

EA120 SPDT Series

Features

- Non-contact magnetically actuated limit switch – no torque on actuator or valve needed
- Qualified to Westinghouse AP1000 Environmental Parameters
- Manufacturing business system complies with 10CFR50, Appendix B, 10CFR Part 21, and ANSI N45.2
- Proprietary SNAP-LOCK® technology that enables internal latching mechanism to eliminate chatter under seismic or high vibration conditions
- Available with QDC milled onto the Stainless steel housing
- Available with pre-wired flying leads
- Gold-plated, fine silver contacts
- High temperature components



Technical Data

- Single Pole Double Throw (SPDT) Form C contacts, quick make - quick break
- Housing: Stainless steel
- Size: Length: 4" (101.6mm)
Weight: 0.45lbs / 0.2kg (free lead version, excluding pig tails);
0.55lbs / 0.25kg (QDC connector, excluding cable assy)
- PEEK insulated leads

Contact Rating

AC	Volts	120V	240V
	Amps	4A	2A

DC	Volts	24V	48V
	Amps	2A	1A

EA120 SPDT in Harsh Environment With Accident Conditions (LOCA/HELB)

- Operating Temperature: -4° to 212°F (-20° to 100°C)
- Environmental qualifications:
Qualified for 100 years 112°F (44°C)
60 years 131°F (55°C)
Radiation: 363 MRad gamma
Seismic: 8.8G
Pressure: 104psig (717 KPa) LOCA
Max Temperature: 540°F / 282°C (HELB)
480°F / 249°C (LOCA)

Product (LOCA)	Product (HELB)	Description
EA120-11XXX*	EA120-71XXX*	SPDT w/ Flying Leads
EA120-12000	EA120-72XXX*	SPDT w/ QDC
EC390-44XXX*		Plug In Cable Assy w/ QDC (see pg. 34)
EA120-10001		Target Magnet
EA120-10002		Target Magnet (0.25" Actuation)

*XXX - Designates Lead Length

EA120 SPDT in Harsh Environment Without Accident Conditions

- Operating Temperature: -4° to 212°F (-20° to 100°C)
- Environmental qualifications:
Qualified for 100 years 112°F (44°C)
60 years 131°F (55°C)
Radiation: 363 MRad gamma
Seismic: 8.8G

Product	Description
EA120-51XXX*	SPDT w/ Flying Leads
EA120-52000	SPDT w/ QDC
EC590-44XXX*	Plug In Cable Assy w/ QDC (see pg. 38)
EA120-10001	Target Magnet
EA120-10002	Target Magnet (0.25" Actuation)

*XXX - Designates Lead Length

EA120 SPDT in Mild Environment

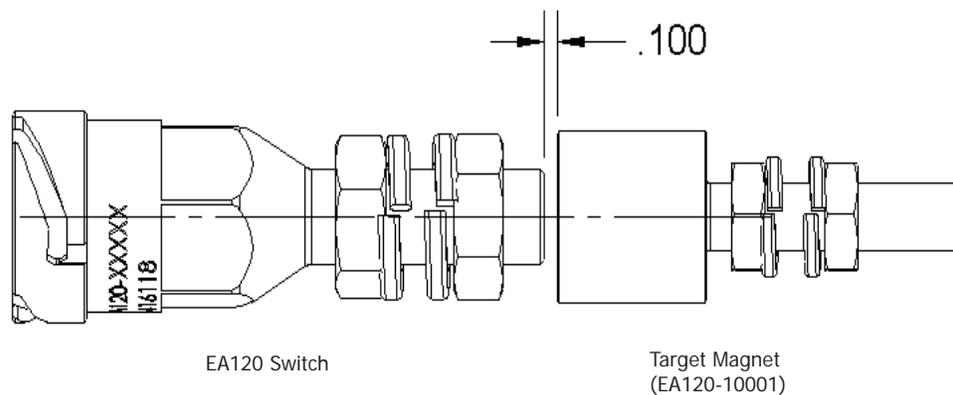
- Operating Temperature: -4° to 212°F (-20° to 100°C)
- Environmental qualifications:
Qualified for 60 years 105°F (40.5°C)
Radiation: < 1 Mrad
Seismic: 8.8G

