E210 RELAY (2PDT/10A)

Built to MIL-PRF-83536

FEATURES

- Balanced force design provides the benefit of consistently high contact pressure, reduced bounce, and less arching leading to extended contact life
- A variety of coil options are available which allow DC control
- Wide choice of mounting and terminal styles
- Built to MIL-PRF-83536 for severe condition applications

APPLICATIONS

- Aerospace
- Military/Defense
- Marine
- Space

GENERAL CHARACTERISTICS

- No. of Poles: 2 Form C (2PDT)
- Dimensions: 1.025″ x 0.525″ x 1.010″
  (26.0 x 13.3 x 25.7) mm
- Weight
  Mounting Code 4: 0.12 lbs Max (54.5 grams)
  All Others: 0.10 lbs Max (46.0 grams)

SWITCHING CHARACTERISTICS

- Operate Time @ +25°C: EA210: 20 ms. Max
  All Others: 10 ms. Max
- Release Time @ +25°C: Mounting Code 4: 20 ms. Max
  EA210: 50 ms. Max
  All Others: 10 ms. Max
- Bounce Time: 1 ms. Max
- Mechanical Life: Up to 400,000 Cycles

ENVIRONMENTAL CHARACTERISTICS

- Temperature Range: -70°C to +125°C
- Vibration (Sinusoidal): 30g 10-3,000 Hz
- Shock (Any Axis): 200g, 6 ms
- Seal: Hermetic ($1x10^{-8}$ atm cm^3/s)

ELECTRICAL CHARACTERISTICS

- Contact Voltage Drop (at Rated Resistive Load)
  Initial: 150 mV Max.
  After Guaranteed Life: 175 mV Max.
- Dielectric Strength @ Sea Level

Mounting Code 4:	Coil to Case	All Other Points
Initial @ 60 Hz:	1,050 V_{rms}	1,500 V_{rms}
After Life Test @ 60 Hz:	1,050 V_{rms}	1,250 V_{rms}
All Others		
Initial @ 60 Hz:	1,000 V_{rms}	1,250 V_{rms}
After Life Test @ 60 Hz:	1,000 V_{rms}	1,000 V_{rms}

- Insulation Resistance
  Initial: 100 MΩ Min, @ 500 Vdc
  After Life Tests (Mounting Code 4): 100 MΩ Min, @ 500 Vdc
  After Life Tests (All Others): 50 MΩ Min, @ 500 Vdc
  Max. Leakage Current (Mounting Code 4): 100 μA RMS

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CONTACT RATING (AMPS)

Type of Load (High Level)	Cycles x10³	28 Vdc	115 Vac, 400 Hz 1 Phase	115 Vac, 50/60 Hz 1 Phase	115/200 Vac, 400 Hz 3 Phase	115/200 Vac, 50/60 Hz 3 Phase
Resistive	100	10	10	2.5	10	2.5
Inductive	20	8	8	N/A	8	N/A
Inductive	10	N/A	N/A	2.5	N/A	2.5
Motor	100	4	4	2	4	2
Lamp	100	2	2	1	N/A	N/A

PART NUMBERING

Part Number

E210
ES210
EA210 E 2 M D

BASIC SERIES

E210	2PDT
ES210	2PDT w/Internal Voltage Suppresion
EA210	2PDT w/ AC Coil

COIL CODE

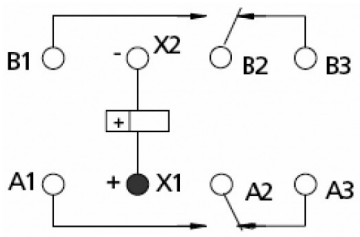
MOUNTING CODE

TERMINAL CODE

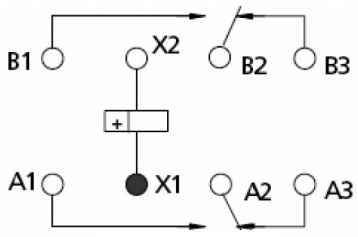
OPTIONS

D	Catalog Standard
A	Delete Arc Barriers
xxxx	Special Code, Assigned by TE

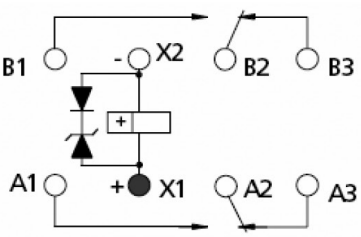
CIRCUIT DIAGRAM



E210



EA210
(AC Configuration)



