

Direct Coupled, Non-Spring Return Actuators, 45 in-lb



GA-(S)P45-024
2-10 VDC, or 4-20 mA*

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.

FEATURES

- *Direct coupled, easy to install*
- *Ridged V-clamp connector for better shaft gripping*
- *Plenum rated cable or terminal block connections*
- *Tested for 60,000+ full operations*
- *Manual override*
- *Overload protected*
- *Maintenance-free*
- *Five-year warranty*



ISO 9001



SPECIFICATIONS

Control

Input signal Proportional
 2-10 VDC, or
 4-20 mA w/500 Ω resistor

Input impedance 50 kΩ

Feedback signal 2-10 VDC (Terminal version is w/o feedback signal)

Electrical

Power supply 24 VAC/VDC ± 20%, 50/60 Hz

Over voltage Up to 40 V, max. 5 sec.

Power consumption 2.5 W (4.5 VA)

- SP speedy version 3.5 W (5.5 VA)

Performance

Torque 45 in-lb (5 Nm)

Damper size Up to 11 sq. ft. (1 m²)

Angle of rotation 0-95°/95-0°, selectable, adj. angle with integral stops

- CCW(L) and CW(R) L/R selector, built-in actuator cover

- angle Angle selector, built-in actuator cover, electronically adj. 20-100% (Terminal version is w/o angle selector)

Rotation time 60 to 120 sec./0-90°

- SP speedy version 20 to 35 sec./0-90°

Power failure Stays in last position of operation

Position indicator 0-10 divisions, and adj. visual indicator (Terminal version is w/o visual indicator)

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 ABS, UL 94-5V

- base PA 6.6

- color Gray and black

- protection NEMA 2, NEMA 1 for Terminal version

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)

Wire connection 3 ft. (0.9 m) cable, color coded, plenum rated 18 AWG (0.75 mm²)

Wire size

Terminal version

- wire connection Terminal block, outside of cover, screw type for lead wire, min. 26 AWG (0.14 mm²) max. 14 AWG (2.5 mm²)

Dimensions 4.53 x 2.56 x 2.40 in. (115 x 65 x 61 mm)

Weight 1.2 lbs. (0.53 kg)

Manufacturing ISO 9001 certified

Listings/Approvals CE

Warranty UL and CSA

Five-year material and workmanship (Two-year standard, three-year conditional)

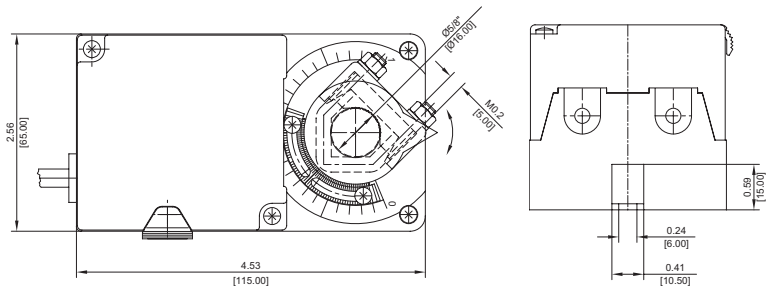
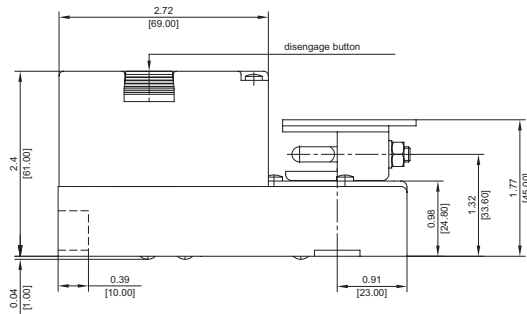
ORDERING INFORMATION

GA-P45-024	w/ Plenum rated cable
GA-P45-024T	w/ Terminal block
GA-SP45-024	Speedy, 20-35 sec./0-90°, w/ Plenum rated cable
GA-SP45-024T	Speedy, 20-35 sec./0-90°, w/ Terminal block

Note: Terminal version actuator comes without a feedback signal, adj. visual position indicator and angle selector.

DIMENSIONS

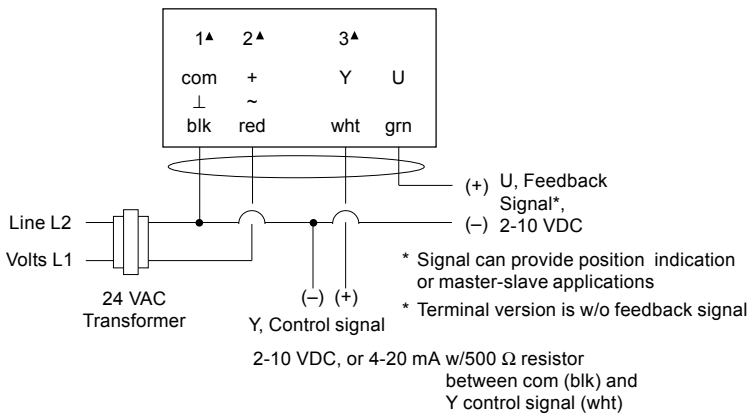
inches (mm)



Note: Anti-rotation mounting bracket supplied w/actuator

WIRING CONFIGURATION

GA-(S)P45-024 Proportional control



- Notes:
- Actuators are provided with color coded wires.
 - Observe polarity on secondary of transformers. All common and signal (-) must be connected in line. Incorrect polarity can cause controller damage or operation error.
 - Long wire runs requires a 4-wire configuration (connect common for power and control signal at the actuator or close by). Greater than a 0.2 V drop must be avoided for any common wire.
 - Always use a separate transformer when controller power is full-wave rectified.
 - Controller and actuators must have separate transformers for paralleled multi-actuator application.
 - Provide overload protection for line voltage and disconnect as required.

^Terminal version, wiring connection:
1= com 2= + (24 V) 3= control signal

L/R selector (built-in actuator cover)	
Select	Angle of rotation
R	CW/0-90°
L	CCW/90-0°

Multiple Actuators (maximum quantities)	GA-(S)P45-024 Proportional
Stacking (torque is additive)	4*
Parallel connection, 2-10 VDC	20
Parallel connection, 4-20 mA, w/500 Ω resistor	10
Master-slave, via U, feedback signal	10

* 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%)