YA SERIES
RELAY – NONLATCH – AC COIL
4PDT, LOW LEVEL TO 5 AMP

- **All welded construction**
- **Contact arrangement** — **4 PDT**
- **Meets the standards and requirements of** — **MIL-PRF-83536**

Applicable sockets:
SO-1066-10385/10386

Application Notes:
102
007

PRINCIPLE TECHNICAL CHARACTERISTICS

- **Contacts rated at** — Low level, 28 Vdc and 115/200 Vac, 400 Hz, 3Ø, case grounded
- **Weight** — 0.066 lb max
- **Dimensions** — 0.81 in x 0.81 in x 0.64 in
- **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, 1Ø	115/200 Vac, 400 Hz, 3Ø
Resistive	5	5	5
Inductive [2]	3	5	5
Motor	2	3	3
Lamp	1	1	-
Overload	20	30	30
Rupture	25	40	40
Low level [3]	-	-	-
Time current characteristics [4]	-	-	-

COIL CHARACTERISTICS (Vdc)

	Vac 400 Hz	Vac 50 thru 400 Hz	
CODE	**F**	**J**	**K**
Nominal operating voltage	115	28	115
Maximum operating voltage	122	30	122
Maximum pickup voltage			
- Cold coil at +85° C	90	23	95
- During high temp test at +85° C	95.4	24.6	100
- During continuous current test at +85° C	103.5	25.9	105
Maximum drop-out voltage	30	10	30
Coil current maximum milliAmperes at +25° C	40	120	28

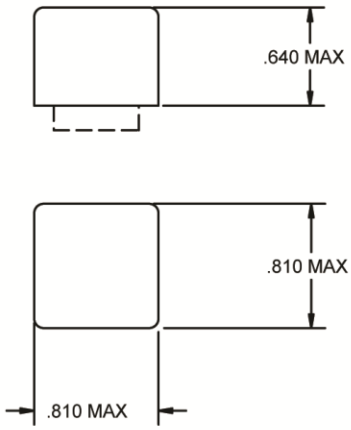
GENERAL CHARACTERISTICS

Temperature range	-70°C to 85°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	1050 Vrms
Dielectric strength at sea level - Coil to ground	1050 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)	0.12 d.a. / 10 to 70 Hz 30G / 70 to 3000 Hz
Sinusoidal vibration (G and 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 and D mounting	1G ($0.4G^2$ /Hz, 50 to 2000 Hz)
- Test condition - G and J mounting	1E ($0.2G^2$ /Hz, 50 to 2000 Hz)
- Duration	15 minutes each plane
Shock (A and D 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	15 ms max
Release time at nominal voltage@25°C	25 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

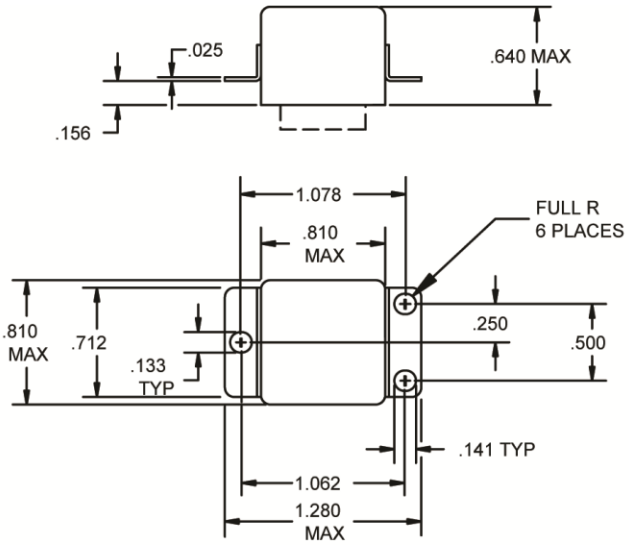
Unless otherwise noted, the specified temperature range applies to all relay characteristics.

