

KU series

KUP Enclosed Relay
KUIP VDE 8mm Coil to Contacts
KUGP VDE 8mm 3mm Gap Coil to Contacts
KUEP 10 Amp 150VDC Load Switching
KUMP 15 Amp 277VAC

File E22575

File LR15734

0435 Registration 1792 (KUIP)

0435 Registration 1792 (KUGP)

License 81.12102.01

Features

- AC coils: 6-240VAC, 50/60 Hz. DC: 6-110VDC.
- Contact arrangement up to 4PDT.
- Wide selection of termination and mounting styles.
- PC terminals available.
- Push to test button and indicator lamps.
- KUEP incorporates a blow out magnet for high voltage DC switching.
- KUIP/KUGP are VDE approved.
- Complete line of sockets and DIN rail.
- Class B coil insulation.

Contact Data @ 25°C

Arrangements: See respective ordering information table.

Materials: Fine silver (5 amp) silver-cadmium oxide (10 amp).

Gold flash available as standard.

Gold diffused and gold alloy on special order.

Expected Mechanical Life:

Contact Ratings

| Material | Arrangement | UL/CSA Ratings | Expected Life |
|--|---|---|---------------|
| Fine Silver | All | 5 amps @ 28VDC or 240VAC 80% PF, 2.5 amp tungsten @ 120VAC, 1/2 amp @ 120VDC. | 100,000 |
| | | 1/6 HP @ 120VAC, 1/3 HP @ 240VAC, 5 FLA, 15 LRA @ 250VAC (FLA covered by 30,000 operations). | |
| Silver-Cadmium Oxide | 1-2 Pole KUP KUIP KUGP KUEP All KUMP | 10 amps @ 28VDC or 240VAC, 80% PF, 5 amp tungsten @ 120VAC, 3A 600VAC, 1/2 amp @ 120VDC. | 100,000 |
| | | 1/3 HP @ 120VAC, 1/2 HP @ 240, 480, and 600VAC, 10 FLA 30 LRA @ 120VAC, 5 FLA, 15 LRA @ 250VAC.(FLA ratings covered by 30,000 operations) | |
| | KUMP | 15 amp @ 277VAC, 80% PF KUM KUMP | 100,000 |
| | 3 Pole KUP KUIP | 10 amp @ 28VDC or 120VAC, 80% PF, 6 2/3 amp @ 240VAC, 80% PF | 100,000 |
| | 4 Pole | 10 amp per pole not to exceed 30 amp total @ 28VDC, 120VAC, 80% PF, 6 2/3 amp @ 240VAC, 80% PF | 100,000 |
| KUEP SPST-NO KUEP 2PST-NO KUEP 2PDT | | 10 amp @ 150VDC | |
| | | 5 amp @ 150VDC | |
| | | 3 amp @ 150VDC | 100,000 |

(All other AC ratings apply KUEP)

Initial Dielectric Strength

Between Open Contacts: 1,200V rms; KUGP, 3,500V rms.

Between Adjacent Contacts: 2,200V rms.

Between Contacts and Coil: 2,200V rms; KUGP, KUIP, 3,750V rms.

Coil Data @ 25°C

Voltage: 6 to 110VDC and 6 to 240VAC.

Nominal Coil Power:

DC Coils: 1.2 Watts - KUP, KUIP, KUMP, 1 - 3 pole; KUEP, 1 pole.

DC Coils: 1.8 Watts - KUP, 4 pole; KUEP, 2 pole; KUGP.

AC Coils: 2.0VA - KUP, KUIP, 1 - 2 pole; KUEP, 1 pole.

AC Coils: 2.7VA - KUP, KUIP, 3 pole; KUEP, 2 pole; KUGP, KUMP.

Coil Data

| DC Volts Nominal | 1.2 Watt | | 1.8 Watt | |
|---------------------|---------------|-----------|---------------|-----------|
| | DC Ohms ± 10% | Nom. I ma | DC Ohms ± 10% | Nom. I ma |
| 5 | 21 | 238 | 14 | 360 |
| 6 | 32.1 | 187 | 20 | 300 |
| 12 | 120 | 100 | 80 | 150 |
| 24 | 472 | 51 | 320 | 75 |
| 48 | 1,800 | 26.7 | 1,260 | 38 |
| 110 | 10,000 | 11 | 6,720 | 16 |
| AC Volts Nominal | 2VA | | 2.7VA | |
| | DC Ohms ± 15% | Nom. I ma | DC Ohms ± 15% | Nom. I ma |
| 6 | 6 | 335 | 4.2 | 460 |
| 12 | 24 | 168 | 18 | 230 |
| 24 | 85 | 84 | 72 | 115 |
| 120 | 2,250 | 175 | 1,700 | 24 |
| 240 | 9,110 | 8.75 | 7,200 | 12 |

Operate Data @ 25°C

Must Operate Voltage:

DC Coils: 75% of nominal voltage or less.

AC Coils: 85% of nominal voltage or less.

Operating Time (Excluding Bounce):

15 milliseconds, typical, at nominal voltage.

Release Time (Excluding Bounce):

10 milliseconds, typical, at nominal voltage.

Environmental Data

Temperature Range:

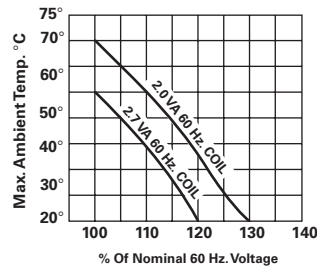
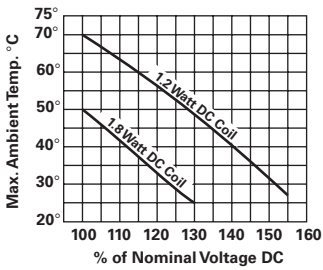
Operating: Enclosed Relays: -45°C to maximum listed in table below.

Open Relays: Add 15°C to maximum listed.

| Max C° | +45°C | +50°C | +55°C | +70°C | +75°C | +80°C | +95°C |
|--------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|
| KUP | AC 3-4 pole | DC 4 pole | AC 1-2 pole | DC 1-3 pole | | | |
| KUIP | | | | AC 3 pole | | AC 1-2 pole | DC 1-3 pole |
| KUGP | | | | AC 2 pole | DC 2 pole | | |
| KUEP | AC 2 pole | DC 2 pole | AC 1 pole | DC 1 pole | | | |
| KUMP | AC 3 pole | | AC 1-2 pole | DC 1-3 pole | | | |

Environmental Data (Continued)

Maximum Allowable Ambient Temperature vs. Voltage (KU enclosed)



Mechanical Data

Termination: Quick connect, solder and PC board.

