

ENGINEERING DATA SHEET

SERIES YC

RELAY - NONLATCH
3 PDT, LOW LEVEL TO 10 AMP



APPLICATION NOTES:

- [001](#)
- [002](#)
- [103B](#)
- [007](#)
- [023](#)

APPLICABLE SOCKET:

- [SO-1065-001](#)
- [SM-1001-003](#)

All welded construction

Contact arrangement **3 PDT**

Qualified to **MIL-PRF-6106**

PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at **Low level, 28 Vdc and 115/200 Vac, 400 Hz, 3Ø, case grounded**

Weight **0.062lb max**

Dimensions **.81in x .81in x .64in**

Hermetically sealed, corrosion resistant metal can.
Special models available upon request.

CONTACT ELECTRICAL CHARACTERISTICS

Contact rating per pole and load type [1]	Load current in Amps		
	@28 Vdc	@115 Vac, 400 Hz, 1Ø	@115/200 Vac, 400 Hz, 3Ø
Resistive	10	10	10
Inductive [2]	6	8	8
Motor	4	4	4
Lamp	2	2	-
Overload	30	60	60
Rupture	40	80	80
Low level [3]	-	-	-
Time current characteristics [4]	-	-	-



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Tel: (33) 3 87 97 31 01
Fax: (33) 3 87 97 96 86

ASIA
Units 602-603 6/F Lakeside 1
No.8 Science Park West Avenue
Phase Two, Hong Kong Science Park
Pak Shek Kok, Tai Po, N.T.
Hong Kong
Tel: (852) 2 191 3830
Fax: (852) 2 389 5803

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

COIL CHARACTERISTICS (Vdc)**SERIES YC**

CODE	A	B	C	M	N [5]	R [5]	V [5]
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	4.25	2.5
Coil resistance $\Omega \pm 10\%$ at +25° C except types "C" & "V" +20%, -10%	400	100	25	1275	400	100	25

GENERAL CHARACTERISTICS

Temperature range	-70°C to +125°C
Minimum operating cycles (life) at rated load	50,000
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 [6]
Insulation resistance	
- Initial (500 Vdc)	100 M Ω min
- 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 (E mounting in track)	0.06DA / 10 to 57 Hz 10G / 57 to 500 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 ² /Hz, 50 to 2000 Hz)
- Test condition - E, J and G mounting (E in track)	1E (0.2G ² /Hz, 50 to 2000 Hz)
- Duration	15 minutes each plane
Shock (A and D mounting)	200G / 6 ms
Shock (E mounting in track)	50G / 11 ms
Shock (G and J mounting)	100G / 6 ms
Maximum contact opening time under vibration and shock	10 μ s
Operate time at nominal voltage @25°C	6 ms max
Release time at nominal voltage @25°C	6 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 [7]
Weight maximum	0.062lb

