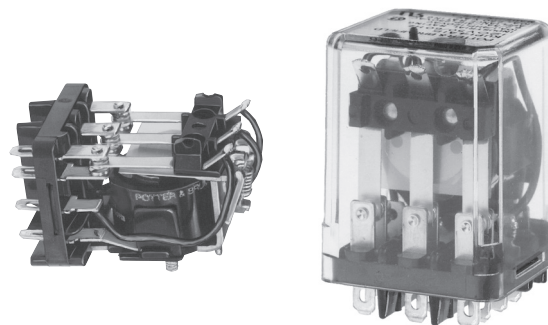


## KUMP Series Panel Plug-in Relay

- 15 amp rating
- Contact arrangements 1-3 form A, 1-3 form B, 1-3 form C, 1 form X, 1 form Y, 1 form Z
- Open or enclosed
- Plain or bracket mount dust covers
- Optional indicator lamp and push-to-test button
- Several termination and mounting styles

### Typical applications

Hospital beds, semiconductor wafer equipment, boom/bucket lifts.



### Approvals

UL E22575; CSA LR15734

Technical data of approved types on request.

### Contact Data

|                               |                                                                                                                                       |               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Contact arrangement           | 1, 2 and 3 form A (NO); 1, 2 and 3 form B (NC);<br>1, 2 and 3 form C (CO); 1 form X (NO-DM);<br>1 form Y (NC-DB); 1 form Z (CO-DB-DM) |               |
| Rated voltage                 | 277VAC                                                                                                                                |               |
| Rated current                 | 15A                                                                                                                                   |               |
| Contact material              | AgCdO                                                                                                                                 | AgSnOInO      |
| Min. recommended contact load | 300mA, 12VDC                                                                                                                          | 300mA, 12VDC  |
| Frequency of operation        | 360 ops./hour                                                                                                                         | 360 ops./hour |
| Operate/releases time max.    | 15/10ms                                                                                                                               |               |
| Bounce time max.              | 17ms                                                                                                                                  |               |

### Contact ratings

| Type                 | Load                    | Cycles              |
|----------------------|-------------------------|---------------------|
| <b>UL 508</b>        |                         |                     |
| AgCdO                |                         |                     |
|                      | 15A, 277VAC             |                     |
|                      | 1/2HP, 120VAC           |                     |
|                      | 10A, 240VAC             |                     |
|                      | 10A, 32VDC              |                     |
|                      | 5FLA, 15LRA, 250VAC     |                     |
|                      | 5A, 120VAC, tungsten    |                     |
|                      | 0.5A, 250VAC            |                     |
|                      | 0.5A, 125VDC            |                     |
|                      | 10FLA, 40LRA, 125VAC    |                     |
|                      | 3A, 600VAC              |                     |
|                      | 1/2HP, 480VAC           |                     |
|                      | 1/2HP, 600VAC           |                     |
|                      | 1HP, 480VAC, 3 phase    |                     |
| <b>AgSnOInO</b>      |                         |                     |
|                      | 15A, 277VAC, pf = 0.8   | 15x10 <sup>3</sup>  |
|                      | 10A, 277VAC, pf = 0.8   | 100x10 <sup>3</sup> |
| Mechanical endurance | 10x10 <sup>6</sup> ops. |                     |

### Coil Data

|                                     |                            |
|-------------------------------------|----------------------------|
| Coil voltage range                  | 5 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 |
|-----------|-------------------|---------------------|-----------------------------------|--------------------|
| 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               |

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 |
|-----------|-------------------|---------------------|-----------------------------------|---------------------|
| 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

|                               |                        |
|-------------------------------|------------------------|
| Initial dielectric strength   |                        |
| between open contacts         | 1200V <sub>rms</sub>   |
| between contact and coil      | 2200V <sub>rms</sub>   |
| between adjacent contacts     | 2200V <sub>rms</sub>   |
| Initial insulation resistance |                        |
| between insulated elements    | 100M $\Omega$ , 500VDC |

