Foxboro FBM215 P0917TQ

Installation & Commissioning Guide

Foxboro FBM215 P0917TQ is a hart communication output module for analog control output with bidirectional HART communication. It operates with the assigned HART output termination assembly and field actuator loops and provides eight isolated output channels.

PRODUCT ROLE AND VERIFIED FEATURES

Feature 1

Provides eight isolated output channels for its hart communication output module function.

Feature 2

Handles analog control output with bidirectional HART communication through the documented Foxboro system path.

Feature 3

Works with the assigned HART output termination assembly and field actuator loops.

Feature 4

Every output is galvanically isolated from the other channels, ground and module logic.

VERIFIED DATA SNAPSHOT

Output channels	8 individually isolated channels
Output signal	4 to 20 mA with HART FSK
Supported HART devices	Version 5, 6 or 7 compliant instruments
Output load	750 ohms maximum

SYSTEM RELATIONSHIP

Control database → **FBM215 output** → **4-20 mA + HART** → **Smart actuator**

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Pre-installation readiness

READINESS GATE

Identity

Compare the complete marking with the approved work order and installed record.

System match

Confirm the receiving channel, mating components and controlled configuration.

Physical condition

Inspect mounting surfaces, connectors, terminals, cable and support hardware.

Work controls

Apply authorized isolation, bypass, access and restoration procedures.

TECHNICAL PROFILE FOR THE WORK

Output channels

8 individually isolated channels

Output signal

4 to 20 mA with HART FSK

Supported HART devices

Version 5, 6 or 7 compliant instruments

Output load

750 ohms maximum

Analog accuracy

+/-0.05% of span from 4 to 20 mA

IMPORTANT NOTICE

Resolve every unmatched interface, configuration or receiving-system condition before removal or installation.

SOURCE AND WORK CONTROLS

Manufacturer source	Invensys, I/A Series FBM215 HART Communication Output Interface Module, PSS 21H-2Z15 B4; P0917TQ is identified as the legacy FBM215 part number in B0400FA.
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.

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Installation sequence

CONTROLLED WORK STEPS

01	Match the complete FBM215 P0917TQ marking to the work order and installed position before removal.
02	Confirm the assigned HART output termination assembly and field actuator loops before disconnecting any interface.
03	Keep analog control output with bidirectional HART communication 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 eight isolated output channels and record the acceptance result before release.

CONNECTION RECORD

As found	Photograph and label every connection and installed orientation before removal.
Mechanical	Record mounting position, support, clearance and connector engagement.
Electrical	Record polarity, common, shield, channel assignment and cable route.
Configuration	Preserve approved settings, scaling, alarm logic and acceptance limits.
As left	Record the final physical condition and any controlled deviation.

Control database → **FBM215 output** → **4-20 mA + HART** → **Smart actuator**

WORK HOLD POINTS

Before removal	Identity, position, wiring, orientation and controlled settings recorded.
Before connection	Mating interfaces, condition and routing reviewed.
Before power-up	Mechanical work, wiring, shielding and configuration independently checked.
Before release	Static value, dynamic response and protection behavior accepted.

Commissioning and functional proof

COMMISSIONING SEQUENCE

Initial state

Observe status at power-up and check for unexpected fault or alarm indication.

Static value

Verify the expected bias, gap, loop, contact or channel value for the application.

Dynamic response

Apply the approved machine or test stimulus and confirm response and scaling.

Protection path

Verify the configured alarm, relay, data or receiving-system behavior.

APPLICATION-SPECIFIC EVIDENCE

System maintenance

Restores the documented hart communication output module function in an existing Foxboro control system.

Signal-path service

Supports controlled testing of analog control output with bidirectional HART communication at the assigned system position.

Planned replacement

Provides an exact-identity replacement path after the assigned HART output termination assembly and field actuator loops has been verified.

Commissioning

Allows the responsible engineer to prove configuration, diagnostics and response for eight isolated output channels.

ACCEPTANCE RECORD

Identity	Complete marking and final installed position recorded.
Physical inspection	Mounting, connectors, terminals and routing checked.
Channel status	Expected status and configured measurement confirmed.
Functional test	Required output or protection response demonstrated.
Restoration	Bypasses removed and operating state approved.

COMMISSIONING QUESTIONS

What output does Foxboro FBM215 P0917TQ provide?	Each channel supplies a 4 to 20 mA control signal with optional superimposed HART FSK communication.
How many actuator loops are isolated?	All eight output channels are individually isolated.

Release record and technical references

CLOSEOUT QUESTIONS

Which HART instrument revisions are supported?	The documented module accepts compliant HART Version 5, 6 or 7 instruments.
What is the maximum output-loop load?	The specified maximum load is 750 ohms.
What analog accuracy is specified?	Accuracy is +/-0.05 percent of span between 4 and 20 mA.
How should a valve-positioner loop be tested?	Command several current points, verify actuator response and read back the HART identity and diagnostics.
Why must output fail-state behavior be recorded?	The controlled application determines the safe output and response if communication or module status is lost.
Can another FBM215 code replace P0917TQ automatically?	No. Confirm the legacy part identity, channel isolation, termination, HART revision and configured output action.

RELATED MODELS FOR INSTALLATION PLANNING

Siemens 6DS1717-8RR	Installation-planning reference. Review the complete ordering string before selection.
Siemens 6DS1703-8RR	Installation-planning reference. Compare the required interface and system position.
Siemens 6DS1618-8CA	Installation-planning reference. Confirm the execution independently for the intended task.

MANUFACTURER SOURCE AND FINAL CONTROL

Manufacturer source	Invensys, I/A Series FBM215 HART Communication Output Interface Module, PSS 21H-2Z15 B4; P0917TQ is identified as the legacy FBM215 part number in B0400FA.
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.

IMPORTANT NOTICE	Release the equipment only after the responsible site authority accepts the recorded result.

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