

2090-Series Motor/Actuator Cables

A wide variety of motor/actuator cables with rugged DIN connectors are available for connecting your motion control system. Standard (non-flex) motor power and feedback cables are available for all Allen-Bradley servo motors and actuators. Continuous-flex rated cables, intended for moving applications, are also available. Continuous-flex extension and standard (non-flex) transition cables are also available for your applications that require them.

IMPORTANT All flying-lead feedback cables require breakout components or connector kits for drive-end terminations. Refer to Breakout Components and Connector Kits beginning on [page 65](#) for catalog numbers and descriptions.

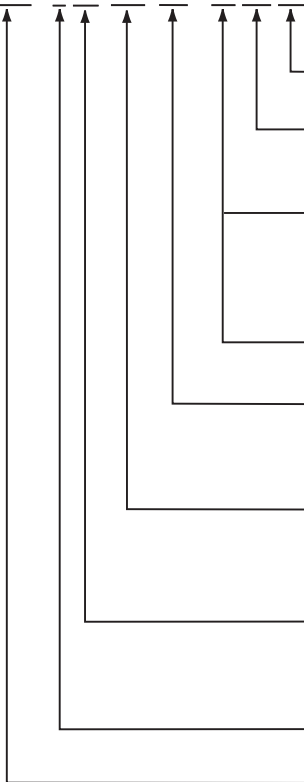
IMPORTANT Standard (non-flex) cables have a regular maintenance and installation bend radius of 10 times the cable diameter. For flexing applications, continuous-flex cables have an operational bend radius of 12 times the cable diameter.

Catalog Numbers - 2090-Series Motor/Actuator Cable

Catalog numbers consist of various characters, each of which identifies a specific option for that component. Use the catalog numbering charts below to understand the configuration of your component. For questions regarding product availability, contact your Allen-Bradley distributor.

Motor Power/Brake, Feedback, and Extension Cables

2090 - C xx Mx Dx - Cx Ax xx



Cable Length

Refer to Technical Specifications - 2090-Series Motor/Actuator Cables beginning on [page 30](#).

Cable Type

AA = Standard, non-flex

AF = Continuous-flex

Encoder Type (applies to feedback cables)

CB = Serial incremental/Serial absolute - battery backup

CC = Serial incremental/Incremental

CD = SIN/COS High-resolution/Incremental

CE = SIN/COS High-resolution/Resolver

Wire Gauge Size (applies to power cables)

16, 14, 12, 10, 8, 6, 4, and 2 AWG

Drive-end Connector Type

DF = Drive-end, flying-lead

DD = Drive-end, D-sub connector

E7 = Extension receptacle (SpeedTec ready)

Motor-end Connector Type

M6 = Circular plastic connector

M4 = Threaded DIN connector

M7 = SpeedTec DIN connector

Cable Type

PB = Motor power with brake wires

PW = Motor power only

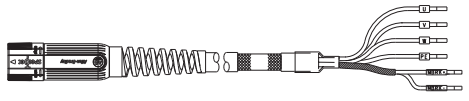
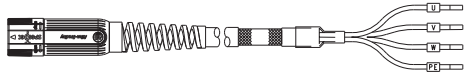
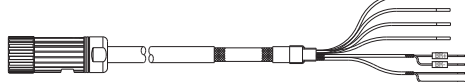
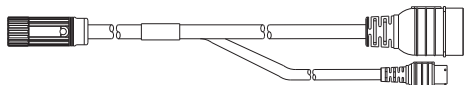
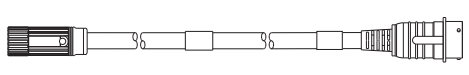
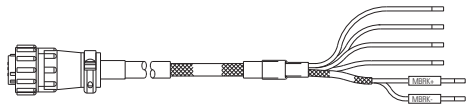
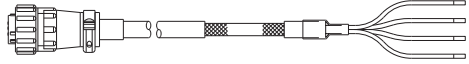
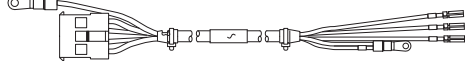
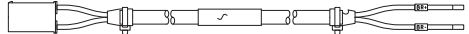
FB = Motor feedback only

Accessory Component

C = Cable

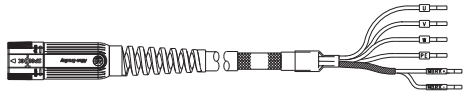
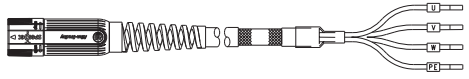
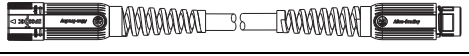
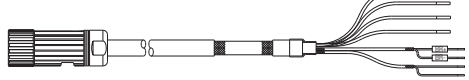

Bulletin Number

Power/Brake Cable Descriptions (standard, non-flex)