Enclosure: Clear polycarbonate dust cover.

Weight: 3.0 oz. (85g) approximately.

Ordering Information

Typical Part No. ►

**KU
KUP**

-14

A

1

5

F

-120

1. Basic Series & Type:

KU = Basic open relay.
KUP = Basic enclosed relay.

2. Contact Arrangement:

- | | | |
|---------------------|-----------------------------|-------------------|
| 1 = 1A (SPST-NO) | 6 = 1Z (SPDT-NC-NO [DB-DM]) | 13 = 3B (3PST-NC) |
| 2 = 1B (SPST-NC) | 7 = 2A (DPST-NO) | 14 = 3C (3PDT) |
| 3 = 1X (SPST-NO-DM) | 8 = 2B (DPST-NC) | 15 = 4A (4PST-NO) |
| 4 = 1Y (SPST-NC-DB) | 11 = 2C (DPDT) | 16 = 4B (4PST-NC) |
| 5 = 1C (SPDT) | 12 = 3A (3PST-NO) | 17 = 4C (4PDT) |

3. Coil Input:

A = AC 50/60 Hz. DS = Diode Suppression (DC coil only)
D = DC

4. Mountings:

| Type | KU | KUP (through 3 poles) | KUP (4 pole models) |
|--|-----------|--|--|
| Codes Available | 1,2,3,4,5 | 1,2,3,4,5,6,7,8,9 A,B,C,D,E,F,G,H,T | 1,3,5,7,9,A,C,E,G |
| OPEN STYLE 1 = #6-32 stud, .218" (5.54mm) locating tab. 2 = 2-hole bracket, #6-32 tapped. 3 = #6-32 tapped core, .125" (3.18mm) locating tab. 4 = #6-32 tapped core, .218" (5.54mm) locating tab. 5 = #6-32 tapped core, no locating tab. | | 1 = PLAIN CASE; 2 = with test button. 3 = with indicator lamp.* 4 = with test button & indicator lamp.* 5 = BRACKET MOUNT CASE; 6 = with test button. 7 = with indicator lamp.* 8 = with test button & indicator lamp.* 9 = STUD ON END OF PLAIN CASE. | A = PLAIN CASE, #6-32 STUD LOCATING TAB; B = with test button. C = with indicator lamp.* D = with test button & indicator lamp.* E = PLAIN CASE, TAPPED CORE, LOCATING TAB; F = with test button. G = with indicator lamp.* H = with test button & indicator lamp.* T = TOP FLANGE CASE. |
| | | * Indicator lamps are available on models with the following coils: 6-24VAC and DC, 110VDC and 120-240VAC. Only models with 120-240VAC coils are UL recognized. | |

5. Terminal & Contact Material:

| Type | 1 & 2 Pole Models | 3 Pole Models | 4 Pole Models |
|-----------------|---------------------|-----------------|---------------------|
| Codes Available | 1,2,3,5, 6,7,J,K | 1,2,3, 5,6,7 | 1**,3,4, 5**,7,9 |

**4 pole KUP with .187" (4.75mm) quick connect/solder terminals will not plug into sockets. Must use .110" (2.79 mm) quick connect solder terminals for socket mounting.

- | | |
|---|---|
| 1 = .187" (4.75mm) quick-connect/solder; silver, 5 amps. | 7 = .047" (1.19mm) printed circuit; silver-cadmium oxide, 10 amps. |
| 2 = .205" (5.21mm) quick connect/solder; silver, 5 amps. | 9 = 4 pole KU, KUP: .110" (2.79mm) quick connect/solder; silver-cadmium oxide, 10 amps. |
| 3 = .047" (1.19mm) printed circuit; silver, 5 amps. | J = .250" (6.35mm) quick connect; silver, 5 amps. |
| 4 = .110" (2.79mm) quick connect/solder; silver, 5 amps. | K = .250" (6.35mm) quick connect; silver-cadmium oxide, 10 amps. |
| 5 = .187" (4.75mm) quick connect/solder; silver-cadmium oxide, 10 amps. | |
| 6 = .205" (5.21mm) quick connect/solder; silver-cadmium oxide, 10 amps. | |

5A. Gold Flashed Contact Option:

F = Optional gold flashing for silver and silver-cadmium oxide contacts.

6. Coil Voltage:

To 240VAC, 50/60 Hz. or 110VDC. (For 277VAC, consult factory.)

Stock Items – The following items are normally maintained in stock for immediate delivery.

| | | | | | |
|---------------|---------------|---------------|---------------|---------------|---------------|
| KUP-5A15-24 | KUP-11A15-12 | KUP-11D15-5 | KUP-11D55-110 | KUP-14A55-24 | KUP-14D25-24 |
| KUP-5A15-120 | KUP-11A15-24 | KUP-11D15-12 | KUP-14A11-120 | KUP-14A55-120 | KUP-14D35-24 |
| KUP-5A15-240 | KUP-11A15-120 | KUP-11D15-24 | KUP-14A15-12 | KUP-14A55-240 | KUP-14D55-12 |
| KUP-5A55-120 | KUP-11A15-240 | KUP-11D15-110 | KUP-14A15-24 | KUP-14D11-24 | KUP-14D55-24 |
| KUP-5D15-12 | KUP-11A35-120 | KUP-11D35-24 | KUP-14A15-120 | KUP-14D15-6 | KUP-17A19-120 |
| KUP-5D15-24 | KUP-11A55-24 | KUP-11D55-6 | KUP-14A15-240 | KUP-14D15-12 | KUP-17A55-24 |
| KUP-5D55-12 | KUP-11A55-120 | KUP-11D55-12 | KUP-14A25-120 | KUP-14D15-24 | KUP-17D19-24 |
| KUP-5D55-24 | KUP-11AT5-120 | KUP-11D55-24 | KUP-14A35-120 | KUP-14D15-48 | KUP-17D55-24 |
| KUP-11A11-120 | KUP-11D11-24 | KUP-11D55-48 | KUP-14A45-120 | KUP-14D15-110 | |

