

E205 RELAY (2PDT/5A)

Built to MIL-PRF-83536

FEATURES

- Balanced force design provides the benefit of consistently high contact pressure, reduced bounce, and less arcing leading to extended contact life
- A variety of coil options are available which allow DC control
- Welded hermetically sealed, non-corrosive enclosure
- Wide choice of mounting and terminal styles

APPLICATIONS

- Rail
- Aerospace
- Ground vehicle
- Built to MIL-PRF-83536 for severe condition applications

GENERAL CHARACTERISTICS

- No. of Poles: 2 Form C (2PDT)
- Dimensions: 0.810" x 0.410" x 0.640"
(20.6 x 10.4 x 16.3) mm
- Weight
Mounting Code 5: 0.045 lb. Max (20.4 grams)
All Others: 0.034 lb. Max (15.4 grams)

SWITCHING CHARACTERISTICS

- Operate Time @ +25°C: 5 ms. Max
- Release Time @ +25°C: 5 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)
Mounting Code 4: .06" Double Amplitude 10-55Hz,
10g 55-500 Hz, 20g 500-3000 Hz
All Others: 30g 70-3000 Hz
- Shock (Any Axis): 200g, 6 ms
Seal: Hermetic (1×10^{-8} atm cm³/s)



ELECTRICAL CHARACTERISTICS

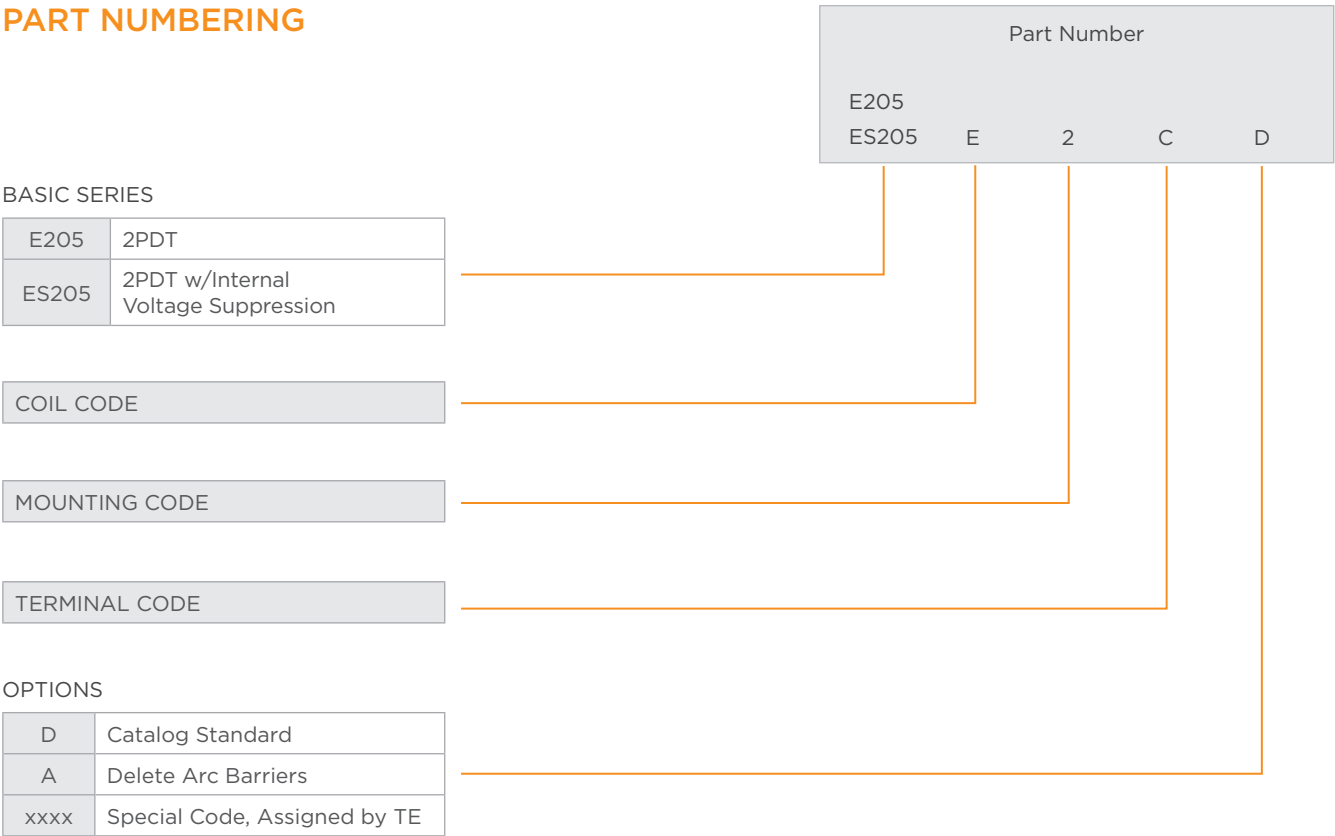
- Contact Voltage Drop (at Rated Resistive Load)
Initial: 150 mV Max.
After Guaranteed Life: 175 mV Max.
Max. Leakage Current (Mounting Code 5): 100 μ A RMS
- Dielectric Strength @ Sea Level

