

Technical Note

ReFlex Power™ Mating Connectors for HPAL/LPAL Module



Document No. W380273-01 Rev D • 1/23/2009

PURPOSE

Provide mating connector information for the ReFlex Power™ High Power and Low Power Active Load (HP/LPAL) module.

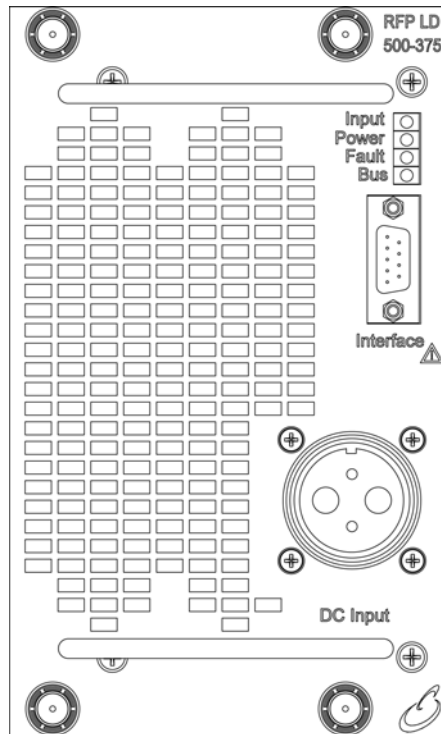


Figure 1. HP/LPAL Front Panel View

MATING CONNECTOR KIT

Load (HPAL/LPAL) Mating Connector Kit - AMETEK Part No. 5380273-01, mates with RFP-L3500-375-XXXX and RFP-L3500-750-XXXX, and includes the following for both the Interface and DC input connectors:

Bill of Material

Item	AMETEK Part No.	Description	Qty	Manufacturer Part No.	Manufacturer	Suggested Source(s)
1	855-363-08	Conn, 4P, 8/16AWG, Plug, SR, Skt	1	MS3106F-20-24S	Amphenol, ITT Cannon	PEI-Genesis: http://www.pei-genesis.com/ Arrow Electronics: http://www.arrow.com/
2	856-214-09	Conn, 9P, DSUB, 20-24AWG, Crimp, Male	1	SD9M1000Z	Positronic Industries	Positronic Ind. http://www.connectpositronic.com/default.cfm
3	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

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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 (22 AWG recommended)

Maximum length 10 meters.

INTERFACE PINOUT

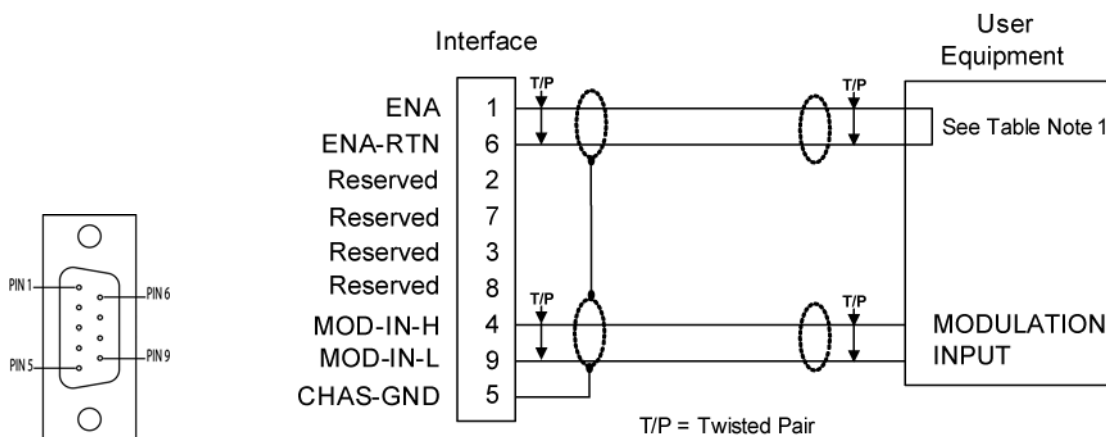


Figure 2. Interface Connector, Front Panel View, and Interface Connector Wiring Diagram

Pin	Name	Function	Signal Level
1	ENA ¹	Input: module output enable	TTL logic level
6	ENA-RTN ¹	Input: return for ENA signal; connected to Pin-7/8	Signal common
2	Reserved		
7	Reserved		
3	Reserved		
8	Reserved		
4	MOD-IN-H	Input: external modulation signal; differential input with MOD_IN_L	5V/10V analog signal
9	MOD-IN-L	Input: return for external modulation signal, MOD_IN_H	5V/10V analog signal
5	CHAS-GND	Shield ground	Chassis ground

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.

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.

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DC INPUT CONNECTOR

Connector : MIL P/N MS3106F-20-24S, AMETEK P/N 855-363-08

Backshell: Included with connector.

Wire size: see table

DC INPUT PINOUT

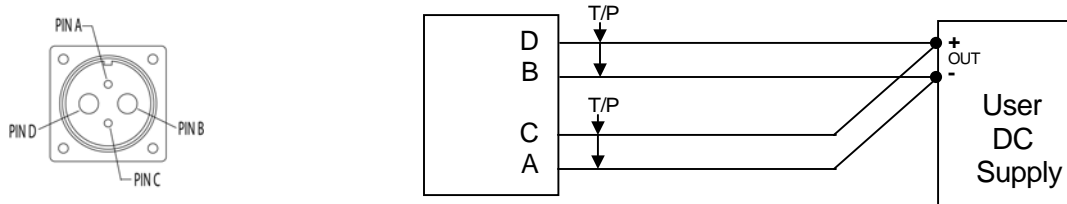


Figure 3. DC Input Connector, Front Panel View, and DC Input Connector Wiring Diagram

Pin	Name	Function	Signal Level	Max Wire Gauge
D	DCIN	INPUT:INPUT SOURCE	+500V; 500V, MAX TO CHASSIS	8
B	DCIN_RTN	INPUT: RETURN FOR INPUT SOURCE DCIN	0V; 500V, MAX TO CHASSIS	8
C	SNS	INPUT; REMOTE SENSE FOR DCIN	+500V; 500V, MAX TO CHASSIS	16
A	SNS_RTN	INPUT REMOTE SENSE FOR DCIN_RTN	0V; 500V, MAX TO CHASSIS	16

DC INPUT CONNECTOR ACCESSORY

AMETEK P/N 5380452-01, Load Module, 9ft. Unterminated DC Input Cable Assembly