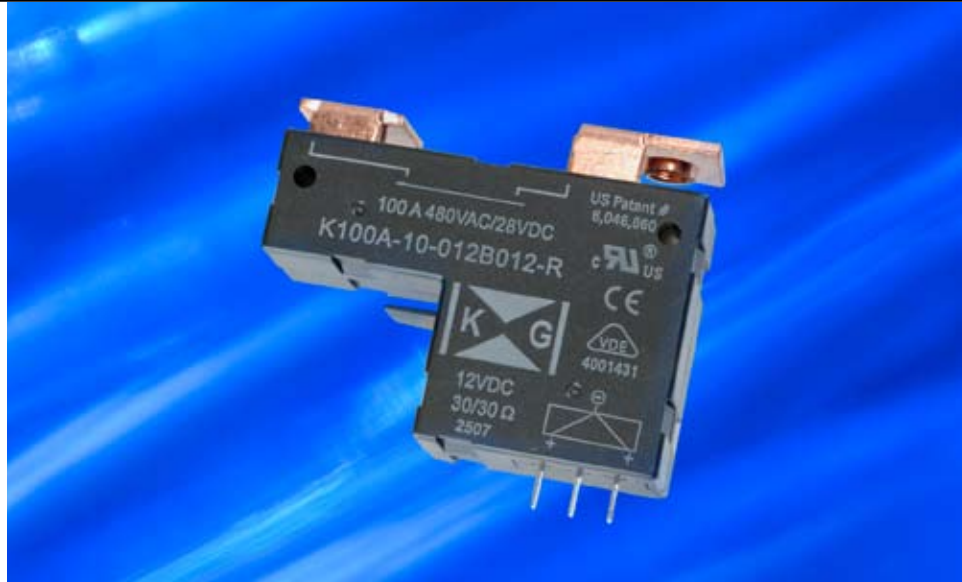


## 100A POWER LATCHING RELAY

- » 3mm contact gap
- » Patented linear drive unit
- » Patented double-make contact bridge
- » Short current path for overall lower resistance
- » Minimal power consumption from the coil
- » Outline dimensions: (60 x 40 x 21)mm
- » RoHS compliant



### Contact Data

Rated Load (FLA)	100A/480Vac
Contact arrangement	Form 1A
Contact material	AgSnO <sub>2</sub>
Initial contact resistance	50mΩ (1A@24Vdc)
Max. operating current	100A
Max. operating voltage	480Vac or 28Vdc
Max. switching capacity	100A
Electrical endurance	2 x 10 <sup>4</sup> ops
Mechanical endurance	1 x 10 <sup>6</sup> ops

### Characteristics

Insulation resistance	1,000 MΩ (at 500VDC)
Dielectric strength:	
Coil to contact	5,000 Vac for 1 min.
Across open contacts	5,000 Vac for 1 min.
Operate time	20ms
Release time	20ms
Ambient temperature	-40 to +70°C
Vibration	1.0mm (DA), 10~55 Hz
Shock:	
Functional	98m/s <sup>2</sup>
Mechanical	980m/s <sup>2</sup>
Terminals	(A, B, C) see drawings

### Coil Data

<b>Coil Consumption</b>	4.8W for 50mS
<b>Coil Voltage Rate</b>	6~48Vdc
<b>Pulse Duration</b>	50ms min.

Nominal Coil Voltage	Minimum Operating Voltage	Maximum Operating Voltage	Coil Resistance
6Vdc	4.8Vdc	7.2Vdc	2 x 8Ω
12Vdc	9.6Vdc	14.4Vdc	2 x 30Ω
24Vdc	19.2Vdc	28.8Vdc	2 x 125Ω
48Vdc	38.4Vdc	57.6Vdc	2 x 500Ω

## Ordering Information

<b>Relay Series:</b>	<b>K100</b>	<b>A</b>	<b>-D</b>	<b>012</b>	<b>Q</b>	<b>P</b>
<b>Terminal Type:</b>	A: See drawings B: See drawings C: See drawings X: Custom design <sup>1</sup>					
<b>Coil Type:</b>	S: Single coil D: Double coil					
<b>Coil Voltage<sup>2</sup>:</b>	6, 12, 24, 48 Vdc					
<b>Coil Terminal Type:</b>	Q: Quick connect R: PCB terminals					
<b>Coil Polarity:</b>	P = Positive N = Negative					

