ABB YPK113A

UART Communication Board

APC UART Interface and Protocol Restoration

Resolve controller seating, external serial circuit and protocol/data interpretation as three independent decisions before accepting the restored UART link.

Before You Order

Controller connection	Photograph YPK113A, board X1, APC X5 and the retained mounting points.
External circuit	Identify X2 RS-232 or X3 current loop, cable assignment and any loop supply.
Application agreement	Retain protocol, selected bit rate and remote command/status mapping for the actual platform.

The installed relationship

Controller fit	YPK113A X1 -> APC X5; three M3 retention screws.
External choice	X2 RS-232 D connector OR X3 20 mA screw-terminal current loop.
Functional agreement	Selected serial settings and protocol -> intended remote command/status mapping.

Connector, mounting and bit-rate data describe YPK113A in the ACV700 APC arrangement. Its SAMI, DF1 and S3964/S3964R protocol descriptions are not a universal pinout or proof of supplied-board configuration. The separate DCV700 catalogue uses Allen-Bradley DH context wording; do not treat DH and DF1 as interchangeable. YPK117A Modbus specifications are excluded.

ACV700 / DCV700 APC UART communication — restoration sequence

1 Record the existing UART duty	Identify platform, remote device, protocol and required command/status transactions.
2 Separate X2 from X3 wiring	Record the actual serial circuit and, for current loop, the external supply arrangement.
3 Restore the APC mounting	With the assembly isolated, compare X1-to-X5 seating and the three retention points.
4 Restore the selected serial settings	Match the retained rate and remote configuration rather than applying the maximum rate automatically.
5 Prove useful transactions	Test the required commands and statuses with the intended device, not just serial activity.
6 Retain the accepted relationship	Record controller fit, circuit choice, protocol/settings and application result together.

Diagnostic checkpoints

No link after board disturbance

Check APC seating separately from the external cable and settings.

RS-232 cable fitted to current-loop duty

Resolve X2/X3 signaling and loop supply before energization.

Traffic but incorrect values

Compare protocol and application mapping at both ends.

New board offers Modbus

Review the YPK117A protocol difference before treating it as a replacement.

Close the model-specific checks

Controller fit	X1-to-X5 seating and board retention agree with the APC arrangement.
Circuit fit	The restored X2 or X3 circuit matches the documented installation and power relationship.
Application result	The intended remote commands and statuses are demonstrated with retained serial settings.

Interface Decisions for This UART Board

Connection distinction	X2 RS-232 and X3 current loop require different wiring decisions.
Rate distinction	Up to 19200 bit/s is a capability ceiling; select the common installed setting.
Protocol distinction	ACV700 SAMI/DF1/S3964/S3964R descriptions do not supply YPK117A Modbus behavior.

Decisions from the observed installation

The cable fits but no useful exchange occurs

Compare the external signaling standard, serial settings and protocol before changing application data.

A link comes up but the command addresses the wrong value

Resolve the remote data mapping and confirm the intended command/status result.

The evidence to retain for YPK113A

Physical configuration	Board/APC identities, X1/X5 fit, X2/X3 choice and loop supply where applicable.
Serial configuration	Selected rate and retained protocol/settings at each endpoint.
Functional evidence	Required application transactions and the accepted remote data interpretation.

Technical basis

ABB ACV 700 Hardware Manual, Control System, and DCV700 Technical Catalogue

Related product references

Separate supply references; listing does not establish interchangeability.

ABB YPH108B/SPC	Extended Speed Measuring Board; separate supply reference
ABB 07KP64 GJR5240600R0101	RCOM Communication Processor; separate supply reference

Discuss YPK113A and the installed application with Apter Power.
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