



# Model C-07200-A0 MANUAL/AUTO STATION

**Series C-07200-A0 Manual/Auto Stations** interface between a final control element and the automatic output of an upstream controller. Manual/Auto Stations provide smooth transfer between automatic and manual modes, with complete remote operation of a control loop in either mode. Operator-adjustable outputs are available in the manual mode.

## Basic Station

In the automatic mode, this station receives and passes the control signal to the final element. When in the manual mode, the station allows full manual operation.

## Ratio Station

The ratio control on this model permits the operator to adjust the input/output relationship so that the output will be a percentage of the input. On 7261 models, the output can be any percent of input from 90% up to 110%. On 7271 models, the output can be any percent of input from 100% down to 50%.

## OPERATION

**C-07200-A0 Manual/Auto Stations** receive a conditioned or unconditioned signal from a control device, add manual/automatic station capability, and retransmit the signal to a final or intermediate element. A measured position value, typically from a 1000-ohm potentiometer, is displayed on the front panel. The position signal is retransmitted as a 1-5 V dc signal to another controller or another positioning M/A station. A front-panel **ratio** control of input to output is optional.



In a typical application, a M/A station is used to position a fuel valve actuator. A master pressure controller supplies a 1-5 V dc master loading signal simultaneously to two or more boiler submaster M/A stations functioning as fuel valve position controllers, providing 117 V ac switched output to an electric actuator with a single 1000-ohm potentiometer. The measured fuel valve position signal in each of the above Boiler Sub-Masters is retransmitted to a Model C-7211-230-00A (non-ratio), C-7261-230-00A (ratioing) forced draft air station with 117 v AC switched output to forced draft air electric actuators with 1000-ohm slidewires.

Alternately, the above forced draft air C-7211 or C-7261-230-00A could be replaced by a C-7211 or C-7261-210-00A, which are non-ratioing and ratioing versions with 4-20 ma outputs. These might be used for variable speed drives on the forced draft air fan.

Another version is available with switched 117 v AC input that can only be used with the switched 117 v AC output option.

## SPECIFICATIONS

**Power:** 120 v AC 50/60 Hz., .05a

**Isolation:** 300 v lines to case

**Input Signals & Impedances (Analog Input Models Only):**

- 4-20 ma, 250 ohms
- 1-5 v, 100K ohms

**Output Signal Range (Analog Output Models Only):**

- 4-20 ma, 750 ohms (max)
- 1-5 v

**Manual Control:** 10 turns produce 0 to 100% full-scale output.

**Ratio Control (Ratio Models Only):** Two modes available: Input x0.5 to x1; Input x0.9 to 1.1

**Ambient Temperature:** 40 to 120F (5 to 50C)

**Output Load:** 0.1 A (min), 1.0 A (max), 120 v AC 1ph.

**Dead Band Range (Switched Output Models Only):** 2-6% of input range

**Requirements:**

- Active Range: 60% minimum
- Resolution: 5% of active range, minimum
- Resistance: 135 to 5000 ohms

**Connections:** Terminal strip

**Enclosure:** 18-gauge plated steel

**Mounting:** Panel

**Shipping Weight:** 6 lbs.

**Specifications Subject to Change**

## HOW TO ORDER

The basic catalog number for the C-07200-A0 Manual/Auto Station is shown below. Replace suffixes AA through E with the desired selections from the table below.

**C-072AA-B-CC-DD-E**

**Typical Examples:** The code for a 117 v AC switched output fuel valve manual/auto station with a 1-5 v DC input from a master pressure controller is C-07211-230-00-A. For use with an AC20 or AC30 controller, use C-07211-130-01. The code for a 117 v AC switched output forced draft manual auto station with a 1-5 v DC retransmitted potentiometer position input from a 117 v AC fuel valve positioner is C-07211-230-00-A.

The code for a 4-20 ma variable speed forced draft manual/auto station with a 1-5 v DC retransmitted potentiometer position input from a fuel valve positioner is C-07211-210-00-A.

