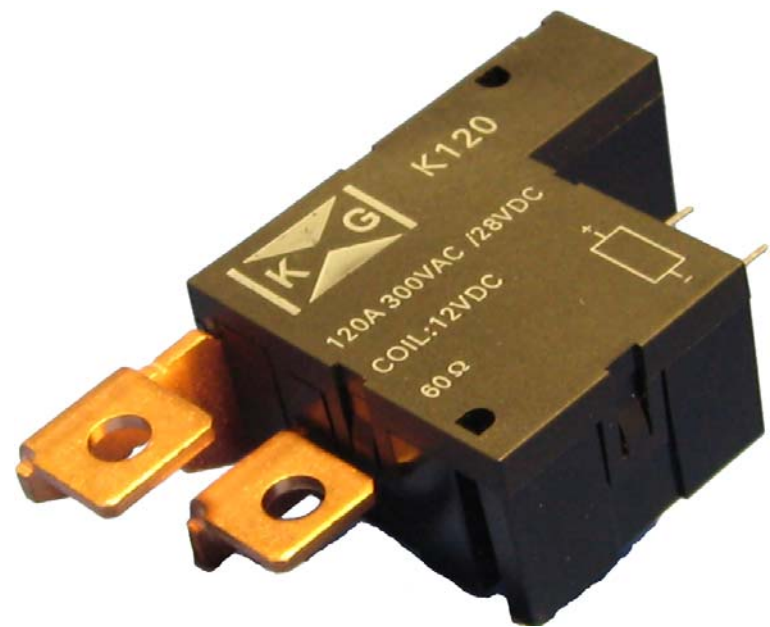


120A Power Latching Relay

- 120A Switching Capability
- IEC 62055-31:UC3 Compliant
- RoHS Compliant
- Available with Integrated Shunt
- 4kV Dielectric Strength
- Minimal power consumption from coil
- Custom assemblies available with flex-wire and/or copper straps.



Patent Pending

K120 Specifications

Contact Data		Characteristics	
Contact Arrangement	1A	Insulation resistance	1000MΩ (at 500VDC)
	120A / 277Vac	Dielectric strength:	
	120A / 28Vdc	coil to contact	4000 Vac for 1 min.
Contact material	AgCdO ₂	across open contacts	2000 Vac for 1 min.
Initial contact resistance	Min: 50mV (@ 10A)	Dielectric Creepage: SPST	≥8mm
	Max: 250mV (@ 10A)		
Rated Load	120A @ 277Vac		
	120A @ 28Vdc	Set time – latching	20ms Max.
		Reset time - latching	20ms Max.
Max. Switching Voltage	440VAC	Operating temperature	-40 C to + 70°C
Max. Switching Current	120A	Storage temperature	-40 C to + 100°C
Max. Switching Power	33240VA / 3360W	Humidity	98%RH, 40°C
		Vibration	1.0mm (DA), 10~55 Hz
Expected life:			
electrical (rated load)	1 x 10 ⁵ Operations (1 x Set + Reset)	Shock:	
mechanical	2 x 10 ⁶ Operations (1 x Set + Reset)	Functional	98m/s ² (20g)
		Destructive	980m/s ² (100g)
		Dimensions	52.0 x 43.0 x 22mm
		Unit Weight	Approx.100g
		Termination	PCB

