## 2090-Series Motor/Actuator Cables Overview

### Feedback Cable Descriptions (standard, non-flex)

<table>
<thead>
<tr>
<th>Standard Cable Cat. No.</th>
<th>Description</th>
<th>Cable Configuration</th>
<th>Motor/Actuator Connector</th>
</tr>
</thead>
</table>
| 2090-CFBM7DF-CEAxx      | • Drive-end flying-leads (DF)  
                          • High-resolution or resolver applications (CE) | ![Image](image1.png) | SpeedTec DIN (M7) |
| 2090-CFBM7DD-CEAxx      | • Drive-end 15-pin connector (DD)  
                          • High-resolution or resolver applications (CE) | ![Image](image2.png) | SpeedTec DIN (M7) |
| 2090-XXNFMP-Sxx         | • Drive-end flying-leads  
                          • High-resolution or incremental applications | ![Image](image3.png) | Threaded DIN (M4) |
| 2090-CFBM4E2-CATR      | • Drive-end bayonet (E2), transition (TR) cable  
                          • Motor-end threaded DIN (M4)  
                          • All feedback types (CA) | ![Image](image4.png) | Circular Plastic (M6) |
| 2090-CFBM6DF-CBAxx      | • Drive-end flying-leads  
                          • High-resolution, battery backup or Incremental applications (CB) | ![Image](image5.png) | Circular Plastic (M6) |
| 2090-CFBM6DD-CCAxx      | • Drive-end 15-pin connector (DD)  
                          • Incremental applications only (CC) | ![Image](image6.png) | Circular Plastic (M6) |
| 2090-DANFCT-Sxx         | • Drive-end 20-pin connector  
                          • High-resolution applications | ![Image](image7.png) | Rectangular Plastic |

(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 15.

### Continuous-flex Cable Descriptions

<table>
<thead>
<tr>
<th>Continuous-flex Cable Cat. No.</th>
<th>Description</th>
<th>Cable Configuration</th>
<th>Motor/Actuator Connector</th>
</tr>
</thead>
</table>
| 2090-CFBM7DF-DAFxx            | • Drive-end flying-leads (DF)  
                          • High-resolution or incremental applications (CD) | ![Image](image8.png) | SpeedTec DIN (M7) |
| 2090-CFBM7DF-DAFxx            | • Drive-end flying-leads (DF)  
                          • High-resolution or resolver applications (CE) | ![Image](image9.png) | SpeedTec DIN (M7) |
| 2090-CFBM7DD-DAFxx            | • Drive-end 15-pin connector (DD)  
                          • High-resolution or resolver applications (CE) | ![Image](image10.png) | SpeedTec DIN (M7) |
| 2090-CFBM7E7-DAFxx            | • Drive-end (male) connector, extension (E7)  
                          • Motor-end SpeedTec DIN cable plug (M7) | ![Image](image11.png) | Threaded DIN (M4) |
| 2090-CFBM4DF-DAFxx            | • Drive-end flying-leads  
                          • High-resolution or incremental applications | ![Image](image12.png) | Threaded DIN (M4) |

(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 14.

**IMPORTANT** Feedback cables with the CE designation, for example 2090-CFBM7DF-CEAxx, are intended for high-resolution encoder or resolver applications and have fewer conductors than feedback cables with the CD designation, for example 2090-CFBM7DF-DAFxx that are intended for high-resolution or incremental encoder applications.
# Kinetix Motion Accessories Specifications

