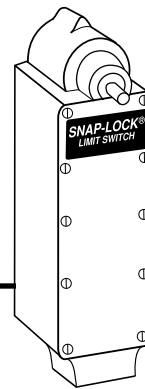


Double Pole  
Harsh Environment/  
Navy Marine

# Limit Switches

Butt/  
Sliding  
Contacts



Limit Switches

## NAVY meets MIL-C-2212F Current

**Construction** - Completely fabricated from non-corrosive materials, its bronze housing and high quality stainless steel shaft insure against external damage to the switch from salt spray corrosive elements. Sealing against leakage is achieved through the use of high quality gaskets on machined surfaces and "O" ring protection, plus close tolerance between the shaft and bushing.

**Durability** - All internal components are of high grade stainless steel or copper alloy, chrome plated when required, to protect against bearing surface wear and to provide millions of operations.

Both the EA780 and EA790 series switches have heavy duty electrical contacts. The EA780 switches have sliding, double-break type contacts built to meet the high shock requirements outlined in MIL-S-901.

EA790 switches have heavy duty, double-break, butt type contacts.

**Contacts** - EA780 switches contain sliding contact arrangements which wipe clean with each operation.

EA790 switches contain butt-style contacts.

Both series available with operation direction CW, CCW or CW/CCW.

**Levers** - A variety of corrosion resistant levers are available to meet specific actuating requirements.

NOTE: Levers must be ordered as separate items. See Operating Levers Section.

## EA780 Double Pole 2 N.O. - 2 N.C. / Sliding Contacts / Cam Action

| Standard Mounting Model No.                    | Wide Mounting Model No. | Long Mounting Model No. | Dir. Of Operation | Angle A Trip Travel | Angle B Reset Travel | Angle C Recom. Travel | Angle D Total Travel | Angle E Min. Travel to Maintain | Angle F Overall Travel | Torque (inch lbs) | Contact Config. | Data Drawing |
|--|-------------------------|-------------------------|-------------------|---------------------|----------------------|-----------------------|----------------------|---------------------------------|------------------------|-------------------|-----------------|--------------|
| <b>STANDARD TRAVEL</b>                         |                         |                         |                   |                     |                      |                       |                      |                                 |                        |                   |                 |              |
| EA780-20000                                    | EA780-50000             | EA780-80000             | CW                | 18°                 | 14°                  | 30°                   | 90°                  | -                               | -                      | 27                | A               | 1            |
| EA780-20001                                    | EA780-50001             | EA780-80001             | CCW               | 18°                 | 14°                  | 30°                   | 90°                  | -                               | -                      | 27                | B               | 1            |
| EA780-20100                                    | EA780-50100             | EA780-80100             | CW/CCW            | 18°                 | 14°                  | 30°                   | 90°                  | -                               | -                      | 27                | C               | 1            |
| <b>MAINTAINED CONTACT &amp; LEVER POSITION</b> |                         |                         |                   |                     |                      |                       |                      |                                 |                        |                   |                 |              |
| -  | EA780-56000             | -                       | CW                | 55°                 | 22°                  | 60°                   | 116°                 | 55°                             | 64°                    | 6                 | D               | 2            |
|  |                         |                         | CCW               | 25°                 | 25°                  | 60°                   | 124°                 | 54°                             | 56°                    | 9                 |                 |              |
| <b>MAINTAINED CONTACT-LEVER RETURNED</b>       |                         |                         |                   |                     |                      |                       |                      |                                 |                        |                   |                 |              |
| EA780-26700                                    | EA780-56700             | EA780-86700             | CW                | 30°                 | 26°                  | 45°                   | 90°                  | 30°                             | -                      | 15                | D               | 3            |
|  |                         |                         | CCW               | 16°                 | 30°                  | 45°                   | 90°                  | 26°                             | -                      | 16.5              |                 |              |