Coil data

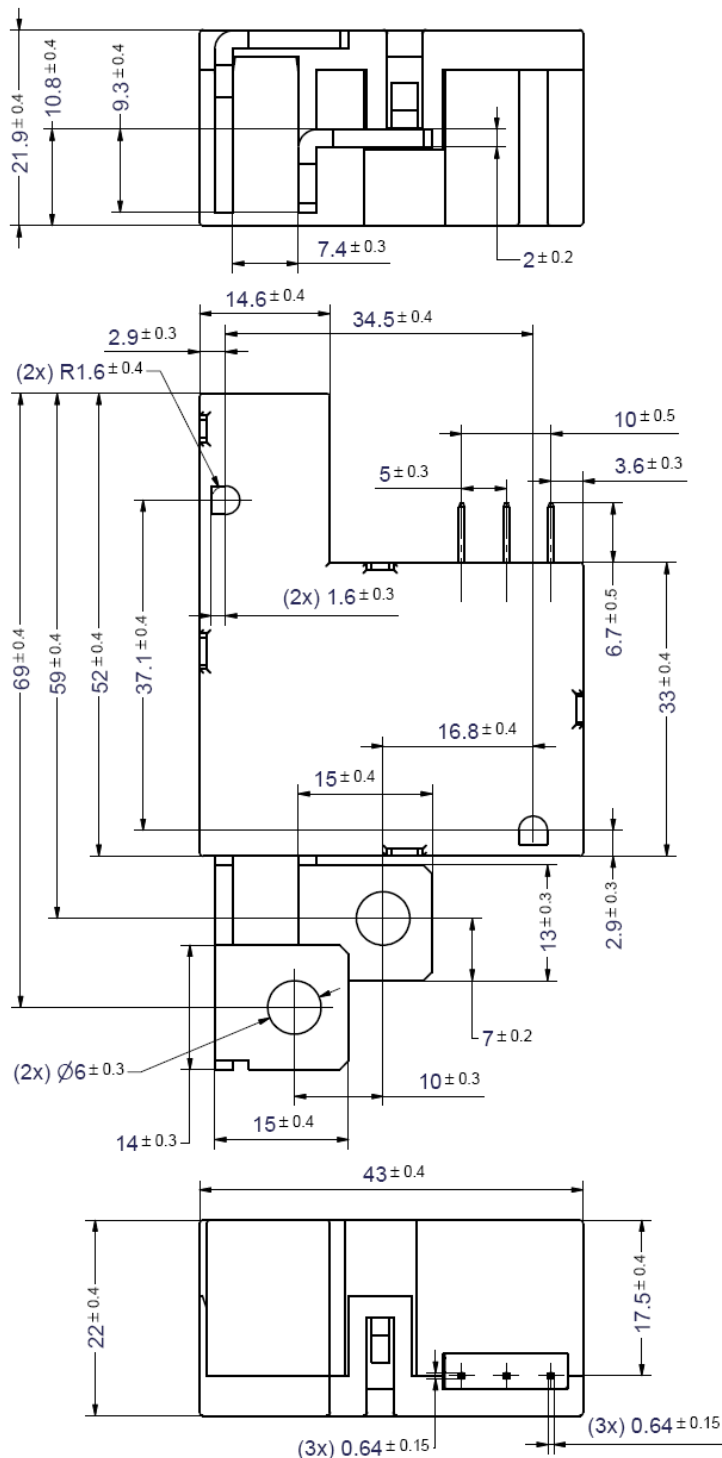
	Single Coil (Latching)	Dual Coil (Latching)	
Coil consumption	2.4W	4.8W	
Pulse Duration	Min.50ms (200mS Recommended)		
Nominal coil voltage	Min Operating voltage	Coil resistance (Ω ± 10%) @ 23°C	
		Single Coil (Latching)	Dual Coil (Latching)
6Vdc	4.8Vdc	16Ω	2 x 8Ω
12Vdc	9.6Vdc	60Ω	2 x 30Ω
24Vdc	19.2Vdc	250Ω	2 x 125Ω
48Vdc	48Vdc	1000 Ω	2 x 500 Ω

