Foxboro FBM205 P0914XG

Redundant Analog I/O Module / Product dashboard

This complete information dossier consolidates the exact P0914XG identity, isolated channel set, redundant pairing, field termination and commissioning decisions on one review surface.

CHANNEL SET

Four isolated 0-20 mA inputs and four isolated 0-20 mA outputs

REDUNDANCY

Two FBM205 modules occupy adjacent odd/even baseplate positions

CONTROL BLOCKS

AINR handles redundant inputs; AOUTR handles redundant outputs

FIELD PATH

Redundant adapter, Type 1 cable and one common termination assembly

Module designation	FBM205
Part number	P0914XG
Operating arrangement	Redundant adjacent module pair
Input channels	4 isolated 0-20 mA DC
Output channels	4 isolated 0-20 mA DC
Placement	Adjacent odd/even baseplate positions

Signal path

Input side	4-20 mA transmitter or self-powered current source
Redundant processing	Both modules execute the paired AINR/AOUTR strategy
Output side	Each output channel drives an external 0-20 mA load
Field termination	One shared termination assembly connects through the redundant adapter

Module relationship

Physical pair	Two FBM205 P0914XG modules in adjacent odd/even positions
Input strategy	AINR reads the paired channel values for redundant input service
Output strategy	AOUTR sends one demand to both paired output channels
Field interface	Redundant adapter and one common termination assembly

OPERATING DECISION

Review the complete pair, termination and channel map as one installed system.

SELECTION BOUNDARY

A non-redundant FBM204 is not an automatic substitute for P0914XG.

Foxboro FBM205 P0914XG

Redundant Analog I/O Module / Technical capability matrix

Module designation	FBM205
Part number	P0914XG
Operating arrangement	Redundant adjacent module pair
Input channels	4 isolated 0-20 mA DC
Output channels	4 isolated 0-20 mA DC
Placement	Adjacent odd/even baseplate positions
Control blocks	AINR and AOUTR
Input supply	24 V DC +5%, -10%
Power consumption	10 W maximum total for redundant pair
Heat dissipation	7 W maximum total for redundant pair
Input accuracy	+/-0.025% of span
Input resolution	16 bits
Output accuracy	+/-0.05% of span
Output resolution	13 bits
Output processing delay	300 ms maximum
Maximum output load	750 ohms
Termination cable	Type 1, up to 30 m
Calibration	Not required for module and termination assembly

Redundant channel behavior

Input read	AINR uses the paired module measurements for redundant input service
Output command	AOUTR sends the same demand to both paired output channels
Failed output	The failed module contribution becomes 0 mA
Remaining output	The functioning module continues to supply loop current
Isolation	Every input and output channel is isolated from other channels and ground

LOOP SOURCE

Use a 4-20 mA transmitter or self-powered 4-20 mA source on an input.

LOOP LOAD

Connect each output to the documented external load and field supply arrangement.

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Redundant Analog I/O Module / Integration and safe execution

Redundant process-current acquisition

Reads four isolated analog input loops through the AINR strategy while retaining a paired module path.

Redundant analog control outputs

Drives four isolated 0-20 mA loops through AOUTR blocks and the shared field termination.

Critical mixed-I/O service

Combines input monitoring and analog actuation where adjacent-module redundancy is required.

Controlled legacy-module replacement

Restores the exact P0914XG pair, adapter, cable and termination identity without changing the loop design.

Eight-point work sequence

1	Confirm the full FBM205 P0914XG identity on both modules before work begins.
2	Export the AINR and AOUTR configuration and identify all eight channel assignments.
3	Place every affected analog loop in the approved safe or manual state.
4	Record the adjacent odd/even baseplate positions and the active redundant partner.
5	Label the redundant adapter, Type 1 cable, termination assembly and field conductors.
6	Verify absence of hazardous loop energy before disconnecting the common termination path.
7	Restore input and output polarity, shielding and loop-power arrangements exactly as recorded.
8	Prove all four inputs, all four outputs and controlled redundant transfer before handover.

