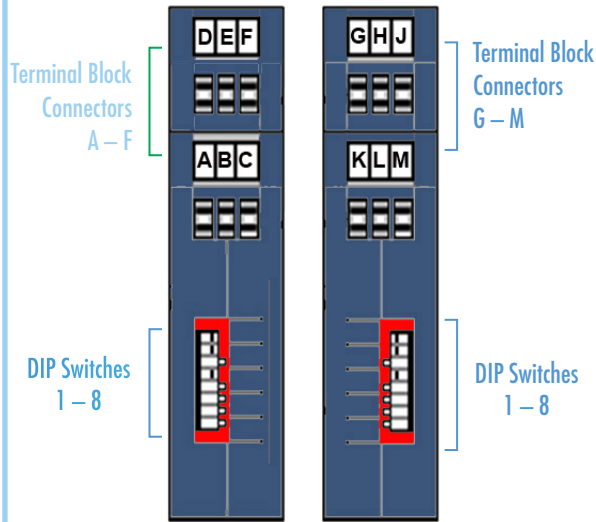


Product Overview

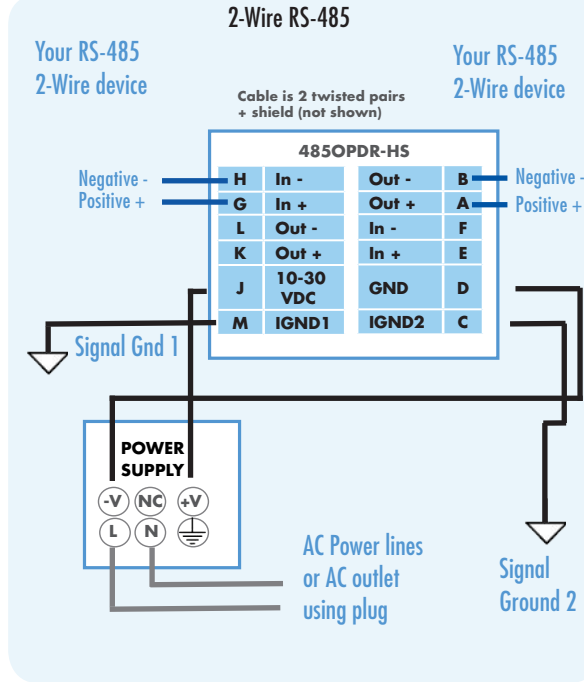


Power Requirement
 10 - 30 VDC, steady state
 In-Rush Current at 24 VDC = 750 mA for 500 µS

1 Connections

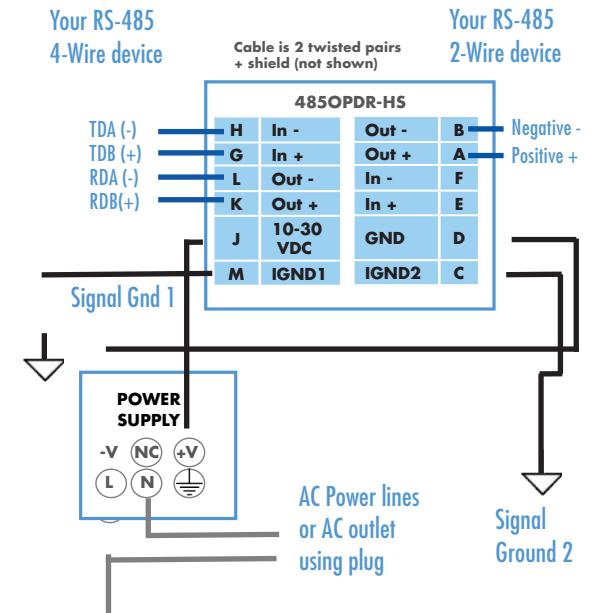
Terminal Block	Signal	
A	OUT (+)	A-F Side
B	OUT (-)	
C	Signal Ground	
D	Power Ground	
E	IN (+)	
F	IN (-)	
G	IN (+)	G-M Side
H	IN (-)	
J	+10 to 30 VDC	
K	OUT (+)	
L	OUT (-)	
M	Signal Ground	

2 Wiring Examples



4-Wire RS-485 to 2-Wire RS-485

Note: 2-Wire masters are not able to support 4-Wire slaves without data loss due to timing issues.



