

Installation Identity and Scope

ABB SDCS-IOB-22 3BSE005177R1 is an external digital I/O connection board with eight digital inputs and eight digital outputs. The -22 variant is documented for 115 VAC digital input circuits.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	SDCS-IOB-22 3BSE005177R1
Manufacturer	ABB
Hardware role	Digital I/O Board
System family	DCS Drive Control

Controlled engineering copy

Preserve the complete SDCS-IOB-22 3BSE005177R1 identity, both galvanically separate input groups, connector mapping, shielding and the documented cable-length limits.

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SDCS-IOB-22 3BSE005177R1

Pre-Installation Plan

NO.	REQUIRED ACTION
1	Verify ABB SDCS-IOB-22 3BSE005177R1 before work.
2	Confirm the installed board is the 115 VAC -22 input variant.
3	Place the drive and all affected digital circuits in the approved maintenance state.
4	Record both galvanically separate input groups and every conductor.
5	Maintain conductive mounting-support grounding and documented shielding.
6	Do not exceed the ABB cable-length limits.
7	Record S7 and S8 settings for DI7 and DI8 before replacement.
8	Test all eight inputs and eight outputs before release.

Before Energization

CONTROL	REQUIRED RECORD
Identity	Complete SDCS-IOB-22 3BSE005177R1 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	Digital I/O connection board
Digital inputs	8
Digital outputs	8
Input voltage variant	115 VAC
Input isolation	Galvanic isolation by optocouplers
Input groups	2 galvanically separate groups
DI7 / DI8 time constant	2 ms or 10 ms by S7 / S8
Mounting	External conductive mounting supports bonded to ground

Configuration boundary

Preserve the complete SDCS-IOB-22 3BSE005177R1 identity, both galvanically separate input groups, connector mapping, shielding and the documented cable-length limits.

Expected Technical Values

PARAMETER	VALUE
X1-X1 / X2-X2 cable	1.7 m maximum
X1-X3 cable	0.5 m maximum for EMC

Commissioning and Acceptance

TEST	ACCEPTANCE CONDITION
Identity	Manufacturer and complete SDCS-IOB-22 3BSE005177R1 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-22 3BSE005177R1?	It is an external digital I/O connection board for ABB DCS drive-control systems.
How many inputs does ABB SDCS-IOB-22 3BSE005177R1 provide?	ABB documents eight digital inputs.

Related Products

MODEL	APTER POWER PAGE
ABB 0G0010-00-090	View ABB 0G0010-00-090
ABB 1HSB495663-3	View ABB 1HSB495663-3
ABB P4LR 1KHL015107R0001	View ABB P4LR 1KHL015107R0001

Source, Related Products and Release

MODEL	APTER POWER PAGE
ABB G4AI 1KHL015623R0001	View ABB G4AI 1KHL015623R0001
ABB G4AK 1KHL016009R0001	View ABB G4AK 1KHL016009R0001
ABB 1KHL178016R0001F	View ABB 1KHL178016R0001F

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-22 3BSE005177R1 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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