



- 1NO/1NC, 2NO/2NC, 2NO, 2NC, 4NO, 4NC
- Cam-Type SNAP-LOCK® Technology
- Three Mounting Styles Available (Standard, Wide, Long)
- Built for Navy/Marine Requirements
- Completely fabricated from non-corrosive materials, including a bronze enclosure and stainless steel shaft
- Heavy Duty Electrical Contacts
EA780 - Sliding Type; EA790 - Butt Type
- Conforms to MIL-C-2212F
- Meets Vibration Requirements MIL-STD-167B, Type I
- Meets Hi-Shock Requirements of MIL-S-901, Grade A, Class I, Type A
- Watertight (3 ft. for 60 min.) & submersible (15 ft. for 30 min.) per MIL-STD-108E

Technical Data

- Enclosure meets NEMA Types 1, 4, 4X, 6, 6P, and 13
- Contacts made of silver alloy. Contact shifting mechanism is locked in position by the latches until switch lever is actuated.
- Temperature Range: -20°C to + 90°C
- Operating lever is adjustable by 7°30' increments of 360°
- Operating Torques - Trip Torque varies from 6 to 33 lb-in. depending on switch size and cam selected
- Form "Z" contact arrangement
- Options available
 - High Temperature (0°C to + 150°C) components and lubricants
 - Low Temperature (-40°C to + 90°C) components and lubricants
- Weight - 2 lb. 11 oz.

Continuous Current Rating - Amperes

Volts	EA780		EA790	
	AC	DC	AC	DC
125	10	2.5	20	5
250	7.5	0.75	15	1.5
480	5		10	
600	2.5		5	

75-100% Power Factor

Typical Cams

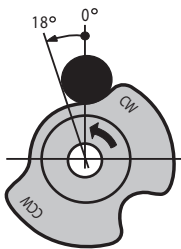
The versatility of the Snap-Lock mechanism is achieved with the use of a series of uniquely designed cams. A standard EA800 series switch, supplied with a combination B1/B2 cam.

Combination B1/B2 CAM

The following three operating sequences are built into the combination cam used in the standard EA800 switches; B1 Single Action CW, B1 Single Action CCW and B2 Double Action CW & CCW.

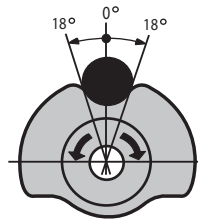
1. The contacts function when the lever is operated CW. The lever can be operated CCW but the contacts will not operate.
2. The contacts function when the lever is operated CCW. The lever can be operated CW but the contacts will not operate.
3. The contacts function when the lever is operated CW or CCW.

B1 Single Action



Normally open to make (normally closed to break) IN ONE DIRECTION ONLY. Lever and cam are spring returned to starting position. Used on Single Action Switches only.

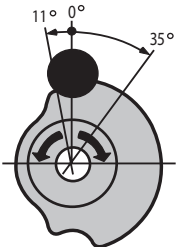
B2 Double Action



Normally open to make (normally closed to break) IN EITHER DIRECTION. Lever and cam are spring returned to starting position.

Neutral Position N CAM

The neutral position cam is designed for applications requiring a neutral position in the contact arrangement. Both the operating lever and cam are spring returned to starting position. The maximum lever travel in either direction is 90°.

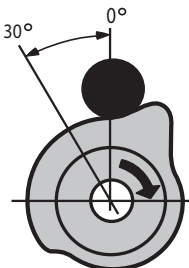


This is the contact action of neutral switches:

- As the lever is moved clockwise the lower contact transfers. As the lever is spring returned to starting position the lower contact is returned to its original position.
- As the lever is moved counterclockwise from starting position the upper contact transfers. As the lever is spring returned to starting position the upper contact returns.