Product	Description
EA120-31XXX*	SPDT w/ Flying Leads
EA120-32000	SPDT w/ QDC
EC490-44XXX*	Plug In Cable Assy w/ QDC (see pg. 36)
EA120-10001	Target Magnet
EA120-10002	Target Magnet (0.25" Actuation)

*XXX - Designates Lead Length

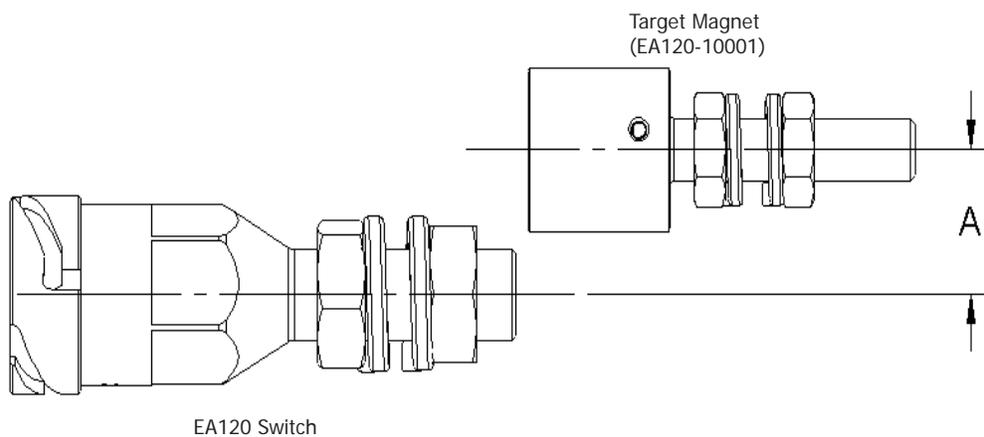
Actuation/Sensing

Target magnet installed within 0.10" (2.54mm) of switch.



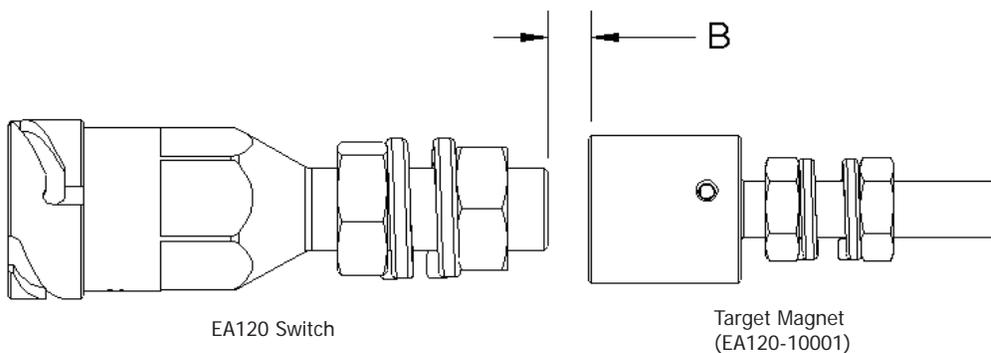
Radial Actuation

Switch trips within 0.20" (5.08mm) from centerline. Switch releases outside 0.60" (15.24mm) from centerline.



Axial Actuation

Switch trips within 0.10" (2.54mm). Switch releases outside of 0.50" (12.7mm)

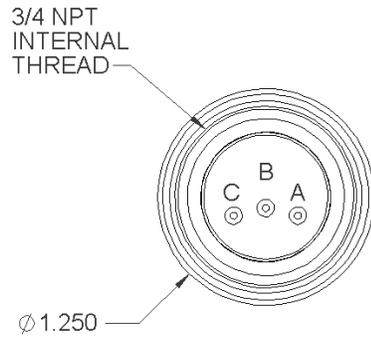


All dimensions given in Inches (mm)

