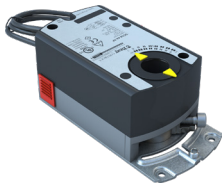


# Non-Spring Return Damper Actuators - DC(M)24-44-88 Series



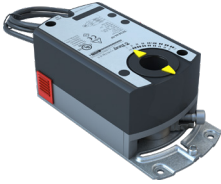
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Technical Specifications - DC24-(44,88) Series Actuator					
Type	Actuator Models	DC24-(44,88)-TP	DC24-(44,88)-TAP	DCM24-(44,88)-P	DCM24-(44,88)-AP
			Non-Spring Return Floating - Plenum Cable	Non-Spring Return Floating - Plenum Cable - Auxillary Switches (-A)	Non-Spring Return Modulating - Plenum Cable
	Torque	(DC(M)24-44), 44 lb-in. (5 Nm) (DC(M)24-88), 88 lb-in. (10 Nm)			
	Operating Voltage	24 VAC +20%, -15% at 50/60 Hz			
	Power Consumption	2.3 VA, 1W		3.3 VA, 2W	
	Control Signal	0 to 10 VDC			
	Input Signal	Floating 24 VAC at 50/60 Hz or 24 VDC		N/A	
	Input Signal Adjustments	Factory Setting - 0 to 10 VDC, 0 to 20 mA, CW rotation with signal increase		N/A	
		Jumper Selectable - 0 (2) to 10 VDC, 0 (4) to 20 VDC, or 0 (4) to 20 mA. Action is jumper selectable Direct (CW) or Reverse (CCW) with signal increase.		N/A	
Electrical	Input Impedance	N/A		100k Ohms	
	Feedback Signal	N/A		0 to 10 VDC (Maximum Output Current DC 1mA)	
	Auxillary Switch Rating	N/A	4A Resistive, 2A Inductive	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	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	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	24 VAC - Class 2 per UL/CSA			
	Electrical Connection	3 ft. (0.9 m) Pre-cabled - AWG 18 - Plenum Rated Cable			
	Manual Override	External Push Button			
	Runtime for 90° of Rotation	(DC(M)24-44), 90 sec. at 60 Hz (108 sec. at 50Hz) (DC(M)24-88), 125 sec. at 60 Hz (150 sec. at 50Hz)			
Rotation Range	Nominal Angle of Rotation 90°, mechanically limited to 95°				
Cycle Life	60,000 cycles at rated load		50,000 cycles at rated load		
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 12.8 mm) Minimum Shaft Length - 1-5/32 (30 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	(L) 5.4 x (W) 2.8 x (H) 2.4 in. (137 x 68 x 60mm)				
Weight	1.06 lb (.48 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				
Warranty	5 Years limited from time of shipment.				

# Non-Spring Return Damper Actuators - DC(M)24-44-88 Series Wiring

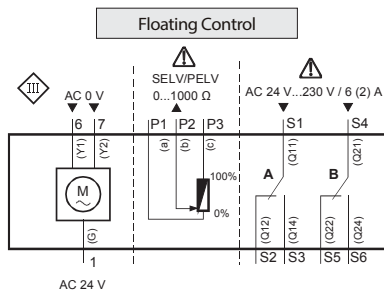


KEY				
Cable			Function	
No.	Code	Color		
1	G	Red (RD)	AC 24 V Supply (SP)	
2	G0	Black (BK)	Neutral (SN)	
6	Y1	Violet (VT)	Control Signal Clockwise AC 0 V	
7	Y2	Orange (OG)	Control Signal AC 0 V Counterclockwise	
8	Y	Gray (GY)	Control signal DC 0..10 V, 0..35 V	
9	U	Pink (PK)	Position indication DC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

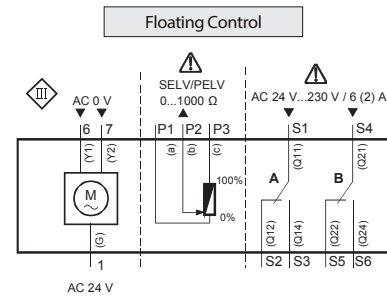
  

Auxiliary Switch - Factory Installed			
S	Q	Color	Function
S1	Q11	Gray/Red (GY RD)	Switch A Input
S2	Q12	Gray/Blue (GY BU)	Switch A - N.C.
S3	Q14	Gray/Pink (GY PK)	Switch A - N.O.
S4	Q21	Black/Red (BK RD)	Switch B Input
S5	Q22	Black/Blue (BK BU)	Switch B - N.C.
S6	Q24	Black/Pink (BK PK)	Switch B - N.O.

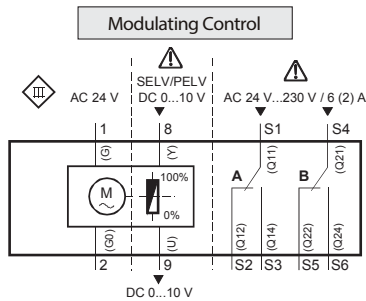
**DC24-(44,88)-TP**  
PLENUM CABLE



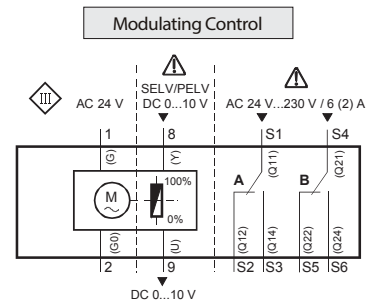
**DC24-(44,88)-TAP**  
PLENUM CABLE



**DCM24-(44,88)-P**  
PLENUM CABLE



**DCM24-(44,88)-AP**  
PLENUM CABLE



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.

Mixed switch operation is not permitted. To the switching outputs of both auxiliary switches (A and B), only apply: UL/CSA: Class 2 voltage. CE: Separated Extra-Low Voltage (SELV) or Protective Extra Low Voltage (PELV), according to HD384-4-41.