Mounting Code 5:	Coil to Case	All Other Points
Initial @ 60 Hz:	1,050 V _{rms}	1,050 V _{rms}
After Life Test @ 60 Hz:	1,050 V _{rms}	1,050 V _{rms}
All Others		
Initial @ 60 Hz:	1,000 V _{rms}	1,000 V _{rms}
After Life Test @ 60 Hz:	750 V _{rms}	750 V _{rms}
- Insulation Resistance
Initial: 100 M Ω Min, @ 500 Vdc
After Life Tests: 50 M Ω Min, @ 500 Vdc

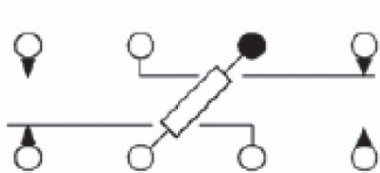
CONTACT RATING (AMPS)

Type of Load (High Level)	Cycles x10 ³	28 Vdc	115 Vac, 400 Hz 1 Phase	115/200 Vac, 50/60 Hz 3 Phase
Resistive	100	5	5	5
Inductive	20	3	5	5
Motor	100	2	3	3
Lamp	100	1	N/A	N/A

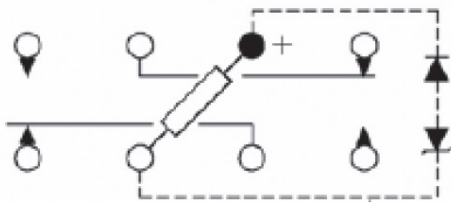
PART NUMBERING



CIRCUIT DIAGRAM



E205



ES205 w/ Internal Voltage Suppression

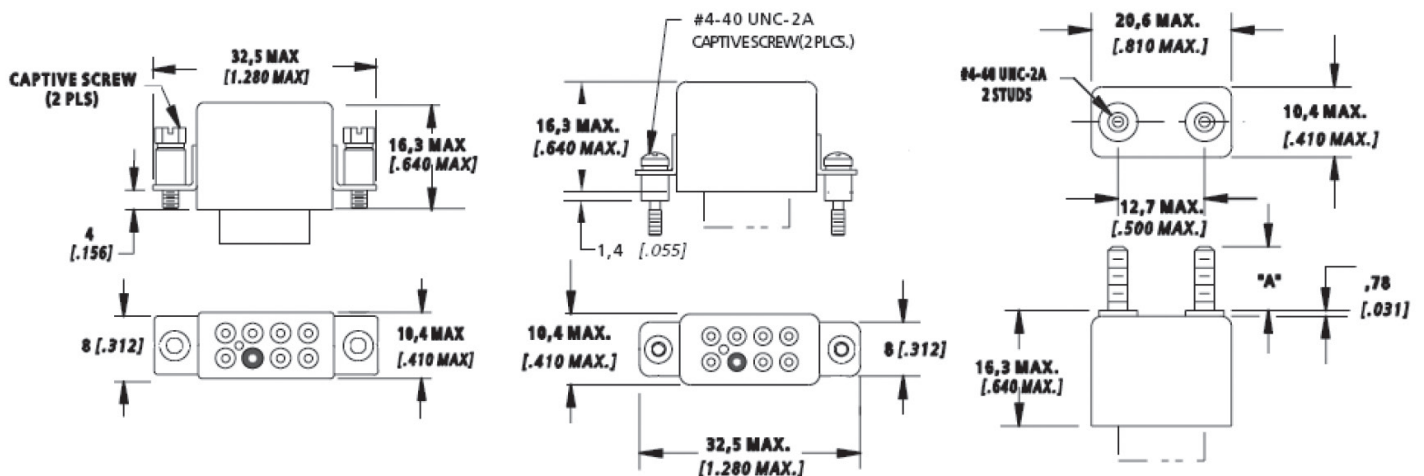
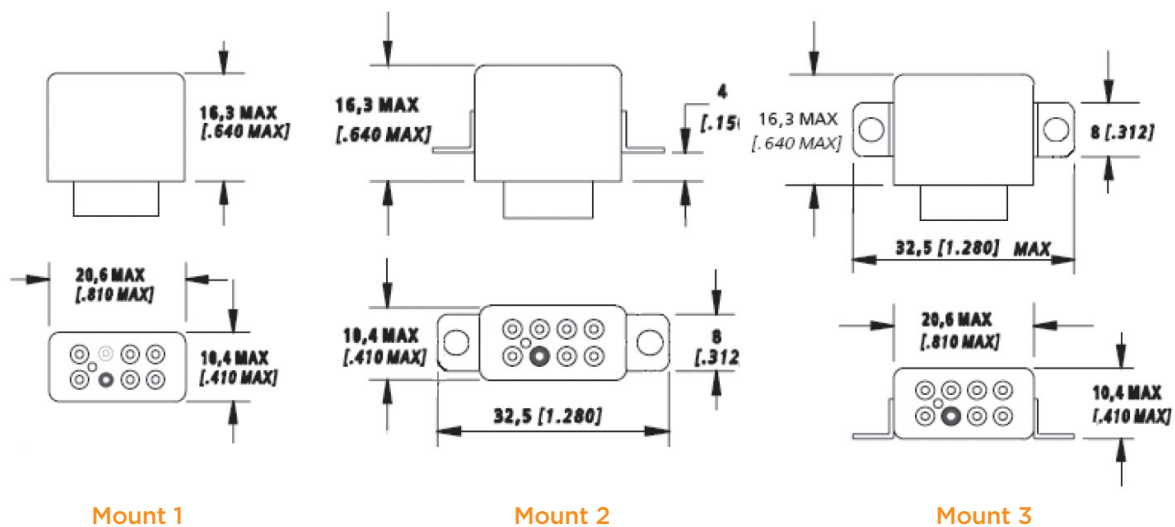
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COIL CODE