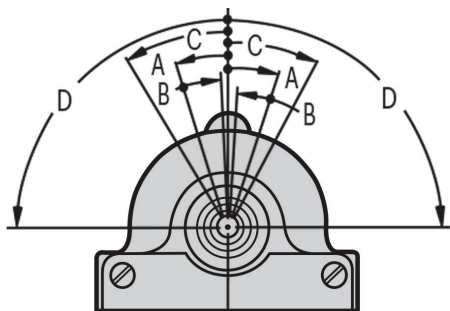
Maintained Position CAM

Maintained Switches are available for applications that require maintained contacts and are available with two contact operations:



1. When the lever is moved clockwise the normally open contacts close and the normally closed contacts open. The lever is maintained in tripped position. As the lever is activated counterclockwise to starting position, normally open contacts open and normally closed contacts close.
2. When the lever is moved clockwise the normally open contacts close and the normally closed contacts open. This contact arrangement is maintained as the lever is spring returned to starting position and until the lever is moved counterclockwise when the normally open contacts open and the normally closed contacts close.

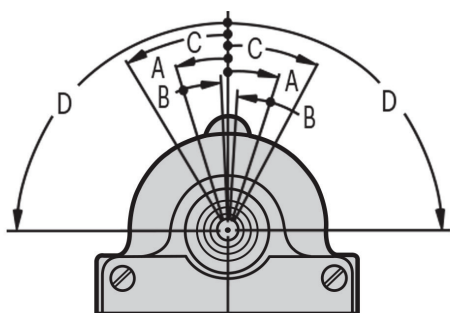
Operational Data



EA780 Series & EA790 Series - B1 CAM, B2 CAM

A. Trip Travel	18°
B. Reset Travel	14°
C. Recommended Travel	30°
D. Maximum Travel Available	90°

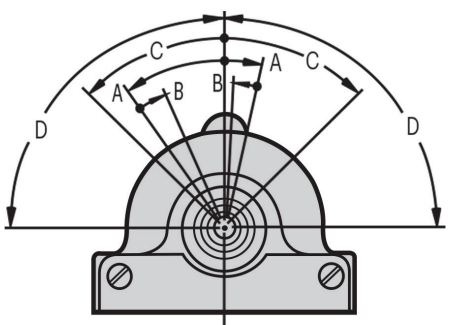
Torque	
1NO/1NC	15 lb-in.
2NO/2NC	27 lb-in.



EA790 Series - B9 CAM (Short Travel)

A. Trip Travel	13°
B. Reset Travel	10°
C. Recommended Travel	30°
D. Maximum Travel Available	90°

Torque	
1NO/1NC	15 lb-in.
2NO/2NC	27 lb-in.

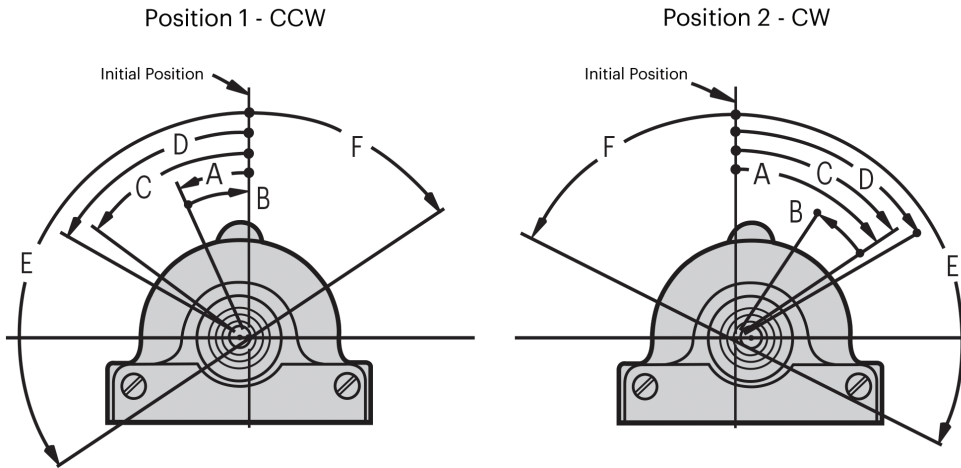


EA790 Series - N1 CAM

	CW	CCW
A. Trip Travel	18°	31°
B. Reset Travel	14°	22°
C. Recommended Travel	30°	45°
D. Maximum Travel Available	90°	90°

