

# AO820

## System 800xA hardware selector



The AO820 Analog Output Module has 4 bipolar analog output channels. The choice of current or voltage output is configurable for each channel. There are separate sets of terminals for voltage and current outputs, and it is up to the user to wire outputs properly. The only differences between current or voltage channel configuration is in software settings.

To supervise the communication to the A/D-converters the output data is read back and verified. The opencircuit diagnostics are read continuously as well. The process voltage supervision input give channel error signals if the voltage disappears. The error signal can be read via the ModuleBus.

### Features and benefits

- 4 channels of -20 mA...+20 mA, 0...20 mA, 4...20 mA or -10 V...+10 V, 0...10 V, 2...10 V outputs
- Individually galvanically isolated channels
- OSP sets outputs to predetermined state upon error detection."

General info	
Type	Analog Output
Signal specification	-20 mA...+20 mA, 0...20 mA, 4...20 mA, -10 V...+10 V, 0...10 V, 2...10 V
Article number	3BSE008546R1
Number of channels	4
HART	No
SOE	No
Redundancy	No
High integrity	No
Intrinsic safety	No
Mechanics	S800

<b>Detailed data</b>	
Resolution	12 bits including sign
Isolation	Individually isolated - channel-to-channel and channel to circuit common
Under/over range	±15%
Output load	≤ 550 Ω ≥ 5 kΩ (voltage output)
Error	Max. 0.1% (voltage); Typ. 0.1% at 250 ohms, Max 0,15% (current)
Temperature drift	Max 90 ppm/°C
Rise Time	< 0.7 ms
Update cycle time	≤ 1.5 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	Typ. 6 W
Current consumption +5 V Modulebus	Max 100 mA
Current consumption +24 V Modulebus	Max 260 mA

<b>Diagnostics</b>	
Front LED's	F(ault), R(un), W(arning), O(SP)
Supervision	Module Error: Output power low. Channel Error: Open circuit (for current >1 mA)
Status indication of supervision	Module Error, Module Warning, Channel Error

<b>Environment and certification</b>	
CE mark	Yes
Electrical safety	IEC 61131-2, UL 508
Hazardous Location	C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2
Marine certification	ABS, BV, DNV-GL, LR, RS, CCS
Protection rating	IP20 according to IEC 60 529
Corrosive atmosphere ISA-S71.04	G3
Climatic operating conditions	0 to +55 °C (Storage -40 to +70 °C), RH=5 to 95 % no condensation, IEC/EN 61131-2
Pollution degree	Degree 2, IEC 60664-1
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)
Max ambient temperature	55 °C (131 °F), for vertical mounting in compact MTU 40 °C (104 °F)
RoHS compliance	EN 50581:2012
WEEE compliance	DIRECTIVE/2012/19/EU

<b>Compability</b>	
Use with MTU	TU810, TU812, TU814, TU830, TU833
Keying code	BC

### **Intrinsic Safety parameters**

<b>Dimensions</b>	
Height	119 mm (4.7")
Width	45 mm (1.77")
Depth	102 mm (4.01"), 111 mm (4.37") including connector
Weight	0.18 kg (0.4 lbs.)

## Related products



**TU814V1**



**TU810V1**



**TU833**



**TU812V1**



**TU830V1**

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