

E405 RELAY (4PDT/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: 4 Form C (4PDT)
- Dimensions: 0.810" x 0.810" x 0.640"
(20.6 x 20.6 x 16.3) mm
- Weight
Mounting Code 5: 0.072 Lbs Max (32.6 grams)
All Others: 0.058 Lbs Max (26.4 grams)

SWITCHING CHARACTERISTICS

- Operate Time @ +25°C: 6 ms. Max
- Release Time @ +25°C: 6 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
Mounting Code 3: 20g 57-3,000 Hz
All Others: 30g 70-3,000 Hz



- Shock (Any Axis)
Mounting Code 3: 100g, 6 ms
All Others: 200g, 6 ms
- Seal: Hermetic (1×10^{-8} atm cm^3/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 μA 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 $\text{M}\Omega$ Min, @ 500 Vdc
After Life Tests: 50 $\text{M}\Omega$ Min, @ 500 Vdc

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CONTACT RATING (AMPS)

Type of Load (High Level)	Cycles x 10 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

BASIC SERIES

E405	4PDT
ES405	4PDT w/ Internal Voltage Suppression

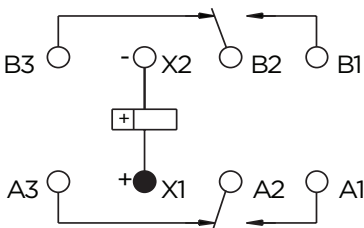
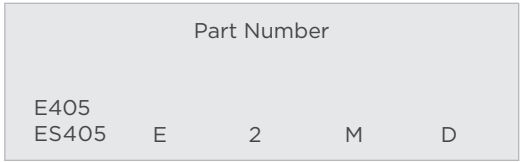
COIL CODE

MOUNTING CODE

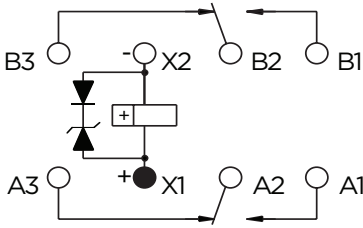
TERMINAL CODE

OPTIONS

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



E405



ES405 w/ Internal Voltage Suppression

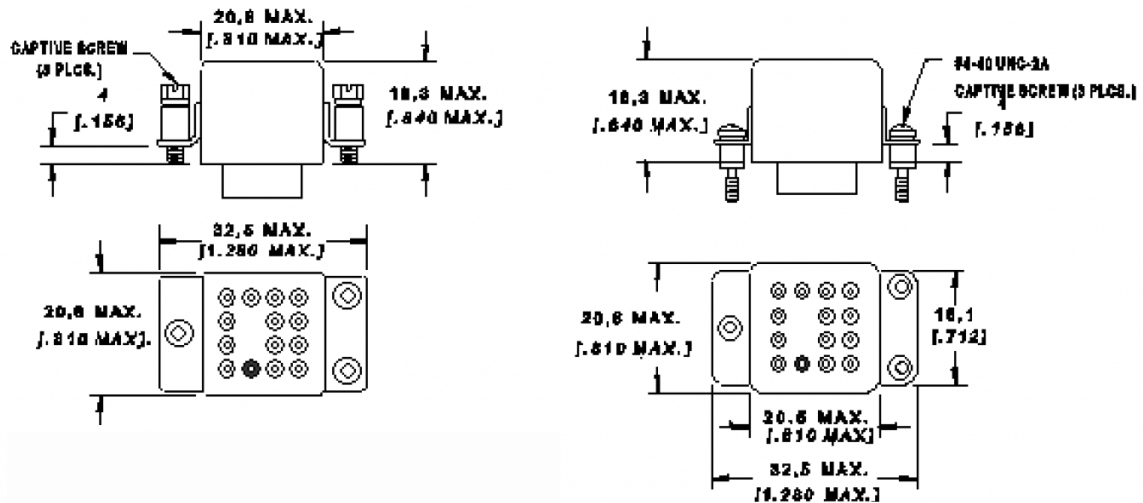
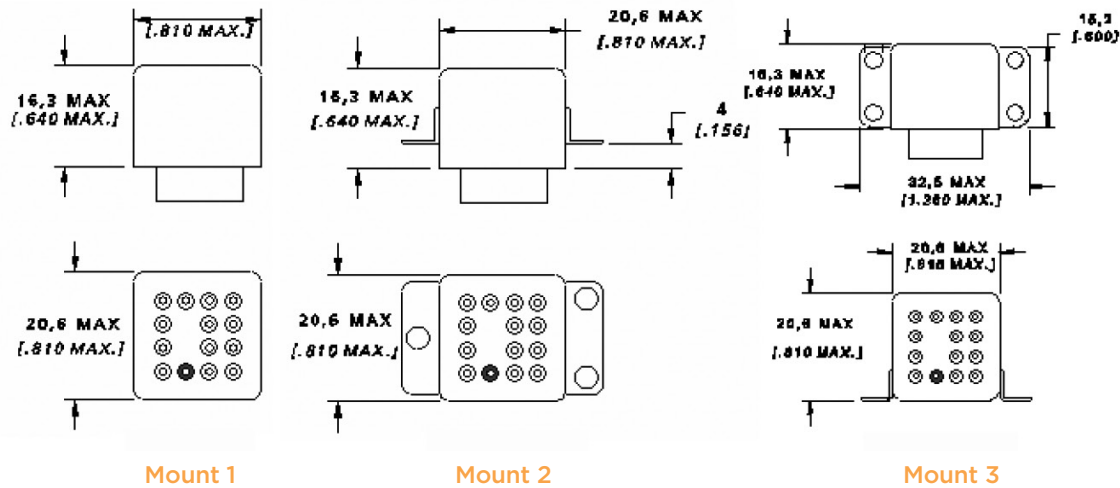
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COIL CODE

