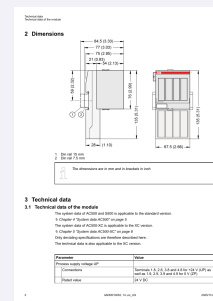


AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

ABB DO524

Digital Transistor Output Module



OUTPUTS	SIGNAL	PER CHANNEL	TOTAL LIMIT
32 DO	24 V DC	0.5 A	8 A

ABB DO524 provides thirty-two 24 V DC transistor outputs for an S500 field station. The one-wire signal connections occupy four terminal rows, while the documented electrical limits apply to each channel, each sixteen-output bank and the module as a whole.

01 VERIFIED PRODUCT PARAMETERS

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
High-state output voltage	UP minus 0.8 V
Off-state leakage	Less than 0.5 mA
Inductive-load switching limit	Maximum 0.5 Hz

Technical values were verified against ABB 3ADR010052 rev.14, 2025-11-28; DO524 connection instructions.

02 ADDITIONAL TECHNICAL DATA

Lamp-load switching limit	Maximum 11 Hz at maximum 5 W
Overload reporting	Above 0.7 A; indication after approximately 100 ms
Output protection	Short-circuit and overload protected with automatic reactivation
Field-cable limit	1000 m shielded or 600 m unshielded
Standard ambient limits	Horizontal 0-60 C; vertical 0-40 C with 50% output-load derating per group

03 SYSTEM ROLE AND APPLICATIONS

Standard DO524 is order 1SAP240700R0001. Check the actual loads, shared process supply and installation conditions before commissioning. The XC version has a separate ordering identity; neither its environmental range nor another output module's loading limits should be assumed for the standard product.

- Inductive DC actuation: switch compatible loads within the documented switching-frequency and current limits.
- Lamp indication: drive suitable indication lamps within their specified power and frequency envelope.
- Distributed output wiring: route multiple discrete commands through the documented terminal rows in a controller-led I/O station.

04 OFFICIAL INSTALLATION FACTS

- 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.

05 OFFICIAL DOCUMENTATION

[ABB 3ADR010052 rev.14, 2025-11-28; DO524 connection instructions](#)

AMIKON PRODUCT SUPPORT

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