DL4000-DAS:
Serial ASCII Data Interface to A-B's DF1 Protocol
Send and Receive ASCII Data Packets

The DL4000-DAS is combined ASCII data interface to Allen-Bradley's DF1 serial protocol. It provides an DC powered, freestanding, and Din Rail mountable interface for Bar Code Scanners, Printers and other ASCII devices to the CH0 port of PLC's and SLC's. It is practically helpful in interfacing devices without a built in ASCII port, such as, A-B's ControlLogix.

In Scanner operation the ASCII data is stored in the units buffer until either a terminating character (CR, LF, CR & LF) or 240 bytes are received. Once that happens the packet of ASCII data is sent to an integer file in the PLC.

In Printer operation data stored in PLC ASCII files can be outputted to Printers or message displays with a simple write command to the DL4000. Contact us for more information.

Easy Configuration
Using the supplied configuration program the DL4000-DAS is easily configured.

Serial Interfacing
DF1: Interfacing using RS232C, RS422 and RS485 with speeds upto 230.4 KBaud
DF1: Full Duplex (Point to Point), BCC or CRC error checking
ASCII: Interfacing using RS232C, RS422 and RS485 with speeds upto 230.4 KBaud

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
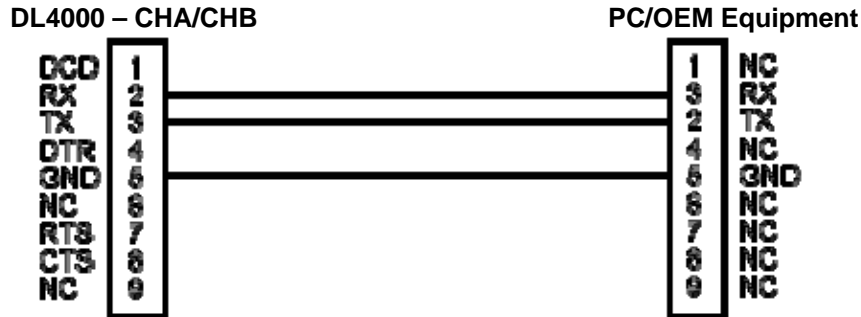Operating: +32 F to 122 F (0 C to +50 C)
Storage: -40 F to +185 F (-40 C to +85 C)
Humidity: 5% to 95% non-condensing

Indicators
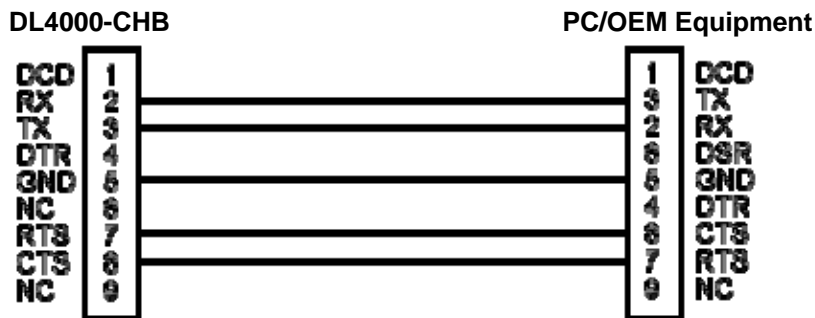Green LED for power-on
Red/Green BI-Color LED's for communications

Pushbuttons
Reset and Configure/Diagnostics mode pushbuttons

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**
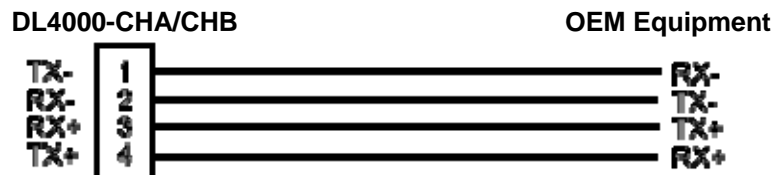3. **Online Cable DL4000-CHB – No Handshaking**

DL4000 – CHA/CHB   **PC/OEM Equipment**

DL4000	Pin		Pin	PC/OEM
DCD	1		1	NC
RX	2	——	3	RX
TX	3	——	2	TX
DTR	4		4	NC
GND	5	——	5	GND
NC	6		6	NC
RTS	7		7	NC
CTS	8		8	NC
NC	9		9	NC

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

DL4000-CHA   **PC/OEM Equipment**

DL4000-CHA	Pin		Pin	PC/OEM
DCD	1	——	1	DCD
RX	2	——	3	TX
TX	3	——	2	RX
DTR	4	——	6	DSR
GND	5	——	5	GND
NC	6	——	4	DTR
RTS	7	——	8	CTS
CTS	8	——	7	RTS
NC	9		9	NC

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

DL4000-CHB   **PC/OEM Equipment**

DL4000-CHB	Pin		Pin	PC/OEM
DCD	1		1	DCD
RX	2	——	3	TX
TX	3	——	2	RX
DTR	4		6	DSR
GND	5	——	5	GND
NC	6		4	DTR
RTS	7	——	8	CTS
CTS	8	——	7	RTS
NC	9		9	NC

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

DL4000-CHA/CHB   **OEM Equipment**

DL4000	Pin		OEM
TX-	1	——	RX-
RX-	2	——	TX-
RX+	3	——	TX+
TX+	4	——	RX+

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:

DL4000-DAS

OF1
RS232

PLC

Allen-Bradley
PLC/Contralogix/etc

ASCII
Device

ASCII
RS232

Note:
RS422/485 for CHA
and CHB are the 4 pin
Phoenix type plugs on
the top of the DL4000