

Installation Identity and Scope

ABB SDCS-IOB-3 3BSE004086R1 is an external analog I/O and pulse-encoder connection board. ABB documents five analog inputs, three analog outputs, an isolated pulse-encoder interface and a current source for temperature devices.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	SDCS-IOB-3 3BSE004086R1
Manufacturer	ABB
Hardware role	Analog Encoder Board
System family	DCS Drive Control

Controlled engineering copy

Preserve the complete SDCS-IOB-3 3BSE004086R1 identity and every jumper setting. Record analog ranges, encoder supply, temperature-device mode, shielding, grounding and cable lengths before replacement.

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SDCS-IOB-3 3BSE004086R1

Pre-Installation Plan

NO.	REQUIRED ACTION
1	Verify ABB SDCS-IOB-3 3BSE004086R1 before work.
2	Place the drive and all affected analog circuits in the approved maintenance state.
3	Record every analog range and jumper setting before removal.
4	Record the S4 encoder supply and S5 temperature-device selection.
5	Maintain conductive mounting-support grounding and documented shielding.
6	Do not exceed the ABB cable-length limits.
7	Confirm encoder characteristics and current-input selection before energization.
8	Test all analog channels, encoder feedback and temperature input before release.

Before Energization

CONTROL	REQUIRED RECORD
Identity	Complete SDCS-IOB-3 3BSE004086R1 marking and hardware role
Connections	Approved power, grounding and protocol interfaces
Configuration	Controlled backup, addressing and protocol files
Test plan	Defined acceptance values and controlled restart authority

Release hold point

Do not disturb the installed device until exact marking, interfaces, companion hardware and configured function are documented.

Wiring, Network and Configuration Checks

CHECK	MODEL-SPECIFIC REQUIREMENT
Product type	Analog I/O and pulse-encoder connection board
Analog inputs	5
Analog outputs	3
Encoder interface	Galvanically isolated pulse encoder
Temperature source	PTC 1.5 mA or PT100 5 mA by S5
Current input	0/4 to 20 mA through 500 ohm selection
Encoder supply	5 V, 12 V or 24 V by S4
Mounting	External conductive mounting supports bonded to ground

Configuration boundary

Preserve the complete SDCS-IOB-3 3BSE004086R1 identity and every jumper setting. Record analog ranges, encoder supply, temperature-device mode, shielding, grounding and cable lengths before replacement.

Expected Technical Values

PARAMETER	VALUE
Standard cable	1.7 m maximum
Screened D6/D7 cable	4 m maximum
X1-X3 cable	0.5 m maximum

Commissioning and Acceptance

TEST	ACCEPTANCE CONDITION
Identity	Manufacturer and complete SDCS-IOB-3 3BSE004086R1 marking match the record.
Power	Measured supply agrees with the documented operating requirement.
Interface	Connectors, addressing and network parameters match the approved project.
Configuration	Protocol files, framing and mapped data areas match the controlled backup.
Diagnostics	No unexplained status, counter or communication fault remains.
Functional proof	Controlled bidirectional data transfer completes successfully.
Release	Final values and test results are retained with restart approval.

Questions to Resolve

QUESTION	ENGINEERING ANSWER
What is ABB SDCS-IOB-3 3BSE004086R1?	It is an external analog I/O and pulse-encoder connection board for ABB DCS drive-control systems.
How many inputs does ABB SDCS-IOB-3 3BSE004086R1 provide?	ABB documents five analog inputs.

Related Products

MODEL	APTER POWER PAGE
ABB 1KHW001432R0001	View ABB 1KHW001432R0001
ABB DI811	View ABB DI811
ABB TU831V1 3BSE013235R1	View ABB TU831V1 3BSE013235R1

Source, Related Products and Release

MODEL	APTER POWER PAGE
ABB DSBC174 3BSE012211R1	View ABB DSBC174 3BSE012211R1
ABB SR511 3BSE000863R1	View ABB SR511 3BSE000863R1
ABB 07DI92	View ABB 07DI92

MANUFACTURER SOURCE RECORDS

1. ABB DCS800 Hardware Manual 3ADW000194
2. ABB DCS500B/DCS600 Service Manual 3ADW000093

Controlled Release Summary

RELEASE ITEM	REQUIRED EVIDENCE
Identity	SDCS-IOB-3 3BSE004086R1 recorded
Interface	Connections and companion hardware verified
Configuration	Installed values agree with approved record
Functional proof	Controlled test completed without unexplained fault

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