Ordering Information

VDE Approved Design

| | | | | | | | | | | | | | | | | | | | |
|---|---|----------------------|------------|----------|----------|----------|-------------|--|---|---|---|---------------------------|-----------------------|---------------------------|-------------------------|----------------------|-------------------------|-----------------------------------|-----------------------|
| | Typical Part No. ▶ | KUIP KUGP | -11 | A | 1 | 5 | -120 | | | | | | | | | | | | |
| <p>1. Basic Series & Type: KUIP = Enclosed relay designed for General VDE 0435.* KUGP = Enclosed relay with 3mm open contact spacing. (Form A and Form X arrangements only)*</p> | | | | | | | | | | | | | | | | | | | |
| <p>2. Contact Arrangement:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">1 = 1 Form A (SPST-NO)</td> <td style="width: 50%;">7 = 2 Form A (DPST-NO)</td> </tr> <tr> <td>2 = 1 Form B (SPST-NC)</td> <td>8 = 2 Form B (DPST-NC)</td> </tr> <tr> <td>3 = 1 Form X (SPST-NO-DM)</td> <td>11 = 2 Form C (DPDT)*</td> </tr> <tr> <td>4 = 1 Form Y (SPST-NC-DB)</td> <td>12 = 3 Form A (3PST-NO)</td> </tr> <tr> <td>5 = 1 Form C (SPDT)*</td> <td>13 = 3 Form B (3PST-NC)</td> </tr> <tr> <td>6 = 1 Form Z (SPDT-NC-NO [DB-DM])</td> <td>14 = 3 Form C (3PDT)*</td> </tr> </table> | | | | | | | | 1 = 1 Form A (SPST-NO) | 7 = 2 Form A (DPST-NO) | 2 = 1 Form B (SPST-NC) | 8 = 2 Form B (DPST-NC) | 3 = 1 Form X (SPST-NO-DM) | 11 = 2 Form C (DPDT)* | 4 = 1 Form Y (SPST-NC-DB) | 12 = 3 Form A (3PST-NO) | 5 = 1 Form C (SPDT)* | 13 = 3 Form B (3PST-NC) | 6 = 1 Form Z (SPDT-NC-NO [DB-DM]) | 14 = 3 Form C (3PDT)* |
| 1 = 1 Form A (SPST-NO) | 7 = 2 Form A (DPST-NO) | | | | | | | | | | | | | | | | | | |
| 2 = 1 Form B (SPST-NC) | 8 = 2 Form B (DPST-NC) | | | | | | | | | | | | | | | | | | |
| 3 = 1 Form X (SPST-NO-DM) | 11 = 2 Form C (DPDT)* | | | | | | | | | | | | | | | | | | |
| 4 = 1 Form Y (SPST-NC-DB) | 12 = 3 Form A (3PST-NO) | | | | | | | | | | | | | | | | | | |
| 5 = 1 Form C (SPDT)* | 13 = 3 Form B (3PST-NC) | | | | | | | | | | | | | | | | | | |
| 6 = 1 Form Z (SPDT-NC-NO [DB-DM]) | 14 = 3 Form C (3PDT)* | | | | | | | | | | | | | | | | | | |
| <p>3. Coil Input: A = AC, 50/60 Hz.* D = DC*</p> | | | | | | | | | | | | | | | | | | | |
| <p>4. Mountings: 1 = PLAIN CASE, SOCKET MOUNT.* T = TOP FLANGE CASE.* 5 = BRACKET MOUNT CASE.*</p> | | | | | | | | | | | | | | | | | | | |
| <p>5. Terminal & Contact Material:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">1 = .187" (4.75mm) quick connect/solder; silver.</td> <td style="width: 50%;">5 = .187" (4.75mm) quick connect/solder; silver-cadmium oxide.*</td> </tr> <tr> <td>3 = .047" (1.19mm) printed circuit board; silver.</td> <td>7 = .047" (1.19mm) printed circuit board; silver-cadmium oxide.</td> </tr> </table> | | | | | | | | 1 = .187" (4.75mm) quick connect/solder; silver. | 5 = .187" (4.75mm) quick connect/solder; silver-cadmium oxide.* | 3 = .047" (1.19mm) printed circuit board; silver. | 7 = .047" (1.19mm) printed circuit board; silver-cadmium oxide. | | | | | | | | |
| 1 = .187" (4.75mm) quick connect/solder; silver. | 5 = .187" (4.75mm) quick connect/solder; silver-cadmium oxide.* | | | | | | | | | | | | | | | | | | |
| 3 = .047" (1.19mm) printed circuit board; silver. | 7 = .047" (1.19mm) printed circuit board; silver-cadmium oxide. | | | | | | | | | | | | | | | | | | |
| <p>6. Coil Voltage: To 240VAC, 50/60 Hz. or 110VDC. (For 277VAC, consult factory.)* See coil data tables. * Options included in VDE file.</p> | | | | | | | | | | | | | | | | | | | |

Stock Items – The following items are normally maintained in stock for immediate delivery.

- | | |
|---------------|----------------|
| KUGP-7D55-24 | KUIP-14A15-120 |
| KUIP-5A55-120 | KUIP-14D15-12 |
| KUIP-11D55-12 | KUIP-14D15-24 |
| KUIP-11D55-24 | |

