ALR121-S00 S1

01 / Product identity and control context

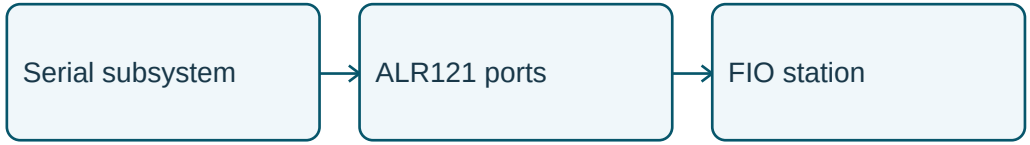
Serial Communication Module

Yokogawa ALR121-S00 S1 is a serial communication module for connecting a CENTUM FIO station to external subsystems through two RS-422/RS-485 ports.

Key characteristics

Product type	Serial communication module
Base interface	Two RS-422/RS-485 ports
Communication	Half-duplex, start-stop synchronization
System family	CENTUM FIO

Functional relationship



Complete identity

Match ALR121-S00 S1, the module revision and both port labels to the existing station.

Configuration boundary

The technical data describes the ALR121 base design. Match the complete ALR121-S00 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.

ALR121-S00 S1

02 / Technical characteristics

Hardware and functional data

Product series	CENTUM FIO
Reference design	ALR121
Serial interface (base design)	RS-422 / RS-485
Communication ports	2
RS-422 topology	Point-to-point
RS-485 topology	Multipoint
Communication mode	Half-duplex

Interfaces and operating conditions

Synchronization	Start-stop
Base-design transmission rates	1200 to 115200 bps
Data format	ASCII / binary; 7 or 8 bits
Stop bits / parity	1 or 2; none / even / odd
Port connection	M4 screw terminals, 5 poles × 2
Base-design line distance	1200 m maximum total extended length

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03 / Application and integration contexts

Programmable-controller data exchange

Connect a serial subsystem to the CENTUM control application using the appropriate Subsystem Communication Package and agreed data mapping.

Point-to-point equipment link

Use the RS-422 interface for a direct serial connection. Align transmission speed, character format and communication timing with the connected device.

Host relationship

Verify the FIO node or compact control unit and its host/software prerequisites; ER-node installation has additional firmware conditions.

Multipoint serial integration

Use the RS-485 interface for a configured multipoint network. Maintain the approved cable topology and the required endpoint settings.

FIO subsystem maintenance

Restore a matched serial communication channel in the supported node or control unit. Check the host release, installed revision and saved communication configuration.

Port configuration

Record RS-422/RS-485 selection, baud rate, parity, stop bits, data format and subsystem data mapping.

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04 / Installation and release decisions

Match the electrical interface

RS-422/RS-485 wiring is different from RS-232C. Do not use the ALR111 D-sub pinout for an ALR121 terminal connection.

Preserve communication settings

Record speed, character length, parity and stop bits. A matching cable alone does not establish a working protocol configuration.

Review field wiring

Use the approved shielded cable and terminal assignment. Preserve the five-terminal port identification and shield arrangement.

Check the host release

Confirm the node, FCS software and any ER-bus firmware prerequisites before installation.

Control replacement work

Use approved isolation and ESD procedures. Record terminal connections and channel configuration before disconnecting the module.

Test real data exchange

Verify both ports where used, communication status and application data mapping before returning the subsystem to service.

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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 Subsystem Communication Module (for FIO), GS 33Q06Q46-31E, 9th edition.

Related product references

Yokogawa PW482-10 S2

Yokogawa SPW482-13

Yokogawa DP97-B

Yokogawa CP451-10

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.

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