ABB YPH108B/SPC

Extended Speed Measuring Board

ABB YPH108B/SPC is an ACV700 extended speed-measuring board for two incremental encoders, with synchronization inputs, timing logic and analog outputs through the CDC backplane.

Sourcing Support | 12-Month Warranty

Product summary

Manufacturer part number	YPH108B/SPC
Shipping	Swift global dispatch
Condition	New, original product
Shipping size (est.)	3.6cm x 21.8cm x 32.3cm
Country of Origin	Sweden
Manufacturer	ABB
Product Category	General Automation
Spare Part Number	YPH108B/SPC
Weight	0.84 kg
Tariff code	8537101190

Buyer information / Overview

The SPC capacitor-input execution addresses timing behavior with 12/24 V single-ended encoders. That capacitor input must not be used for 5 V single-ended signals; preserve the actual input level and jumpers.

Encoder timing control
Capacitor-input selection matters for single-ended pulse timing.

Synchronized measurement
Binary inputs and hardware timing logic support the recorded speed/time relationship.

Backplane integration
The board belongs to the CDC measurement arrangement rather than a standalone Ethernet or Modbus interface.

The SP/SPC design measures time and speed with up to two incremental encoders and connects to the CDC system through the parallel backplane I/O connector. The three optoisolated encoder channels are A, B and Z. Input-level selection must match the actual encoder and its electrical signaling form.

The SPC capacitor arrangement is intended to maintain timing accuracy for 12 V or 24 V single-ended signals where cable length and encoder drive capability affect the falling edge. It cannot be applied to 5 V single-ended signals. The installed jumper and signal-level record therefore remains material even when an encoder connector physically fits.

Two binary synchronization inputs have software-selectable filtering, while the two analog outputs are non-isolated. Filter choice changes the response to short events, and an analog output must not be treated as galvanically isolated from the board. Verify encoder direction/index, synchronization behavior and receiving analog reference as separate functions.

Controller platform reference: ACV700 CDC encoder measurement. Retain the documented ABB configuration.

Technical Specifications

Board supply	+24 V DC
Incremental encoder inputs	2
Encoder channels per input	3: A, B, Z
Maximum encoder input frequency	300 kHz
Encoder nominal input selections	5 / 12 / 24 V DC
Encoder supply current, maximum	500 mA
24 V encoder supply range	19 to 30 V DC
Binary synchronization inputs	2
Synchronization input current	32 mA nominal
Synchronization filter selections	100 microseconds / 5 ms
Synchronization low/high thresholds	7.2 V max / 16.2 V min
Analog outputs	2
Analog output voltage	-10 to +10 V
Analog output resolution	12 bit
Analog output accuracy	+/-1%

Technical source: ABB ACV 700 Hardware Manual, Control System. Data describe YPH108B/SP/SPC, including the SPC capacitor-input distinction. Encoder-level thresholds and power selection depend on the selected 5/12/24 V configuration. Analog-output accuracy is not a speed-measurement accuracy claim.
Apter Power product summary. Original technical pages and a field guide are available in Downloads.

Applications / Compatibility

Use the SPC board in the ACV700 CDC encoder/timing arrangement, preserving the complete input-level and jumper configuration.

Match differential or single-ended signaling and the 5/12/24 V selection. The capacitor input has a specific 12/24 V single-ended application boundary.

Dual encoder measurement
Keep both encoder identities and A/B/Z channel assignments. Check direction and index behavior against the retained speed/time application.

12/24 V single-ended signals
Use the documented capacitor-input arrangement and jumper settings. Review the encoder drive and cable route when investigating edge-timing errors.

5 V single-ended signals
Do not route these signals through the capacitor input. Match the correct input selection and verify the actual level at the receiving board.

Synchronization and analog use
Select synchronization filtering for the recorded event duty. Keep non-isolated analog output references separate from assumptions about encoder-input isolation.

Product Precautions

Prepare ABB YPH108B/SPC using the following checks for its documented interface and system duty.

Preserve SPC selection
Record the complete board and capacitor-input configuration before exchange.

Match encoder voltage
Compare 5/12/24 V selection and the actual encoder signal level.

Retain A/B/Z identity
Tag direction-related channels and index separately for each encoder.

Review filter choice
Keep the software-selected synchronization filter tied to the accepted event response.

Respect analog references
The analog outputs are non-isolated; preserve the receiving reference circuit.

Test all used functions
Prove encoder direction/index, synchronization and analog response independently.

Lifecycle Status

The factory lifecycle phase of YPH108B/SPC is unconfirmed. Its SPC execution supplies the documented extended-speed, synchronization and analog-output functions in the ACV700 CDC arrangement.

Keep the selected encoder input level and the SPC single-ended-input boundary. The analog-output specifications cannot serve as overall speed-measurement accuracy when comparing another board.

The board is separate from the encoders, field cables and CDC controller/rack equipment; any mounting plate is confirmed as an included item.