Ordering Information

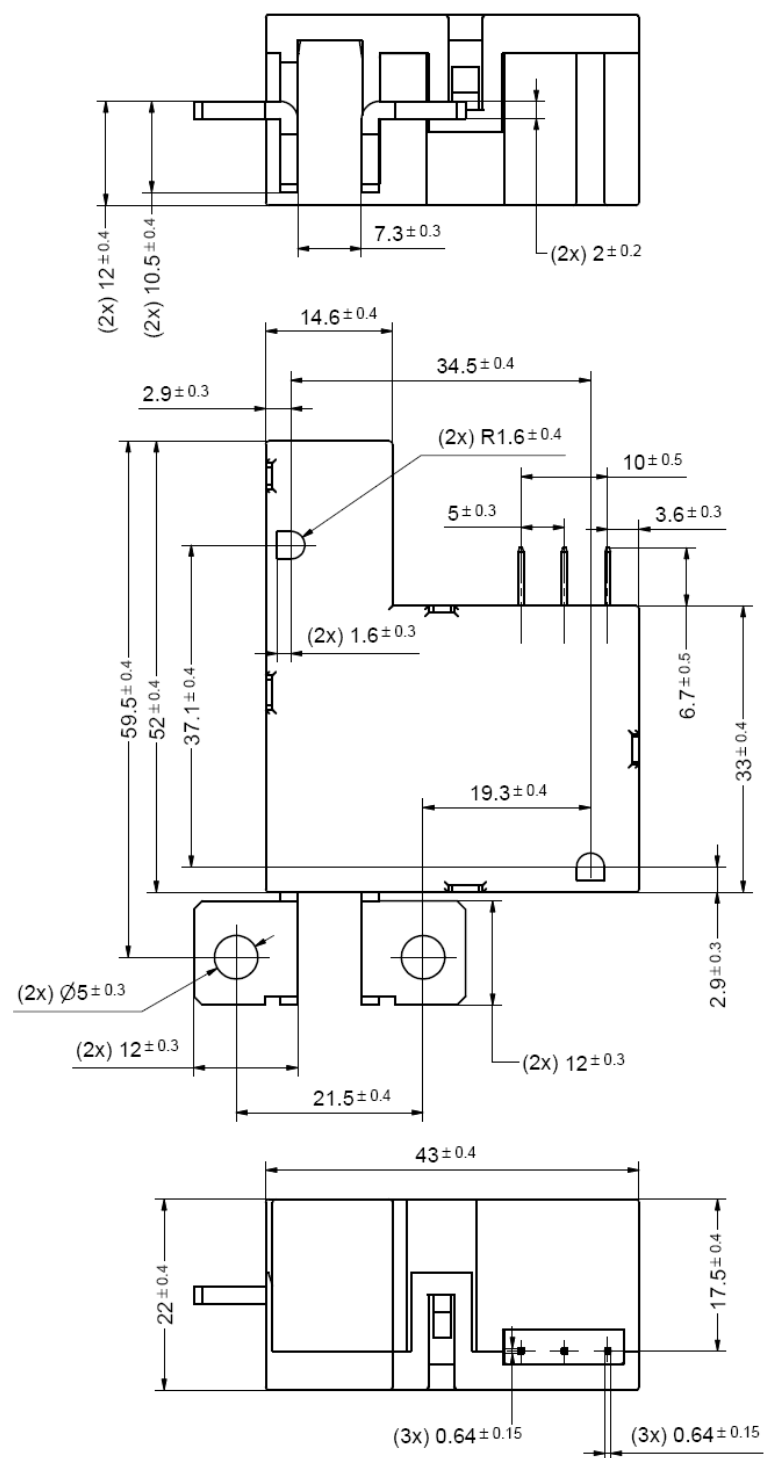
	K120	A	- D	12	A	XXX -	YYY	- R
Relay Series								
Terminal Type:	A: See drawings B: See drawings C: See drawings CS: Coming Soon D: See drawings E: See drawings L: Flex Wire							
Coil Type:	S: Single Coil D: Dual Coil							
Coil Voltage:	6, 12, 24, 48 VDC							
Flex wire Orientation:	A: See drawings B: See drawings C: See drawings D: See drawings SEE DRAWINGS Leave blank if no flex wires are used							
Flex Wire Length (mm) LEFT TERMINAL	Leave blank if no flex wires are used.							
Flex Wire Length (mm) RIGHT TERMINAL	Leave blank if no flex wires are used							
Special	N: Negative Coil Polarity R: RoHS Compliant							