Ordering Information

High Voltage DC Switching

| | Typical Part No. ▶ | KUE KUEP | -3 | A | 1 | 5 | -120 | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|-----------|----------|----------|----------|-------------|--|---|--|------------|--|--|--|--|--|-----------------------------------|--|---|---|--|---|---|--|----------------------|---|--|--|---|--|--|
| <p>1. Basic Series & Type: KUE = Open relay with magnetic blow-outs. KUEP = Enclosed relay with magnetic blow-outs.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>2. Contact Arrangement:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">3 = 1X (SPST-NO-DM)</td> <td style="width: 33%;">7 = 2A (DPST-NO)</td> <td style="width: 33%;">11 = 2C (DPDT)</td> </tr> </table> | | | | | | | | 3 = 1X (SPST-NO-DM) | 7 = 2A (DPST-NO) | 11 = 2C (DPDT) | | | | | | | | | | | | | | | | | | | | | |
| 3 = 1X (SPST-NO-DM) | 7 = 2A (DPST-NO) | 11 = 2C (DPDT) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3. Coil Input: A = AC 50/60 Hz. D = DC</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>4. Mountings:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 20%;">Type</th> <th style="width: 20%;">KUE</th> <th style="width: 60%;">KUEP</th> </tr> </thead> <tbody> <tr> <td>OPEN STYLE</td> <td></td> <td></td> </tr> <tr> <td>1 = #6-32 stud, .218" (5.54mm) locating tab.</td> <td></td> <td>1 = PLAIN CASE; 3 = with indicator lamp.* 5 = BRACKET MOUNT CASE; 7 = with indicator lamp.* 9 = STUD ON END OF PLAIN CASE.</td> </tr> <tr> <td>2 = 2-hole bracket, #6-32 tapped.</td> <td></td> <td>A = PLAIN CASE, #6-32 STUD LOCATING TAB; C = with indicator lamp.*</td> </tr> <tr> <td>3 = #6-32 tapped core, .125" (3.18mm) locating tab.</td> <td></td> <td>E = PLAIN CASE, TAPPED CORE, LOCATING TAB; G = with indicator lamp.*</td> </tr> <tr> <td>4 = #6-32 tapped core, .218" (5.54mm) locating tab.</td> <td></td> <td>T = TOP FLANGE CASE.</td> </tr> <tr> <td>5 = #6-32 tapped core, no locating tab.</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">*Indicator lamps are available on models with the following coils: 6-24VAC and DC, 110VDC and 120-240VAC. Only models with 120-240VAC coils are UL recognized.</td> </tr> </tbody> </table> | | | | | | | | Type | KUE | KUEP | OPEN STYLE | | | 1 = #6-32 stud, .218" (5.54mm) locating tab. | | 1 = PLAIN CASE; 3 = with indicator lamp.* 5 = BRACKET MOUNT CASE; 7 = with indicator lamp.* 9 = STUD ON END OF PLAIN CASE. | 2 = 2-hole bracket, #6-32 tapped. | | A = PLAIN CASE, #6-32 STUD LOCATING TAB; C = with indicator lamp.* | 3 = #6-32 tapped core, .125" (3.18mm) locating tab. | | E = PLAIN CASE, TAPPED CORE, LOCATING TAB; G = with indicator lamp.* | 4 = #6-32 tapped core, .218" (5.54mm) locating tab. | | T = TOP FLANGE CASE. | 5 = #6-32 tapped core, no locating tab. | | | *Indicator lamps are available on models with the following coils: 6-24VAC and DC, 110VDC and 120-240VAC. Only models with 120-240VAC coils are UL recognized. | | |
| Type | KUE | KUEP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OPEN STYLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 = #6-32 stud, .218" (5.54mm) locating tab. | | 1 = PLAIN CASE; 3 = with indicator lamp.* 5 = BRACKET MOUNT CASE; 7 = with indicator lamp.* 9 = STUD ON END OF PLAIN CASE. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 = 2-hole bracket, #6-32 tapped. | | A = PLAIN CASE, #6-32 STUD LOCATING TAB; C = with indicator lamp.* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 = #6-32 tapped core, .125" (3.18mm) locating tab. | | E = PLAIN CASE, TAPPED CORE, LOCATING TAB; G = with indicator lamp.* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 = #6-32 tapped core, .218" (5.54mm) locating tab. | | T = TOP FLANGE CASE. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 = #6-32 tapped core, no locating tab. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Indicator lamps are available on models with the following coils: 6-24VAC and DC, 110VDC and 120-240VAC. Only models with 120-240VAC coils are UL recognized. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>5. Terminal & Contact Material:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">5 = .187" (4.75mm) quick connect/solder; silver-cadmium-oxide.</td> <td style="width: 50%;">7 = .047" (1.19mm) printed circuit; silver-cadmium-oxide.</td> </tr> <tr> <td>6 = .205" (5.21mm) quick connect/solder; silver-cadmium-oxide.</td> <td></td> </tr> </table> | | | | | | | | 5 = .187" (4.75mm) quick connect/solder; silver-cadmium-oxide. | 7 = .047" (1.19mm) printed circuit; silver-cadmium-oxide. | 6 = .205" (5.21mm) quick connect/solder; silver-cadmium-oxide. | | | | | | | | | | | | | | | | | | | | | |
| 5 = .187" (4.75mm) quick connect/solder; silver-cadmium-oxide. | 7 = .047" (1.19mm) printed circuit; silver-cadmium-oxide. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 = .205" (5.21mm) quick connect/solder; silver-cadmium-oxide. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>6. Coil Voltage: To 240VAC, 50/60 Hz. or 110VDC. (For 277VAC, consult factory.)</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Stock Items – The following items are normally maintained in stock for immediate delivery.

- | | | |
|---------------|----------------|---------------|
| KUEP-3A15-120 | KUEP-3D15-110 | KUEP-11D15-12 |
| KUEP-3D15-12 | KUEP-7D15-24 | KUEP-11D15-24 |
| KUEP-3D15-24 | KUEP-11A15-120 | |

Ordering Information

15 Amp Switching

Typical Part No. ▶

**KUM
KUMP**

-14

A

1

8

-120

1. Basic Series & Type:
KUM = 15 amp open relay
KUMP = 15 amp enclosed relay

2. Contact Arrangement:
1 = 1A (SPST-NO)
2 = 1B (SPST-NC)
3 = 1X (SPST-NO-DM)
4 = 1Y (SPST-NC-DB)
5 = 1C (SPDT)
6 = 1Z (SPDT-NC-NO [DB-DM])
7 = 2A (DPST-NO)
8 = 2B (DPST-NC)
11 = 2C (DPDT)
12 = 3A (3PST-NO)
13 = 3B (3PST-NC)
14 = 3C (3PDT)

3. Coil Input:
A = AC, 50/60 Hz. D = DC

4. Mountings:

| Type | KUM | KUMP |
|---|-----|--|
| OPEN STYLE | | |
| 1 = #6-32 stud, .218" (5.54mm) locating tab. | | 1 = PLAIN CASE; 2 = with test button. 3 = with indicator lamp.* 4 = with test button & indicator lamp.* |
| 2 = 2-hole bracket, #6-32 tapped. | | 5 = BRACKET MOUNT CASE; 6 = with test button. 7 = with indicator lamp.* |
| 3 = #6-32 tapped core, .125" (3.18mm) locating tab. | | 8 = with test button & indicator lamp.* 9 = STUD ON END OF PLAIN CASE. |
| 4 = #6-32 tapped core, .218" (5.54mm) locating tab. | | A = PLAIN CASE, #6-32 STUD LOCATING TAB; B = with test button. C = with indicator lamp.* D = with test button & indicator lamp.* E = PLAIN CASE, TAPPED CORE, LOCATING TAB; F = with test button. G = with indicator lamp.* H = with test button & indicator lamp.* T = TOP FLANGE CASE. |
| 5 = #6-32 tapped core, no locating tab. | | |
| *Indicator lamps are available on models with the following coils: 6-24VAC and DC, 110VDC and 120-240VAC. Only models with 120-240VAC coils are UL recognized. | | |

