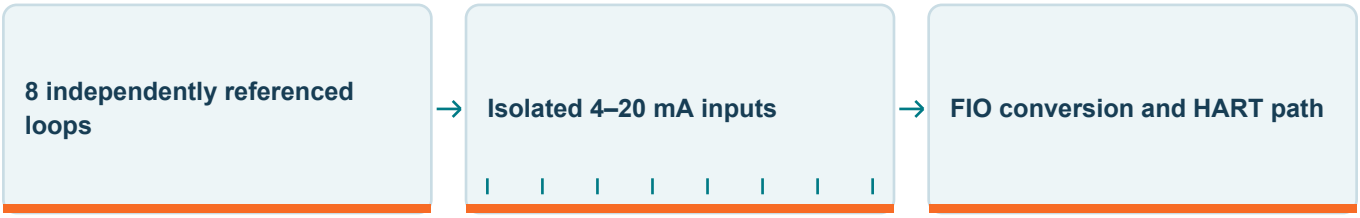
Yokogawa AAI135-H03 S1

Installation, Diagnostics and Acceptance

Work scope

Qualify the environmental chain from the module through its node, termination and cable, rather than assigning the module option to the whole cabinet. Choose the H03 execution for the documented environmental duty while retaining the legacy HART node route. The EB401 Rev 2-or-later remote condition and the exact S1 terminal execution are separate acceptance checks.



01 Before You Order

Evidence to provide	Exact-model selection decision
H03 environmental duty	Request the AAI135-H03 S1 marking and identify the cabinet G3 requirement, qualified node and expected operating ambient.
Thermal acceptance record	Provide the input test temperature and expected service temperature interval so the ±16 µA per 10°C influence can be evaluated.
Isolation in the installed harness	Include the MIL cable rating and any external common links between the eight circuits; the module isolation alone does not describe the whole harness.
Node supply and remote interface	Identify the available 5 V/24 V node budget and any EB401 remote HART path before substituting a legacy S1 spare.

02 H03 installation envelope

Qualify the complete node

The H03 selection includes the documented G3 and extended-temperature option. The enclosure, node and surrounding components must also support the intended environment.

Retain the S1 identity

Match the complete AAI135-H03 S1 marking and hardware style. Do not treat a current H50/H53 selection as an automatic replacement for this legacy H03 execution.

Check current-loop interfaces

This is an eight-channel isolated current-input module. Restore the selected termination and transmitter supply method rather than assuming that another FIO input module has the same field interface.

Account for power allocation

Use the applicable 5 V and 24 V supply-current requirements in the node power budget. Environmental qualification does not increase available node power.

03 Environment-aware commissioning

Observed condition / stage	Action and acceptance interpretation
Establish the installed thermal condition	Record the node ambient and qualified operating arrangement before interpreting a loop test. A bench result at room temperature does not prove the field installation envelope.
Check loop headroom at service current	Evaluate the current-dependent input burden and transmitter voltage margin at the high end of the intended signal. Include external barriers and cable losses in the same circuit.
Keep isolation effective	Check each field circuit independently and avoid test leads that bridge isolated returns. The isolation test rating describes the module boundary, not an instruction to apply that voltage to field equipment.
Verify the remote communication revision	If HART passes through a remote node, confirm the documented EB401 Rev. 2-or-later condition and the installed communication setup before attributing a failed exchange to the analog input.

04 H03 acceptance decisions

Observed condition / stage	Action and acceptance interpretation
Analog value steady, communication absent	Separate the working 4–20 mA measurement from the HART path. Investigate the node/interface arrangement without disturbing a correctly operating current loop.
Drift changes with temperature	Compare readings against the applicable temperature influence and test-source stability. Record the actual ambient rather than accepting a nominal room-temperature accuracy alone.
Spare hardware review	Retain H03 environmental selection, S1 marking and terminal arrangement together. Channel count and nominal signal type are insufficient to justify a substitution.
Completion record	Include environmental qualification, node power margin, independent loop results and remote communication evidence. Record any restricted test condition before releasing the installation.

05 Quantitative field checkpoints

Check	Verified condition	Practical evidence
Temperature influence	±16 µA per 10°C	Compare repeat readings over the actual temperature interval with a stable current source; keep reference accuracy separate.

05 Quantitative field checkpoints — continued

Check	Verified condition	Practical evidence
H03 qualification	G3; qualified -20 to +70°C execution	Match node, enclosure and adjacent components to the intended ambient, not only the module label.
Remote digital path	EB401 Rev 2 or later	Prove HART access through the installed remote path independently of current conversion.

06 Terminal and field-circuit selection map

Order option / circuit	Applicable legacy selection
/13A00	ATI3A-00 pressure-clamp adapter
/K4A00	ATK4A-00 MIL adapter
/13S00 / /13S10	ATI3S simplex terminal selections, without/with surge option
/13D00 / /13D10	ATI3D dual-redundant terminal selections, without/with surge option

Bare-module supply boundary

The offered AAI135-H03 S1 identity has no terminal-adapter option appended. Recover the installed terminal identity from its own label before assigning one of these selections to the replacement job.

Technical applicability

Legacy AAI135-H00/H03 electrical and suffix specifications apply to the offered AAI135-H03 S1. S1 is retained as the offered style marking; it does not establish compatibility with later H50/H53 styles.

Technical basis

Yokogawa Analog I/O Modules (for FIO), GS 33M50F30-40E, 5th Edition

Related product navigation

Compare the separate system, revision and interface requirements on each linked product page. These portfolio references do not establish interchangeability.

Yokogawa AAT141-S00 S2	Analog I/O portfolio: compare signal direction, isolation and style.
Yokogawa ADV161-P00 S2	Discrete I/O portfolio: use its own signal and channel specification.
Yokogawa ADV551-P03 S2	Discrete I/O portfolio: use its own signal and channel specification.
Yokogawa SB401-10 S1	Node communication reference: qualify the host and interface revision.

Engineering contact

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