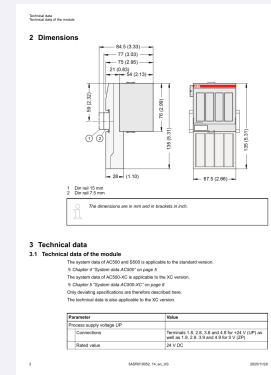


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

ABB DO524

Digital Transistor Output Module



PRODUCT	DO524
FAMILY	AC500 / S500 I/O
FUNCTION	Digital Transistor Output Module
STATUS	Verify exact configuration

Prepared by Amikon Limited from ABB 3ADR010052 rev.14, 2025-11-28; DO524 connection instructions. This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

Output-channel arrangement	32 transistor outputs with one-wire signal connections
Rated process supply	24 V DC; -15% / +20%; maximum 5% ripple
Normal UP demand	0.10 A plus maximum 0.5 A per output
Host supply contribution	Approximately 2 mA from CPU or interface supply
UP inrush integral	0.005 A2s at power-up
Internal dissipation	Maximum 6 W with outputs unloaded
Digital output loading	500 mA per channel; 4 A per sixteen-channel bank; 8 A total before derating

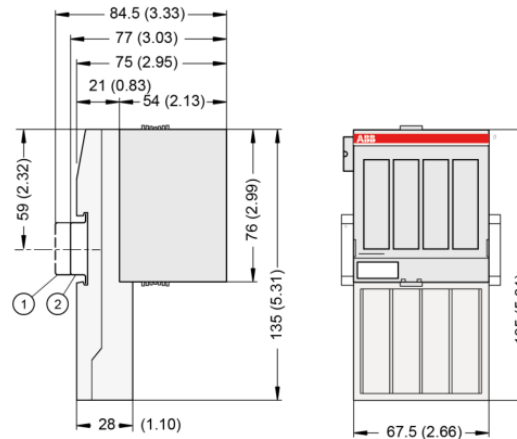
02 MOUNTING AND CONNECTION

- Disconnect supply and process voltages before connecting terminals or replacing the module unless every official hot-swap condition is satisfied.
- Preserve the required cabinet airflow and apply the mounting-dependent output derating.
- Connect UP to the documented .8 terminals and ZP to the .9 terminals using the required protected 24 V supply.
- Wire O0-O31 according to the four terminal-row assignments; never use reserved terminals for spare connections.
- Check each sixteen-output bank against 4 A and the full module against 8 A before applying derating.

OFFICIAL INSTALLATION REFERENCE

Technical data
Technical data of the module

2 Dimensions



- 1 Din rail 15 mm
- 2 Din rail 7.5 mm



The dimensions are in mm and in brackets in inch.

3 Technical data

3.1 Technical data of the module

The system data of AC500 and S500 is applicable to the standard version.

☞ Chapter 4 "System data AC500" on page 5

The system data of AC500-XC is applicable to the XC version.

☞ Chapter 5 "System data AC500-XC" on page 8

Only deviating specifications are therefore described here.

The technical data is also applicable to the XC version.

Parameter	Value
Process supply voltage UP	
Connections	Terminals 1.8, 2.8, 3.8 and 4.8 for +24 V (UP) as well as 1.9, 2.9, 3.9 and 4.9 for 0 V (ZP)
Rated value	24 V DC

Official manufacturer reference reproduced from ABB 3ADR010052 rev.14, 2025-11-28; DO524 connection instructions. Use the current source document and all referenced drawings and notes for installation.

04

CABLE ROUTING AND CONNECTION

- Preserve the required cabinet airflow and apply the mounting-dependent output derating.
- Connect UP to the documented .8 terminals and ZP to the .9 terminals using the required protected 24 V supply.
- Wire O0-O31 according to the four terminal-row assignments; never use reserved terminals for spare connections.
- Check each sixteen-output bank against 4 A and the full module against 8 A before applying derating.
- Commission individual field loads and investigate output diagnostics before enabling automatic sequences.

05

INITIAL SYSTEM CHECKS

- Confirm model identity and compatible system components before energizing.
- Verify wiring, grounding, enclosure, and applicable hazardous-area requirements.
- Verify each field load and review output diagnostics against the wiring schedule.
- Record the installed order number and baseline operating condition.

06

CONTROLLED DOCUMENTS

Official source	ABB 3ADR010052 rev.14, 2025-11-28; DO524 connection instructions
Product record	DO524
Manufacturer	ABB
Support	INFO@AMIKON.CN