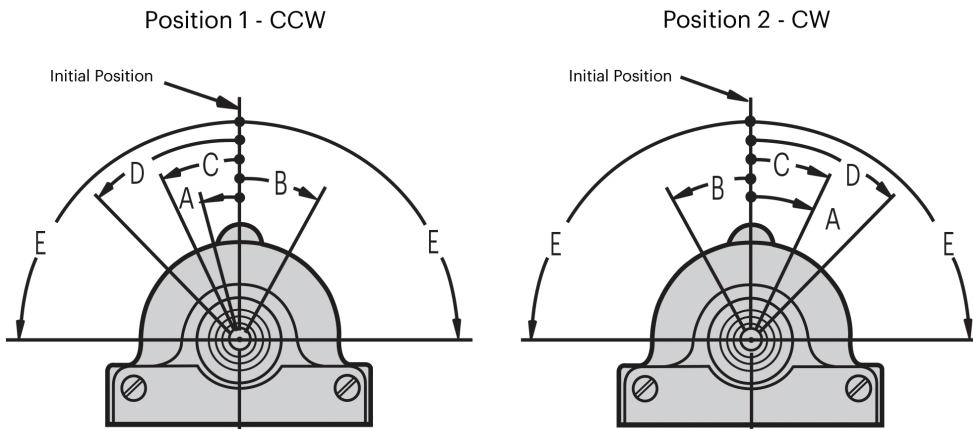
Torque		
2NO	15 lb-in.	19.5 lb-in.
4NO	16.5 lb-in.	16.5 lb-in.
2NC	15 lb-in.	15 lb-in.
4NC	16.5 lb-in.	16.5 lb-in.

Operational Data



EA780 & EA790 Series - M CAM

	CW	CCW		CW	CCW
A. Trip Travel	25°	55°	Torque		
B. Reset Travel	25°	22°	1NO	6 lb-in.	.....
C. Minimum Travel to Maintain	54°	55°	1NC .....	.....	9 lb-in.
D. Recommended Travel	60°	60°	2NO	6 lb-in.	.....
E. Maximum Travel Available	124°	116°	2NC .....	.....	9 lb-in.
F. Overall Travel	56°	64°			



EA780 & EA790 Series - M7 CAM

	CW	CCW		CW	CCW
A. Trip Travel	16°	30°	Torque		
B. Reset Travel	30°	26°	1NO	12 lb-in.	.....
C. Minimum Travel to Maintain	26°	30°	1NC .....	.....	13.5 lb-in.
D. Recommended Travel	45°	45°	2NO	15 lb-in.	.....
E. Maximum Travel Available	90°	90°	2NC .....	.....	16.5 lb-in.

