

## MDrive17Plus<sup>2</sup> Recommended Prototype Development Cable

### P1: PD16-1417-FL3 — Power and I/O

The PD16-1417-FL3 is a 10' (3.0 M) Prototype Development Cable used to connect to the 16-Pin Locking Wire Crimp Connector. The Connector end plugs into the P1 Connector of the MDrivePlus. The Flying Lead end connects to a Control Interface such as a PLC and the users motor power supply.

Wire Color Code				
Pair Number	Color Combination	Signal Name (Expanded I/O)	Signal Name (Remote Encoder)	P1 Pin Number
1	Black	Power Ground	Power Ground	16
	Red	+V (+12 to +48 VDC)	+V (+12 to +48 VDC)	15
2	Black	Direction	Index –	14
	White	Step Clock	Index +	13
3	Black	Analog In	Analog In	12
	Green	Capture In/Trip Out	Capture In/Trip Out	11
4	Black	I/O 12	Channel B –	10
	Blue	I/O 11	Channel B +	9
5	Black	I/O 10	Channel A –	8
	Yellow	I/O 9	Channel A +	7
6	Black	I/O 4	I/O 4	6
	Brown	I/O 3	I/O 3	5
7	Black	I/O 2	I/O 2	4
	Orange	I/O 1	I/O 1	3
8	White	I/O GND	I/O GND	2
	Red	I/O Power	I/O Power	1

Table F.3: PD16-1417-FL3 Wire Color Codes

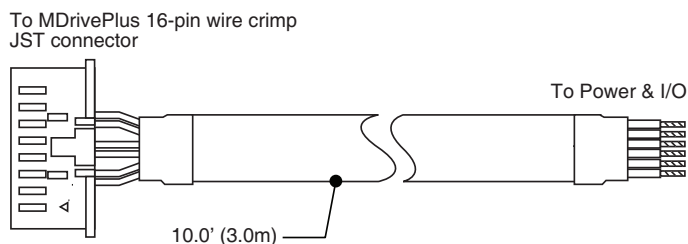


Figure F.15: PD16-1417-FL3 Prototype Development Cable

### Connector Detail and Mating Connector Kit

Should you choose to create your own interface cable IMS now has mating connector kits available which assist you in creating interface cables in small quantities. These kits come with the connector shells and crimp pins to create five interface cables.

#### Connector Details

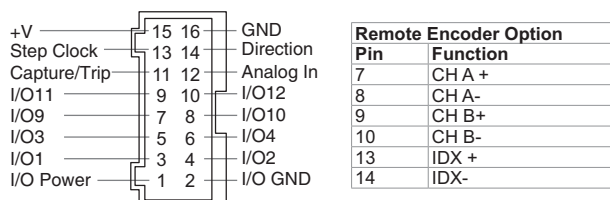


Figure F.16: 16-Pin Wire Crimp

#### Mating Connector Kit p/n: CK-10

Description: 5 mating connector shells and crimp pins. Recommend JST Crimp tool (Not included).

JST Parts: Shell: PADP-16V-1-S  
Pins: SPH-001T-P0.5L  
Crimp Tool: YHT2622

**WARNING!** DO NOT connect or disconnect the Prototype Development Cables Cable from MDrive while power is applied!

**WARNING!** Ensure that the Black-Color pair is correctly matched prior to power application.