AAI143-H00 S1

01 / Product identity and control context

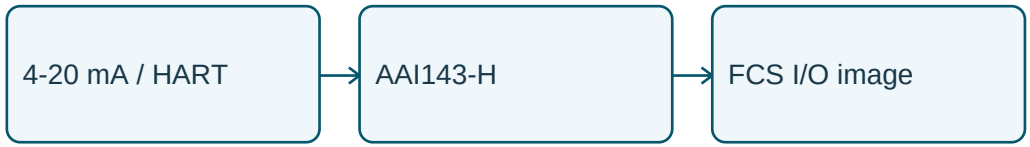
Analog Input Module

Yokogawa AAI143-H00 S1 is a CENTUM FIO analog input module. The AAI143-H design combines 16 isolated 4-20 mA inputs with HART communication.

Key characteristics

Product type	Analog input module
Base input channels	16, 4-20 mA
Digital communication	HART on the AAI143-H design
Transmitter selection	Two-wire or four-wire setting by channel

Functional relationship



Complete identity

Match AAI143-H00 S1 and its style marking, terminal assembly and existing channel allocation.

Configuration boundary

The technical data describes the AAI143 base design. Match the complete AAI143-H00 S1 marking, style and installed configuration; do not transfer later suffix approvals or ratings automatically.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

AAI143-H00 S1

02 / Technical characteristics

Hardware and functional data

Product series	CENTUM FIO
Reference design	AAI143-H
Base input channels	16
Base input signal	4 to 20 mA
Base allowable input current	24 mA
Base analog accuracy	±16 µA

Interfaces and operating conditions

Base analog update period	10 ms
Isolation boundary	Input to system
Transmitter selection	2-wire / 4-wire, setting pin per channel
Digital communication	HART
HART design capacity	Up to 16 devices; 32 variables/module
Field connections	Pressure-clamp terminal / MIL / KS1 cable

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

03 / Application and integration contexts

Process transmitter acquisition

Bring 4-20 mA measurements into the FCS for regulatory and sequence functions, using the correct transmitter wiring and channel configuration.

HART variable integration

Use supported field-device variables through the I/O image. Account for HART refresh behavior separately from the analog scan.

Loop relationship

Verify 4-20 mA signal type, two-wire/four-wire pin settings, polarity, transmitter supply and isolation-barrier arrangement.

Two-wire loop integration

Supply and read compatible two-wire transmitters through the configured channels, allowing sufficient voltage margin for wiring and field devices.

Redundant analog input stations

Use a supported matched pair and adjacent odd/even slots where the configured FIO system requires redundant HART-capable analog modules.

Data configuration

Record engineering scaling, channel assignment and the HART variables used by the application.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

04 / Installation and release decisions

Set the transmitter arrangement

Confirm the per-channel two-wire or four-wire setting before connection. Do not assume the old and replacement module settings match.

Check loop power

Include field-wire voltage drop when evaluating transmitter supply. Preserve polarity and the correct source of loop power.

Use the correct barrier

Do not connect a Zener barrier to the AAI143 design. Review an isolation barrier and the full intrinsic-safety configuration where applicable.

Separate analog and HART timing

The analog update period and HART-variable refresh serve different functions. Verify each against the control application.

Review redundancy pairing

Use the approved matching modules and adjacent-slot arrangement when the system is configured for redundant HART analog I/O.

Validate scaling and variables

Check low, mid and high test points, channel scaling and the assigned HART variables before releasing the loop to service.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

AAI143-H00 S1

05 / Lifecycle, evidence and related portfolio

Lifecycle status

The current manufacturing and service-support phase for this complete offered reference has not been confirmed.

Supply boundary

Apter Power availability and dispatch are confirmed separately from the manufacturer lifecycle phase.

Technical basis

Yokogawa Analog I/O Modules (for FIO), GS 33J60F60-01EN, 6th edition.

Related product references

Yokogawa AFV10D S2

Yokogawa CP451-50 S2

Yokogawa AAI543-S00 S1

Yokogawa SR1B-045N-1KC

Navigation only; no substitute or accessory compatibility is implied.

Offered-unit verification

Compare the complete label, connectors, mounting arrangement and applicable hardware/software revision. Confirm included components and accompanying documents in the quotation.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.