

Technical Note

ReFlex Power™ Mating Connectors for LPDC-65V Module



Document No. W380270-02 Rev E •1/23/2009

PURPOSE

Provide mating connector information for the ReFlex Power™ Low Power DC, 65V (LPDC-65V) module.

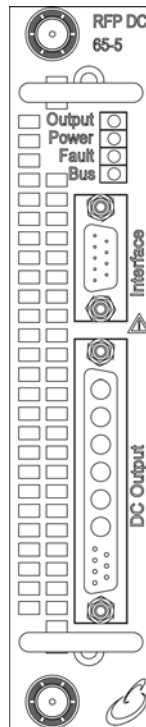


Figure 1. LPDC-65 Front Panel View

MATING CONNECTOR KIT

LPDC-65V Mating Connector Kit - AMETEK Part No. 5380270-02, mates with RFP-D1065-5A1-XXXX, and includes the following for both Interface and DC output connectors:

Bill of Material

Item	AMETEK Part No.	Description	Qty	Manufacturer Part No.	Manufacturer	Suggested Source(s)
1	856-214-07	Conn, 13P, DSUB, 8/20AWG, Male	1	CBD13W6M2000Z	Positronic Industries	Positronic Ind. http://www.connectpositronic.com/default.cfm
2	856-745-53	Contact, F-Volt, 3600VRMS, 500C, Male	6	MS4820D-50	Positronic Industries	Positronic Ind. http://www.connectpositronic.com/default.cfm
3	856-247-39	Conn, Backshell, 37P, Strt, 2 PC	1	D37000Z00	Positronic Industries	Positronic Ind. http://www.connectpositronic.com/default.cfm
4	856-214-09	Conn, 9P, DSUB, 20-24AWG, Crimp, Male	1	SD9M1000Z	Positronic Industries	Positronic Ind. http://www.connectpositronic.com/default.cfm
5	856-247-10	Conn, Backshell, 9P, DSUB, 2 PC	1	D9000Z00	Positronic Industries	Positronic Ind. http://www.connectpositronic.com/default.cfm

RECOMMENDED TOOLS (NOT INCLUDED WITH MATING CONNECTOR KIT)

Hand crimp: Positronic Industries P/N 9507-0-0-0

Pneumatic crimp: Positronic Industries P/N 9550-1-0

Insertion/extraction: Positronic Industries P/N M81969/1-02

Pins A1 through A6 insertion/extraction: Positronic Industries P/N 4311-0-0-0

INTERFACE CONNECTOR

External isolated digital and analog control interface.

Connector: Positronic Industries P/N SD9M1000Z, AMETEK P/N 856-214-09

Crimp contacts: Positronic Industries P/N MC7520D (initially supplied with connector)

Backshell: Positronic Industries P/N D9000Z00, AMETEK P/N 856-247-10

Wire size: Maximum gauge 20 AWG (recommended)

Maximum length 10 meters (can be extended subject to environment, cable type, and interface circuits).

INTERFACE PINOUT

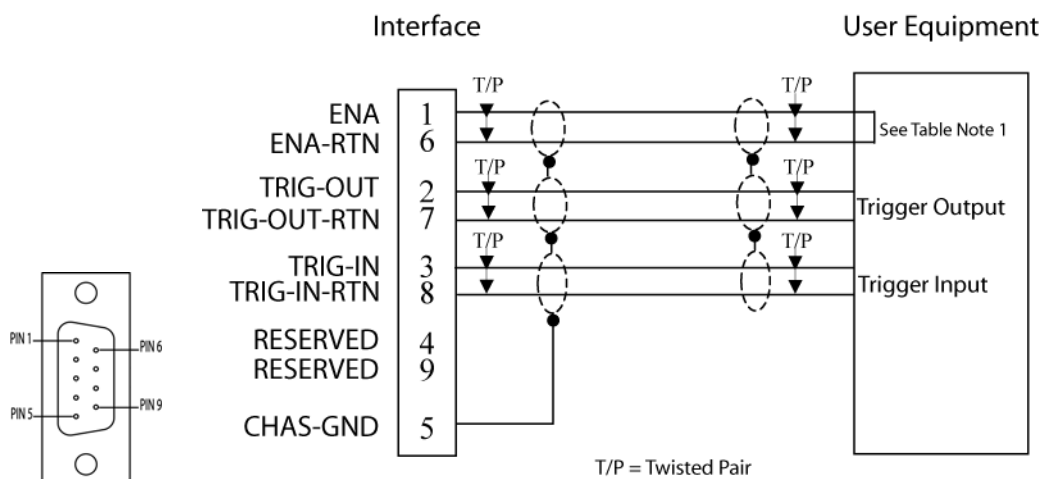


Figure 2. Interface Connector, Front Panel View, and Interface Connector Wiring Diagram