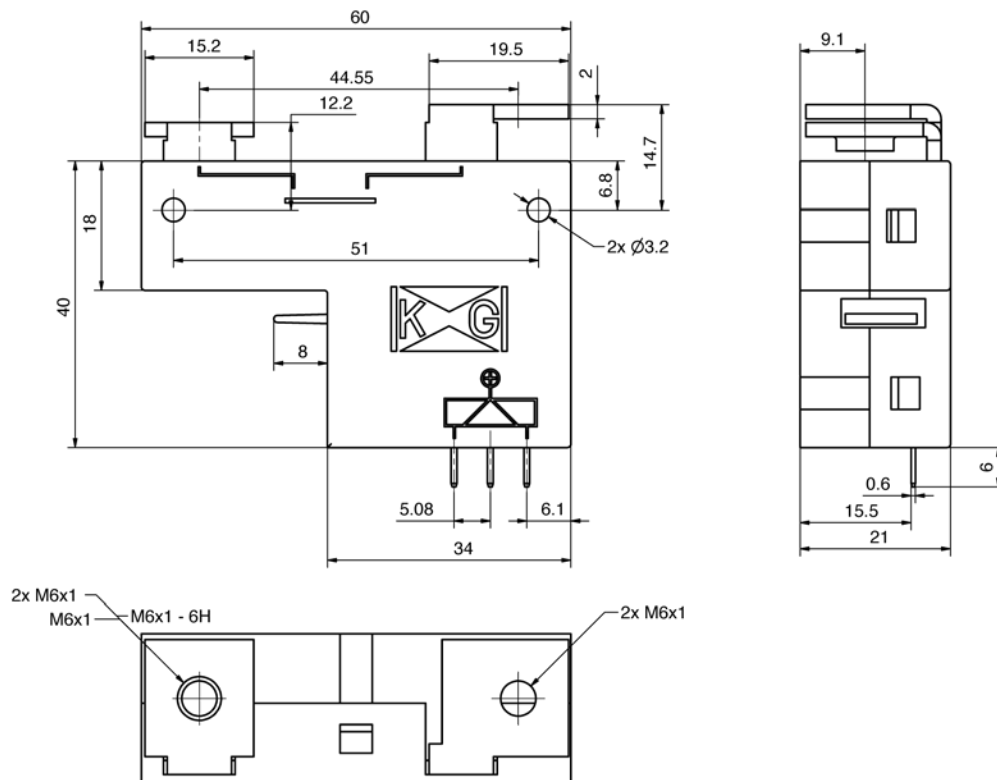
<sup>1</sup> For custom designs, please contact KG Technologies, Inc.

<sup>2</sup> Coil voltage should be indicated in three digit format (6Vdc = 006)

## Dimensional Drawings

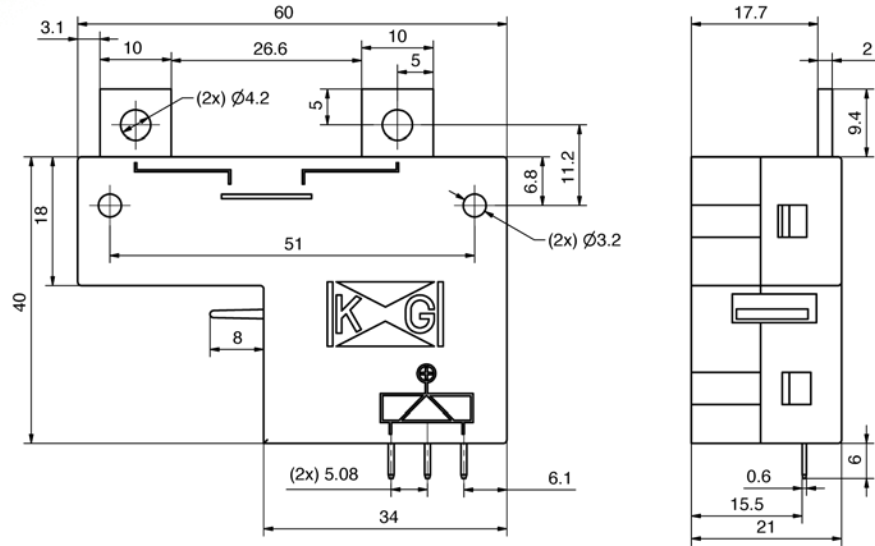
All dimensions in mm unless otherwise noted.

