

## 100A LATCHING RELAY

- » Fully UC3 compliant per IEC 62055-31 annex C at 277 VAC
- » RoHS compliant
- » 4kV dielectric strength contacts to coil and contacts to position switch
- » Separate auxiliary contacts to detect relay state
- » Custom assemblies available with flexwire and/or copper straps, and/or with integrated shunt
- » Outline dimensions: (43.0 x 37.0 x 22.0)mm



### Contact Data [Click here for glossary of terms](#)

Rated load	100A 277Vac
Contact form	1A or 1B
Contact material	AgSnO <sub>2</sub>
Max. switching voltage	440 Vac
Max. switching current	100A
Max. AC switching power:	27,700VA
Electrical endurance	10,000 cycles
Mechanical endurance	100,000 cycles

### Characteristics [Click here for glossary of terms](#)

Insulation resistance	1,000MΩ (at 500VDC)
Dielectric strength:	
Coil to contact	4,000 Vac for 1 min.
Across open contacts	2,000 Vac for 1 min.
Contacts to position switch	4,000 Vac for 1 min.
Coil to position switch	2,500 Vac for 1 min.
Dielectric creepage	8.0mm
Ambient temperature	-40°C to +70°C
Ambient humidity	98%RH, +40°C
Vibration	1.5mm (DA), 10 to 55 Hz
Shock resistance:	
Functional*	10G
Destructive	100G
Unit weight	Approx. 75g
Coil termination	PCB

\* Unit may change state but is still functional.

### Coil Data [Click here for glossary of terms](#)

	Single Coil (Latching)	Dual Coil (Latching)
<b>Coil Consumption</b>	3W	6W
<b>Pulse Duration</b>	Min. 80ms	Min. 80ms

Nominal Coil Voltage	Minimum Operating Voltage	Coil Resistance (Ω ± 10%) @ 23°C	
		Single Coil (Latching)	Dual Coil (Latching)
6Vdc	4.8Vdc	12Ω	2 x 6Ω
9Vdc	7.2Vdc	27Ω	2 x 13.5Ω
12Vdc	9.6Vdc	48Ω	2 x 24Ω
24Vdc	19.2Vdc	192Ω	2 x 96Ω
48Vac	38.4Vac	768Ω	2 x 384Ω

## Ordering Information

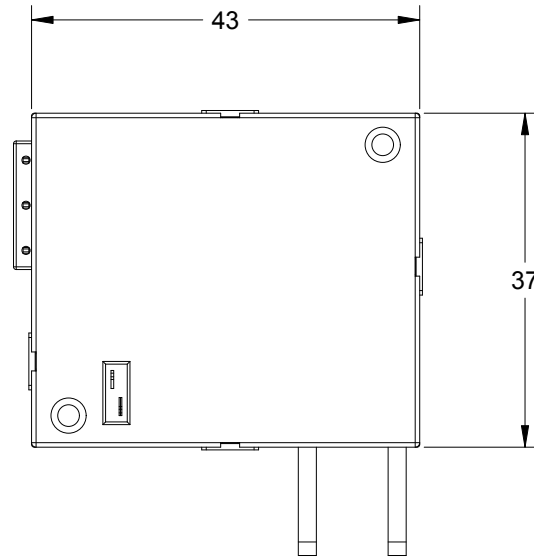
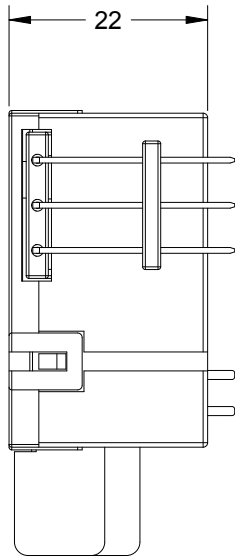
	<b>K126</b>	<b>A</b>	<b>-</b>	<b>D</b>	<b>012</b>	<b>P</b>	<b>-</b>	<b>1B</b>	<b>T</b>	<b>2</b>
<b>Relay Series:</b>										
<b>Terminal Type:</b>	A: See drawing below B: See drawing, pg 3 C: See drawing, pg 3 D: See drawing, pg 3									
<b>Coil Type:</b>	S: Single coil D: Dual coil									
<b>Coil Voltage<sup>1</sup>:</b>	6, 9, 12, 24, 48 Vdc									
<b>Coil Polarity:</b>	P: Positive N: Negative									
<b>Contact Form:</b>	1A: Form 1A – NO 1B: Form 1B – NC									
<b>Contact Material:</b>	T: AgSnO <sub>2</sub>									
<b>Contact Type:</b>	2: Dual contact									

<sup>1</sup> Coil voltage should be indicated in three digit format (6Vdc = 006)

## Dimensional Drawings

All dimensions in mm unless otherwise noted. For more information, please contact KG Technologies.

