

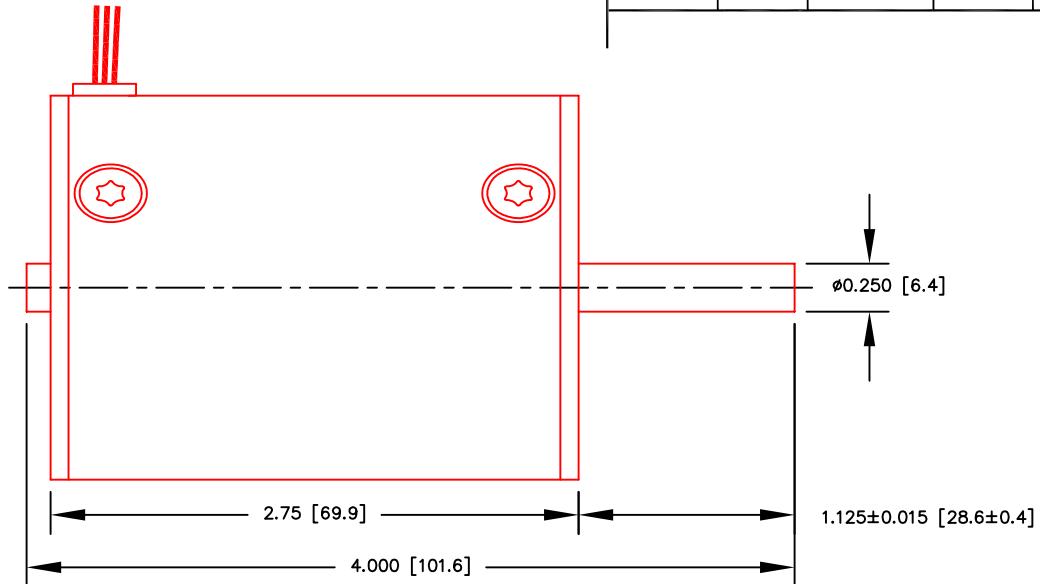
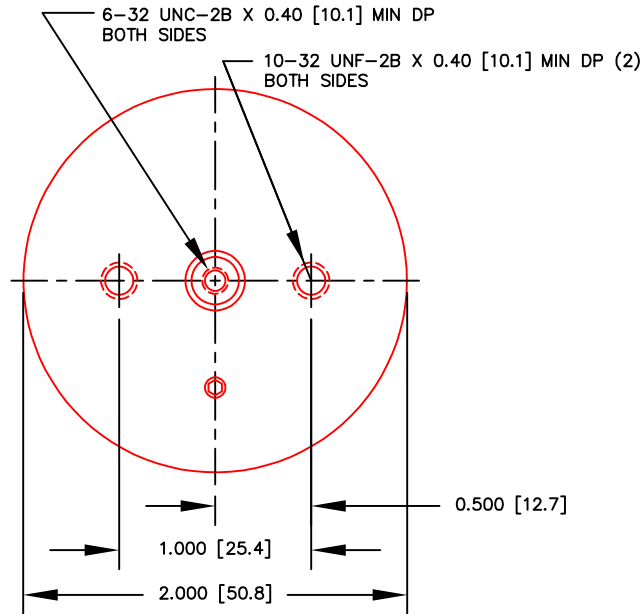
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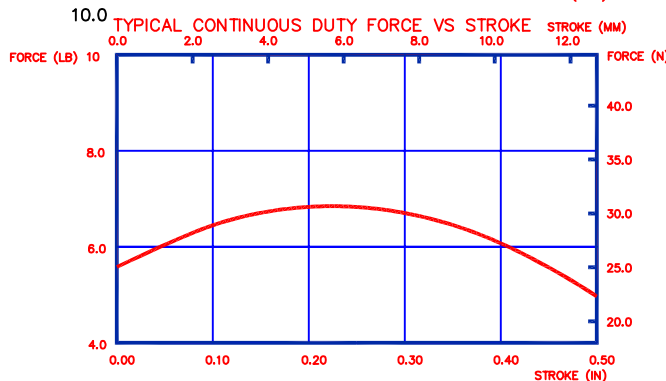
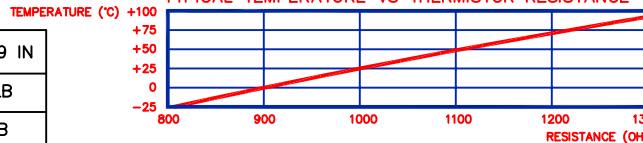
SHOWN IN FORWARD EXTENDED SHAFT POSITION



| REVISIONS |        |             |      |         |          |
|-----------|--------|-------------|------|---------|----------|
| ZONE      | LETTER | DESCRIPTION | DATE | CHECKED | APPROVED |
|           |        |             |      |         |          |

|                                    |               |             |
|------------------------------------|---------------|-------------|
| ENCODER RESOLUTION                 | 1.25 $\mu$ m  | 0.000049 IN |
| INTERMITTENT FORCE @10% DUTY CYCLE | 95.7 N        | 21.5 LB     |
| CONTINUOUS FORCE                   | 30.3 N        | 6.8 LB      |
| FORCE CONSTANT                     | 12.1 N/A      | 2.73 LB/A   |
| BACK EMF CONSTANT                  | 12.1 V/M/S    | 0.31 V/IN/S |
| STROKE                             | 12.7 mm       | 0.500 IN    |
| MOVING MASS                        | 175 GR        | 0.39 Lb     |
| TOTAL MASS                         | 700 GR        | 1.54 Lb     |
| COIL RESISTANCE                    | 2.9 Ohms      |             |
| COIL INDUCTANCE @ 1000 Hz          | 2.4 mH        |             |
| MAX CONTINUOUS POWER               | 18 W          |             |
| MAX TOTAL SHAFT SIDE LOAD          | 24.0 N        | 5.4 Lb      |
| 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 | CONTRACT |
| FINISH   | DRN      |
|          | CHKD     |
|          | APPVD    |
|          | APPVD    |

|   |      |                    |      |
|---|------|--------------------|------|
| <b>MOTICONT</b>                                 |      |                    |      |
| LINEAR DIRECT DRIVE MOTOR WITH BUILT-IN ENCODER |      |                    |      |
| SIZE  | CODE | DWG. NO.           | REV. |
| A   |      | SDLM-051-070-01-01 | 1    |
| SCALE: 1 / 1                                    |      | SHEET 1 OF 1       |      |

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