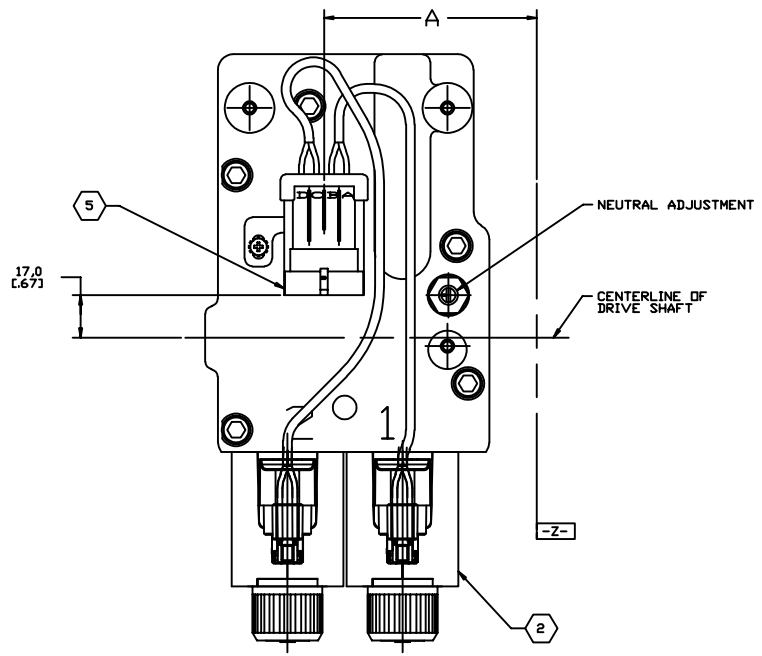
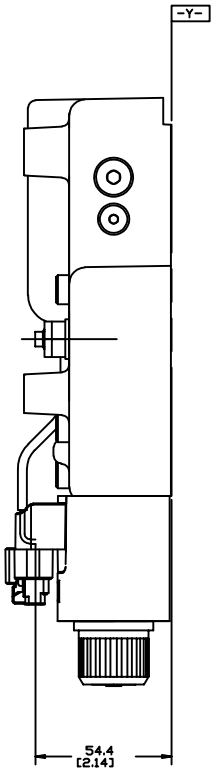
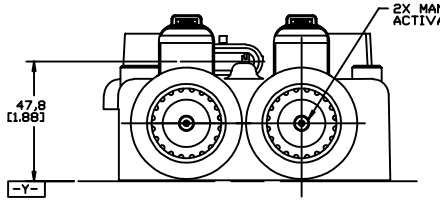
4-PIN COIL CONNECTOR		
PIN	COLOR	SIGNAL
A	YELLOW	COIL 1 PWM
B	WHITE	COIL 1 RETURN
C	ORANGE	COIL 2 PWM
D	BLACK	COIL 2 RETURN

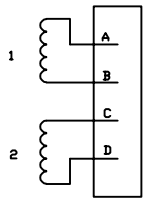
DISPLACEMENT	DIM A
54,34 cm3/r (3.316 in3/r)	68,7 [2.70]
63,66 cm3/r (3.885 in3/r)	68,7 [2.70]
75,28 cm3/r (4.594 in3/r)	68,7 [2.70]
89,13 cm3/r (5.439 in3/r)	111,9 [4.41]
105,4 cm3/r (6.431 in3/r)	111,9 [4.41]

REV	DESCRIPTION	BY	CHK	DATE	ECN
A	RELEASE FOR SAMPLES AND ESTIMATE	RLL	MJ	1-25-96	X8520
F	ENGINEERING RELEASE	RLL	JED	8-13-96	28553
M	-1)REVISED PICTORIALLY -2)(5D)REMOVED 49.0 (1.93)	EMR	JED	2-18-98	30736
N	REVISED PICTORIALLY	EMR	JED	8-18-98	31689
P	(7C)CONNECTOR LETTERING WAS ABCD	JED	JED	2-19-99	32480
R	(4A)NOTE 2 CONNECTOR P/N WAS 1204 7950	JED	JED	5-18-01	38013
S	REVISED NOTE AND MOVED TO LOCATION 2C	NSJ	SKK	11-19-08	0013458
T	REVISED	TAH	SSP	09-01-15	0058639









