

EA120 DPDT 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

- Double Pole Double Throw (DPDT) Form C contacts, quick make - quick break
- Housing: Stainless steel
- Size: Length: 4" (101.6mm)
Weight: 0.71lbs / 0.3kg (free lead version, excluding pig tails);
1.10lbs / 0.5kg (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 DPDT in Harsh Environment With Accident Conditions (LOCA/HELB)

- Operating Temperature: -4° to 212°F (-20° to 100°C)
- Environmental qualification:
 - Qualified for 100 years 112°F (44°C)
 - 60 years 131°F (55°C)
 - Radiation: 307 MRad gamma
 - Seismic: 8.8G
 - Pressure: 104psig (717 KPa) under LOCA condition
 - Max Temperature: 540°F / 282°C (HELB)
 - 480°F / 249°C (LOCA)

Product	Description
EA120-21XXX*	DPDT w/ Flying Leads
EA120-22000	DPDT w/ QDC
EC390-29XXX*	Plug In Cable Assy w/ QDC (see pg. 35)
EA120-10001	Target Magnet
EA120-10002	Target Magnet

*XXX - Designates Lead Length

EA120 DPDT in Harsh Environment Without Accident Conditions

- Operating Temperature: -4° to 212°F (-20° to 100°C)
- Environmental qualification:
 - Qualified for 100 years 112°F (44°C)
 - 60 years 131°F (55°C)
 - Radiation: 307 MRad gamma
 - Seismic: 8.8G

Product	Description
EA120-61XXX*	DPDT w/ Flying Leads
EA120-62000	DPDT w/ QDC
EC590-29XXX*	Plug In Cable Assy w/ QDC (see pg. 39)
EA120-10001	Target Magnet
EA120-10002	Target Magnet

*XXX - Designates Lead Length

EA120 DPDT in Mild Environment

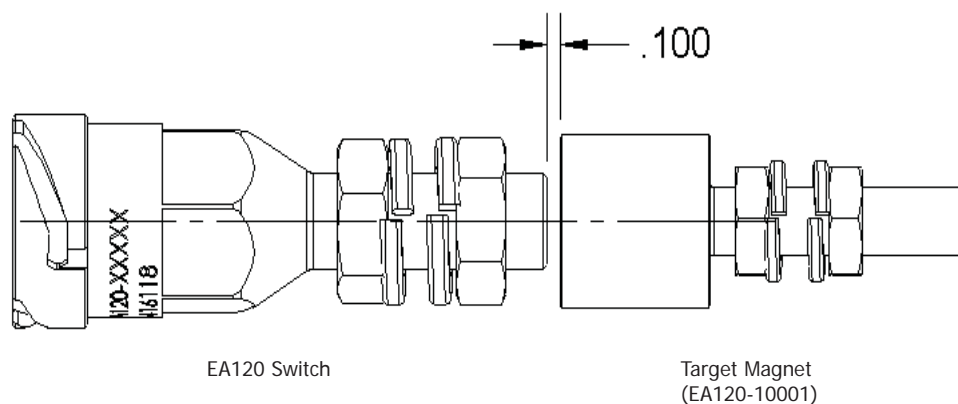
- Operating Temperature: -4° to 212°F (-20° to 100°C)
- Environmental qualification:
 - Qualified for 60 years 105°F (40.5°C)
 - Radiation: < 1 Mrad
 - Seismic: 8.8G

Product	Description
EA120-41XXX*	DPDT w/ Flying Leads
EA120-42000	DPDT w/ QDC
EC490-29XXX*	Plug In Cable Assy w/ QDC (see pg. 37)
EA120-10001	Target Magnet
EA120-10002	Target Magnet