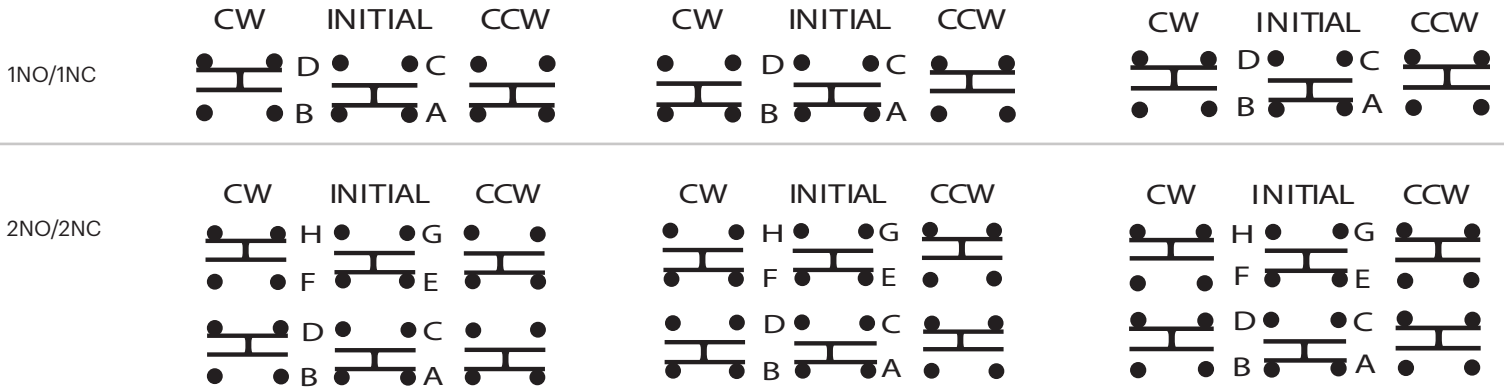
Contact Configuration

EA780 & EA790 Series - B1 CAM, B2 CAM, B9 CAM

CW Operation Only

CCW Operation Only

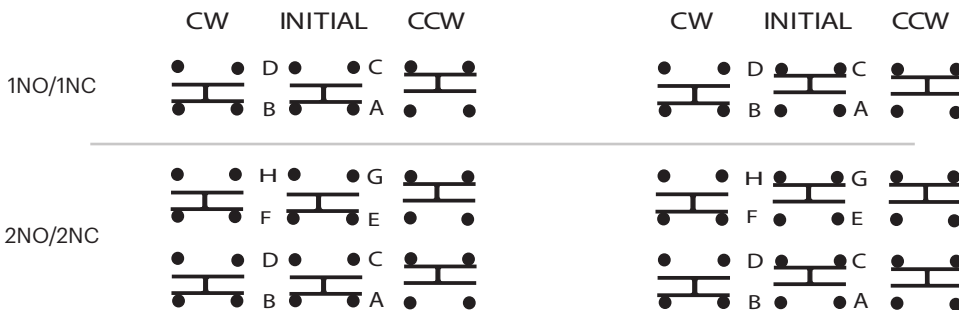
CW & CCW Operation



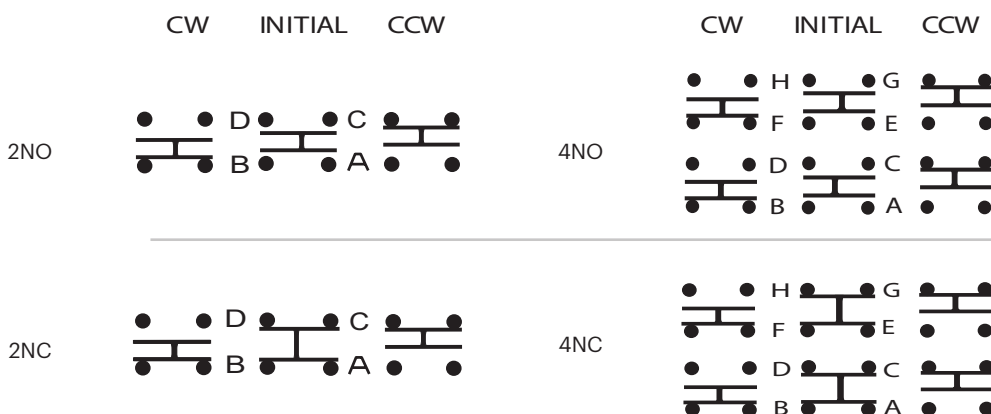
EA780 & EA790 Series - M CAM, M7 CAM