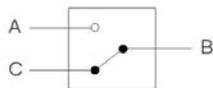
EA120 SPDT Series

Electrical Contact Information

Free-leads option

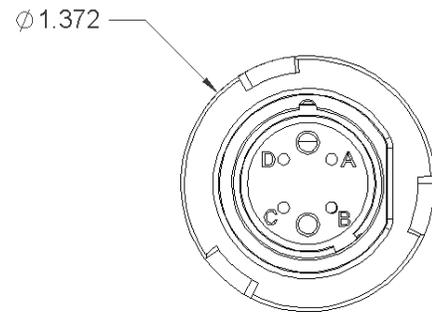


CONTACT CONFIGURATION

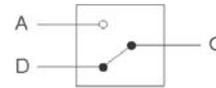


A	Normally Open
B	Common
C	Normally Closed

Quick disconnect option



CONTACT CONFIGURATION



A	Normally Open
B	Reserved
C	Common
D	Normally Closed

Mounting

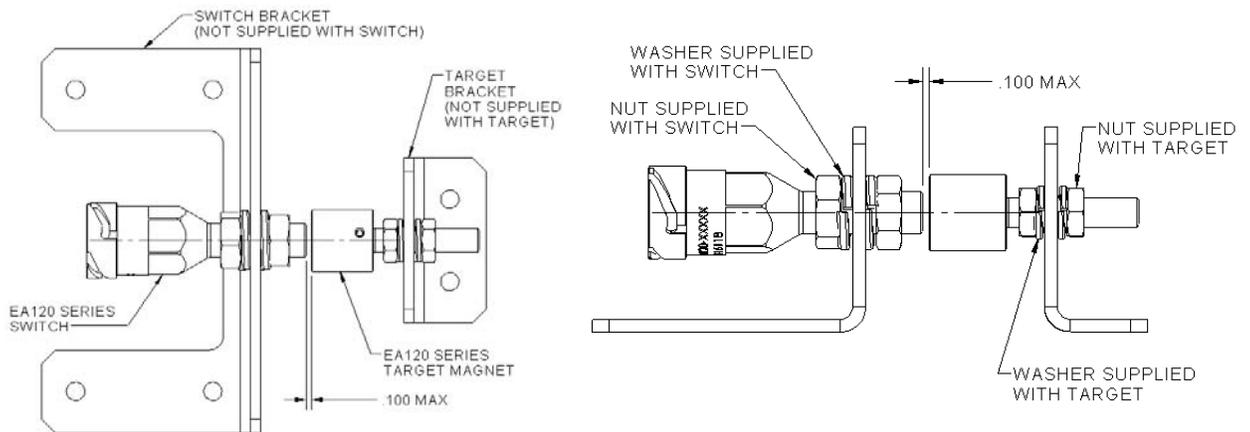
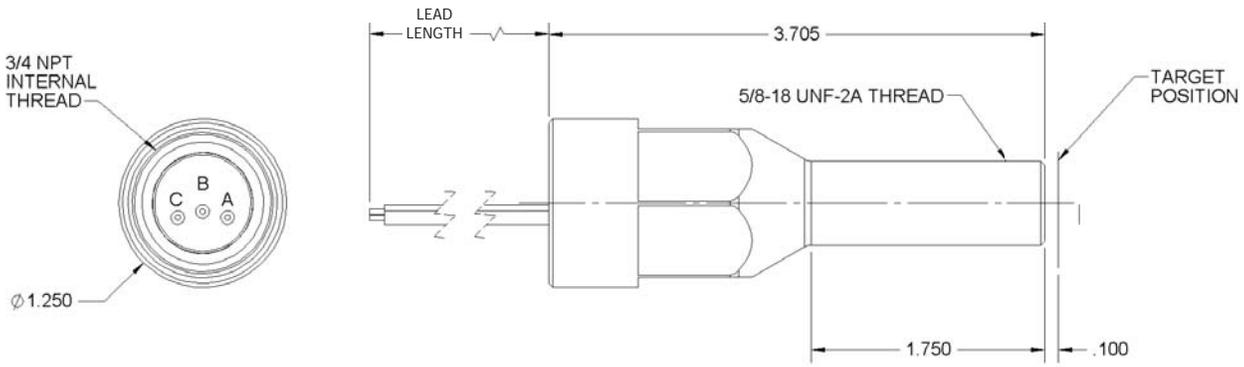