DIMENSIONAL DRAWINGS

A Style Terminals

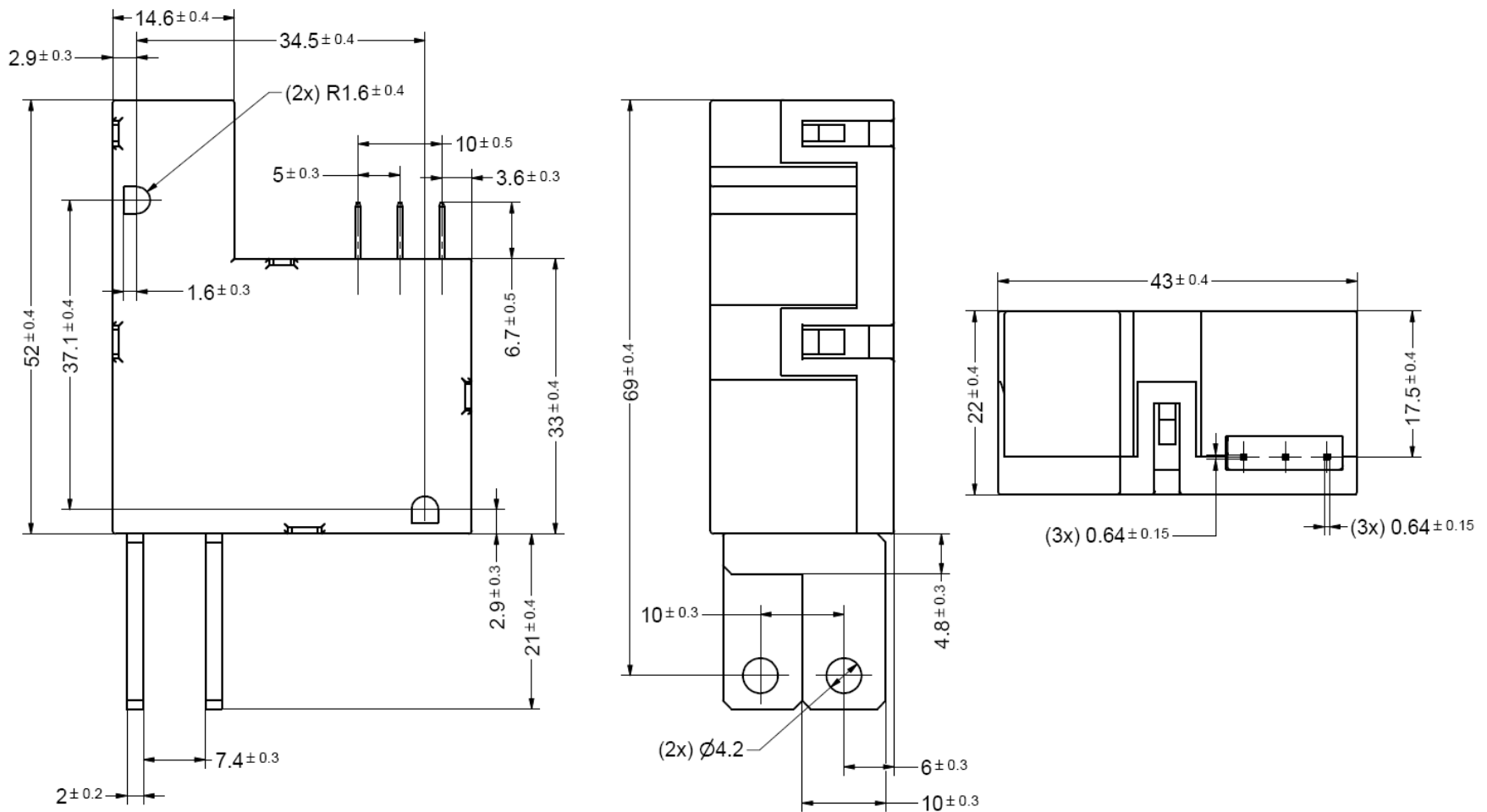


B Style Terminals

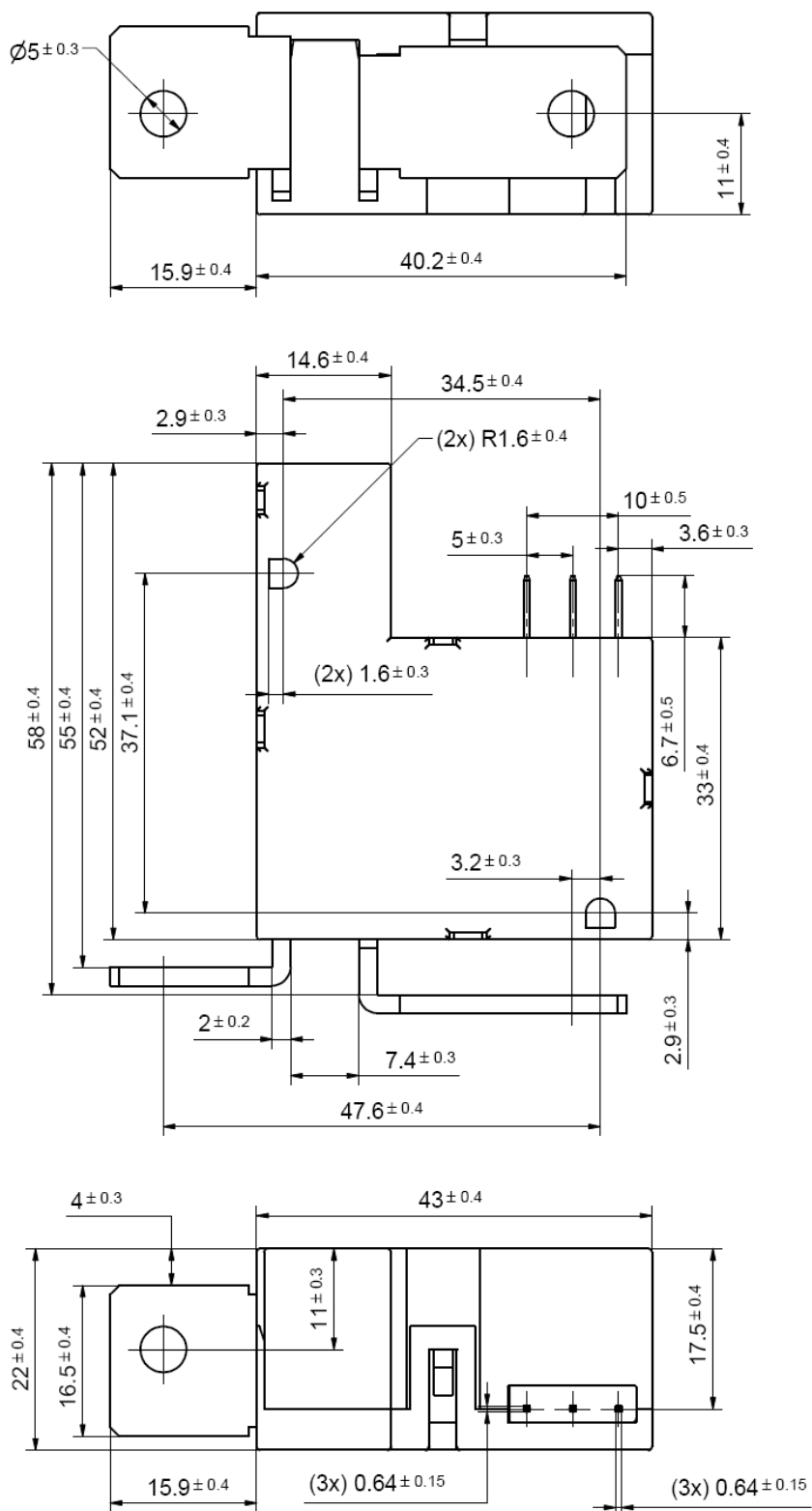


DIMENSIONAL DRAWINGS

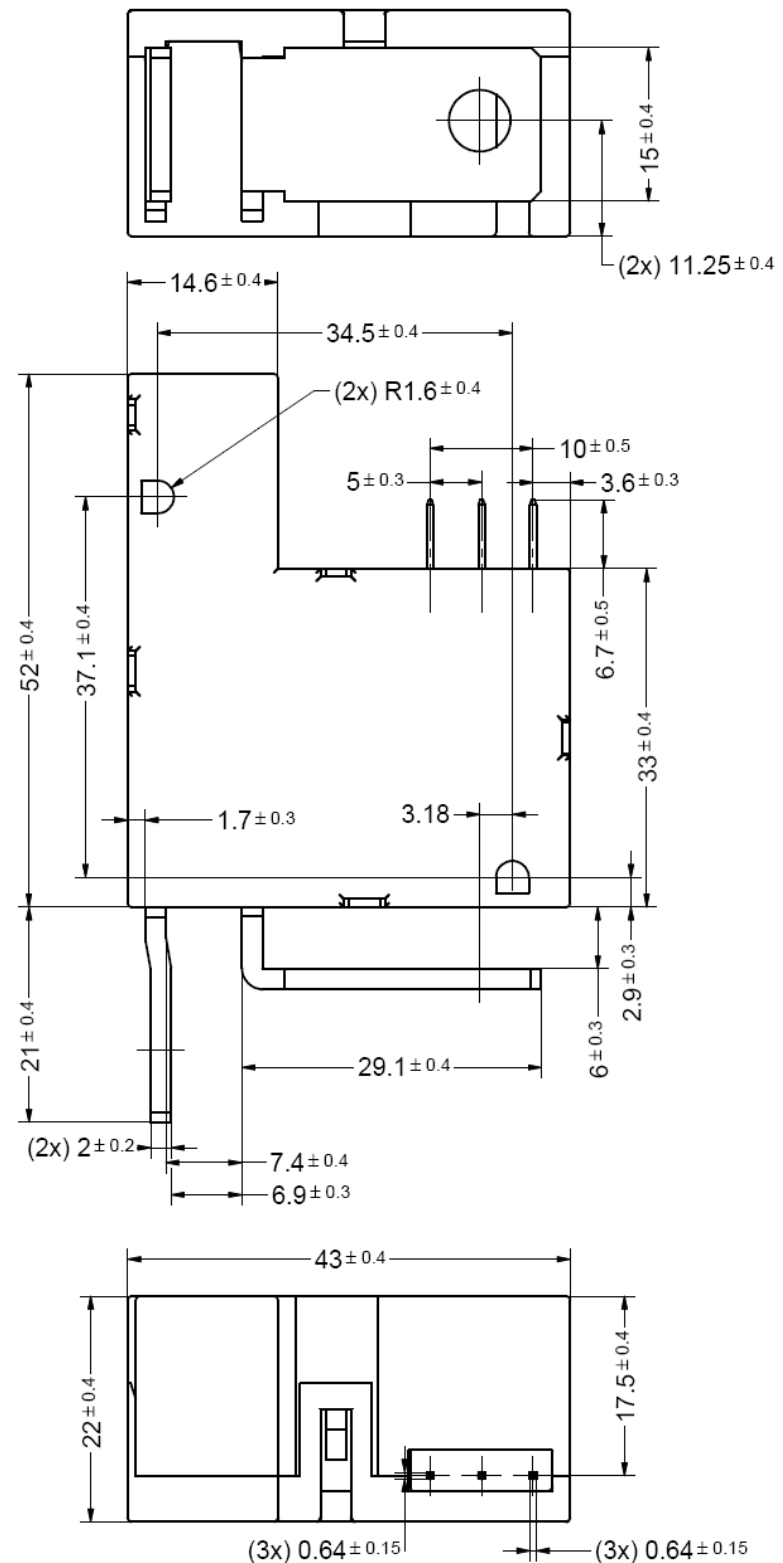
