01 / Product and system dashboard

ABB

DSDP170 57160001-ADF

Pulse Counter Board

Product role

ABB DSDP170 57160001-ADF is a four-channel S100 pulse-counter board for incremental position, length, speed and frequency measurements, with counting up to 2.5 MHz.

Incremental transmitter
A/B and strobe pulses

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DSTX170
Configured field interface

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DSDP170
Counting and measurement

Engineering scope

DSDP170 57160001-ADF uses the four-channel S100 pulse-counter design. Input levels, filtering and measurement timing depend on its board and DSTX170 connection-unit configuration; verify the installed revision before applying circuit limits.

02 / Verified identity and technical relationships

Property	Applicable fact	Property	Applicable fact
Measurement channels	4	Connection unit	DSTX170
Transmitter type	Incremental pulse transmitter	Address group	S1; hexadecimal C0–EF
Measurement functions	Position/length; speed/frequency	Interval-source group	S9; programmable timer or coincidence
Maximum pulse frequency	2.5 MHz with applicable input configuration	Interval-sharing group	S10
Count direction	Quadrature decoding or separate up/down inputs	Filter groups	S11–S14
Pulse inputs per channel	A, B and C strobe	Status display	Board fault plus per-channel indications

Configuration boundary

DSDP170 57160001-ADF uses the four-channel S100 pulse-counter design. Input levels, filtering and measurement timing depend on its board and DSTX170 connection-unit configuration; verify the installed revision before applying circuit limits.

03 / Applications and system integration

Incremental position measurement

Count direction-sensitive transmitter pulses for the installed position or length measurement channel.

Speed and frequency measurement

Use the configured interval source and counting function to measure the incoming pulse rate.

Position synchronization

Use the C strobe or digital synchronization input within the controller-defined measurement sequence.

Coincidence event control

Use the programmed count-coincidence function and its digital output in the approved external control circuit.

Functional context

Each channel uses A and B pulse inputs for direction-sensitive counting and a C strobe input for synchronization. A separate digital input can synchronize the position counter, while a digital output responds to a programmed coincidence condition. Field signals connect through DSTX170; its input-level solder jumpers must match the connected transmitter before power is applied.

04 / Service and installation decisions

Match the complete signal chain

Identify the transmitter, DSTX170 connection unit, cable and board revision before wiring.

Check input-level selection

Confirm DSTX170 solder jumpers match the transmitter. Incorrect input strapping can damage DSDP170 inputs.

Preserve channel functions

Record A/B direction mode, C strobe use and digital synchronization/output connections.

Retain timing configuration

Document S9 interval source, S10 sharing and S11–S14 filtering before replacement.

Secure motion before service

Isolate applicable circuits and prevent uncontrolled motion before disconnecting position or speed feedback.

Verify direction and synchronization

Use a controlled test to confirm count direction, strobe response, interval behavior and intended output action before release.

05 / Reference basis and related portfolio

Lifecycle and supply

A current manufacturer lifecycle phase has not been confirmed. Request current support and replacement guidance using the complete DSDP170 57160001-ADF identity. Apter Power availability is confirmed separately in the quotation.

Reference basis

ABB S100 I/O Hardware Reference Manual, 3BSE002413R501, March 2004; Advant Controller 450 Product Guide, 3BSE015953R201 Rev. B.

Apter Power technical summary; not a manufacturer-issued manual. Apply the original instructions for the actual installation.

Related industrial automation products

Navigation only; no substitution or compatibility claim.

ABB PM864AK02 3BSE018164R1

ABB SC560 3BSE008105R1

ABB TU835V1 3BSE013236R1

Discuss your installed configuration

Send the full unit marking and connection details.

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