GE 8103AI-TX

Analog Input Module

GE 8103AI-TX is the cataloged 8103-AI-TX PAC8000 module for eight single-ended 4–20 mA transmitter inputs.

Job objective

Replace, install or verify the exact module without changing unrelated wiring, configuration, dimensions, weight or other stored product data.

Safe-work boundary

Identify Match the complete model and every suffix or secondary code.	**Isolate** Apply the plant-approved electrical and process isolation procedure.
Preserve Back up configuration and photograph all connections.	**Control** Use ESD protection and revision-controlled documentation.

Required evidence before work

Nameplate photo; slot/rack record; connector map; project backup where applicable; fault history; approved acceptance procedure.

Model-specific release focus

- 8 single-ended 4–20 mA channels
- 16-bit conversion and ±0.1% span accuracy
- Open-circuit and overrange detection
- 27 ms maximum signal-to-Railbus response

Readiness checklist

Exact identity	GE 8103AI-TX matches the work order and physical unit
System position	Rack, slot and functional assignment are recorded
Configuration	Parameters, firmware or project data are backed up when applicable
Connections	Every cable, terminal, jumper and shield is labeled
Condition	Connector, board and packaging condition are inspected
Test plan	Expected states and acceptance evidence are agreed

Interface preparation

Channel inputs	Eight single-ended current-loop connections
Field terminals	Approved assemblies for two-wire or four-wire transmitters
Bussed field power	Supplies 24 VDC to connected loop circuits
Railbus	Transfers converted measurements, status and alarm data

Interface evidence for acceptance

- Channel inputs: Eight single-ended current-loop connections
- Field terminals: Approved assemblies for two-wire or four-wire transmitters
- Bussed field power: Supplies 24 VDC to connected loop circuits
- Railbus: Transfers converted measurements, status and alarm data

03 / INSTALLATION SEQUENCE

Controlled replacement workflow

1	Confirm isolation and absence of hazardous energy
2	Compare old and replacement identities and revisions
3	Photograph and label all connections
4	Remove the existing module using ESD-safe handling
5	Inspect slot, connector, grounding and cooling path
6	Install the exact replacement without forcing connectors
7	Restore cables, jumpers and settings from the controlled record
8	Perform a final visual and continuity check before energization

STOP POINT

Do not energize if the model, slot, connector orientation, grounding, jumper state or documented system assignment is unresolved.

Configuration-control record

- Resolution: 16 bits
- Accuracy: ±0.1% of span
- Response time: 27 ms maximum
- Field power: 24 VDC ±10% bussed supply

Staged return to service

Stage	Action	Acceptance
Stage 1	Visual inspection and isolation release	Expected controlled result
Stage 2	Apply control power under observation	Expected controlled result
Stage 3	Confirm module recognition or status	Expected controlled result
Stage 4	Verify communication and affected signal paths	Expected controlled result
Stage 5	Exercise the documented function	Expected controlled result
Stage 6	Archive measured results and as-left configuration	Expected controlled result

Product-specific acceptance focus

1

Keep loop current within the 1–23 mA full signal range during normal operation.

2

Configure high, high-high, low and low-low alarms to the engineering range rather than the raw current only.

3

Set the input filter and failsafe direction to match the process hazard analysis.

4

Commission every channel with a loop calibrator and verify accuracy, line-fault thresholds, alarms and Railbus quality.

Fault isolation and final record

1	Unexpected state: stop and capture evidence
2	Recheck identity, power, slot and connectors
3	Compare configuration and revision records
4	Test surrounding system before condemning the module
5	Restore a safe state and document the outcome

Apter Power handover record

Model identity	Keep the complete GE model code and every suffix in purchasing, installation and acceptance records.
Verification boundary	Confirm the physical nameplate, installed position and revision-controlled project documents before field work.
Apter Power support	Use the contact details and Apter Power website links in this document for product and sourcing support.

Related Apter Power references	Scope note
GE IC660BBA106	Portfolio reference only; verify compatibility independently.
GE IC660BBA105	Portfolio reference only; verify compatibility independently.
GE IC660BBA103	Portfolio reference only; verify compatibility independently.

Commissioning support sales13@apterpower.com +86 180 3023 5313 www.apterpower.com