



## DMS24-27(A) — Submittal/Technical Data

06/30/22

27 lb-in. — Spring Return — Modulating — Auxiliary Switch Option

### 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
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) 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 mm <sup>2</sup> ) 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 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 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.

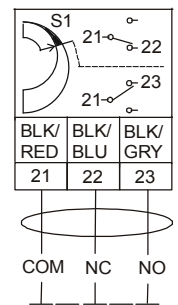
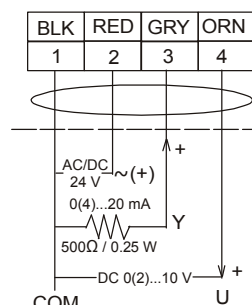
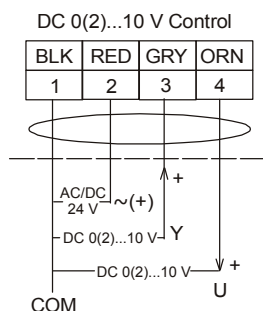
### Wiring: (Cable)

#### Modulating

0(4)...20 mA Control with External Resistor

#### (-A) Auxiliary Switches

**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.