


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE NPR 9000	93-4-29	RL

SALES DRAWING

REV. STATUS OF SHEETS						P.O. BOX 4422 Santa Barbara, CA 93140-4422	
REV.	A	A	A	A			
SHEET	1	2	3	4			
REV.						TITLE CONTACTOR, SPST-NO, 250VDC, 90A	
SHEET							
PREP. BY	OCAMPO	93-4-21	DWG. NO.				PD90X SERIES
CHKD. BY	C. REED	93-4-22					
ENG. APRVL.	RL	93-4-23	FSCM. NO.		18741	SHEET 1 OF 4	

Physical Data	Units	PD90X
Contact Arrangement		SPST - NO
Form		X
Dimensions (L - W - H)	in.	2.225 x 2.225 x 3.56
Weight	oz.	16

Environmental Data		
Shock, 11 ms, 1/2 sine	G	25
Vibration, 55 - 2000 Hz.	G	5
Altitude, maximum	ft.	15,000
Operating Ambient Temp. Range (4)	deg. C	-35 to +65

Electrical Data			
Rated Operating Voltage	Vdc	250	
Load Polarity		Bidirectional	
Rated Resistive Load	Amps	90	
Resistive Load Life	Cycles	10,000	
Rated Overload Current	Amps	350	
Arc Duration, nominal/maximum	mSec	2/30	
Overload Life	Cycles	10	
Continuous Current Carry	Amps	90	
Contact Resistance, maximum	mOhms	2	
Maximum Terminal Temperature	deg. C	200	
Insulation Resistance @ 500 Vdc	Megohms	100	
Dielectric Withstand Voltage (@ Sea Level)			
	Coil to Power Terminals	Vrms	1,800
	All Other Points	Vrms	2,000


PRELIMINARY DATA
- Subject to Change -

All specifications are tested per SAE ARD50031.

Coil Data	Units	PD90XA57	PD90XB57	PD90XC57	
Coil Voltage, nominal	Vdc	12	24	125	
	maximum	Vdc	12.5	28	145
Coil Resistance +/- 10% (3)	Ohms	19	103	1890	
Pickup Voltage, maximum					
	Cont. Current Test, High Temp & Alt	Vdc	9.9	23	99
	High Temperature, Hot Coil	Vdc	9.5	22	95
	High Temperature, Cold Coil	Vdc	8.6	20	86
	Room Temperature, Cold Coil	Vdc	6.9	16	69
Dropout Voltage, minimum					
	Over Temperature Range	Vdc	0.5	1.0	5.0
At 25C	Vdc	0.65	1.3	6.5	
Hold Voltage, minimum					
	Over Temperature Range	Vdc	5	10	52
At 25C	Vdc	4.3	8.7	45	
Contact Bounce, maximum (1)	mSec	8	8	8	
Operate Time, maximum (1)	mSec	35	40	35	
Release Time, maximum (1) (2)	mSec	10	10	10	

- (1) Operate Time, Release Time, and Contact Bounce are all measured with the relay stabilized at 25 C and operated with nominal coil voltage. Operate Time includes bounce.
- (2) With either no coil suppression or Zener diode suppression > or = 1.5X nominal coil voltage only.
- (3) Coil resistance is measured with the coil stabilized at 25 C.
- (4) For high temperature and altitude conditions, the relay must be mounted on a metal plate maintained at a temperature no greater than 65 C.

DIMENSIONS IN INCHES
(DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS)
TOLERANCES EXCEPT AS NOTED
.xx = ± .03
.xxx = ± .010
 \angle x° = ± 2°
DO NOT SCALE DWG.

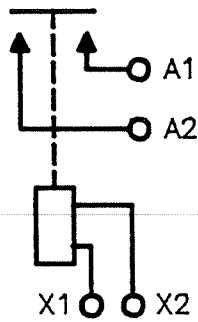


P.O. BOX 4422
Santa Barbara, CA 93140-4422

PD90X SERIES

CAGE CODE	SCALE	SHEET	
18741	NONE	2	

REV.
A



SCHEMATIC

DIMENSIONS IN INCHES
(DIMENSIONS IN PARENTHESES ARE IN
MILLIMETERS)

TOLERANCES EXCEPT AS NOTED

.xx = $\pm .03$

.xxx = $\pm .010$

\angle x° = $\pm 2^\circ$

DO NOT SCALE DWG.

