

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 $M\Omega$ Min, @ 500 Vdc
After Life Tests: 50 $M\Omega$ 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 |

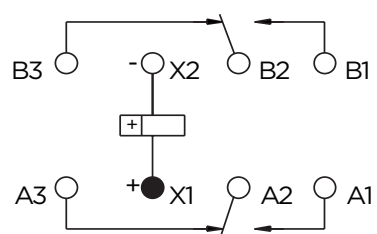
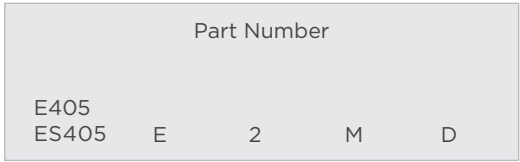
COIL CODE

MOUNTING CODE

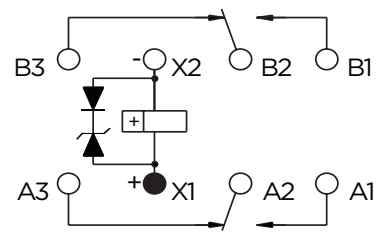
TERMINAL CODE

OPTIONS

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



E405



ES405 w/ Internal
Voltage Suppression

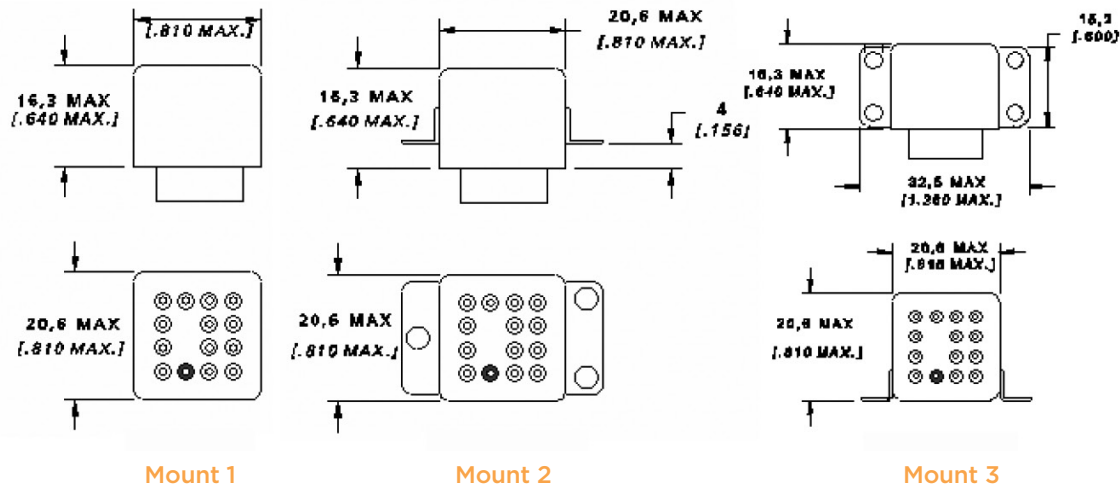
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COIL CODE

