

# KCA SERIES RELAY - NONLATCH - AC COIL

RELAY – NONLATCH – AC COIL 3PDT, 25 AMP



Applicable sockets: SO-1062-8917 SO-1057-8912 (D-MOUNT)

**Application Notes:** 102 007

All welded construction		
Contact arrangement	3 PDT	
Designed to the performance standards of	MIL-PRF-6106	

#### PRINCIPLE TECHNICAL CHARACTERISTICS

<ul> <li>Hermetically sealed, corrosion resistant metal can. Detail specifications and ordering data appear on the following pages.</li> </ul>		
• Dimensions	1.01in x 1.01in x 1.00in	
• Weight	0.188 lb max	
Contacts rated at	28 Vdc; 115 Vac, 400 Hz, 1Ø and 115/200 Vac, 400 Hz, 3Ø	

#### **CONTACT ELECTRICAL CHARACTERISTICS**

Contact rating per pole	Load current in Amps					
and load type [1]	@28 Vdc	@115 Vac 400 Hz	@115/200 Vac, 400 Hz, 3Ø	@115/200 Vac 60 Hz, 3Ø [7]	@230/400 Vac 400 Hz, 3Ø [8]	
Resistive [2]	25	25	25	2.5	5	
Inductive [3]	12	15	15	2.5	5	
Motor	10	10	10	2	2	
Lamp	5	5	5	1	2	
Overload	50	80	80	N/A	N/A	
Rupture	60	100	100	N/A	N/A	



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#### **COIL CHARACTERISTICS (VAC)**

CODE	Vac 400 Hz		Vac 50 thru 400 Hz		Vac 400 Hz
CODE	Е	F	J	К	Т
Nominal operating voltage	28	115	28	115	230
Maximum operating voltage	30	122	30	122	248
Maximum pickup voltage			•		
- Cold coil at +125° C	22	90	23	95	180
- During high temp test at +125° C	24.4	95.4	24.6	100	185
- During continuous current test at +125° C	25.6	103.5	25.9	105	195
Maximum drop-out voltage	10	30	10	30	60
Coil current maximum milliAmperes at +25° C	225	40	120	28	22

#### **GENERAL CHARACTERISTICS**

Temperature range	-70°C to +125°C
Minimum operating cycles (life) at rated load	50,000 [2]
Minimum operating cycles (life) at 25% rated load	200,000
Dielectric strength at sea level	
- All circuits to ground and circuit to circuit	1250 Vrms
- Coil to ground	1000 Vrms
Dielectric strength at altitude 80,000 ft	500 Vrms [4]
Insulation resistance	
- Initial (500 Vdc)	100 M Ω min
- After environmental tests (500 Vdc)	50 M Ω min
Sinusoidal vibration (A, D, E and W mounting)	0.12 d.a. / 10 to 70 Hz 30G / 70 to 3000 Hz
Sinusoidal vibration (J mounting)	0.12 d.a. / 10 to 57 Hz 20G /57 to 3000 Hz
Random vibration	
- Applicable specification	MIL-STD-202
- Method	214
- Test condition – A, D, E, and W mounting	1G (0.4G <sup>2</sup> /Hz, 50 to 2000 Hz)
- Test condition – J mounting	1E (0.2G <sup>2</sup> /Hz, 50 to 2000 Hz)
- Duration	15 minutes each plane
Shock (A, D, E and W mounting)	200G / 6 ms
Shock (J mounting)	100G / 6 ms
Maximum contact opening time under vibration and shock	10 μs
Operate time at nominal voltage @25°C	20 ms max
Release time at nominal voltage @25°C	50 ms max
Contact make bounce at nominal voltage @25°C	1 ms max
Contact release break bounce at nominal voltage @25°C	0.1 ms max
Weight maximum  Unless otherwise noted, the specified temperature range applies to a	0.188 lb

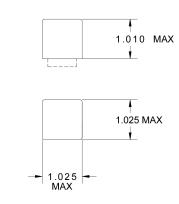
Unless otherwise noted, the specified temperature range applies to all relay characteristics.



