Foxboro CP40B

Complete Product Information

Foxboro CP40B combines Style B hardware with high block-processing performance, expanded memory and optional fault-tolerant operation.

WHAT THIS PRODUCT DOES

Foxboro CP40B is a control processor 40 style b for high-capacity process control and I/O coordination. It operates with the Style B enclosure and its controlled network and Fieldbus interfaces and provides a single CP40B or matched CP40B fault-tolerant pair.

Product characteristic 1

Provides a single CP40B or matched CP40B fault-tolerant pair for its control processor 40 style b function.

Product characteristic 2

Handles high-capacity process control and I/O coordination through the documented Foxboro system path.

Product characteristic 3

Works with the Style B enclosure and its controlled network and Fieldbus interfaces.

Product characteristic 4

Front indicators report processor startup status and support diagnostic interpretation.

PRODUCT-PAGE TECHNICAL SNAPSHOT

Processor style	Control Processor 40, Style B
Control functions	Regulatory, logic, timing and sequential control
Performance	Fast processor with large block capacity
Fault tolerance	Two CP40B modules in parallel

IMPORTANT NOTICE

Use CP40B only with the Style B enclosure and its controlled network and Fieldbus interfaces; verify every interface and the controlled project configuration before energizing or pressurizing the subsystem.

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Features and technical data

TECHNICAL DATA SHOWN ON THE PRODUCT PAGE

Processor style	Control Processor 40, Style B
Control functions	Regulatory, logic, timing and sequential control
Performance	Fast processor with large block capacity
Fault tolerance	Two CP40B modules in parallel
Communications	Separate Nodebus and Fieldbus paths for the pair

FEATURE INTERPRETATION

Product identity

Provides a single CP40B or matched CP40B fault-tolerant pair for its control processor 40 style b function.

System role

Handles high-capacity process control and I/O coordination through the documented Foxboro system path.

Service context

Works with the Style B enclosure and its controlled network and Fieldbus interfaces.

Return-to-service focus

Front indicators report processor startup status and support diagnostic interpretation.

SIGNAL OR CONTROL PATH

Fieldbus I/O → **Foxboro processor** → **Control execution** → **Nodebus services**

The control processor 40 style b belongs in the controlled Foxboro architecture and works with the Style B enclosure and its controlled network and Fieldbus interfaces. Its mating hardware, wiring, database configuration and final response must be checked together before release.

PRODUCT-PAGE TECHNICAL QUESTIONS

Which modules form a fault-tolerant CP40B station?	Both positions use CP40B modules operating in parallel.
What performance features define CP40B?	The Style B processor provides a fast CPU and large memory capacity for increased block processing.
Which field communication paths are duplicated?	The fault-tolerant pair has separate Nodebus and Fieldbus connections.

Common applications

The application groups below reproduce the model-specific uses presented on the product page and connect each use to a practical verification point.

System maintenance

Restores the documented control processor 40 style b function in an existing Foxboro control system.

Signal-path service

Supports controlled testing of high-capacity process control and I/O coordination at the assigned system position.

Planned replacement

Provides an exact-identity replacement path after the Style B enclosure and its controlled network and Fieldbus interfaces has been verified.

Commissioning

Allows the responsible engineer to prove configuration, diagnostics and response for a single CP40B or matched CP40B fault-tolerant pair.

APPLICATION VERIFICATION MAP

System maintenance	Confirm the documented system position and the required operating function.
Signal-path service	Compare the restored connection or control path with the approved record.
Planned replacement	Check the physical interface and the retained configuration before startup.
Commissioning	Record diagnostics and the final controlled response before release.

INFORMATION CARRIED INTO THE WORK RECORD

Identity record

Complete marking and assigned system position.

Connection record

Connector, conductor and interface arrangement as found.

Configuration record

Controlled settings, application data and option state.

Acceptance record

Observed status, response and release decision.

IMPORTANT NOTICE

Use the complete product identifier for every application review; a related product link is not evidence of interchangeability.

APPLICATION QUESTIONS

Which field communication paths are duplicated?	The fault-tolerant pair has separate Nodebus and Fieldbus connections.
How does CP40B report a startup problem?	Red and green front indicators reflect the result of power-up self-check phases.
What continuous diagnostic mechanism is used?	Run-time checks and a watchdog timer monitor processor functions during operation.

Product precautions and questions

EIGHT MODEL-SPECIFIC PRECAUTIONS

01	Match the complete CP40B marking to the work order and installed position before removal.
02	Confirm the Style B enclosure and its controlled network and Fieldbus interfaces before disconnecting any interface.
03	Keep high-capacity process control and I/O coordination within the documented electrical or pneumatic range.
04	Record terminal designations, polarity, common, shield and cable routing before disconnection.
05	Inspect mounting, connector keying, terminal condition and retention hardware before installation.
06	Restore the controlled database, range, alarm, filter and fail-state settings before energization.
07	Review local indicators and controller diagnostics during the controlled startup sequence.
08	Prove the intended response across a single CP40B or matched CP40B fault-tolerant pair and record the acceptance result before release.

FREQUENTLY ASKED TECHNICAL QUESTIONS

Which modules form a fault-tolerant CP40B station?	Both positions use CP40B modules operating in parallel.
What performance features define CP40B?	The Style B processor provides a fast CPU and large memory capacity for increased block processing.
Which field communication paths are duplicated?	The fault-tolerant pair has separate Nodebus and Fieldbus connections.
How does CP40B report a startup problem?	Red and green front indicators reflect the result of power-up self-check phases.

IMPORTANT NOTICE	Use CP40B only with the Style B enclosure and its controlled network and Fieldbus interfaces; verify every interface and the controlled project configuration before energizing or pressurizing the subsystem.

RELEASE CHECKLIST

Identity accepted	The complete product marking and assigned system position agree.
Interfaces accepted	Connections, retention and controlled configuration match the recorded condition.
Response accepted	Diagnostics and the intended technical response have been documented.

FAQ, source record and related models

ADDITIONAL TECHNICAL QUESTIONS

What continuous diagnostic mechanism is used?	Run-time checks and a watchdog timer monitor processor functions during operation.
Can CP40B be selected from the CP40 name alone?	No. The Style B identity, enclosure and project compatibility must all be confirmed.
What configuration evidence should be saved before removal?	Preserve the control database, station identity, network interfaces, Fieldbus allocation and fault-tolerant pairing.
What acceptance test covers the complete processor path?	Confirm both network paths, Fieldbus I/O, alarm notification and representative regulatory and sequence blocks.

MANUFACTURER EVIDENCE RECORD

Manufacturer source	Invensys, I/A Series Hardware Control Processor 40 Style B, PSS 21H-1B5 B3.
Evidence boundary	Technical statements are limited to the identified product or applicable manufacturer family.
Selection control	Use the complete ordering string and verify the installed system before purchase or installation.

RELATED MODELS ON APTERPOWER

Bently Nevada 330101-00-28-05-02-00	Related product reference. Review the complete ordering string before selection.
Bently Nevada 330103-00-06-05-02-00	Related product reference. Compare the required interface and system position.
Bently Nevada 330101-00-63-10-02-00	Related product reference. Confirm the execution independently for the intended task.

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