

Technical Note

ReFlex Power™ Mating Connectors for FPDC Module



Document No. W380274-01 Rev E • 1/23/2009

PURPOSE

Provide mating connector information for the ReFlex Power™ Fixed Power DC (FPDC) module.

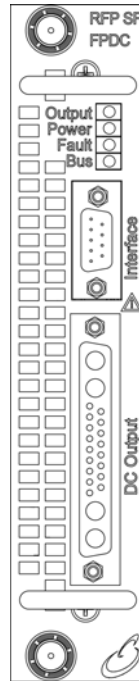


Figure 1. FPDC Front Panel View

MATING CONNECTOR KIT

FPDC Mating Connector Kit - AMETEK Part No. 5380274-01, mates with RFP-F1000-001-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	856-214-04	Conn, 21P, DSUB, 8/20AWG, Male	1	CBC21WA4M1000Z	Positronic Industries	Positronic Ind. http://www.connectpositronic.com/default.cfm
2	856-745-52	Contact, 12AWG, 30A, Male	4	MC4012D	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 – A3 insertion/extraction: Positronic Industries P/N 4711-2-0-0

Pin A4 extraction: Positronic Industries P/N 4311-0-0-0

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INTERFACE CONNECTOR

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

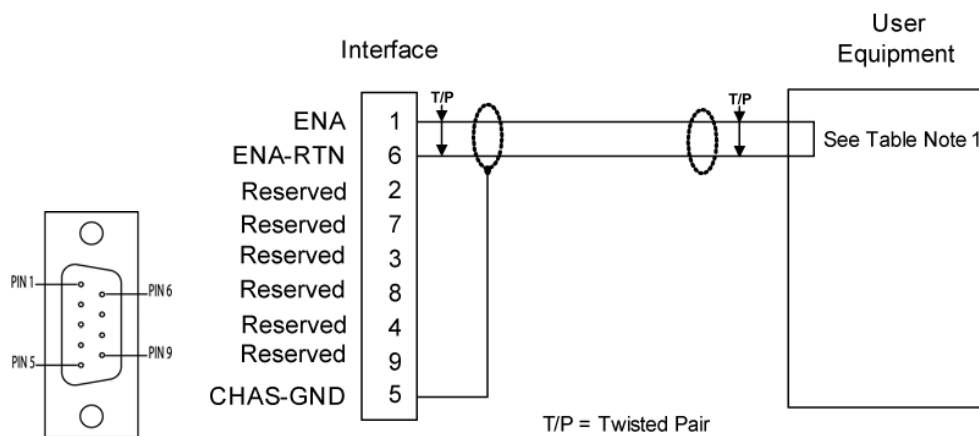


Figure 2. Interface Connector, Front Panel View, and Interface Connector Wiring Diagram

Pin	Signal	Description
1	ENAB ¹	Enable module output
2	Reserved	
3	Reserved	
4	Reserved	
5	CHAS GND	Chassis Ground
6	ENAB RTN ¹	Enable module output return
7	Reserved	
8	Reserved	
9	Reserved	

¹ Enable signal is internally pulled up to +5V with a 10 K resistor. To enable the module, the signal is pulled low ($\leq 0.5V$) 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 5380448-01, Power Module, 9ft. Underterminated Interface Cable Assembly. Use when interfacing to an external system.
- AMETEK P/N 5380448-03, Power Module, Right Angle, 9ft. Underterminated Interface Cable Assembly. Use when interfacing to an external system.

