



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



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

MDrive23Plus² Recommended Prototype Development Cables

P1: PD14-2334-FL3 – I/O

IMS recommends the Prototype Development Cable PD14-2334-FL3 for interfacing I/O and Logic to the MDrive23Plus² Motion Control. IMS recommends the Prototype Development Cable PD14-2334-FL3 with the first order of an MDrive23Plus² Motion Control to mate with the 14-pin locking wire crimp connector P1. 14 (7 Twisted Pair) Flying Leads interface to the user's control electronics at the un-terminated end of the cable.

Care should be observed to ensure that the black leads are connected in the correct location in relation to their paired color.

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

Table F.4: PD14-2334-FL3 Wire Color Codes

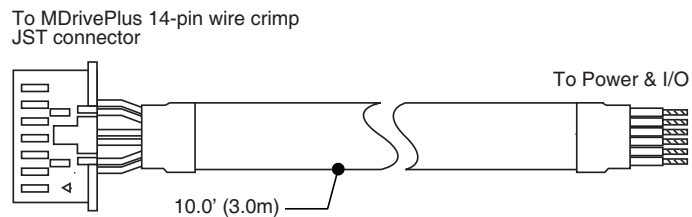


Figure F.17: PD14-2334-FL3 Prototype Development Cable

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

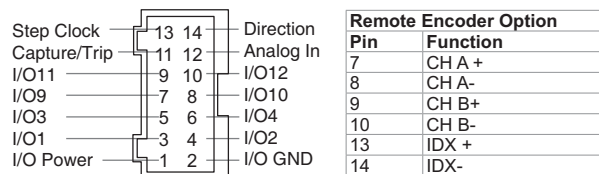


Figure F.18: 16-Pin Wire Crimp

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-14V-1-S
 Pins: SPH-001T-P0.5L
 Crimp Tool: YHT2622

P3: PD02-2300-FL3 — I/O

IMS recommends the Prototype Development Cable PD02-2300-FL3 for interfacing power to the MDrive-23Plus² Motion Control.

Wire Color Code		
Color Combination	Signal Name (Expanded I/O)	P3 Pin Number
Black	Power Ground	2
Red	+V (+12 to +48 VDC)	1

Table F.5: PD14-2334-FL3 Wire Color Codes

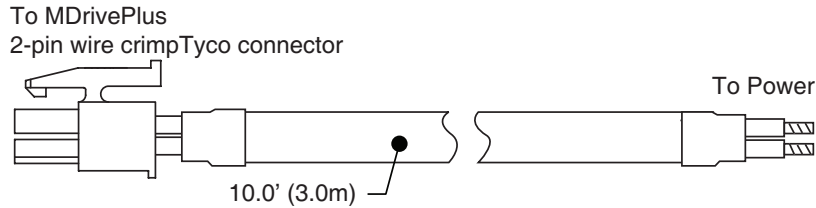


Figure F.19: PD02-2300-FL3

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

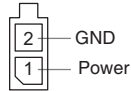


Figure F.20: 2-Pin Wire Crimp

Mating Connector Kit p/n: CK-04

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

Tyco Parts: Shell: 794617-2
 Pins: 794610-1
 Crimp Tool: 91501-1