

MDrive14Plus Motion Control

MDI14	P1: I/O & Power			P2: Communications		
	Connector Type	Mating Connector Shell	Mating Connector Pins	Connector Type	Mating Connector Shell	Mating Connector Pins*
Plus	12-Pin Wire Crimp	JST PADP-12V-1-S	JST SPH-001T-P0.5L	Does not apply		
	16-Pin Wire Crimp	JST PADP-16V-1-S	JST SPH-001T-P0.5L	10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)

* Part number depends on wire diameter (American Wire Gauge)

MDrive17Plus Microstepping

MDM17	P1: I/O & Power				P2: Communications		
	Connector Type	Mating Connector Shell	Mating Connector Pins (20-24 AWG)	Mating Connector Pins (26-30 AWG)	Connector Type	Mating Connector Shell	Mating Connector Pins
Plus	Flying Leads	n/a	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a
	7 Pin Pluggable	n/a	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a
	12 Pin Wire Crimp	Tyco 1-794617-2	Tyco 794610-1	Tyco 794611-1	Does Not Apply		

P1: I/O, Power & Communications	
Connector Type	Mating Connector/Cordset
Plus-65 19 Pin M23 Circular (male)	<p>IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire.</p> <p>For comparable cordset or connector shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>

MDrive17Plus Motion Control

MD17	P1: I/O & Power			P2: Communications		
	Connector Type	Mating Connector Shell	Mating Connector Pins	Connector Type	Mating Connector Shell	Mating Connector Pins*
Plus	Flying Leads	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)
	7 Pin Pluggable	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)
Plus ²	P1: I/O & Power			P2: Communications		
	Connector Type	Mating Connector Shell	Mating Connector Pins (22-28 AWG)	Connector Type	Mating Connector Shell	Mating Connector Pins*
	16 Pin Locking Wire Crimp	JST PADP-16V-1-S	JST SPH-001T-P0.5L	10 Pin IDC	Samtec TCSD-05-01-N	n/a
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)
Plus ²⁻⁶⁵	P1: I/O & Power		P2: Communications			
	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset		
	19 Pin M23 Circular (male)	IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire. For comparable cordset or connector shop: Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)	5 Pin M12 Circular (female)	IMS cable MD-CC401-000 recommended with: 5-pin M12 male connector and in-line RS-422 to USB converter. For comparable connector only shop: Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)		

* Part number depends on wire diameter (American Wire Gauge)

MDrive17Plus Speed Control

		P1: I/O & Power			P2: Communications		
MDO17	Connector Type	Mating Connector Shell	Mating Connector Pins	Connector Type	Mating Connector Shell	Mating Connector Pins*	
Plus	Flying Leads	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a	
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)	
	7 Pin Pluggable	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a	
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)	

* Part number depends on wire diameter (American Wire Gauge)

MDrive17Plus CANopen

		P1: I/O & Power			P2: Communications		
MD17	Connector Type	Mating Connector Shell	Mating Connector Pins		Connector Type	Mating Connector	
	Plus	Flying Leads	n/a	n/a	DB9 (male)	industry standard (female)	
	7 Pin Pluggable	n/a	n/a		DB9 (male)	industry standard (female)	
		P1: I/O & Power			P2: Communications		
		Connector Type	Mating Connector Shell	Mating Connector Pins (22-28 AWG)	Connector Type	Mating Connector	
Plus²	16 Pin Locking Wire Crimp	JST PADP-16V-1-S	JST SPH-001T-P0.5L		DB9 (male)	industry standard (female)	
		P1: I/O & Power			P2: Communications		
		Connector Type	Mating Connector/Cordset			Connector Type	
Plus²-65	19 Pin M23 Circular (male)	IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire. For comparable cordset or connector shop: Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)			5 Pin M12 Circular (female)	Shop for female connector: Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)	

