

Non-Spring Return Commercial Actuators - DC-310 Series



Technical Specifications - DC24-310 Series Actuator			
Type	Actuator Models	DC24-310-T(-A)	DCM24-310-T(-A)
			Non-Spring Return - Floating, Time Out Features with optional Auxillary Switches (-A)
Electrical	Torque	310 lb-in. (35 Nm)	
	Operating Voltage	24 VAC ±20% at 50/60 Hz	
	Power Consumption	7 VA, 7W	8 VA, 8W
	Control Signal	N/A	0 to 10 VDC
	Control Impedance	N/A	100k Ohm
	Input Signal	N/A	Y (wires 8-2) DC 0...10 V (Max. permissible input voltage DC 35 V)
	Feedback Potentiometer	0 to 1,000 Ohms, <10 mA	N/A
	Positioning Signal	N/A	DC 0...35 V at Offset $U_0 = 0...5$ V and Span $\Delta U = 2...30$ V
	Feedback Signal	N/A	DC 0 (2) to 10 V
	Dual Auxiliary Switch	Standard Cable - AC, 6 A Resistive, AC 2 A General Purpose	
	Voltage	Standard Cable - 24 to 250 VAC	
	Switch Range	Switch A - 0 to 90° with 5° Intervals (Recommended Range Usage 0 to 45°) Factory Setting 5° Switch B - 0 to 90° with 5° Intervals (Recommended Range Usage 45 to 90°) Factory Setting 85°	
	Time Out	Auto shutoff feature to prevent excessive wear or drive time on the motor	N/A
	Operation	Electrical Connection	3 ft. (0.9 m) Pre-cabled - AWG 18
Equipment Rating		Class 2 According to UL, CSA - Class III per EN60730	
Manual Override		External Push Button	
Runtime for 90° of Rotation		90 seconds, constant for all operating conditions	
Rotation Timing		150 sec. at 50 Hz (125 sec. at 60Hz)	
Rotation Range		Nominal Angle of Rotation 90°, mechanically limited to 95° ± 2°	
Cycle Life		Designed for 60,000 full stroke cycles	
Mechanical Connections		Round Shafts - 3/8 to 1 in. (9.5 to 25.4 mm) diameter Square Shafts - 1/4 to 5/8 in. (6 to 18 mm) Minimum Shaft Length - 3/4 (20 mm)	
Enclosure		IP54 as per EN 60 529	
Environmental		Ambient Conditions (Non-Condensing)	Operating — -25 to 130°F (-32 to 55°C); 0 to 95% RH, non-condensing Storage — -40 to 158°F (-40 to 70°C); 0 to 95% RH, non-condensing
	Audible Noise Rating	<45 dBA at 1 m	
	Dimensions	(L) 11.8 x (W) 3.9 x (H) 2.9 in. (300 x 100 x 67.5 mm)	
	Weight	4.4 lb (2 kg)	
Conditions	Agency Certifications	UL listed to UL873-cUL certified to Canadian Standard C22.2 No. 24-93 CE conformity: Electromagnetic compatibility 2004/108/EC-Low-voltage directive 2006/95/EC	
	Warranty	5 Years limited from time of shipment.	

Non-Spring Return Commercial Actuators - DC-310 Series Wiring



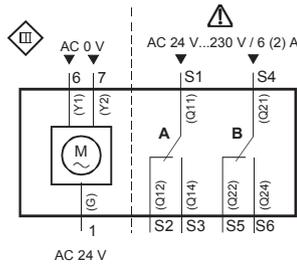
KEY			
Cable			Function
No.	Code	Color	
1	G	Red (RD)	AC 24 V Supply (SP)
2	G0	Black (BK)	Neutral (SN)
6	Y1	Violet (VT)	Control Signal Clockwise AC 0 V
7	Y2	Orange (OG)	Control Signal AC 0 V Counterclockwise
8	Y	Gray (GY)	Control signal DC 0..10 V, 0..35 V
9	U	Pink (PK)	Position indication DC 0..10 V

Auxiliary Switch - Factory Installed			
S1	Q11	Gray/Red (GY RD)	Switch A Input
S2	Q12	Gray/Blue (GY BU)	Switch A - N.C.
S3	Q14	Gray/Pink (GY PK)	Switch A - N.O.
S4	Q21	Black/Red (BK RD)	Switch B Input
S5	Q22	Black/Blue (BK BU)	Switch B - N.C.
S6	Q24	Black/Pink (BK PK)	Switch B - N.O.

DC24-310-T(-A)

STANDARD CABLE

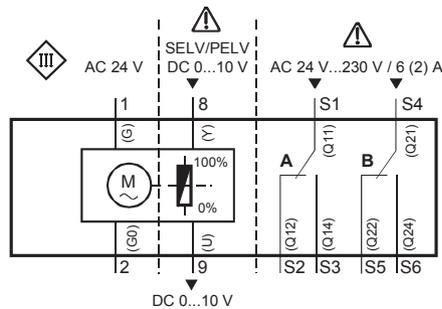
Floating Control



DCM24-310-T(-A)

STANDARD CABLE

Modulating Control



Warning - These 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).

Disclaimer - 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.