### Other Data

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

|                                      |                                                                    |
|--------------------------------------|--------------------------------------------------------------------|
| Ambient temperature                  |                                                                    |
| DC coil                              | Enclosed relays: -45°C to 70°C<br>Open relays: 15°C higher maximum |
| AC coil                              | Enclosed relays, 3 pole: -45°C to +45°C                            |
|                                      | Enclosed relays, 1 and 2 pole: -45°C to +55°C                      |
|                                      | Open relays: 15°C higher maximum                                   |
| Category of environmental protection |                                                                    |
| IEC 61810                            | RT0 - open relay; RTI - dust protected                             |
| Terminal type                        | Quick connects (QC), .187, .205 or .250: PCB-THT                   |
| Terminal retention, push force       |                                                                    |
| QC .205                              | 17 lbs for 3s                                                      |
| QC .187, QC .250, PCB                | 25 lbs for 3s                                                      |
| Weight                               | 85g                                                                |
| Packaging/unit                       | tray/25 pcs., box/150pcs.                                          |

### Accessories

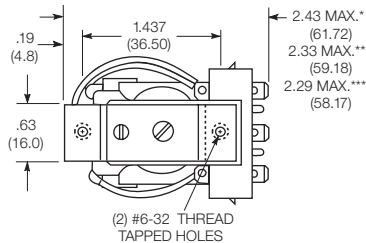
For details see datasheet      Sockets and Accessories, KUP Relays

| 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)       |

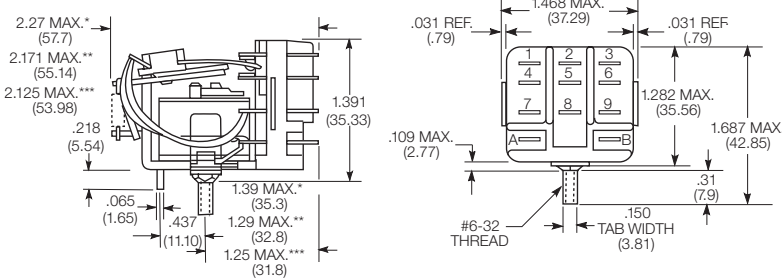
## KUMP Series Panel Plug-in Relay (Continued)

### Dimensions

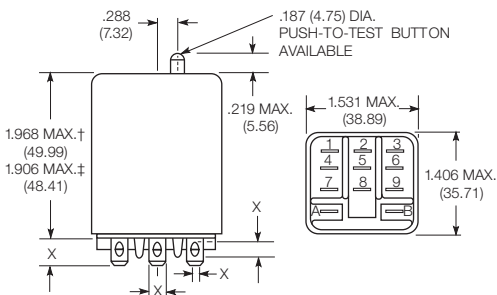
KUM bracket type



KUM stud type

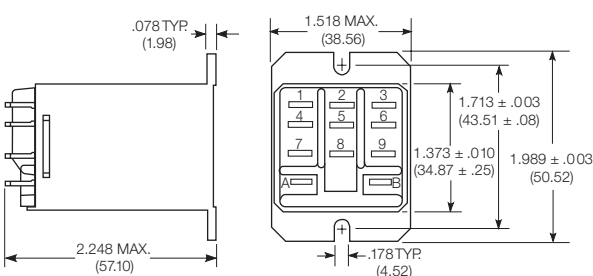


KUMP plain case

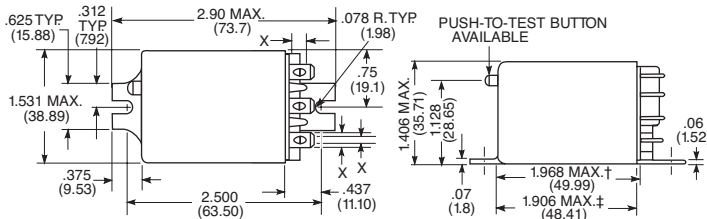


X Is For Terminal Dimensions.  
See Terminal Drawings.

KUMP top flange case



KUMP bracket mount case



### Seated Heights For KUM (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.

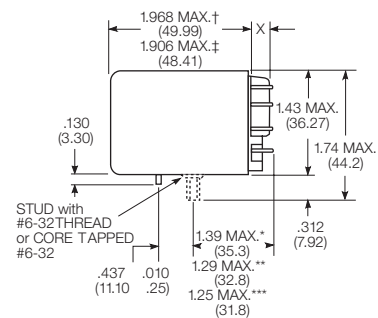
Models without stud have core tapped #6-32  
THREAD, .25" (6.4mm) minimum depth.

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

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

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

KUMP core / stud mount case



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

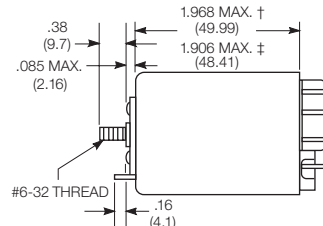
‡ Dimensions with .187" (4.75mm and .205" 5.21mm) terminals.

