

6 | UL Class1/Division 2 Warning Information

POWER, INPUT AND OUTPUT (I/O) WIRING MUST BE IN ACCORDANCE WITH CLASS I, DIVISION 2 WIRING METHODS [ARTICLE 501.10(B) OF THE NATIONAL ELECTRICAL CODE, NFPA 70] AND IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.

WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS 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.

WARNING – EXPLOSION HAZARD – WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES.

ATTENTION - DANGER D'EXPLOSION - LORSQU'IL EST DANS DES ENDROITS DANGEREUX, COUPER L'ALIMENTATION AVANT DE REMPLACER OU DE RACCORDER LES MODULES.

WARNING – EXPLOSION HAZARD – DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NONHAZARDOUS.

ATTENTION - DANGER D'EXPLOSION - NE PAS DÉCONNECTER L'ÉQUIPEMENT PENDANT QUE LE CIRCUIT EST VIVANT OU À MOINS QUE LA ZONE NE SAIT ÊTRE EXEMPTÉ DE CONCENTRATIONS IGNIFIABLES.

Recommended Accessories

10-48 VDC Power Supply
Model# MDR-20-24



RS-485 High Energy Surge Protector - with Terminal Blocks
Model# 485HESP



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QUICK START GUIDE



Model# 485DRCi

Triple Isolated RS-232 to
RS-422/485 Converter

Before you begin, be sure
you have the following:

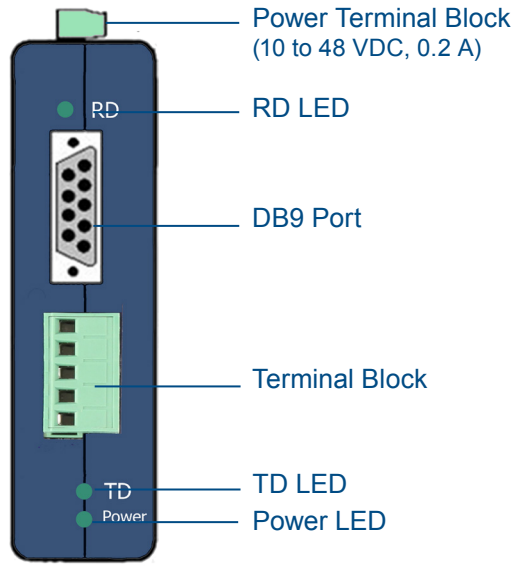
- + 485DRCi Serial Converter
- + Required, but not included:
 - 10-48VDC Power Supply, 0.2A
 - RS-232 cable (converter is a DCE device)
 - RS-422/485 Cable

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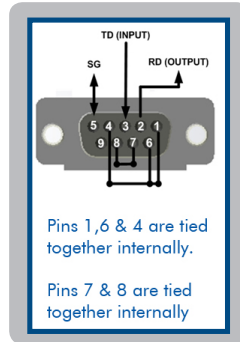
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Product Overview



BUILT-IN TRANSMIT BIAS RESISTOR	SWITCH
	6
Use External or No Bias Resistor	ON
Use Built-in 1.2K Ω Transmit Bias Resistor	OFF

BUILT-IN RECEIVE BIAS RESISTOR	SWITCH
	7
Use External or No Bias Resistor	ON
Use built-in 1.2K Ω Receive Bias Resistor	OFF



DB9 PINOUTS		
PIN	SIGNAL	DIRECTION
1	DCD	***
2	RD	Output
3	TD	Input
4	DTR	***
5	GND	***
6	DSR	**
7	RTS	***
8	CTS	***
9	RI	***

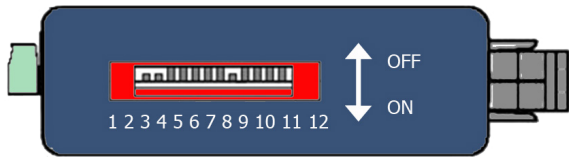
3 | RS-422/485 Timeout

SWITCH SELECTABLE						
Baud (Kbps)	8	9	10	11	12	Timeout (ms)
2.4	ON	OFF	OFF	OFF	OFF	4.37
4.8	OFF	ON	OFF	OFF	OFF	2.03
9.6	OFF	OFF	ON	OFF	OFF	1.02
19.2	OFF	OFF	OFF	ON	OFF	0.57
38.4	OFF	OFF	OFF	OFF	ON	0.27

RESISTOR SELECTABLE			
Baud (Kbps)	8 through 12	R11 Value	Timeout (ms)
1.2	OFF	820 K Ω	8.32
57.6	OFF	16 K Ω	0.16
115.2	OFF	8.2 K Ω	0.08

Pre-defined timeouts are set using switches 8 through 12. Resistor selectable baud rates are set by inserting a through-hole resistor (R-11) on the circuit board. Timeout selections are equal to one character time at the indicated baud rate. Setting the converter to 9600 will generally work at 9600 and higher baud rates. In RS-422 mode, timeouts are not required.

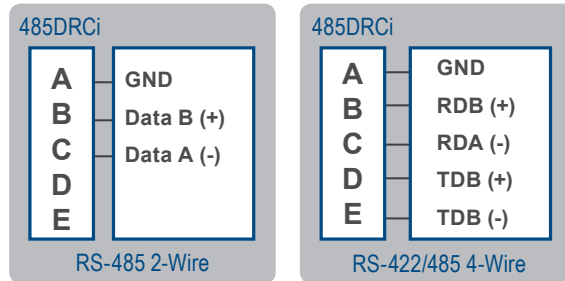
1 | Set DIP Switches



COMMUNICATIONS MODE				
SWITCH	1	2	3	4
RS-485 2-Wire, Half-Duplex	ON	ON	ON	ON
RS-485 4-Wire, Full-Duplex	ON	OFF	OFF	OFF
RS-422, Full-Duplex	OFF	OFF	OFF	OFF

BUILT-IN TERMINATION RESISTOR	SWITCH
	5
Use Built-in 120 Ω Termination	ON
Use External or No Termination	OFF

2 | Wire the Converter



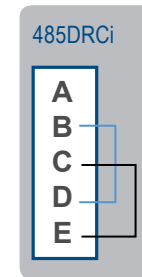
DIP SWITCH RS-422/485 4-WIRE						
1	2	3	4	5	6	7
ON/OFF	OFF	OFF	OFF

Position 1 = ON for RS-485, OFF for RS-422.
Positions 5, 6, 7 are used for termination and biasing.
Positions 8 - 12 are used to set baud rate.

DIP SWITCH RS-485 2-WIRE						
1	2	3	4	5	6	7
ON	ON	ON	ON

Positions 5, 6, 7 are used for termination and biasing.
Positions 8 - 12 are used to set baud rate.

4 | Loopback Test



Configure for RS-485 four-wire, 9600 baud. Jumper terminals B to D and C to E. Connect a PC to the RS-232 port using HyperTerminal or similar program, connect to the appropriate COM port. (Remember to set the baud rate to 9600.) Turn off HyperTerminal local echo. Transmit data. The same data should be returned.

5 | Check LEDs

LEDs	
Power LED	Red = ON when power is applied.
Data LEDs	Red = FLASH when data is present on the port.