C Style Terminals



D Style Terminals

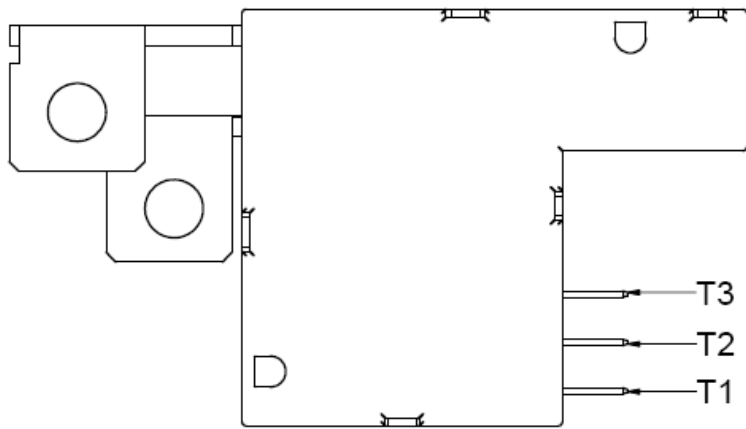


E Style Terminals



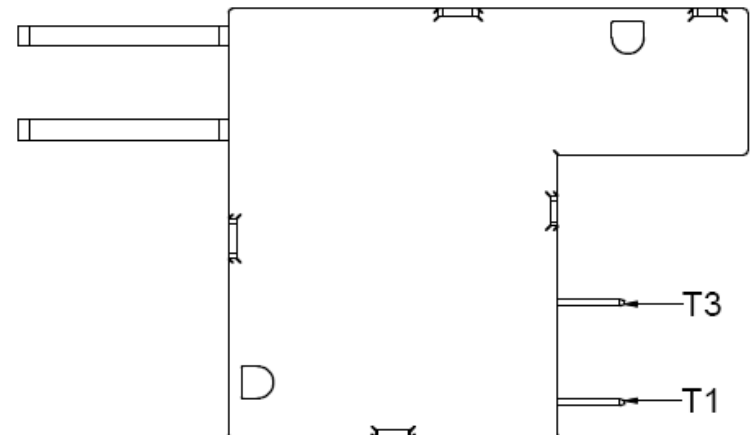
Application Notes

DUAL COIL



- OPEN CONTACTS:
 - Place Negative (-) on T2
 - Place Positive (+) on T1 (MIN 50ms, 200ms Recommended)
- CLOSE CONTACTS
 - Place Negative (-) on T2
 - Place Positive (+) on T3 (MIN 50ms, 200ms Recommended)

