

FEATURES

- **Rugged Design: 100 ft-lb. Rated.**
- **Flexibility: Specifically for Add-On Control Linkage Trimming**
- **Low Power: 115 v AC at 24 va, Protected.**
- **Reliability: Continuous Duty Operation.**
- **Bi-Directional: 115 v AC Switching Inputs; or 4-20 ma DC, 1-5 v DC Control Signal Inputs.**
- **Rapid Response: Rotates from Mid-Position to Either End Limit ($\pm 10^\circ$) in 12 Seconds.**

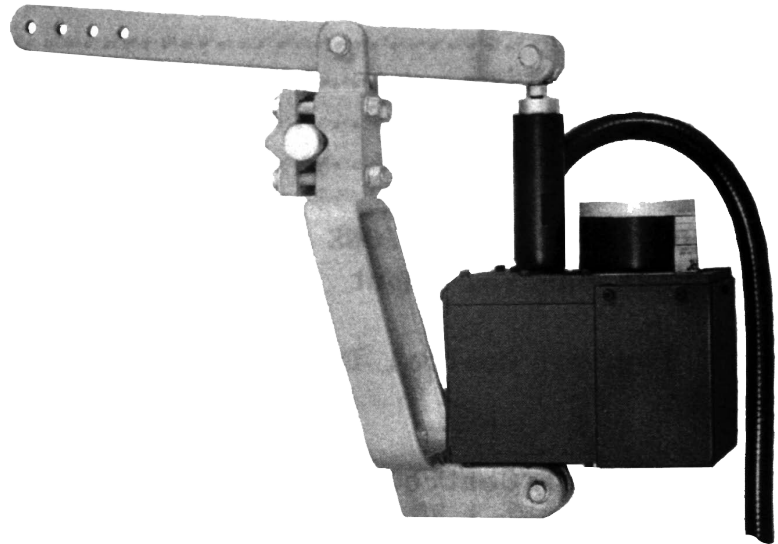
DESCRIPTION

The Hays Cleveland Model F-10023-A0 TRIMLINK II is a rotary electric trim actuator used for all types of vernier positioning applications. The F-10023-A0 is a mechanical and electrical upgrade of the 881 Trimlink and F-10023-00 Trimlink II actuators.

APPLICATION

Hays Cleveland Electric Trim Actuators are widely employed and are specifically designed for re-positioning final elements such as air dampers and fuel valves. They are used in addition to primary combustion controls for the control of boilers, curing ovens, dryers, incinerators, and other process unit operations.

Most applications are for trimming forced draft damper position for oxygen trim, but can



also be used for CO, opacity, or other control loops. Where automatic compensation is not required, TRIMLINK is used with a manual control station.

MOUNTING

TRIMLINK II is used to accomplish true vernier positioning of the controlled element by responding to the secondary control signal of a trim controller. It mounts on, or is adapted to, the output shaft of a primary actuator or jackshaft. TRIMLINK'S arm replaces an existing output arm, for the attachment of connecting linkage. Where space is a problem, an optional pillow block assembly is available. Wiring is through a box with flexible conduit (supplied).