Standard Cable Cat. No.	Description	Cable Configuration		Motor/Actuator Connector
		Motor/Actuator End	Drive End	
2090-CPBM7DF-xxAAxx	<ul style="list-style-type: none"> • Drive-end flying-leads (DF) • Power/brake wires (PB) 			SpeedTec DIN (M7)
2090-CPWM7DF-xxAAxx	<ul style="list-style-type: none"> • Drive-end flying-leads (DF) • Power wires only (PW) 			
2090-XXNPMF-xxSxx	<ul style="list-style-type: none"> • Drive-end flying-leads • Power/brake wires 			
2090-CPBM4E2-xxTR	<ul style="list-style-type: none"> • Drive-end bayonet (E2), transition (TR) cable ⁽¹⁾ • Motor-end threaded DIN (M4) • Power/brake wires (PB) 			Threaded DIN (M4)
2090-CPWM4E2-xxTR	<ul style="list-style-type: none"> • Drive-end bayonet (E2), transition (TR) cable ⁽¹⁾ • Motor-end threaded DIN (M4) • Power wires only (PW) 			
2090-CPBM6DF-16AAxx	<ul style="list-style-type: none"> • Drive-end flying-leads (DF) • Power/brake wires (PB) 			Circular Plastic (M6)
2090-CPWM6DF-16AAxx	<ul style="list-style-type: none"> • Drive-end flying-leads (DF) • Power wires only (PW) 			
2090-DANPT-16Sxx	<ul style="list-style-type: none"> • Drive-end flying-leads • Power wires only 			Rectangular Plastic
2090-DANBT-18Sxx	Drive-end flying-lead brake wires			

(1) Threaded DIN connector (motor end) and bayonet connector for 2090-XXNFMP-Sxx cable. Refer to 2090-Series Motor Power and Feedback Transition Cables on [page 17](#).

Power/Brake Cable Descriptions (continuous-flex)

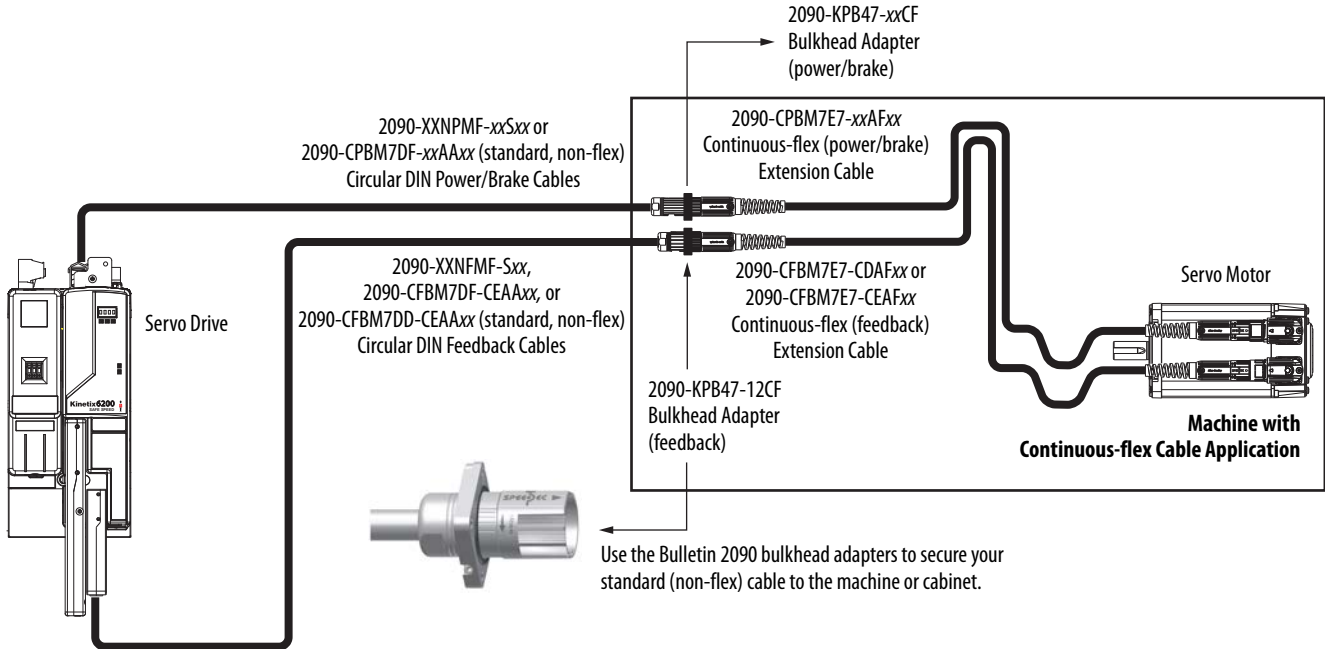
Continuous-flex Cable Cat. No.	Description	Cable Configuration		Motor/Actuator Connector
		Motor/Actuator End	Drive End	
2090-CPBM7DF-xxAFxx	<ul style="list-style-type: none"> • Drive-end flying-leads (DF) • Power/brake wires (PB) 			SpeedTec DIN (M7)
2090-CPWM7DF-xxAFxx	<ul style="list-style-type: none"> • Drive-end flying-leads (DF) • Power wires only (PW) 			
2090-CPBM7E7-xxAFxx	<ul style="list-style-type: none"> • Drive-end (male) connector, extension (E7) ⁽¹⁾ • Motor-end SpeedTec DIN cable plug (M7) 			
2090-CPBM4DF-xxAFxx	<ul style="list-style-type: none"> • Drive-end flying-leads (DF) • Power/brake wires (PB) 			Threaded DIN (M4)
2090-CPWM4DF-xxAFxx	<ul style="list-style-type: none"> • Drive-end flying-leads (DF) • Power wires only (PW) 			

(1) SpeedTec DIN connector (motor end) and male connector for extending SpeedTec or threaded DIN cable. Refer to SpeedTec DIN Continuous-flex Extension Cables on [page 16](#).