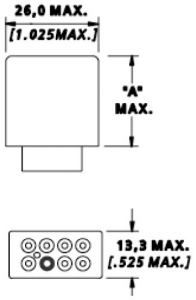
ES210 w/ Internal
Voltage Suppression

COIL CODE

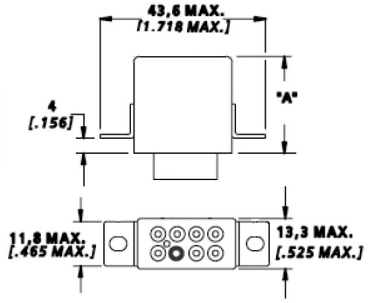
Coil Code	Vdc								
	A	B	D	E	G	J	K	L	N
Nominal Coil Voltage	6	12	26.5	28	48	110	28 400 Hz	115 400 Hz	115 50-400 Hz
Maximum Pick-Up Voltage @ +25°C	3.2	6.5	13.5	14	24	55	16.2	73	73
Maximum Pick-Up Voltage @ +125°C	4.5	9	18	18.7	36	70	22.4	90	90
Maximum Hold Voltage @ +125°C	2.3	4.5	7	7	14	30	9	30	40
Minimum Drop-Out Voltage @ -70°C	0.25	0.5	1.2	1.5	2	5	1	5	5
Coil Resistance (Ω ± 10% @ +25°C)	20	80	320	320	955	5000	—	—	—
Maximum Coil Transient Suppression (ES210 Only) Vdc	-42	-42	-42	-42	-100	-227	N/A	N/A	N/A

MOUNTING CODE

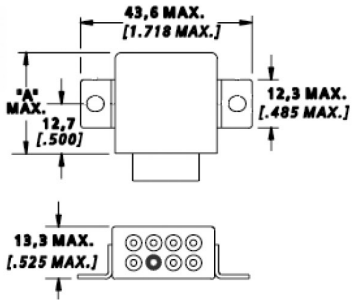
"A" = 1.010 for DC Coils
"A" = 1.125 for AC Coils