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DC OUTPUT CONNECTOR

Connector: Positronic Industries P/N CBC21WA4M1000Z, AMETEK P/N 856-214-04 (crimp signal contacts)

Pins 1 – 17: Positronic Industries P/N MC6020D (initially supplied with connector)

Wire size: Maximum gauge 20 AWG (recommended)

Length: Maximum 10 meters

Pins A1 – A4: Positronic Industries P/N MC4012D, AMETEK P/N 856-745-52

Wire size: Maximum gauge 12 AWG (recommended)

Length: Maximum 10 meters

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

DC OUTPUT PINOUT

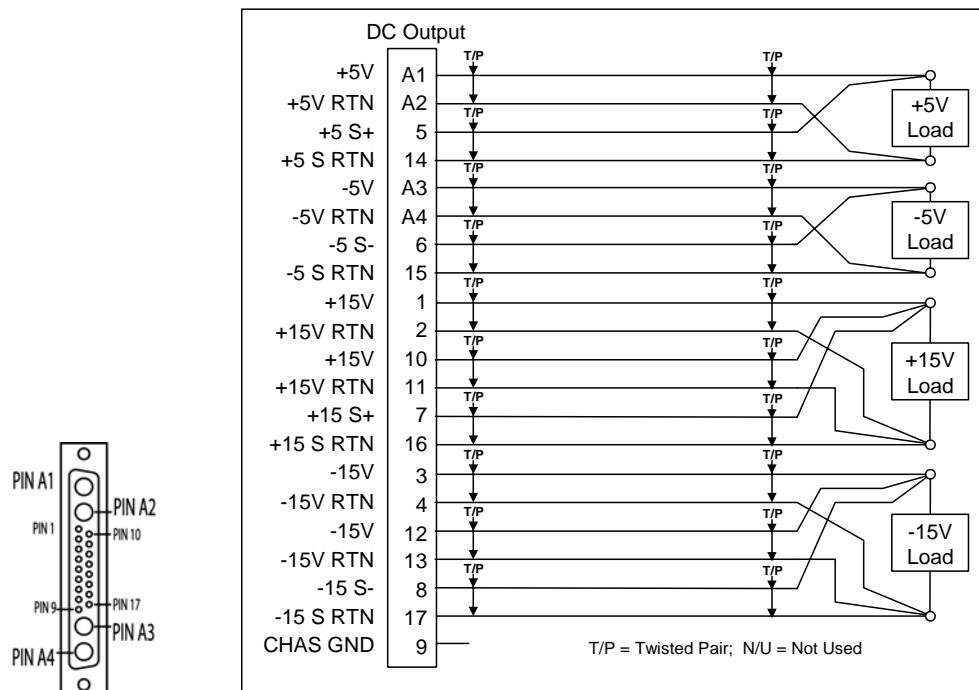


Figure 3. DC Output Connector, Front Panel View, and DC Output Connector Wiring Diagram

PIN	Signal	Description
1	+15V	+15V Positive Output derived after disconnect relay
2	+15V RTN	+15V Return
3	-15V	-15V Negative Output derived after disconnect relay
4	-15V RTN	-15V Return
5	+5V S+	+5V Positive Sense connected after local-remote sense relay
6	-5V S-	-5V Negative Sense connected after local-remote sense relay
7	+15V S+	+15V Positive Sense connected after local-remote sense relay
8	-15V S-	-15V Negative Sense connected after local-remote sense relay
9	CHAS GND	Chassis ground
10	+15V	+15V Positive Output derived after disconnect relay
11	+15V RTN	+15V Return
12	-15V	-15V Negative Output derived after disconnect relay
13	-15V RTN	-15V Return

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PIN	Signal	Description
14	+5V S RTN	+5V Sense Return
15	-5V S RTN	-5V Sense Return
16	+15V S RTN	+15V Sense Return
17	-15V S RTN	-15V Sense Return
A1	+5V	+5V Positive Output derived after disconnect relay
A2	+5V RTN	+5V Return Output
A3	-5V	-5V Positive Output derived after disconnect relay
A4	-5V RTN	-5V Return

DC OUTPUT CONNECTOR ACCESSORIES

- AMETEK P/N 5380449-01, FPDC Module, 9ft. Unterminated DC Output Cable Assembly.
- AMETEK P/N 5380449-03, FPDC Module, Right Angle, 9ft. Unterminated DC Output Cable Assembly.