Foxboro CP30B

Complete Product Information

Foxboro CP30B provides Style B regulatory, logic, timing and sequential control with optional fault-tolerant processor pairing.

WHAT THIS PRODUCT DOES

Foxboro CP30B is a control processor 30 style b for control, alarm and Fieldbus data. It operates with the Style B processor enclosure, Nodebus and Fieldbus arrangement and provides a single module or two CP30B modules as a fault-tolerant pair.

Product characteristic 1

Provides a single module or two CP30B modules as a fault-tolerant pair for its control processor 30 style b function.

Product characteristic 2

Handles control, alarm and Fieldbus data through the documented Foxboro system path.

Product characteristic 3

Works with the Style B processor enclosure, Nodebus and Fieldbus arrangement.

Product characteristic 4

The paired version uses two modules of the same CP30B type.

PRODUCT-PAGE TECHNICAL SNAPSHOT

Processor style	Control Processor 30, Style B
Control functions	Regulatory, logic, timing and sequential control
Local Fieldbus	Up to 24 FBMs over a redundant bus
Fiber extension	Overall Fieldbus length up to 20 km

IMPORTANT NOTICE

Use CP30B only with the Style B processor enclosure, Nodebus and Fieldbus arrangement; 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 30, Style B
Control functions	Regulatory, logic, timing and sequential control
Local Fieldbus	Up to 24 FBMs over a redundant bus
Fiber extension	Overall Fieldbus length up to 20 km
Diagnostics	Power-up, run-time/watchdog and off-line tests

FEATURE INTERPRETATION

Product identity

Provides a single module or two CP30B modules as a fault-tolerant pair for its control processor 30 style b function.

System role

Handles control, alarm and Fieldbus data through the documented Foxboro system path.

Service context

Works with the Style B processor enclosure, Nodebus and Fieldbus arrangement.

Return-to-service focus

The paired version uses two modules of the same CP30B type.

SIGNAL OR CONTROL PATH

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

The control processor 30 style b belongs in the controlled Foxboro architecture and works with the Style B processor enclosure, Nodebus and Fieldbus arrangement. Its mating hardware, wiring, database configuration and final response must be checked together before release.

PRODUCT-PAGE TECHNICAL QUESTIONS

What identifies Foxboro CP30B as the Style B execution?	The manufacturer document names it Control Processor 30, Style B and specifies CP30B modules for both positions in a fault-tolerant pair.
Which processing duties are assigned to CP30B?	Regulatory, logic, timing, sequential control, data acquisition and alarm functions are supported.
How far can the documented fiber Fieldbus extend?	The overall fiber-optic Fieldbus length can reach 20 km under the specified architecture.

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 30 style b function in an existing Foxboro control system.

Signal-path service

Supports controlled testing of control, alarm and Fieldbus data at the assigned system position.

Planned replacement

Provides an exact-identity replacement path after the Style B processor enclosure, Nodebus and Fieldbus arrangement has been verified.

Commissioning

Allows the responsible engineer to prove configuration, diagnostics and response for a single module or two CP30B modules as a 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

How far can the documented fiber Fieldbus extend?	The overall fiber-optic Fieldbus length can reach 20 km under the specified architecture.
What redundancy is provided by the processor pair?	Two modules operate in parallel with separate Nodebus and Fieldbus connections.
Which front-panel feature supports maintenance?	A recessed reset button permits the module to be rebooted without removal.

Product precautions and questions

EIGHT MODEL-SPECIFIC PRECAUTIONS

01	Match the complete CP30B marking to the work order and installed position before removal.
02	Confirm the Style B processor enclosure, Nodebus and Fieldbus arrangement before disconnecting any interface.
03	Keep control, alarm and Fieldbus data 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 module or two CP30B modules as a fault-tolerant pair and record the acceptance result before release.

FREQUENTLY ASKED TECHNICAL QUESTIONS

What identifies Foxboro CP30B as the Style B execution?	The manufacturer document names it Control Processor 30, Style B and specifies CP30B modules for both positions in a fault-tolerant pair.
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How far can the documented fiber Fieldbus extend?	The overall fiber-optic Fieldbus length can reach 20 km under the specified architecture.
What redundancy is provided by the processor pair?	Two modules operate in parallel with separate Nodebus and Fieldbus connections.

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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

Which front-panel feature supports maintenance?	A recessed reset button permits the module to be rebooted without removal.
What should be checked after a watchdog indication?	Review processor messages, Fieldbus status and the controlled diagnostics before considering replacement.
Can a CP30 be inserted in place of CP30B without an engineering review?	No. Confirm the Style B enclosure, pairing and project hardware requirements.
What is required before releasing a restored CP30B station?	Verify all assigned I/O, alarm reporting and control execution in both single and configured fault-tolerant states.

MANUFACTURER EVIDENCE RECORD

Manufacturer source	Invensys, I/A Series Hardware Control Processor 30 Style B, PSS 21H-1B4 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

Westinghouse 1C31116G01	Related product reference. Review the complete ordering string before selection.
Westinghouse 1C31122G01	Related product reference. Compare the required interface and system position.
Westinghouse 1C31125G02	Related product reference. Confirm the execution independently for the intended task.

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