

## KUEP Series Panel Plug-in Relay

- 1 Form X, 2 Form A and 2 Form C contact arrangements
- 10 amp current rating
- Magnetic blow-out
- Various mounting options
- Indicator lamp available

Typical applications  
DC load switching in industrial controls



### Approvals

UL E22575; CSA LR15734; CE (KUEP-11 only)  
Technical data of approved types on request

### Contact Data

Contact arrangement	1 form X (NO-DM), 2 form A (NO), 2 form C (CO)	
Rated voltage	150VDC	
Rated current	10A	
Contact material	AgCdO	AgSnOInO
Min. recommended contact load	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>		
KUEP, 1 form X, AgCdO		
	10A, 150VDC	100x10 <sup>3</sup>
	1A, 300VDC	100x10 <sup>3</sup>
	2.5 A, 170 VDC, resistive	100x10 <sup>3</sup>
KUEP, 2 form A, AgCdO		
	5 A, 150 VDC	
	2.5 A, 170 VDC, resistive	100x10 <sup>3</sup>
KUEP, 2 form C, AgCdO		
	3 A, 150 VDC	
	2.5 A, 170 VDC, resistive	100x10 <sup>3</sup>
	10 A, 240 VAC	
	10 A, 32 VDC	
	5 FLA, 15 LRA, 250 VAC	
	1/3 HP, 120 VAC	
	5 A, 120 VAC, tungsten	
	1/2 HP, 250 VAC	
	10 FLA, 40 LRA, 125 VAC	
	3 A, 600 VAC	
	1/2 HP, 480 VAC	
	1/2 HP, 600 VAC	
	1 HP, 480 VAC, 3 phase	
KUEP, 1 form X, AgSnOInO		
	10A, 150VDC, resistive	30x10 <sup>3</sup>
KUEP, 2 form A, AgSnOInO		
	5 A, 150 VDC, resistive	100x10 <sup>3</sup>
KUEP, 2 form C, AgSnOInO		
	3 A, 150 VDC, resistive	100x10 <sup>3</sup>
Mechanical endurance	10x10 <sup>6</sup> ops.	

Note: Indicated contact ratings and electrical endurance data apply only for direct wiring of the relay (according to UL 508/61810-1); for relays mounted on sockets, deratings may apply.

### Coil Data

Coil voltage range	5 to 125VDC
	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
One pole versions				
5	5	3.75	21	1.2
6	6	4.5	32	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
125	125	93.75	13000	1.2
Two pole versions				
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
125	125	93.75	8680	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
One pole versions				
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
Two pole versions				
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 $\Omega$

## KUEP 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

Ambient temperature

DC coil	-45°C to 70°C
AC coil	1 pole: -45°C to 55°C
	2 pole: -45°C to 45°C

Category of environmental protection

IEC 61810	RT1 - dust protected
Vibration resistance (functional)	.065" double amplitude, 10-55Hz
Shock resistance (functional)	15g, 11ms (non-operating)

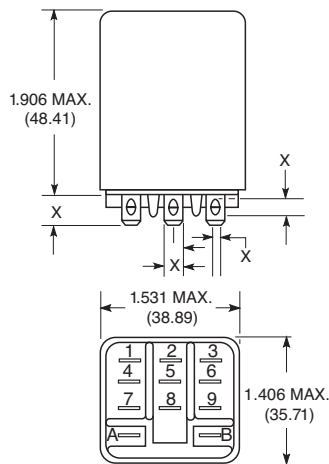
Terminal type Quick connects (QC), .187 or .205 PCB-THT

Terminal retention, push force

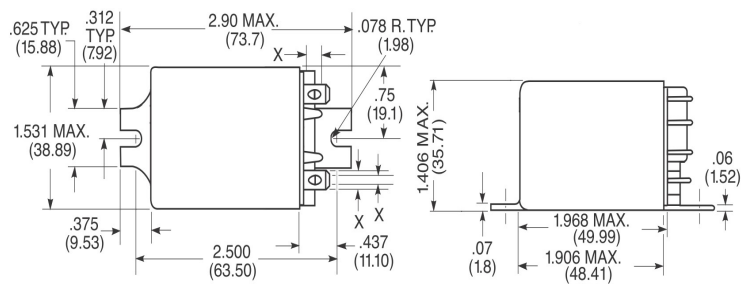
QC .205	17 lbs for 3s
QC .187	25 lbs for 3s