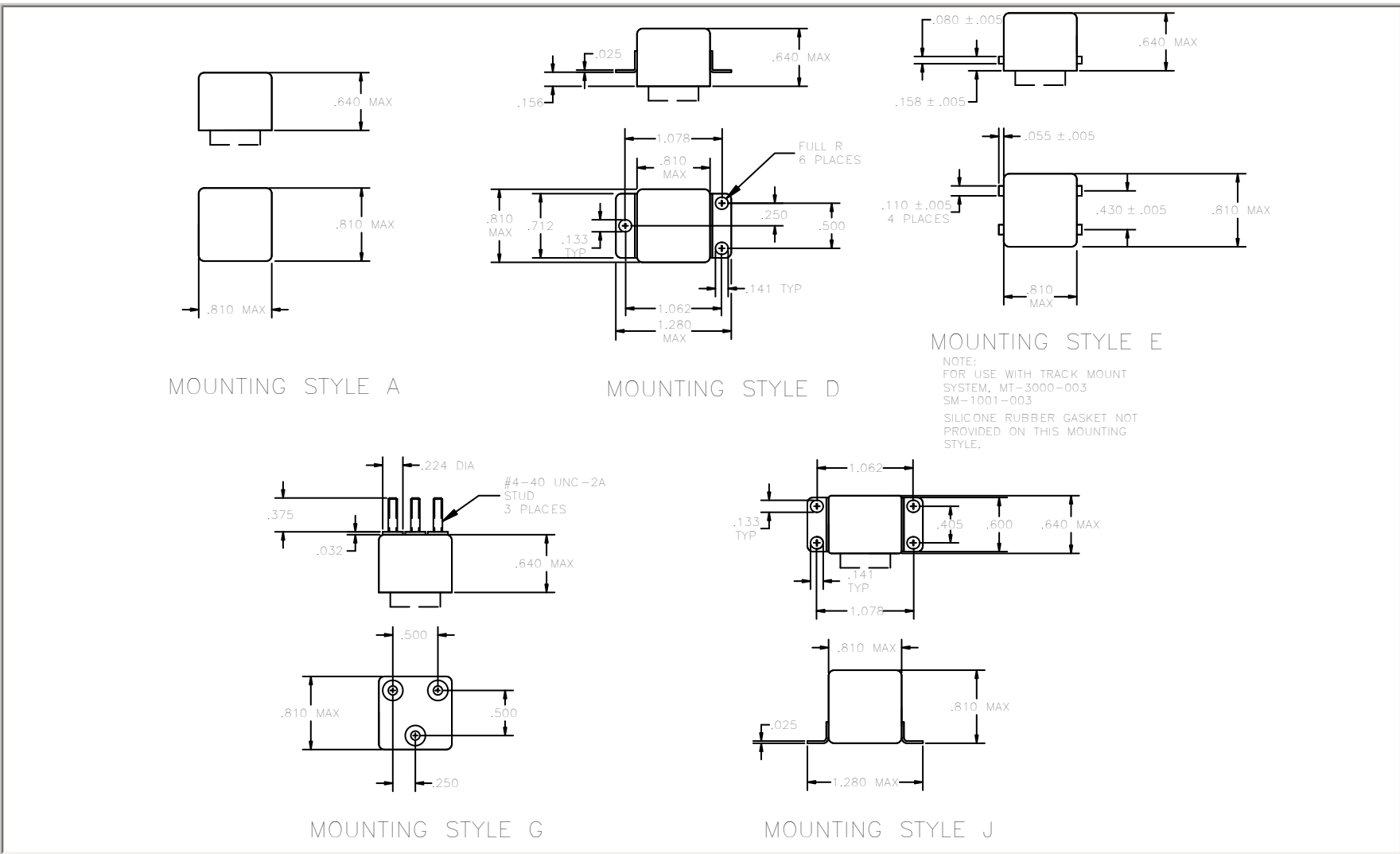
Unless otherwise noted, the specified temperature range applies to all relay characteristics.

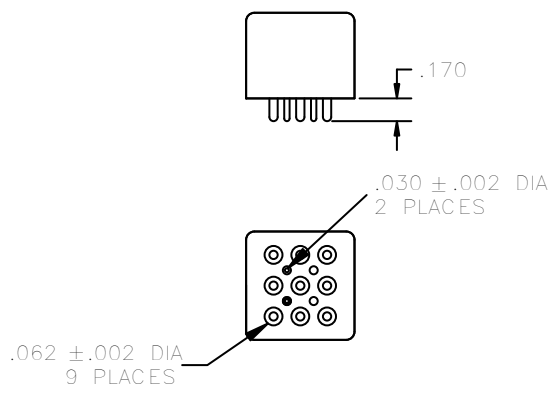
- [1] Standard Intermediate current test applicable. Relay can also switch low level load while switching any of the other rated loads on adjacent contacts.
- [2] Inductive load life, 10,000 cycles.
- [3] Low level endurance test: contact load of 10 to 50 millivolt, 10 to 50 microamp, 100 Ohm max. contact resistance.
- [4] Refer to MIL-PRF-6106 for details.
- [5] "N," "R," & "V" coil have back EMF suppression to 42 volts maximum.
- [6] 500 Vrms with silicone gasket compressed, all other conditions 250 Vrms coil to case, 350 Vrms all other points.
- [7] Applicable to Type "N," "R" & "V" coils.
- 8. Reference MIL-PRF-6106.
- 9. Relay will not operate, but will not be damaged by application of reverse polarity to coil.

