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





	DC24-310-T(-A)	DCM24-310-T(-A)	
Actuator Models	Non-Spring Return - Floating, Time Out Features with optional Auxillary Switches (-A)	Non-Spring Return - Modulating with optional Auxillary Switches (-A)	
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 010 V (Max. permissible input voltage DC 35 V)	
Feedback	Contact Bray	0 to 10 VDC	
Positioning Signal	N/A	DC 035 V at Offset Uo = 05 V and Span $\Delta U$ = 23	
Feedback Signal	N/A	DC 0 to 10 VDC	
Dual Auxiliary Switch	Standard Cable - AC, 6 A Resistive, AC 2 A General Purpose		
Voltage	Standard Cable - 24 to 250 VAC		
Switch Bango	Switch A - 0 to 90° with 5° Intervals (Recommended Range Usage 0 to 45°) Factory Setting 5°		
Switch Range	Switch B - 0 to 90° with 5° Intervals (Recommended Range Usage 45 to 90°) Factory Setting 85°		
Stall Protection	Yes		
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 60,0	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		
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)		
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**

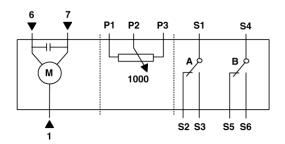
Cable			Function	
No.	Code	Color	Function	
1	G	Red (RD)	AC 24 V Supply (SP)	
2	G0	Black (BK)	Neutral (SN)	
6	Y1	Violet (VT)	Control Signal Clockwise	
7	Y2	Orange (OG)	Control Signal Counterclockwise	
8	Υ	Gray (GY)	0 to 10 VDC Input Signal	
9	U	Pink (PK)	Output for 0 to 10 VDC Position Indication	
P1	a	White/Red (WH RD)	Feedback 0 to 100% P1 - P2	
P2	b	White/Blue (WH BU)	Feedback Common	
Р3	С	White/Pink (WH PK)	Feedback 100 to 0% P3 - P2	

Auxillary Switch - Factory Installed					
S1	Q11	Gray/Red (GY RD)	Switch A Common		
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 Common		
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

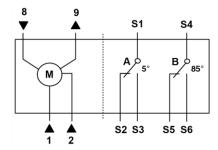
#### Floating Control



### 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.

