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.

IDENTITY SNAPSHOT

H1 8 single-ended 4–20 mA channels	**H2** 16-bit conversion and ±0.1% span accuracy
H3 Open-circuit and overrange detection	**H4** 27 ms maximum signal-to-Railbus response

System position

1	2-wire or 4-wire transmitter
2	8103AI-TX channel conditioning
3	A/D conversion and Railbus
4	PAC8000 controller processing

Document boundary

This dossier uses exact-model evidence and clearly identified family context. Unsupported values are intentionally left for nameplate, project-record or revision-manual verification.

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

Architecture and interface control

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SYSTEM FLOW	
1	2-wire or 4-wire transmitter
2	8103AI-TX channel conditioning
3	A/D conversion and Railbus
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Interface map

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

Engineering rule

Use the full GE 8103AI-TX identity in drawings, spares records and acceptance evidence. A similar family code is not proof of interchangeability.

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 / TECHNICAL DATA

Verified engineering data

Values below are limited to the reviewed exact-model or directly applicable manufacturer-family evidence.

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

CHANGE CONTROL

Record

Capture the complete nameplate, revision and installed position.

Compare

Check replacement hardware against project and service records.

Protect

Apply the documented power-isolation and ESD procedure.

Prove

Complete a model-specific functional test before release.

Configuration-control record

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

Service logic

Use evidence in sequence; do not skip directly from a fault symptom to part substitution.

1	Capture symptoms and existing status
2	Verify power, wiring, slot and surrounding system
3	Test 8103AI-TX against the exact service procedure
4	Replace only after the module is isolated as the cause
5	Commission and archive results

Model-specific 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.

Decisions and Apter Power support

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.

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.

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