MDrive23Plus Microstepping

MDM23	P1: I/O & Power				P2: Communications		
	Connector Type	Mating Connector Shell	Mating Connector Pins (20-24 AWG)*	Mating Connector Pins (26-30 AWG)*	Connector Type	Mating Connector Shell	Mating Connector Pins
Plus	Flying Leads	n/a	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a
	7 Pin Pluggable	n/a	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a
	12 Pin Wire Crimp	Tyco 1-794617-2	Tyco 794610-1	Tyco 794611-1	Does Not Apply		
P1: I/O, Power & Communications							
	Connector Type	Mating Connector/Cordset					
Plus-65	19 Pin M23 Circular (male)	<p>IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire.</p> <p>For comparable cordset or connector shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>					

MDrive23Plus Motion Control

MDI23	P1: I/O & Power			P2: Communications		
	Connector Type	Mating Connector Shell	Mating Connector Pins	Connector Type	Mating Connector Shell	Mating Connector Pins*
Plus	Flying Leads	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)
	7 Pin Pluggable	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)

Plus ²	P1: I/O			P2: Communications			P3: Power		
	Connector Type	Mating Connector Shell	Mating Connector Pins (22-28 AWG)	Connector Type	Mating Connector Shell	Mating Connector Pins*	Connector Type	Mating Connector Shell	Mating Connector Pins
Plus ²	14 Pin Locking Wire Crimp	JST PADP-14V-1-S	JST SPH-001T-P0.5L	10 Pin IDC	Samtec TCSD-05-01-N	n/a	2 Pin Locking Wire Crimp	Tyco 794617-2	Tyco 794610-1
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)			

Plus ²⁻⁶⁵	P1: I/O & Power		P2: Communications	
	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset
Plus ²⁻⁶⁵	19 Pin M23 Circular (male)	IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire. For comparable cordset or connector shop: Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)	5 Pin M12 Circular (female)	IMS cable MD-CC401-000 recommended with: 5-pin M12 male connector and in-line RS-422 to USB converter. For comparable connector only shop: Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)

* Part number depends on wire diameter (American Wire Gauge)

MDrive23Plus Speed Control

		P1: I/O & Power			P2: Communications		
MDO23	Connector Type	Mating Connector Shell	Mating Connector Pins	Connector Type	Mating Connector Shell	Mating Connector Pins*	
	Plus	Flying Leads	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)	
7 Pin Pluggable		n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a	
				10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)	

* Part number depends on wire diameter (American Wire Gauge)

MDrive23Plus CANopen

		P1: I/O & Power			P2: Communications					
MD23	Connector Type	Mating Connector Shell	Mating Connector Pins		Connector Type	Mating Connector				
	Flying Leads	n/a	n/a		DB9 (male)	industry standard (female)				
Plus	7 Pin Pluggable	n/a	n/a		DB9 (male)	industry standard (female)				
		P1: I/O & Power			P2: Communications		P2: Power			
Plus²	Connector Type	Mating Connector Shell	Mating Connector Pins (22-28 AWG)		Connector Type	Mating Connector		Connector Type	Mating Connector Shell	Mating Connector Pins
	14 Pin Locking Wire Crimp	JST PADP-14V-1-S	JST SPH-001T-P0.5L		DB9 (male)	industry standard (female)		2 Pin Locking Wire Crimp	Tyco 794617-2	Tyco 794610-1
		P1: I/O & Power			P2: Communications					
Plus²-65	Connector Type	Mating Connector/Cordset			Connector Type					
	19 Pin M23 Circular (male)	IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire. For comparable cordset or connector shop: Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)			5 Pin M12 Circular (female)	Shop for female connector: Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)				

MDrive34Plus Microstepping

MDM34	P1: I/O & Power			P2: Communications		
	Connector Type	Mating Connector Shell	Mating Connector Pins	Connector Type	Mating Connector Shell	Mating Connector Pins
Plus (Flying Leads Interface)	Flying Leads	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a

