

## DCS24-140-(A) — Submittal/Technical Data

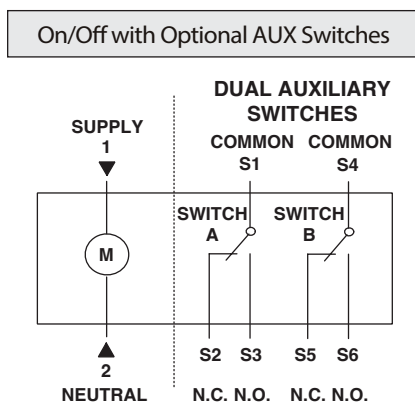
06/30/22

160 lb-in. — Spring Return — On/Off — Auxillary Switch Option

### Specifications:

|                         |   |  |
|-------------------------|---|--|
| Power Supply            | 24 VAC $\pm$ 20%; 24...48 VDC $\pm$ 10% at 50/60 Hz: Class 2 per UL/CSA, Running: AC: 7 VA / 5 W, DC: 4 W; Holding: AC: 5 VA / 3 W, DC: 3 W |  |
| Input Signal            | 0 to 10 Vdc (max. 35 Vdc)   |  |
| Auxiliary Switch Rating | 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  |
| Switch Range            | Switch A  | 0° to 90° with 5° intervals; Recommended range usage 0° to 45°; Factory setting 5°   |
|                         | Switch B  | 0° to 90° with 5° intervals; Recommended range usage 45° to 90°; Factory setting 85° |
| Switching Hysteresis    | 2°  |  |
| Spring Return           | Direction is Selectable with Mounting Position of Actuator  |  |
| Rotation Range          | Nominal angle of rotation 90°; Maximum angular rotation 95°   |  |
| Torque                  | 160 lb-in. (18 N-m)   |  |
| Time: 90° of Rotation   | Power On (Running) 90 Seconds<br>Power Off (Returning) 15 Seconds   |  |
| Enclosure               | NEMA 2, IP54 per EN 60 529 - in vertical to horizontal 90°  |  |
| Manual Override         | Hex Head Screw  |  |
| Ambient Conditions      | Standard 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                        |
| Electrical Connections  | 36 in. (.9 m) Standard Cable with 18 AWG (0.75 mm <sup>2</sup> ) Wire Leads   |  |
| Conduit Connections     | Integral Connectors for 3/8 in. Flex  |  |
| 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)  |
| Life Cycle              | 60,000 Full stroke cycles   |  |
| Noise Rating            | 45 dBA (running)  |  |
| Dimensions              | 11-13/16" (L) x 4-3/4" (W) x 2-7/8 (H)  |  |
| Weight                  | 4.85 lb (2.2 kg)  |  |
| Agency Certification    | UL listed to UL60730 (to replace UL873)<br>cUL certified to Canadian Standard C22.2 No. 24-93   |  |

### Wiring: (Cable)



| Pin              | Cable Labeling |            |       | Meaning  |
|------------------|----------------|------------|-------|--|
|                  | No.            | Color      | Abbr. |  |
| Actuators        | 1              | red        | RD    | System potential AC 24 V / DC 24...48 V              |
| AC 24 V          | 2              | black      | BK    | System neutral                                       |
| DC 24...48 V     | 6              | purple     | 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              | grey       | GY    | Pos. signal DC 0...10 V, 0...35 V                    |
|                  | 9              | pink       | PK    | Position indication DC 0...10 V                      |
| Actuators        | 3              | brown      | BN    | Phase AC 120/230 V                                   |
| AC 120/230 V     | 4              | blue       | BU    | Neutral conductor                                    |
| Auxiliary switch | S1             | grey/red   | GY RD | Switch A input                                       |
|                  | S2             | grey/blue  | GY BU | Switch A normally-closed contact                     |
|                  | S3             | grey/pink  | GY PK | Switch A normally-open contact                       |
|                  | S4             | black/red  | BK RD | Switch B input                                       |
|                  | S5             | black/blue | BK BU | Switch B normally-closed contact                     |
|                  | S6             | black/pink | BK PK | Switch B normally-open contact                       |

**NOTE: WARNING:** All DCS-140 Series 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.

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.