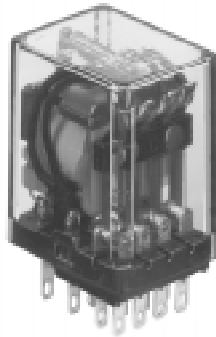




KHS



KHAU

## KHA series

### General Purpose Dry Circuit to 5A Multicontact AC or DC Relay

File E22575

File LR15734

#### Features

- Miniature size from 2 pole to 4 pole. A 5 pole version is available as a special order.
- KHS hermetically sealed version UL Approved for Class 1 Division 2 hazardous locations.
- Various applications include process control, photocopier, and data processing.
- Low cost, semiautomated construction.

#### Contact Data @ 25°C

**Arrangements:** 2 Form C (DPDT), 4 Form C (4PDT).

**Expected Life:** 10 million operations, mechanical; 100,000 operations min. at rated loads. Ratings are based on tests of relays with ungrounded frames.

**Initial Breakdown Voltage:** 500V rms, 60 Hz., between open contacts.  
1240V rms, 60 Hz., between all other elements.

#### Contact Ratings

Contact Code	Material	Resistive Rating	
		Minimum	Maximum
1	Silver	100mA @ 12VAC/12VDC	3A @ 120VAC/28VDC
2*	Silver-cadmium oxide	500mA @ 12VAC/12VDC	5A @ 120VAC/28VDC
3	Gold-silver-nickel	10mA @ 12VAC/12VDC	2A @ 120VAC/28VDC
4	Palladium	100mA @ 12VAC/12VDC	3A @ 120VAC/28VDC
5	Silver alloy	500mA @ 12VAC/12VDC	3A @ 120VAC/28VDC
6	Bifurcated cross bar, gold overlay silver	Dry circuit	1A @ 120VAC/28VDC
8	Gold diffused silver	50mA @ 12VAC/12VDC	3A @ 120VAC/28VDC

**Note:** Relays should only carry a maximum of 15 amps continuously for all poles combined.

\*Note: KHS hermetically sealed version maximum rating is 5A @ 120VAC/28VDC.

#### Coil Data @ 25°C

**Voltage:** From 6 to 120VDC, and 6 to 240VAC, 50/60 Hz.

**Nom. Power: DC coils** - 0.9 watt; 0.5 watt minimum operate @ 25°C.

**AC coils** - 1.2 VA; 0.55 VA minimum operate @ 25°C.

**Max. Power: DC coils** - 2.0 watts @ 25°C.

**Duty Cycle:** Continuous.

**Initial Breakdown Voltage:** 500V rms, 60 Hz.

#### Coil Data

Nominal Voltage	DC Coils		AC Coils	
	Resistance in Ohms ±10% @ 25°C	Nominal Inductance in Henrys	Resistance in Ohms ±15%	Nominal AC Current in mA
5	32	.072	—	—
6	40	.08	10.5	200
12	160	.28	43	100
24	650	1.0	160	52
48	2,600	4.5	668	25
90	9,000	13.5	—	—
110 *	11,000	17.0	—	—
120 *	13,500	—	3,900	11.0
240	—	—	12,000	6.0

\*Note: For 220 and 240VDC, use series dropping 5W resistor of 11,000Ω.

#### Operate Data @ 25°C

**Must-Operate Voltage: DC:** 75% of nominal voltage.

**AC:** 85% of nominal voltage.

**Operate Time:** 13 milliseconds typical @ nominal voltage (excluding bounce).

**Release Time:** 6 milliseconds typical @ nominal voltage (excluding bounce).

#### Environmental Data

**Temperature Range:** -45°C to +70°C operate.

-60°C to +130°C storage.

#### Mechanical Data

**Mountings:** #3-48 stud, sockets with printed circuit or solder terminals, or bracket plate with #6-32 threaded stud.

**Termination:** Printed circuit or solder/socket terminals.

Printed circuit terminals are available for KHS on a special order basis.

**Insulating Material:** Molded high-dielectric material.

**Enclosures:** See Ordering Information table.

Cover colors are available in black, red, blue, yellow and green by special order.

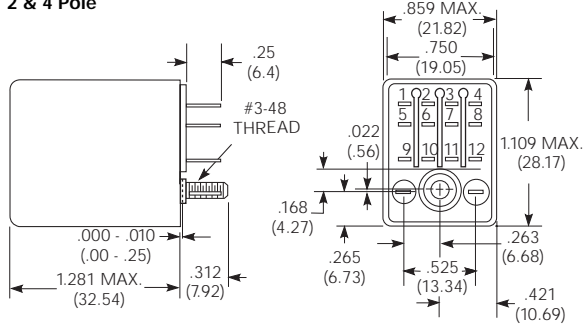
**Weight:** 1.6 oz. approx. (45g).



