Specifications:

Power Supply
- AC 24 V (AC 19.2 V to 28.8 V) at 50/60 Hz: Class 2 or (SELV) (Europe), 4.7 VA Running, 2.7 VA Holding Position
- DC 24 V (DC 21.6 V to 28.8 V): Class 2 or SELV, 1.8 W, Running, 1 W Holding Position
- Minimum Transformer Size: 6 VA per Actuator

Control Input Impedance
- 100k Ohms

Input Signal/Adjustments
- 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 Min. Resistor. Switch Selectable Direct or Reverse Action with Signal Increase
- DC 0 (2) to 10 V for Desired Rotation Range up to 95°. Corresponds to Rotation Limits, 0.5 mA at 10 V Maximum

Feedback Signal
- DC 0 (2) to 10 V

Auxiliary Switch Rating
- (-A) Models) One SPDT, Double Insulated Switch with Silver Contacts – AC 24V, 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
- 27 lb·in. (3 N·m)

Time: 90° of Rotation
- Power On (Running) 150 Seconds Constant for 0 to 27 lb·in. (3 N-m) Load, at All Operating Conditions
- Power Off (Returning) 12 to 17 Seconds for 0 to 27 lb·in. (3 N-m) Load, at Room Temperature
- 16 Seconds Nominal at Full Rated Load
- 22 Seconds Maximum with 27 lb·in. (3 N-m) Load at -22°F (-30°C)

Enclosure
- NEMA 2 (IP54) for all mounting orientations

Ambient Conditions
- Standard Operating: -22 to 140°F (-30 to 60°C); 90% RH Maximum, Noncondensing
- Storage: -40 to 185°F (-40 to 85°C); 95% RH Maximum, Noncondensing

Electrical Connections
- Without Aux Switches: 120 in. UL 444 Type CMP Plenum Rated Cable w/ 19 AWG (0.75 mm²) Conductors & 0.25 in. (6 mm) Ferrule Ends
- With Aux Switches: 48 in. UL 758 Type AWM Halogen-Free Cable w/ 18 AWG (0.85 mm²) Conductors & 0.25 in. (6 mm) Ferrule Ends

Conduit Connections
- Integral 1/2 in. (13 mm) Threaded Conduit Connector(s)

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

Life Cycle
- 60,000 Full Stroke Cycles with 27 lb·in. (3 N-m) Load, 1,500,000 Repositions with 27 lb·in. (3 N-m) Load

Noise Rating
- Running: <28 dBA at 27 lb·in. (3 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)
- Returning: <56 dBA at 27 lb·in. (3 N-m) Load, at a Distance of 39-13/32 in. (1 m)

Dimensions
- 6-3/8” (L) x 3-15/16” (W) x 2-1/4 (H)

Weight
- 2.0 lb. (2.4 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: Ed. 1, Part 2, Particular Requirements for Electric Actuators.

Wiring: (Cable)

IMPORTANT:
Do not install multiple DS-27 Series Actuators connected to the same mechanical load. Master-Slave application of DS-27 Series Actuators requires that each actuator be connected to independent loads.

<table>
<thead>
<tr>
<th>DC 0(2)...10 V Control</th>
<th>Modulating</th>
<th>0(4)...20 mA Control with External Resistor</th>
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</thead>
<tbody>
<tr>
<td>BLK 1 2 3 4 Y</td>
<td></td>
<td>BLK RED GRY ORN</td>
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<tr>
<td>AC/DC 24 V</td>
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<tr>
<td>DC 0(2)...10 V</td>
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NOTE: WARNING: All DS-27 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.