SpeedTec DIN Continuous-flex Extension Cables

Motor power and feedback extension cables provide continuous-flex cable technology between your standard (non-flex) cable and the continuous-flex application. The IP rating for continuous-flex extension cables is consistent with the motor/actuator and cable combination they are extending. Extension cables are available in lengths up to 30 m (98.4 ft). Extension power cables are available in 16, 14, 10, and 8 AWG.

Typical Extension Cable Application with Bulkhead Adapter



Continuous-flex Extension Feedback Cables

Continuous-flex Cable Cat. No.	Description	Applications
2090-CFBM7E7-CDAFxx	Feedback extension cable, SpeedTec DIN (male/female) connectors	Intended for high-resolution or incremental encoder applications.
2090-CFBM7E7-CEAFxx		Intended for high-resolution encoder or resolver applications.

Continuous-flex Extension Power Cables

Continuous-flex Cable Cat. No.	Description
2090-CPBM7E7-16AFxx	Power/brake extension cable, SpeedTec DIN (male/female) connectors
2090-CPBM7E7-14AFxx	
2090-CPBM7E7-10AFxx	
2090-CPBM7E7-08AFxx	

Circular DIN Connector Compatibility Overview

Motors equipped with either threaded or SpeedTec circular DIN connectors are listed below. Circular DIN motor connectors rotate up to 180° and combine power and brake wires in the same connector.

Motor Connector/Cable Plug Compatibility

Motor/Actuator Cat. No.	Connector Type	Power-only or Power/Brake Cables	Feedback Cables
MPL-A/B15xxx and MPL-A/B2xxx MPL-A/B3xxx, MPL-A/B4xxx, MPL-A/B45xxx, MPL-A/B5xxx MPL-B6xxx, MPL-B8xxx, and MPL-B9xxx MPM-A/Bxxxx MPF-A/Bxxxx RDB-Bxxxx ⁽¹⁾ LDAT-Sxxxxxx-xDx and LDAT-Sxxxxxx-xBx ⁽¹⁾ MPAS-A/Bxxxx and MPMA-A/Bxxxx ⁽¹⁾ MPAR-A/Bxxxx MPAI-A/Bxxxx LDC-Cxxxxxx and LDL-xxxxxx ⁽¹⁾	SpeedTec-ready DIN	2090-CPxM7DF-xxAAxx 2090-CPxM7DF-xxAFxx	2090-CFBM7DF-CEAAxx 2090-CFBM7DD-CEAAxx 2090-CFBM7DF-CEAFxx 2090-CFBM7DD-CEAFxx 2090-CFBM7DF-CDAFxx
MPS-A/Bxxxx	SpeedTec-ready DIN with 3 m (9.8 ft) cable extensions		
HPK-B/Exxxxx	SpeedTec-ready DIN	Customer supplied	2090-CFBM7DF-CEAAxx 2090-CFBM7DD-CEAAxx 2090-CFBM7DF-CEAFxx 2090-CFBM7DD-CEAFxx

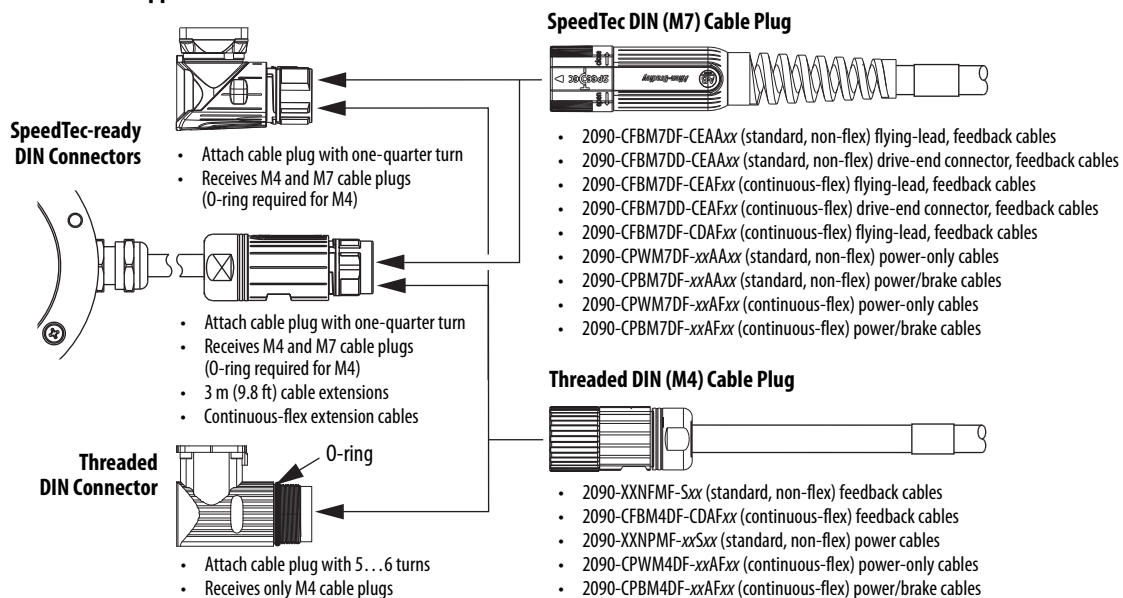
(1) The LDC-Series™ and LDL-Series™ linear motors, LDAT-Sxxxxxx-xBx linear thrusters, Bulletin MPAS and MPMA linear stages (direct-drive only), and Bulletin RDB direct-drive motors have SpeedTec-ready DIN (M7) motor connectors, but require the additional conductors included with 2090-CFBM7DF-CDAFxx (continuous-flex) and 2090-XXNFMF-Sxx standard (non-flex) cables.