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

<table>
<thead>
<tr>
<th>Standard Cable Cat. No.</th>
<th>Description</th>
<th>Cable Configuration</th>
<th>Motor/Actuator Connector</th>
</tr>
</thead>
</table>
| 2090-CPBM7DF-xxAxx      | • Drive-end flying-leads (DF)  
                          • Power/brake wires (PB) | ![Image](image1.png) | SpeedTec DIN (M7) |
| 2090-CPWM7DF-xxAxx      | • Drive-end flying-leads (DF)  
                          • Power wires only (PW) | ![Image](image2.png) | SpeedTec DIN (M7) |
| 2090-XXNPMF-xxSxx       | • Drive-end flying-leads  
                          • Power/brake wires | ![Image](image3.png) | Threaded DIN (M4) |
| 2090-CPBM4E2-xxTR       | • Drive-end bayonet (E2), transition (TR) cable (1)  
                          • Motor-end threaded DIN (M4)  
                          • Power/brake wires (PB) | ![Image](image4.png) | Threaded DIN (M4) |
| 2090-CPWM4E2-xxTR       | • Drive-end bayonet (E2), transition (TR) cable (1)  
                          • Motor-end threaded DIN (M4)  
                          • Power wires only (PW) | ![Image](image5.png) | Threaded DIN (M4) |
| 2090-CPBM6DF-16Axx      | • Drive-end flying-leads (DF)  
                          • Power/brake wires (PB) | ![Image](image6.png) | Circular Plastic (M6) |
| 2090-CPWM6DF-16Axx      | • Drive-end flying-leads (DF)  
                          • Power wires only (PW) | ![Image](image7.png) | Circular Plastic (M6) |
| 2090-DANPT-16Sxx        | • Drive-end flying-leads  
                          • Power wires only | ![Image](image8.png) | Circular Plastic (M6) |
| 2090-DANBT-18Sxx        | Drive-end flying-lead brake wires | ![Image](image9.png) | Rectangular Plastic |

(1) Threaded DIN connector (motor end) and bayonet connector for 2090-XXNPMF-xxSxx cable. Refer to 2090-Series Motor Power and Feedback Transition Cables on page 15.

## Power/Brake Cable Descriptions (continuous-flex)

<table>
<thead>
<tr>
<th>Continuous-flex Cable Cat. No.</th>
<th>Description</th>
<th>Cable Configuration</th>
<th>Motor/Actuator Connector</th>
</tr>
</thead>
</table>
| 2090-CPBM7DF-xxAFxx           | • Drive-end flying-leads (DF)  
                          • Power/brake wires (PB) | ![Image](image10.png) | SpeedTec DIN (M7) |
| 2090-CPWM7DF-xxAFxx           | • Drive-end flying-leads (DF)  
                          • Power wires only (PW) | ![Image](image11.png) | SpeedTec DIN (M7) |
| 2090-CPBM7E7-xxAFxx           | • Drive-end (male) connector, extension (E7) (1)  
                          • Motor-end SpeedTec DIN cable plug (M7) | ![Image](image12.png) | SpeedTec DIN (M7) |
| 2090-CPBM4DF-xxAFxx           | • Drive-end flying-leads (DF)  
                          • Power/brake wires (PB) | ![Image](image13.png) | Threaded DIN (M4) |
| 2090-CPWM4DF-xxAFxx           | • Drive-end flying-leads (DF)  
                          • Power wires only (PW) | ![Image](image14.png) | Threaded DIN (M4) |

(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 14.
2090-Series Motor Power and Feedback Transition Cables

Motor power/brake and feedback transition cables support installations where MP-Series™ (Bulletin MPL) motors with bayonet connectors were recently replaced by the same motor with circular DIN connectors. These 0.5 m (19.7 in.) cables provide a seamless transition between your new motor and existing power, brake, and feedback cables.

TIP
Brake contacts for motors with bayonet connectors are in a separate connector. Power/brake cables with circular DIN connectors (either threaded or SpeedTec) include brake contacts in the power/brake connector.

Bayonet and Circular DIN Motor Connectors

Transition Cable Application (power-only cable)

Transition Cable Application (power/brake cable)

Refer to the transition cable selection tables on page 19 for cable catalog numbers for the specific Bulletin MPL or Bulletin MPM motor you are transitioning to.
2090-Series Motor/Actuator Cable Selection

These tables provide flying-lead motor cable catalog numbers for drive/motor combinations. Most motor brake wires are in the power cable, so a separate brake cable is not required (except where noted) The IP rating is dependant on the use of Allen-Bradley Bulletin 2090 cables as listed in these tables.

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-xx2xA) are being discontinued and require 2090-XXNFMF-Sxx (bayonet) cables. For help with migration or to select bayonet cables, contact your Rockwell Automation sales representative.

