



**Application Notes:**  
103G

Hermetically sealed  
Balanced armature design

Designed to the performance standards of MIL-PRF-6106

## PRINCIPLE TECHNICAL CHARACTERISTICS

<b>Contacts rated at</b>	28 Vdc; 115 Vac, 400 Hz, 1Ø 115/200 Vac, 60/400 Hz, 3Ø
<b>Weight</b>	2.7 lbs max
<b>Dimensions</b>	4.22in x 4.23in x 4.53in
<b>Special units available upon request</b>	

## 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 WYE OR DELTA	115/200 Vac 60 Hz 3Ø WYE OR DELTA	440 Vac 60/400 Hz
Resistive	100	100	100	50	50
Inductive	100	100	100	50	-
Motor [2]	100	100	100	50	-

## COIL CHARACTERISTICS (Vdc)

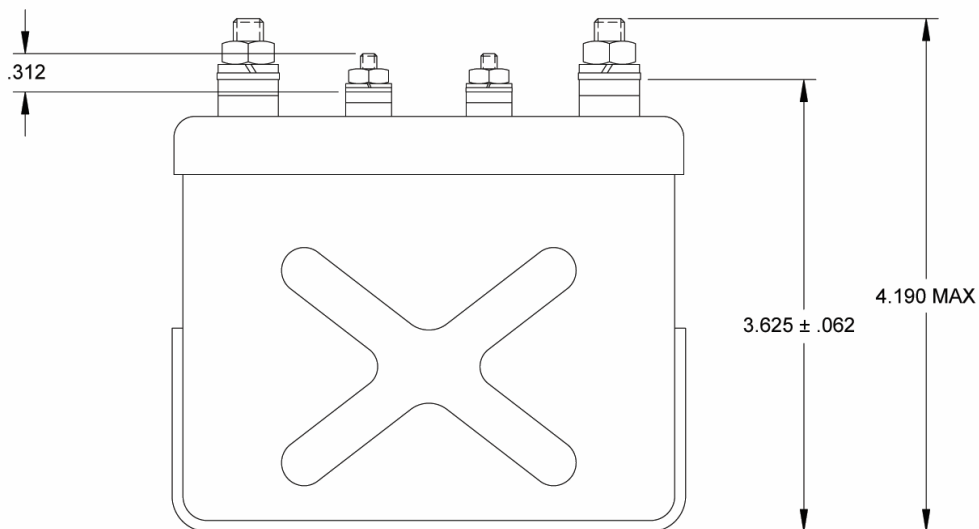
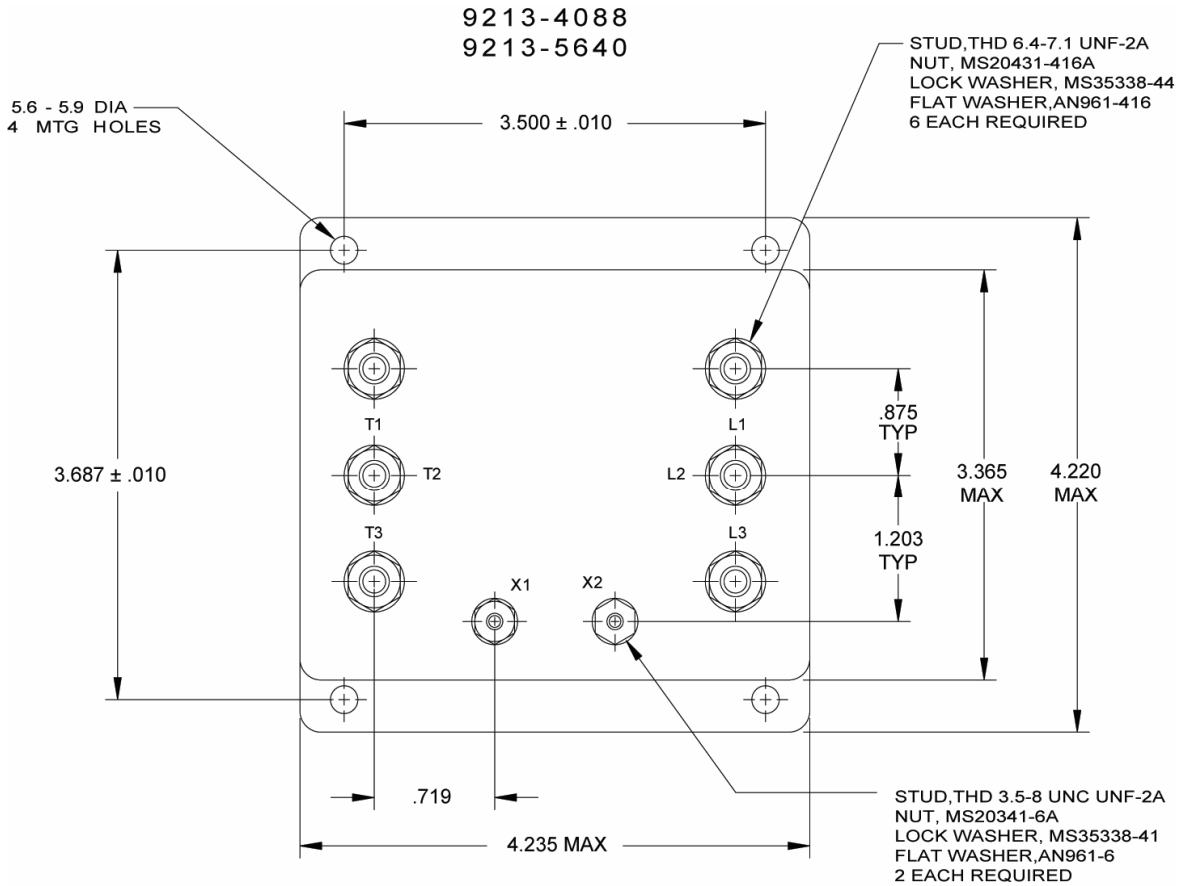
CODE	Vdc	115 Vac 400 Hz	115 Vac 60 Hz
Nominal operating voltage	28	115	115
Maximum operating voltage	29	124	124
Pick-up voltage, max	18	90	95
Drop-out voltage, max	7	40	30
Coil resistance ohms $\pm 10\%$ at +25° C	44.5	-	-
Coil current max. mA at +25° C	-	200	200

