

# Direct Coupled, Non-Spring Return Actuators, 300 in-lb



**GA-T300-024**  
Tri-state or On/Off

## DESCRIPTION

Electronic, motor-driven, reversible, noiseless, direct coupled actuators.

## APPLICATION

Actuators to be easily installed by direct shaft mounting on air dampers, shutters and butterfly valves in ventilation and air conditioning systems. Can be controlled by any compatible electric or electronic analog controller, DDC/PLC control or automation system.

## FEATURES

- *Direct coupled, easy to install*
- *Ridged V-clamp connector for better shaft gripping*
- *Optional, aux. switches or feedback pot*
- *Tested for 60,000+ full operations*
- *Manual override*
- *Overload protected*
- *Maintenance-free*
- *Five-year warranty*



CE  
ISO 9001



## SPECIFICATIONS

### Control

Input signal Tri-state (3-pt. floating) or On/Off, 24 VAC/DC

### Electrical

Power supply 24 VAC/VDC  $\pm$  20%, 50/60 Hz  
Over voltage Up to 40 V, max. 5 sec.  
Power consumption 4.5 W (8.0 VA)

### Performance

Torque 300 in-lb (34 Nm)  
Damper size Up to 75 sq. ft. (7.0 m<sup>2</sup>)  
Angle of rotation 0-91°/91-0°, selectable  
- CCW(L) and CW(R) L/R selector, built-in actuator cover  
Rotation time 60 to 100 sec/0-90°  
Power failure Stays in last position of operation  
Position indicator 0-90° and adj. visual indicator  
Synchronization  $\pm$  1%  
Overload protection Electronic throughout rotation  
Manual override Built-in disengage button  
Motor type DC motor  
Noise level Max. 40 dB(A)

### Environmental

Permissible ambient  
- working temperature -22°F to 122°F (-30°C to 50°C)  
- storage temperature -40°F to 176°F (-40°C to 80°C)  
- humidity 5-95% RH, non-condensing

## OPTIONS

- **S2** (2) Aux. switches built-in SPDT 24 VAC, 5 (2.5) A, position adj. between 0-10° and 80-90°, incl. 3 ft. (0.9 m) appliance cable, number coded, and 1/2" conduit connector
- **P1** (1) Feedback pot 1 k $\Omega$  pot, incl. 3 ft. (0.9 m) appliance cable, number coded, and 1/2" conduit connector

### Physical

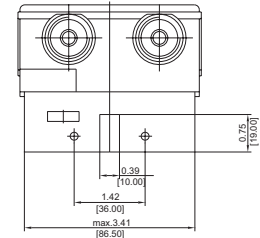
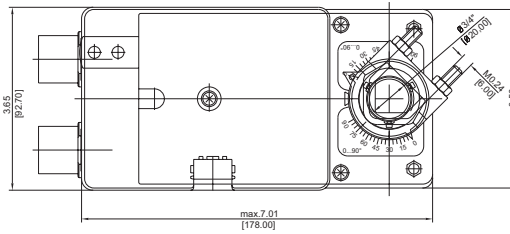
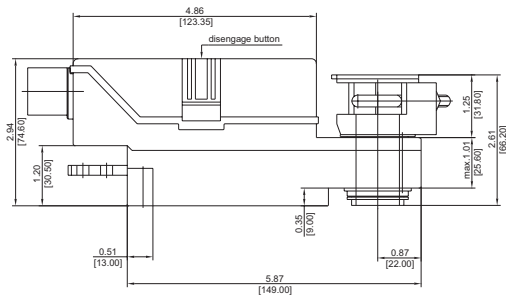
Enclosure  
- cover ABS, UL 94-5V  
- base PA 6.6  
- color Grey and black  
- protection NEMA 2  
Mounting position Any position  
Anti-rotation bracket Included w/actuator  
Stacking/paralleling Refer to table  
"Multiple Actuators"  
Clamp connection to  
- round shaft  $\varnothing$  3/8" to 3/4" (9 to 20 mm)  
- square shaft  $\square$  3/8" to 5/8" (9 to 16 mm)  
Wire connection 3 ft. (0.9 m) appliance cable, color coded  
- option, on request Plenum rated cable  
Wire size 18 AWG (0.75 mm<sup>2</sup>)  
Conduit connector 1/2", built-in  
Dimensions 7.01 x 3.65 x 2.95 in. (178 x 92.7 x 75 mm)  
Weight 3.3 lbs. (1.5 kg)  
**Manufacturing** ISO 9001 certified  
**Listings/Approvals** CE  
UL and CSA  
**Warranty** Five-year material and workmanship (Two-year standard, three-year conditional)

## ORDERING INFORMATION

**GA-T300-024** Standard  
**GA-T300-024-S2** w/(2) Aux. switches  
**GA-T300-024-P1** w/(1) 1 k $\Omega$  Pot

## DIMENSIONS

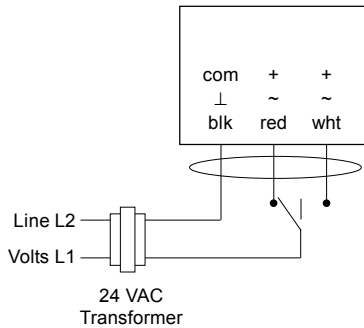
inches (mm)



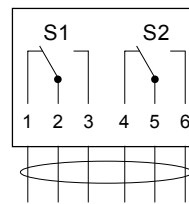
Note: Anti-rotation mounting bracket supplied w/actuator

## WIRING CONFIGURATION

### GA-T300-024 Tri-state (3-point floating) control

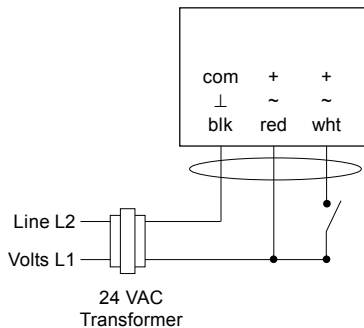


### Option S2

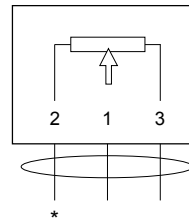


(2) Auxiliary switches, SPDT, 24 VAC, 5 (2.5) A, w/ adjustable cam for setting between 0-10° and 80-90°

### GA-T300-024 On/Off control



### Option P1



(1) Feedback pot, 1 kΩ, \* = 0 Ω at 0° angle of rotation

### L/R selector (built-in actuator cover)

Select	Angle of rotation
R	CW/0-90° w/red connect
R	CCW/90-0° w/white connect
L	CW/0-90° w/white connect
L	CCW/90-0° w/red connect

Multiple Actuators (maximum quantities)	GA-T300-024 Tri-state or On/Off
Stacking (torque is additive)	4*
Parallel connection	20

\* Stacking options for continuous control

#### Sum of total torque:

2 actuators = (2 x 100%)

3 actuators = (2 x 100%) + (1 x 80%)

4 actuators = (2 x 100%) + (1 x 80%) + (1 x 50%)

- Notes:
- Actuators are provided with color coded wires. Wires for optional switches and feedback pot are number coded.
  - Observe polarity on secondary transformers. Incorrect polarity can cause controller damage or operation error.
  - Provide overload protection for line voltage and disconnect as required.