5. Terminal & Contact Material:

| Type | 1 & 2 Pole Models | 3 Pole Models |
|-----------------|-------------------|---------------|
| Codes Available | 6,8,9,G | 6,8,9 |

6 = .205" (5.21mm) quick connect/solder; silver-cadmium-oxide.
8 = .187" (4.75mm) quick connect/solder; silver-cadmium-oxide.
9 = .047" (1.19mm) printed circuit; silver-cadmium-oxide.
G = .250" (6.35mm) quick connect; silver-cadmium-oxide. (Not available on 3 pole models.)

6. Coil Voltage:
To 240VAC, 50/60 Hz. or 110VDC (For 277VAC, consult factory.)

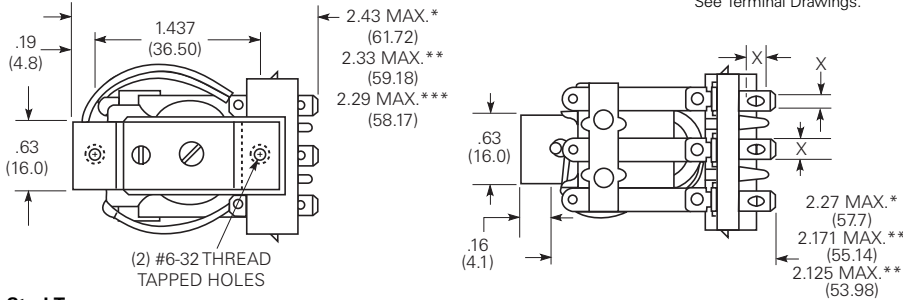
Stock Items – The following items are normally maintained in stock for immediate delivery.

| | | | |
|----------------|----------------|----------------|---------------|
| KUMP-11A18-24 | KUMP-11D18-12 | KUMP-14A18-24 | KUMP-14D18-24 |
| KUMP-11A18-120 | KUMP-11D18-24 | KUMP-14A18-120 | |
| KUMP-11A18-240 | KUMP-11D18-110 | KUMP-14D18-12 | |

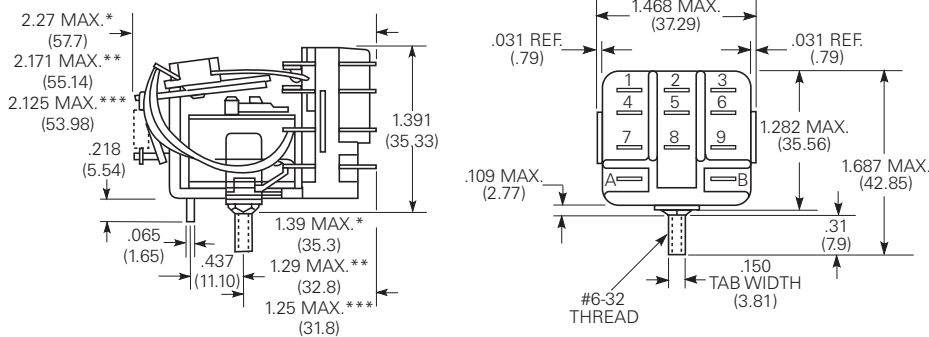
Outline Dimensions

Open Relays

Bracket Type

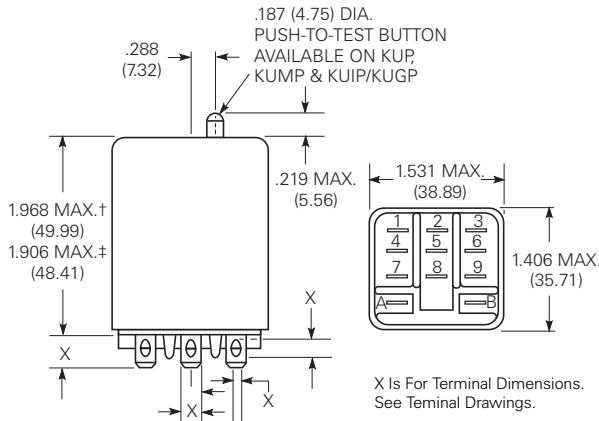


Stud Type

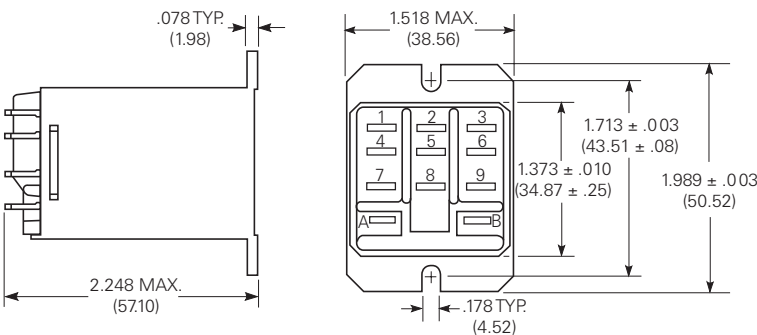


Enclosed Relays

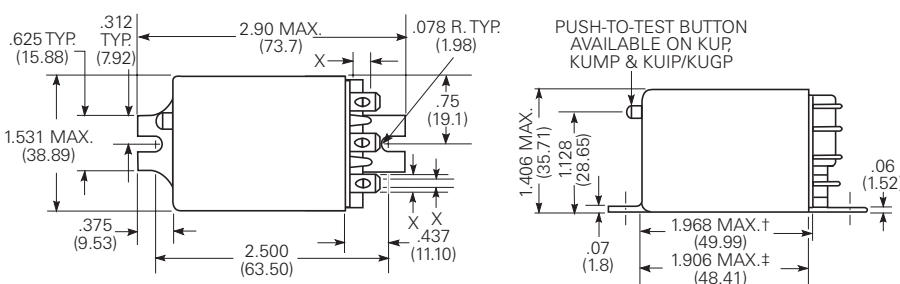
Plain Case



Top Flange Case



Bracket Mount Case



Seated Heights For Open Relays

1.391" (35.33mm) for #6-32 stud with .218" (5.54mm) locating tab.

