

Direct Coupled, Spring Return Actuators, 45/36 in-lb



DESCRIPTION

Electronic, motor-driven, reversible, noiseless, direct coupled spring return actuators with fail-safe control.

GA-SRO45-120(230,024)
Spring Return
On/Off

APPLICATION

Actuators may be easily installed by direct shaft mounting on air dampers, shutters and butterfly valves in ventilation and air conditioning systems. The mechanical spring return function operates only upon a power failure or power interruption caused by an unsafe condition. Can be controlled by any compatible electric or electronic analog controller, DDC/PLC control or automation system.

FEATURES

- *Direct coupled, easy to install*
- *Maintenance-free*
- *Optional aux. switch*
- *Five-year warranty*
- *Overload protected*

CE
 ISO 9001



UL US
 LISTED
 "Pending"

SPECIFICATIONS

Control

Input signal On/Off, 2-wire

Electrical

Power supply

- GA-SRO45-120 120 VAC ± 15%, 50/60 Hz
- GA-SRO45-230 230 VAC ± 15%, 50/60 Hz
- GA-SRO45-024 24 VAC/VDC ± 20%, 50/60 Hz

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

Power consumption

- GA-SRO45-120 holding 5.5 W (6.0 VA)
2.5 W
- GA-SRO45-230 holding 5.0 W (5.5 VA)
2.5 W
- GA-SRO45-024 holding 5.0 W (6.5 VA)
3.0 W

Performance

Torque

- motor 45 in-lb (5 Nm)
- spring return 36 in-lb (4 Nm)

Damper size

- motor 11 sq. ft. (1.0 m²)
- spring return 9 sq. ft. (0.8 m²)

Angle of rotation

- mechanical stop adjustment Up to 95°, and spring return to -5°
- direction Spring return can be selected by CCW/CW mounting

Rotation time

- actuator rotation < 75 sec./0-90°
- spring return < 20 sec./90-0°

Power failure

Spring return to -5° position

Position indicator

Visual scale

Synchronization

± 1%

Electrical protection for

GA-SRO45-120/230 Double insulated

Overload protection

Electronic throughout rotation

Motor type

DC motor

Noise level

- motor Max. 50 dB(A)
- spring return Max. 62 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 plates Zinc coated steel
- base PA 6.6
- color Silver and black
- protection NEMA 2

Mounting 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) appliance cable, color coded
- option, on request Plenum rated cable
- Wire size 18 AWG (0.75 mm²)
- Conduit connector 1/2", built-in
- Dimensions 6.18 x 2.6 x 2.4 in. (158 x 66 x 61 mm)

Weight

2.4 lbs. (1.1 kg)

Manufacturing

Listings/Approvals

- CE
- UL and CSA pending
- Five-year material and workmanship
- (Two-year standard, three-year conditional)

Warranty

OPTIONS

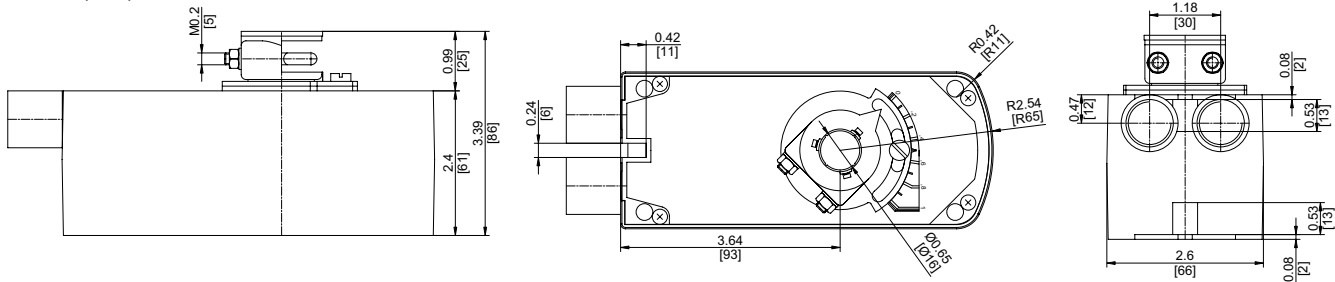
- **S1** (1) Aux. switch built-in SPDT 250 VAC, 5 (2.5) A, position adj. between 0-72° and 18-90°, incl. 3 ft. (0.9 m) appliance cable, number coded, and 1/2" conduit connector

ORDERING INFORMATION

- GA-SRO45-120** 120 VAC
- GA-SRO45-120-S1** 120 VAC, w/(1) Aux. switch
- GA-SRO45-230** 230 VAC
- GA-SRO45-230-S1** 230 VAC, w/(1) Aux. switch
- GA-SRO45-024** 24 VAC/VDC
- GA-SRO45-024-S1** 24 VAC/VDC, w/(1) Aux. switch

DIMENSIONS

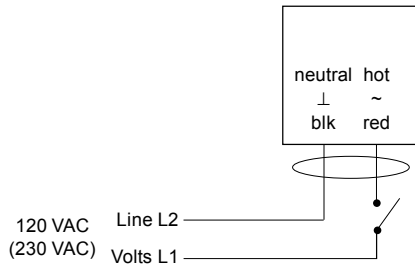
inches (mm)



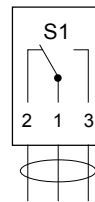
Note: Anti-rotation mounting bracket supplied w/ actuator

WIRING CONFIGURATION

GA-SRO45-120(230) On/Off Control

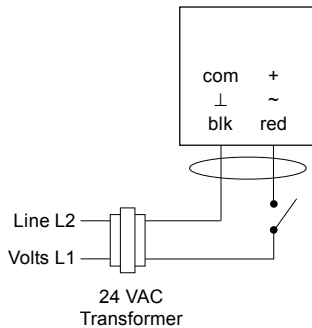


Option S1



(1) Auxiliary switch, SPDT, 250 VAC, 5 (2.5) A, w/ adjustable cam for setting between 0-90°

GA-SRO45-024 On/Off Control



- Notes:
- Actuators are provided with color coded wires. Wires for optional switches 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.
 - Power supply and auxiliary switch connections meet UL and CSA requirements without the need of an electrical ground connection.

Multiple Actuators (maximum quantities)	GA-SRO45-120(230,024) 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%)