Available Unit Details

Offered reference	ABB YPH108B/SPC
Identity check	Request the SPC marking, fitted jumper positions and views of the encoder, synchronization, analog-output and CDC/backplane interfaces.
Physical review	The board offer excludes encoders and application configuration unless itemized. Photos can support jumper and connector review; pulse reception, timing response and analog scaling require independent installed-loop checks.
Included items	one extended speed-measuring board; encoders, cables and mounting items separately identified

Request available-unit photos and details: sales13@apterpower.com

Technical notes

Capacitor boundary	Use the SPC capacitor input for its documented 12/24 V single-ended duty, not 5 V single-ended signals.
Accuracy boundary	The analog-output accuracy figure must not be relabeled as overall speed-measurement accuracy.
Synchronization timing	The 100-microsecond and 5-ms filters apply to the binary synchronization input. They do not establish the encoder measurement bandwidth or analog-output update rate.

Alternative Names

ABB YPH108B/SPC; YPH108B / SPC

Frequently Asked Questions (FAQ)

1. Can the SPC capacitor input of YPH108B/SPC be used with a 5 V single-ended encoder?

No. The manufacturer specifically excludes that use. Preserve the proper 5 V input arrangement and verify the jumper and signal-level configuration before connection.

2. Why can a long single-ended encoder route affect timing on YPH108B/SPC?

Cable length and limited encoder drive can affect detection of falling edges. The SPC capacitor-input arrangement addresses the documented 12/24 V single-ended case; review those conditions instead of assuming every missed edge is mechanical.

3. Are the analog outputs of YPH108B/SPC isolated because the encoder inputs are optoisolated?

No. The manual describes the analog outputs as non-isolated. Preserve their receiving reference and grounding arrangement separately from the encoder-input isolation.

4. What does changing the synchronization filter on YPH108B/SPC affect?

It changes the treatment of short binary synchronization events. Retain the accepted software selection and prove event response for the installed timing application.

5. Can the analog-output accuracy of YPH108B/SPC be quoted as overall encoder speed accuracy?

No. That figure belongs to the analog output stage. Encoder timing, input configuration and the application measurement chain must be evaluated separately.

6. Which checks should follow a direction discrepancy after fitting YPH108B/SPC?

Reconcile each encoder A/B channel assignment, its signal level and the retained application direction convention. Check index separately rather than changing an analog output scale to mask the discrepancy.

7. Why can encoder feedback work while a short synchronization pulse is missed on YPH108B/SPC?

The synchronization inputs have selectable filtering separate from the encoder input path. Compare the installed pulse duration and chosen 100-microsecond or 5-ms filter using the application requirements; an encoder count alone does not prove the synchronization event.

8. How can an incorrect speed representation be separated from an analog-output fault on YPH108B/SPC?

Compare the received encoder-channel relationship with the configured application value, then check the corresponding analog output against its commanded scale. This separates pulse interpretation from the non-isolated analog stage without calling the output accuracy the accuracy of the entire speed loop.

Downloads

The technical reference covers ACV700 CDC encoder measurement. The independent field guide develops spc encoder-level, timing and analog-reference decisions.

YPH108B/SPC Original Technical Reference Excerpt	Selected original manufacturer pages for the applicable interfaces and technical data. PDF · 3 pages · 68.7 KB.
YPH108B/SPC Installation & Commissioning Guide	SPC Encoder-Level, Timing and Analog-Reference Decisions. Preserve the capacitor-input and signal-level choices before restoring the encoder pair, then test timing and non-isolated analog duties separately. PDF · 2 pages · 91.9 KB.

Selected original technical pages and a separate installation guide support this product.

What happens after you enquire

Review your reference	Send the full marking, quantity and label photos. We review the item and any version details that need clarification.
Confirm the offer	Check the quoted reference, condition, included items and expected dispatch date before approving your order.
Arrange dispatch	Confirm delivery details and receive the tracking number when it becomes available.

Ordering checks

Include YPH108B/SPC and every revision or approval marking visible on the item. Keep the exact reference on your enquiry and quotation.

Request available label and interface photos. Have your maintenance team compare the offered YPH108B/SPC reference with the installed equipment and applicable ABB documentation.

Service and support

Dispatch Planning	Confirm stock and lead time with our team.
Dedicated Manager	Personalized one-to-one VIP service
ISO 9001:2015 Certified	Trusted quality management
Warranty Policy	Review the applicable warranty coverage and claim process.
Return Notice	Check the return process and obtain approval before sending an item back.
Shipping Method	Review shipping arrangements, transit estimates and delivery responsibilities.
Parts Availability	Browse stock listings and confirm current availability with our team.
How to order	See how to submit an enquiry, review a quotation and confirm an order.

Discuss your requirement

Send the full marking, label photos, quantity and required date. Our team will review the available sourcing options with you.

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Related product references

Separate supply references; listing does not establish interchangeability.

ABB 07KP64 GJR5240600R0101	RCOM Communication Processor; separate supply reference
ABB 07NG63R1 GJV3074313R1	Dual-Output Rack Power Supply; separate supply reference

Discuss YPH108B/SPC and the installed application with Apter Power.
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