## GENERAL CHARACTERISTICS

Temperature range	-55°C to +71°C
Minimum operating cycles (life) at rated load	50,000
Minimum operating cycles (life) at 25% rated load	100,000
<b>Dielectric strength at sea level</b>	
All circuits to ground and circuit to circuit	1,500 Vrms
Coil to ground	1,250 Vrms
Dielectric strength at altitude 80,000 ft.	700 Vrms
Insulation resistance (at 500 Vdc) minimum	100 M $\Omega$ min
Sinusoidal vibration (55-500 Hz)	10G
Shock (6-9 millisecond duration)	50G
Maximum contact opening time under shock or vibration	2 $\mu$ s
<b>Operate time at nominal voltage</b>	
DC	30 ms max
AC	40 ms max
<b>Release time at nominal voltage</b>	
DC	20 ms max
AC	60 ms max
Weight, max.	2.70 lb

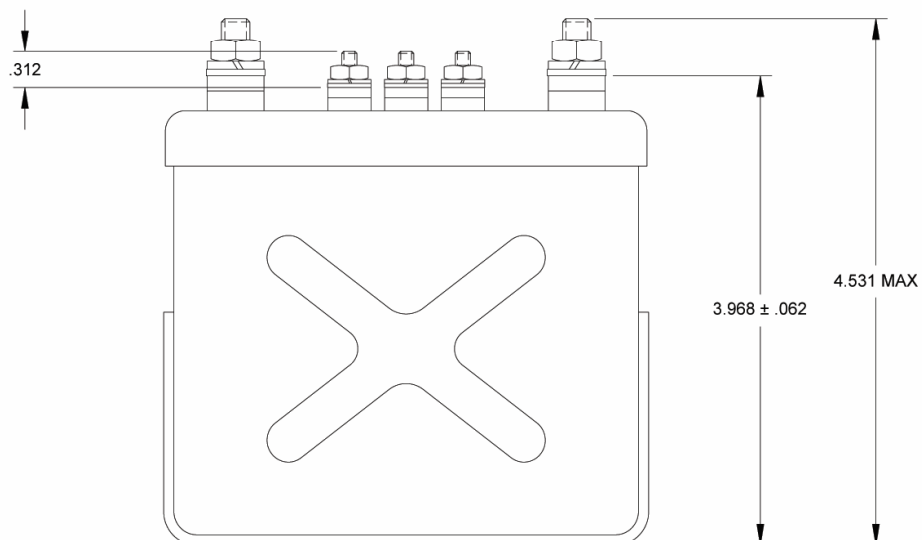
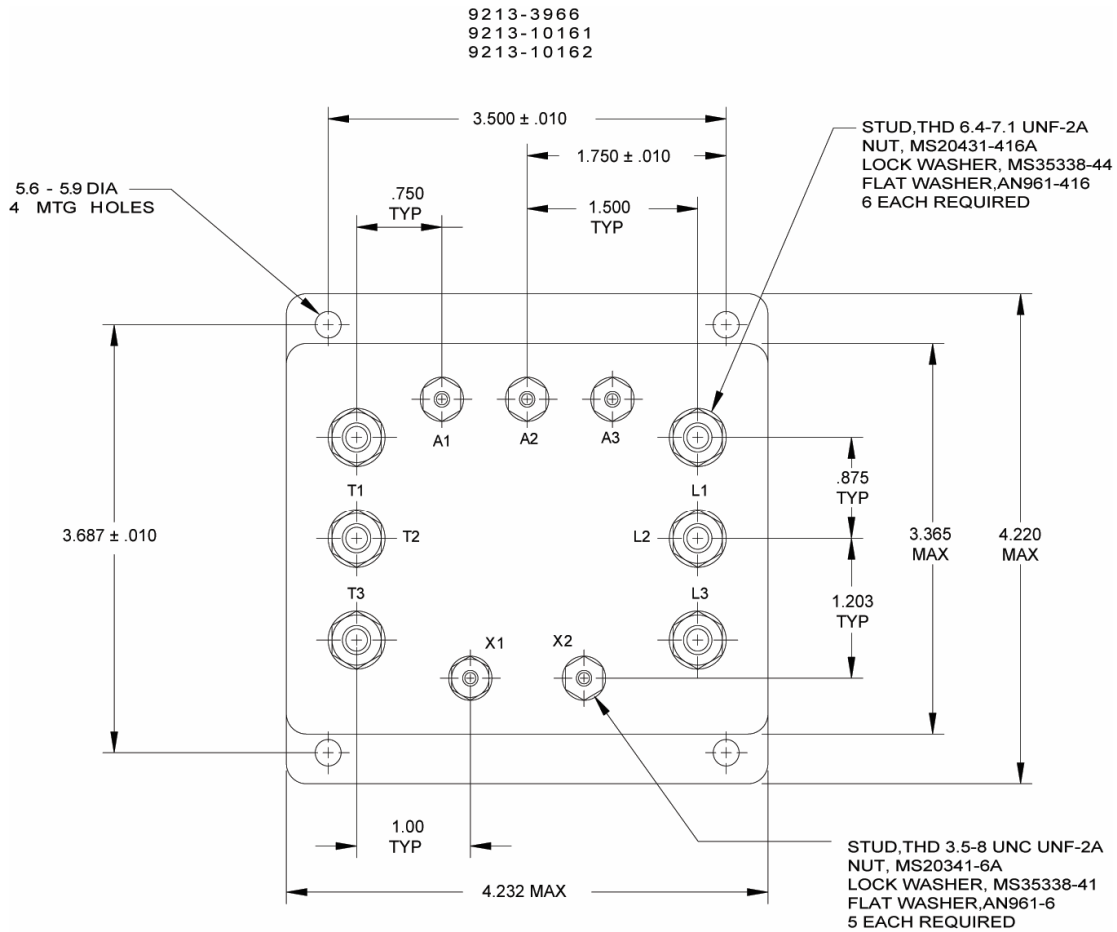
### CONFIGURATION