Outline Dimensions

Mounting Code 1 - KHAU and KHAX only.

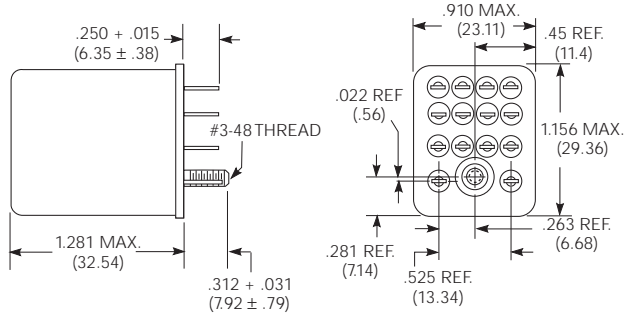
2 & 4 Pole



PC terminal models have rivet, not stud.  
Max. seated height in 27E006 socket is 1.37" (34.8mm).

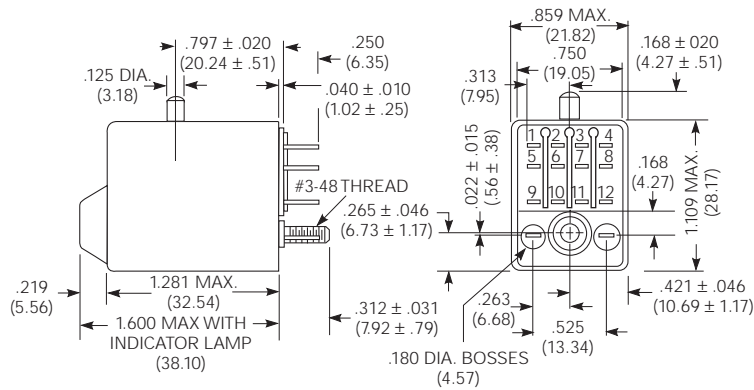
Mounting Code 1 - KHS only.

2 & 4 Pole

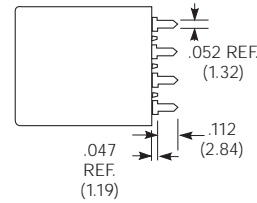


Class 1 Div. 2 Group A, B, C & D Hazards

Mounting Code 1 - Neon Indicator, Push-To-Test.



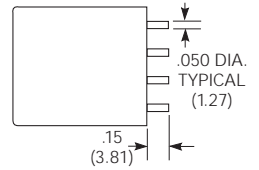
Printed Circuit Terminals



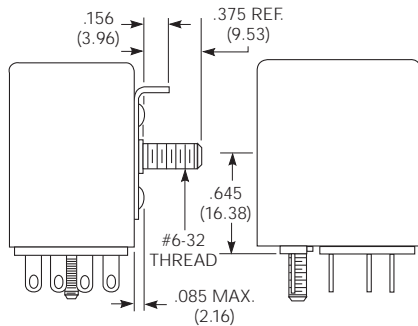
Printed circuit terminal thickness .022 (.558)

.200 (5.08) terminal length available on special order

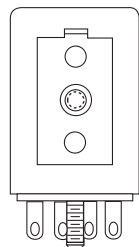
KHS Printed Circuit Terminals (Special Order)



Mounting Code 2 - Stud On Broad Side.

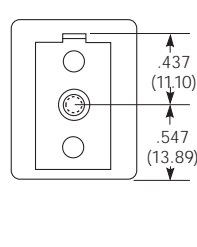


Mounting Code 3



Stud On Narrow Side

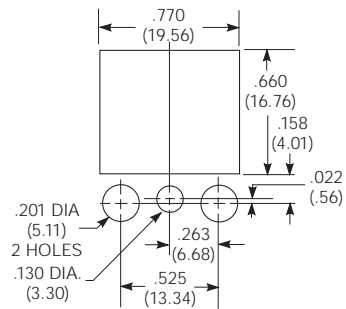
Mounting Code 4



Stud On End

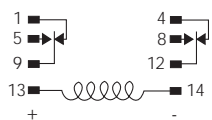
Recommended Chassis Cutout For Stud Mount

2 & 4 Pole

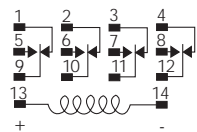


Wiring Diagrams (Bottom Views)

2 Pole

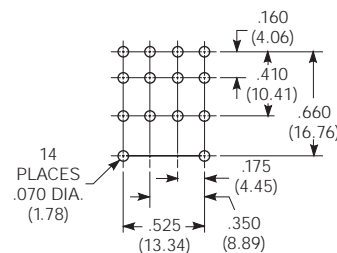


4 Pole



+ = Polarity for LED indicator or diode suppression if ordered special.

PC Board Layout (Bottom View)



For KHAE, KHAF Relays with PC terminals and sockets with PC terminals

