



# AUD

## Floating Point to Analog Output

The AUD converts a floating point signal into a linear analog output. There are two inputs on the AUD, one to increase the analog output and one to decrease the analog output. The output of the AUD is stable when the inputs are both off. A contact closure or voltage signal to either input will cause the output of the AUD to begin to ramp either up or down depending on which input was activated. The output stops ramping once the up or down input is deactivated, and will remain at that value until another up or down signal is received. If both inputs are "ON," the output will reset to the lowest value of the selected range. On all products except Version 3 and the AUD2, when power is first applied or restored after power interruption, the AUD

automatically resets to the minimum output signal as defined by the output DIP switch settings or the adjusted minimum. On Version 3, when power is first applied or restored after power interruption, or if both inputs (up/down) pulse 3.5 seconds, it resets to maximum output signal. On the AUD2, when power is first applied or restored after power interruption, the AUD2 automatically resets to the midpoint output signal as defined by the output DIP switch settings or the adjusted minimum. The output of the AUD is in the form of an analog, steady state voltage or current. This signal can be scaled to fit the needs of the application by selecting one of several preset ranges by dip switch or by adjusting the offset and the gain of the output with two potentiometers. The output of the AUD is also protected against wrap around. In the event the output reaches either its maximum or minimum level, the ramping will stop and the output will be held at that value. The output signal rate of change is field selectable by dip switch.

**Applications:** Variable Speed Drive Control, Motor Speed Control, Contact Integration, Floating Point to Analog Conversion, Positioner and Actuator Control

