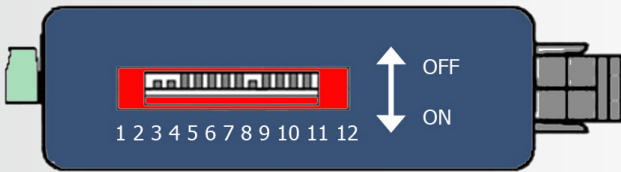




USING MODEL 485OPDRi ON A DH-485 NETWORK In Place of Allen-Bradley® 1747-AIC Link Coupler

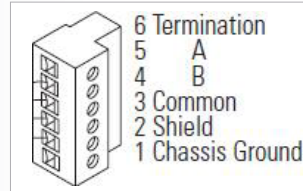
The B+B SmartWorx Model 485OPDRi is an RS-422/485 industrial optically isolated repeater. While often used in Modbus applications, it may be configured for use in the DH-485 environment as a limited replacement for the 1747-AIC.

1. Set both sets of DIP switches on the 485OPDRi for DH-485 operation:

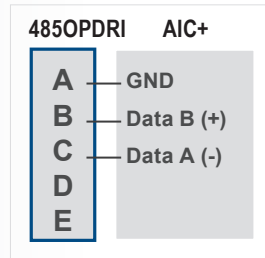


DIP SWITCH SETTINGS					
1	2	3	4	5	6
OFF	OFF	ON	ON	ON	ON
7	8	9	10	11	12
OFF	OFF	OFF	OFF	ON	OFF

2. Mount the 485OPDRi to a DIN rail or panel backplate.
3. Wire 24 VDC to 485OPDRi power terminals.
4. Move the DH-485 trunk cable wires A (from AIC pin 5 to 485OPDRi pin C), B (from AIC pin 4 to 485OPDRi pin B) and Common (from AIC pin 3 to 485OPDRi pin A):

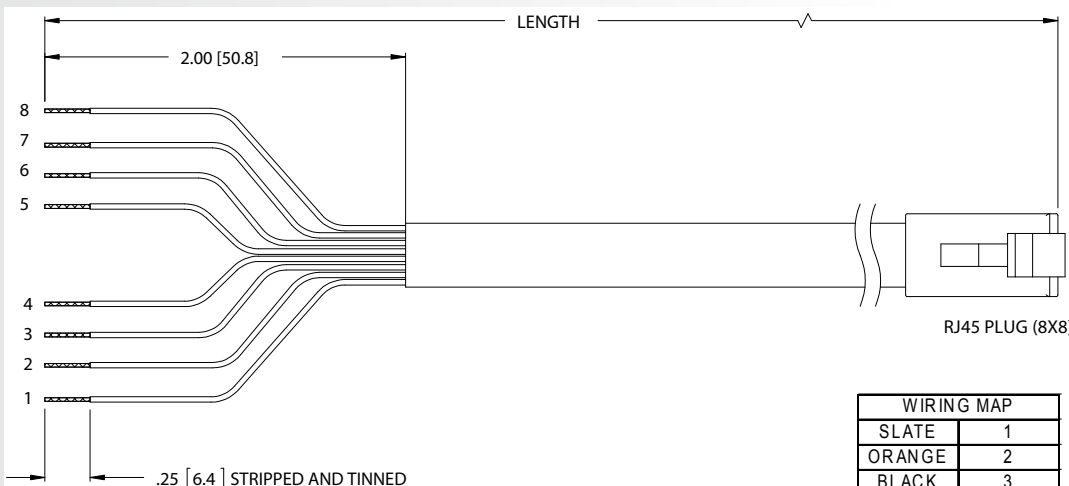


AIC 6-Position Connector

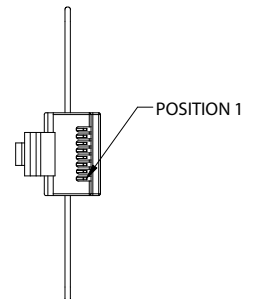


485OPDRi 5-Position Connector

5. For intermediate nodes, twist the cable shields from AIC pin 2 together securely. For an end node, if pins 1 and 2 are jumpered on the AIC connector, then connect the cable shield from AIC pin 2 to the closest earth ground within the panel.
6. Attach the cable between the 485OPDRi TB2 and the SLC RJ-45 port. (See diagram below.)
7. An RJ-45 adapter cable (such as Model# TDG005-2) is needed to connect the DH-485 port to the 485OPDRi terminal blocks.



WIRING MAP	
SLATE	1
ORANGE	2
BLACK	3
RED	4
GREEN	5
YELLOW	6
BLUE	7
BROWN	8

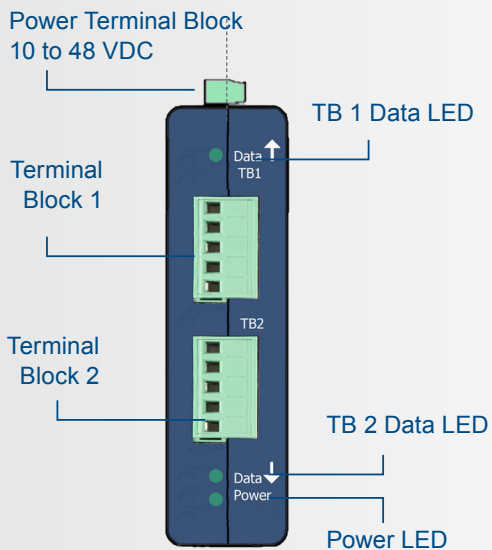


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SIGNALS

RJ45	SIGNAL	485OPDRi TB	WIRE COLOR
1	Data B (+)	"B" - Data B (+)	Slate
2	Data A (-)	"C" - Data A (-)	Orange
4	Ground	"A" - Ground	Red

- Carefully trim and dress the unused leads on the cable.
- Observe that the 485OPDRi Power LED is on solid to verify that the 24 VDC wiring is correct.
- Observe that the 485OPDRi Data LEDs are pulsing (assuming there is at least one other active node on the DH-485 network) to verify that the network wiring is correct.
- If the SLC is properly configured for DH-485, then the serial COMM or DH-485 LED on the SLC will be on solid when it is actively passing the token on the DH-485 network.



B+B SMARTWORX

Powered by

ADVANTECH

Worldwide Headquarters

Taiwan
ADVANTECH
No. 1, Alley 20, Lane 26, Rueiguang Road,
Neihu District, Taipei 11491, Taiwan, R.O.C.
Toll Free: 0800-777-111
www.advantech.com

European Headquarters

Oranmore, Co. Galway, Ireland
Phone: +353 91 792444
Fax: +353 91 792445
eSales@advantech-bb.com

US Corporate Headquarters

707 Dayton Road
Ottawa, IL 61350 USA
Phone: 1-815-433-5100
Fax: 1-815-433-5109
orders@advantech-bb.com
www.advantech-bb.com

Middle East, UAE, Africa

AG Silver Tower, JLT, P.O. Box 48777
Dubai, UAE
Mobile: +971 50 943 65 62
mdeast-afsales@advantech-bb.com

Latin America, Carribean

Phone: 1-727-797-0300
Cell: 1-727-480-5920
latamsales@advantech-bb.com

OEM & Product Modification

Phone: 815-433-5222
Fax: 815-433-5104
Attn: Custom Dept.
custom@advantech-bb.com
Custom Quote Request Form:
www.advantech-bb.com/custom