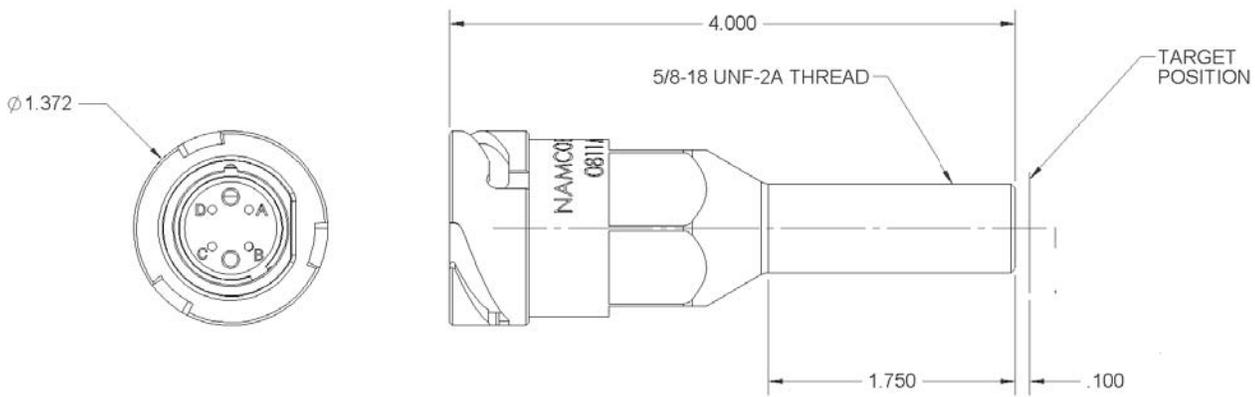
Figure reflects switch in "actuated" position.
Two 5/8-18 jam nuts and two 5/8" lock washers supplied with switch.
Target magnet EA120-10001 required for operation (sold separately).
Average hysteresis: 0.20" (5mm) to 0.40" (10mm)

Outline Drawings

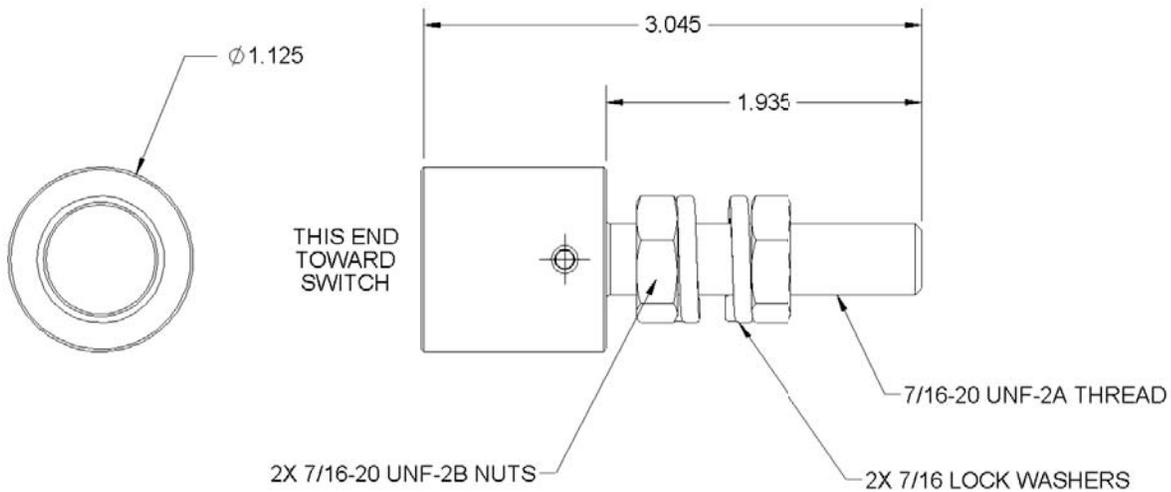
SPDT Flying Leads Model



SPDT Quick Disconnect Model



Target Magnet (EA120-10001)



All dimensions given in Inches (mm)