Position 1 - CCW

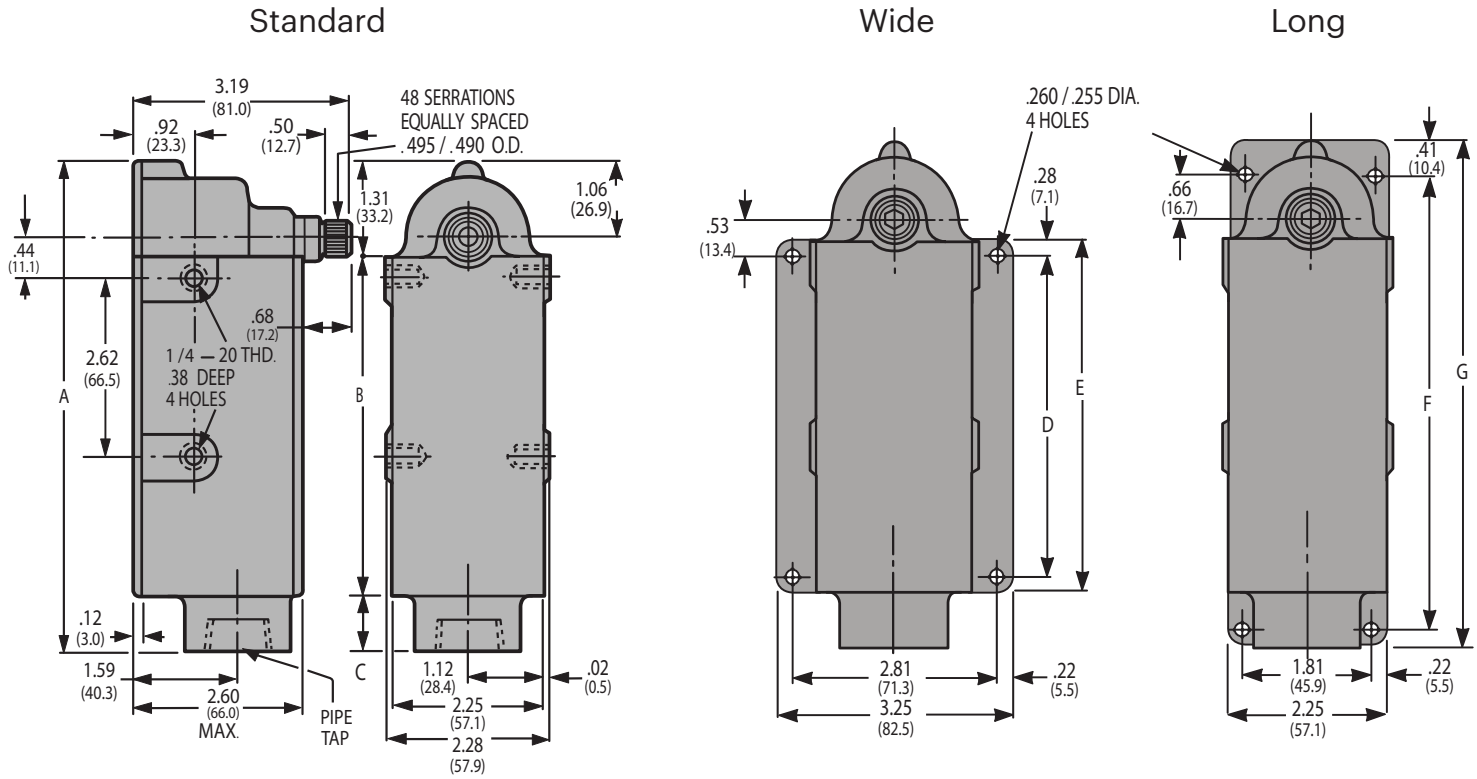
Position 2 - CW



EA790 Series - N1 CAM

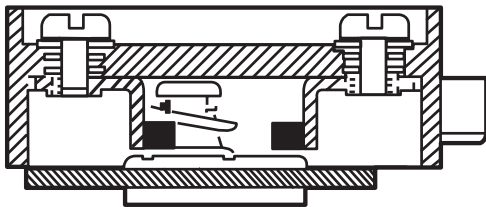


Dimensions & Mounting

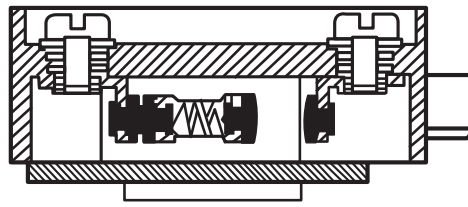


Contact Types

EA780 Series
 Sliding, Double Break Contacts