IMPORTANT

Motors equipped with SpeedTec-ready DIN (M7) connectors are fully compatible with threaded DIN (M4) cable plugs.

- SpeedTec-ready DIN motor connectors are also compatible with SpeedTec DIN (M7/E7) extension cable plugs.
- Motors equipped with threaded DIN (M4) connectors are compatible with only threaded DIN (M4) cable plugs.

Typical Circular DIN Cable Applications



IMPORTANT The MP-Series low-inertia motors on this page are equipped with DIN connectors (specified by 7 in the catalog number) and are not compatible with cables designed for motors equipped with bayonet connectors (specified by 2 in the catalog number). The motors with bayonet connectors (for example, MPL-A310P-xx2xAA) are being discontinued and require 2090-XXNPMP-xxSxx (bayonet) cables. For help with migration or to select bayonet cables, contact your Rockwell Automation sales representative.

MP-Series (Bulletin MPL) Motor Power Cables

MP-Series (200V-class) Low Inertia Motors	Power Cable Cat. No.	IP Rating
MPL-A15xxx-xx7xAA, MPL-A2xxx-xx7xAA	2090-CPxM7DF-16AAxx (standard, non-flex) 2090-CPxM7DF-16AFxx (continuous-flex)	Shaft seal is optional: <ul style="list-style-type: none"> • IP50 without shaft seal • IP66 with shaft seal
MPL-A3xxx-xx7xAA		
MPL-A420P-xx7xAA, MPL-A430H-xx7xAA		
MPL-A4530F-xx7xAA, MPL-A4540C-xx7xAA		
MPL-A430P-xx7xAA, MPL-A4530K-xx7xAA, MPL-A4540F-xx7xAA	2090-CPxM7DF-14AAxx (standard, non-flex) 2090-CPxM7DF-14AFxx (continuous-flex)	
MPL-A4560F-xx7xAA	2090-CPxM7DF-12AAxx (standard, non-flex)	
MPL-A520K-xx7xAA	2090-CPxM7DF-10AAxx (standard, non-flex) 2090-CPxM7DF-10AFxx (continuous-flex)	
MPL-A540K-xx7xAA, MPL-A560F-xx7xAA	2090-CPxM7DF-08AAxx (standard, non-flex) 2090-CPxM7DF-08AFxx (continuous-flex)	

MP-Series (400V-class) Low Inertia Motors	Power Cable Cat. No.	IP Rating
MPL-B15xxx-xx7xAA, MPL-B2xxx-xx7xAA	2090-CPxM7DF-16AAxx (standard, non-flex) 2090-CPxM7DF-16AFxx (continuous-flex)	Shaft seal is optional: <ul style="list-style-type: none"> • IP50 without shaft seal • IP66 with shaft seal
MPL-B3xxx-xx7xAA		
MPL-B4xxx-xx7xAA		
MPL-B45xxx-xx7xAA		
MPL-B520K-xx7xAA	2090-CPxM7DF-14AAxx (standard, non-flex) 2090-CPxM7DF-14AFxx (continuous-flex)	
MPL-B540D-xx7xAA, MPL-B540K-xx7xAA, MPL-B560F-xx7xAA		
MPL-B580F-xx7xAA, MPL-B580J-xx7xAA		
MPL-B640F-xx7xAA	2090-CPxM7DF-08AAxx (standard, non-flex) 2090-CPxM7DF-08AFxx (continuous-flex)	
MPL-B660F-xx7xAA, MPL-B680D-xx7xAA, MPL-B960B-xx7xAA, MPL-B980B-xx7xAA		
MPL-B680F-xx7xAA, MPL-B680H-xx7xAA, MPL-B860D-xx7xAA, MPL-B880C-xx7xAA,	2090-CPBM7DF-06AAxx (standard, non-flex)	
MPL-B880D-xx7xAA	2090-CPBM7DF-04AAxx (standard, non-flex)	
MPL-B960C-xx7xAA, MPL-B960D-xx7xAA, MPL-B980C-xx7xAA, MPL-B980D-xx7xAA		
MPL-B980E-xx7xAA		2090-CPBM7DF-02AAxx (standard, non-flex)

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on [page 13](#). Cable length xx is in meters. Refer to Technical Specifications - 2090-Series Motor/Actuator Cables beginning on [page 30](#).

MP-Series Medium Inertia Motors

Motor Cat. No.	Drive Compatibility	Feedback Type	Feedback Cable Cat. No.	IP Rating
MPM-Axxxx-M/S	2198-Hxxx-ERS or 2198-Hxxx-ERS2 2093-AC05-MPx or 2093-AMxx 2094-ACxx-Mxx-S or 2094-AMxx-S 2097-V3xPRx or 2097-V3xPRx-LM 2098-DSD-xxx	Multi-turn High Resolution Absolute or Single-turn High Resolution Encoder Feedback	2090-CFBM7DF-CEAAxx or 2090-CFBM7DD-CEAAxx (standard, non-flex)	Shaft seal is optional: • IP50 without shaft seal • IP66/67 with shaft seal
MPM-Bxxxx-M/S	2198-Hxxx-ERS or 2198-Hxxx-ERS2 2198-Dxxx-ERS3 or 2198-Sxxx-ERS3 2094-BCxx-Mxx-S or 2094-BMxx-S 2094-BCxx-Mxx-M or 2094-BMxx-M 2097-V34PRx or 2097-V34PRx-LM 2098-DSD-HVxxx 2099-BMxx-S		2090-CFBM7DF-CEAFxx 2090-CFBM7DD-CEAFxx (continuous-flex)	
MPM-Axxxx-2	2094-ACxx-Mxx-S or 2094-AMxx-S	Resolver Feedback ⁽¹⁾	2090-CFBM7DF-CEAAxx (standard, non-flex)	
MPM-Bxxxx-2	2094-BCxx-Mxx-S or 2094-BMxx-S		2090-CFBM7DF-CEAFxx (continuous-flex)	

(1) Not all MP-Series medium-inertia motors are available with the resolver feedback option.

