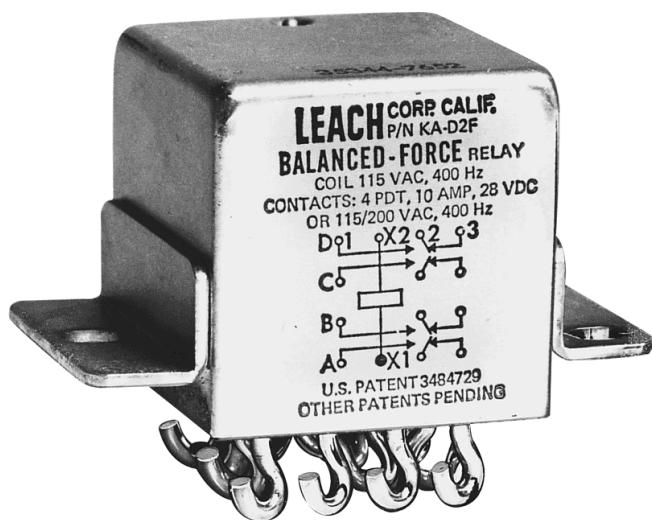


# ENGINEERING DATA SHEET

# SERIES KA

RELAY - NONLATCH - AC COIL  
4 PDT, 10 AMP



**APPLICATION NOTES:**

- [102](#)
- [007](#)
- [023](#)

**APPLICABLE SOCKET:**

[SO-1048-8776/8779](#)

115 Vac and 28 Vac, 400 Hz and 50/400 Hz coil voltages

All welded construction

Contact arrangement **4 PDT**

Qualified to **MIL-PRF-83536**

**PRINCIPLE TECHNICAL CHARACTERISTICS**

Contacts rated at **28 Vdc; 115 Vac, 400 Hz, 1Ø and 115/200 Vac, 400 Hz 3Ø**

Weight **0.155lb max**

Dimensions **1.10in x 1.10in x 1.00in**

Special models available upon request.

Hermetically sealed, corrosion resistant metal can.

**CONTACT ELECTRICAL CHARACTERISTICS**

Contact rating per pole and load type [1]	Load current in Amps				
	@28 Vdc	@115 Vac 400 Hz	@115/200 Vac 400 Hz, 3Ø	@115/200 Vac 60 Hz, 3Ø [2]	@230/400 Vac 400 Hz, 3Ø [8]
Resistive	10	10	10	2.5	5
Inductive [3]	8	8	8	2.5	5
Motor	4	4	4	2	2
Lamp	2	2	2	1	2
Overload	40	60	60	N/A	N/A
Rupture	50	80	80	N/A	N/A



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Data sheets are for initial product selection and comparison. Contact Esterline Power Systems prior to choosing a component.

**COIL CHARACTERISTICS (Vac)****SERIES KA**

CODE	Vac 400Hz		Vac 50 thru 400Hz		Vac 400Hz
	E	F	J	K	T [8]
Nominal operating voltage	28	115	28	115	230
Maximum operating voltage@+125°C	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	100,000
Minimum operating cycles (life) at 25% rated load	400,000
Dielectric strength at sea level - All circuits to ground and circuit to circuit	1250 Vrms
Dielectric strength at sea level - Coil to ground	1000 Vrms
Dielectric strength at altitude 80,000 ft	500 Vrms [5]
Insulation resistance - Initial (500 Vdc)	100 M Ω min
Insulation resistance - After environmental tests (500 Vdc)	50 M Ω min
Sinusoidal vibration (A and D mounting)	0.12DA / 10 to 70 Hz 30G / 70 to 3000 Hz
Sinusoidal vibration (G and J mounting)	0.12DA / 10 to 57 Hz 20G / 57 to 3000 Hz
Random vibration	
- Applicable specification	MIL-STD-202
- Method	214
- Test condition - A and D mounting	1G (0.4G <sup>2</sup> /Hz, 50 to 2000 Hz)
- Test condition - G and J mounting	1E (0.2G <sup>2</sup> /Hz, 50 to 2000 Hz)
- Duration	15 minutes each plane
Shock (A, D and W mounting)	200G / 6 ms
Shock (G and 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 [6]
Weight maximum	0.169lb