### Dimensions

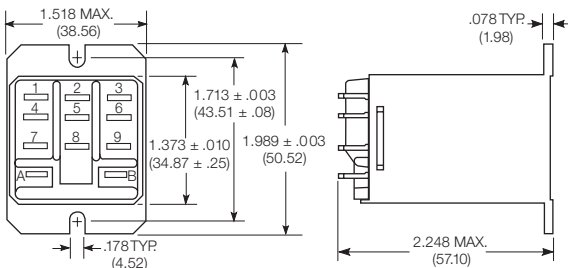
Plain case



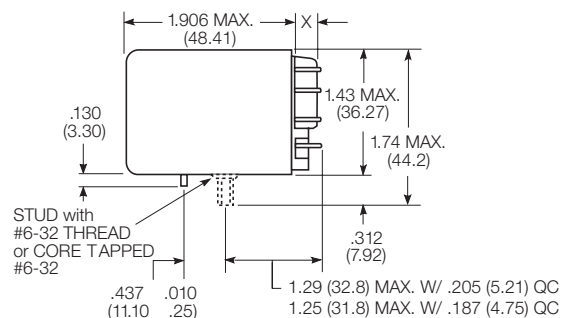
Bracket mount case



Top flange case



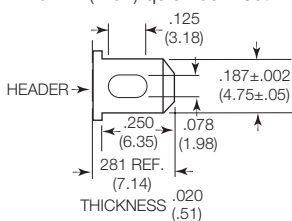
Core / stud mount case



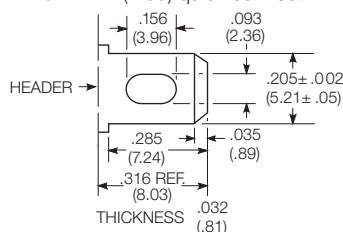
X Is For Terminal Dimensions.  
See Terminal Drawings.

### Terminal dimensions

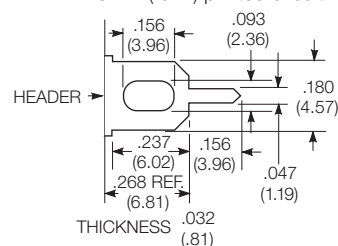
4.75mm (.187) quick connect



5.21mm (.205) quick connect



1.19mm (.047) printed circuit

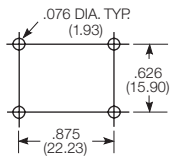


## KUEP Series Panel Plug-in Relay (Continued)

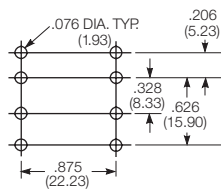
### PCB layout

Bottom view on solder pins

1 form X version

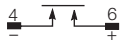


2 form C version shown  
(Omit unnecessary holes for form A types)

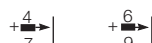


### Terminal assignment

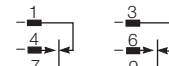
1 Form X



2 Form A



2 Form C



Load polarity noted above is recommended for optimum arc suppression.

### Product code structure

Typical product code **KUEP -3 A 1 5 -120**

#### Type

**KUEP** Enclosed relay with magnetic blow-outs

#### Contact arrangement and rating

**3** 1 form X (1 NO-DM) **7** 2 form A (2 NO)  
**11** 2 form C (2 CO)

#### Coil Input

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

#### Mounting and options

**1** Socket mount (plain) case **3** Socket mount (plain) case, with indicator lamp <sup>1)</sup>  
**5** Bracket mount case **A** Plain case with #6-32 stud and locating tab  
**E** Plain case with #6-32 tapped core and locating tab **T** Top flange case  
<sup>1)</sup> 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

**5** 4.75mm (.187in) quick connect/solder; AgCdO **6** 5.21mm (.205in) quick connect/solder; AgCdO  
**7** 1.19mm (.047in) PCB, AgCdO **P** 4.75mm (.187in) quick connect/solder; AgSnOInO  
**R** 5.21mm (.205in) quick connect/solder; AgSnOInO **S** 1.19mm (.047in) PCB, AgSnOInO

#### Coil voltage

Coil code: please refer to coil versions table

Product Code	Arrangement	Material	Coil	Terminals	Mounting	Part Number
KUEP-3A15-120	1 Form X, 1 NO-DM	AgCdO	120 VAC	4.75mm (.187in) QC	Socket mount, plain case	9-1393113-4
KUEP-3D15-12			12 VDC			9-1393113-8
KUEP-3D15-24			24 VDC			1393114-1
KUEP-3D15-48			48 VDC			1393114-2
KUEP-3D15-110			110 VDC			9-1393113-7
KUEP-3D35-24			24 VDC		Socket mount, plain case w/ indicator lamp	1393114-5
KUEP-7D15-24	2 Form A, 2 NO				Socket mount, plain case	1-1393114-1
KUEP-11A15-120	2 Form C, 2 CO		120 VAC			8-1393113-3
KUEP-11D15-12			12 VDC			8-1393113-6
KUEP-11D15-24			24 VDC			8-1393113-7
KUEP-11D15-48			48 VDC			8-1393113-8
KUEP-11D15-110			110 VDC			8-1393113-5