See Operating Levers Section

**EA790 Double Pole 2 N.O. - 2 N.C. / Butt Contacts / Cam Action**

**EA780/EA790**

| Standard Mounting Model No.                    | Wide Mousing Model No. | Long Mousing Model No. | Dir. Of Operation | Angle A Trip Travel | Angle B Reset Travel | Angle C Recom. Travel | Angle D Total Travel | Angle E Min. Travel to Maintain | Angle F Overall Travel | Torque (inch lbs) | Contact Config. | Data Drawing |
|--|------------------------|------------------------|-------------------|---------------------|----------------------|-----------------------|----------------------|---------------------------------|------------------------|-------------------|-----------------|--------------|
| <b>STANDARD TRAVEL</b>                         |                        |                        |                   |                     |                      |                       |                      |                                 |                        |                   |                 |              |
| EA790-20000                                    | EA790-50000            | EA790-80000            | CW                | 18°                 | 14°                  | 30°                   | 90°                  | -                               | -                      | 27                | A               | 1            |
| EA790-20001                                    | EA790-50001            | EA790-80001            | CCW               | 18°                 | 14°                  | 30°                   | 90°                  | -                               | -                      | 27                | B               | 1            |
| EA790-20100                                    | EA790-50100            | EA790-80100            | CW/CCW            | 18°                 | 14°                  | 30°                   | 90°                  | -                               | -                      | 27                | C               | 1            |
| <b>MAINTAINED CONTACT &amp; LEVER POSITION</b> |                        |                        |                   |                     |                      |                       |                      |                                 |                        |                   |                 |              |
| EA790-26000                                    | EA790-56000            | EA790-86000            | CW                | 55°                 | 22°                  | 60°                   | 116°                 | 55°                             | 64°                    | 6                 | D               | 2            |
|  |                        |                        | CCW               | 25°                 | 25°                  | 60°                   | 124°                 | 54°                             | 56°                    | 9                 |                 |              |
| <b>MAINTAINED CONTACT-LEVER RETURNED</b>       |                        |                        |                   |                     |                      |                       |                      |                                 |                        |                   |                 |              |
| EA790-26700                                    | EA790-56700            | EA790-86700            | CW                | 30°                 | 26°                  | 45°                   | 90°                  | 30°                             | -                      | 15                | D               | 3            |
|  |                        |                        | CCW               | 16°                 | 30°                  | 45°                   | 90°                  | 26°                             | -                      | 16.5              |                 |              |
| <b>SHORT TRAVEL</b>                            |                        |                        |                   |                     |                      |                       |                      |                                 |                        |                   |                 |              |
| EA790-20900                                    | EA790-50900            | EA790-80900            | CW/CCW            | 13°                 | 10°                  | 30°                   | 90°                  | -                               | -                      | 27                | C               | 1            |
| <b>NEUTRAL POSITION ALL CONTACTS OPEN</b>      |                        |                        |                   |                     |                      |                       |                      |                                 |                        |                   |                 |              |
| EA790-25102                                    | EA790-55102            | EA790-85102            | CW                | 31°                 | 12°                  | 45°                   | 90°                  | -                               | -                      | 16.5              | E               | 1            |
|  |                        |                        | CCW               | 31°                 | 22°                  | 45°                   | 90°                  | -                               | -                      | 16.5              |                 |              |
| <b>NEUTRAL POSITION ALL CONTACTS CLOSED</b>    |                        |                        |                   |                     |                      |                       |                      |                                 |                        |                   |                 |              |
| EA790-25104                                    | EA790-55104            | EA790-85104            | CW                | 31°                 | 12°                  | 45°                   | 90°                  | -                               | -                      | 16.5              | F               | 1            |
|  |                        |                        | CCW               | 31°                 | 22°                  | 45°                   | 90°                  | -                               | -                      | 16.5              |                 |              |