MP-Series (200V-class) Medium Inertia Motors	Power Cable Cat. No.	IP Rating
MPM-A115xx	2090-CPxM7DF-16AAxx (standard, non-flex) 2090-CPxM7DF-16AFxx (continuous-flex)	Shaft seal is optional: • IP50 without shaft seal • IP66/67 with shaft seal
MPM-A1302F	2090-CPxM7DF-14AAxx (standard, non-flex) 2090-CPxM7DF-14AFxx (continuous-flex)	
MPM-A1304F	2090-CPxM7DF-12AAxx (standard, non-flex)	
MPM-A1651F	2090-CPxM7DF-10AAxx (standard, non-flex) 2090-CPxM7DF-10AFxx (continuous-flex)	
MPM-A1652F, MPM-A1653F	2090-CPxM7DF-08AAxx (standard, non-flex) 2090-CPxM7DF-08AFxx (continuous-flex)	
MPM-A215xx	2090-CPBM7DF-06AAxx (standard, non-flex)	

MP-Series (400V-class) Medium Inertia Motors	Power Cable Cat. No.	IP Rating
MPM-B1151x, MPM-B1152x	2090-CPxM7DF-16AAxx (standard, non-flex) 2090-CPxM7DF-16AFxx (continuous-flex)	Shaft seal is optional: • IP50 without shaft seal • IP66/67 with shaft seal
MPM-B1153E, MPM-B1153F		
MPM-B1302F, MPM-B1302M, MPM-B1304C, MPM-B1304E		
MPM-B1651C, MPM-B1652C		
MPM-B1153T	2090-CPxM7DF-14AAxx (standard, non-flex) 2090-CPxM7DF-14AFxx (continuous-flex)	
MPM-B1302T, MPM-B1304M		
MPM-B1651F, MPM-B1653C		
MPM-B1651M, MPM-B1652E, MPM-B1652F, MPM-B1653E	2090-CPxM7DF-10AAxx (standard, non-flex) 2090-CPxM7DF-10AFxx (continuous-flex)	
MPM-B2152C, MPM-B2153B		
MPM-B1653F	2090-CPxM7DF-08AAxx (standard, non-flex) 2090-CPxM7DF-08AFxx (continuous-flex)	
MPM-B2152F, MPM-B2152M, MPM-B2153E, MPM-B2153F, MPM-B2154B, MPM-B2154E, MPM-B2154F		

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on [page 13](#). Cable length xx is in meters. Refer to Technical Specifications - 2090-Series Motor/Actuator Cables beginning on [page 30](#).

RDD-Series Direct Drive Motors

Motor Cat. No.	Drive Compatibility	Feedback Type	Feedback Cable Cat. No.	IP Rating
RDB-Bxxxx-7/3	2094-BCxx-Mxx-S or 2094-BMxx-S 2094-BCxx-Mxx-M or 2094-BMxx-M 2099-BMxx-S	Multi-turn High Resolution Absolute or Single-turn High Resolution Encoder Feedback	2090-XXNFMF-Sxx (standard, non-flex) 2090-CFBM7DF-CDAFxx (continuous-flex)	Shaft seal is N/A. IP65 with specified cables.

RDD-Series (400V-class) Direct Drive Motors			Power Cable Cat. No.	IP Rating
RDB-B21519, RDB-B21529			2090-CPWM7DF-16AAxx (standard, non-flex) 2090-CPWM7DF-16AFxx (continuous-flex)	Shaft seal is N/A. IP65 with specified cables.
RDB-B29014, RDB-B29016, RDB-B29024				
RDB-B2151C, RDB-B21539			2090-CPWM7DF-14AAxx (standard, non-flex) 2090-CPWM7DF-14AFxx (continuous-flex)	
RDB-B29019, RDB-B29034				
RDB-B2152C			2090-CPWM7DF-12AAxx (standard, non-flex)	
RDB-B29026				
RDB-B2153C			2090-CPWM7DF-10AAxx (standard, non-flex) 2090-CPWM7DF-10AFxx (continuous-flex)	
RDB-B29036, RDB-B41014				
RDB-B29029, RDB-B41016, RDB-B41024			2090-CPWM7DF-08AAxx (standard, non-flex) 2090-CPWM7DF-08AFxx (continuous-flex)	
RDB-B29039, RDB-B41018, RDB-B41026, RDB-B41035			2090-CPBM7DF-06AAxx (standard, non-flex)	

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on [page 13](#).
Cable length xx is in meters. Refer to Technical Specifications - 2090-Series Motor/Actuator Cables beginning on [page 30](#).

HPK-Series Asynchronous Servo Motors

Cat. No.	Drive Compatibility	Feedback Type	Feedback Cable Cat. No.	IP Rating
HPK-Bxxxx-M/S HPK-Exxxx-M/S	2198-Sxxx-ERS3 2099-BMxx-S	Multi-turn High Resolution Absolute or Single-turn High Resolution Encoder Feedback	2090-CFBM7DF-CEAAxx or 2090-CFBM7DD-CEAAxx (standard, non-flex) 2090-CFBM7DF-CEAFxx 2090-CFBM7DD-CEAFxx (continuous-flex)	Shaft seal is N/A. IP65 with specified cables.

