

SDCS-IOB-22 3BSE005177R1

Digital I/O Board

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.

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

Document scope

Exact identity, verified technical data, applications, precautions, model-specific FAQ and controlled acceptance records.

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



SDCS-IOB-22 3BSE005177R1

Technical Specifications

PARAMETER	VERIFIED VALUE
Product identity	SDCS-IOB-22
ABB item	3BSE005177R1
Product type	Digital I/O connection board
Digital inputs	8
Digital outputs	8
Input voltage variant	115 VAC

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

Engineering boundary

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

Functions and Applications

Eight digital inputs Receives the documented 115 VAC field input signals through isolated channels.	Eight digital outputs Provides the documented digital output connection points for the drive control system.
Galvanic grouping Separates the digital inputs into two isolated electrical groups.	Selectable input timing Allows DI7 and DI8 time constants to be selected by S7 and S8.

Common Applications

APPLICATION	ENGINEERING CONTEXT
DCS drive digital I/O	Connects external 115 VAC digital signals to the documented drive-control hardware.
Isolated input groups	Maintains two galvanically separate digital-input groups.
External board replacement	Restores the recorded connector, grounding and cable arrangement.
Controlled I/O testing	Verifies every digital input and output channel before drive release.

Controlled acceptance duty

Confirm identity, interfaces, configured values and functional response against the installed-system record before release.

Engineering Precautions

NO.	PRECAUTION
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.

Model-Specific FAQ - Part 1

QUESTION	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.
How many outputs does ABB SDCS-IOB-22 3BSE005177R1 provide?	ABB documents eight digital outputs.
Which input voltage applies to ABB SDCS-IOB-22 3BSE005177R1?	The -22 variant is documented for 115 VAC digital inputs.

Related Products

MODEL	APTER POWER PAGE
ABB 07EB62R1 GJV3074342R1	View ABB 07EB62R1 GJV3074342R1
ABB 07KP60R101 GJV3074360R101	View ABB 07KP60R101 GJV3074360R101
ABB 07NG61R1 GJV3074311R1	View ABB 07NG61R1 GJV3074311R1

Model-Specific FAQ - Part 2

QUESTION	ANSWER
How are ABB SDCS-IOB-22 3BSE005177R1 inputs isolated?	The digital inputs are galvanically isolated by optocouplers and arranged in two separate groups.
What do S7 and S8 set on ABB SDCS-IOB-22 3BSE005177R1?	They select the 2 ms or 10 ms time constant for DI7 and DI8.
What cable limits apply to ABB SDCS-IOB-22 3BSE005177R1?	ABB specifies 1.7 m for X1-X1 or X2-X2 and 0.5 m for X1-X3 under the documented EMC arrangement.
What confirms ABB SDCS-IOB-22 3BSE005177R1 commissioning?	Grounding, groups, jumper settings and all eight input and output channels must pass controlled tests.

Related Products and Release

MODEL	APTER POWER PAGE
ABB 07PS62R2 GJV3074332R2	View ABB 07PS62R2 GJV3074332R2
ABB 07SK90R1 GJR5250200R0001	View ABB 07SK90R1 GJR5250200R0001
ABB 07ZE61R302 GJV3074321R302	View ABB 07ZE61R302 GJV3074321R302

MANUFACTURER SOURCE RECORDS

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

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