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 63 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* M*x* D*x* - C*x* A*x* *xx*

Cable Length
Refer to Technical Specifications - 2090-Series Motor/Actuator Cables beginning on page 28.

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

Brake Cable Specifications

Brake Cables Cat. No.	Cable Type/ Jacket Color	Description	Wire Size AWG	Weight, approx kg/m (lb/ft)	Standard Cable Lengths m (ft)		
2090-DANBT-18S*xx*	Standard (non-flex) cable, Industrial TPE, Black	Two conductor, 600V, 18 AWG, shielded cable for motor brake.	18	0.070 (0.047)	01 (3.2) 02 (6.5) 03 (9.8) 04 (13.1)	05 (16.4) 07 (22.9) 09 (29.5) 12 (39.4)	15 (49.2) 20 (65.6) 25 (82.0) 30 (98.4)

Feedback Cable Specifications

Feedback Cables (1) (2) Cat. No.	Cable Type/ Jacket Color	Description	Wire Size AWG	Weight, approx kg/m (lb/ft)	Standard Cable Lengths m (ft)		
2090-XXNFMF-S*xx*	Standard (non-flex) cable, Industrial TPE, Black	Threaded DIN connector (motor end) to flying leads (drive end), 30V.	28 Feedback 16 Power, 5V 22 Power, 9V	0.120 (1.35)	01 (3.2) 02 (6.5) 03 (9.8) 04 (13.1) 05 (16.4)	07 (22.9) 09 (29.5) 12 (39.4) 15 (49.2) 20 (65.6)	25 (82.0) 30 (98.4) 40 (131.2) 60 (196.8) 90 (295.3)
2090-CFBM7DD-CEAA*xx*	Standard (non-flex) cable, Industrial TPE, Green (DESINA, RAL 6018)	SpeedTec DIN connector (motor end) to premolded connector (drive end), 600V.	22 All conductors	0.136 (0.092)			
2090-CFBM7DF-CEAA*xx*		SpeedTec DIN connector (motor end) to flying leads (drive end), 600V.					
2090-UXNFM-S*xx* (3)	Standard (non-flex) cable, Industrial TPE, Black	Flying-leads (motor end) to premolded connector (drive end), 30V.	28 Feedback 16 Power, 5V 22 Power, 9V	0.120 (1.35)	01 (3.2) 03 (9.8) 09 (29.5)	15 (49.2) 30 (98.4)	
2090-CFBM6DF-CBAA*xx*		Circular plastic connector (motor end) to flying leads (drive end), 300V.	28 Feedback 16 Power, 5V 22 BAT+		01 (3.2) 02 (6.5) 03 (9.8) 04 (13.1)	05 (16.4) 07 (22.9) 09 (29.5) 12 (39.4)	15 (49.2) 20 (65.6) 25 (82.0) 30 (98.4)
2090-CFBM6DD-CCAA*xx*		Circular plastic connector (motor end) to premolded connector (drive end), 300V.	28 Feedback 16 Power, 5V				
2090-DANFCT-S*xx*		Rectangular plastic connector (motor end) to premolded connector (drive end), 30V.	28 Feedback 16 Power, 5V 22 BAT+	0.130 (0.088)			
2090-CFBM4DF-CDAF*xx*	Continuous-flex cable Industrial TPE, Green (DESINA, RAL 6018)	Threaded DIN connector (motor end) to flying leads (drive end), 600V.	26 Feedback 16 Power, 5V 22 Power, 9V	0.177 (0.119)	01 (3.2) 02 (6.5) 03 (9.8) 04 (13.1) 05 (16.4) 07 (22.9)	09 (29.5) 12 (39.4) 15 (49.2) 20 (65.6) 25 (82.0) 30 (98.4)	40 (131.2) 50 (164.0) 60 (196.8) 75 (264.0) 90 (295.3)
2090-CFBM7DF-CDAF*xx*		SpeedTec DIN connector (motor end) to flying leads (drive end), 600V.					
2090-CFBM7DF-CEAF*xx*			22 All conductors	0.143 (0.096)			
2090-CFBM7DD-CEAF*xx*		SpeedTec DIN connector (motor end) to premolded connector (drive end), 600V.					

(1) 2090-CFBM7*xx*-CEA*xxx* feedback cables are UL Listed, bulk cable, type PLTC-ER.

(2) 2090-CFBM4DF-CDA*xxx* and 2090-CFBM7*xx*-CDA*xxx* feedback cables are UL Listed, bulk cable, type CM.

(3) Use with 2090-KFBM4-CAAA (threaded) or 2090-KFBM7-CAAA (SpeedTec) DIN connector kit.