

# Kinetix Motion Accessories Specifications

Bulletin 2090, 2094, 1394, 8720MC

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This document provides catalog numbers, product specifications, and dimensions for Allen-Bradley® servo drive accessories.

Use this publication along with the Kinetix® Motion Control Selection Guide, publication [KNX-SG001](#), and the drive-system design guides to help make decisions on the motion control products that are best suited for your system requirements. See Additional Resources on [page 133](#) for publication numbers.

## Summary of Changes

This manual contains new and updated information as indicated in the following table.

| Topic   | Page      |
|---|-----------|
| Added 2090-CSBM1DE-06AFxx and 2090-CSBM1DE-08AFxx single cable specifications                   | 2...13    |
| Added 2090-CSBM1E1-06AFxx and 2090-CSBM1E1-08AFxx single extension-cable specifications         |           |
| Added Bulletin VPC-Bxxxxx-Q (single connector) cable combinations                               | 7         |
| Added 2090-CSBM1DE-10AAxx (series B) cable specifications                                       | 12        |
| Added 2090-CSBM1E1-10AAxx and 2090-CSBM1E1-14AAxx (series B) cable specifications               | 13        |
| Added Bulletin VPC-Bxxxxx-S and VPC-Bxxxxx-Y (power and feedback connectors) cable combinations | 21 and 22 |
| Updated External Auxiliary Encoders with Bulletin 847H and 847T catalog numbers.                | 99        |



## 2090-Series Single Motor Cables

Allen-Bradley single motor cables combine motor power, feedback, and brake conductors all in a single shielded cable. Standard (non-flex) motor cables with rugged SpeedTec DIN connectors are designed for use with Kinetix 5500 and Kinetix 5700 drive systems, and intended for static applications. Continuous-flex rated cables, intended for rolling and reverse bending applications, are also available.

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**IMPORTANT** Due to the unique characteristics of single-cable technology, which is designed for and tested with the Kinetix 5000 drive families and Kinetix VP motors, building your own cables or using third-party cable is not an option.

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**IMPORTANT** Flying-lead motor power, feedback, and (optional) brake conductors terminate at the drive by using the 2198-KITCON-DSL feedback connector kit. Refer to the Kinetix Servo Drives Specifications Technical Data, publication [KNX-TD003](#), for more information on the 2198-KITCON-DSL connector kit that is used with the Kinetix 5500 and Kinetix 5700 servo drives.

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**IMPORTANT** Continuous-flex single motor cables have a minimum bend radius of 10 times the cable diameter.

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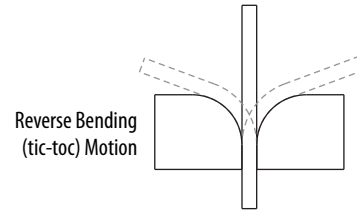
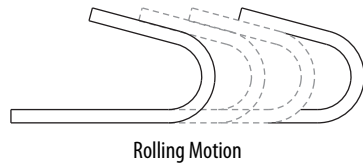


These 2090-Series motor cables with SpeedTec DIN connectors, designed by Rockwell Automation for optimal performance with Kinetix 5000 drive families and Kinetix VP servo motors, offer best-in-class features and standards compliance. The single-cable design includes power, feedback, and brake conductors. The continuous-flex cable option, cable lengths in 1 m (3.3 ft) increments, and SpeedTec connectors provide machine builders with complete control of the cable requirements in their machines.

### Single Motor Cable Features

- NFPA-79 compliant
- UL Listings: 10, 8, and 6 AWG cable - Flexible VFD servo cable, 18 and 14 AWG cables - PLTC-ER
  - UL AWM, 1000V, 105 °C construction
  - cUR AWM I/II A/B, 600V, 105 °C construction for 6 and 8 AWG cables
- CSA AWM I/II A/B, 1000V, 105 °C construction for 10, 14, and 18 AWG cables
- Low capacitance design to maximize system power density
- 1/4-turn SpeedTec connection system
- Encoder communication data pair with state of the art noise rejection
- DESINA compliant jacket (orange) coloring for easy identification and separation of cables in a machine
- Rated flex-cycles in linear flexing applications
  - 10, 14, and 18 AWG continuous-flex cables and continuous-flex extension cables are suitable for 20 million flex-cycles and 10 million cycles in bending (tic-toc) applications (see illustration on [page 3](#))
  - 8 AWG continuous-flex cables and continuous-flex extension cables are suitable for 6.5 million flex-cycles
  - 6 AWG continuous-flex cables and continuous-flex extension cables are suitable for 5.0 million flex-cycles
- TPE jacket with superior mechanical and chemical properties
- Cable features overall tinned copper braid with aluminum/polyester tape, delivering 100% coverage for excellent EMC/EMI performance and permits power and signal conductors in a single cable
- Cables are included in the Rockwell Automation® servo system Declaration of Conformity (DoC)

