

4

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2

1

SHOWN IN FORWARD EXTENDED SHAFT POSITION

## REVISIONS

ZONE	LETTER	DESCRIPTION	DATE	CHECKED	APPROVED
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2-56 UNC-2B X 0.20 [5.1] MIN DP  
BOTH SIDES6-32 UNC-2B X 0.40 [10.1] MIN DP (2)  
BOTH SIDES18.00 [457] MIN LEADS  
24 AWG RED & BLACK POWER  
28 AWG ALL OTHERS

Ø0.125 [3.2]

0.250 [6.4]

0.500 [12.7]

1.000 [25.4]

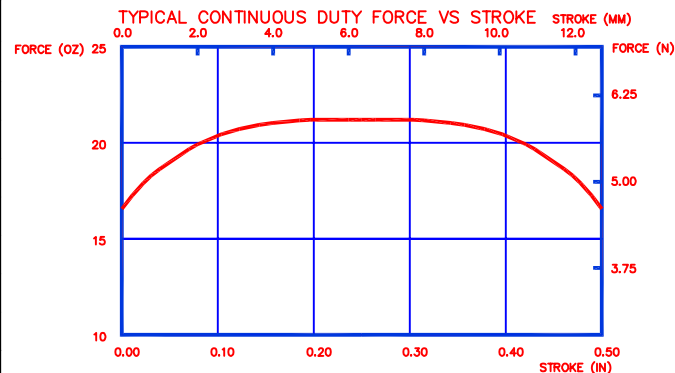
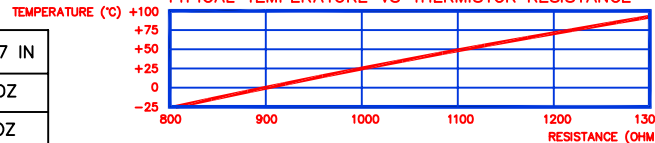
2.75 [69.9]

4.000 [101.6]

1.125±0.015 [28.6±0.4]

ENCODER RESOLUTION	5.00 µm	0.000197 IN
INTERMITTENT FORCE @10% DUTY CYCLE	18.6 N	67.0 OZ
CONTINUOUS FORCE	5.9 N	21.2 OZ
FORCE CONSTANT	4.4 N/A	15.9 OZ/A
BACK EMF CONSTANT	4.4 V/M/S	0.11 V/IN/S
STROKE	12.7 mm	0.500 IN
MOVING MASS	39 GR	1.38 OZ
TOTAL MASS	170 GR	6.0 OZ
COIL RESISTANCE	4.5 Ohms	
COIL INDUCTANCE @ 1000 Hz	1.7 mH	
MAX CONTINUOUS POWER	8.0 W	
MAX TOTAL SHAFT SIDE LOAD	2.0 N	7.2 OZ
LINEAR BEARING TYPE	PLAIN BUSHING	

TYPICAL TEMPERATURE VS THERMISTOR RESISTANCE



WIRE COLOR	DESCRIPTION
ORANGE	+5 VDC POWER FOR OPTICAL ENCODER
GREEN	CHANNEL A+ OUTPUT OF OPTICAL ENCODER, TTL
BLUE	CHANNEL A- OUTPUT OF OPTICAL ENCODER, TTL
WHITE	CHANNEL B+ OUTPUT OF OPTICAL ENCODER, TTL
YELLOW	CHANNEL B- OUTPUT OF OPTICAL ENCODER, TTL
BROWN	RETURN FOR OPTICAL ENCODER AND THERMISTOR
BLACK	MOTOR MINUS
RED	MOTOR PLUS
GRAY	HOME INDICATOR, TTL, ACTIVE HIGH
PURPLE	THERMISTOR RELATIVE TO RETURN

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3-MOTOR MAY BE SUPPLIED WITH OPTIONAL SPRINGS.  
2-FOR PROPER HEAT DISSIPATION, THE MOTOR SHOULD BE MOUNTED ON A METALLIC BODY WITH ADEQUATE SURFACE AREA IN AN UNRESTRICTED FLOW OF AIR.

1-ALL VALUES AT 25°C

NOTES :

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES (mm)  
TOLERANCES ON:

DECIMALS	FRACTIONS	ANGLES
.xxx .xx	± 1/125	± 1/2°
± .005 ± .01 UNLESS OTHERWISE SPECIFIED		

USED ON

NEXT ASSY

APPLICATION

MATERIAL

FINISH

CONTRACT

DRN

CHKD

APPVD

APPVD

motiCONT

LINEAR DIRECT DRIVE MOTOR  
WITH BUILT-IN ENCODER

SIZE

CODE

DWG. NO.

SDLM-025-070-01-05

REV.

4

SCALE: 1 / 1

SHEET 1 OF 1