Coil Code	Vdc							
	A	B	D	E	F	G	H	J
Nominal Coil Voltage	6	12	26.5	28	36	48	74	110
Maximum Pick-Up Voltage @ +25°C	3.3	6.5	13.5	13.5	16.7	24	34.7	50
Maximum Pick-Up Voltage @ +125°C	4.5	9	18	18	23	36	48	70
Maximum Hold Voltage @ +125°C	2.3	4.5	7	7	10	12	21	30
Minimum Drop-Out Voltage @ -70°C	0.25	0.5	1.2	1.5	2	2.4	4	5.5
Coil Resistance ($\Omega \pm 10\%$ @ +25°C)	23	90	440	500	825	1400	3500	5000
Maximum Coil Transient Suppression (ES205 Only) Vdc	-42	-42	-42	-42	-100	-100	-100	-154

MOUNTING CODE



Mount 7: M2.5
Mount 9: #3-480 UNC
Mount 8: M3
Mount C: #4-40 UNC

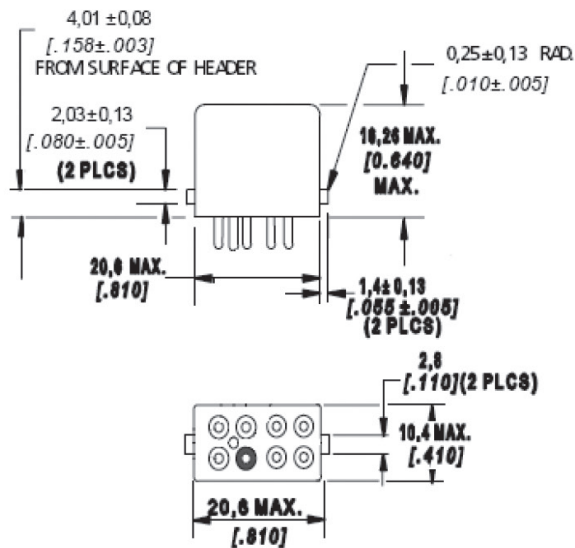
Mount G

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

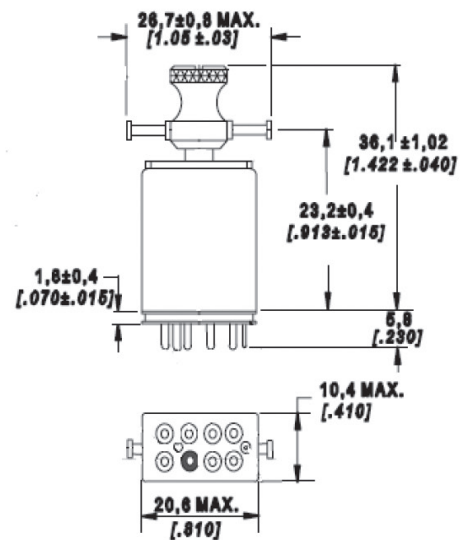
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MOUNTING CODE (CONT'D)