| 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 |

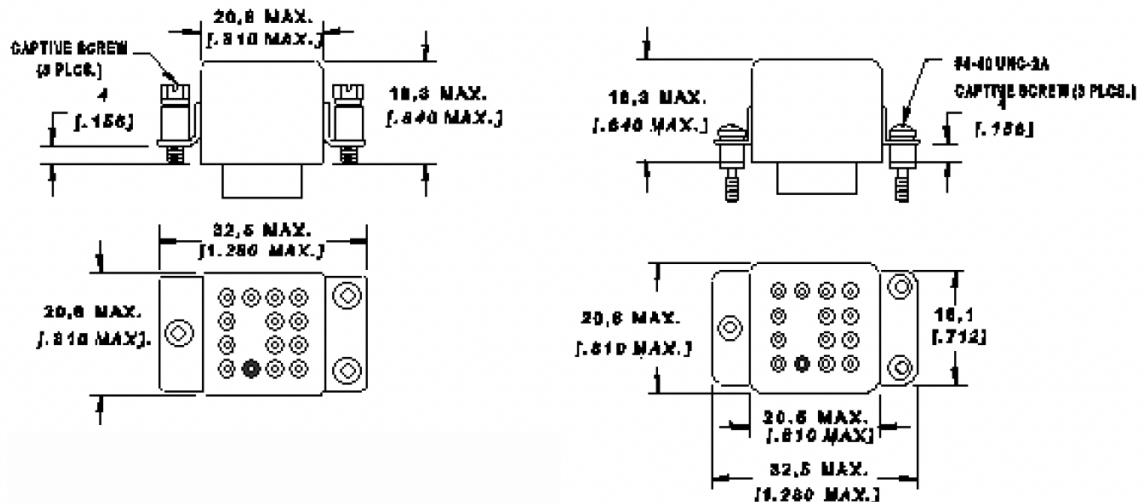
MOUNTING CODE



Mount 1

Mount 2

Mount 3



Mount 7: M2.5

Mount 8: M3

Mount 9: #3-48 UNC

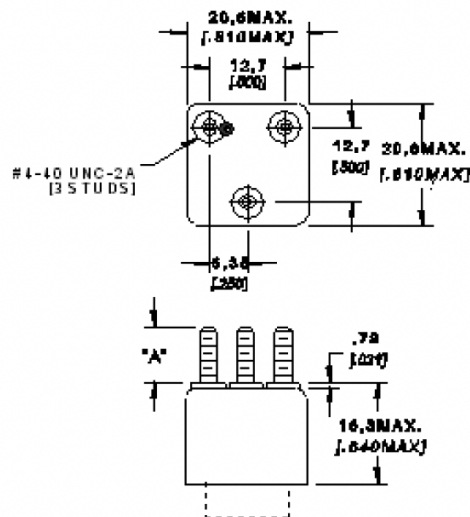
Mount C: #4-40 UNC

Mount G

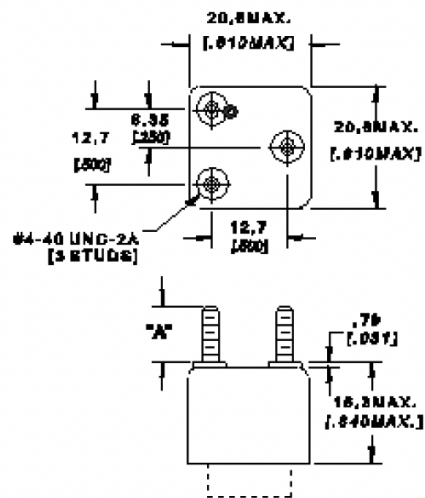
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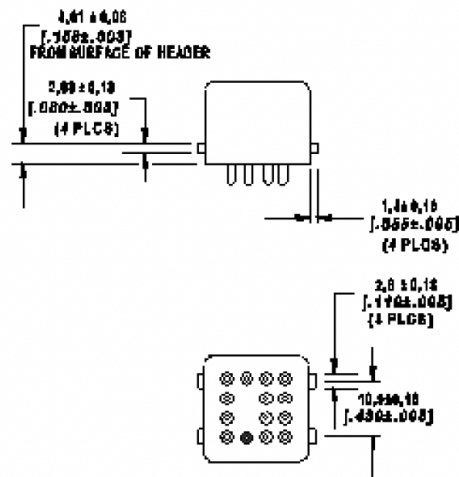
MOUNTING CODE



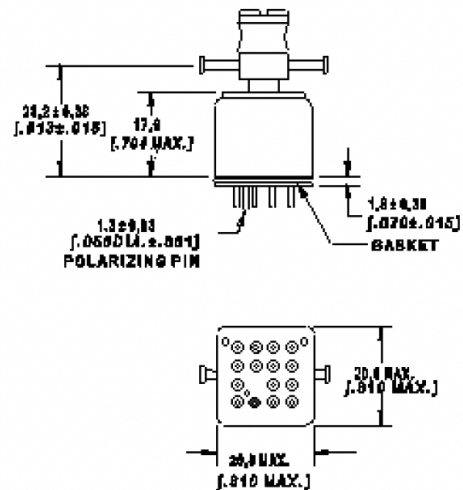
Mount M: A = 9.5 mm (0.375")
Mount R: A = 6.35 mm (0.250")



Mount T: A = 9.5 mm (0.375")
Mount U: A = 6.35 mm (0.250")

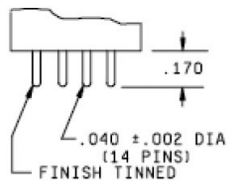


Mount 4: Requires Terminal M

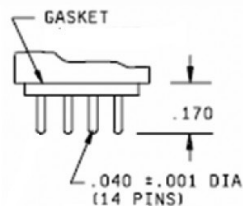


Mount 5: Requires Terminal M

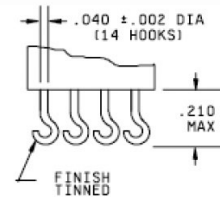
TERMINAL CODE



Terminal A: Tin Plated
Terminal B: Solder Dipped



Terminal M: Gold Plated



Terminal H: Tin Plated
Terminal J: Solder Dipped

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