Limit Switches

**Common Switch Characteristics**

| <b>DOUBLE POLE, HARSH ENVIRONMENT/NAVY MARINE, BUTT/SLIDING CONTACTS</b> |   |                           |
|--|---|---------------------------|
|  | <b>EA780</b>  | <b>EA790</b>              |
| NEMA Enclosure Type  | 1, 4, 4X, 6, 6P, 13   |                           |
| Housing Material   | Bronze  |                           |
| Ambient Temperature Range*   | -20°C to +90°C  |                           |
| Shipping Weight  | 4 lbs. approx.  |                           |
| Lever Adjustment   | 7°30' Increments thru 360°  |                           |
| Contacts   | Sliding, Silver Alloy Form Z  | Butt, Silver Alloy Form Z |
| Special Switch Features  | MIL-C-2212F<br>Watertight (3 ft. for 60 min.) and Submersible (15ft. for 30 min.) per MIL STD-108E<br>Vibration requirements per MIL-STD-167B, Type 1<br>High Shock per MIL-S-901, grade A, Class 1, type A |                           |

\* Some high temperature (0°C to 150°C) and low temperature (-40°C to +90°C) versions available. Contact factory.

**EA780**

**Continuous Current Rating - Amperes**

| VOLTAGE | AC   | DC  |
|---------|------|-----|
| 125     | 10.0 | 2.5 |
| 250     | 7.5  | .75 |
| 480     | 5.0  | -   |
| 600     | 2.5  | -   |

75-100% Power Factor

**EA790**

**Continuous Current Rating - Amperes**

| VOLTAGE | AC   | DC  |
|---------|------|-----|
| 125     | 20.0 | 5.0 |
| 250     | 15.0 | 1.5 |
| 480     | 10.0 | -   |
| 600     | 5.0  | -   |

75-100% Power Factor



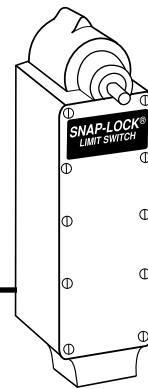
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www.namcocontrols.com