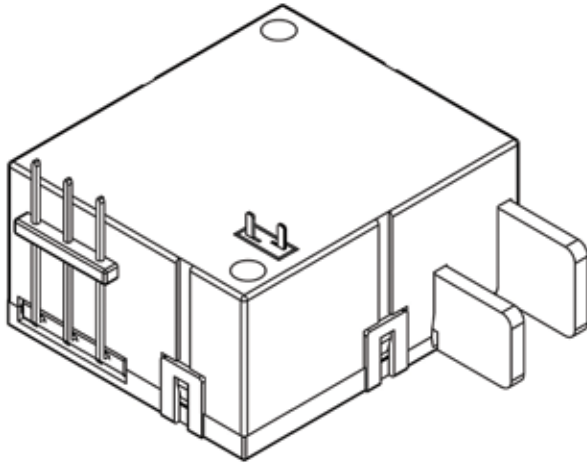
### A-Style Terminals



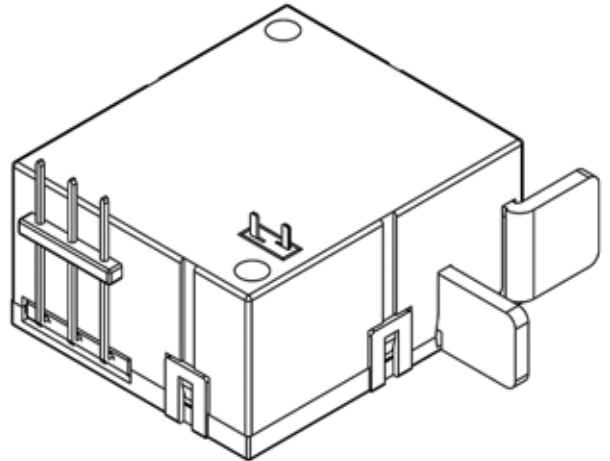
## Dimensional Drawings

### Standard Terminal Types

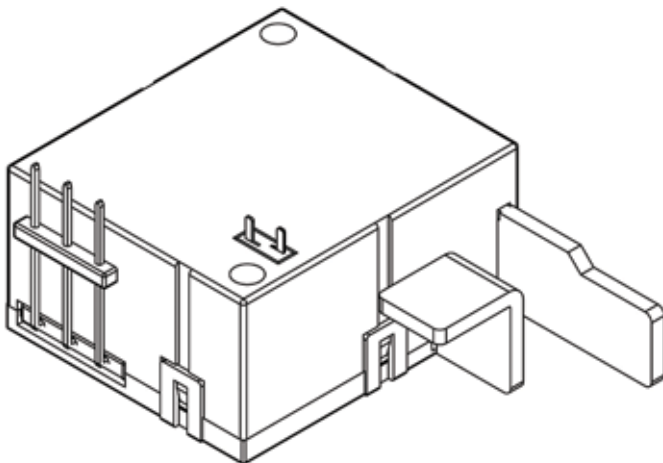
**K126 A**



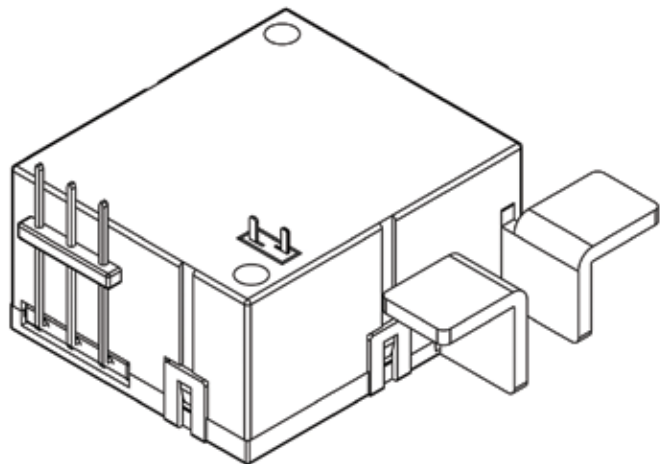
**K126 B**



**K126 C**

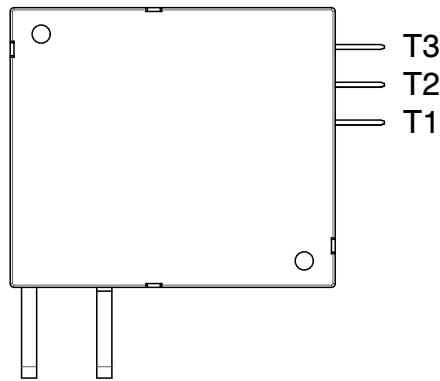


**K126 D**

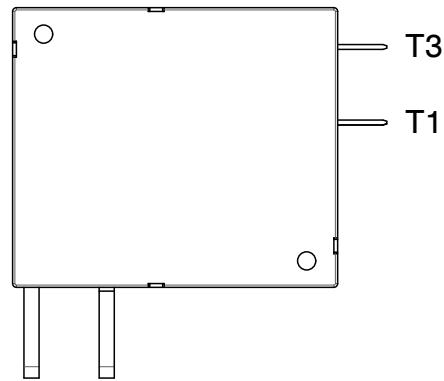


## Wiring Diagrams

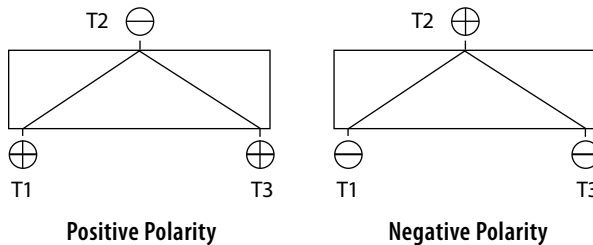
### Dual Coil



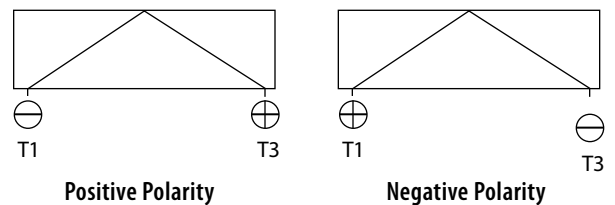
### Single Coil



### Dual Coil Connection



### Single Coil Connection



## Application Notes

**Dual Coil – Positive Polarity:** Place a negative connection on T2. Then apply an 80ms positive pulse to T1 to open the contacts or to T3 to close the contacts.

**Dual Coil – Negative Polarity:** Place a positive connection on T2. Then apply an 80ms negative pulse to T1 to open the contacts or to T3 to close the contacts.

**Single Coil – Positive Polarity:** Place a negative connection on T1. Then apply an 80ms positive pulse to T3 to close the contacts. Place a positive connection on T1. Then apply an 80ms negative pulse to T3 to open the contacts.

**Single Coil – Negative Polarity:** Place a positive connection on T1. Then apply an 80ms negative pulse to T3 to close the contacts. Place a negative connection on T1. Then apply an 80ms positive pulse to T3 to open the contacts.

## Additional Application Notes

- 1:** It is possible that during transit or final assembly the relay could change state. Therefore, it is recommended that all relays be set to the desired state via a power supply.
- 2:** In order to maintain an “Open” or “Closed” state of the relay, the coil voltage should reach the rated voltage. The pulse width should be 80ms minimum to ensure a proper change of state. DO NOT energize both T1 and T3 at the same time on a Dual Coil or energize the coil for longer than 1 minute (damage to the coil could occur).
- 3:** Relays without flex-wire cannot be tin-soldered. Moving or bending the terminals could cause damage to the internal structure of the relay.
- 4:** For definitions of terms used in this data sheet, see glossary at [www.kgtechnologies.net](http://www.kgtechnologies.net).

**Disclaimer:** This data sheet is for reference only. All specifications are subject to change without prior notice. KG Technologies, Inc. cannot predict every possible application for our relays. While we do our best to make our relays as versatile as possible, we highly recommend contacting our engineering team if you have any questions. KG Technologies, Inc. is not responsible for malfunctioning relays when operated outside the specified parameters given in this data sheet.