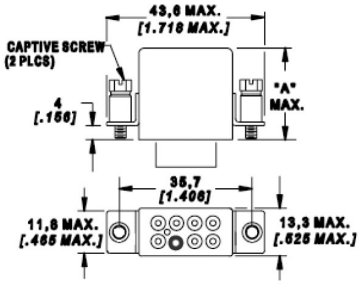
Mount 1



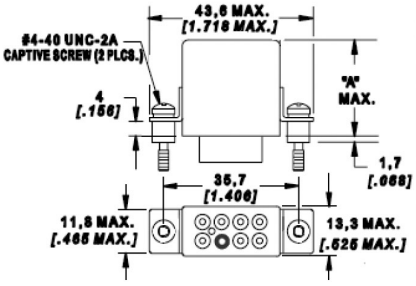
Mount 2



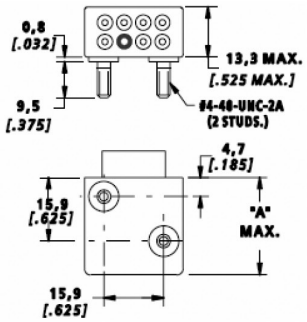
Mount 3



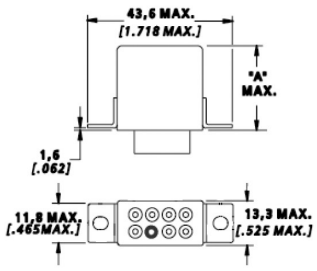
Mount 8: M3
Mount C: #4-40 UNC



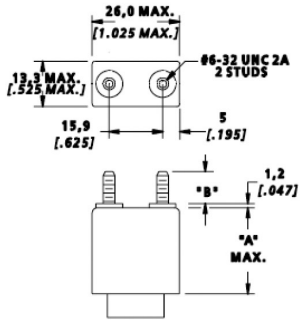
Mount G



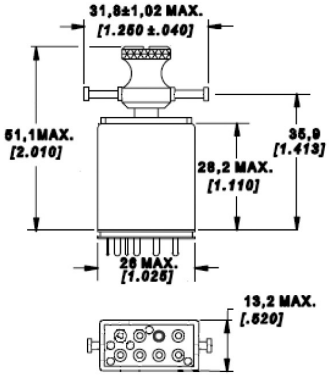
Mount D



Mount N



Mount M: A = 9.5 mm (.375")
Mount R: A = 6.35 mm (.250")



Mount 4: Requires Terminal M

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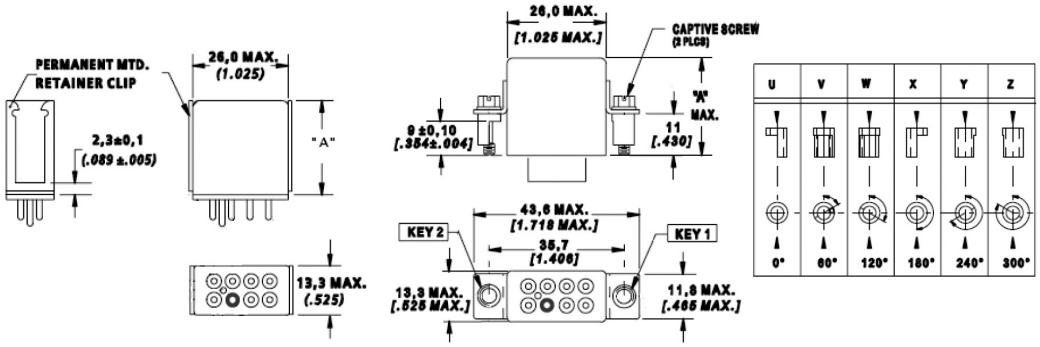
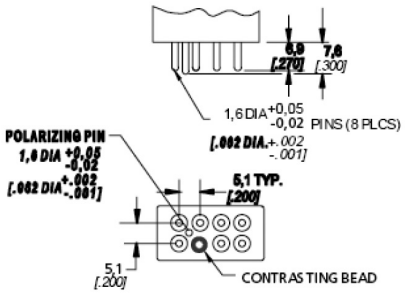


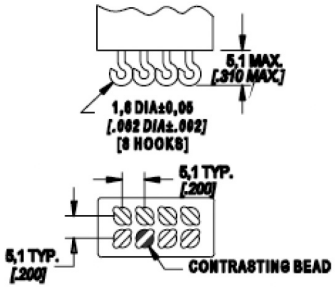
Mount 6: Requires Terminal M, F or G

Mount A: M3
Mount B: #4-40 UNC

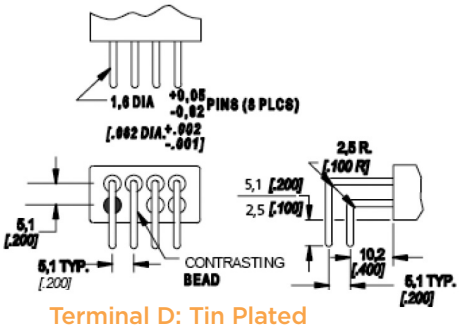
TERMINAL CODE



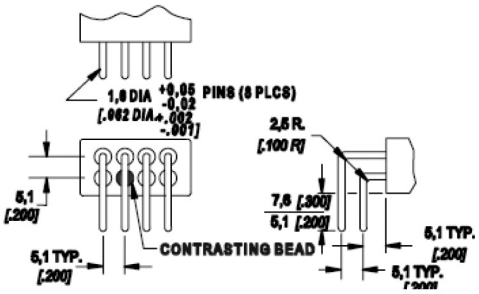
Terminal A: Tin Plated (DC)
Terminal B: Solder Dipped (DC)



