

INDUSTRIAL AUTOMATION PRODUCT

AAM50

4 to 20 mA current output module

one isolated 4 to 20 mA DC process output

IDENTITY	VERIFIED VALUE
Manufacturer	Yokogawa
System family	Yokogawa process I/O module-nest system
Part number	AAM50

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Technical Specifications

Technical values below are limited to the named Yokogawa product record.

PARAMETER	TECHNICAL VALUE
Model	AAM50
Output signal	4 to 20 mA DC
Output resistance	500 kOhm or more
Allowable load	0 to 750 Ohm
Output range	1.0 to 21.5 mA DC
Output voltage limit	25.5 V DC or less
Open-output detection	0.65 mA or less
Accuracy	+/-48 microampere
Temperature effect	+/-32 microampere per 10 degC change
Load-change effect	+/-16 microampere for 0 to 75 Ohm change
Data update	20 ms
Step response	100 ms
Current consumption	250 mA or less at 5 V DC
Isolation withstand	1500 V AC for one minute
Installation	Analog I/O module nest; M4 terminal wiring
Software requirement	System software R2.07 or later

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System Role and Architecture

one isolated 4 to 20 mA DC process output

FUNCTION 1

Provides a 4–20 mA DC output

FUNCTION 2

Drives loads up to 750 ohms

FUNCTION 3

Updates output data every 20 ms

FUNCTION 4

Insulates the output signal from the system

Matched system components

- Yokogawa AMN11 or AMN12 analog I/O nest
- M4 terminal field wiring
- configured current-loop receiver
- system software R2.07 or later

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	Yokogawa AMN11 or AMN12 analog I/O nest
Companion hardware	M4 terminal field wiring
Field connection	configured current-loop receiver
Primary system function	Provides a 4–20 mA DC output
Controlled acceptance duty	Valve-position current command

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Applications and Engineering Context

Valve-position current command

Provides a 4–20 mA DC output

DCS analog setpoint output

Drives loads up to 750 ohms

Recorder or indicator current loop

Updates output data every 20 ms

AAM50 module replacement

Insulates the output signal from the system

TECHNICAL NOTE

Verify nest position, loop polarity, receiver load, configured output range and software revision; test the loop at controlled values before enabling automatic control.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	AAM50 / AAM50 recorded
Physical interface	Yokogawa AMN11 or AMN12 analog I/O nest
Companion check	M4 terminal field wiring
Functional proof	Provides a 4–20 mA DC output
Application test	Valve-position current command

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Engineering Precautions

- 1 Verify the complete AAM50 marking and its assigned Yokogawa process I/O module-nest system position before work.
- 2 Place the connected valve-position current command process in the approved maintenance state.
- 3 Isolate applicable power and one isolated 4 to 20 ma dc process output field energy before disconnection.
- 4 Record every connector, conductor, address, firmware and software identity before removal.
- 5 Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.

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MANUFACTURER SOURCE RECORD

Yokogawa Process I/O Module Nest General Specifications

GS 33G06K40-01E, 17th Edition

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