HPK-Series Asynchronous Servo Motors			Power Cable Cat. No.
All HPK-Bxxxx or HPK-Exxxx motors			Customer Supplied

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on [page 13](#).
Cable length xx is in meters. Refer to Technical Specifications - 2090-Series Motor/Actuator Cables beginning on [page 30](#).

Technical Specifications - 2090-Series Motor/Actuator Cables

Power Cable Specifications

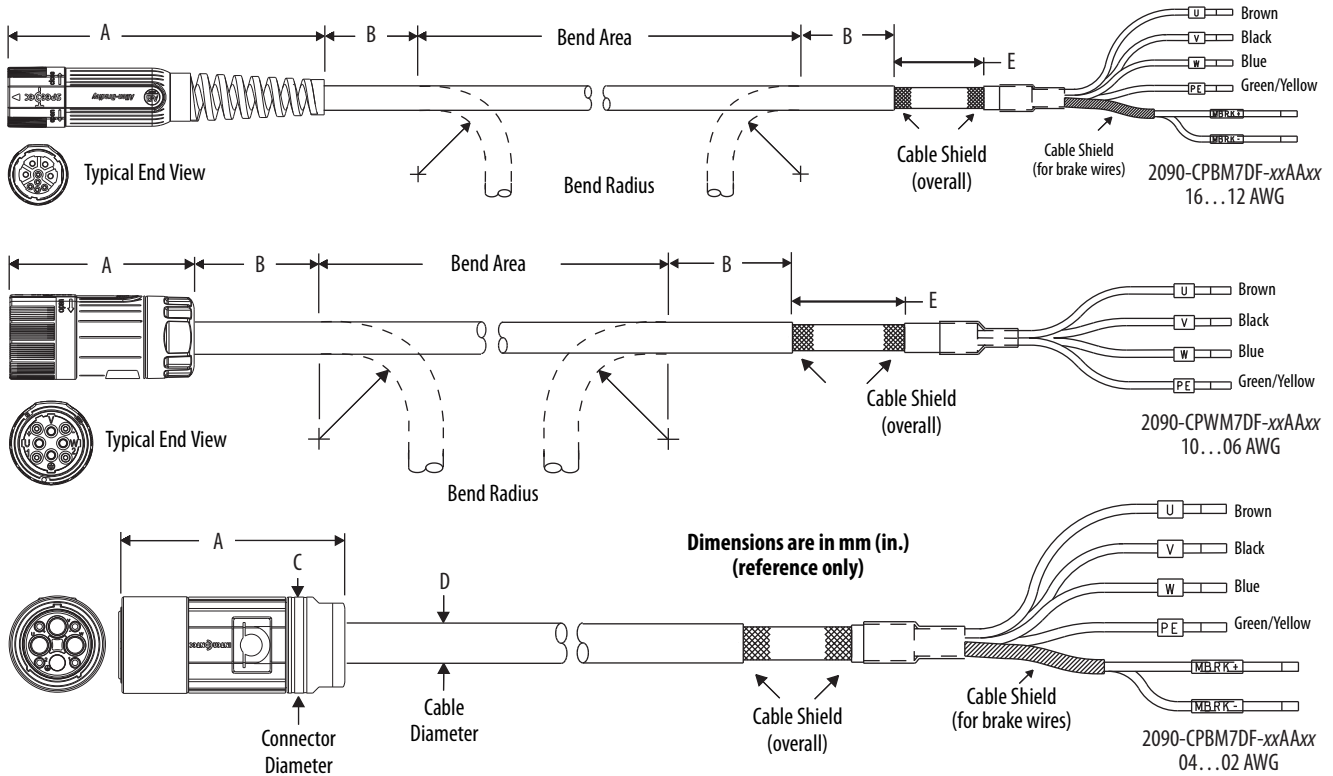
Power Cables ⁽¹⁾ Cat. No.	Cable Type/ Jacket Color	Description	Wire Size AWG	Weight, approx kg/m (lb/ft)	Standard Cable Lengths m (ft)	
2090-XXNPMF-16Sxx	Standard (non-flex) cable, Industrial TPE, Black	Four conductor, 600V, shielded cable for three-phase power with additional four conductors, 18 AWG, shielded, for motor brake and spares.	16	0.276 (0.186)	01 (3.2) 07 (22.9) 25 (82.0) 02 (6.5) 09 (29.5) 30 (98.4) 03 (9.8) 12 (39.4) 40 (131.2) 04 (13.1) 15 (49.2) 60 (196.8) 05 (16.4) 20 (65.6) 90 (295.3)	
2090-XXNPMF-14Sxx			14	0.315 (0.212)		
2090-CPBM7DF-16AAxx	Standard (non-flex) cable, Industrial TPE, Orange (DESINA, RAL 2003)	Four conductor, 600V, shielded cable for three-phase power with additional two conductors 18 AWG for motor brake.	16	0.212 (0.143)		
2090-CPBM7DF-14AAxx			14	0.261 (0.175)		
2090-CPBM7DF-12AAxx			12	0.349 (0.235)		
2090-CPBM7DF-10AAxx			10	0.492 (0.331)		
2090-CPBM7DF-08AAxx			8	0.708 (0.476)		
2090-CPBM7DF-06AAxx			6	1.038 (0.698)		
2090-CPBM7DF-04AAxx ⁽²⁾			4	1.549 (1.041)		
2090-CPBM7DF-02AAxx ⁽²⁾			2	2.166 (1.455)		
2090-CPWM7DF-16AAxx			Four conductor, 600V, shielded cable for three-phase power.	16		0.136 (0.091)
2090-CPWM7DF-14AAxx				14		0.185 (0.124)
2090-CPWM7DF-12AAxx	12	0.248 (0.167)				
2090-CPWM7DF-10AAxx	10	0.418 (0.281)				
2090-CPWM7DF-08AAxx	8	0.644 (0.433)				
2090-CPWM6DF-16AAxx	Standard (non-flex) cable, Industrial TPE, Black	Four conductor, 600V, shielded cable for three-phase power.		16		0.138 (0.093)
2090-DANPT-16Sxx			16	0.138 (0.093)		
2090-CPBM6DF-16AAxx	Continuous-flex cable	Four conductor, 600V, shielded cable for three-phase power with additional two conductors 18 AWG for motor brake.	16	0.180 (0.121)		
2090-CPBM4DF-16AFxx			16	0.228 (0.153)		
2090-CPBM7DF-16AFxx			16	0.228 (0.153)		
2090-CPBM7DF-14AFxx			14	0.289 (0.194)		
2090-CPBM7DF-10AFxx			10	0.513 (0.345)		
2090-CPBM7DF-08AFxx			8	0.697 (0.468)		
2090-CPWM4DF-16AFxx			Industrial TPE, Orange (DESINA, RAL 2003)	Four conductor, 600V, shielded cable for three-phase power.	16	0.154 (0.104)
2090-CPWM7DF-16AFxx					16	0.154 (0.104)
2090-CPWM7DF-14AFxx					14	0.196 (0.132)
2090-CPWM7DF-10AFxx					10	0.452 (0.304)
2090-CPWM7DF-08AFxx	8	0.666 (0.448)				
2090-CPWM7DF-08AFxx	8	0.666 (0.448)				