Dimensions in inches  
Tolerances, unless otherwise specified, XX ±.03; .XXX ±.010



### CONFIGURATION

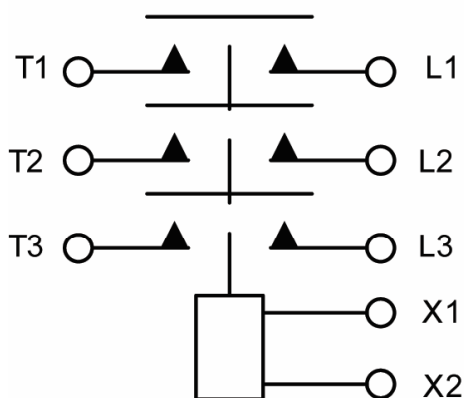
Dimensions in inches  
Tolerances, unless otherwise specified, XX ±.03; .XXX ±.010



## SCHEMATIC DIAGRAM

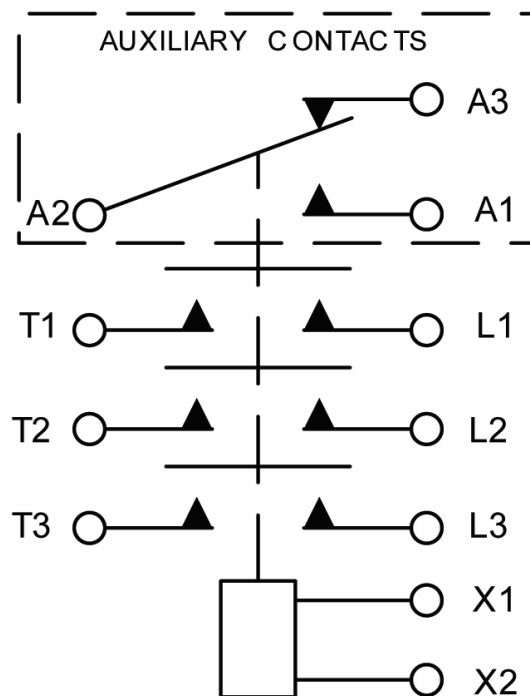
9213- 4088 115 VAC 400 Hz  
9213- 5640 28 VDC

CONTACT CONFIGURATION  
3PST - DM



9213- 3966 28 VDC  
9213- 10161 115 VAC, 60 Hz  
9213- 10162 115 VAC, 400 Hz

CONTACT CONFIGURATION  
3PST- DM+ 1PDT AUX



NOTES:

1	Auxiliary contact rating
	Resistive and inductive load (28 VDC or 115 VAC) 5 Amp
	Lamp (28 VDC or 115 VAC) 1 Amp
2	Motor load in-rush limited to 400 amp