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  
Factory Set at DC 0 to 10 V, CW Rotation with Signal Increase; Selectable DC 0 (2) to 10 V or 0 (4) to 20 mA with Field Furnished 500 Ohm, 0.25 W Minimum Resistor; Switch Selectable Direct or Reverse Action with Signal Increase

Control Input Impedance  
100k Ohms, Current Input: 500 Ohms with Field Furnished 500 Ohm Resistor

Feedback Signal  
DC 0 (2) to 10 V for Desired Rotation Range up to 95°, Corresponds to Rotation Limits, 0.5 mA at 10 V Maximum

Auxiliary Switches  
(-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 Running) 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  
6.33 (L) x 3.90 (W) x 2.26 (H)

Weight  
3.43 lb. (3.8 lb w/ Aux. Switches)

Agency Certification  
UL Listed, CCN XAPX, File E27734; to UL 60730-2-1: 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)

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.