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	55
Maximum Pick-Up Voltage @ +125°C	4.5	9	18	18	23	36	48	74
Maximum Hold Voltage @ +125°C	2.3	4.5	7	7	10	12	21	32
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)	18	72	350	400	650	1150	2740	6200
Maximum Coil Transient Suppression (ES405 Only) Vdc	-42	-42	-42	-42	-100	-100	-100	-154

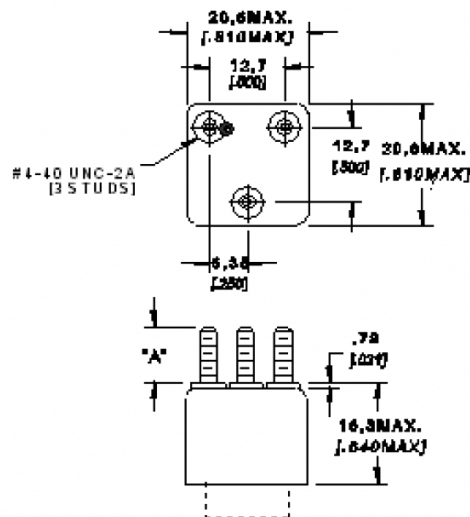
MOUNTING CODE



E405 Relay (4PDT/5A)

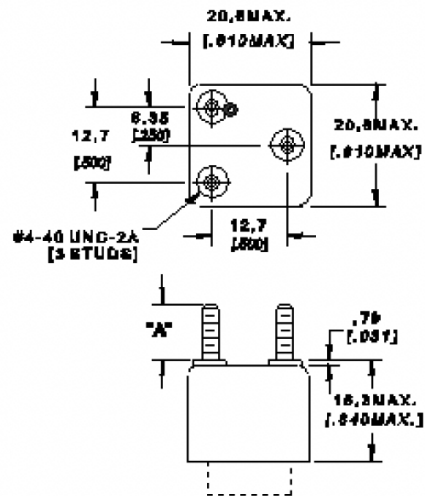
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MOUNTING CODE



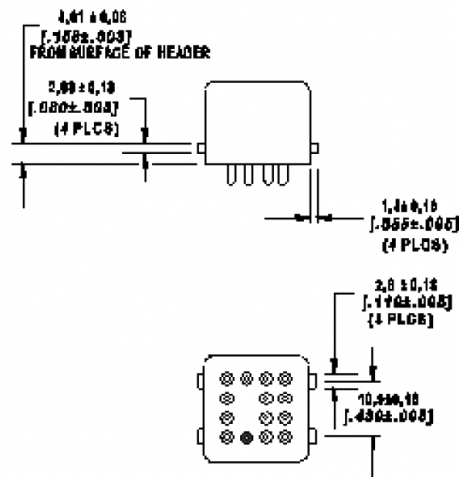
Mount M: A = 9.5 mm (0.375")

Mount R: A = 6.35 mm (0.250")

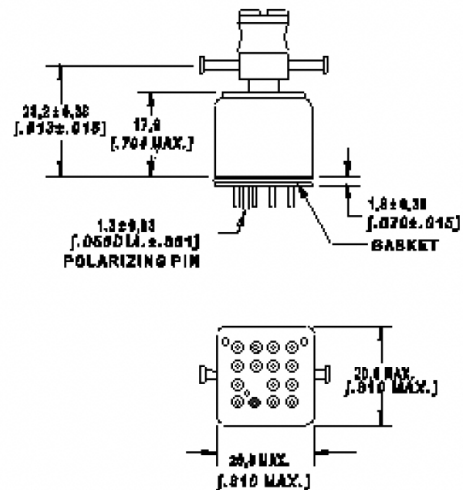


Mount T: A = 9.5 mm (0.375")

Mount U: A = 6.35 mm (0.250")

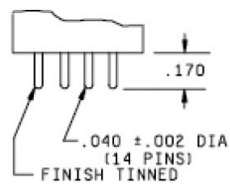


Mount 4: Requires Terminal M

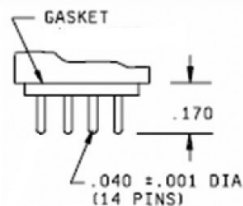


Mount 5: Requires Terminal M

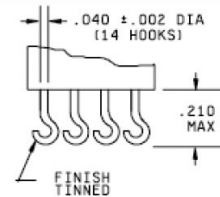
TERMINAL CODE



Terminal A: Tin Plated
Terminal B: Solder Dipped



Terminal M: Gold Plated



Terminal H: Tin Plated
Terminal J: Solder Dipped

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