

FLOW LEVEL PRESSURE ANALYTICAL TEMPERATURE INSTRUMENTATION PASTEURIZATION CONTROLS

AIC 801 Microbased 1/8 DIN Controller

- Unique dual 4 digit programmable display
- Programmable inputs: RTD/4-20mA
- Optional 24 Volt transmitter power supply
- Dual Output: 4-20mA and relay
- Auto/manual Control
- Auto Tuning
- Simple configuration with password protection
- NEMA 4X/IP66 sealed front panel

APPLICATIONS

Any process control application where the controller modulates the position of a valve or speed of a pump to control the variable including:

- Hot water "set" temperature on continuous pasteurizers
- Balance Tank or Filler bowl
 level control
- Product discharge temperature on heat exchangers
- Back pressure control

The Anderson AIC 801 controller is designed for use on virtually any process control application. With fully programmable inputs (RTD and 4-20 mA) and dual outputs standard, the unit can be quickly configured for temperature, pressure, level, or even flow control. The 4-20 mA primary output will throttle a valve or vary a pump speed to maintain the process at the desired setpoint, while the secondary relay output can signal any

excursion beyond selectable limits.

The unit is now optionally available with an on-board 24 Volt D.C. power supply for use with any 4-20 mA transmitter input.

For field mount applications, specify the ED-190 controller package which includes the 801 pre-mounted in a NEMA 4X enclosure. A pre-wired and piped I:P transducer is included for applications requiring a 3-15 psig pneumatic output. We'll even pre-wired and calibrate any Anderson sensor which makes the ED-190 the simplest electronic controller you'll ever specify or install!

Complete specifications and ordering information are available on the reverse. For more information please visit our Web Site at www.andinst.com, or contact your local Authorized Anderson Distributor.



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Anderson AIC 801 Specifications and Ordering Information

INPUT SPECIFICATIONS

General Input Sample Rate: Input Resolution: Input Impedance:

Isolation:

<u>RTD</u>

Type and Connection: Calibration: Lead Compensation: Sensor Break Protection:

DC mA Scale Range Maximum: Scale Range Minimum: Minimum Span: Sensor Break Protection:

OUTPUT SPECIFICATIONS

<u>Output 1 (Primary)</u> Type: Resolution:

Update Rate: Load Impedance: Isolation:

Output 2

Output 3 (Secondary) Type: Contact Type: Rating: Lifetime:

Isolation:

CONTROL SPECIFICATIONS

Auto Tune Types: Proportional Bands:

Auto Reset: Rate: Manual Reset: Four per second 14 bits approximately Greater than 100M ohm resistive (except for DC mA and V inputs) Universal input isolated from all outputs

Three-wire Pt100 Complies with BS1904 and DIN43760 Automatic Break detected within 2 seconds. Control outputs set to OFF (0% power); alarms operate as if the process variable has gone underrange)

-1999 to 9999 -1999 to 9999 1 display LSD Break detected within 2 seconds. Control outputs set to OFF (0% power); alarms operate as if the process variable has gone underrange)

4-20mA DC Eight bits in 250mS (10 bits in 1 sec. typical, >10 bits in >1 sec. typical). Every control algorithm execution 4-20mA: 500 ohm maximum Isolated from all other inputs and outputs

24 Volt D.C. for transmitter power supply (when specified)

Relay SPDT 2A resistive at 120/240V AC >500,000 operations at rated voltage/current Inherent

Pre-Tune and Auto-Tune 0 (off), 0.5% - 999.9% of input span @ 0.1% increments 1s-99min 59 sec and Off 0 (off) - 99min 59sec Adjustable in the range 0-100% of output power (single output) or -100% to +100% of output power (dual output) Deadband/Overlap:

ON/OFF Hysteresis: Auto/Manual Control:

Cycle Times:

Setpont Range:

Setpoint Ramp:

PERFORMANCE

Reference Conditions Ambient Temperature: Relative Humidity: Supply Voltage: Lead Resistance: Common Mode Reject.:

Series Mode Rejection:

DC Linear Inputs Measurement Accuracy: Linearization Accuracy:

<u>RTD Inputs</u> Measurement Accuracy: Linearization Accuracy:

Temperature Stability:

Supply Voltage Influence: Rel. Humidity Influence:

OPERATING CONDITIONS

Ambient Operating Temp.: Ambient Storage Temp.: Relative Humidity: Supply Voltage: Lead Resistance:

PHYSICAL

Dimensions:

Mounting:

Terminals: Weight:

AGENCY APPROVALS

-20% to +20% of proportional band 1 + proportional band 2 0.1% to 10.0% of input span User-selectable with "bumpless" transfer into and out of Manual control Selectable for 0.5 sec to 512 sec in binary steps Limited to Setpoint Upper and Setpoint Lower limits Ramp rate selectable 1-9999 LSDs per hour and infinite. Number displayed is decimal point aligned with selected range.

20°C ±2°C 60-70% 90-264V AC 50HZ ±1% <0.1 ohm/lead balanced (Pt 100) >120dB at 50/60Hz giving negligible effect at up to 264V 50/60Hz >500% of span (at 50/60Hz) causes negligible effect

 $\pm 0.25\%$ of span ± -1 LSD Better than $\pm 0.2^{\circ}$ C any point, any 0.1° C range (± 0.05 typical). Better than $\pm 0.5^{\circ}$ C any point, any 1° C range.

 $\pm 0.25\%$ of span ± 1 LSD Better than $\pm 0.2^{\circ}$ C any point, any 0.1° C range ($\pm 0.05^{\circ}$ C typical). Better than $\pm 0.5^{\circ}$ C any point, any 1° C range. 0.01% of span/°C change in ambient temperature Negligible Negligible

 0°C to 55°C -20°C to 80°C 20% - 95% non condensing 90 - 264VAC 50/60 Hz 50 Ω per lead maximum balanced (pt100)

1/8 DIN front panel (48mm x 96mm) (1.89 x 3.78 inches) Plug-in with panel mounting fixing strap. Panel cut-out 45 mm x 92 mm (1.77 x 3.62 inches) Screw type (combination head) 16 ounces maximum

UL Approved for USA, UL Certified in Canada

ORDERING INFORMATION DESCRIPTION

MODEL

801101000

Standard controller with programmable input, dual output

801401000

Same as above with 24 Volt D.C. transmitter power supply

FORM AIC3601 • © 4/01 Effective: April 2006 Supercedes: February 2005