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

**NOTES**

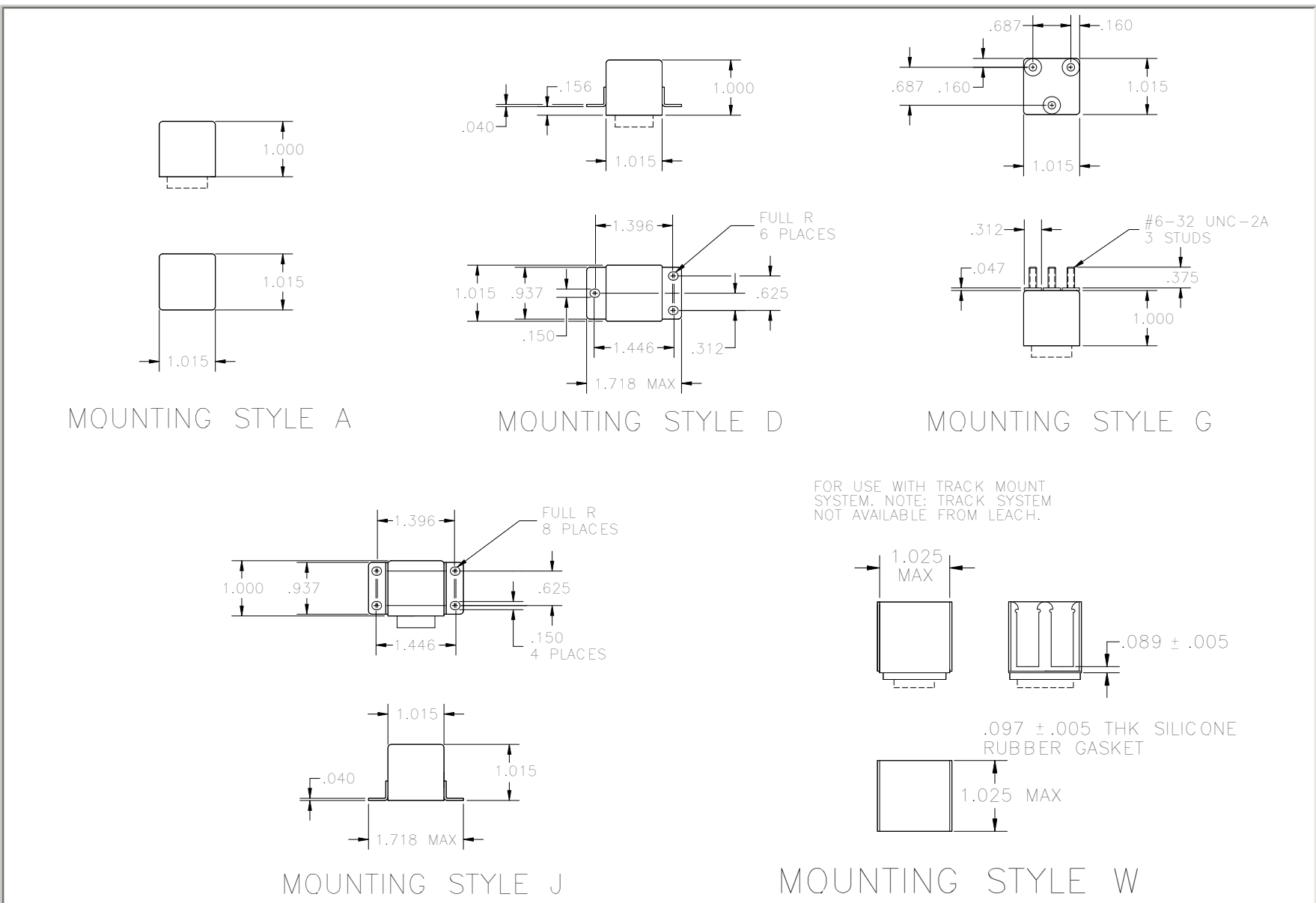
**SERIES KA**

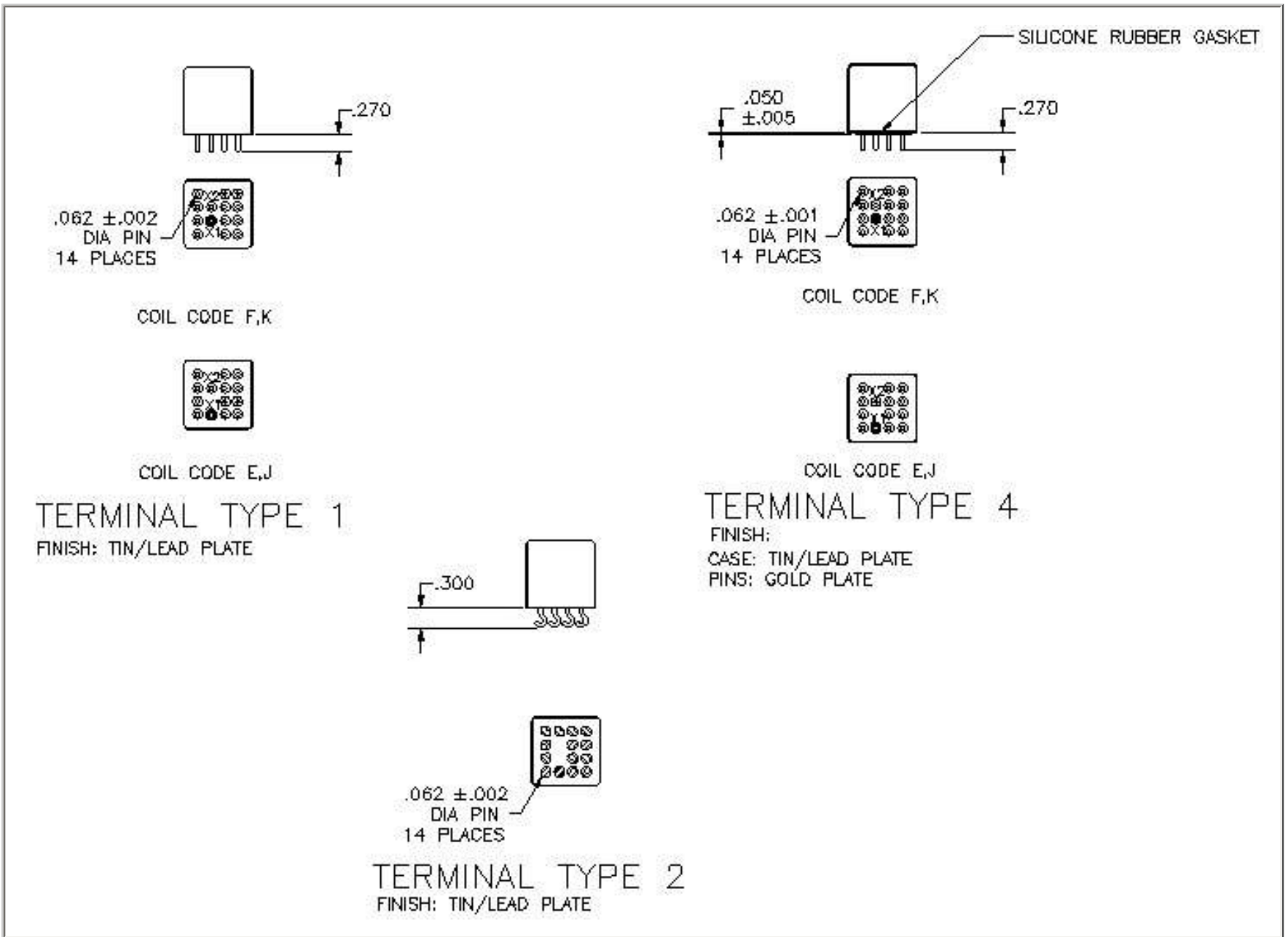
- [1] Standard Intermediate current test applicable.
- [2] 500 Vrms with silicone gasket compressed, 350 Vrms all other conditions.
- 3. Applicable military specification: MIL-R-83536.
- 4. Special models available: dry circuit, established reliability testing, etc.
- [5] Inductive load life, 20,000 cycles for AC and 10,000 cycles for DC.
- [6] 60 Hz load life, 10,000 cycles.
- 7. Time current relay characteristics per MIL-PRF-83536.
- 8. Temperature range:  
 Non-operating -62° C to +95° C  
 Operating -54° C to +71° C

**NUMBERING SYSTEM**

	KA	-	A	1	F
Basic series designation _____					
1-Mounting Style (A,D,G,J,W) _____					
2-Terminal Types (1,2,4) _____					
3-Coil Voltage see coil characteristics (E,F,J,K or T) _____					

**MOUNTING STYLES**





Standard Tolerance: .xx ±.03; .xxx ±.010

