


REVISIONS				
REV.	DESCRIPTION		DATE	APPROVED
A	INITIAL RELEASE	NPR 9134	93.11.23	PWK
B	REV'D P1 & P6	ECO 9280	94.05.27	PWK

SALES DRAWING

REV. STATUS OF SHEETS						 <p>P.O. BOX 4422 Santa Barbara, CA 93140-4422</p>	
REV.	B	A	A	A	A		
SHEET	1	2	3	4	5	TITLE GENERAL PURPOSE AEROSPACE 270VDC, 10A VACUUM RELAY	
REV.	B						
SHEET	6					DWG. NO. AP10P SERIES	
PREP. BY	TANNER		93-11-5				
CHKD. BY						CAGE CODE 18741	
ENG. APRVL.	Kohlmeier		93.11.23				
						SHEET 1 OF 6	

SPECIFICATIONS:

PHYSICAL

CONTACT ARRANGEMENT	SPST-LATCHING
FORM	P

ENVIRONMENTAL

SHOCK, 11 ms 1/2 SINE (g, PEAK)	50
VIBRATION, SINUSOIDAL (55-2000 Hz; g PEAK)	10
OPERATING TEMPERATURE (°C)	-55 TO +85
OPERATIONAL ALTITUDE, MAX. (ft.)	80,000

ELECTRICAL

CONTACT RATING	
OPERATING VOLTAGE (Vdc)	270
RATED RESISTIVE LOAD @ 270 Vdc (Adc)	10*
LOAD LIFE, MIN. (CYCLES)	7000
OVERLOAD, SWITCHED (Adc)	20
CONTINUOUS CURRENT CARRY, MAX. (Adc)	15

OTHER DATA

DIELECTRIC STRENGTH AT SEA LEVEL (Vrms)	
COIL TO CASE	500
ALL OTHER POINTS	2,000
DIELECTRIC STRENGTH AT 80,000 FT, ALL POINTS (Vrms)	500
OPERATE TIME, MAX., INCL. BOUNCE AT NOM. VOLTAGE (ms)	6
RELEASE TIME, MAX. (ms)	6
INSULATION RESISTANCE, 500 Vdc, MIN. (MΩ)	
BEFORE LIFE	100
AFTER LIFE	50
CONTACT RESISTANCE, MAX. (mΩ)	
BEFORE LIFE	10
AFTER LIFE	20

COIL DATA

COIL VOLTAGE, NOMINAL (Vdc)	28	120
COIL VOLTAGE, MAX. (Vdc)	29	125
LATCH & RESET VOLTAGE, MAX. (Vdc)	22	98
COIL RESISTANCE (OHMS ±10% @ 25°C)	80	1300


NOTES: RATINGS LISTED ARE ACROSS THE OPERATING TEMPERATURE RANGE.
 *THE LOAD TERMINALS SHOULD ALWAYS BE CONNECTED AS FOLLOWS:
 COMMON CONTACT +; OTHER CONTACT -.

DIMENSIONS IN INCHES
 (DIMENSIONS IN PARENTHESES ARE IN
 MILLIMETERS)

TOLERANCES EXCEPT AS NOTED

.xx = ± .03

.xxx = ± .010

 x° = ± 2°

DO NOT SCALE DWG.

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SCALE
NONE

SHEET
2

PART NUMBER SELECTION

SAMPLE PART NUMBER: AP10 P 3 3 2

CONTACT FORM OPTIONS (SEE SCHEMATIC, SHEET 4)
P = SPST-LATCHING

COIL OPTIONS
3 = 28 Vdc - BUS WIRE TERMINAL (SEE FIGURES 1 & 2)
5 = 120 Vdc - BUS WIRE TERMINAL (SEE FIGURES 1 & 2)

POWER TERMINAL OPTIONS
3 = SOLDER CONNECTION (SEE FIGURES 1 & 2)

MOUNTING OPTIONS
2 = FLANGED MOUNT (SEE FIGURE 1)
4 = THROUGH CHASSIS MOUNT (SEE FIGURE 2)

