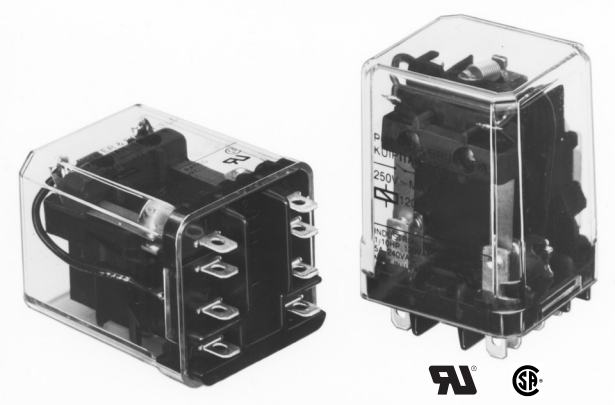
# KUIP/KUGP Series Panel Plug-in Relay

- **10 amp rated relays**
- **2 Form A (NO) and 1-3 Form C (CO) contact arrangement**
- **KUIP 8mm coil-to-contact spacing and KUGP 3mm contact gap**
- **Various mounting and socket styles**



Typical applications
Voltage control units

## Approvals

UL E22575; CSA LR15734
Technical data of approved types on request

## Contact Data

| | | |
|---|---|---|
| Contact arrangement | | |
| KUGP: | 2 form A (NO); 3 form A (NO) | |
| KUIP: | 1 form C (CO), 2 form A (NO), 2 form C (CO), 3 form C (CO) | |
| Rated voltage | 240VAC | |
| Rated current | 10A | |
| Contact material | Ag | AgCdO |
| Min recommended contact load | 100mA, 12VDC | 300mA, 12VDC |
| Frequency of operation | 360 ops./hour | 360 ops./hour |
| Operate/releases time max. | 20/15ms | |
| Bounce time max. | 20ms | |

**Contact ratings**

| Type | Load | Cycles |
|---|---|---|
| **UL 508** | | |
| Ag | | |
| | 5A, 240VAC | |
| | 5A, 28VDC | |
| | 1/6HP, 120VAC | |
| | 2.5A, 120VAC, tungsten | |
| | 1/3HP, 240VAC | |
| | 0.5A, 120VDC | |
| | 5FLA, 15LRA, 250VAC | |
| AgCdO | | |
| | 10A, 240VAC | |
| | 10A, 32VDC | |
| | 5FLA, 15LRA, 250VAC | |
| | 1/3HP, 120VAC | |
| | 5A, 120VAC, tungsten | |
| | 1/2HP, 250VAC | |
| | 0.5A, 125VDC | |
| | 10FLA, 40LRA, 125VAC | |
| | 3A, 600VAC | |
| | 1/2HP, 480VAC | |
| | 1/2HP, 600VAC | |
| | 1HP, 480VAC, 3 phase | |
| Mechanical endurance | $10x10^6$ ops. | |

## Coil Data

| | |
|---|---|
| Coil voltage range | 6 to 110VDC |
| | 6 to 240VAC |
| Coil insulation system according UL | Class B |

**Coil versions, DC coil**

| Coil code | Rated voltage VDC | Operate voltage VDC | Coil resistance Ω±10% | Rated coil power W |
|---|---|---|---|---|
| KUIP | | | | |
| 5 | 5 | 3.75 | 21 | 1.2 |
| 6 | 6 | 4.5 | 32.1 | 1.125 |
| 12 | 12 | 9.0 | 120 | 1.2 |
| 24 | 24 | 18.0 | 472 | 1.25 |
| 48 | 48 | 36.0 | 1800 | 1.3 |
| 110 | 110 | 82.5 | 10000 | 1.25 |
| KUGP | | | | |
| 5 | 5 | 3.75 | 14 | 1.8 |
| 6 | 6 | 4.5 | 20 | 1.8 |
| 12 | 12 | 9.0 | 80 | 1.8 |
| 24 | 24 | 18.0 | 320 | 1.8 |
| 48 | 48 | 36.0 | 1250 | 1.85 |
| 110 | 110 | 82.5 | 6720 | 1.8 |

All figures are given for coil without preenergization, at ambient temperature +23°C.