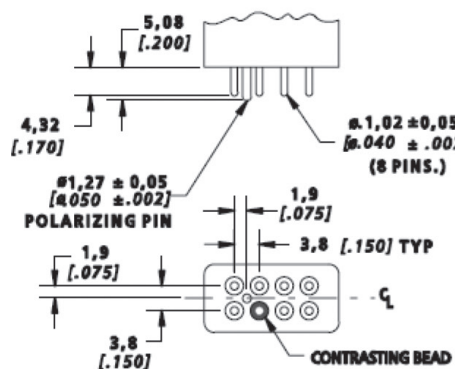


Mount 4: Requires Terminal M

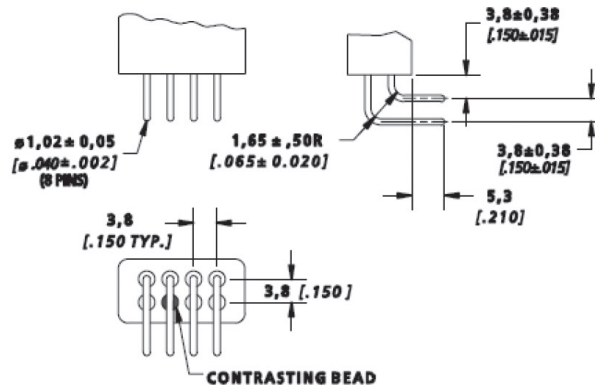


Mount 5: Requires Terminal M

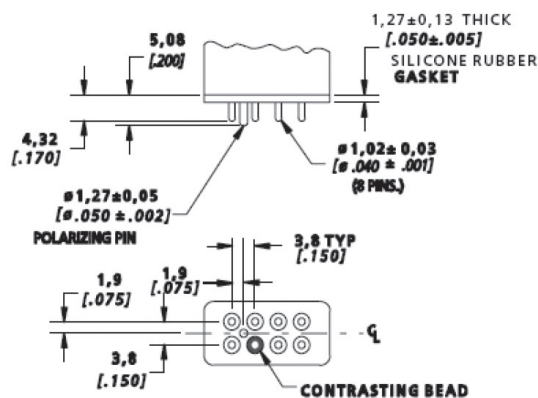
TERMINAL CODE



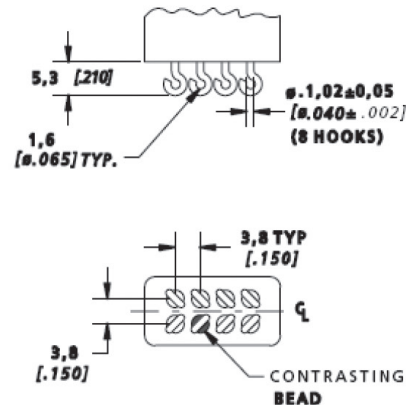
Terminal A: Tin Plated
Terminal B: Solder Dipped



Terminal D: Tin Plated
Terminal E: Solder Dipped

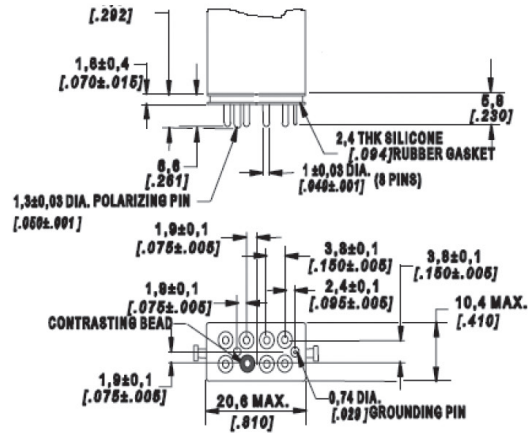


Terminal M: Gold Plated with
Tin Plated Polarizing Pin



Terminal H: Tin Plated
Terminal I: Solder Dipped

TERMINAL CODE (CONT'D)



Terminal M for Mounting Code 5

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