Yokogawa AIP502

Technical Reference

Yokogawa AIP502 is a V-Net coupler module used with duplexed processor configurations in legacy CENTUM field control units.

PRODUCT ROLE AND VERIFIED FEATURES

Feature 1

Couples duplexed processor communication to V-Net.

Feature 2

Provides signal isolation and level conversion at the network boundary.

Feature 3

Presents separate connections for V-Net bus 1 and bus 2.

Feature 4

Indicates receive and processor-side transmit activity at the front panel.

VERIFIED DATA SNAPSHOT

Network role	V-Net coupler
Processor arrangement	Duplexed field control unit
Bus connection	V-Net bus 1 and bus 2
Signal function	Isolation and signal-level conversion
Receive indication	RCV status lamp
Transmit indication	Left and right processor transmit status

SYSTEM RELATIONSHIP

Field device → **Product interface** → **System channel** → **Verified response**

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Technical profile

Verified technical values for the complete product string are arranged below for selection and engineering review.

Network role	V-Net coupler
Processor arrangement	Duplexed field control unit
Bus connection	V-Net bus 1 and bus 2
Signal function	Isolation and signal-level conversion
Receive indication	RCV status lamp
Transmit indication	Left and right processor transmit status

SELECTION ANCHORS

- Couples duplexed processor communication to V-Net.
- Provides signal isolation and level conversion at the network boundary.
- Presents separate connections for V-Net bus 1 and bus 2.
- Indicates receive and processor-side transmit activity at the front panel.

IMPORTANT NOTICE	Use the values as one matched configuration. Do not substitute a nearby ordering code without a separate check.

CONFIGURATION CONTROL

Configuration identity	Yokogawa AIP502
Technical boundary	Apply only the functions and interfaces shown for this product or its identified system family.
Selection control	Match the complete ordering string and installed interfaces before purchase or installation.

ADDITIONAL ENGINEERING CHECKS

Why are two coupler positions checked in a Yokogawa AIP502 installation?	The duplexed field control unit uses the paired network paths to maintain the documented redundant architecture.
Which observations complete commissioning of Yokogawa AIP502?	Normal receive and transmit indications, healthy processor redundancy and stable V-Net communication complete the check.

System role and architecture

Field device → **Product interface** → **System channel** → **Verified response**

APPLICATION POINTS

Duplexed field control units

Connects both processor sides to the redundant V-Net path.

Legacy CENTUM network maintenance

Restores the documented control-network coupler position.

V-Net fault diagnosis

Uses receive and transmit indications to localize a communication break.

Controller retrofit preparation

Preserves bus routing and processor-side connections during planned work.

INTEGRATION RECORD

Identity	Record the complete marking and installed position.
Mechanical interface	Confirm mounting, support, clearance and connector engagement.
Electrical interface	Confirm signal path, shield, common and receiving-channel assignment.
Configuration	Retain the controlled channel settings and acceptance criteria.
Functional evidence	Record the expected static value, dynamic response and system status.

AIP502 should be matched to the documented system position, companion hardware and retained project configuration before the channel or station is returned to control.

ENGINEERING REVIEW QUESTIONS

What network boundary is served by Yokogawa AIP502?	AIP502 couples the field control unit processor side to the V-Net control network.
Why is Yokogawa AIP502 associated with a duplexed processor station?	The documented configuration uses AIP502 with duplexed processor cards so both processor sides can reach V-Net.
How are the two V-Net paths presented on Yokogawa AIP502?	The coupler provides separate upper and lower network connections for bus 1 and bus 2.
What does the RCV indication on Yokogawa AIP502 show?	RCV illuminates when the coupler receives a V-Net communication carrier.

Engineering checks and acceptance

PRODUCT PRECAUTIONS

01	Confirm AIP502 and the installed style before removal.
02	Record upper and lower V-Net cable positions.
03	Label left- and right-processor connections independently.
04	Isolate the station according to the approved maintenance procedure.
05	Protect coaxial connectors and network terminators from contamination.
06	Seat the coupler fully without changing adjacent processor cards.
07	Verify RCV and both processor transmit indications after startup.
08	Confirm controller redundancy and V-Net communication before release.

RELEASE EVIDENCE

Exact identity	Product marking and intended system position agree.
Interface condition	Mounting, connectors, terminals and cable routing are secure.
Signal response	The expected static and dynamic behavior has been observed.
Protection state	Channel status, alarms and controlled bypass state are restored.

IMPORTANT NOTICE	Confirm the complete AIP502 marking, assigned system position and mating interfaces before installation.

APPLICATION BOUNDARIES

Duplexed field control units	Connects both processor sides to the redundant V-Net path.
Legacy CENTUM network maintenance	Restores the documented control-network coupler position.
V-Net fault diagnosis	Uses receive and transmit indications to localize a communication break.
Controller retrofit preparation	Preserves bus routing and processor-side connections during planned work.

Technical questions and related models

MODEL-SPECIFIC QUESTIONS

What network boundary is served by Yokogawa AIP502?	AIP502 couples the field control unit processor side to the V-Net control network.
Why is Yokogawa AIP502 associated with a duplexed processor station?	The documented configuration uses AIP502 with duplexed processor cards so both processor sides can reach V-Net.
How are the two V-Net paths presented on Yokogawa AIP502?	The coupler provides separate upper and lower network connections for bus 1 and bus 2.
What does the RCV indication on Yokogawa AIP502 show?	RCV illuminates when the coupler receives a V-Net communication carrier.
Which processor activity can Yokogawa AIP502 display?	Separate transmit indications identify communication from the left and right processor sides.
What electrical task does Yokogawa AIP502 perform between the processor and V-Net?	It provides signal isolation and converts signal levels at the control-network interface.

RELATED MODELS ON APTERPOWER

Yokogawa SDV161-P50 S2	Related product reference. Review the complete ordering string before selection.
Yokogawa ADV859-P00 S1	Related product reference. Compare the required interface and system position.
Yokogawa ADV869-P00 S1	Related product reference. Confirm the execution independently for the intended task.

CONFIGURATION AND SELECTION RECORD

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