2094-EN02D-M01-S0

01 / Product identity and control context

Servo Control Module

Allen-Bradley 2094-EN02D-M01-S0 is a Kinetix 6500 EtherNet/IP control module with safe torque-off for a compatible Bulletin 2094 modular servo-drive assembly.

Key characteristics

Drive family	Kinetix 6500
Network	EtherNet/IP
Safety option	S0 safe torque-off
Interface	Separate control and power modules

Installed-system relationship

Allen-Bradley 2094-EN02D-M01-S0 provides the motion-control interface of a Kinetix 6500 modular drive. The control module works with the installed power module, motor feedback and configured EtherNet/IP motion system.

Axis configuration

Preserve controller, firmware, motion project and drive identities.

Configuration boundary

Interface and safety entries describe the S0 control module; complete-drive ratings depend on the matched power stage.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

2094-EN02D-M01-S0

02 / Technical characteristics

Hardware and functional data

Manufacturer	Allen-Bradley
Product series	Kinetix 6500
Module role	Servo-drive control module
Network interface	EtherNet/IP
Safety execution	S0 safe torque-off
IOD connector	44-pin I/O, safety and auxiliary feedback
Motor feedback connector	15-pin MF connector

Interfaces and operating conditions

Digital inputs	Four: INPUT1 to INPUT4
Auxiliary feedback signals	Sine/cosine, differential A/B and serial signals
Motor feedback power connections	5 V and 9 V encoder supply pins
Power-stage relationship	Separate compatible Bulletin 2094 power module
S0 IOD connector-kit reference	2090-K6CK-D44S0
Motor-feedback connector-kit reference	2090-K6CK-D15M

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03 / Application and integration contexts

Integrated motion axes

Coordinate servo motion through the configured EtherNet/IP control system. Preserve the axis configuration, feedback selection and applicable firmware relationships.

Modular drive maintenance

Replace the control section while retaining the verified Bulletin 2094 power-stage configuration. Compare the control and power-module identities independently.

Power-stage match

Verify the installed power module and rail separately from the control module.

Feedback integration

Restore the motor-feedback and auxiliary-feedback connections required by the axis design. Match signal type, encoder supply and connector pin assignment.

Safe torque-off circuits

Integrate the S0 function into the validated machine safety circuit. Confirm the intended stop behavior and reset sequence; torque removal does not constitute electrical isolation.

Feedback and IOD

Restore the exact S0 safety and feedback wiring, including encoder supply selection.

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04 / Installation and release decisions

Retain the S0 safety identity

Match the full 2094-EN02D-M01-S0 reference. Do not substitute S1 safe-speed assumptions for the installed safe torque-off configuration.

Isolate hazardous energy

Follow drive isolation and DC-bus discharge procedures before handling hardware. Safe torque-off does not remove hazardous electrical voltage.

Compare the power module

Match the control module with its approved Bulletin 2094 power module and power rail. Do not assign power-stage current or voltage ratings to the control module.

Restore connector assignments

Check the 44-pin IOD and 15-pin MF wiring against the exact safety and feedback execution. Avoid inferring pin functions from physical connector similarity.

Verify feedback power

Use the feedback-device requirements and drive instructions to select the correct encoder supply connection. Do not join 5 V and 9 V supply pins.

Validate motion and safety

Restore the axis and network configuration, resolve diagnostics and perform the approved motion and safety acceptance tests before enabling production.

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05 / Lifecycle, evidence and related portfolio

Lifecycle status

Rockwell Automation identifies this catalog number as discontinued from 31 December 2025. Engineering replacement requires review of the complete axis and safety configuration.

Supply boundary

Apter Power availability and dispatch are confirmed separately from the manufacturer lifecycle phase.

Technical basis

Rockwell Automation Kinetix 6200 and Kinetix 6500 Control Modules, 2094-IN012C-EN-P (August 2013); Modular Servo Drives User Manual, 2094-UM002I-EN-P (December 2022).

Related product references

Allen-Bradley 2094-BM01-S

Allen-Bradley 2093-AM01

Allen-Bradley 2094-BC02-M02-S

Navigation only; no substitute or accessory compatibility is implied.

Offered-unit verification

Compare the complete label, connectors, mounting arrangement and applicable hardware/software revision. Confirm included components and accompanying documents in the quotation.

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