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PD90X SERIES

CAGE CODE

18741

SCALE

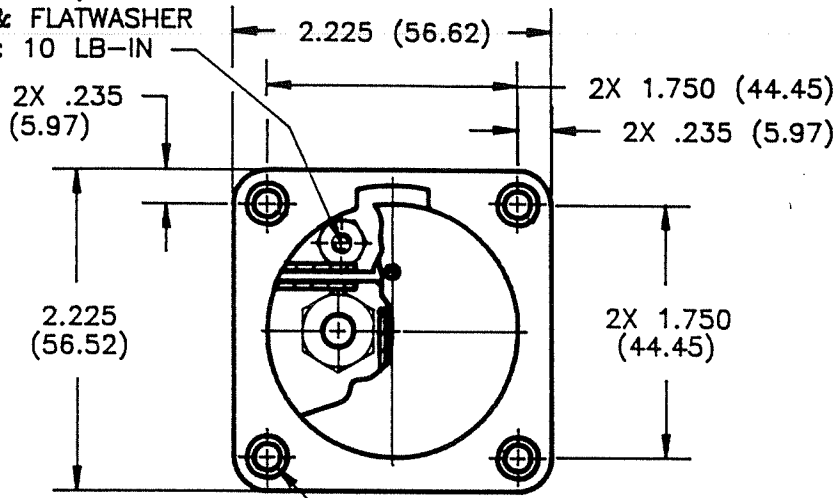
NONE

SHEET

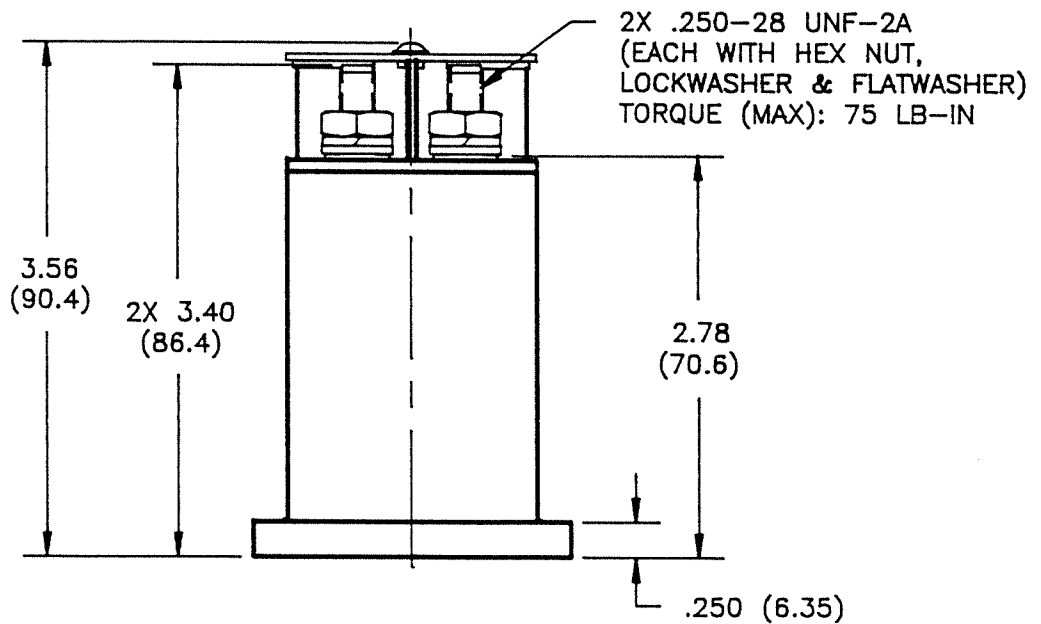
3

REV.
A

2X #6(.138)-32 UNC-3A
(EACH WITH HEXNUT,
LOCKWASHER & FLATWASHER
TORQUE (MAX): 10 LB-IN



4X ϕ .187 (4.75)
#8(.164)-32 MOUNTING
SCREWS RECOMMENDED



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

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MILLIMETERS)

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PD90X SERIES

CAGE CODE
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SCALE
3:4

SHEET
4