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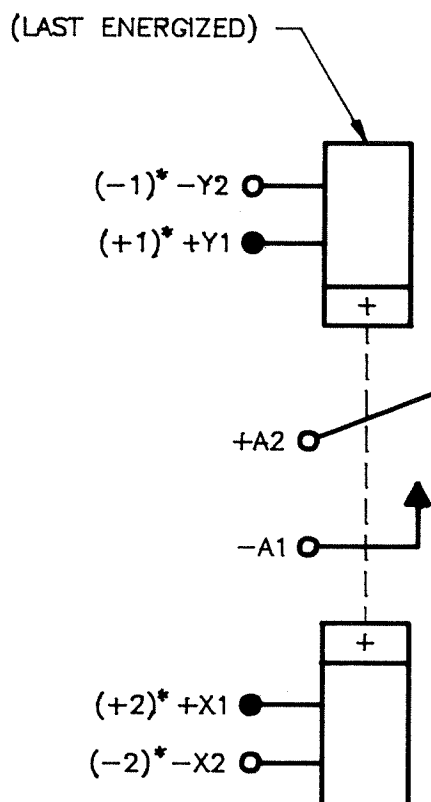
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SCALE
NONE

SHEET
3

SCHEMATIC



*HARDWARE MARKING WILL BE AS SHOWN IN PARENTHESES.

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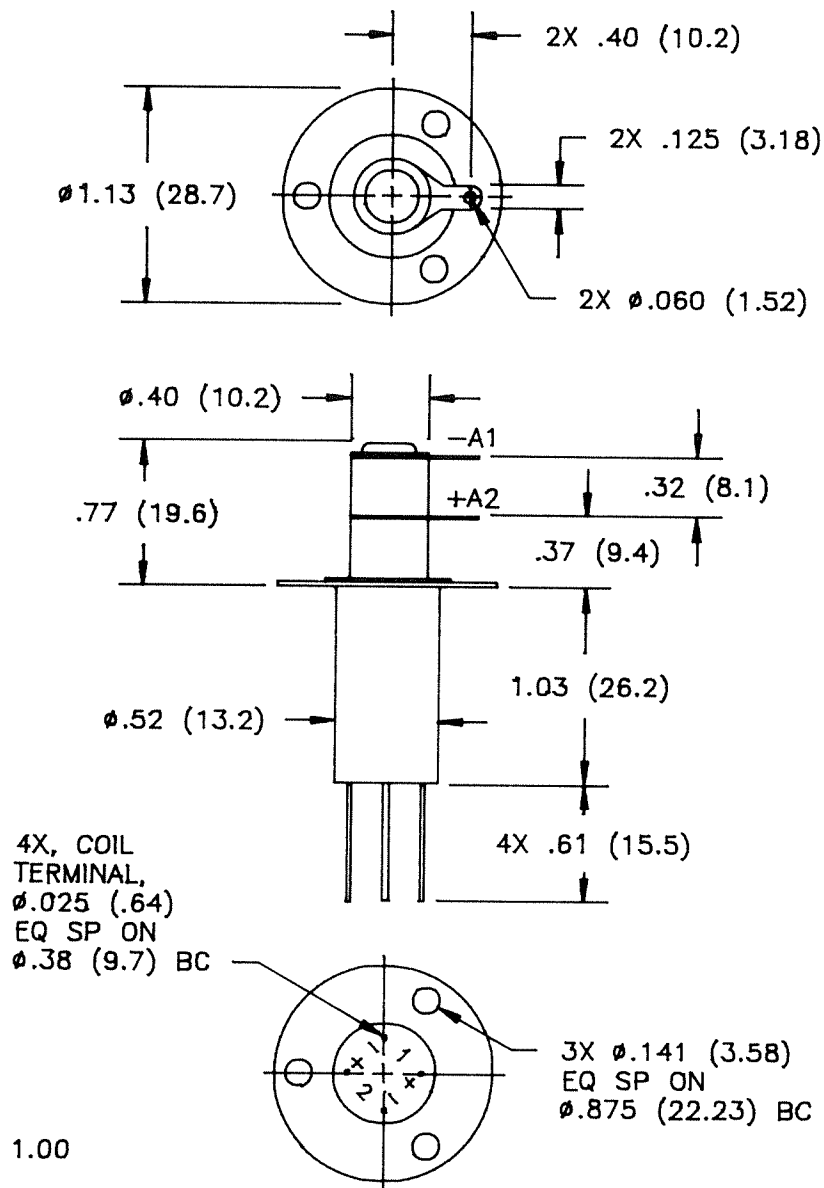
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SCALE
NONE

SHEET
4



WEIGHT, MAX (oz): 1.00

AVAILABLE OPTIONS:

CONTACT FORM OPTIONS (SEE SCHEMATIC, SHEET 4)	COIL OPTIONS	POWER TERMINAL OPTIONS	MOUNTING OPTIONS
P = SPST-LATCHING	3 = 28 Vdc - BUS WIRE LEADS 5 = 120 Vdc - BUS WIRE LEADS	3 = SOLDER CONNECTIONS	2 = FLANGED MOUNT

(PART NUMBER, CONTACT RATINGS, COIL VOLTAGE/RESISTANCE AND SCHEMATIC ARE MARKED ON SIDES OF RELAY.)