1.52" (38.6mm) for bracket with 2-#6 32 tapped holes.

1.282" (32.56mm) for #6-32 tapped core with .125" (3.18mm) or .218" (5.54mm) locating tab.

2.046" (51.97mm) for relay with printed circuit terminals.

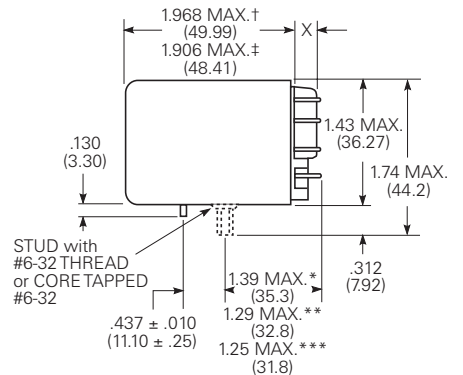
STUD TYPE also available with .125" (3.18mm) tab, as well as without stud and locating tab. Models without stud have core tapped #6-32 THREAD, .25" (6.4mm) minimum depth.

*Dimensions with .250" (6.35mm) terminals.

**Dimensions with .110" (2.79mm) or .205" (5.21mm) terminals.

***Dimensions with .187" (4.75mm) terminals.

Core and Stud Mount Cases



†Dimensions with .250" (6.35mm) terminals.

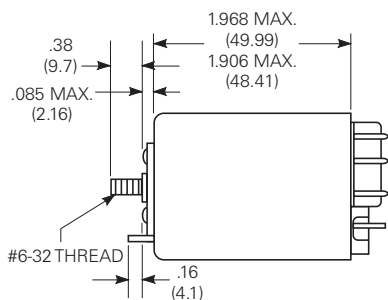
‡Dimensions with .110" (2.79mm), .187" (4.75mm and .205" 5.21mm) terminals.

*Dimensions with .250" (6.35mm) terminals.

**Dimensions with .110" (2.79mm) or .205" (5.21mm) terminals

***Dimensions with .187" (4.75mm) terminals.

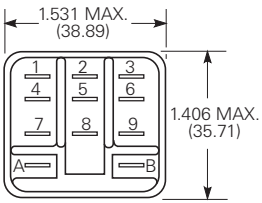
Stud on End Case



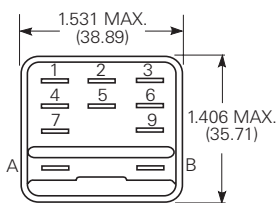
Outline Dimensions (Continued)

Relay Front Diagrams

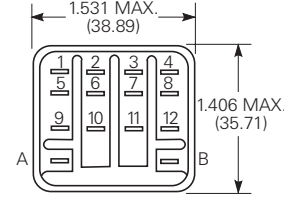
1-3 Pole Relays



Relays With .250" (6.35mm) Terminals



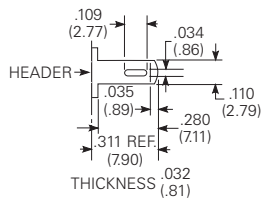
4 Pole Relays



Terminal Dimensions

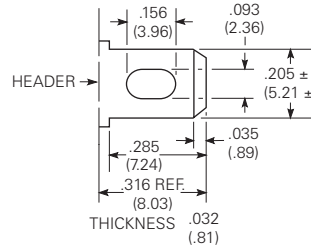
.110" (2.79mm)

Quick Connect Quick Connect



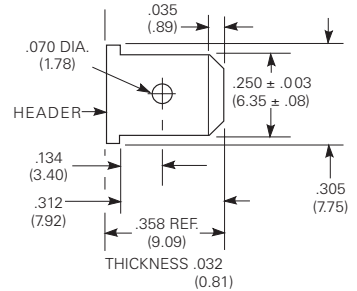
.205" (5.21mm)

Quick Connect

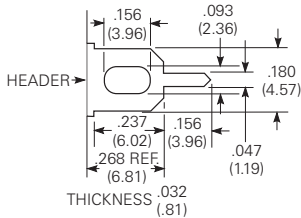


.250" (6.35mm)

Quick Connect

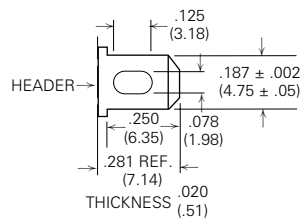


Printed Circuit



.187" (4.75mm)

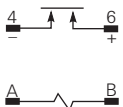
Quick Connect



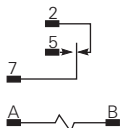
Note: All drawings shown oversize.

Wiring Diagrams

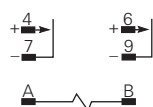
*1 Form X



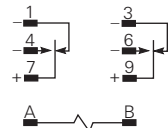
1 Form C



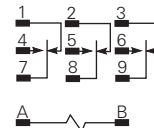
*2 Form A



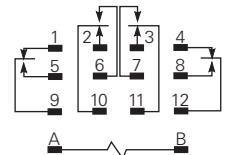
*2 Form C



3 Form C



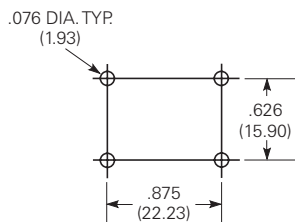
4 Form C



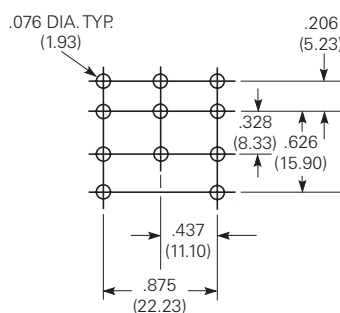
*Recommended Load Polarity for Optimum Arc Suppression.

PC Board Layouts (Bottom Views)

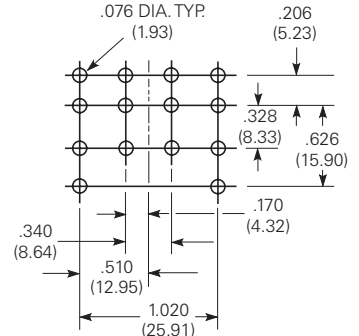
1 Form X



3 Pole Models



4 Pole Models



Sockets For KU Series Relays Through 3 Poles

Socket Selection Table

Stock items are boldfaced.