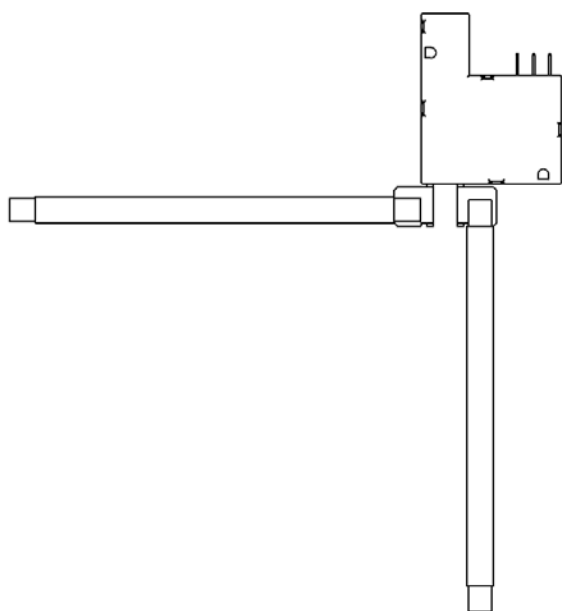
SINGLE COIL



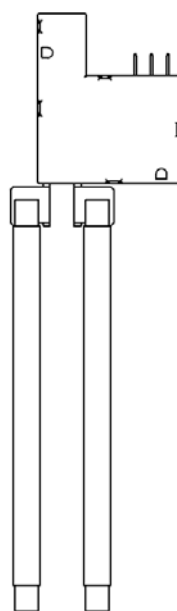
- OPEN CONTACTS:
 - Place Negative (-) on T3
 - Place Positive (+) on T1 (MIN 50ms, 200ms Recommended)
- CLOSE CONTACTS
 - Place Negative (-) on T1
 - Place Positive (+) on T3 (MIN 50ms, 200ms Recommended)

Flex Wire Orientation

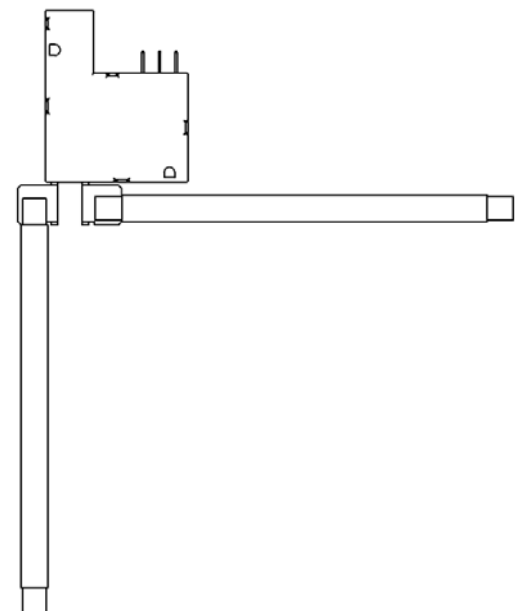
A



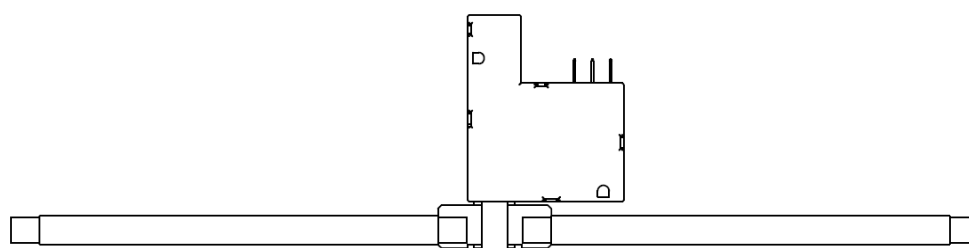
B



C



D



Disclaimer

This datasheet 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 datasheet.