**The AUD is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, [www.workaci.com](http://www.workaci.com).**

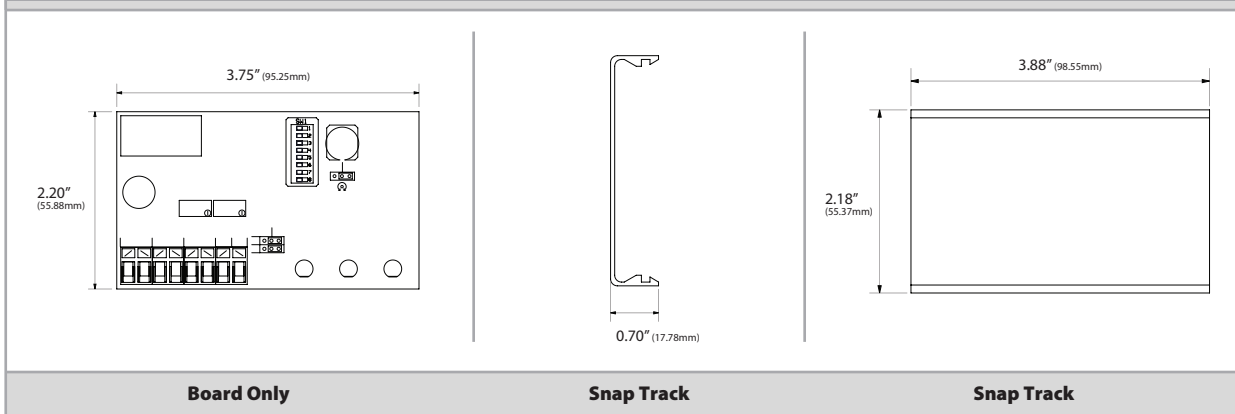
### PRODUCT SPECIFICATIONS

<b>Supply Voltage:</b>	24 VDC (24 VDC to 35 VDC) or 24 VAC (21.6 VAC to 28 VAC), 50/60 Hz.
<b>Supply Current:</b>	208 mA maximum
<b>Input Signal Source:</b>	Relay contact closure, transistor, or triac (24 VAC, 50/60 Hz)
<b>Input Signal Trigger Level:</b>	<b>Normal Mode:</b> 5 to 26.4 VDC, 24 to 26.4 VAC   <b>Triac Mode:</b> 24 to 26.4 VAC
<b>Input Full Range Rates of Change:</b>	See Ordering Grid Below
<b>Output Voltage Fixed Signal Ranges:</b>	0 to 1 VDC, 0 to 4 VDC, 0 to 10 VDC, 0 to 13 VDC, 1 to 2 VDC, 1 to 5 VDC, 1 to 11 VDC, 1 to 14 VDC
<b>Output Voltage Adjustable Signal Ranges:</b>	0 to 20 VDC (with adjustable offset and span)
<b>Output Voltage Signal Load:</b>	3300Ω minimum at 20 VDC ± 10% , 400 ohms minimum at 10 VDC ± 10% (If the voltage output is limited to 18 VDC on the high end of the output span, the DC supply limit can be 24 VDC -10% and maintain stated accuracy)
<b>Output Current Fixed Signal Ranges:</b>	0 to 16 mA, 4 to 20 mA
<b>Output Current Adjustable Signal Ranges:</b>	0 to 20 mA (with adjustable offset and span)
<b>Output Current Signal Load:</b>	0 to 750Ω maximum (If the load is lowered to 700Ω, the DC supply can be 24 VDC -10% and maintain stated accuracy)
<b>Output Signal Accuracy (24 VAC, 60 Hz):</b>	Absolute +/- 2% of span for adjustable ranges, 5% for preset
<b>Output Signal Accuracy (24 VAC, 50 Hz):</b>	Absolute +/- 3% of span for adjustable ranges, 5% for preset
<b>Output Signal Resolution:</b>	256 steps (all ranges)
<b>Regulated Power Output (User):</b>	24 VDC (+/- 10%), 48 mA maximum
<b>Connections:</b>	90° Pluggable Screw Terminal Blocks
<b>Wire Size:</b>	16 (1.31 mm <sup>2</sup> ) to 26 AWG (0.129 mm <sup>2</sup> )
<b>Terminal Block Torque Rating:</b>	0.5 Nm (Minimum); 0.6 Nm (Maximum)
<b>Operating Temperature Range:</b>	35 to 120°F (1.7 to 48.9°C)
<b>Operating Humidity Range:</b>	10 to 95% non-condensing
<b>Storage Temperature:</b>	-20 to 150°F (-28.9 to 65.5°C)
<b>Snaptrack Material:</b>	Polyvinyl Chloride (PVC)
<b>Snaptrack Flammability Rating:</b>	UL94 V-0
<b>Product Dimensions:</b>	(L) 3.75" (W) 2.20" (H) 1.15" (95.25 x 55.88 x 29.21 mm)
<b>Product Weight:</b>	0.24 lbs. (0.1077 Kg)
<b>Agency Approvals:</b>	RoHS2, WEEE





**DIMENSIONAL DRAWING**



**STANDARD ORDERING**

Model # Example: **AUD** -OR- **138535**

Model #	Item #	Firmware Version #	Rates of Change*	Additional Information
<b>AUD</b>	102093	0008Y0A.HEX	5, 15, 30, 90s	---
<b>AUD Version #2</b>	102094	0244Y0A.HEX	45, 60, 120, 240s	---
<b>AUD Version #3</b>	130414	0256Y0A.HEX	45, 60, 120, 240s	Resets to output (on start-up/both inputs (up/down) pulse 3.5s
<b>AUD Version #4</b>	129820	0537Y0A.HEX	5, 360s	---
<b>AUD Version #5</b>	138535	S-AUD V5	60, 75, 120, 150s	---
<b>AUD2</b>	135403	S-AUD_020000190.HEX	5, 15, 30, 90s	Resets to midpoint output signal on start-up

Note\*: Rates of Change unit of measurement = seconds

**ACCESSORIES**

Model # Example: **A/DO008** -OR- **142583**

Model #	Item #	Description
<b>A/DO008</b>	142583	Transient Voltage Suppressor, Bi-directional, 56VAC/DC, 1500W
<b>A/DRC 3.88 X 2.18</b>	142623	DIN Rail Adapter Kit
<b>ENC1</b>	102472	20 Gauge Metal Enclosure, Designed to Hold Interfaces Products

