



Applicable sockets: SO-1049-8772/8774

Application Notes: 102 007 023

SERIES JA RELAY – NONLATCH – AC COIL 2PDT, 10 AMP

 115 Vac and 28 Vac, 400 Hz and 50/400 Hz Coil Voltages All weld construction 		
Contact arrangement	2 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	0.088 lbs. max	
Dimensions	1.01 in x .51 in x 1.12 in	
Special models available upon request		

CONTACT ELECTRICAL CHARACTERISTICS

Contact rating par pala	Load current in Amps						
Contact rating per pole and load type [1]	@28 Vdc	@115 Vac 400 Hz	@115/200 Vac 400 Hz, 3Ø	@115/200 Vac 60 Hz, 3Ø [6]	@230/400 Vac 400 Hz, 3Ø [8]		
Resistive	10	10	10	2.5	5		
Inductive [5]	8	8	8	2.5	5		
Motor	4	4	4	2	2		
Lamp	2	2	-	-	-		
Overload	40	60	60	N/A	N/A		
Rupture	50	80	80	N/A	N/A		

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COIL CHARACTERISTICS (Vac)

	Vac 400 Hz		Vac 50 through 400 Hz		Vac 400 Hz [6]
CODE	E	F	J	K	Т
Nominal operating voltage	28	115	28	115	230
Maximum operating voltage	30	122	30	122	248
Maximum pickup voltage		-		1	
- 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 max milliAmperes at +25° C	240	40	100	24	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			
- Coil to ground	1000 Vrms			
Dielectric strength at altitude 80,000 ft	500 Vrms [2]			
Insulation resistance				
- Initial (500 Vdc)	100 M Ω min			
- After environmental tests (500 Vdc)	50 M Ω min			
Sinusoidal vibration (A, D and J mounting)	0.12 d.a. / 10 to 70 Hz 30G / 70 to 3000 Hz			
Sinusoidal vibration (G 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 and J mounting	1G (0.4G ² /Hz, 50 to 2000 Hz)			
- Test condition - G mounting (E in track)	1E (0.2G ² /Hz, 50 to 2000 Hz)			
- Duration	15 minutes each plane			
Shock (A, D and J mounting)	200G / 6 ms			
Shock (G mounting)	100G / 6 ms			
Maximum contact opening time under vibration and shock	10 µs			
Operate time at nominal voltage@25°C	15 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	0.088lb			

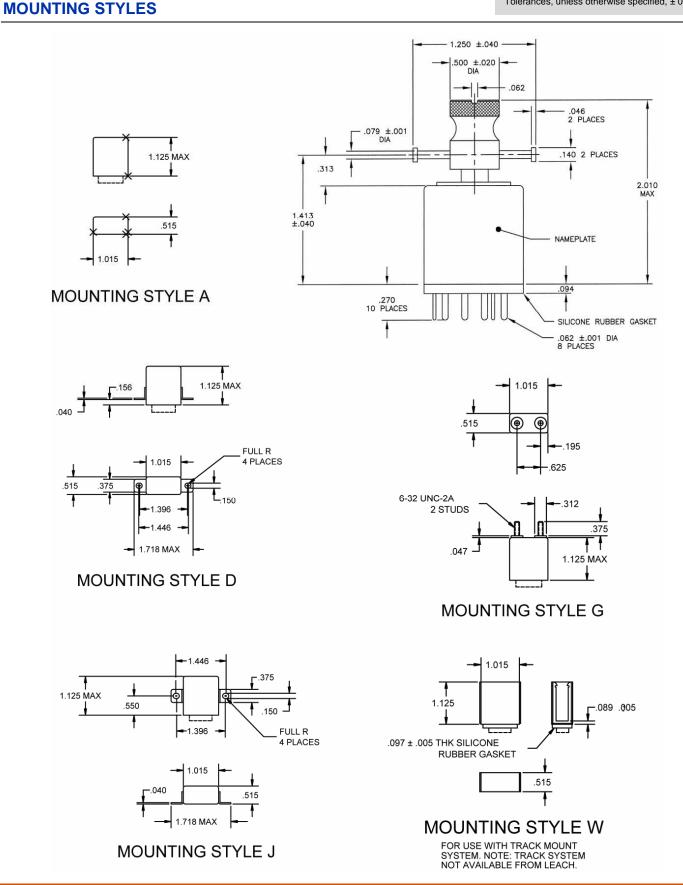
Unless otherwise noted, the specified temperature range applies to all relay characteristics.