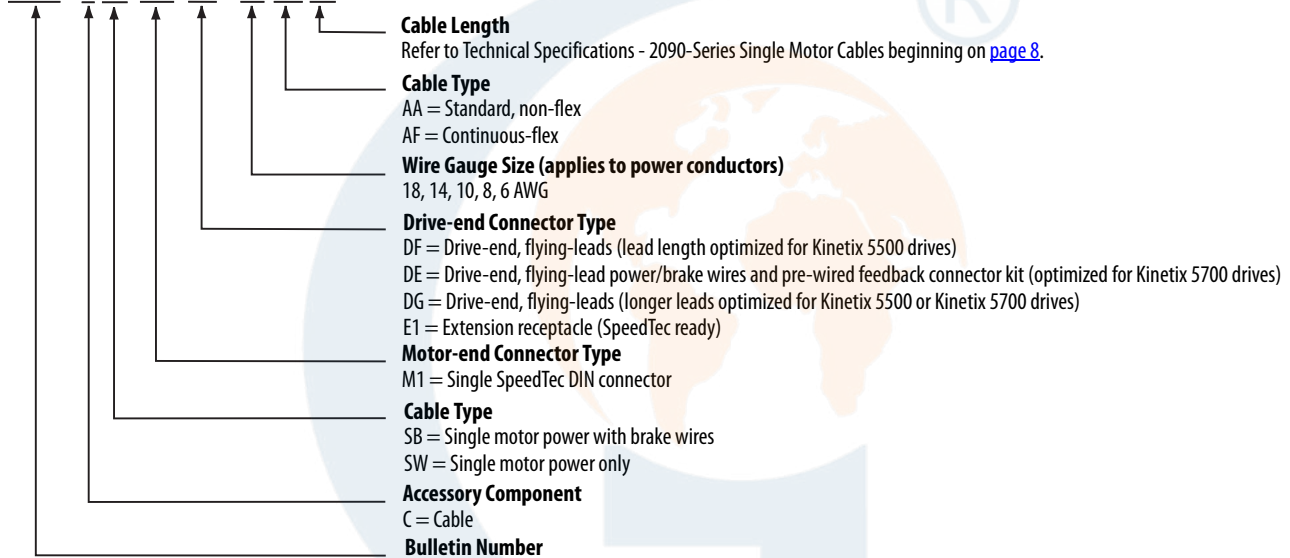
### Types of Cable Flexing



### Catalog Numbers - 2090-Series Single Motor Cables

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.

#### 2090 - C Sx M1 Dx - xx Ax xx



### 2090-Series Single Motor Cables Overview

2090-CSxM1DF and 2090-CSxM1DG single motor cables with flying leads provide power, feedback, and brake conductors in a single shielded cable. Refer to Technical Specifications - 2090-Series Single Motor Cables on [page 8](#) for cable descriptions, weights, and standard cable lengths.

#### Single Motor Cable Descriptions (flying leads)

| Cable Cat. No.   | Description  | Cable Configuration |           | Motor Connector |
|--|--|---------------------|-----------|-----------------|
|  |  | Motor End           | Drive End |                 |
| 2090-CSBM1DF-xxAAxx<br>2090-CSBM1DF-xxAFxx<br>2090-CSBM1DG-xxAAxx<br>2090-CSBM1DG-xxAFxx | <ul style="list-style-type: none"> <li>• Drive-end flying-leads (DF) (DG = longer lead lengths)</li> <li>• Power/feedback/brake wires (SB)</li> <li>• Standard, non-flex (AA)</li> <li>• Continuous-flex (AF)</li> </ul> |                     |           | SpeedTec DIN    |
| 2090-CSWM1DF-xxAAxx<br>2090-CSWM1DG-xxAAxx   | <ul style="list-style-type: none"> <li>• Drive-end flying-leads (DF) (DG = longer lead lengths)</li> <li>• Power/feedback wires only (SW)</li> </ul>   |                     |           |                 |