### AA. Function of Station:

- Basic [Standard] (AA=11)
- Ratio  $\pm 10\%$  [gain =  $\times 0.9$  to 1.1] (AA=61)
- Ratio + 0%, -50% [gain =  $\times 1.0$  to 0.5] (AA=71)

### B. Input Signal:

- 4-20 ma DC (B=1)
- 1-5 v DC (B=2)
- Switched 117 v AC [C-07211-330-00A only] (B=3)

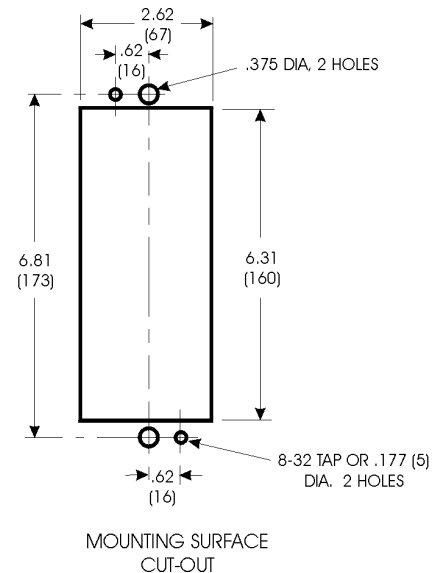
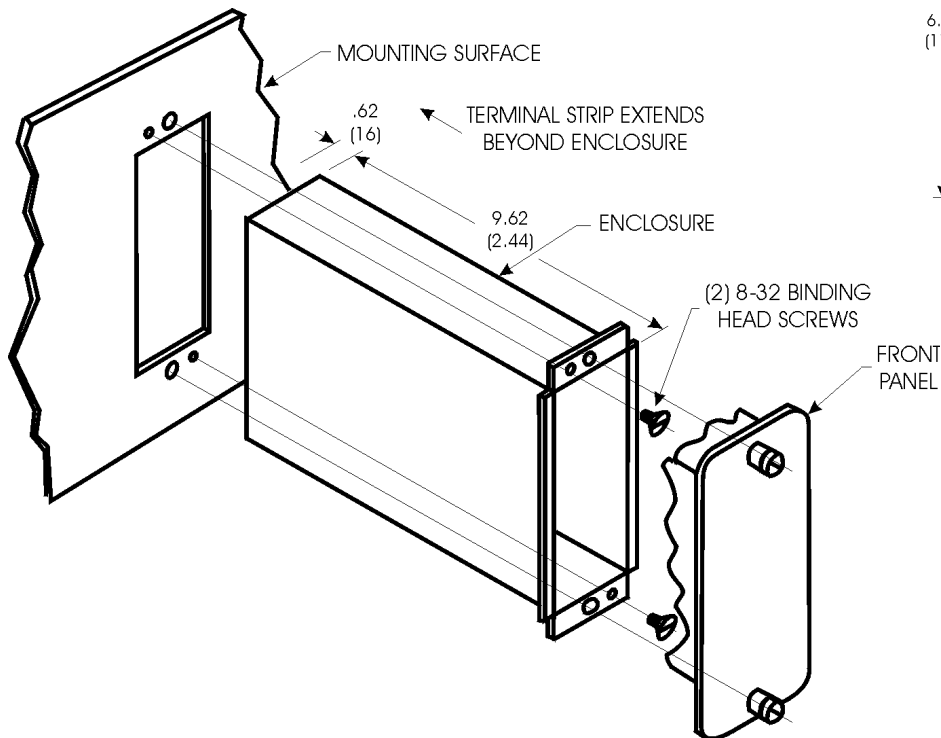
### CC. Output Signal:

- 4-20 ma DC (CC=10)
- 1-5 v DC (CC=20)
- Switched 117 v AC (CC=30)

### DD. Options:

- None (DD=00)
- Switch contact for bumpless transfer [used with AC20 and AC30 controllers – see C-07000-AC] (DD=01)

### E. Current Model Designation: B



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