Plus (Connector Interface)	P1: I/O & Communications				P4: Encoder Option			P3: Power		
	Connector Type	Mating Connector Shell	Mating Connector Pins (20-24 AWG)*	Mating Connector Pins (26-30 AWG)*	Connector Type	Mating Connector Shell	Mating Connector Pins*	Connector Type	Mating Connector Shell (18 AWG)	Mating Connector Pins (18 AWG)
	12 Pin Locking Wire Crimp	Tyco 1-794617-2	Tyco 794610-1	Tyco 794611-1	10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)	2 Pin Locking Wire Crimp	Molex 510-67-0200	Molex 502-17-9101 Brass

* Part number depends on wire diameter (American Wire Gauge)

MDrive34Plus Motion Control

		P1: I/O & Power			P2: Communications		
MDI34	Connector Type	Mating Connector Shell	Mating Connector Pins	Connector Type	Mating Connector Shell	Mating Connector Pins	
	Plus	Flying Leads	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a

		P1: I/O			P2: Communications			P3: Power		
	Connector Type	Mating Connector Shell	Mating Connector Pins (22-28 AWG)	Connector Type	Mating Connector Shell	Mating Connector Pins*	Connector Type	Mating Connector Shell (18 AWG)	Mating Connector Pins (18 AWG)	
	Plus ²	14 Pin Locking Wire Crimp	JST PADP-14V-1-S	JST SPH-001T-P0.5L	10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)	2 Pin Locking Wire Crimp	Molex 510-67-0200	Molex 502-17-9101 Brass
Plus ² w/ Remote Encoder	20 Pin Locking Wire Crimp	JST PADP-20V-1-S								

* Part number depends on wire diameter (American Wire Gauge)

MDrive34Plus Speed Control

MDO34	P1: I/O & Power			P2: Communications		
	Connector Type	Mating Connector Shell	Mating Connector Pins	Connector Type	Mating Connector Shell	Mating Connector Pins
Plus	Flying Leads	n/a	n/a	10 Pin IDC	Samtec TCSD-05-01-N	n/a

	P1: I/O			P2: Communications			P3: Power		
	Connector Type	Mating Connector Shell	Mating Connector Pins (22-28 AWG)	Connector Type	Mating Connector Shell	Mating Connector Pins*	Connector Type	Mating Connector Shell (18 AWG)	Mating Connector Pins (18 AWG)
Plus ²	12 Pin Locking Wire Crimp	JST PADP-12V-1-S	JST SPH-001T-P0.5L	10 Pin Friction Lock Wire Crimp	Hirose DF11-10DS-2C	Hirose DF11-22SC (22 AWG) DF11-2428SC (24/28 AWG) DF11-30SC (30 AWG)	2 Pin Locking Wire Crimp	Molex 510-67-0200	Molex 502-17-9101 Brass
Plus ² w/ Remote Encoder	20 Pin Locking Wire Crimp	JST PADP-20V-1-S							

* Part number depends on wire diameter (American Wire Gauge)

MDrive34Plus CANopen

MD34	P1: I/O			P2: Communications		P3: Power		
	Connector Type	Mating Connector Shell	Mating Connector Pins (22-28 AWG)*	Connector Type	Mating Connector	Connector Type	Mating Connector Shell (18 AWG)	Mating Connector Pins (18 AWG)
Plus ²	14 Pin Locking Wire Crimp	JST PADP-14V-1-S	JST SPH-001T-P0.5L	DB9 (male)	industry standard (female)	2 Pin Locking Wire Crimp	Molex 510-67-0200	Molex 502-17-9101 Brass
Plus ² w/ Remote Encoder	20 Pin Locking Wire Crimp	JST PADP-20V-1-S						

MDrive34AC Plus Microstepping

P1: I/O & Communications		
MDM34 AC	Connector Type	Mating Connector/Cordset
Plus & Plus-65	19 Pin M23 Circular (male)	<p>IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire.</p> <p>For comparable cordset or connector shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>