Dimensions in inches
Tolerances, unless otherwise specified, XX ± 0.03 in., XXX ± 0.010

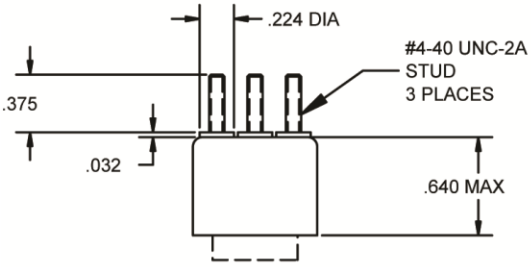
MOUNTING STYLES

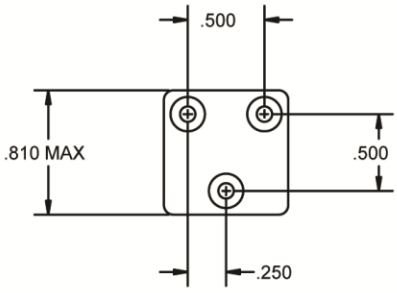


MOUNTING STYLE A

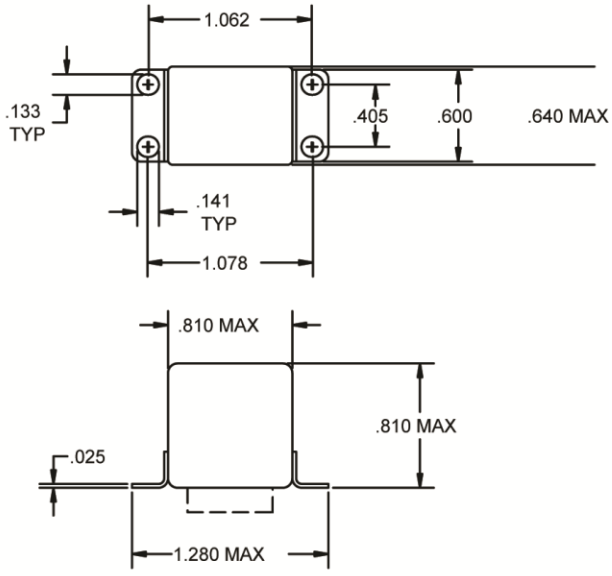


MOUNTING STYLE D





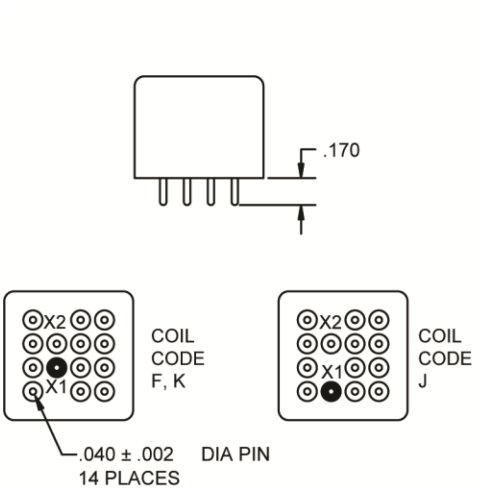
MOUNTING STYLE G



MOUNTING STYLE J

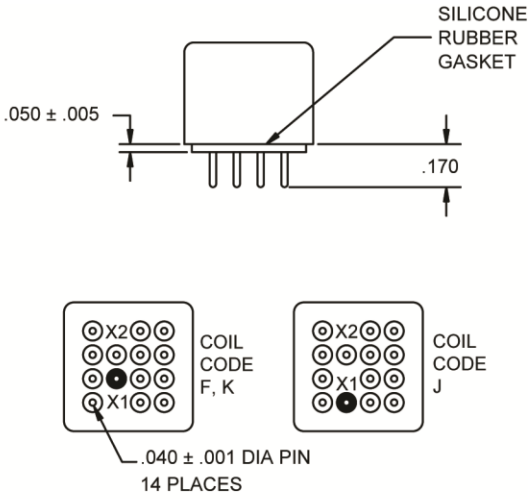
Dimensions in inches
Tolerances, unless otherwise specified, XX ± 0.03 in., XXX ± 0.010