**For technical assistance, call 1-800-NAMTECH**

Double Pole  
Harsh Environment/  
Navy/ Marine

# Limit Switches

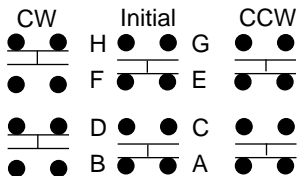
Butt/  
Sliding  
Contacts



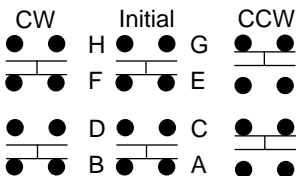
Limit Switches

## Contact Configurations

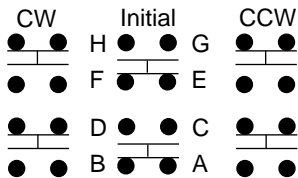
### CIRCUIT A



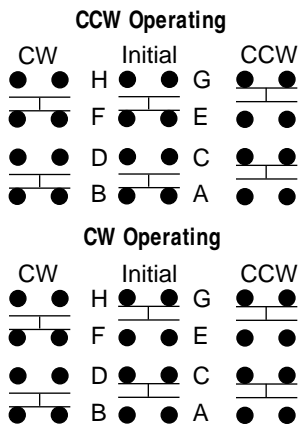
### CIRCUIT B



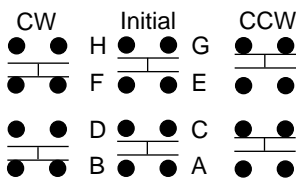
### CIRCUIT C



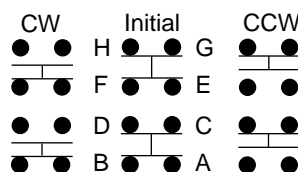
### CIRCUIT D



### CIRCUIT E

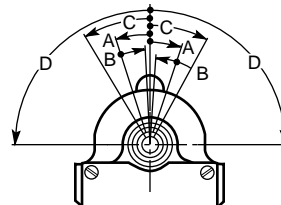


### CIRCUIT F

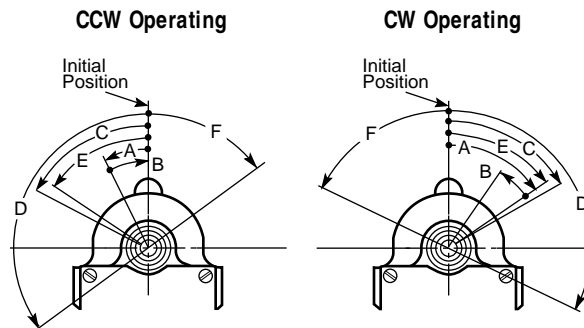


## Operational Data Drawings

### DRAWING #1

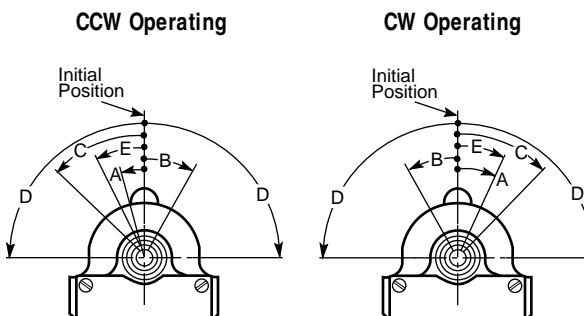


### DRAWING #2



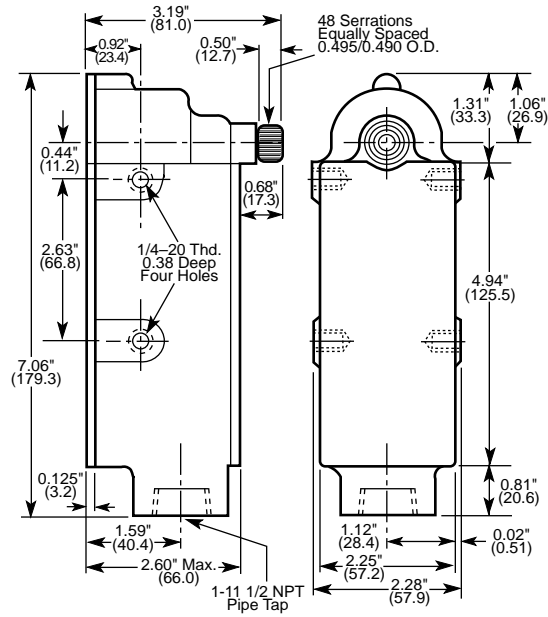
To change switch operation from CW operating to CCW operating, operate switch through angle E. Remove lever and reset at initial position.

### DRAWING #3

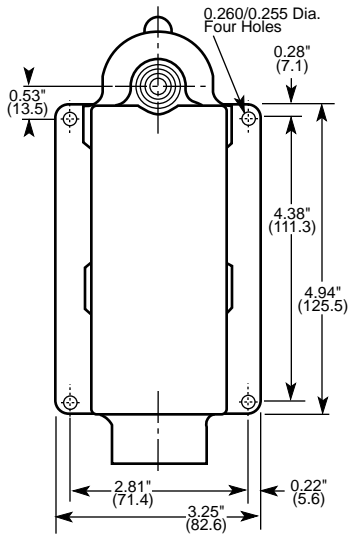


To change switch operation from CW operating to CCW operating, operate switch through angle E.

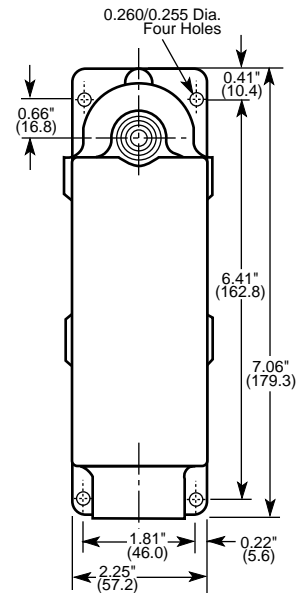
### STANDARD MOUNTING PLATE



### WIDE MOUNTING PLATE



### LONG MOUNTING PLATE



Dimensions: inches/(mm)

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