

Applicable sockets:

Application Notes: 101 102 007

#### All welded construction

Contact arrangement

1 PST NO-DM Configuration in one inch cube

 Designed to the performance standards of MIL-PRF-6106

### PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at	28 Vdc			
• Weight	0.188 lb max			
• Dimensions	1.025in x 1.025in x 1.66in			
<ul> <li>Hermetically sealed, corrosion resistant metal can. Detail specifications and ordering data appear on the following pages.</li> </ul>				

### **CONTACT ELECTRICAL CHARACTERISTICS**

Contact rating per pole	Load current in Amps					
and load type [1]	@28 Vdc	@115 Vac 400 Hz				
Resistive	Resistive [2]	50				
Inductive	Inductive [3]	15 [3]				
Motor	Motor [3]	8 [3]				
Lamp	Lamp [3]	-				
Overload	Overload	200				
Rupture	Rupture	-				

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### COIL CHARACTERISTICS (Vdc)

CODE	Α	В	С	м	N [6]	R [6]	V [6]
Nominal operating voltage	28	12	6	48	28	12	6
Maximum operating voltage	29	14.5	7.3	50	29	14.5	7.3
Maximum pickup voltage							
- Cold coil at +125° C	18	9	4.5	36	18	9	4.5
- During high temp test at +125° C	19.8	9.9	5	38	19.8	9.9	5
- During continuous current test at +125° C	22.5	11.25	5.7	42	22.5	11.25	5.7
Maximum drop-out voltage	7	4.5	2.5	14	7	4.5	2.5
Coil resistance $\Omega \pm 10\% \pm 25^{\circ}$ C except type "C" & "V" $\pm 20\%$ , $\pm 10\%$	290	70	18	890	290	70	18

### **GENERAL CHARACTERISTICS**

Temperature range	-70°C to +125°C
Minimum operating cycles (life) at rated load	50,000 [3]
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	0.12 d.a. / 10 to 57 Hz 20G /57 to 2000 Hz
Random vibration	
- Applicable specification	MIL-STD-202
- Method	214
- Test condition	1E (0.2G <sup>2</sup> /Hz, 50 to 2000 Hz)
- Duration	15 minutes each plane
Shock	50G / 11 ms ± 1 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	15 ms max
Contact make bounce at nominal voltage @25°C	1 ms max
Contact release break bounce at nominal voltage @25°C	0.5 ms max [7]
Weight maximum	0.188 lb

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



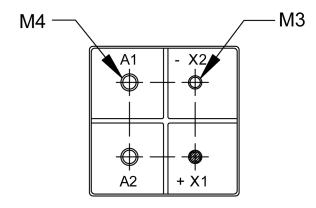
### SERIES KM RELAY – NONLATCH 1 PST – DM, 50 AMP

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

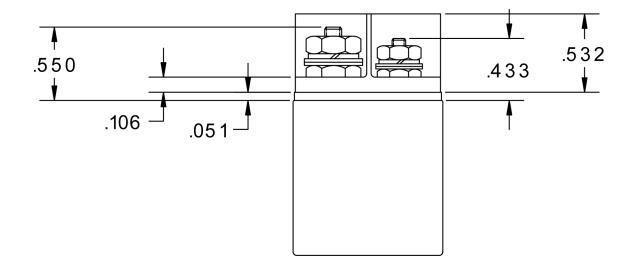
### **MOUNTING STYLES**

**TERMINAL TYPES** 

### **TERMINAL TYPE 5**



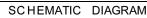
M3, M4 = Metric thread sizes

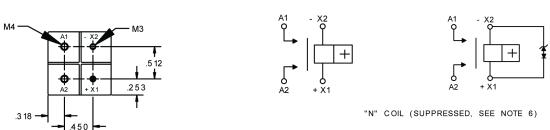


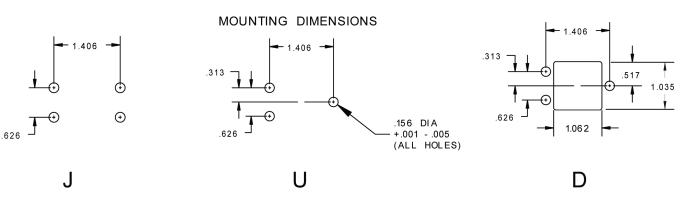
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### **MOUNTING DATA & SCHEMATIC DIAGRAM**

#### TERMINAL LAYOUT

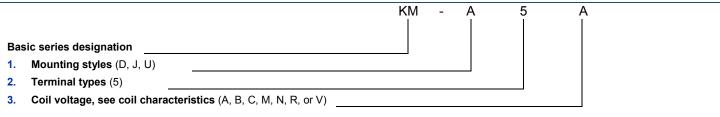






#### TOL: .XX ±.03; .XXX ±.010

### NUMBERING SYSTEM



### NOTES

- 1. Standard Intermediate current test applicable.
- 2. For full rated load max. temp. and altitude use No. 8 wire or larger. Relays to be mounted to limit mounting bracket temp. to 160 °C.
- 3. DC inductive load 10,000 cycles. Motor load 20,000 cycles, lamp load 10,000 cycles.
- 4. Applicable military specification: MIL-PRF-6106.
- 5. Special models available: i.e. high reliability testing, etc.
- 6. "N R & V" coils have back EMF suppression to 42 volts maximum.
- 7. Applies to "N, R & V" coils only.
- 8. Relay will not operate, but will not be damaged by application of reverse polarity to coil.

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