(1) 2090-CPxM4DF-xxAxxx and 2090-CPxM7DF-xxAxxx power cables are UL Listed, bulk cable, type TC-ER.

(2) For this cable, the 01 and 02 m (3.2 and 6.5 ft) standard lengths do not apply.

Motor Power Cables

Power Cable Dimensions, Standard, Non-flex (SpeedTec DIN connector)

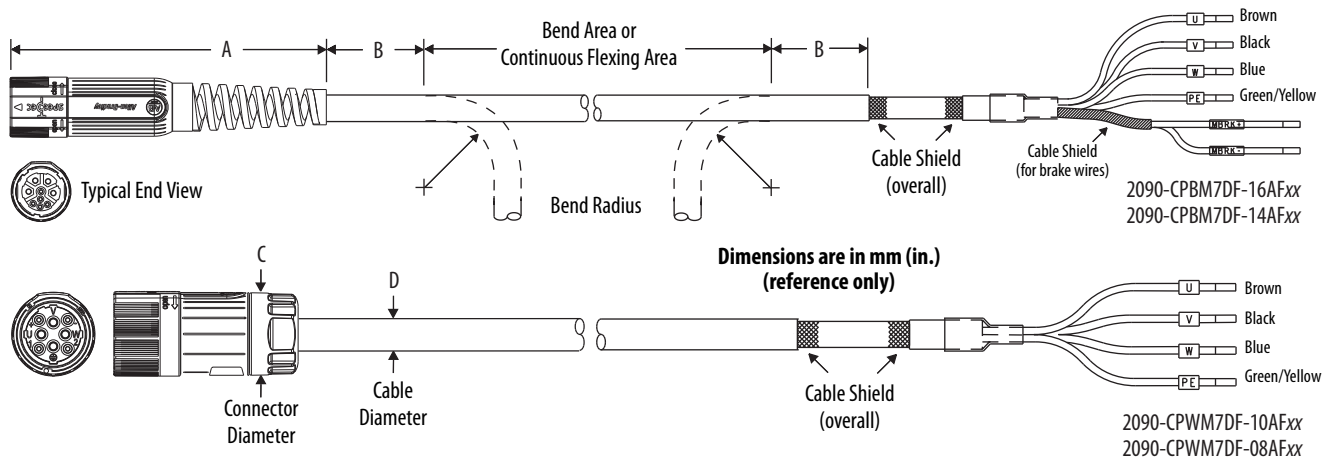


Power Cable Dimensions (standard, non-flex)

Power Cable Cat. No.	A mm (in.)	B ⁽¹⁾ mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)
2090-CPBM7DF-16AAxx	147 (5.8)	81.2 (3.2)	28 (1.1)	11.6 (0.46)	150 (5.9)
2090-CPWM7DF-16AAxx		64.4 (2.5)		9.2 (0.36)	
2090-CPBM7DF-14AAxx		88.9 (3.5)		12.7 (0.50)	
2090-CPWM7DF-14AAxx		72.1 (2.8)		10.3 (0.40)	
2090-CPBM7DF-12AAxx	80 (3.15)	100 (3.9)		14.3 (0.56)	
2090-CPWM7DF-12AAxx		78.4 (3.1)		11.2 (0.44)	
2090-CPBM7DF-10AAxx	100 (3.9)	118 (4.6)	45 (1.8)	16.8 (0.66)	90 (3.5)
2090-CPWM7DF-10AAxx		107 (4.2)		15.3 (0.60)	
2090-CPBM7DF-08AAxx		141 (5.5)		20.1 (0.79)	
2090-CPWM7DF-08AAxx		131 (5.2)		18.7 (0.74)	
2090-CPBM7DF-06AAxx	150 (5.9)	170 (6.7)	63 (2.5)	24.3 (0.96)	
2090-CPBM7DF-04AAxx		202 (7.9)		28.8 (1.13)	
2090-CPBM7DF-02AAxx		229 (9.0)		32.7 (1.29)	

(1) Dimension B (static bend radius) is based on the cable diameter. Refer to Motor Power and Feedback Cable Bend Radius Definitions on [page 32](#) for more information.