EA790 Series
 Butt, Double Break Contacts

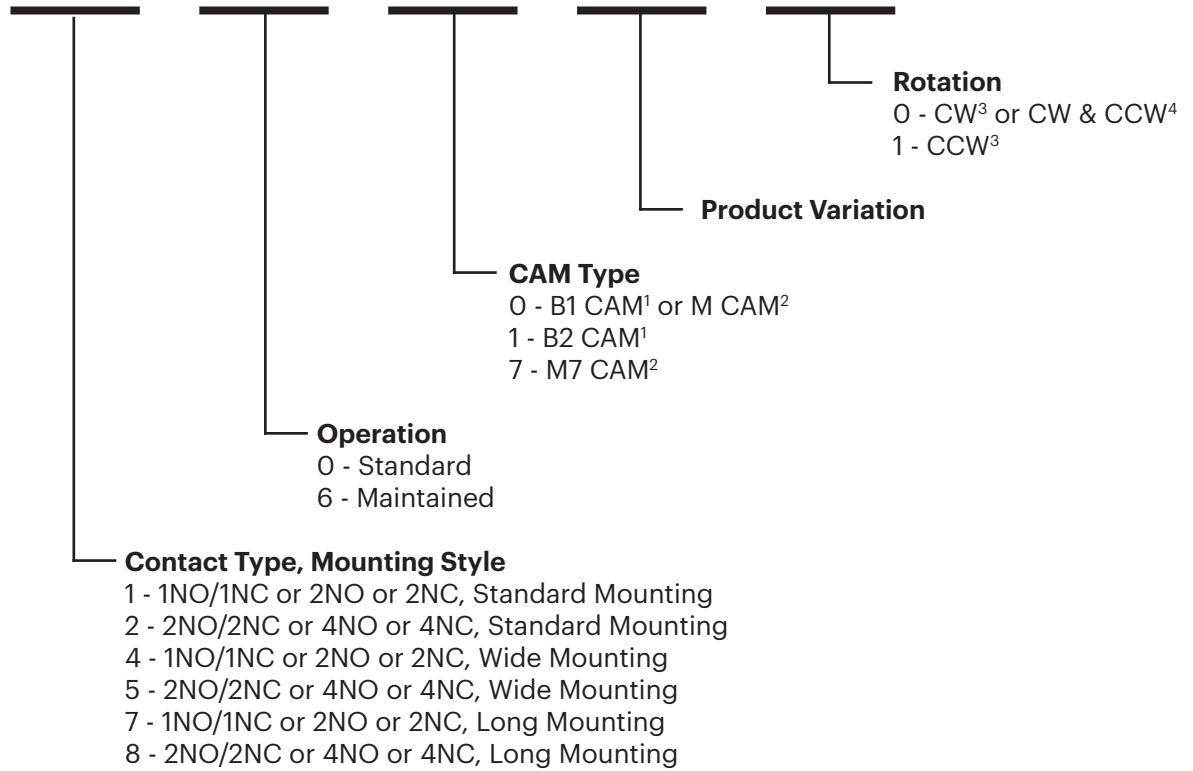


All dimensions given in Inches

Ordering Information

EA780 -

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For additional EA780 Series options, consult factory.