OPERATION

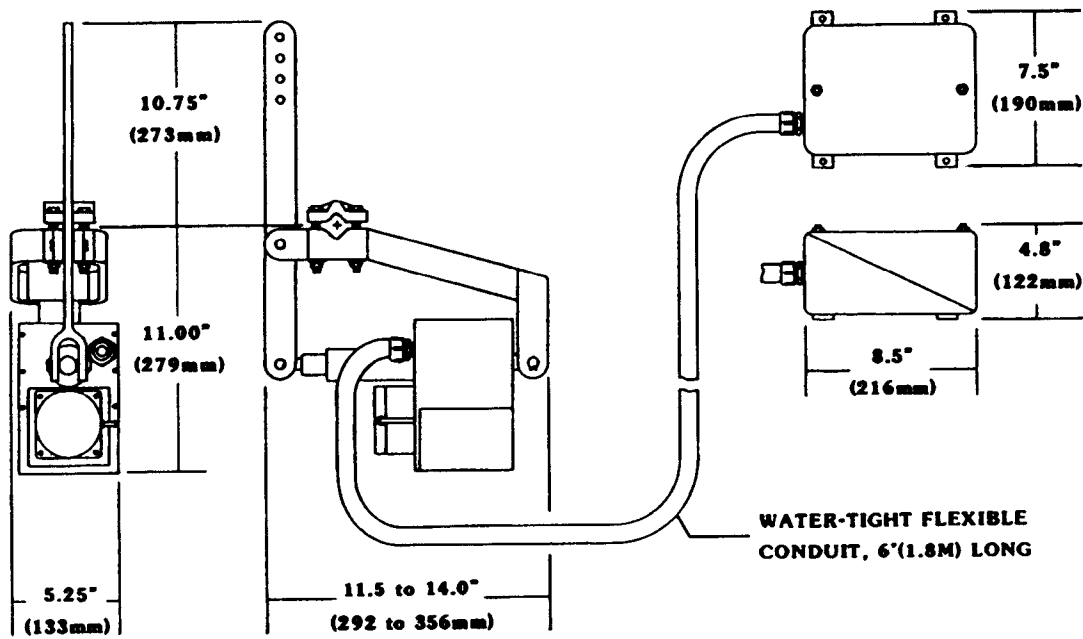
The electric trim actuator is wired to a trim controller signal of 115 v AC (with high or low current switching capability), 4-20 ma or

1-5 v DC. Each actuator has a bi-directional impedance-protected AC motor, which opens or closes the final element with control signal changes. With loss of power, the actuator maintains its position until power is restored.

Full-stroke angular rotation is adjusted with standard end-of-travel limit switches.

Position of travel is measured with a 1000-ohm potentiometer, that is used with positioning controllers and indicators.

When no trim action is required by the controller, TRIMLINK II acts as a solid linkage. When trimming, it rotates about its axis to provide vernier adjustments to the linkage.



SPECIFICATIONS

GENERAL

Base Model Code: F-10023-A0-(model suffix codes)

Motor Overload Protection: Impedance Protected.

Speed (Full 20° Rotation): 24 sec. at 60 Hz, 29 sec. at 50 Hz.

Limit Switches: Adjustable at both ends of travel for angular travel limiting.

Position Potentiometer: 1000 ohms, 2W at 70°C.

Ambient Temperature: 0 to 140F (-18 to 60C).

Humidity: 0 to 100%, non-condensing.

Weight:

- **Actuator:** 19 lbs. (8.5 kg) net.
- **Actuator, Wiring Box, & Cable:** 26 lbs. (12 kg) net, 33 lbs. (15 kg) shipping.

Mounting: On 3/4" to 1" O.D. shaft.

Construction: Cast aluminum frame members.

Output Lever: 10" lg., bushed for 3/8" clevis stud.

Wiring: Wired to terminal box with 6' (1.8m) of liquid-tight flexible conduit.

CONTROL INPUT SELECTIONS

DSSR Control Input (Code -A01 no

longer available): Optional to F-10023-00 only, which required 265 va for operation.

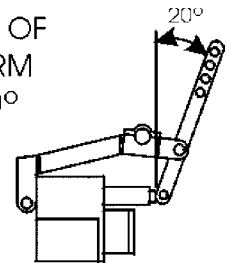
Standard Control Input (-A02): 115 +10/-5 v AC, 50/60 Hz, 24 va; COM, INC & DEC motor windings wired to terminals through limit switches.

Actuator Controller Driver (-A03): Specify 1-5 v DC or 4-20 ma DC input signal. Control input signals are converted to dual solid-state relay output for positioning the actuator. Uses the 1000-ohm Position Potentiometer. Power: 115 v AC, 50/60 Hz, 30 va. The standard wiring box is replaced with a JIC case: 10"L x 8"W x 4"H.

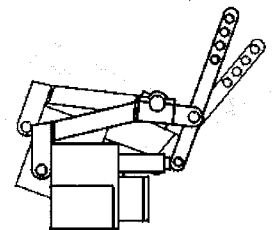
Pillow Block Mounting Option (-B01):

Kit includes a pillow block with 1" O.D. shaft and a 10" lever.

ROTATION OF
LEVER ARM
0 TO 20°



ROTATION AROUND SHAFT
(JACKSHAFT, POWER UNIT
OUTPUT SHAFT, OR PILLOW
BLOCK MOUNTING SHAFT)



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