

DC(M)-44 Series – Submittal/Technical Data

24 VAC - Non-Spring Return - 2-Position, Floating & Modulating

Technical Specifications - DC(M)-44 Series Actuator							
Type	Actuator Models	DC24-44-TP	DC24-44-TAP	DC24-44-TPTO	DCM24-44-P	DCM24-44-AP	
		Non-Spring Return Floating* Plenum Cable	Non-Spring Return Floating* Plenum Cable Auxiliary Switches	Non-Spring Return 2-Position/Floating Plenum Cable	Non-Spring Return Modulating Plenum Cable	Non-Spring Return Modulating Plenum Cable Auxiliary Switches	
	Torque	44 lb-in. (5 Nm)					
Electrical	Operating Voltage	24 VAC +20%, -15% at 50/60 Hz		24 VAC/DC +-20%			
	Power Consumption	2.3 VA		1.1 VA, 0.7W	1.3 VA, 0.9W		
	Operational Protection	N/A		Timeout/Overload Protection			
	Control Signal	Floating		2-Position/Floating	0(2)-10V		
	Input Impedance	N/A			>100k Ohms		
	Feedback Signal	N/A			0(2)-10V (Maximum Output Current DC 1mA)		
	Auxiliary Switch Rating	N/A	4A Resistive, 2A Inductive	N/A	N/A	4A Resistive, 2A Inductive	
	Switch Range (Switch A)	N/A	0 to 90° with 5° Intervals (Recommended Range Usage 0 to 45°) Factory Setting 5°	N/A	N/A	0 to 90° with 5° Intervals (Recommended Range Usage 0 to 45°) Factory Setting 5°	
	Switch Range (Switch B)	N/A	0 to 90° with 5° Intervals (Recommended Rang Usage 45 to 90°) Factory Setting 85°	N/A	N/A	0 to 90° with 5° Intervals (Recommended Rang Usage 45 to 90°) Factory Setting 85°	
	Switching Hysteresis	N/A	2°	N/A		2°	
	Equipment Rating	Class 2 per UL/CSA,Class III per EN60730		Class 2 according to UL, cUL; Class III per EN60730			
	Electrical Connection	3 ft. (0.9 m) Pre-cabled - AWG 18 - Plenum Rated Cable					
	Operation	Manual Override	Manual Operation by Selecting Override Knob when Power is off				
		Runtime for 90° of Rotation	90 sec. at 60 Hz (108 sec. at 50 Hz)		90 sec.		
		Rotation Range	Nominal Angle of Rotation 90°, mechanically limited to 95°				
Cycle Life		60,000 full strokes/ 1.5 million repositions		100,000 full strokes/ 5 million repositions			
Environmental	Mechanical Connections	Round Shafts - 3/8 to 5/8 in. (8 to 16 mm) diameter Square Shafts - 1/4 to 1/2 in. (6 to 12.7 mm) Hex Shafts - 9/16 in. (15 mm) Minimum Shaft Length - 3/4 in. (20 mm)					
	Enclosure	NEMA 2, IP54 according to EN60529					
	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	35 dBA at 1 m					
	Dimensions	5.4" L x 2.8" W x 2.4" D (137mm L x 70mm W x 60mm D)					
Conditions	Weight	1.06 lb (0.48 kg)		1.35 lb (0.61 kg)			
	Agency Certifications	UL listed to UL873-cUL certified to Canadian Standard C22.2 No. 24-93, CE In accordance with the directive set forth by the European Union for Electromagnetic Compatibility (EMC) 2004/108/EC Emissions Standards EN61000-6-3 Immunity Standards EN61000-6-2		UL listed to UL60730-cUL certified to Canadian Standard C22.2 No. 24-93, These devices were approved for installation in plenum areas by Underwriters Laboratories, Inc., per UL 1995 CE listed with EN60730-1, EN60730-2-14			
	Warranty	5 Years limited from time of shipment.					

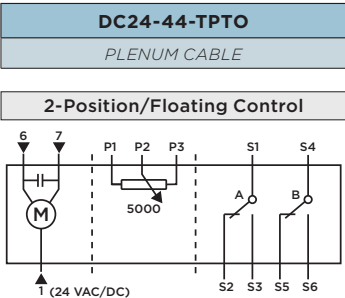
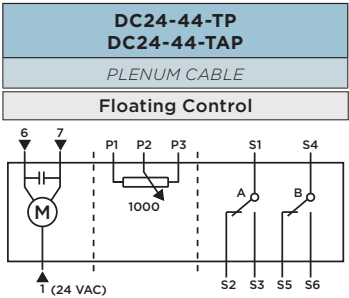
* Not eligible for SPST control

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).

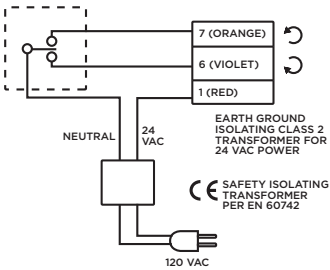
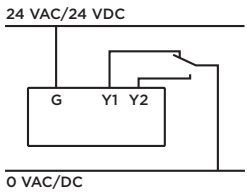
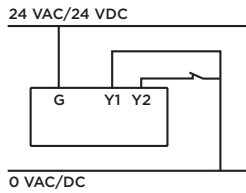
Disclaimer - The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the nearest Bray office. Bray controls shall not be liable for damages resulting from misapplication or misuse of its products.

DC(M)-44 Series - Wiring/Dimensions



2-POSITION/FLOATING CONTROL			
Standard Symbol	Function	Terminal Designation	Color
1	Supply (SP)	G	Red
6	Control Signal clockwise	Y1	Violet
7	Control Signal Counterclockwise	Y2	Orange
Factory-Installed Options			
S1	Switch A Common	Q11	Gray/Red
S2	Switch A N.C.	Q12	Gray/Blue
S3	Switch A N.O.	Q14	Gray/Pink
S4	Switch B Common	Q21	Black/Red
S5	Switch B N.C.	Q22	Black/Blue
S6	Switch B N.O.	Q24	Black/Pink
DC24-44-TPTO Only			
P1	Feedback Potentiometer 0 to 100% P1 - P2 (0 to 5,000 ohms)	A	Black
P2	Feedback Potentiometer Common	B	Black
P3	Feedback Potentiometer 100 to 0% P3 - P2 (5,000 to 0 ohms)	C	Black

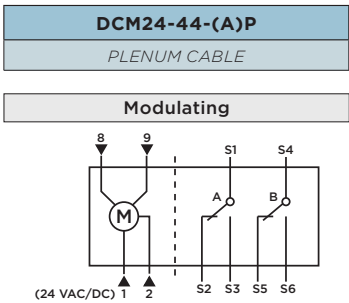
CONTROL METHOD



2-Position, SPST (Single-Pole, Single-Throw)
--

2-Position, SPDT (Single-Pole, Double-Throw)
--

Floating Control 24 VAC/DC



MODULATING CONTROL			
Standard Symbol	Function	Terminal Designation	Color
1	Supply (SP)	G	Red
2	Neutral (SN)	G0	Black
8	0(2) to 10V input signal	Y	Gray
9	Output for 0(2)-10V position indication	U	Pink
Factory-Installed Options			
S1	Switch A - Common	Q11	Gray/Red
S2	Switch A - N.C.	Q12	Gray/Blue
S3	Switch A - N.O.	Q14	Gray/Pink
S4	Switch B - Common	Q21	Black/Red
S5	Switch B - N.C.	Q22	Black/Blue
S6	Switch B - N.O.	Q24	Black/Pink

Dimensions in.(mm)