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

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

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

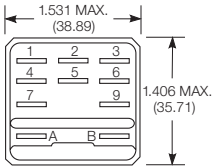
KUMP stud on end case



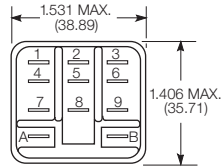
## KUMP Series Panel Plug-in Relay (Continued)

### Relay front diagrams

Models with 6.35mm  
(.250) QC terminals

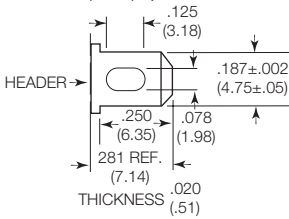


Models with all other terminals

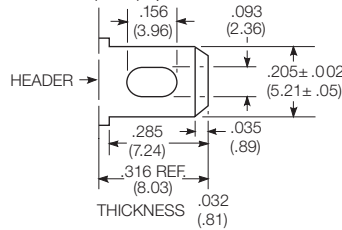


### Terminal dimensions

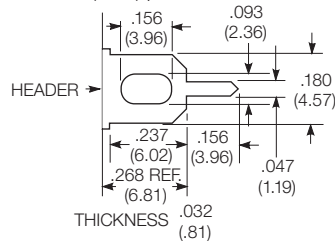
4.75mm (.187) quick connect



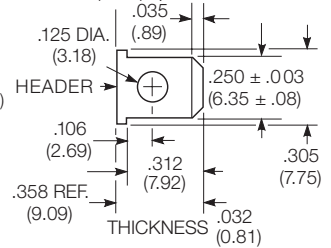
5.21mm (.205) quick connect



1.19mm (.047) printed circuit

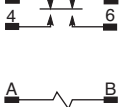


6.35mm (.250) quick connect

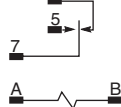


### Terminal assignment

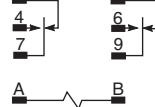
1 form Z  
1 form X (delete 1 & 3)  
1 form Y (delete 4 & 6)



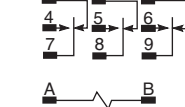
1 form C  
1 form A (delete 2)  
1 form B (delete 5)



2 form C  
2 form A (delete 1 & 3)  
2 form B (delete 4 & 6)



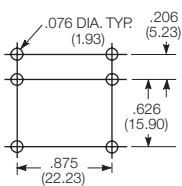
3 form C  
3 form A (delete 1, 2 & 3)  
3 form B (delete 4, 5 & 6)



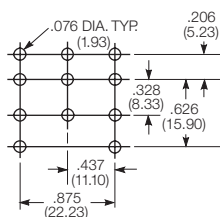
### PCB layout

Bottom view on solder pins

1 form Z version  
(Omit unnecessary holes for  
form X and Y types)



3 pole version  
(Omit unnecessary holes for  
form A and 2 pole types)



## KUMP Series Panel Plug-in Relay (Continued)

### Product code structure

Typical product code **KUMP -11 A 1 8 -120**

#### Type

**KUM** 15A open style relay  
**KUMP** 15A enclosed relay

#### Contact arrangement

|                             |                           |                                |
|-----------------------------|---------------------------|--------------------------------|
| <b>1</b> 1 form A (1 NO)    | <b>2</b> 1 form B (1 NC)  | <b>3</b> 1 form X (1 NO-DM)    |
| <b>4</b> 1 form Y (1 NC-DB) | <b>5</b> 1 form C (1 CO)  | <b>6</b> 1 form Z (1 CO-DB-DM) |
| <b>7</b> 2 form A (2 NO)    | <b>8</b> 2 form B (2 NC)  | <b>11</b> 2 form C (2 CO)      |
| <b>12</b> 3 form A (3 NO)   | <b>13</b> 3 form B (3 NC) | <b>14</b> 3 form C (3 CO)      |

#### Coil Input

**A** AC, 50/60Hz **D** DC

#### Mounting and options

##### KUM

|                                                            |                                                          |
|------------------------------------------------------------|----------------------------------------------------------|
| <b>1</b> #6-32 mounting stud, 5.54mm (.218in) locating tab | <b>2</b> 2-hole bracket, #6-32 tapped                    |
| <b>3</b> #6-32 tapped core, 3.18mm (.125in) locating tab   | <b>4</b> #6-32 tapped core, 5.54mm (.218in) locating tab |
| <b>5</b> #6-32 tapped core, no locating tab                |                                                          |

