OFFICIAL MODEL-SPECIFIC GUIDE

Installation Instructions

IMDSI14

ABB Symphony rack I/O · 16-channel digital input module

01 VERIFIED CONFIGURATION

Digital inputs	16 channels
Nominal input	48 V DC
Mounting unit	IEMMU series
Termination unit	NTDI01
Termination cable	NKTU01 or NKTU11

02 DOCUMENTED INSTALLATION SCOPE

- Set the S1 address to match the controller configuration.
- Align the module with the mounting-unit guide rails and seat it fully.
- Connect the NTDI01 termination unit through the documented cable.

INSTALLATION CHECK

Confirm the complete article number, installed hardware and site procedure before work.

Source: ABB official manufacturer documentation

03 OFFICIAL INSTALLATION AND CONNECTION REFERENCE

address set in the controller configuration (function code 84, specification S1).

The address is set by an eight position address dipswitch (S1), shown in Figure 3-1. The six right switch positions (three through eight) of S1 set the six bit DSI module address. Positions one and two are not used and must remain in the closed position (Fig. 3-2). Table 3-1 shows examples of binary address settings for S1.

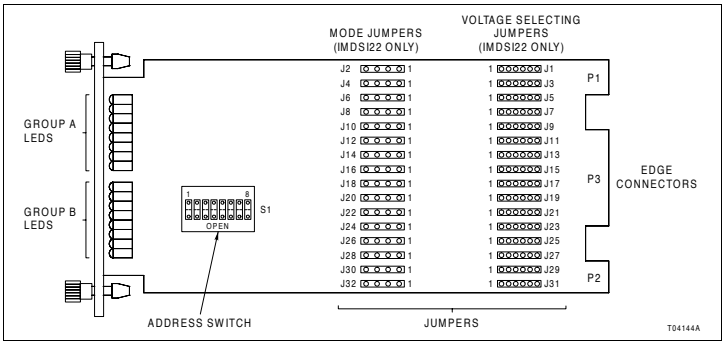


Figure 3-1. Module Layout

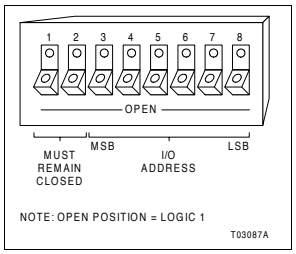


Figure 3-2. Address Select Switch S1 Settings

Official manufacturer page preserved at original aspect ratio and technical content.

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OFFICIAL MOUNTING AND WIRING REFERENCE

Configuration of the termination unit is required to accept the digital field inputs sent to the DSI module. Refer to Appendix A for additional information.

Physical Installation

NOTE: This installation section provides instructions pertaining to the physical installation of the digital input module only. For complete cable and termination information, refer to the applicable instruction.

The DSI module inserts into a standard module mounting unit and occupies one slot. To install:

1. Verify the slot assignment of the module.

WARNING	**Disconnect power before installing dipshunts on the module mounting unit backplane. Failure to do so will result in contact with cabinet areas that could cause severe or fatal shock.**

2. Verify that a dipshunt is in the I/O expander bus socket on the module mounting unit backplane between the I/O module and controller.

3. For termination units, connect the hooded end of the termination cable from the termination unit to the module mounting unit backplane. To do this, insert the connector into the backplane slot in the same slot as the one assigned to the DSI module. The latches should snap securely into place.

4. Align the DSI module with the guide rails in the module mounting unit. Gently slide the module in until the front panel is flush with the top and bottom of the module mounting unit frame and the module is seated in the cable to the termination unit.

5. Push and turn the two captive retaining screws on the module faceplate one half turn to the latched position. It is latched when the slots on the screws are vertical and the open ends face the center of the module.

Wiring Connections and Cabling

The DSI module has three card edge connectors to supply logic power, establish I/O expander bus communication and provide digital inputs (P1, P2, P3 respectively).

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OFFICIAL TERMINATION REFERENCE

Wiring

Installing the module in the module mounting unit connects the DSI module to the logic power (+5 VDC), necessary to drive the circuitry, at P1. It also connects P2 to the I/O expander bus for communication with the controller. P1 and P2 connections require no additional wiring or cabling.

NOTE: Install a dipshunt on the backplane of the module mounting unit to connect the I/O expander bus between the DSI module and controller. Locate the modules so the bus can connect the modules or they will not communicate.

Cable Connections

The DSI digital input module uses an NTDI01 termination unit for termination. Refer to Figure 3-3 to determine the cable to use with the NTDI01 termination unit.

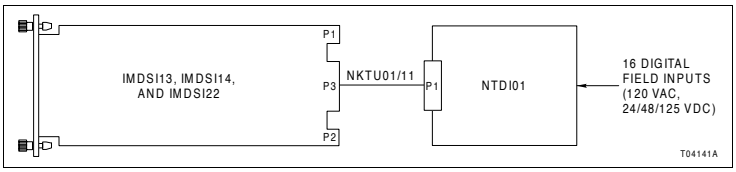


Figure 3-3. Cable Connections and Termination

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