

Analog Output Module, 12-Bit, 4 Channels

October 2008

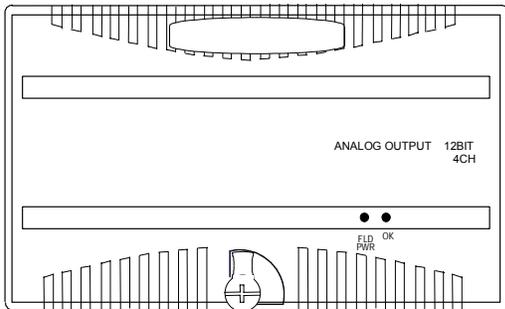
GFK-2527

Product Description

Analog output modules IC200ALG320 and BXIOAO4200 provide four 4mA to 20mA analog current-sourcing outputs. Including a modest amount of overrange current, approximately 20.38mA of output current per channel is available to drive output loads.

Analog output modules IC200ALG321 and BXIOAO4205 provide four analog voltage outputs. The output range is 0 to +10VDC

Analog output modules IC200ALG322 and BXIOAO4210 provide four analog voltage outputs. The output range is -10 to +10VDC



An external power supply is required for the outputs.

Intelligent processing for this module is performed by the CPU or Network Interface Unit. The module receives 4 words of analog output data.

LED Indicators

The green FLD PWR LED indicates the presence of user-side power for the analog field-side circuits.

The green OK LED is on when backplane power is present to the module.

Diagnostics

The module reports a Loss of User Side Power fault for field-side circuits.

Configuration Parameters

The module is easily set up with a jumper for the outputs to either hold their last states or default if backplane power or communications are interrupted or the PLC is stopped. External user power must remain uninterrupted.

Outputs remain in their default or last state until the module receives different output data from the backplane, or until field power is removed.

Preinstallation Check

Carefully inspect all shipping containers for damage. If any equipment is damaged, notify the delivery service immediately. Save the damaged shipping container for inspection by the delivery service. After unpacking the equipment, record all serial numbers. Save the shipping containers and packing material in case it is necessary to transport or ship any part of the system

Module Characteristics

Channels	4 single-ended, one group
Module ID	IC200ALG320 / BXIOAO4200: FFFF9440 IC200ALG321 / BXIOAO4205: FFFF9040 IC200ALG322 / BXIOAO4210: FFFF9040
Isolation:	
User input to logic (optical) and to frame ground	250VAC continuous; 1500VAC for 1 minute
Group to group	Not applicable
Channel to channel	None
LED indicators	FLD PWR LED indicates field power is present OK LED indicates backplane power is present
Backplane current consumption	5V output: 50mA max.
Thermal derating	IC200ALG320 / BXIOAO4200: see diagram IC200ALG321 / BXIOAO4205: none IC200ALG322 / BXIOAO4210: none
Configuration parameters	Output default
Diagnostics	Loss of User Side Power
External Power Supply	
Recommended range	+18 to +30VDC (including ripple)
Current consumption at recommended range	160mA max. (including load current)
12V operation range	9.6 to 15VDC, 12VDC nominal (including ripple)
Current consumption at 12V range (including load current)	IC200ALG320 / BXIOAO4200: 240mA max IC200ALG321 / BXIOAO4205: 210mA max. IC200ALG322 / BXIOAO4210: 210mA max.
Output Characteristics	
Output voltage or current	IC200ALG320 / BXIOAO4200: 4 to 20mA IC200ALG321 / BXIOAO4205: 0 to 10.24VDC IC200ALG322 / BXIOAO4210: ±10.24VDC
Load characteristics:	IC200ALG320 / BXIOAO4200: Resistive: 0 to 1250 Ohms maximum* Capacitive: 0.1µF maximum Inductive: 0.5H maximum
	IC200ALG321 / BXIOAO4205: IC200ALG322 / BXIOAO4210: Resistive: 5000 Ohms minimum Capacitive: 1.0 µF maximum
Accuracy: +25 deg C** 0 to +60 degrees C	+/- 0.3% of full scale (typical), +/- 0.5% of full scale (max) +/-1% of full scale (max)
Resolution	IC200ALG320 / BXIOAO4200: 4µA = 8 counts IC200ALG321 / BXIOAO4205: 2.5mV = 8 counts IC200ALG322 / BXIOAO4210: 5mV = 16 counts
Update rate per module	0.3ms maximum
Channel-to-channel crosstalk rejection	70dB minimum
Output default	IC200ALG320 / BXIOAO4200: Hold Last State (default), 4mA (configurable) IC200ALG321 / BXIOAO4205: IC200ALG322 / BXIOAO4210: Hold Last State (default), 0 (configurable)

$$* R_{L(MAX)} = (V_{EXTERNAL PS} - 4V) / 20.38mA$$

** In the presence of severe RF interference, (IEC 1000-4-3, 10V/m), accuracy may be degraded an additional +/-1%.