##### KUMP

|                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------|
| <b>1</b> Socket mount (plain) case                                                                                |
| <b>2</b> Socket mount (plain) case with push-to-test button                                                       |
| <b>3</b> Socket mount (plain) case with indicator lamp <sup>1)</sup>                                              |
| <b>4</b> Socket mount (plain) case with indicator lamp and push-to-test button <sup>1)</sup>                      |
| <b>5</b> Bracket mount case                                                                                       |
| <b>6</b> Bracket mount case with push-to-test button                                                              |
| <b>7</b> Bracket mount case with indicator lamp <sup>1)</sup>                                                     |
| <b>8</b> Bracket mount case with indicator lamp and push-to-test button <sup>1)</sup>                             |
| <b>9</b> Plain case with #6-32 stud and locating tab on end of case                                               |
| <b>A</b> Plain case with #6-32 stud and locating tab                                                              |
| <b>B</b> Plain case with #6-32 stud and locating tab, push-to-test button                                         |
| <b>C</b> Plain case with #6-32 stud and locating tab, indicator lamp <sup>1)</sup>                                |
| <b>D</b> Plain case with #6-32 stud and locating tab, push-to-test button and indicator lamp <sup>1)</sup>        |
| <b>E</b> Plain case with #6-32 tapped core and locating tab                                                       |
| <b>F</b> Plain case with #6-32 tapped core and locating tab, push-to-test button                                  |
| <b>G</b> Plain case with #6-32 tapped core and locating tab, indicator lamp <sup>1)</sup>                         |
| <b>H</b> Plain case with #6-32 tapped core and locating tab, push-to-test button and indicator lamp <sup>1)</sup> |
| <b>T</b> Top flange case                                                                                          |

1) Indicator lamps are available on models with the following coils: 6-24VAC and VDC, 110VDC and 120-240VAC.  
Only models with 120-240VAC coils are UL recognized.

#### Terminal and contact material

|                                                        |                                                                      |
|--------------------------------------------------------|----------------------------------------------------------------------|
| <b>6</b> 5.21mm (.205in) quick connect/solder; AgCdO   | <b>8</b> 4.75mm (.187in) quick connect/solder; AgCdO                 |
| <b>9</b> 1.19mm (.047in) PCB, AgCdO                    | <b>G</b> 6.35mm (.250in) quick connect/solder; AgCdO <sup>2)</sup>   |
| <b>R</b> 5.21mm (.205in) quick connect/solder; AgSnInO | <b>T</b> 4.75mm (.187in) quick connect/solder; AgSnInO               |
| <b>U</b> 1.19mm (.047in) PCB, AgSnInO                  | <b>V</b> 6.35mm (.250in) quick connect/solder; AgSnInO <sup>2)</sup> |

2) 6.35mm (.250in) quick connect/solder terminals are not available on 3 pole relays

#### Coil voltage

Coil code: please refer to coil versions table

| Product Code   | Arrangement    | Material | Coil    | Terminals          | Mounting                 | Part Number |
|----------------|----------------|----------|---------|--------------------|--------------------------|-------------|
| KUMP-11A18-24  | 2 form C; 2 CO | AgCdO    | 24 VAC  | 4.75mm (.187in) QC | Socket mount, plain case | 6-1393116-3 |
| KUMP-11A18-120 |                |          | 120 VAC |                    |                          | 6-1393116-2 |
| KUMP-11A18-240 |                |          | 240 VAC |                    |                          | 6-1393116-4 |
| KUMP-11D18-12  |                |          | 12 VDC  |                    |                          | 7-1393116-1 |
| KUMP-11D18-24  |                |          | 24 VDC  |                    |                          | 7-1393116-2 |
| KUMP-11D18-110 |                |          | 110 VDC |                    |                          | 7-1393116-0 |
| KUMP-14A18-24  | 3 form C, 3 CO |          | 24 VAC  |                    |                          | 8-1393116-5 |
| KUMP-14A18-120 |                |          | 120 VAC |                    |                          | 8-1393116-4 |
| KUMP-14D18-12  |                |          | 12 VDC  |                    |                          | 9-1393116-0 |
| KUMP-14D18-24  |                |          | 24 VDC  |                    |                          | 9-1393116-1 |