AAT141-S00

Yokogawa / FIO thermocouple and millivolt input module

Yokogawa AAT141-S00 is a 16-channel FIO thermocouple and millivolt input module for process temperature measurement.

Overview

AAT141-S00 is a 16-channel isolated temperature-input module in the Yokogawa FIO family. Each channel can be configured for a supported thermocouple type or a millivolt signal, allowing the same module to acquire several measurement types in an engineered station.

The referenced thermocouple set includes J, K, E, B, R, S, T and N. Two millivolt ranges, –100 to +150 mV and –20 to +80 mV, are documented. The base design updates input data each second, so temperature-control logic and alarming should use the appropriate scan and filtering configuration.

Technical specification matrix

I/O role	Temperature / millivolt input
Reference design	AAT141-S
Channels	16 isolated inputs
Thermocouple types	J, K, E, B, R, S, T and N
Millivolt ranges	–100 to +150 mV; –20 to +80 mV
Channel selection	Thermocouple or mV by channel
Update period	1 second
TC reference accuracy	±30 µV

Applications and system fit

Process temperature monitoring

Acquire supported thermocouple signals from furnaces, vessels or process equipment in a configured FIO station.

Mixed sensor installations

Assign supported TC types independently by channel according to the approved input schedule.

Low-level voltage acquisition Measure a suitable millivolt source in one of the documented ranges with proper shielding and reference conditions.	**Temperature I/O restoration** Replace a matching module while retaining cold-junction hardware and the saved channel configuration.

Product precautions

Match sensor types Record each channel thermocouple or mV selection.	**Protect low-level wiring** Preserve polarity, shielding and separation from power circuits.
Review cold junction Check the installed compensation and terminal arrangement.	**Avoid ground loops** Evaluate thermocouple grounding against the project design.

Source and application boundary

Yokogawa GS 33K50F60-50E, Temperature Input Modules for FIO.

AAT141-S reference data describes the base module. The S2 style, when present, is retained as the offered marking without an assumed electrical difference.

Related product references

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

Yokogawa VI702 S1	Yokogawa ADV551-P03 S2

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