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.

01	02	03	04
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

System position

2-wire or 4-wire transmitter	8103AI-TX channel conditioning	A/D conversion and Railbus	PAC8000 controller processing

Evidence boundary

Only verified exact-model facts and explicitly identified family context are included. Similar codes are not treated as substitutes.

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

02 / CAPABILITY MAP

Engineering domains and architecture

Official catalog number	8103-AI-TX
Channel count	8 single-ended
Nominal range	4 to 20 mA
Full signal range	1 to 23 mA

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

Interface architecture

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 / INTEGRATION AND APPLICATIONS

Use cases with controlled scope

General process transmitters

Acquires pressure, flow, level or temperature current signals.

Two-wire loop systems

Powers and measures transmitters through approved terminal assemblies.

Four-wire instruments

Accepts externally powered current outputs through the documented terminals.

PAC8000 remote I/O

Publishes measurements and channel diagnostics over Railbus.

INTEGRATION CHECKPOINTS

Identity

GE 8103AI-TX is preserved in full.

Host system

Rack, slot and surrounding hardware are verified.

Configuration

Project, firmware and settings are recorded.

Acceptance

Functional evidence is captured before release.

System relationship

2-wire or 4-wire transmitter	8103AI-TX channel conditioning	A/D conversion and Railbus	PAC8000 controller processing

Configuration-control record

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

Decision matrix

Question	Answer
How many input channels are available on GE 8103AI-TX?	The module provides eight single-ended 4–20 mA analog input channels.
Why is GE 8103AI-TX also written as 8103-AI-TX?	8103-AI-TX is the punctuation used in the official PAC8000 catalog for the same complete order identity.
Which transmitter types can GE 8103AI-TX accept?	It supports two-wire and four-wire current transmitters with the corresponding approved field terminal.
What is the full measurement range of GE 8103AI-TX?	The documented full signal range is 1–23 mA around the nominal 4–20 mA span.

Eight release precautions

1 Match the installed nameplate 8103AI-TX to the official catalog identity 8103-AI-TX before configuration.	**2** Use only a compatible field terminal for the selected two-wire or four-wire transmitter arrangement.	**3** Provide 24 VDC bussed field power within the documented ±10% range.	**4** Do not assume channel-to-channel isolation; the specification states none between channels.
5 Keep loop current within the 1–23 mA full signal range during normal operation.	**6** Configure high, high-high, low and low-low alarms to the engineering range rather than the raw current only.	**7** Set the input filter and failsafe direction to match the process hazard analysis.	**8** Commission every channel with a loop calibrator and verify accuracy, line-fault thresholds, alarms and Railbus quality.

Product verification and support

Apter Power verification 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.

	Apter Power technical and sourcing support sales13@apterpower.com +86 180 3023 5313 www.apterpower.com Scan for the Apter Power contact page.	Model record GE 8103AI-TX Analog Input Module Verify the complete nameplate before installation.