01 / Product and system dashboard

ABB

DSAO120 57120001-EY

Analog Output Board

Product role

ABB DSAO120 57120001-EY is an eight-channel S100 analog-output board for bipolar voltage or current signals, with 12-bit resolution including sign.

Controller
Configured analog value

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DSAO120
Eight bipolar outputs

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DSTA170
Field connection

Engineering scope

The DSAO120 functions apply to DSAO120 57120001-EY with its matched S100 connection unit. DSAO120A isolation and OSP features are separate and are not assigned to this board.

02 / Verified identity and technical relationships

Property	Applicable fact	Property	Applicable fact
Output channels	8	Connection unit	DSTA170
Voltage range	0 to ±10 V	Signal selection	By field-wiring connection
Current range	0 to ±20 mA	Front adjustments	Gain and zero point
Resolution	12 bits including sign	Factory adjustment	Current output
Galvanic isolation	None	Voltage-output setup	Readjustment may be required for specified accuracy

Configuration boundary

The DSAO120 functions apply to DSAO120 57120001-EY with its matched S100 connection unit. DSAO120A isolation and OSP features are separate and are not assigned to this board.

03 / Applications and system integration

Bipolar voltage control

Provide a 0 to ±10 V signal to a compatible field input using the appropriate connection and return.

Bipolar current control

Provide a 0 to ±20 mA signal where the installed process interface and scaling are designed for that range.

Multichannel process outputs

Maintain eight independent configured output channels within the supported S100 controller arrangement.

Analog channel calibration

Use the front gain and zero adjustments with the applicable procedure when restoring channel accuracy or changing signal use.

Functional context

The channels are not galvanically isolated. Current or voltage operation is selected by connecting the signal wiring to the corresponding terminals on DSTA170, rather than by treating the voltage and current connections as independent channels. The complete installation includes the output board, appropriate connection cable and field connection unit.

04 / Service and installation decisions

Preserve the exact variant

Retain DSAO120 57120001-EY; DSAO120A has different isolation and configuration characteristics.

Review signal connections

Check whether every field circuit uses voltage or current and record its return path.

Observe non-isolated wiring

Assess grounding and connected circuit potentials for the non-isolated DSAO120 outputs.

Control the process before work

Prevent unintended equipment movement or process changes before disconnecting outputs or adjusting a channel.

Use a controlled adjustment

Preserve the original settings and use suitable measurement equipment and the applicable ABB procedure.

Test every affected channel

Confirm the commanded and measured signal, polarity, scaling and field response before restoring automatic operation.

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 DSAO120 57120001-EY 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 AO650 3BHT300051R1

ABB AI620 3BHT300005R1

ABB CI853K01 3BSE018103R1

Discuss your installed configuration

Send the full unit marking and connection details.

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