**Coil versions, AC coil**

| Coil code | Rated voltage VAC | Operate voltage VAC | Coil resistance Ω±15% | Rated coil power VA |
|---|---|---|---|---|
| KUIP 1 and 2 pole | | | | |
| 6 | 6 | 5.1 | 6 | 2.0 |
| 12 | 12 | 10.2 | 24 | 2.0 |
| 24 | 24 | 20.4 | 85 | 2.0 |
| 120 | 120 | 102.0 | 2250 | 2.1 |
| 240 | 240 | 204.0 | 9110 | 2.1 |
| KUIP 3 pole, KUGP | | | | |
| 6 | 6 | 5.1 | 4.2 | 2.8 |
| 12 | 12 | 10.2 | 18 | 2.8 |
| 24 | 24 | 20.4 | 72 | 2.8 |
| 120 | 120 | 102.0 | 1700 | 2.9 |
| 240 | 240 | 204.0 | 7200 | 2.9 |

All figures are given for coil without preenergization, at ambient temperature +23°C.

| Insulation Data | KUIP | KUGP |
|---|---|---|
| Initial dielectric strength | | |
| between open contacts | $1200V_{rms}$ | $3500V_{rms}$ |
| between contact and coil | $2200V_{rms}$ | $3750V_{rms}$ |
| between adjacent contacts | $2200V_{rms}$ | $3750V_{rms}$ |
| Initial insulation resistance | | |
| between insulated elements | 100MΩ, 500VDC | |

## KUIP/KUGP Series Panel Plug-in Relay (Continued)

### Other Data

| | |
|---|---|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter | |
| Ambient temperature | |
| DC coil | KUIP: -45ºC to 95ºC<br>KUGP: -45ºC to 75ºC (1 & 2 pole) |
| AC coil | KUIP: -45ºC to 70ºC<br>KUGP: -45ºC to 70ºC (1 & 2 pole) |
| Category of environmental protection | |
| IEC 61810 | RTI - dust protected |
| Terminal type | Quick connects (QC) .187<br>PCB-THT |
| Terminal retention, push force | 25 lbs for 3s |
| Weight | 85g |
| Packaging/unit | tray/25 pcs., box/150pcs. |

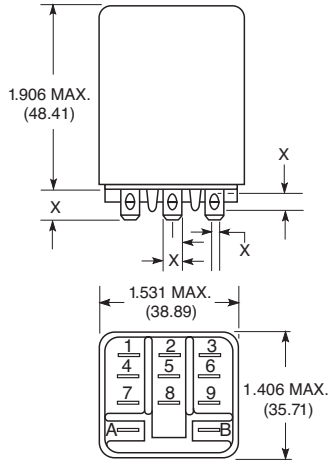
### Accessories

For details see datasheet Sockets and Accessories, KUP Relays

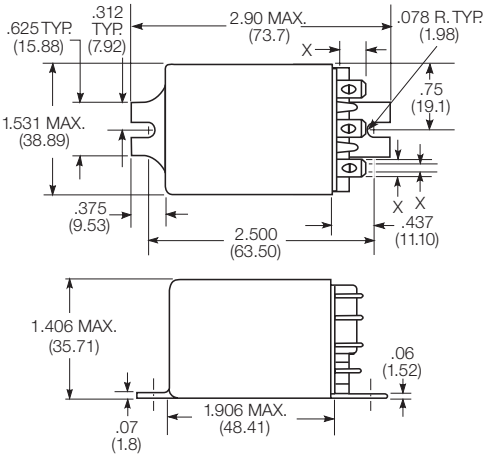
| Product Code | Description |
|---|---|
| 27E893 | DIN socket (use 20C318 clip) |
| 27E121 | Track mount socket (use 20C314 clips) |
| 27E043 | Chassis mount/solder eyelet socket (use 20C254 clip) |
| 27E046 | Chassis mount/PCB socket (use 20C254 clip) |
| 27E067 | Chassis mount/quick connect socket (use 20C254 clip) |
| 27E396 | Snap-in/quick connect socket (use 20C254 clip) |

