

Model F-05933-00 MINI-TRIMMER

FEATURES

- Works with Standard Modutrol Linkage
- Convenient Mounting
- 360° Lever Mounting (Input & Output)
- True Ratio Adjustment
- Levers Mount on Either Side of Housing

APPLICATION

The Hays Cleveland Model F-05933-00 MINI-TRIMMER is designed to effect ratio changes on mechanical linkage systems. Its typical application is for adjustment of fuel/air ratio on single actuator combustion control systems. The MINI-TRIMMER is linked between the firing rate control actuator and the combustion air damper so that any given position of the firing rate control actuator results in a ratioed position of the combustion air damper.

On some applications, it may be preferable to link with the fuel valve instead of the air damper. In either case, the percent of ratio to be desired can be obtained by automatic or manual means.

OPERATION

The ratio of movement between the input shaft and the output shaft is obtained by converting



rotary motion to linear motion across a moveable pivot point. The pivot point is in the form of a nut that is mounted on an acme screw. The acme screw is rotated by a servomotor, thus changing the position of the nut on the screw. As the nut moves on the screw, the effective lengths of the driving and driven sides of the force-transmitting lever are changed inversely to one another. Thus, the motion of the driven side becomes greater or lesser than the motion of the driving side.

The servo unit is equipped with end switches to limit ratio adjustment to $\pm 10\%$, and a feedback potentiometer for remote positioning control.

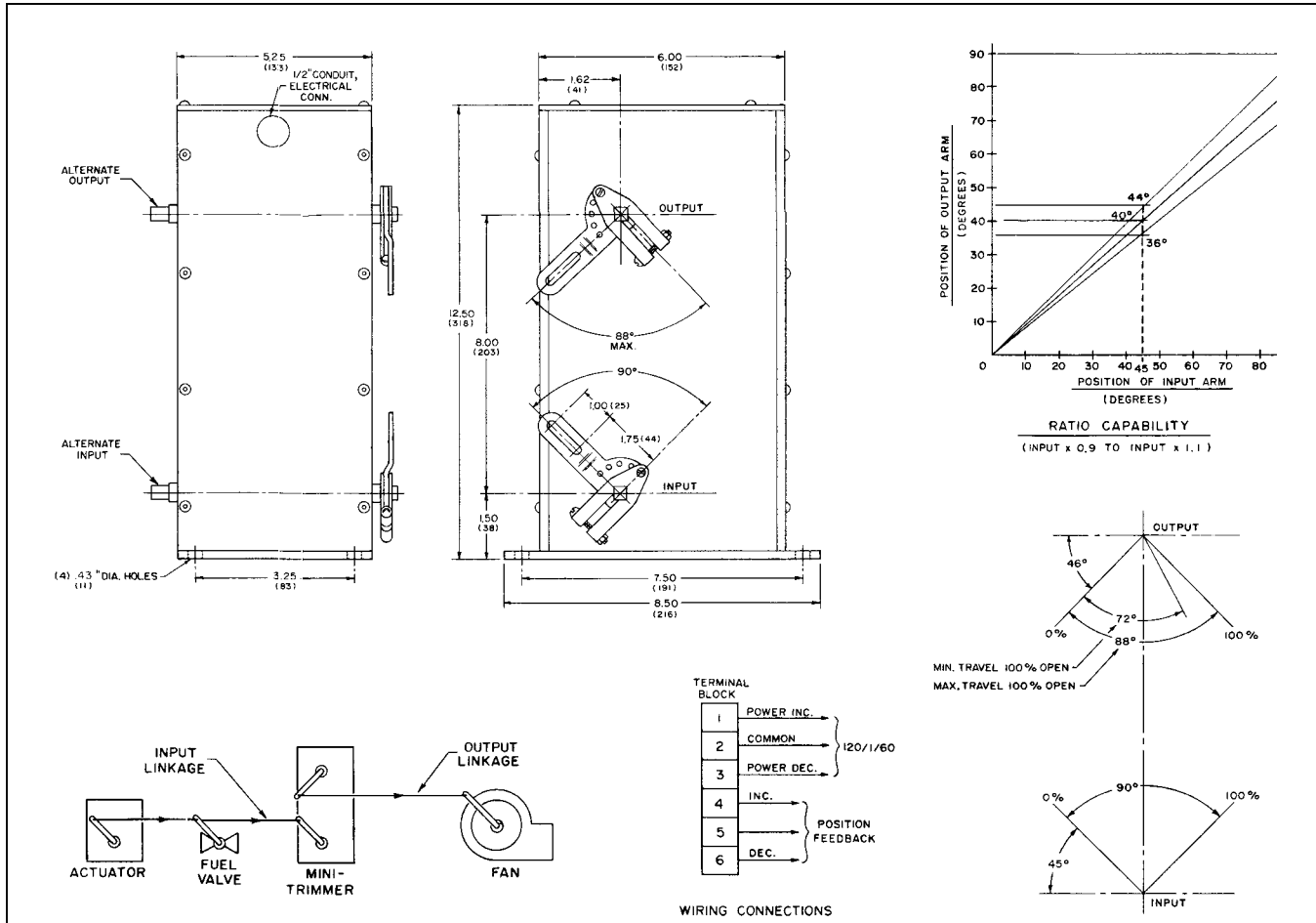
SPECIFICATIONS

Power Requirements: 120 v AC
50/60 Hz, 100 amps.
Travel: 90° Input, 72° to 88° output.
Trim Correction: $\pm 10\%$ max.
normal travel.
Positioning Error: 2% maximum.
Potentiometer: 1000 ohms.
Thrust: operates linkages with up to
25 lbs. thrust.
Torque: input 13 ft. lbs., maximum.
Full Travel Stroke Time: 20
seconds.
Input and Output Levers:
adjustable ball joint type.
Ambient Temperature: 0 to 140F
(-19 to 60C).
Mounting: any position.
Enclosure: drip-proof.
Finish: gray hammertone.
Cover: gasketed, removable.
Shipping Weight: 20 lbs.

HOW TO ORDER:

Hays Cleveland Mini Trimmer
F - 05933 - 0

This is the model code for a standard floor-mounted, forced draft air trim actuator for small boilers, with 120 v AC switched input, 20 second full travel time, and 1000 ohm position feedback potentiometer.



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