For KUP, KUEP, KUGP, KUIP, and KUMP relays, through 3 poles, with .187" (4.75mm) quick connect termination.

| Socket | Socket Termination | Hold-Down Spring |
|---------------|------------------------------------|--------------------------------|
| 27E043 | Solder eyelet | 20C228 or 20C254* |
| 27E046 | PC board, .144" (3.66mm) terminals | 20C228 or 20C254 |
| 27E067 | .187" (4.75mm) quick connect | 20C228 or 20C254 |
| 27E121 | Screw terminals | 20C314 (2 per socket required) |
| 27E305 | PC board, .184" (4.67mm) terminals | 20C228 or 20C254 |
| 27E310 | PC board, .247" (6.27mm) terminals | 20C228 or 20C254 |
| 27E396 | .187" (4.75mm) quick connect* | 20C254 |
| 27E397 | Wire wrap* | 20C254 |
| 27E400 | Solder eyelet** | 20C254 |
| 27E452 | Wire wrap | 20C228 or 20C254 |
| 27E893 | Screw terminal† | 20C318 |

* 20C228 held in place by socket hold-down screw where as 20C254 snaps onto socket.

** Snap-in mounting.

† DIN rail mounting.

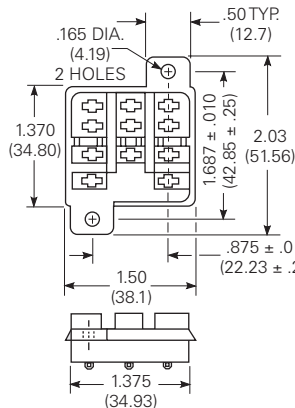
Hard Mount Sockets For Relays Through 3 Poles

Nylon sockets with .187" (4.75mm) quick connect, solder, printed circuit, wire wrap or no terminals are available for KUPE, KUGP, KUIP, KUMP, and KUP relays, through 3 poles, with .187" (4.75mm) quick connect terminals. All are rated 15 amps and UL recognized, File E59244 and CSA certified File LR15734 (except 27E452, 10 amps).

27E043—with solder eyelet terminals.

27E067—with .187" (4.75mm) quick connect terminals.

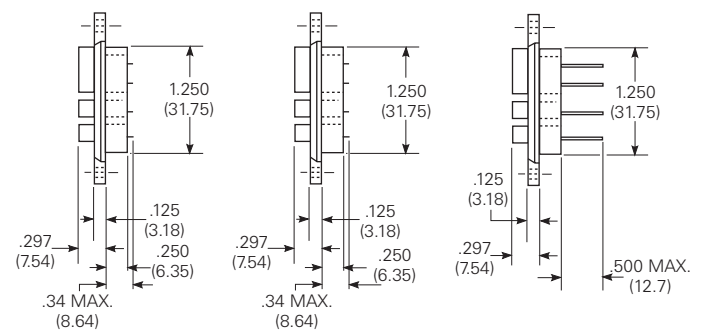
27E452—with .032" (.81mm) x .062" (1.57mm) x .725" (18.42mm) terminals for wire wrapping. Use 20 to 26 guage wire depending on type of wrapping system.



27E043

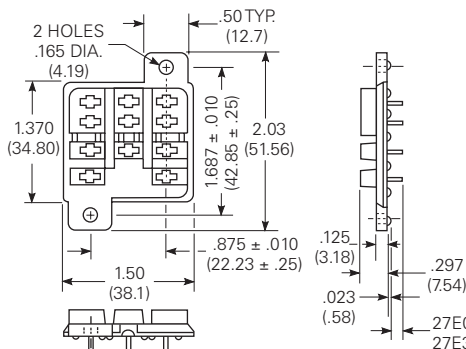
27E067

27E452

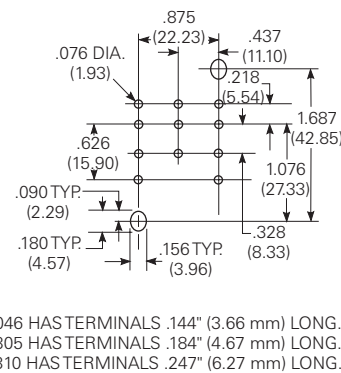


The 27E043, 27E067 and 27E452 use chassis cutout shown on this page.

27E046, 27E305, 27E310
Socket With Printed Circuit Terminals



Suggested Socket
PC Board Layout

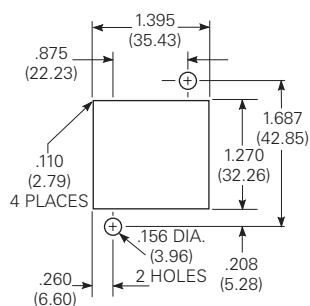


Snap-In Sockets For Relays Through 3 Poles

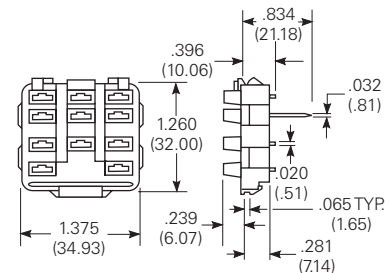
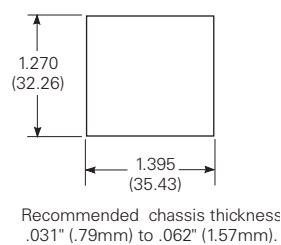
Nylon snap-in sockets with .187" (4.75mm) quick connect, solder, or wire wrap terminals are available for KUPE, KUGP, KUIP, KUMP, and KUP relays, through 3 poles, with .187" (4.75mm) quick connect terminals. Snap-in sockets reduce labor by eliminating time consuming screw or rivet mounting. Preassembled wiring harnesses may also be used as the sockets are designed to snap into the chassis from either front or back. All are rated 15 amps and UL recognized, File E59244. The 27E396, 27E397 and 27E400 use chassis cutout shown on this page.

27E396—with .187" (4.75mm) quick connect terminals.
27E397—with .062" (1.57mm) x .032" (.81mm) terminals for wire wrapping. Use 20 to 26 guage wire depending on type of wrapping system.
27E400—with solder eyelet terminals.

