



DC(M)S-140 Series — Submittal/Technical Data

160 lb-in. — Spring Return — On/Off, Floating & Modulating — Auxiliary Switches

Technical Specifications - DC(M)S-140 Series Actuator				
Type	Actuator Models	DCS24-140-(A)	DCMS24-140-(A)	DCS120-140-(A)
		Spring Return On/Off Opt. Auxiliary Switches (-A)	Spring Return Modulating Opt. Auxiliary Switches (-A)	Spring Return On/Off Opt. Auxiliary Switches (-A)
Electrical	Torque	160 lb-in. (18 Nm)		
	Operating Voltage	24 VAC ±20%; 24...48 24 VDC ±10% at 50/60 Hz		120 VAC ±10% at 50/60 Hz
	Power Consumption	Running: 7 VA/5W Holding: 5 VA/3W		Running: 8 VA Holding: 6 VA
	Control Input Signal	N/A	0 to 10 VDC or 2 to 10 VDC (max. 35 VDC)	N/A
	Control Input Impedance	N/A	>100K Ohms	N/A
	Feedback Signal	N/A	0 to 10 VDC Max. output current +1 mA, -5 mA	N/A
	Auxiliary Switch Rating (-A Models Only)	AC Rating 24 VAC to 250 VAC; AC 6 A Resistive, AC 2A FLA, 12 LRA DC Rating 12 VDC to 30 VDC; DC 2A		AC Rating AC 6 A Resistive, AC 2A FLA, 12 LRA
	Switching Hysteresis (-A Models Only)	2°		
	Equipment Rating	Class 2 per UL/CSA		N/A
	Electrical Connection	36 in. (.9 m) Standard Cable with 18 AWG (0.75 mm ²) Wire Leads		
Operation	Conduit Connections	Integral Connectors for 3/8 in. Flex		
	Manual Override	Hex Head Screw		
	Spring Return	Direction is Selectable with Mounting Position of Actuator		
	Rotation Range	Nominal angle of rotation 90°; Maximum angular rotation 95°		
	Runtime for 90° of Rotation	Power On (Running) 90 Seconds Power Off (Returning) 15 Seconds		
	Cycle Life	60,000 Full stroke cycles (1,500,000 repositions)		
	Mechanical Connections	Round Shafts - 3/8-in to 1-in (8 to 25.6 mm) Square Shafts - 1/4-in to 3/4-in (6 to 18 mm)		
Environmental	Enclosure	NEMA 2, IP54 per EN 60 529 - in vertical to horizontal 90°		
	Ambient Conditions (Non-Condensing)	Operating — -25°F to 130°F (-32°C to 55°C); 95% RH Maximum, Noncondensing Storage — -40°F to 158°F (-40°C to 70°C); 95% RH Maximum, Noncondensing		
	Audible Noise Rating	45 dBA		
	Dimensions	11-13/16" (L) x 4-3/4" (W) x 2-7/8" (H)		
	Weight	4.85 lb (2.2 kg)		
Conditions	Agency Certifications	UL listed to UL60730 (to replace UL873) cUL certified to Canadian Standard C22.2 No. 24-93		
	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.

Wiring

KEY

No.	Cable Color	Function
1	Red (RD)	System potential AC 24 V / DC 24...48 V
2	Black (BK)	System neutral
6	Violet (VT)	Pos. signal AC 0 V / AC 24 V / DC 24...48 V, "open"
7	Orange (OG)	Pos. signal AC 0 V / AC 24 V / DC 24...48 V, "close"
8	Gray (GY)	Pos. signal DC 0...10 V, 0...35 V
9	Pink (PK)	Position indication DC 0...10 V
3	Brown (BN)	Phase AC 120/230 V
4	Blue (BU)	Neutral conductor

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

DCS24-140-(A)

STANDARD CABLE

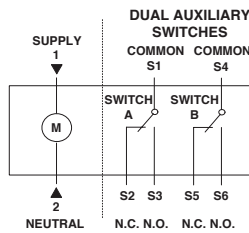
DCMS24-140-(A)

STANDARD CABLE

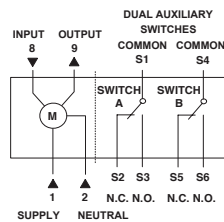
DCS120-140-(A)

STANDARD CABLE

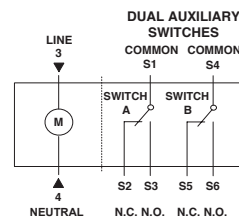
On/Off with Optional AUX Switches



Modulating with Optional AUX Switches



120 V On/Off with Optional AUX Switches



Dimensions

