



## DSU20-27-(A) — Submittal/Technical Data

06/30/22

27 lb-in — 120/240 V — Spring Return — On/Off — Auxiliary Switch Option

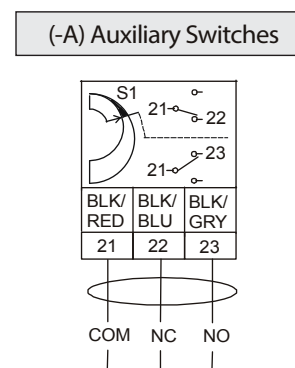
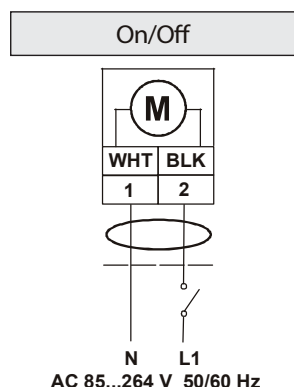
### Specifications:

Power Supply	AC 100 to 240 V (AC 85 V to 264 V) at 50/60 Hz: 0.06 A Running, 0.02 A Holding Position
Auxiliary Switch Rating	(-A) Models) One Single-Pole, Double-Throw (SPDT), Double-Insulated Switch with Silver Contacts: AC 120 V, 5.8 A Resistive, 1/4 hp, 275 VA Pilot Duty AC 240 V, 5.0 A Resistive, 1/4 hp, 275 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
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) 24 to 28 Seconds for 0 to 27 lb-in. (3 N-m) Load, at Room Temperature 27 Seconds Nominal at Full Rated Load (0.5 rpm) Power Off (Returning) 19 to 23 Seconds for 0 to 27 lb-in. (3 N-m) Load, at Room Temperature 22 Seconds Nominal at Full Rated Load 28 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	48 in. UL 758 Type AWM Halogen-Free Cable with 18 AWG (0.85 mm <sup>2</sup> ) 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 (1,500,000 repositions) at full working load at Rated Running Torque Audible
Noise Rating	Running <45 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) Spring Returning <51 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.  UL Listed, CCN XAPX7, File E27734; to UL 60730-1:02-CAN/CSA: July 2002, 3rd Ed., Automatic Electrical Controls for Household and Similar Use; and CSA C22.2 No. 24-93 Temperature Indicating and Regulating Equipment  CE Mark – This product is in compliance with the essential requirements and other relevant provisions of the EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC.

### 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.



**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.

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.