### Dimensions

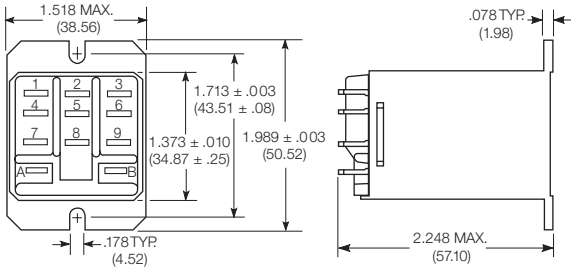
Plain case




Bracket mount case



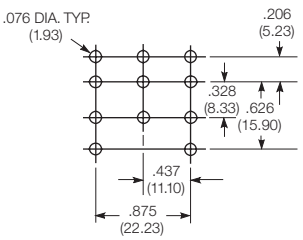

Top flange case




X Is For Terminal Dimensions.
See Teminal Drawings.

**PCB layout**
Bottom view on solder pins

3 Form C shown
Omit unncessary holes for other contact forms



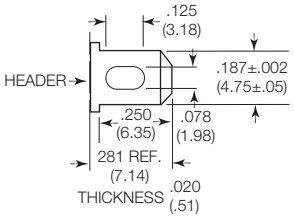



08-2011, Rev. 0811
www.te.com

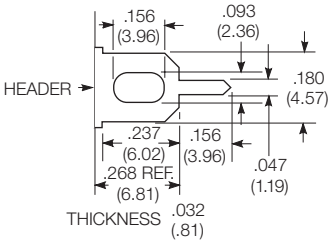
## KUIP/KUGP Series Panel Plug-in Relay (Continued)

### Terminal dimensions

4.75mm (.187) quick connect

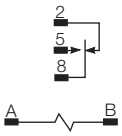



1.19mm (.047) printed circuit

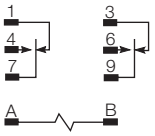



### Terminal assignment

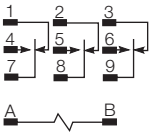
1 Form C




2 Form C
2 Form A (delete 1 & 3)




3 Form C
3 Form A (delete 1, 2 & 3)




### Product code structure

Typical product code: **KUIP -5 A 5 5 -120**

**Type**
- **KUIP** Enclosed relay with 8mm contact to coil spacing
- **KUGP** Enclosed relay with 3mm open contact spacing and 8mm contact to coil spacing (form A only)

**Contact arrangement and rating**
- **5** 1 form C (1 CO) 1)
- **11** 2 form C (2 CO) 1)
- **14** 3 form C (3 CO) 1)
- **7** 2 form A (2 NO)
- **12** 3 form A (3 NO)

1) not available on KUGP type

**Coil Input**
- **A** AC, 50/60Hz
- **D** DC

**Mounting and options**
- **1** Socket mount (plain) case
- **T** Top flange case
- **5** Bracket mount case

**Terminal and contact material**
- **3** 1.19mm (.047in) PCB, Ag
- **7** 1.19mm (.047in) PCB, AgCdO
- **5** 4.75mm (.187in) quick connect/solder; AgCdO

**Coil voltage**

Coil code: please refer to coil versions table

| Product Code | Arrangement | Material | Coil | Terminals | Mounting | Part Number |
|---|---|---|---|---|---|---|
| KUGP-7D55-24 | 2 Form A, 2 NO | AgCdO | 24 VDC | 4.75mm (.187in) QC | Bracket mount case | 2-1393114-4 |
| KUIP-5A55-120 | 1 Form C; 1 CO | | 120 VAC | | | 2-1393115-0 |
| KUIP-11D55-12 | 2 Form C; 2 CO | | 12 VDC | | | 1-1393115-0 |
| KUIP-11D55-24 | | | 24 VDC | | | 1-1393115-1 |
| KUIP-14A15-120 | 3 Form C; 3 CO | | 120 VAC | | Socket mount, plain case | 1-1393115-4 |
| KUIP-14D15-12 | | | 12 VDC | | | 1-1393115-6 |
| KUIP-14D15-24 | | | 24 VDC | | | 1-1393115-7 |

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