P3: Power	
Connector Type	Mating Connector/Cordset
3 Pin Euro AC (male)	<p>In order to meet UL Spec the IMS Cordset MD-CS200-000, MD-CS201-000 or the Lumberg equivalents, RK30-601 or RKW30-601 must be used.</p>

MDrive34AC Plus Motion Control

MDI34 AC	P1: I/O		P2: Communications		P3: Power	
	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset
Plus ² & Plus ² -65	19 Pin M23 Circular (male)	<p>IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire.</p> <p>For comparable cordset or connector shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>	5 Pin M12 Circular (female)	<p>IMS cable MD-CC401-000 recommended with: 5-pin M12 male connector and in-line RS-422 to USB converter.</p> <p>For comparable connector only shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>	3 Pin Euro AC (male)	<p>In order to meet UL Spec the IMS Cordset MD-CS200-000, MD-CS201-000 or the Lumberg equivalents, RK30-601 or RKW30-601 must be used.</p>

MDrive34AC Plus CANopen

MD34 AC	P1: I/O		P2: Communications		P3: Power	
	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset
Plus ² & Plus ² -65	19 Pin M23 Circular (male)	<p>IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire.</p> <p>For comparable cordset or connector shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>	5 Pin M12 Circular (male)	<p>Shop for female connector:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>	3 Pin Euro AC (male)	<p>In order to meet UL Spec the IMS Cordset MD-CS200-000, MD-CS201-000 or the Lumberg equivalents, RK30-601 or RKW30-601 must be used.</p>

MDrive42AC Plus Microstepping

P1: I/O & Communications		
MDM42 AC	Connector Type	Mating Connector/Cordset
Plus & Plus-65	19 Pin M23 Circular (male)	<p>IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire.</p> <p>For comparable cordset or connector shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>

P3: Power	
Connector Type	Mating Connector/Cordset
3 Pin Euro AC (male)	In order to meet UL Spec the IMS Cordset MD-CS200-000, MD-CS201-000 or the Lumberg equivalents, RK30-601 or RKW30-601 must be used.

MDrive42AC Plus Motion Control

MDI42 AC	P1: I/O		P2: Communications		P3: Power	
	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset
Plus ² & Plus ² -65	19 Pin M23 Circular (male)	<p>IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire.</p> <p>For comparable cordset or connector shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>	5 Pin M12 Circular (female)	<p>IMS cable MD-CC401-000 recommended with: 5-pin M12 male connector and in-line RS-422 to USB converter.</p> <p>For comparable connector only shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>	3 Pin Euro AC (male)	<p>In order to meet UL Spec the IMS Cordset MD-CS200-000, MD-CS201-000 or the Lumberg equivalents, RK30-601 or RKW30-601 must be used.</p>

MDrive42AC Plus CANopen

MD42 AC	P1: I/O		P2: Communications		P3: Power	
	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset	Connector Type	Mating Connector/Cordset
Plus ² & Plus ² -65	19 Pin M23 Circular (male)	<p>IMS cordset MD-CS100-000 or MD-CS101-000 recommended with: 19-pin M23 female connector and PVC jacketed, foil shielded, unconnected drain wire.</p> <p>For comparable cordset or connector shop:</p> <p>Lumberg (http://www.lumberg.com) Phoenix (http://www.phoenixcontact.com/) Turck (http://www.turck.com/) RDE Connectors (http://www.rde-usa.com)</p>	5 Pin M12 Circular (male)	<p>Shop for female connector:</p> <p>Lumberg http://www.lumberg.com</p> <p>Phoenix http://www.phoenixcontact.com</p> <p>Turck http://www.turck.com</p> <p>RDE Connectors http://www.rde-usa.com</p>	3 Pin Euro AC (male)	<p>In order to meet UL Spec the IMS Cordset MD-CS200-000, MD-CS201-000 or the Lumberg equivalents, RK30-601 or RKW30-601 must be used.</p>