Specifications:

**Power Supply**
AC 24 V (AC 19.2 V to 28.8 V) at 50/60 Hz; Class 2 or SELV, 7.9 VA Running, 5.5 VA Holding Position
DC 24 V (DC 21.6 V to 28.8 V); Class 2 or SELV, 3.5 W Running, 1.9 W Holding Position
Minimum Transformer Size: 8 VA per Actuator

**Input Signal**
AC 19.2 to 28.8 V at 50/60 Hz or DC 24 V +20%/-10%, Class 2 or SELV, Minimum Pulse Width: 500 ms

**Auxiliary Switch Rating**
(-A) Models: Two Single-Pole, Double-Throw (SPDT), Double-Insulated Switches with Gold over Silver Contacts:
AC 24 V, 50 VA Pilot Duty

**Spring Return**
Direction is Selectable with Mounting Position of Actuator:
Actuator Side A is away from damper or valve: CCW Spring Return
Actuator Side B is away from damper or valve: CW Spring Return

**Equipment Rating**
Class 2 or Safety Extra-Low Voltage (SELV)

**Rotation Range**
Maximum Full Stroke: 95°
Adjustable Stop: 35 to 95° Maximum Position

**Electric Stall Detection**
Protects from overload at all angles of rotation

**Torque**
70 lb·in. (8 N·m)

**Time: 90° of Rotation**
Power On (Running) 150 Seconds Constant for 0 to 70 lb·in (8 N·m) Load, At All Operating Conditions
Power Off (Spring Returning) 17 to 25 Seconds for 0 to 70 lb·in (8 N·m) Load, at Room Temperature
22 Seconds Nominal at Full Rated Load, 94 Seconds Maximum with 70 lb·in (8 N·m) Load, at -40°F (-40°C)

**Enclosure**
NEMA 2 (IP54) for all mounting orientations

**Manual Override**
Hex Head Screw

**Ambient Conditions**
Standard Operating -40 to 140°F (-40 to 60°C); 90% RH Maximum, Noncondensing
Storage -40 to 185°F (-40 to 85°C); 95% RH Maximum, Noncondensing

**Electrical Connections**
48 in. UL 758 Type AWM Halogen-Free Cable with 18 AWG (0.85 mm²) Conductors & 0.25 in. (6 mm) Ferrule Ends

**Conduit Connections**
Integral Connectors for 3/8 in. (10 mm) Flexible Metal Conduit

**Mechanical Connections**
Round Shafts 5/16 to 5/8 in. (8 to 16 mm)
Square Shafts 1/4 to 1/2 in. (6 to 12 mm)

**Life Cycle**
60,000 Full Stroke Cycles with 70 lb·in. (8 N·m) Load — 1,500,000 Repositions with 70 lb·in. (8 N·m) Load

**Noise Rating**
Running < 35 dBA at 70 lb·in (8 N·m) Load, at a Distance of 39-13/32 in. (1 m)
Holding < 20 dBA at a Distance of 39-13/32 in. (1 m)
Spring Returning <52 dBA at 70 lb·in. (8 N·m) Load - (All at a Distance of 39-13/32 in. (1 m))

**Dimensions**
Actuator Only - 6.33 (L) x 3.90 (W) x 2.26 (H)

**Weight**
Actuator Only - 3.43 lb. (3.8 lb. w/ Aux. Switches)

**Agency Certification**
UL Listed, CCN XAPX, File E27734; to UL 60730-1A: 2003-08, Ed. 3.1, Automatic Electrical Controls for Household and Similar Use; and UL 60730-2-14: 2002-02, Ed. 1, Part 2, Particular Requirements for Electric Actuators.

Wiring: (Cable)

Floating Control, Four Wire

Open/Close, Single Wire Control

On/Off Control, Two Wire

Floating Control, Multiple Actuators with One Transformer

(-A) Auxiliary Switches

NOTE: WARNING: All DS-70 Series actuators are designed for use only in conjunction with operating controls. Where an operating control failure would result in personal injury and/or loss of property, it is the responsibility of the installer to add safety devices or alarm systems that protect against, and/or warn of, control failure.

To avoid excessive wear or drive time on the motor, use a controller and/or software that provides a time-out function to remove the signal at the end of rotation (stall).

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the nearest Bray office. Bray controls shall not be liable for damages resulting from misapplication or misuse of its products.