



## DC(M)-88 Series – Submittal/Technical Data

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

Technical Specifications - DC(M)-88 Series Actuator					
Type	Actuator Models	DC24-88-TP	DC24-88-TAP	DCM24-88-P	DCM24-88-AP
		Non-Spring Return Floating Plenum Cable	Non-Spring Return 2-Position/Floating Plenum Cable Auxiliary Switches	Non-Spring Return Modulating Plenum Cable	Non-Spring Return Modulating Plenum Cable
	Torque	88 lb-in. (10 Nm)			
	Operating Voltage	24 VAC +-20%	24 VAC/DC +-20%		
	Power Consumption	1.3 VA, 0.8W		1.5 VA, 1W	
	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)	
Electrical	Auxiliary 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 (Recom- mended Range Usage 0 to 45°) Factory Setting 5°	N/A	0 to 90° with 5° Intervals (Recom- mended Range Usage 0 to 45°) Factory Setting 5°
	Switch Range (Switch B)	N/A	0 to 90° with 5° Intervals (Recom- mended Rang Usage 45 to 90°) Factory Setting 85°	N/A	0 to 90° with 5° Intervals (Recom- mended Rang Usage 45 to 90°) Factory Setting 85°
	Switching Hysteresis	N/A	2°	N/A	2°
	Equipment Rating	Class 2 per UL/CSA	Class 2 per UL/CSA, 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	125 seconds	150 seconds		
	Rotation Range	Nominal Angle of Rotation 90°, mechanically limited to 95°			
	Cycle Life	60,000 cycles at rated load	100,000 full strokes/ 5 million repositions		
	Mechanical Connections	<b>Round Shafts</b> - 3/8 to 5/8 in. (8 to 16 mm) diameter <b>Square Shafts</b> - 1/4 to 1/2 in. (6 to 12.7 mm) <b>Hex Shafts</b> - 9/16 in. (15 mm) <b>Minimum Shaft Length</b> - 3/4 in. (20 mm)			
Environmental	Enclosure	NEMA 2, IP54 according to EN60529			
	Ambient Conditions (Non-Condensing)	<b>Operating</b> -- -25 to 130°F (-32 to 55°C); 0 to 95% RH, non-condensing <b>Storage</b> -- -40 to 158°F (-40 to 70°C); 0 to 95% RH, non-condensing			
	Audible Noise Rating	35 dBA at 1 m			
	Dimensions	6.6" L x 2.8" W x 2.4" D (166.7mm L x 71mm W x 61mm D)			
	Weight	1.35 lb (0.61 kg)			
Conditions	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 Com- patibility (EMC) 2004/108/EC - Emissions Standards EN61000-6-3 - Immunity Standards EN61000-6- 2 For DC24-88-TP	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.			

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.

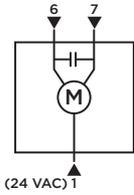
To avoid excessive wear or drive time on the motor, use a controller and/or software that provides a time-out function to remove the signal at the end of rotation (stall).

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.

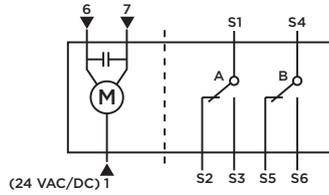
Mixed switch operation is not permitted. To the switching outputs of both auxiliary switches (A and B), only apply: UL/CSA: Class 2 voltage.

# DC(M)-88 Series - Wiring/Dimensions

<b>DC24-88-TP</b>
PLENUM CABLE
Floating Control



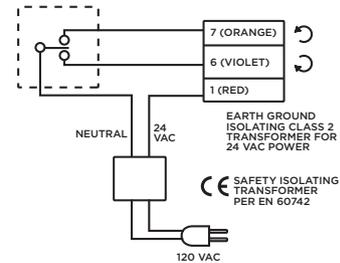
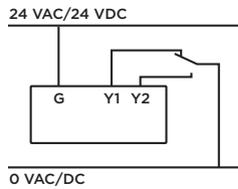
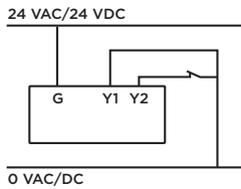
<b>DC24-88-TAP</b>
PLENUM CABLE
2-Position/Floating Control



## 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

## CONTROL METHOD

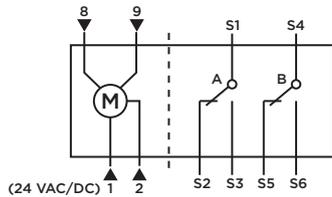


<b>2-Position, SPST</b>
(Single-Pole, Single-Throw)

<b>2-Position, SPDT</b>
(Single-Pole, Double-Throw)

<b>Floating Control</b>
24 VAC/DC

<b>DCM24-88-(A)P</b>
PLENUM CABLE
Modulating



## 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