*XXX - Designates Lead Length

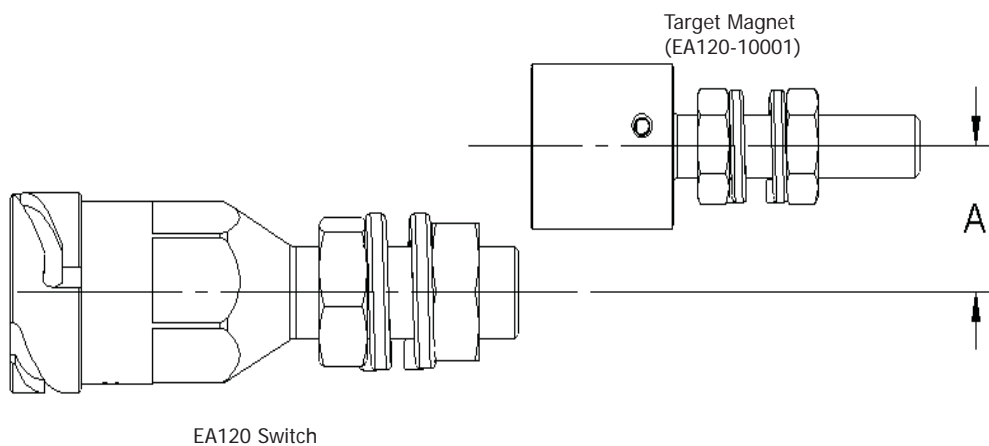
Actuation/Sensing

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



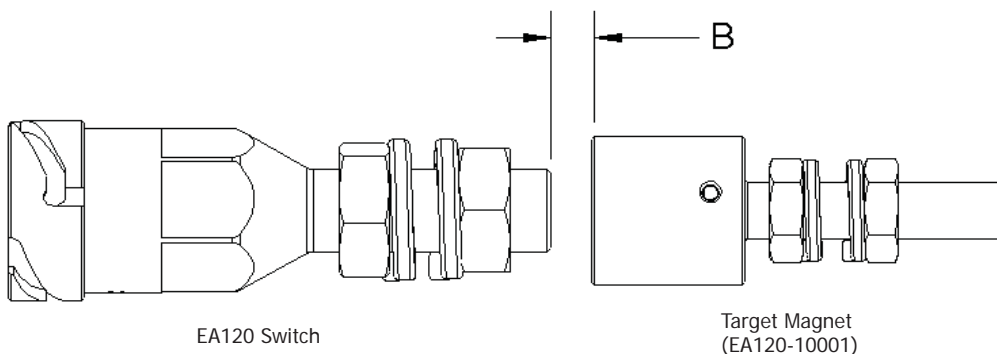
Radial Actuation

Switch trips within 0.20" (5.08mm) from centerline. Switch releases outside 0.70" (17.78mm) from centerline.



Axial Actuation

Switch trips within 0.10" (2.54mm). Switch releases outside of 0.70" (17.78mm)

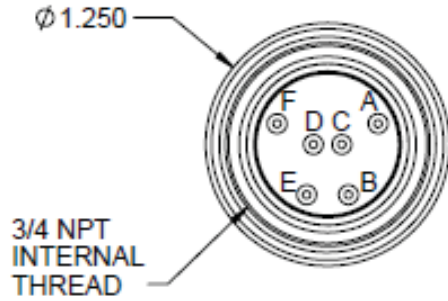


All dimensions given in Inches (mm)

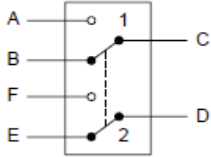
EA120 DPDT Series

Electrical Contact Information

Flying Leads option

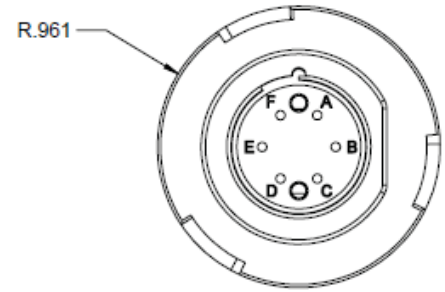


CONTACT CONFIGURATION

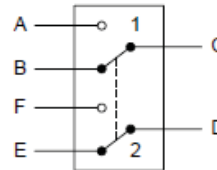


A	Normally Open 1
B	Normally Closed 1
C	Common 1
D	Common 2
E	Normally Closed 2
F	Normally Open 2

Quick disconnect option



CONTACT CONFIGURATION



A	Normally Open 1
B	Normally Closed 1
C	Common 1
D	Common 2
E	Normally Closed 2
F	Normally Open 2

Mounting

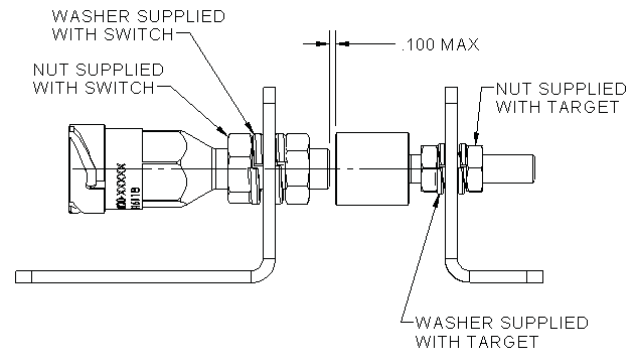
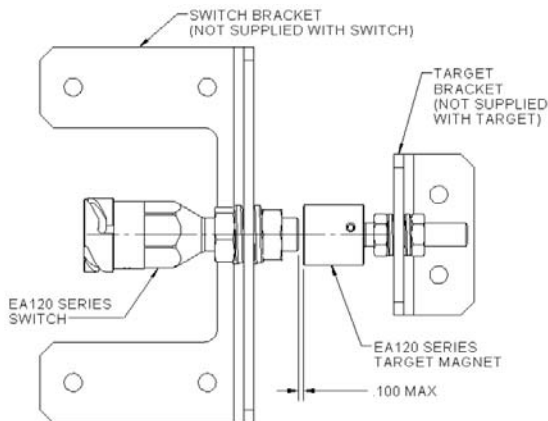
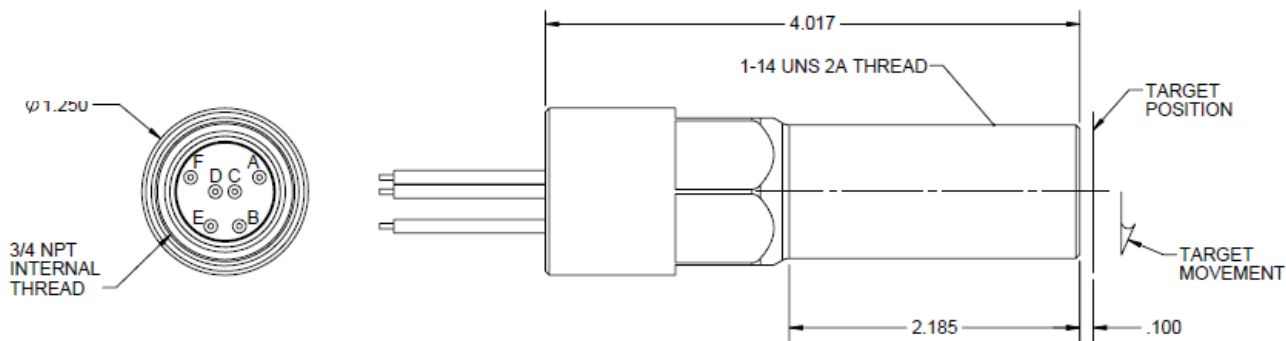


