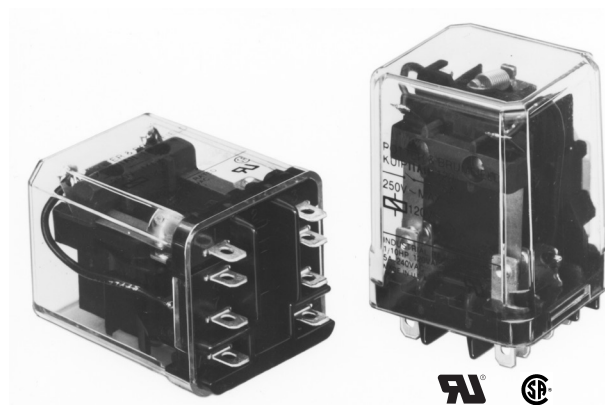


## KUIP/KUGP Series Panel Plug-in Relay

- 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<br>5A, 28VDC<br>1/6HP, 120VAC<br>2.5A, 120VAC, tungsten<br>1/3HP, 240VAC<br>0.5A, 120VDC<br>5FLA, 15LRA, 250VAC |
|----|----------------------------------------------------------------------------------------------------------------------------|

|       |                                                                                                                                                                                                                            |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AgCdO | 10A, 240VAC<br>10A, 32VDC<br>5FLA, 15LRA, 250VAC<br>1/3HP, 120VAC<br>5A, 120VAC, tungsten<br>1/2HP, 250VAC<br>0.5A, 125VDC<br>10FLA, 40LRA, 125VAC<br>3A, 600VAC<br>1/2HP, 480VAC<br>1/2HP, 600VAC<br>1HP, 480VAC, 3 phase |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                      |                         |
|----------------------|-------------------------|
| Mechanical endurance | 10x10 <sup>6</sup> ops. |
|----------------------|-------------------------|

### Coil Data

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

### Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Coil resistance $\Omega \pm 10\%$ | 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 $\Omega \pm 15\%$ | 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 <sub>rms</sub>   | 3500V <sub>rms</sub> |
| between contact and coil      | 2200V <sub>rms</sub>   | 3750V <sub>rms</sub> |
| between adjacent contacts     | 2200V <sub>rms</sub>   | 3750V <sub>rms</sub> |
| Initial insulation resistance |                        |                      |
| between insulated elements    | 100M $\Omega$ , 500VDC |                      |

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

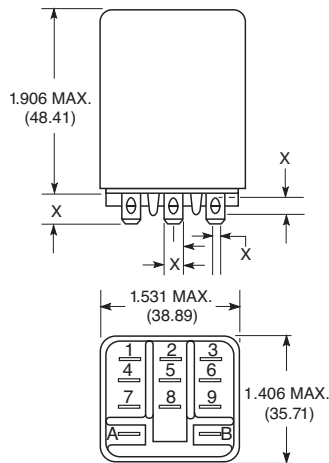
**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

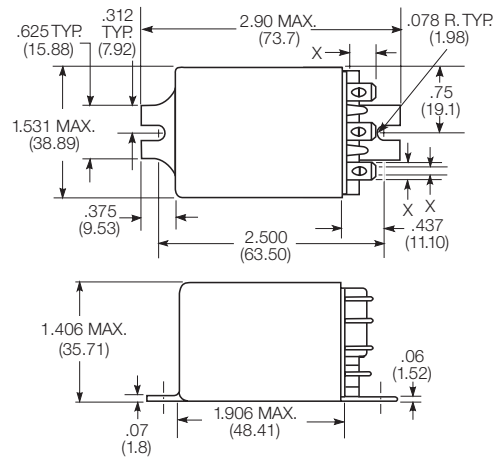
|                                      |                                                         |
|--------------------------------------|---------------------------------------------------------|
| Ambient temperature                  |                                                         |
| DC coil                              | KUIP: -45°C to 95°C<br>KUGP: -45°C to 75°C (1 & 2 pole) |
| AC coil                              | KUIP: -45°C to 70°C<br>KUGP: -45°C to 70°C (1 & 2 pole) |
| Category of environmental protection | 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.                               |

**Dimensions**

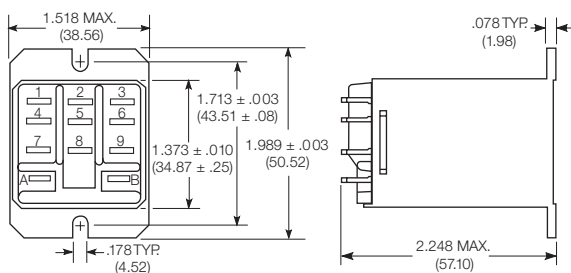
Plain case



Bracket mount case



Top flange case

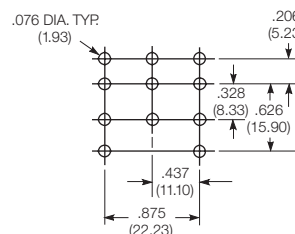


X Is For Terminal Dimensions.  
See Terminal Drawings.

**PCB layout**

Bottom view on solder pins

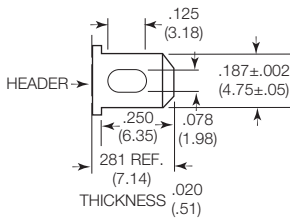
3 Form C shown  
Omit unnecessary holes for other contact forms



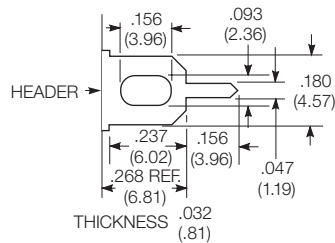
## KUIP/KUGP Series Panel Plug-in Relay (Continued)

### Terminal dimensions

4.75mm (.187) quick connect



1.19mm (.047) printed circuit



### Terminal assignment

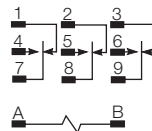
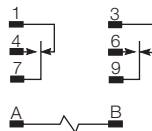
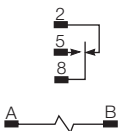
1 Form C

2 Form C

3 Form C

2 Form A (delete 1 & 3)

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)

1) not available on KUGP type

**7** 2 form A (2 NO)

**12** 3 form A (3 NO)

#### 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 |