PRE-ENERGIZATION HOLD

Do not restore the common termination path until identity, polarity and loop-power checks agree.

RELEASE GATE

Witness all eight channels and one controlled redundant transfer before handover.

Restore evidence

Before removal	Module labels, odd/even positions, loop numbers and conductor polarity recorded
Before energization	Adapter, cable, termination, shielding and loop-power arrangement checked
Before release	Four inputs, four outputs, diagnostics and redundant transfer witnessed

Foxboro FBM205 P0914XG

Redundant Analog I/O Module / Engineering questions and decisions

Which analog channels are provided by Foxboro FBM205 P0914XG?

Foxboro FBM205 P0914XG provides four isolated 0-20 mA DC input channels and four isolated 0-20 mA DC output channels.

What role does the AINR block perform for Foxboro FBM205 P0914XG?

The AINR block reads the corresponding input through both redundant modules and presents the selected analog input value to the control strategy.

What happens to a Foxboro FBM205 P0914XG output when one module fails?

The failed module output goes to 0 mA while the functioning module continues supplying the required loop current.

Where must the two Foxboro FBM205 P0914XG modules be installed?

The redundant pair occupies adjacent odd and even baseplate positions assigned to the same termination path.

How does Foxboro FBM205 P0914XG share field termination in a redundant pair?

The adjacent FBM205 modules connect through a redundant adapter to one common termination assembly.

Why does Foxboro FBM205 P0914XG use an AOUTR block for each output?

The AOUTR block writes the same output demand through both modules so the paired channels can sustain redundant analog-output service.

Which field sources can a Foxboro FBM205 P0914XG input accept?

Each input can accept a 4-20 mA transmitter or a self-powered 4-20 mA source within the documented loop arrangement.

Which checks complete commissioning of Foxboro FBM205 P0914XG?

Commissioning requires verification of all four inputs, all four outputs, loop polarity, configuration diagnostics and a controlled redundant transfer.

Commissioning decision matrix

Identity	Both modules read FBM205 P0914XG and occupy the assigned adjacent positions
Configuration	AINR/AOUTR blocks and all eight channel assignments match the retained project
Field path	Adapter, Type 1 cable, termination assembly, polarity and shields match the record
Diagnostics	Both module states and channel diagnostics are healthy before process release
Functional proof	Inputs, outputs and redundant transfer respond within the approved test

ACCEPT

Identity, configuration, termination and observed process response tell one consistent story.

STOP

Any mismatch remains an engineering hold; do not bridge it with a neighboring family item.

Analog input acceptance

Source	4-20 mA transmitter or self-powered 4-20 mA source
Resolution	16-bit input conversion
Accuracy	+/-0.025% of span under documented reference conditions
Isolation	Each channel isolated from every other channel and ground

Foxboro FBM205 P0914XG

Redundant Analog I/O Module / Evidence, related portfolio and support

Canonical identity	Foxboro FBM205 P0914XG
Product type	Redundant Analog I/O Module
Channel group	4 isolated inputs plus 4 isolated outputs
Redundant arrangement	Adjacent odd/even module pair with shared field termination
Technical record	Foxboro FBM205 Product Specification / PSS 21H-2Z5 B4
Release record	Channel proof, diagnostics and witnessed redundant transfer

VERIFIED APTER POWER CATALOG REFERENCES

Navigation only; compatibility, substitution and manufacturer endorsement are not implied.

Foxboro FBI10E P0972AJ	View Foxboro FBI10E P0972AJ page
Foxboro FBM206 P0916CQ	View Foxboro FBM206 P0916CQ page
Foxboro FBM232 P0926GW	View Foxboro FBM232 P0926GW page

MANUFACTURER EVIDENCE RECORD

Foxboro FBM205 Product Specification

PSS 21H-2Z5 B4

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