3 DIP Switches

RS-422, 2-Wire RS-485, or 4-Wire RS-485.

Sample Settings

2-Wire RS-485 half duplex operation

switches 1, 2, 3, 4, 5 = ON
 Switch 6 = OFF
 Switches 7, 8 = Not Used

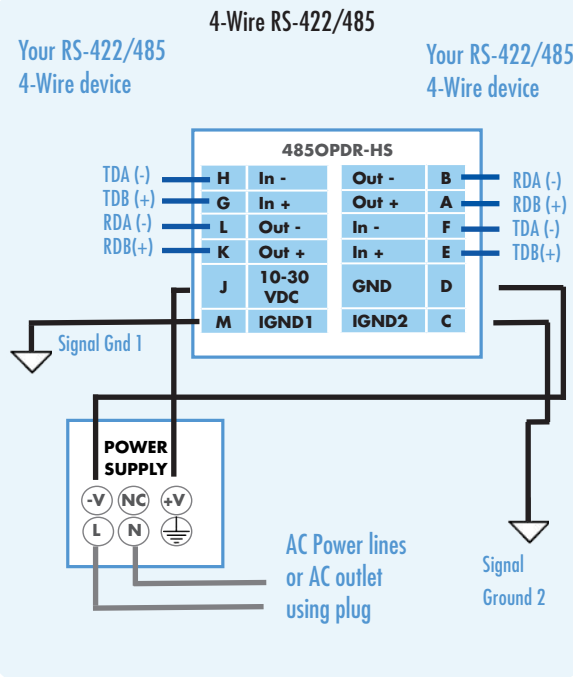
4-Wire RS-485 operation

Switch 1 = On
 Switches 2,3,4 = OFF
 Switch 5 = ON
 Switch 6 = OFF
 Switches 7,8 = Not Used

4-Wire RS-422 operation

All Switches = OFF

	RS-485	Echo Off	2W	2W	Bias IN	Term IN	Not Used	Not Used
Switch	1	2	3	4	5	6	7	8
Position	ON	ON	ON	ON	ON	ON	***	***
	OFF	OFF	OFF	OFF	OFF	OFF	***	***
	RS-422	Echo On	4W	4W	Bias OUT	Term OUT	Not Used	Not Used



Troubleshooting

Q. What are the factory presets?

A. "2-Wire" RS-485 half duplex operation; echo off, bias in, termination out.

Switches 1, 2, 3, 4, 5 = ON

Switch 6 = OFF.

Switches 7, 8 = Not used.

Q. I want to use "4-Wire" RS-485 but the "4-Wire" RS485 devices do not respond with data.

A. When this unit is used to talk to a "4-Wire" device that does not have biasing across the RS-485 receiver lines it may be necessary to set the Transmitter to RS-422 Transmit mode:

Switch 1 = OFF.

This setting can be used providing that the master is on the opposite side of the repeater. No other 4-Wire device can be connected to the transmit lines on the side set for RS-422 transmit. The 485OPDRI has switches to enable separate Transmit bias & Receive bias.

Biasing

Bias is provided by 4.7k pull-up/down resistors on the Data In lines. This value is adequate for most applications without termination.

LED Indicators

LED	Status	Description
Data 1, 2	Both ON	Power present. No data is being sent.
	Both Flashing	Power present. Data is being sent.
	Both OFF	No power.

Recommended Accessories

DIN rail mount power supply MDR-20-24

<http://www.bb-elec.com/Products/Power-Supplies-Accessories/DIN-Power-Supplies/Industrial-Slimline-Power-Supplies.aspx>



Dataline Surge Suppressor HESP4DR

<http://www.bb-elec.com/Products/Serial-Connectivity/Surge-Protection/Heavy-Duty-Surge-Protectors.aspx>



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**QUICK
START
GUIDE**



485OPDR-HS High Speed, Isolated RS-422/485 Repeater

✓ First Things First...

Before you begin, be sure you have the following:

- 485OPDR-HS
- Additional items **required** but not included:
 - Power Supply (10 to 30 VDC, 0.7 W)
 - RS-422/485 Cable

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