Recommended Chassis Cutout
For Hard Mount Sockets



Recommended Chassis Cutout
For Snap-In Sockets

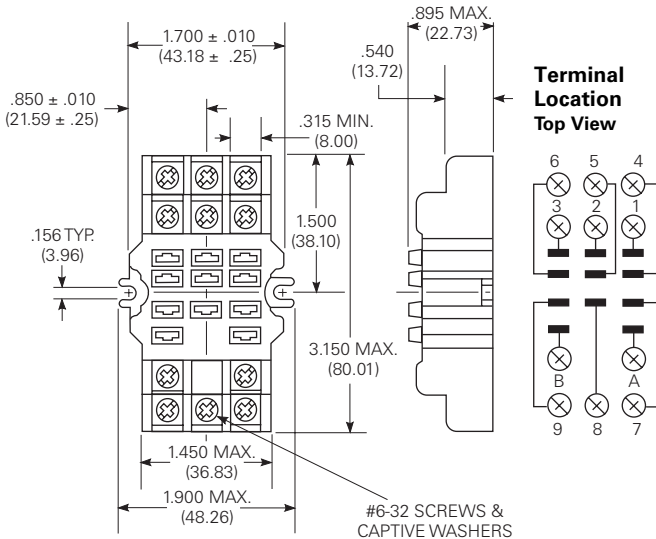


Sockets For KU Series Relays Through 3 Poles (continued)

27E121

Screw Terminal Socket

The 27E121 socket offers screw termination for KUEP, KUGP, KUIP, KUL, KUMP and KUP relays, through 3 poles, with .187" (4.75mm) quick connect terminals. This socket stacks on 1.700" (43.18mm) centers. When surface mounting, two #6-32 screws of suitable length are required. When track mounting, two 24A071 retainer clips (not shown) are required. The 27E121 is rated 15 amps and is UL recognized, File E59244, CSA certified, File LR15734.

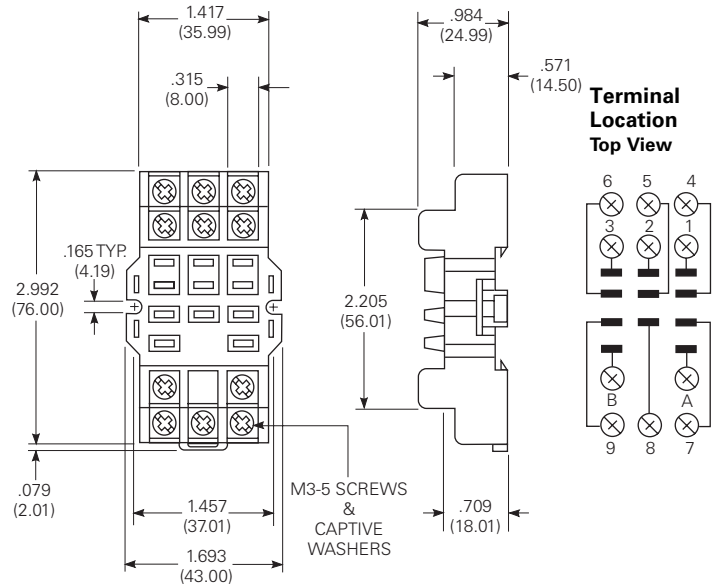


27E893

Screw Terminal, Din Rail Snap-Mount Socket

(use with mounting track 24A110)

The 27E893 DIN rail, snap-mount socket offers screw termination for KUEP, KUGP, KUIP, KUL, KUMP and KUP relays, through 3 poles, with .187" (4.75mm) quick connect terminals. This socket is constructed with a spring-loaded latch which allows it to be quickly snapped onto or removed from a "top hat" style mounting track. No special tools or extra hardware is required for installation. The 27E893 is UL rated 15 amps, 94V-0, File E59244 and CSA rated 10 amps, File LR15734. Two 20C317 hold-down spring anchor clips are packaged with each socket.



Sockets For KU Series 4 Pole Relays

Socket Selection Table

Stock items are boldfaced.

For 4 pole KUP relays with .110" (2.79mm) quick connect termination.

| Socket | Socket Termination | Hold-Down Spring |
|----------------|------------------------------|------------------|
| 27E415 | .187" (4.75mm) quick connect | 20C228 or 20C254 |
| 27E419 | PC board | 20C228 or 20C254 |
| 27E867* | Screw terminals | 20C254 |

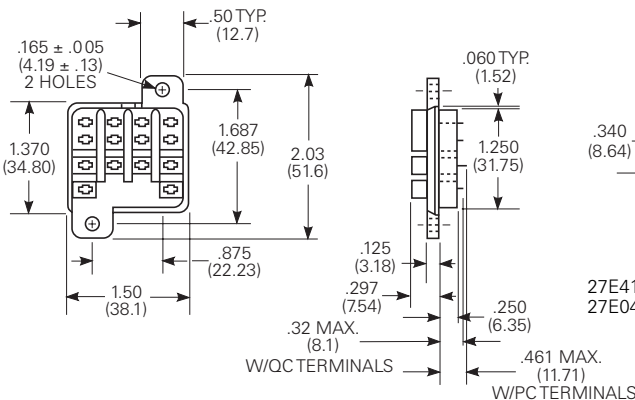
* Use 40G432 insulator pad or customer supplied alternative. (See page 100.)

Hard Mount Sockets For 4 Pole Relays

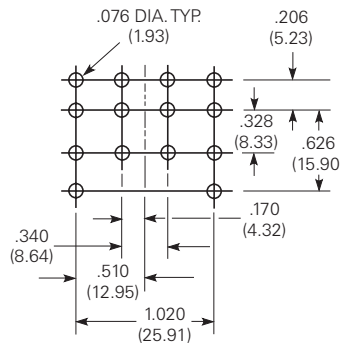
27E415—with .187" (4.75mm) quick connect/solder terminals.

27E419—with printed circuit terminals. See PC board layout at right.

Note: Only 4 pole KUP relays with .110" (2.79mm) quick connect terminals can be used with 4 pole hard mount sockets.



Suggested Socket PC Board Layout



27E415 uses same chassis cutout as 27E043.

Screw Terminal Socket For 4 Pole Relays

27E867 offers screw termination for 4 pole KUP relays with .110" (2.79mm) quick connect/socket mount terminals. Rated 10 amps and is UL recognized, File E59244.