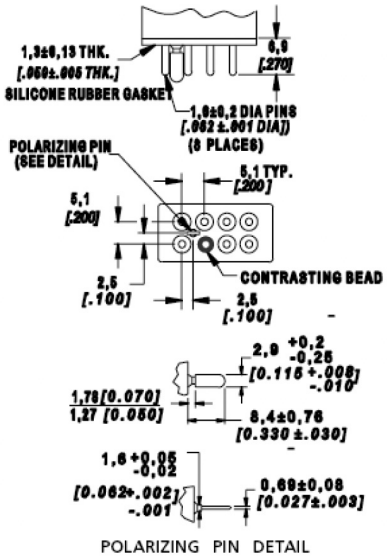
Terminal H: Tin Plated
Terminal J: Solder Dipped



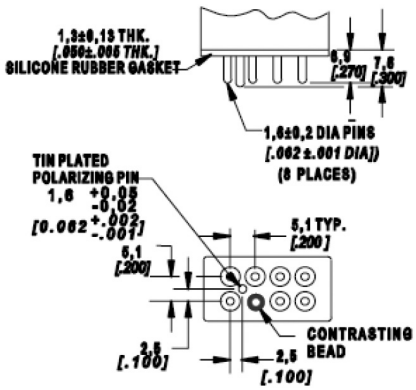
Terminal D: Tin Plated
Terminal E: Solder Dipped



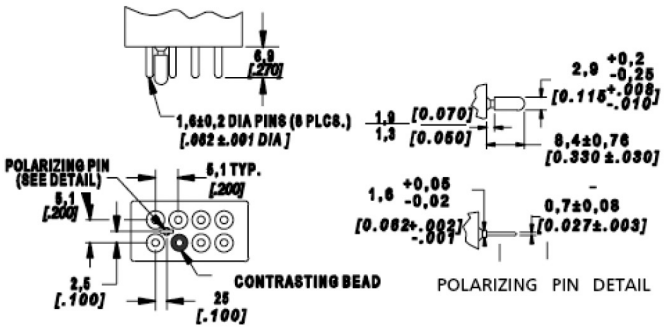
Terminal Q: Tin Plated
Terminal R: Solder Dipped



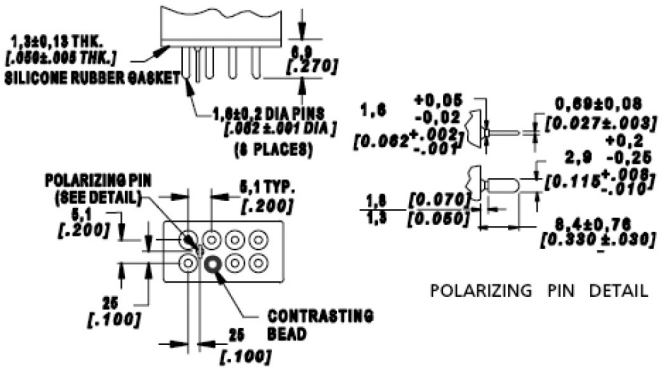
Terminal G: Gold Plated (115 Vac)



Terminal M: Gold Plated w/ Polarizing Pin (DC)
Terminal C: Gold Plated w/o Polarizing Pin (DC)



Terminal K: Tin Plated (115 Vac Only)



Terminal F: Gold Plated (28 Vac Only)

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