### GENERAL SPECIFICATIONS

**COIL**
- Pull-in Voltage: 85% of nominal voltage or less for AC coils, 80% of nominal voltage or less for DC coils
- Max. Voltage: 110% of nominal voltage
- Resistance: ±10% measured @ 25°C
- Coil Power: 1.8 watts DC, 5 VA (60Hz) AC 25°C
- Insulation System: Class "B" (130°C per UL standard 1446)
- Pulse Duration Min.: 30 milliseconds
- Duty: Continuous

**CONTACTS**
- Contact Material: Silver cadmium oxide
- Contact Resistance: 50 milliohms maximum initial at rated current
- Contact Rating: 5 amps, 120 VAC, 30 VDC, 0.1 amp, 115 VDC
- Max. Inrush: 12 amps, 120 VAC, 30 VDC, 0.25 amp, 115 VDC

**TIMING**
- Operate time: 35 mS max. @ nominal voltage
- Reset time: 35 mS max. @ nominal voltage

**DIELECTRIC STRENGTH**
- Contacts to Coil: 1500 V rms
- Coil to Frame: 1500 V rms
- Across Open Contacts: 500 V rms
- Pole to Pole: 1500 V rms
- Contacts to Frame: 1500 V rms
- Insulation Resistance: 1000 megohms min. @ 500 VDC

**TEMPERATURE**
- Operating: -10°C to +60°C @ rated operation
- Storage: -40°C to +105°C

**LIFE EXPECTANCY**
- Electrical: 100,000 operations @ rated resistive load
- Mechanical: 5,000,000 operations @ no load

**MISCELLANEOUS**
- Operating Position: Any
- Insulation Material: Molded plastic
- Enclosure: Clear polycarbonate
- Weight: 190 grams approx.

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**FEATURES**
- INDUSTRIAL PLUG-IN CONSTRUCTION:
- TRANSFER ON RELEASE VERSION AVAILABLE:
- NON-STANDARD SEQUENCES AVAILABLE:

**BENEFITS**
- RUGGED & RELIABLE
- EXTRA LONG LIFE WHEN LOAD IS ENERGIZED ONLY WHEN THE 311’S COIL IS ON
- CAN BE CUSTOMIZED WITH ANY SEQUENCE DIVISIBLE INTO EIGHT

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**THE CLASS A311 RELAY IS A SEQUENCING VERSION OF THE CLASS 219 GENERAL PURPOSE RELAY. CONTACTS TRANSFER ON EACH IMPULSE TO THE COIL. MODELS ARE AVAILABLE WITH CONTACTS TRANSFERRING WHEN COIL IS ENERGIZED OR WHEN DE-ENERGIZED.**

A DOUBLE CAM MOVEMENT, ONE CAM ROTATING ONE HALF STEP WHEN THE COIL IS ENERGIZED AND THE OTHER HALF STEP WHEN THE COIL IS DE-ENERGIZED ASSURES RELIABLE SEQUENCING OF THE TWO SPDT SNAP SWITCHES.
CLASS A311

SEQUENCE (STEPPER) RELAY

DPDT, 5 AMPS

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).

2.625 MAX (66.6)

3.75 (95.2)

4.56 (115.8)

1.468 (37.2)

LOCKING CLIP

ORDERING CODE FOR RELAYS

CLASS: A311

INDUSTRIAL PLUG-IN, SEQUENCE RELAY, 5 AMP, DPDT

CONTACT ARRANGEMENTS:
XBX: DPDT

STANDARD FEATURES:
PLUG-IN WITH POLYCARBONATE COVER: CODE P

CONTACT TRANSFER:
WHEN COIL IS ENERGIZED: NO CODE
WHEN COIL IS DE-ENERGIZED: CODE R

OPTIONS:
INDICATOR LAMP: CODE L
COIL SUPPRESSION: CODE V

COIL VOLTAGE:
6, 12, 24, 120, 240 ADD "A" FOR AC COILS
6, 12, 24, 48, 110-125 ADD "D" FOR DC COILS

WIRING DIAGRAMS
(VIEWED FROM PIN END)

A311XBXP
A311XBXP-120A
A311XBXP-240A
A311XBXP-120A
A311XBXP-24D
A311XBXP-24D

STANDARD PART NUMBERS

NOMINAL INPUT VOLTAGE

NOMINAL RESISTANCE (OHMS)

AC OPERATED

A311XBXP-120A 120 VAC 540 Ω
A311XBXP-240A 240 VAC 1815 Ω
A311XBXP-120A 120 VAC 540 Ω

DC OPERATED

A311XBXP-24D 24 VDC 250 Ω
A311XBXP-24D 24 VDC 250 Ω