AAI141-S00 S2

Yokogawa / FIO analog input module

Yokogawa AAI141-S00 S2 is an FIO analog input module for 4–20 mA process measurements in a configured CENTUM FIO station.

Product identity and system role

AAI141-S00 S2 is a 16-channel 4–20 mA analog input module for Yokogawa FIO. The AAI141 reference is a nonisolated input design, so field wiring and protective isolation are governed by the approved station and loop architecture.

The documented analog accuracy is ±16 µA with a 10 ms data-update period. The module supplies process values to the configured field control station; scaling, alarm limits and transmitter health handling belong to the control project rather than the card identity alone.

Verified technical characteristics

I/O role	Analog input
Reference design	AAI141-S
Channels	16
Signal	4–20 mA
Accuracy	±16 µA
Data update	10 ms
Isolation	Nonisolated input design
Installed wiring	Match the approved terminal and transmitter supply arrangement

Engineering context

Process-value acquisition

Receive 4–20 mA signals from approved process transmitters in the FIO station.

Regulatory control feedback

Pass scaled measurements to configured control loops and operator displays.

Alarm and trend inputs

Supply analog values to the project alarm, history and diagnostic functions.

Input-module restoration

Restore a verified AAI141 position while retaining loop wiring and scale assignments.

Configuration and verification

Review grounding: Retain the approved nonisolated-loop grounding design.

Check polarity: Verify each 4–20 mA terminal assignment.

Preserve scaling: Record engineering-unit range and alarm settings.

Control the process: Place affected loops in their approved maintenance state.

Selected engineering questions

How does the isolation design of AAI141-S00 S2 affect installation?
AAI141 is documented as nonisolated. Review the system grounding and any required external isolation before connection.

What should be checked if a reading on AAI141-S00 S2 is out of scale?
Compare transmitter current, terminal polarity, channel scaling, loop wiring and controller diagnostics.

Can AAI141-S00 S2 directly substitute for AAI143?
No. AAI143 has a different isolation arrangement. Compare the system design and approved replacement list.

How should a current-loop open circuit be found on AAI141-S00 S2?
Test transmitter supply and current, cable continuity and terminal connections using the site procedure.

Why is the module data-update time of AAI141-S00 S2 not the entire control-loop delay?
The 10 ms module update is one part of controller scan, filtering, network and field-device response.

Which records should be saved before changing AAI141-S00 S2?
Retain the channel map, engineering-unit scales, alarm limits and transmitter wiring plan.

Source and application boundary

Yokogawa GS 33J60F60-01EN, Analog I/O Modules for FIO.

AAI141-S technical figures are reference-design values. Match the complete offered style, host and terminal configuration before applying them.

Related product references

Separate product listings for project review; confirm each order code and system fit independently.

Yokogawa VI702 S1	Yokogawa ADV551-P03 S2
Yokogawa ADV161-P00 S2	Yokogawa AAT141-S00 S2

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Send the complete model and installed-system details when requesting a quotation.