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

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 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 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
Actuator Only - 3.33 (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 60730-2-14: 2002-02, Ed. 1, Part 2, Particular Requirements for Electric Actuators.

Wiring: (Cable)

Modulating

Master-Slave Application

(-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.