TERMINAL TYPES



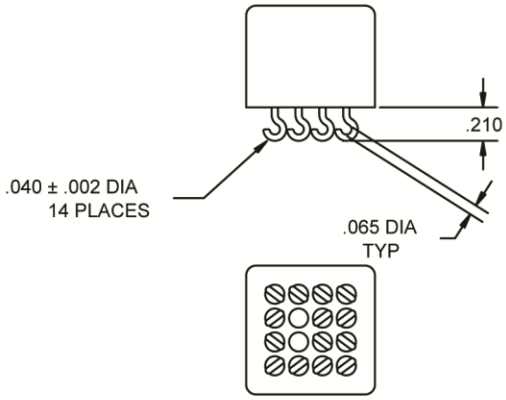
TERMINAL TYPE 1

FINISH:
BODY-TIN/LEAD
TERMINALS-TIN/LEAD



TERMINAL TYPE 4

FINISH:
BODY-TIN/LEAD
TERMINALS-GOLD PLATED



TERMINAL TYPE 2

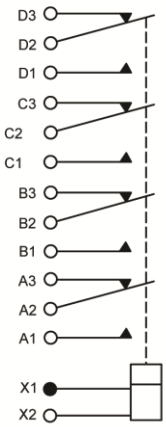
FINISH:
BODY-TIN/LEAD
TERMINALS-TIN/LEAD

YA SERIES
RELAY – NONLATCH – AC COIL
4PDT, LOW LEVEL TO 5 AMP

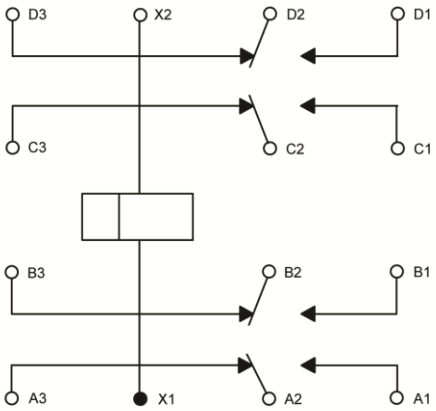
Dimensions in inches
Tolerances, unless otherwise specified, XX ± 0.03 in., XXX ± 0.010

DIAGRAMS

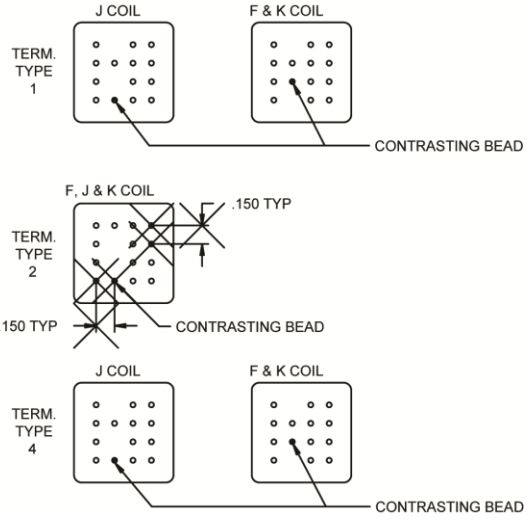
SCHEMATIC DIAGRAM



WIRING DIAGRAM
COIL POLARITY NOT APPLICABLE



STANDARD TERMINAL LAYOUT



NUMBERING SYSTEM

YA - A 1 F - XXX

Basic series designation

1. **Mounting styles**
2. **Terminal types**
3. **Coil voltage, see coil characteristics**
4. **XXX Designators**

NOTES

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-83536 for details.**
5. **500 Vrms with silicone rubber gasket compressed, 250 Vrms all other conditions.**

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