

ABB - S800 I/O

AO820 3BSE008546R1

Four-Channel Bipolar Analog Output Module

Verified specifications

Article number	3BSE008546R1
Channels	4 bipolar analog outputs
Signal ranges	-20 to +20 mA; 0 to 20 mA; 4 to 20 mA; -10 to +10 V; 0 to 10 V; 2 to 10 V
Resolution	12 bits including sign
Isolation	Channels individually isolated from each other and common
Current load	≤550 Ω
Voltage load	≥5 kΩ
Rise time	<0.7 ms
Update cycle	≤1.5 ms
Diagnostics	Output readback, open-circuit current diagnosis, process-voltage supervision

Product summary

ABB AO820 3BSE008546R1 is a four-channel S800 I/O bipolar analog output module whose channels can be configured independently for supported current or voltage ranges.

AO820 3BSE008546R1

Additional verified specifications

MTU compatibility	TU810, TU812, TU814, TU830, TU833
Protection	Current outputs short-circuit proof
Dimensions	4.5 × 11.9 × 10.2 cm (W × H × D); 11.1 cm depth including connector
Net weight	0.18 kg

Signal Selection

- Configure each channel in software for the required current or voltage range
- Match polarity and engineering scaling to the receiving device
- Do not infer channel mode from field wiring alone

Field Connection

- Use a compatible TU810, TU812, TU814, TU830 or TU833 MTU
- Keep channel conductors and references on their assigned isolated terminals
- Check current-loop resistance or voltage-input impedance before commissioning

Diagnostics

- Use output readback to compare commanded and delivered values
- Investigate open-circuit current alarms and low process voltage before replacing the module
- Verify the configured OSP state for controller or communication faults

Applications

- Bipolar setpoint output to industrial drives
- Current-loop command to valves and positioners
- Isolated voltage or current reference generation in S800 I/O stations

Evidence boundary: ABB publishes exact body dimensions and 0.18 kg module weight. The separate depth including connector is retained as a qualified parameter, not substituted for body depth.