

# NAMCO

**NUCLEAR QUALIFIED POSITION INDICATION SWITCHES**



ENGINEERED WITH  
**SNAP-LOCK**<sup>®</sup>  
TECHNOLOGY



The SNAP-LOCK® mechanism is what makes our position indication switches so unique. Utilizing this technology in our design enables us to produce a robust, highly reliable and trusted product for the nuclear industry.

**SNAP:**

Our solutions have a “snap” action which enables a quick action from one position to another, effectively eliminating deadband. The contacts are forced to be in one position or the other and cannot dwell in-between open or closed.

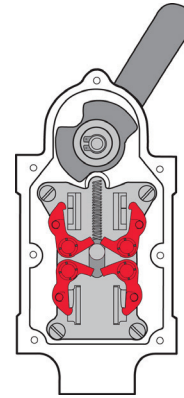
**LOCK:**

Instead of relying on spring or magnetic force, each switch has a locking mechanism that mechanically forces the contacts to stay closed until released by the trip lever. This eliminates any possible contact chatter due to vibration or seismic events.

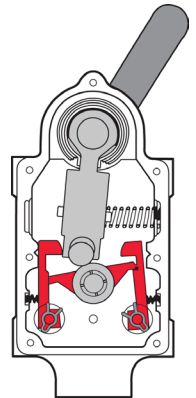
NAMCO utilizes three different SNAP-LOCK® mechanisms detailed in the drawings on the right. The type of mechanism selected is based on your application.

## SNAP-LOCK®

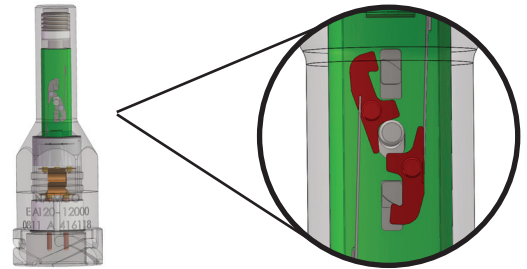
**Cam Type**






**Rocker Type**



**Magnetic Prox Type**



## Balance of Plant

<b>NAMCO</b>	<b>Commercial/Industrial</b>		
<b>Test Conditions</b>	NEMA 1, 4, 13		
<b>Model</b>	EA170	EA700	EA080
			
<b>Contacts</b>	DPDT	SPDT or DPDT	SPDT
<b>Connection</b>	NPT Conduit Opening	NPT Conduit Opening	NPT Conduit Opening
<b>SNAP-LOCK®</b>	Rocker Type	Cam Type	Rocker Type

## Applications

NAMCO Limit Switches and Prox Switches with SNAP-LOCK® technology are used throughout the power generation industry for a variety of critical applications.

- Valve Position Indication: From the MSIV to Balance of Plant
- Actuator Position
- Conveying
- Over Travel Protection
- Overhead Cranes
- Mobile Equipment
- HVAC Dampers
- Presence Detection
- Door Closure
- Level Detection







## Qualifications

- IEEE 323-1974, 1983 & 2003
- IEEE 344-1975, 1987 & 2004
- IEEE 382-1972, 1980, 1996 & 2006
- IEEE 383-1972, 1974 & 2003
- IEEE 572-1985 & 2004
- Special qualifications for Westinghouse AP1000, GE, AECL, B & W and KOPEC design specifications
- IEC 60780 (1998), 60980 (1989), & 60068 (2007)








# Nuclear Qualified

## Magnetic Proximity Switches

NAMCO	Harsh Environment With Accident Conditions		Harsh Environment Without Accident Conditions		Mild Environment	
	<b>Test Conditions</b>	LOCA, HELB, Radiation, Seismic Resistant		Radiation & Seismic Resistant		Low Dose Radiation & Seismic Resilience
<b>Model</b>	EA120 - SP	EA120 - DP	EA120 - SP	EA120 - DP	EA120 - SP	EA120 - DP
						
<b>Contacts</b>	SPDT	DPDT	SPDT	DPDT	SPDT	DPDT
<b>Connection Options</b>	Flying Leads	Flying Leads	Flying Leads	Flying Leads	Flying Leads	Flying Leads
	QDC	QDC	QDC	QDC	QDC	QDC

## Mechanical Limit Switches

NAMCO	Harsh Environment With Accident Conditions			Harsh Environment Without Accident Conditions	
	<b>Test Conditions</b>	LOCA, HELB, Radiation & Seismic Resistant			Radiation & Seismic Resistant
<b>Model</b>	EA090	EA180	EA740	EA095	EA170
	<b>Coming Soon</b> 			<b>Coming Soon</b> 	
<b>Contacts</b>	SPDT	DPDT	DPDT	SPDT	DPDT
<b>Connection Options</b>	Conduit Opening	NPT Conduit Opening	NPT Conduit Opening	Conduit Opening	NPT Conduit Opening
	Flying Leads	QDC	QDC	Flying Leads	QDC
<b>SNAP-LOCK®</b>	Cam Type	Rocker Type	Cam Type	Cam Type	Rocker Type

## What YOU Need – When YOU Need It

Our team of engineers and sales representatives will assist you every step of the way to be sure you get what you need. Whether it is a pricing quote, expedited delivery, technical support or application assistance, we are here to serve YOU!

## Innovative

In 1972, NAMCO developed the world's first switch qualified for safety applications in nuclear power plants. With over 100,000 nuclear qualified safety switches installed around the globe, no other manufacturer has more experience in one of the world's most critical applications.

Today, NAMCO continues to strive for innovation. To ensure nuclear plants are less vulnerable in the wake of natural disasters, our non-contact position indication solution addresses the most demanding and evolving requirements in harsh applications. The NAMCO EA120 Series Magnetic Proximity Switch utilizes our proprietary SNAP-LOCK® technology, which enables us to exceed seismic performance requirements in the smallest footprint.

## Contact Us

Not sure what you need? Our experienced engineers and application specialists will help you support any of your application needs – whether nuclear qualified or balance of plant. Contact us at [info@sptech.com](mailto:info@sptech.com) or call 800-390-6405 or 910-862-2511.

## Reliable and Responsive

With over 75 years of experience, NAMCO leads the industry by providing SNAP-LOCK® switches in the most demanding applications such as steel mills, auto plants, foundries and power plants. SNAP-LOCK® technology provides unparalleled reliability in the toughest environments and in heavy-duty applications. NAMCO switches have the ruggedness to operate under the most severe conditions and have the durability needed for a long, trouble-free operation.

## Highest Quality Manufacturing

NAMCO products are manufactured and tested to the highest quality standards, making them the most reliable on the market. Our commitment to our Quality Program means you, our customer, get world-class products and top-notch customer service.

- Manufactured to a QA Program designed to meet 10CFR50 Appendix B and ANSI N45.2, as applicable
- ISO 9001-2008 Certified



2100 West Broad Street • Elizabethtown, NC 28337 • [www.namcocontrols.com](http://www.namcocontrols.com) | 800-390-6405

Copyright Specialty Product Technologies © 2016. All Rights Reserved Legal Entity: Dynapar Corporation