

Direct Coupled, Non-Spring Return Actuators, 44 in-lb



GA-(S)T44-230T
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 and shutters for standard or fast rotation in ventilation and air conditioning systems. Can be controlled by any compatible electric or electronic analog controller, DDC/PLC control or automation system.



CE
ISO 9001

UL US
LISTED
"Pending"

FEATURES

- *Direct coupled, easy to install*
- *Ridged V-clamp connector for better shaft gripping*
- *Direction of rotation selector*
- *Angle of rotation selectable*
- *Removable terminal strip connector for easy wiring*
- *Manual override*
- *Optional, 1/2" conduit connector*
- *Optional, aux. switches adj. from the outside, or feedback pot*
- *Tested for 60,000+ full operations*
- *Tested for electromagnetic compatibility*
- *Overload protected*
- *Maintenance-free*
- *Five-year warranty*

SPECIFICATIONS

Control

Input signal Tri-state (3-pt. floating) or On/Off, 102...264 VAC

Electrical

Power supply 80...265 VAC, 50/60 Hz
Over voltage Up to 40 V, max. 5 sec.
Power consumption 1.5 W (2.0 VA)
- ST speedy version 2.0 W (3.4 VA)

Performance

Torque 44 in-lb (5 Nm)
- start-up 54 in-lb (6 Nm)
- nominal 36 in-lb (4 Nm)
Damper size Up to 11 sq. ft. (1 m²)
Angle of rotation 0-95°/95-0°, selectable, adj. angle with integral stops
- CW and CCW Direction of rotation selector, built-in below actuator cover
Rotation time 60 to 120 sec/0-90°
- ST speedy version 20 to 35 sec/0-90°
Power failure Stays in last position of operation
Position indicator 0-10 divisions
Synchronization ± 1%
Overload protection Electronic throughout rotation
Manual override Built-in disengage button
Motor type DC motor
Noise level Max. 35 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

Physical

Enclosure
- cover PP-H, UL 94-5V
- base PA 6.6
- color Black and white
- protection NEMA 2 (IP 42)
Mounting position Any position
Anti-rotation bracket Included w/actuator
Stacking/paralleling Refer to table "Multiple Actuators"
Clamp connection to
- round shaft Ø 5/16" to 5/8" (8 to 16 mm)
- square shaft □ 5/16" to 15/32" (8 to 12 mm)
Cable entry 1 slotted hole, Ø 3/8 in. (Ø 10 mm)
Wire connection Below actuator cover, pluggable/removable connector(s), terminal block, number coded, screw type for lead wire; min. 20 AWG (0.5 mm²), max. 16 AWG (1.5 mm²)
- for power/signal (1) connector
- for optional **S2**, (2) aux. switches (2) connectors
- for optional **P1**, (1) feedback pot (1) connector
Conduit connector, option on request 1/2" NPT female, for flexible field connector
Dimensions 5.71 x 2.56 x 2.40 in. (145 x 65 x 61 mm)
Weight 1.1 lbs. (0.5 kg)

GA-(S)T44-230T



SPECIFICATIONS

Manufacturing	ISO 9001 certified
Listings/Approvals	CE, 73/23/EWG, 89/336/EWG UL and CSA (pending)
Warranty	Five-year material and workmanship (Two-year standard, three-year conditional)

OPTIONS

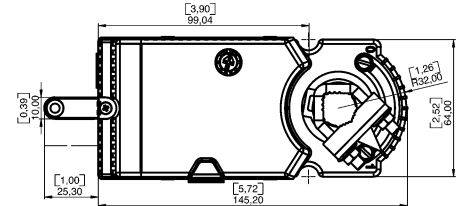
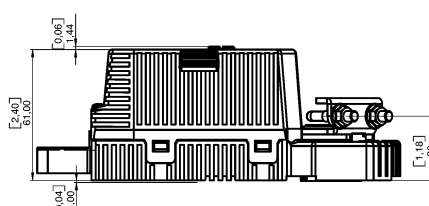
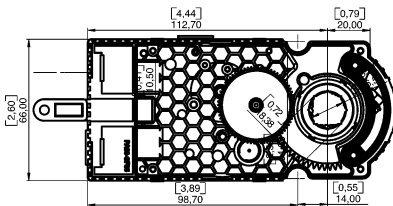
- S2 (2) Aux. switches built-in w/selector outside of cover	SPDT, 24 VAC, 5 (2.5) A adjustable at any position
- P1 (1) Feedback pot	1k Ω Pot
- A-GA-CA05 (1) Conduit connector	1/2" NPT female, field connectable

