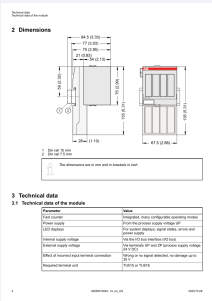


AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

ABB DA502

Mixed Signal Output Module



FIXED OUTPUTS	CONFIGURABLE	ANALOG INPUTS	ANALOG OUTPUTS
16 DO	8 DC	4 AI	2 AO

ABB DA502 combines sixteen fixed transistor outputs with eight configurable digital input/output channels, four analog inputs and two analog outputs. This S500 module supports output-oriented field stations that also need electrical or temperature measurements.

01

VERIFIED PRODUCT PARAMETERS

Signal-channel complement	16 fixed digital outputs, 8 configurable digital I/O, 4 analog inputs and 2 analog outputs
Terminal-unit requirement	TU515 or TU516
Process voltage	24 V DC; -15% / +20%; maximum 5% ripple
Process-supply consumption	0.07 A plus maximum 0.5 A per digital output
Inrush integral at UP	0.04 A2s at power-up
Unloaded module dissipation	Maximum 6 W
Digital output current limits	500 mA per channel; fixed DO0-DO15 bank maximum 4 A; DC16-DC23 bank maximum 4 A before derating
Digital off-state leakage	Less than 0.5 mA
Digital output load switching	Inductive loads: maximum 0.5 Hz; lamps: maximum 11 Hz at maximum 5 W
Configurable input characteristic	IEC 61131-2 Type 1; 0.1-32 ms selectable filter

Technical values were verified against ABB 3ADR010040 rev.14, 2025-11-28, DA502 original instructions.

02 ADDITIONAL TECHNICAL DATA

Fast-counter frequency	Maximum 50 kHz; unavailable with a CS31 bus module
Analog input selections	0-10 V, -10 to +10 V, 0-20 mA, 4-20 mA, Pt100, Pt1000 or Ni1000
Analog input impedance	Voltage: greater than 100 kohm; current: approximately 330 ohm
Analog output selections	-10 to +10 V, 0-20 mA or 4-20 mA; 12-bit resolution including sign
Analog receiver load	Current output: 0-500 ohm; voltage output: maximum +/-10 mA

03 SYSTEM ROLE AND APPLICATIONS

The standard DA502 is order 1SAP250800R0001 and uses TU515 or TU516 terminal units. Match the fixed-output bank, configurable channels and analog signal ranges to the controller project. Observe the group-current limits instead of multiplying a single-channel rating across every output.

- Multi-output sequencing: command separate 24 V loads within the fixed-output bank and its shared current limit.
- Measured-command stations: acquire analog feedback while supplying configured voltage or current commands to compatible equipment.
- Mixed status and actuation: use the configurable channel bank for the documented field-input and output requirements.

04 OFFICIAL INSTALLATION FACTS

- Isolate all process and supply voltages before wiring or exchanging DA502.
- Use TU515 or TU516 and preserve the specified mounting orientation and natural convection.
- Connect SELV/PELV 24 V process power with the documented 10 A fast UP protection.
- Wire DO0-DO15 to terminal banks 1 and 2, DC16-DC23 to bank 4, and analog channels to the documented bank-3 terminals.

05 OFFICIAL DOCUMENTATION

[ABB 3ADR010040 rev.14, 2025-11-28, DA502 original instructions](#)

AMIKON PRODUCT SUPPORT

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