Power Cable Dimensions, Continuous-flex (SpeedTec DIN connector)



Power Cable Dimensions (continuous-flex rated)

Power Cable Cat. No.	A mm (in.)	B ⁽¹⁾ mm (in.)	Continuous Bend Radius ⁽¹⁾ mm (in.)	C mm (in.)	D mm (in.)	E mm (in.)
2090-CPBM7DF-16AFxx	147 (5.8)	87.5 (3.4)	150 (5.9)	28.0 (1.1)	12.5 (0.49)	150 (5.9)
2090-CPWM7DF-16AFxx		67.9 (2.7)	116 (4.6)		9.7 (0.38)	
2090-CPBM7DF-14AFxx		95.9 (3.8)	164 (6.5)		13.7 (0.54)	
2090-CPWM7DF-14AFxx		72.8 (2.9)	125 (4.9)		10.4 (0.41)	
2090-CPBM7DF-10AFxx	100 (3.9)	125 (4.9)	214 (8.4)	45.0 (1.8)	17.8 (0.70)	90 (3.5)
2090-CPWM7DF-10AFxx		110 (4.3)	188 (7.4)		15.7 (0.62)	
2090-CPBM7DF-08AFxx		144 (5.7)	247 (9.7)		20.6 (0.81)	
2090-CPWM7DF-08AFxx		141 (5.5)	242 (9.5)		20.2 (0.79)	

(1) Dimension B (static bend radius) and Continuous Bend Radius are based on the cable diameter. Refer to Motor Power and Feedback Cable Bend Radius Definitions on [page 32](#) for more information.

2090-Series Bulkhead Adapter Kits

These bulkhead adapter kits let you secure your cables as they pass through the cabinet. Adapter kits apply to 2090-Series motor/actuator cables and 2090-Series integrated drive-motor hybrid cables.

2090-Series Motor/Actuator Power Cable Compatibility

Bulkhead Adapter Cat. No.	Standard (non-flex) Power Cable Cat. No.	Continuous-flex Power Cable Cat. No.	Description		Connector Diameter mm (in.)	
2090-KPB47-12CF	2090-CPWM7DF-16AAxx	2090-CPWM7DF-16AFxx	Power only	SpeedTec DIN	28.0 (1.1)	
	2090-CPWM7DF-14AAxx	2090-CPWM7DF-14AFxx				
	2090-CPWM7DF-12AAxx	N/A				
	2090-CPBM7DF-16AAxx	2090-CPBM7DF-16AFxx	Power/brake			
	2090-CPBM7DF-14AAxx	2090-CPBM7DF-14AFxx				
	2090-CPBM7DF-12AAxx	N/A				
	N/A	2090-CPBM7E7-16AAxx				
	N/A	2090-CPBM7E7-14AAxx	Power only			Threaded DIN
	N/A	2090-CPWM4DF-16AFxx	Power/brake			
	N/A	2090-CPBM4DF-16AFxx				
2090-XXNPMF-16Sxx	N/A					
2090-KPB47-06CF	2090-CPWM7DF-10AAxx	2090-CPWM7DF-10AFxx	Power only	SpeedTec DIN	45.0 (1.8)	
	2090-CPWM7DF-08AAxx	2090-CPWM7DF-08AFxx	Power/brake			
	2090-CPBM7DF-10AAxx	2090-CPBM7DF-10AFxx				
	2090-CPBM7DF-08AAxx	2090-CPBM7DF-08AFxx				
	2090-CPBM7DF-06AAxx	N/A				

2090-Series Motor/Actuator Feedback Cable Compatibility

Bulkhead Adapter Cat. No.	Standard (non-flex) Feedback Cable Cat. No.	Continuous-flex Feedback Cable Cat. No.	Description		Connector Diameter mm (in.)
2090-KPB47-12CF	2090-CFBM7DF-CEAAxx	2090-CFBM7DF-CEAFxx	Feedback	SpeedTec DIN	28.0 (1.1)
	2090-CFBM7DD-CEAAxx	2090-CFBM7DD-CEAFxx			
	N/A	2090-CFBM7DF-CDAFxx			
	N/A	2090-CFBM7E7-CDAFxx			
	N/A	2090-CFBM7E7-CEAFxx			
2090-KFB47-CF	2090-CFBM4DF-CEAAxx	N/A		Threaded DIN	26.0 (1.0)
	N/A	2090-CFBM4DF-CDAFxx			
	2090-XXNFMF-Sxx	N/A			

2090-Series Integrated Motor-Drive Hybrid Cable Compatibility

Bulkhead Adapter Cat. No.	Hybrid Cable Cat. No.	Description		Connector Diameter mm (in.)
2090-KPB47-12CF	2090-CHBIFS8-12AAxx	Hybrid	SpeedTec	25.4 (1.0)
	2090-CHBP8S8-12AAxx			