SOLENOID VALVE SCHEMATIC

NOTE

1 OPERATING LIMITS
TEMPERATURE: -53.9 TO 60°C (-65 TO 140°F)
POWER CONSUMPTION: 28W MAXIMUM

(2) SIGNAL INPUT:
COILS HAVE NO INTERNAL DIODES, A-B POLARITY AND C-D POLARITY DOES NOT AFFECT PERFORMANCE

12 VDC COIL:
5.25 OHMS±10% RESISTANCE AT 25°C
8.6 mH NOMINAL INDUCTANCE
NEUTRAL AT I<0.4 A
FULL DISPLACEMENT AT I=1.5 A (MAX CONTINOUS)

24 VDC COIL:
20.80 OHMS±10% RESISTANCE AT 25°C
33.9 mH NOMINAL INDUCTANCE
NEUTRAL AT I<0.2 A
FULL DISPLACEMENT AT I=0.75 A (MAX CONTINOUS)

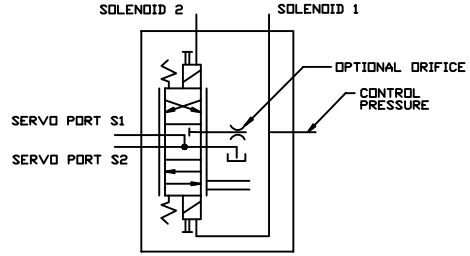
3 PWM CONFIGURATION:
CLOSED LOOP CURRENT CONTROL OF THE SOLENOID CURRENT VIA PWM DUTY-CYCLE VARIATION.
(COIL CURRENTS MUST BE LIMITED TO NOT EXCEED SOLENOID COIL SPECIFICATION)

FREQUENCY: 70-200 Hz
(100 Hz RECOMMENDED WHEN PWM DRIVER DOES NOT HAVE BUILT-IN DITHER APPLICATION)

4 DITHER SIGNAL:
THE DESIGN MUST PROVIDE FOR A SEPERATE DITHER SIGNAL TO BE ADDED TO THE INPUT COMMAND.

WAVEFORM: SQUARE
FREQUENCY: 75(+25,-15) Hz
AMPLITUDE: .250+.100-.050A PK-PK

(5) MATING 4 WAY CONNECTOR PACKARD ELECTRIC
P/N 1218 6568 CONNECTOR (1)
P/N 1204 8074 PIN TERMINAL (4)
P/N 1204 8086 CABLE SEAL (4)
P/N 1204 7948 TPA (1)



INPUT SHAFT ROTATION	CW		CCW	
SOLENOID ENERGIZED	1	2	1	2
PORT A FLOW	IN	OUT	OUT	IN
PORT B FLOW	OUT	IN	IN	OUT

REVIEWED FOR CLASSIFICATION PER ESP-042 T

DRAWING BASED ON ANSI Y14.5M-1982

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES ☐ MILLIMETERS CHECKED ☒

TOLERANCES
X ± ----
XX ± ----
XXX ± ----
∠ ±----

DRAWN BY/DATE RLL 11-1-95
CHECKED BY/DATE MJ 12-15-95
ENGR'G BY/DATE MJ 12-15-95
METALLURGY BY/DATE ----

UNSPECIFIED RADII ARE ----
UNSPECIFIED DRAFT ANGLES ARE ----
DRAWING FORMAT: CADD ☒ MANUAL ☐
THIRD ANGLE PROJECTION
DO NOT SCALE

MATERIAL/HEAT TREAT

TITLE
EP CONTROL INSTALLATION

DIMENSIONS PER ASME Y14.5M-1994 ☐ DIMENSIONS PER ISO 128 ☐
NUMBER A-994-003
SCALE 1/1 SHEET 1 OF 1
ARITHMETICAL AVERAGE ----