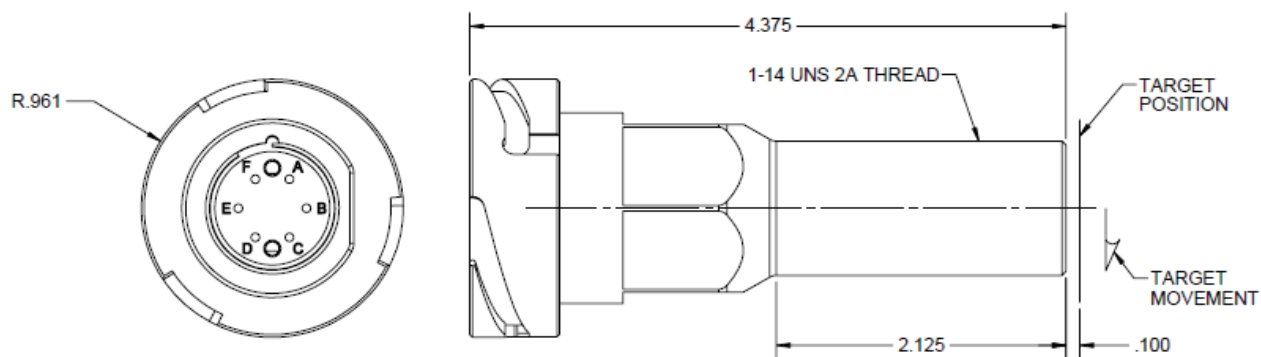
Figure reflects switch in "actuated" position.
 Two 1-14 UNS 2A jam nuts and two 1" lock washers supplied with switch.
 Target magnet EA120-10001 required for operation (sold separately).
 Average hysteresis: 0.20" (5mm) to 0.40" (10mm)

Outline Drawings

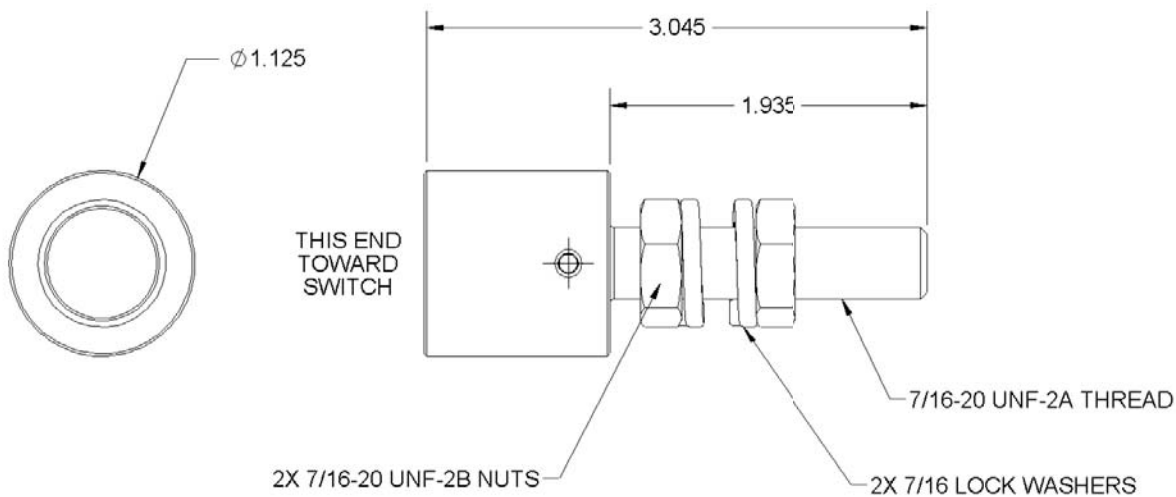
DPDT Flying Leads Model



DPDT Quick Disconnect Model



Target Magnet (EA120-10001)



All dimensions given in Inches (mm)