### MP-Series (Bulletin MPL) Motor Feedback Cables

<table>
<thead>
<tr>
<th>Motor Cat. No.</th>
<th>Compatible Drive Cat. No.</th>
<th>Feedback Type</th>
<th>Feedback Cable Cat. No.</th>
<th>IP Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPL-A15xxx-V/Ex7xA,</td>
<td>2093-AC05- MpX or 2093-AMax</td>
<td>Multi-turn High-resolution</td>
<td>2090-CFBM7DF-CEAx or</td>
<td>Shaft seal is</td>
</tr>
<tr>
<td>MPL-A2xxx-V/Ex7xA</td>
<td>2094-ACxx-Mor-S or 2094-AMor-S</td>
<td>Absolute or Single-turn High-resolution</td>
<td>2090-CFBM7DF-CEAx or</td>
<td>optional:</td>
</tr>
<tr>
<td></td>
<td>2097-V3xPbx or 2097-V3xPbx-LM</td>
<td>Encoder Feedback</td>
<td>2090-CFBM7DF-CEAx or</td>
<td>• IP65 without</td>
</tr>
<tr>
<td></td>
<td>2098-DSD-xxxx</td>
<td></td>
<td>(standard, non-flex)</td>
<td>shaft seal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2090-CFBM7DF-CEAx or</td>
<td>• IP66 with shaft</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(continuous-flex)</td>
<td>seal</td>
</tr>
<tr>
<td>MPL-B15xxx-V/Ex7xA,</td>
<td>2094-BC0x-Mor-S or 2094-BMor-S</td>
<td>Incremental (1)</td>
<td>2090-XXNF-Mxx (standard, non-flex)</td>
<td></td>
</tr>
<tr>
<td>MPL-B2xxx-V/Ex7xA</td>
<td>2094-BCxx-Mor-M or 2094-BMor-M</td>
<td></td>
<td>2090-CFBM7DF-CEAx or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2097-V34Pbx or 2097-V34Pbx-LM</td>
<td></td>
<td>(continuous-flex)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2098-DSD-HVxx</td>
<td></td>
<td>2090-XXNF-Mxx (standard, non-flex)</td>
<td></td>
</tr>
<tr>
<td>MPL-A3xxx-M/Sx7xA,</td>
<td>2093-AC05-MpX or 2093-AMax</td>
<td>Incremental (1)</td>
<td>2090-XXNF-Mxx (standard, non-flex)</td>
<td></td>
</tr>
<tr>
<td>MPL-A4xxx-M/Sx7xA,</td>
<td>2094-ACxx-Mor-S or 2094-AMor-S</td>
<td></td>
<td>2090-CFBM7DF-CEAx or</td>
<td></td>
</tr>
<tr>
<td>MPL-A5xxx-M/Sx7xA,</td>
<td>2097-V3xPbx or 2097-V3xPbx-LM</td>
<td></td>
<td>(continuous-flex)</td>
<td></td>
</tr>
<tr>
<td>MLP-A6xxx-M/Sx7xA,</td>
<td>2098-DSD-xxxx</td>
<td></td>
<td>2090-XXNF-Mxx (standard, non-flex)</td>
<td></td>
</tr>
<tr>
<td>MLP-B7xxx-M/Sx7xA,</td>
<td>2099-BMor-S</td>
<td></td>
<td>2090-CFBM7DF-CEAx or</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(continuous-flex)</td>
<td></td>
</tr>
<tr>
<td>MLP-B8xxx-M/Sx7xA,</td>
<td></td>
<td></td>
<td>2090-XXNF-Mxx (standard, non-flex)</td>
<td></td>
</tr>
<tr>
<td>MLP-B9xxx-M/Sx7xA</td>
<td></td>
<td></td>
<td>2090-CFBM7DF-CEAx or</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(continuous-flex)</td>
<td></td>
</tr>
</tbody>
</table>

(1) Not all MP-Series low-inertia motors are available with incremental and resolver feedback options.

For cable configuration illustrations and feature descriptions, by catalog number, refer to 2090-Series Motor/Actuator Cables Overview beginning on page 11.

Cable length xx is in meters. Refer to Technical Specifications - 2090-Series Motor/Actuator Cables beginning on page 28.