### A-Style Terminal

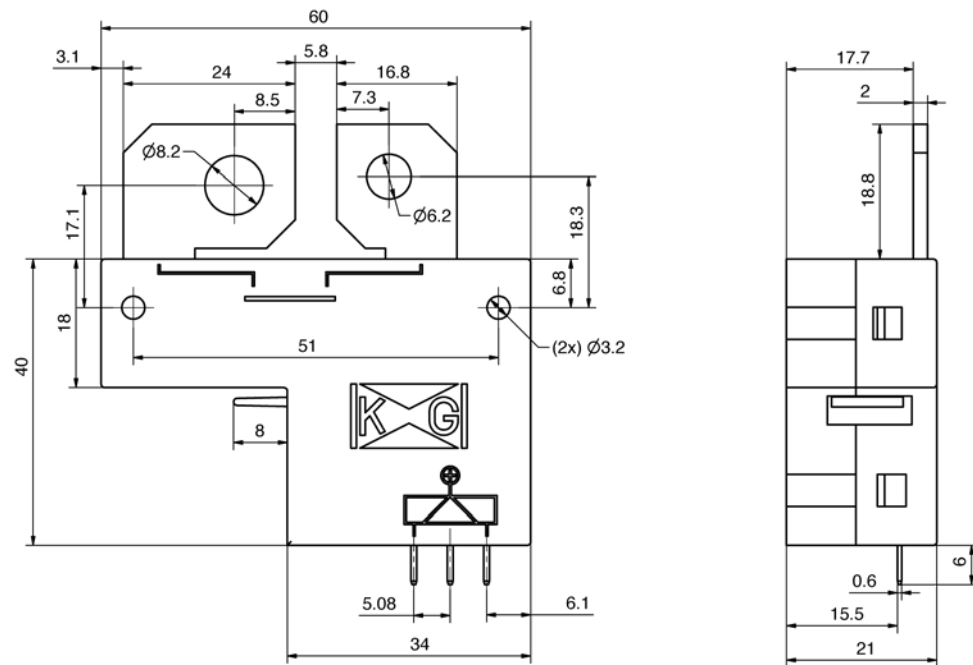


**Dimensional Drawings (cont'd)**

**B-Style Terminal**

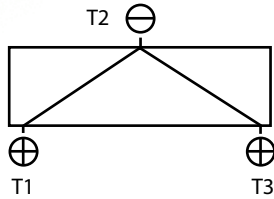


**C-Style Terminal**

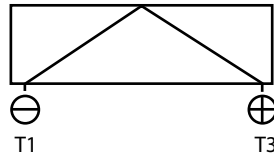


## Dimensional Drawings (cont'd)

### Dual Coil Connection



### Single Coil Connection



## Application Notes

- Method 1:** Place a negative connection on T2. Then apply a 50ms positive pulse to T1 to open the contacts or to T3 to close the contacts.
- Method 2:** Place a negative connection on T1. Then apply a 50ms positive pulse to T3 to close the relay. Reversing polarity will open the contacts.

## Additional Application Notes

- 1:** All relays are shipped in the "Closed" position. It is possible that during transit or final assembly the relay could change its state to the "Open" position. Therefore, it is recommended that all relays be set to the desired state of the relay 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 5 times the operating time 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 incur).
- 3:** Relays without flex-wire cannot be tin-soldered. Moving or bending the terminals could cause damage to the internal structure of the relay.

**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.