ORDERING INFORMATION

GA-T44-230T	80...265 VAC
GA-T44-230T-S2	80...265 VAC, w/(2) Aux. switches
GA-T44-230T-P1	80...265 VAC, w/(1) 1k Ω pot
GA-ST44-230T	Speedy, 20-35 sec./0-90°, 80...265 VAC
GA-ST44-230T-S2	Speedy, 20-35 sec./0-90°, 80...265 VAC, w/(2) Aux. switches
GA-ST44-230T-P1	Speedy, 20-35 sec./0-90°, 80...265 VAC, w/(1) 1k Ω pot
A-GA-CA05	Conduit connector

DIMENSIONS

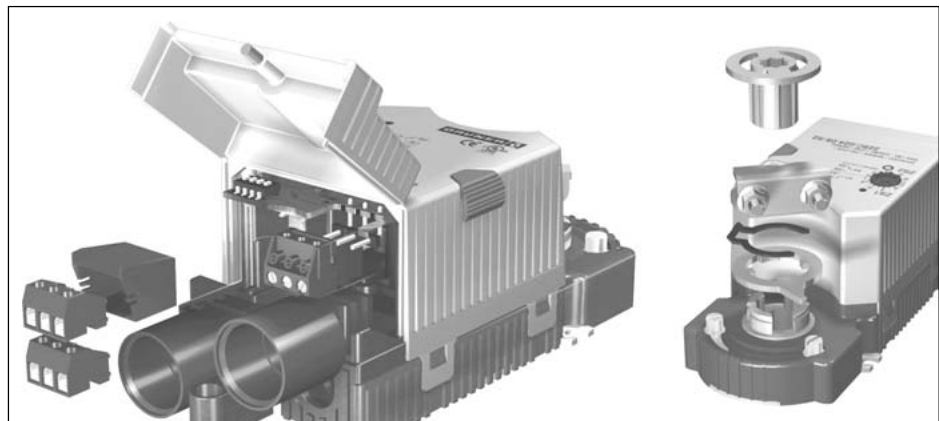
mm (inches)



Note: - Actuator base provides integrated flanges w/mounting holes
- Anti-rotation mounting bracket supplied w/actuator

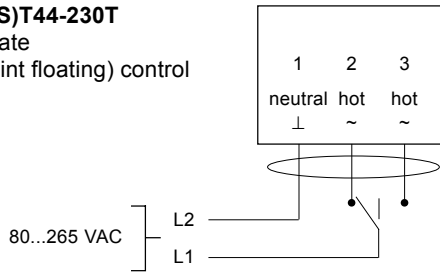
Modular wiring connection solutions

Various damper shaft coupling capabilities

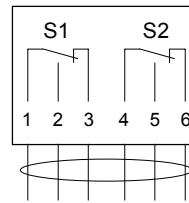


WIRING CONFIGURATION

GA-(S)T44-230T
Tri-state
(3-point floating) control

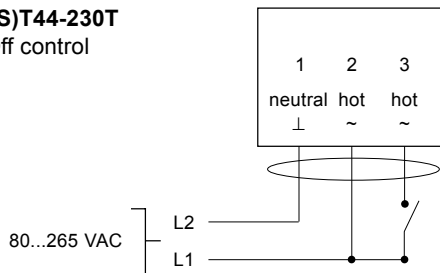


Option S2

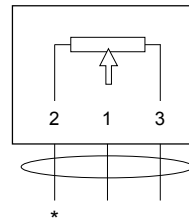


(2) Auxiliary switches, SPDT, 24 VAC, 5 (2.5) A, w/ adjustable cam for setting between 0-90°

GA-(S)T44-230T
On/Off control



Option P1



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

Multiple Actuators (maximum quantities)	GA-(S)T44-230T 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%)

Direction of Rotation Selector

located below actuator cover

Switch position	80...265 VAC supply to terminal 2 and/or 3	
	Tri-state control	On/Off control
	2 = CW (0-90°) 3 = CCW (90-0°)	2 only = CW (0-90°) 2 & 3 = CCW (90-0°)
	2 = CCW (90-0°) 3 = CW (0-90°)	2 only = CCW (90-0°) 2 & 3 = CW (0-90°)

- Notes:
- Observe polarity on secondary transformers. Incorrect polarity can cause controller damage or operation error.
 - Provide overload protection for line voltage and disconnect as required.