Pin	Name	Function	Signal Level	Wire Gauge, AWG
1	ENA ¹	Input: module output enable	TTL logic level	20
6	ENA-RTN ¹	Input: return for ENA signal; connected to Pin-7/8	Signal common	20
2	TRIG-OUT	Output: trigger output signal	TTL logic level	20
7	TRIG-OUT-RTN	Output: return for TRIG-OUT; connected to Pin-6/8	Signal common	20
3	TRIG-IN	Input: trigger input signal	TTL logic level	20
8	TRIG-IN-RTN	Input: return for TRIG-IN; connected to Pin-6/7	Signal common	20
4	Reserved			
9	Reserved			
5	CHAS-GND	Shield ground	Chassis ground	20

¹ Enable signal is internally pulled up to +5 V with a 10 K resistor. To enable the module, the signal is pulled low (≤ 0.5 V) with respect to the ENA RTN signal; this may also be accomplished by shorting Pin 1 to Pin 6.

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OPTIONAL INTERFACE CONNECTOR ACCESSORIES

- AMETEK P/N 5380508-01, 9-pin Loop-back Connector Assembly. Includes a jumper wire between Pins 1 and 6 to enable the module outputs.
- AMETEK P/N 5380443-01, Power Module, 9ft. Unterminated Interface Cable Assembly. Use when interfacing to an external system.
- AMETEK P/N 5380443-03, Power Module, Right Angle, 9ft. Unterminated Interface Cable Assembly. Use when interfacing to an external system.

DC OUTPUT CONNECTOR

Connector: Positronic Industries P/N CBD13W6M2000Z, AMETEK P/N 856-214-07

Pins A1-A6: Positronic Industries P/N MS4820D-50, AMETEK P/N 856-745-53

Backshell: Positronic Industries P/N D37000Z00, AMETEK P/N 856-247-39

Wire size: Maximum gauge 20 AWG (recommended) (see table for length)

DC OUTPUT PINOUT

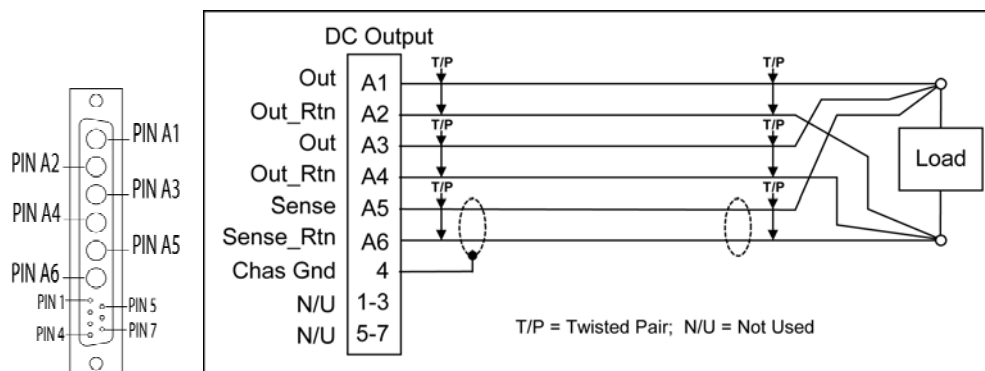


Figure 3. DC Output Connector, Front Panel View, and DC Output Connector Wiring Diagram

Pin	Name	Function	Signal Level	Maximum Wire Length, ft
A1	OUT	Output: module output source; connected to A3	±65V; ±300V, maximum to chassis	40, for 1.5V line drop at 2.55A
A2	OUT-RTN	Output: return for output source, OUT; connected to A4	±65V; ±300V, maximum to chassis	40, for 1.5V line drop at 2.55A
A3	OUT	Output: module output source; connected to A1	±65V; ±300V, maximum to chassis	40, for 1.5V line drop at 2.55A
A4	OUT-RTN	Output: return for output source, OUT; connected to A2	±65V; ±300V, maximum to chassis	40, for 1.5V line drop at 2.55A
A5	SNS	Input: remote sense connection for OUT	±65V; ±300V, maximum to chassis	40
A6	SNS-RTN	Input: remote sense connection for OUT-RTN	±65V; ±300V, maximum to chassis	40
4	CHAS-GND	Shield ground	Chassis ground	40
1-3, 5-7	-	Reserved	-	-

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DC OUTPUT CONNECTOR ACCESSORIES

- AMETEK P/N 5380445-01, LPDC 65V Module, 9ft. Unterminated DC Output Cable Assembly.
- AMETEK P/N 5380445-03, LPDC 65V Module, Right Angle, 9ft. Unterminated DC Output Cable Assembly.