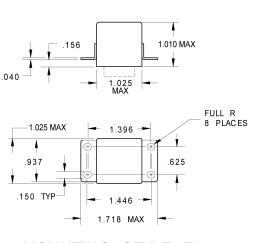
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Dimensions in inches Tolerances, unless otherwise specified .XXX  $\pm$  010 .XX  $\pm$  03

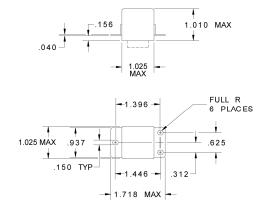
#### **MOUNTING STYLES**



#### MOUNTING STYLE A

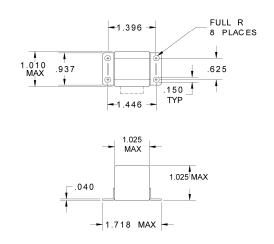


MOUNTING STYLE E

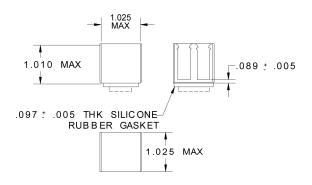


#### MOUNTING STYLE D

(THIS MOUNT WILL NOT MATE WITH LEACH SOCKET)



MOUNTING STYLE J



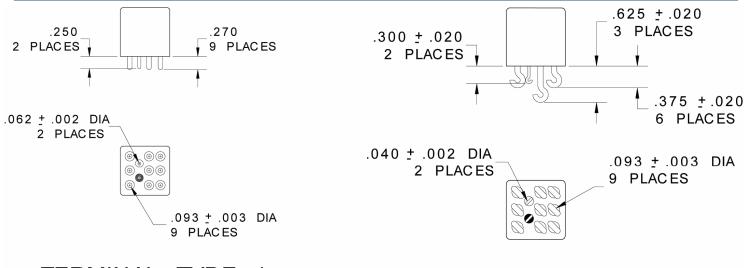
#### MOUNTING STYLE W

FOR USE WITH TRACK MOUNT SYSTEM. NOTE: TRACK SYSTEM NOT AVAILABLE FROM LEACH



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#### **TERMINAL TYPES**

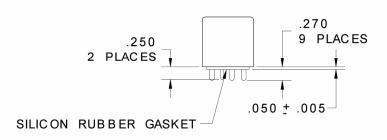


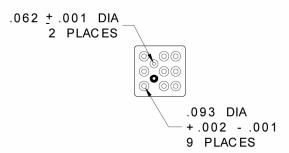
#### TERMINAL TYPE 1

FINISH: CASE- PAINTED LEACH BLUE TERMINALS- TIN/ LEAD

#### TERMINAL TYPE 2

FINISH: CASE- PAINTED LEACH BLUE TERMINALS- TIN/ LEAD





#### TERMINAL TYPE 4

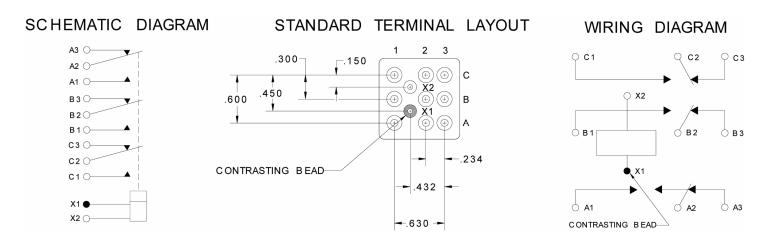
FINISH:

CASE- PAINTED LEACH BLUE PINS- GOLD PLATED



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#### **DIAGRAMS**



TOL: .XX ±.03; .XXX ±.010

#### **NUMBERING SYSTEM**

Basic series designation

1. Mounting styles (A, D, E, J, W)

2. Terminal types (1, 2, 4,) [1]

3. Coil voltage, see coil characteristics (E, F, J, K or T)

#### **NOTES**

- 1. Standard Intermediate current test applicable
- 2. DC inductive load 10,000 cycles, AC inductive load 20,000 cycles.
- 3. For full rated load, max. temp. and altitude use no. 12 wire or larger.
  - Relays to be mounted to limit mounting bracket temp. to 135° C
- 4. 500 Vrms with silicone gasket compressed, 350 Vrms all other conditions.
- 5. Reference military specification: MIL-PRF-6106 and MS27743.
- 6. Special models available upon request.
- 7. 60 Hz load life 10,000 cycles.
- Temperature range: Non- operating -62° C to +95° C
   Operating -54° C to +71° C
- 9. Time current relay characteristics per MIL-PRF-6106.

For any inquiries, please contact your local sales representative: leachcorp.com