



DL4000-PM: A-B Power Monitor 3000 DF1-Half Duplex to Modbus Interface

The DL4000-PM is a custom interface which is setup to Poll certain files from an A-B Power Monitor 3000 and sends the data to a specified Modbus Slave device and Register range. The DL4000-PM acts as a DF1 Half Duplex Master device to poll the Power Monitor. Translates the data into Modbus RTU and writes the data to a specified Modbus RTU slave device. [Contact us](#) for more information.

Easy Configuration

Using the supplied configuration program the DL4000-PM is setup to poll the following from an A-B Power Monitor. The Modbus Slave ID, DF1 Power Monitor Address, and Starting Modbus registers for all seven commands are configurable in the current version.

In the Power Monitor 3000 the following Files and Types are read and this is hard-coded for now.

A- B Files and Elements

- F15 (14 elements)
- F16 (11 elements)
- F17 (13 elements)
- F18 (10 elements)
- F19 (13 elements)
- N20 (23 elements)
- N21 (23 elements)

Serial Interfacing

CHA – RS232, RS422 and RS485 Interface for DF1 Half Duplex Master for Power Monitor 3000

CHB – RS232, RS422 and RS485 Interface for Modbus RTU Master to Slave device

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

Indicators

Green LED for power-on

Red/Green BI-Color LED's for communications

Pushbuttons

Reset and Configure/Diagnostics mode pushbuttons

Installation

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

Communications

CHA: Half Duplex DF1, 300 b to 230.4 Kb, CRC Error Checking

CHB: Modbus RTU, 300 b to 230.4 Kb

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

Connectors

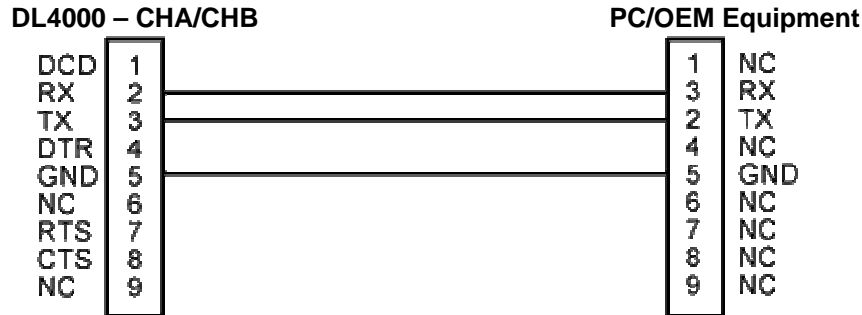
CHA: 9-pin RS232, 4-pin RS422/RS485

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

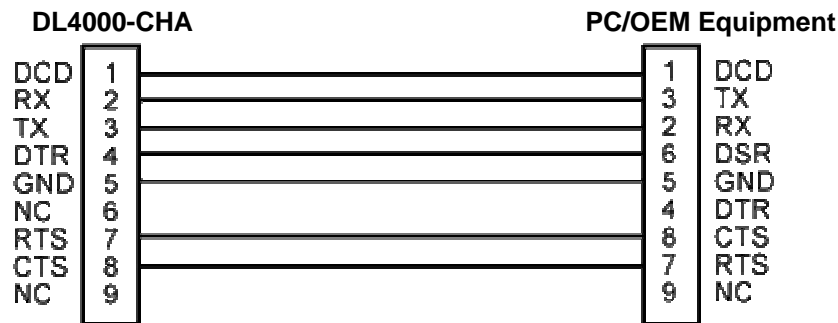
Power: 2-pin Phoenix Euro

Wiring Diagrams:

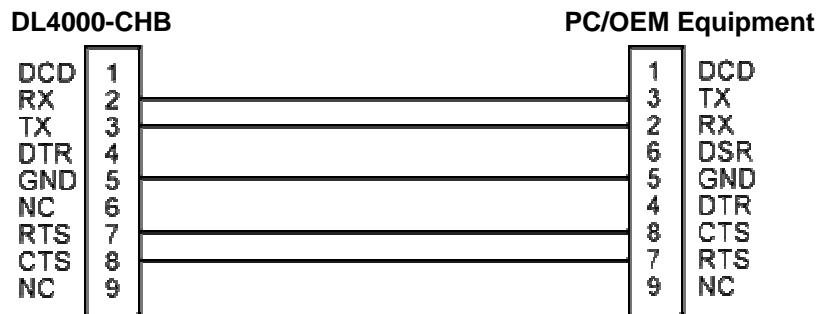
1. Configuration Cable DL4000-CHA RS-232
2. Online Cable DL4000-CHA – No Handshaking
3. Online Cable DL4000-CHB – No Handshaking



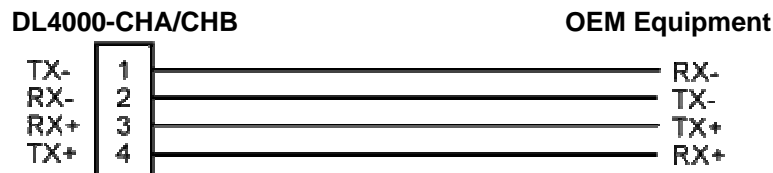
4. Online Cable DL4000-CHA RS-232C – With Handshaking



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



6. Online Cable DL4000-CHA RS422/RS485
7. Online Cable DL4000-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**

Connection Diagram Example:

