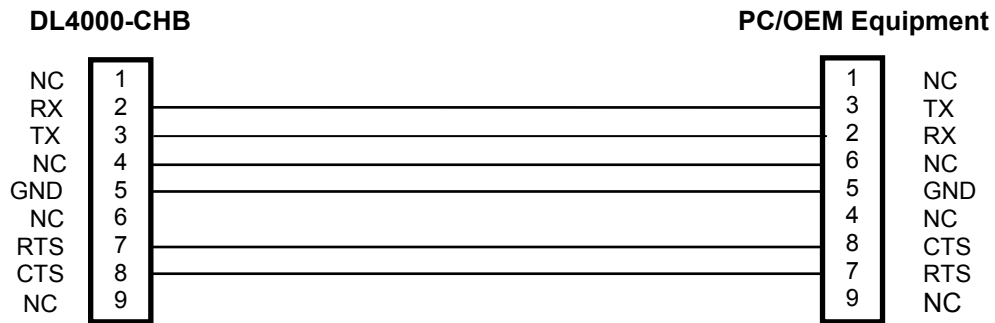
1. Configuration Cable DL4000-CHA RS-232
2. Online Cable DL4000-CHA – No Handshaking
3. Online Cable DL4000-CHB – No Handshaking



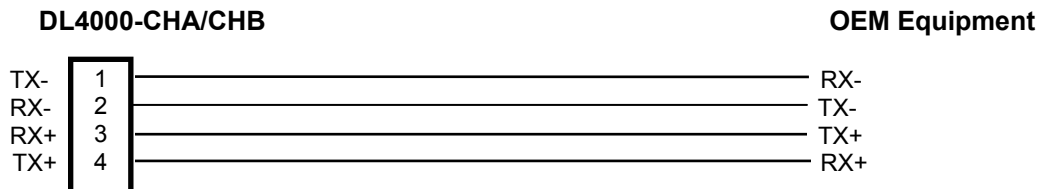
4. Online Cable DL4000-CHA RS-232C – With Handshaking



5. Online Cable DL4000-CHB RS-232 – With RTS/CTS Handshaking



6. Online Cable DL4000-CHA/CHB RS422/RS485

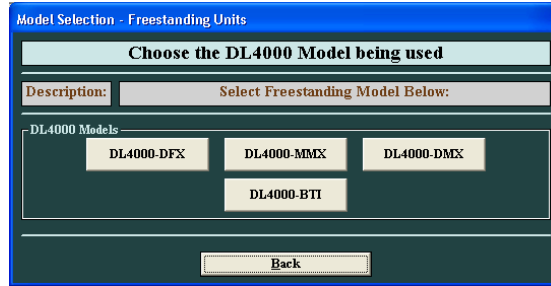
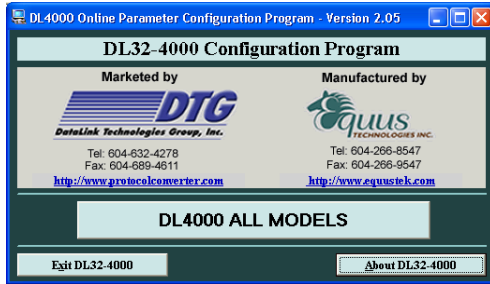


**Note: 4 Pin Connectors are numbered from Left to Right
For RS485 Jumper Pins 1-2 and 3-4 for - and + wires**

Configuration Software for the DL4000-MMX

After installing the DL32-4000 software and Running the Application the following screens will appear.

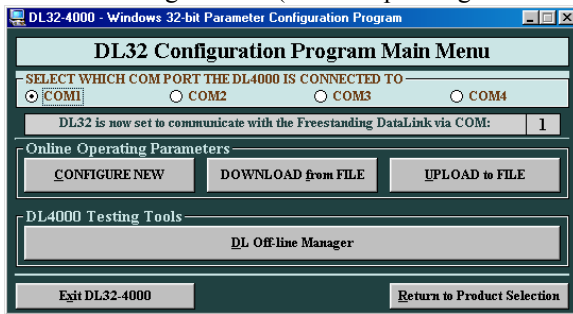
1. Select DL4000-ALL MODELS



2. Select DL4000-MMX (Modbus RTU (Master) to Modbus ASCII (slave) converter)

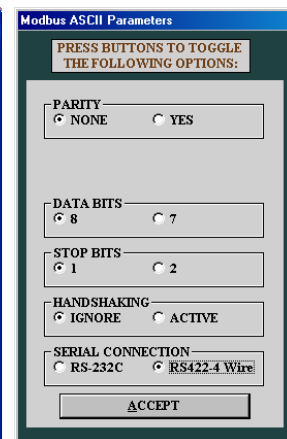
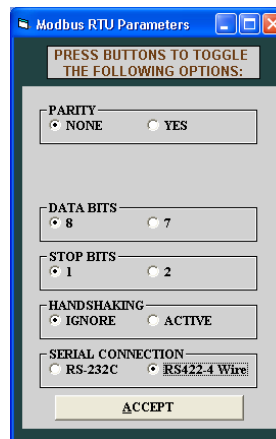
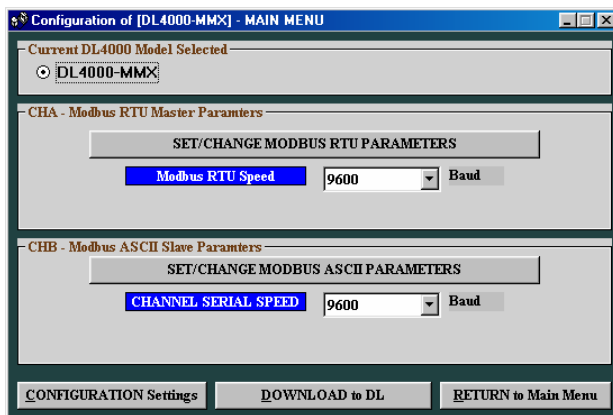
3. Select the COM PORT used to communicate with the DL4000

4. Select Configure New (Online Operating Parameters)



5. Set up the CHA – Modbus RTU Parameters

6. Set up the CHB – Modbus ASCII Parameters



7. Select DOWNLOAD to DL to transfer the Parameters to the DL4000-MMX
 - View the Summary Screen
 - Ensure Parameters are correct
 - Print if desired
 - Select DOWNLOAD these Parameters to DL4000

View Configuration

PRINT Summary

DL4000 CONFIGURATION SUMMARY

Monday, Jul. 30 2001

MODEL: DL4000-MMX

COM PORT: 1

CHANNEL A PROTOCOL

Modbus RTU

SERIAL CONNECTION RS-232

BAUD 9600 Baud

PARITY NONE

DATA BITS 8

STOP BITS 1

HANDSHAKING IGNORE

CHANNEL B PROTOCOL

Modbus ASCII

SERIAL CONNECTION RS-232

BAUD 9600 Baud

PARITY NONE

DATA BITS 8

STOP BITS 1

HANDSHAKING IGNORE

DOWNLOAD These Parameters to DL4000

STATUS

Click on the above button to download these parameters to a DL4000

CHANGE These Parameters

Return to Main Menu

DL4000-MMX Application Note - Revisions

November 21, 2001 – Modified CHB RS 422/485 Pin outs to be correct. See diagram.

April 22, 2003 – Added RS422/RS485 to Channel A (Modbus RTU)