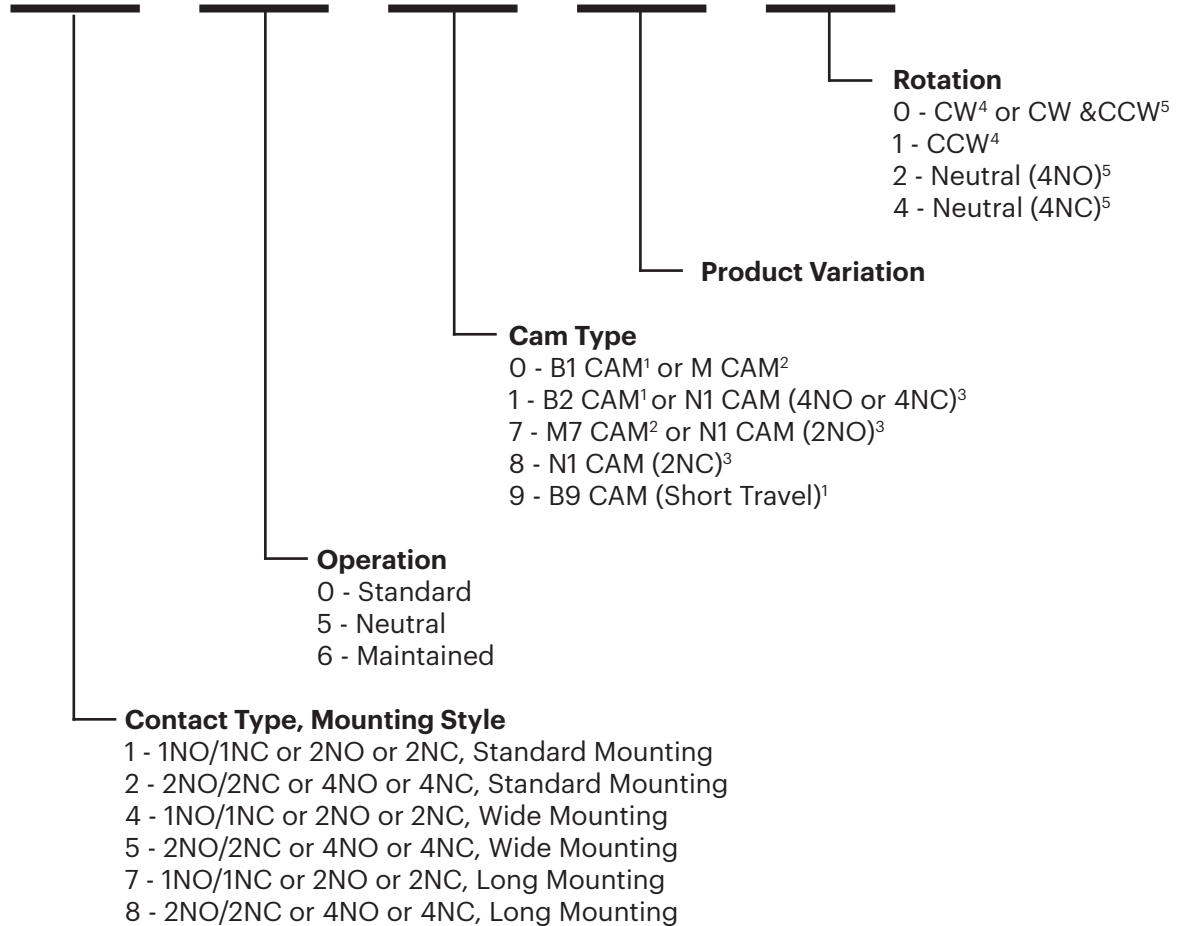
Notes:

- ¹ B1 CAM and B2 CAM only available with Standard Operation
- ² M CAM and M7 CAM only available with Maintained Operation
- ³ CW Rotation and CCW Rotation only available with B1 CAM Type
- ⁴ CW & CCW Rotation only available with B2 CAM, M CAM and M7 CAM Types

Ordering Information

EA790 -

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For additional EA790 Series options, consult factory.

Notes:

¹ B1 CAM and B2 CAM only available with Standard Operation

² M CAM and M7 CAM only available with Maintained Operation

³ N1 CAM only available with Neutral Operation

⁴ CW Rotation and CCW Rotation only available with B1 CAM Type

⁵ CW & CCW Rotation only available with B2 CAM, N1 CAM, M CAM and M7 CAM Types