FIGURE 1: FLANGED STYLE MOUNTING WITH SOLDER TYPE POWER TERMINALS AND BUS WIRE COIL LEADS

DIMENSIONS IN INCHES
(DIMENSIONS IN PARENTHESES ARE IN
MILLIMETERS)

TOLERANCES EXCEPT AS NOTED

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.xxx = \pm .010

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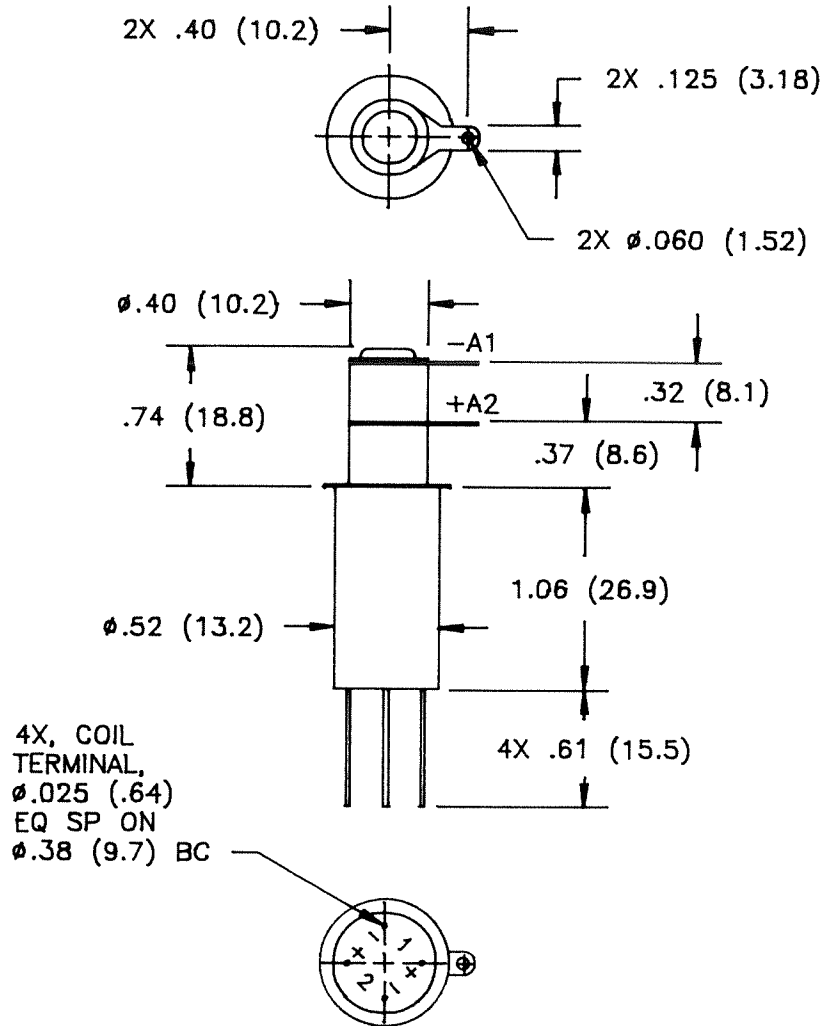
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SCALE
1:1

SHEET
5



WEIGHT, MAX (oz): 1.00

AVAILABLE OPTIONS:

CONTACT FORM OPTIONS (SEE SCHEMATIC, SHEET 4)	COIL OPTIONS	POWER TERMINAL OPTIONS	MOUNTING OPTIONS
P = SPST-LATCHING	3 = 28 Vdc - BUS WIRE LEADS 5 = 120 Vdc - BUS WIRE LEADS	3 = SOLDER CONNECTIONS	4 = THROUGH CHASSIS MOUNT

(PART NUMBER, CONTACT RATINGS, COIL VOLTAGE/RESISTANCE AND SCHEMATIC ARE MARKED ON SIDES OF RELAY.)

FIGURE 2: THROUGH CHASSIS STYLE MOUNTING WITH SOLDER TYPE POWER TERMINALS AND BUS WIRE COIL LEADS

DIMENSIONS IN INCHES
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SCALE
1:1

SHEET
6