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Dimensions in inches

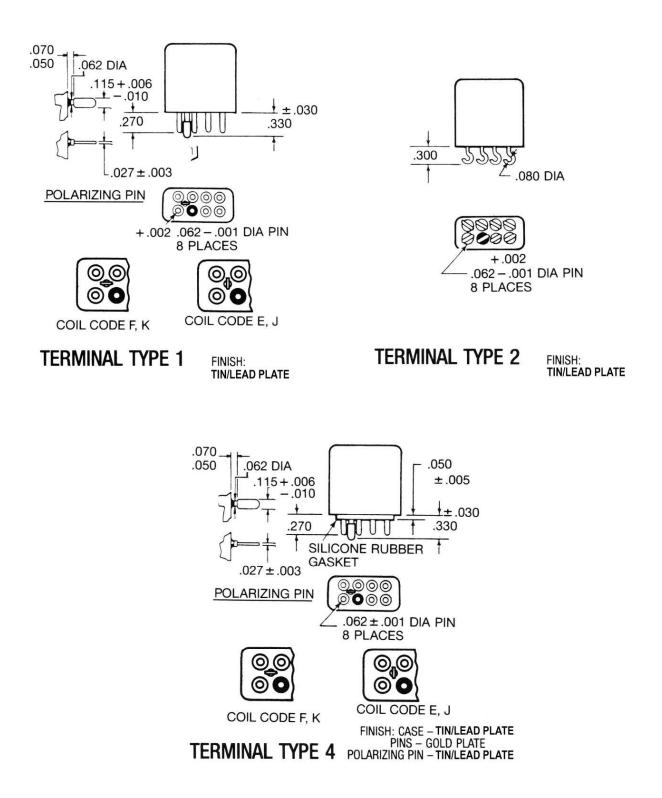
Tolerances, unless otherwise specified, ± 0.03 in





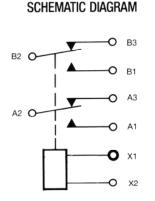
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TERMINAL TYPES

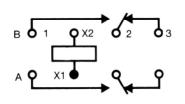


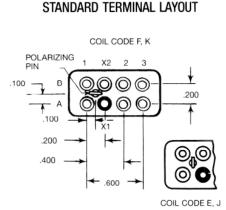


DIAGRAMS



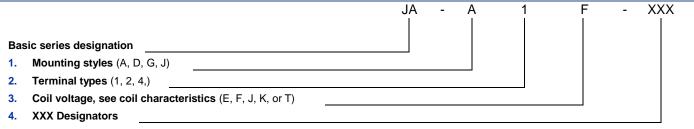
Wiring Diagram





STANDARD TOLERANCE: = ±.010 [1] COIL POLARITY NOT APPLICABLE TO AC VERSIONS.

NUMBERING SYSTEM



NOTES

- 1. Standard Intermediate current test applicable.
- 2. 500 Vrms with silicone gasket compressed, 350 Vrms all other conditions.
- 3. Applicable military specification: MIL-PRF-83536/11.
- 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-R-83536
- 8. Temperature range: Non-operating -62° C to +95° C Operating -54° C to +71° C

For any inquiries, please contact your local Esterline Power Systems representative http://www.esterline.com/powersystems/Contact/TheAmericas.aspx