

AO801

Freelance hardware selector



The AO801 Analog Output Module has 8 unipolar analog output channels. The module performs selfdiagnostic cyclically. A low internal power supply sets the module in INIT state (no signal from the module).

Features and benefits

- 8 channels of 0...20 mA, 4...20 mA outputs
- OSP sets outputs to predetermined state upon error detection
- Analog Output is to be short circuit secured to ZP or +24 V
- Process and power connection via detachable connectors

General info	
Article number	3BSE020514R1
Type	Analog Output
Signal specification	0... 20 mA, 4...20 mA
Number of channels	8
Signal type	Unipolar single ended
HART	No
SOE	No
Redundancy	No
High integrity	No
Intrinsic safety	No
Mechanics	S800L

Detailed data	
Resolution	12 bit
Isolation	Groupwise isolated from ground
Under/over range	- / +15%
Output load	Max 850 Ω
Error	0,1 %
Temperature drift	Typ 30 ppm/°C, Max 50 ppm/°C
Rise Time	10 μs
Update cycle time	1 ms
Current limiting	Short circuit proof current limited output
Maximum field cable length	600 meters (656 yards)
Rated insulation voltage	50 V
Dielectric test voltage	500 V a.c.
Power dissipation	3.8 W
Current consumption +5 V Modulebus	70 mA
Current consumption +24 V Modulebus	-
Current consumption +24 V external	200 mA
Supported wire size	Solid: 0.05-2.5 mm ² , 30-12 AWG Stranded: 0.05-1.5 mm ² , 30-12 AWG Recommended torque: 0.5-0.6 Nm Stripping length 6-7.5mm, 0.24-0.30 inch

Diagnostics	
Front LED's	S(tatus) (run or fault)
Status indication of supervision	Module Error, Module Warning, Channel error

Environment and certification	
CE mark	Yes
Electrical safety	EN 61010-1, UL 61010-1, EN 61010-2-201, UL 61010-2-201
Hazardous Location	C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2
Marine certification	ABS, BV, DNV, LR
Temperature, Operating	0 to +55 °C (+32 to +131 °F), approvals are issued for +5 to +55 °C
Temperature, Storage	-40 to +70 °C (-40 to +158 °F)
Pollution degree	Degree 2, IEC 60664-1
Corrosion protection	ISA-S71.04: G3
Relative humidity	5 to 95 %, non-condensing
Max ambient temperature	55 °C (131 °F), for vertical mounting 40 °C (104 °F)
Protection class	IP20 according to IEC 60529
Mechanical operating conditions	IEC/EN 61131-2
EMC	EN 61000-6-4 and EN 61000-6-2
Overvoltage categories	IEC/EN 60664-1, EN 50178
Equipment class	Class I according to IEC 61140; (earth protected)
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

Dimensions	
Width	86.1 mm (3.4")
Depth	58.5 mm (2.3")
Height	110 mm (4.33")
Weight	0.24 kg (0.53 lbs.)

—
solutions.abb/freelance
solutions.abb/controlsystems

—
We reserve the right to make technical changes to the products or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not assume any responsibility for any errors or incomplete information in this document.

We reserve all rights to this document and the items and images it contains. The reproduction, disclosure to third parties or the use of the content of this document – including parts thereof – are prohibited without ABB's prior written permission.

Copyright© 2025 ABB All rights reserved