NUMBERING SYSTEM

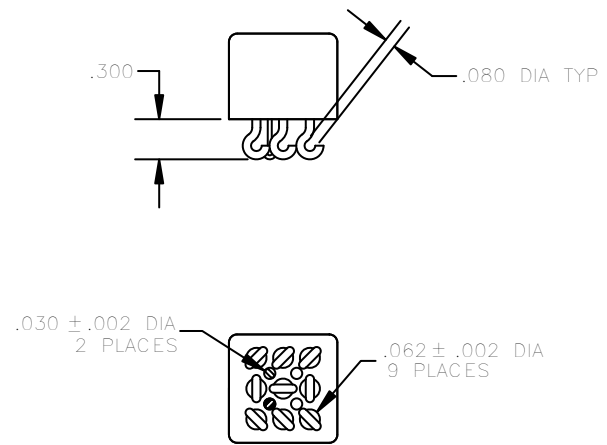
	YC	-	A	1	A
Basic series designation _____					
1-Mounting Style (A,D,E,G,J) _____					
2-Terminal Types (1,2,4) _____					
3-Coil Voltage see coil characteristics (A,B,C,M,N,R or V) _____					

MOUNTING STYLES

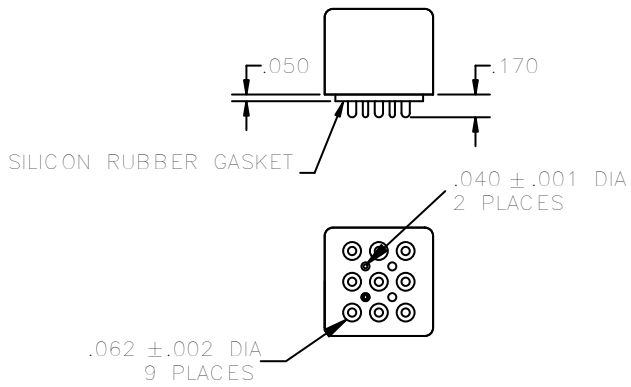




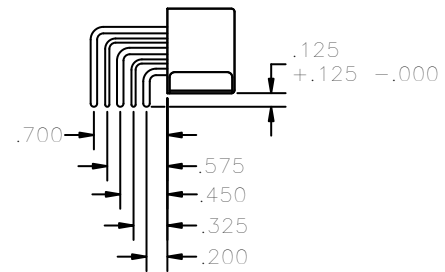
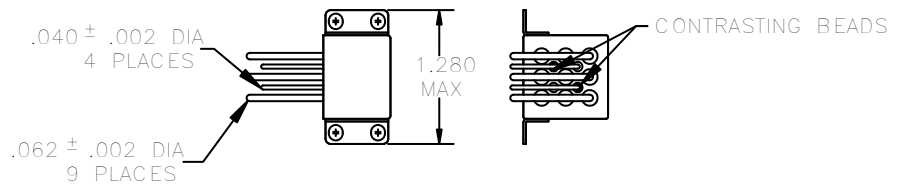
TERMINAL TYPE 1
FINISH:
BODY-LEACH BLUE
TERMINALS-TIN/LEAD



TERMINAL TYPE 2
FINISH:
BODY-LEACH BLUE
TERMINALS-TIN/LEAD



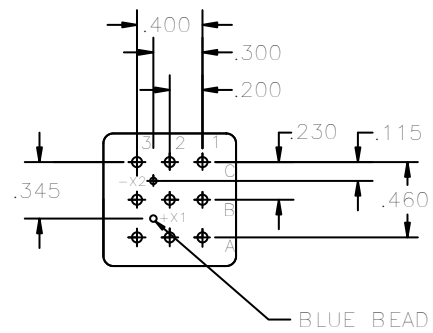
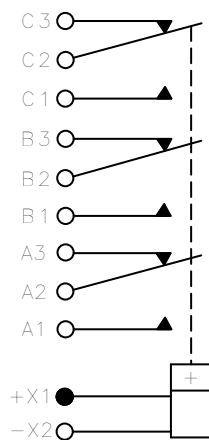
TERMINAL TYPE 4
FINISH:
BODY-LEACH BLUE
TERMINALS-GOLD PLATED



TERMINAL TYPE 7
FINISH:
BODY-LEACH BLUE
TERMINALS-TIN/LEAD

SCHEMATIC DIAGRAM

STANDARD TERMINAL LAYOUT



STD. TOL: .XX ±.03; .XXX ±.010

[1] COIL POLARITY NOT APPLICABLE