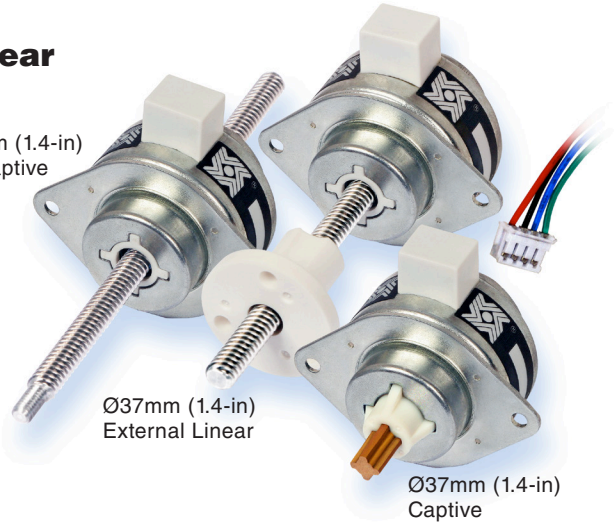


Haydon® 37000 Series – exceptionally high linear force-to-size ratio, ideal for precision motion.

Outstanding durability and high performance. The G4 Series features high energy neodymium magnets and dual ball bearings.

Ø37mm (1.4-in)
 Non-captive

Specifications



| Ø 36 mm (1.4-in) motor | | | | |
|------------------------|-------------|----------------------|--------|--------|
| Wiring | | Bipolar | | |
| Part No. | Captive | 3744 | 3754 | |
| | Non-captive | 3734 | 3784 | |
| | External | E3744 | E3754 | |
| Step angle | | 7.5° | 15° | |
| Winding voltage | | 5 VDC | 12 VDC | 5 VDC |
| Current (RMS)/phase | | 561 mA | 230 mA | 561 mA |
| Resistance/phase | | 8.9 Ω | 52 Ω | 8.9 Ω |
| Inductance/phase | | 11.6 mH | 65 mH | 8.5 mH |
| Rotor inertia | | 8.5 gcm ² | | |
| Power consumption | | 5.6 W | | |
| Insulation Class | | Class B | | |
| Weight | | 4.2 oz (49 g) | | |
| Insulation resistance | | 20 MΩ | | |

| Step | Linear Travel/Step | | Order Code I.D. |
|------------|--------------------|--------|-----------------|
| | inches | mm | |
| 7.5° Angle | 0.0005 | 0.013 | 3 |
| | 0.001 | 0.0254 | 1 |
| | 0.002 | 0.051 | 2 |
| 15° Angle | 0.001 | 0.0254 | 1 |
| | 0.002 | 0.051 | 2 |
| | 0.004 | 0.102 | 4 |

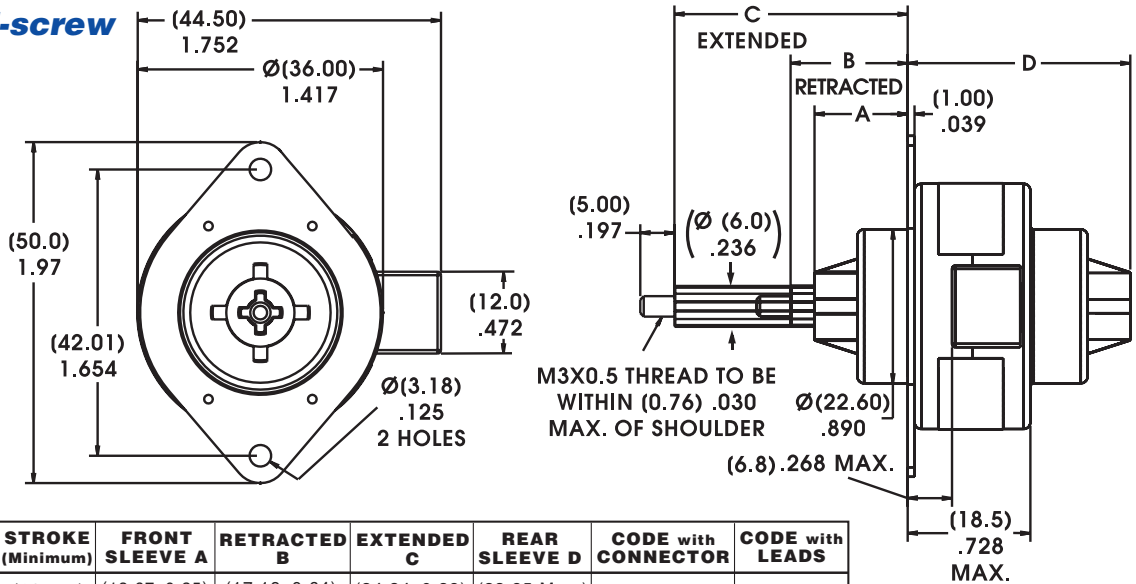
Special drive considerations may be necessary when leaving shaft fully extended or fully retracted.

Standard motors are Class B rated for maximum temperature of 130° C (266° F).

† Part numbering information on page 4

Captive Lead-screw

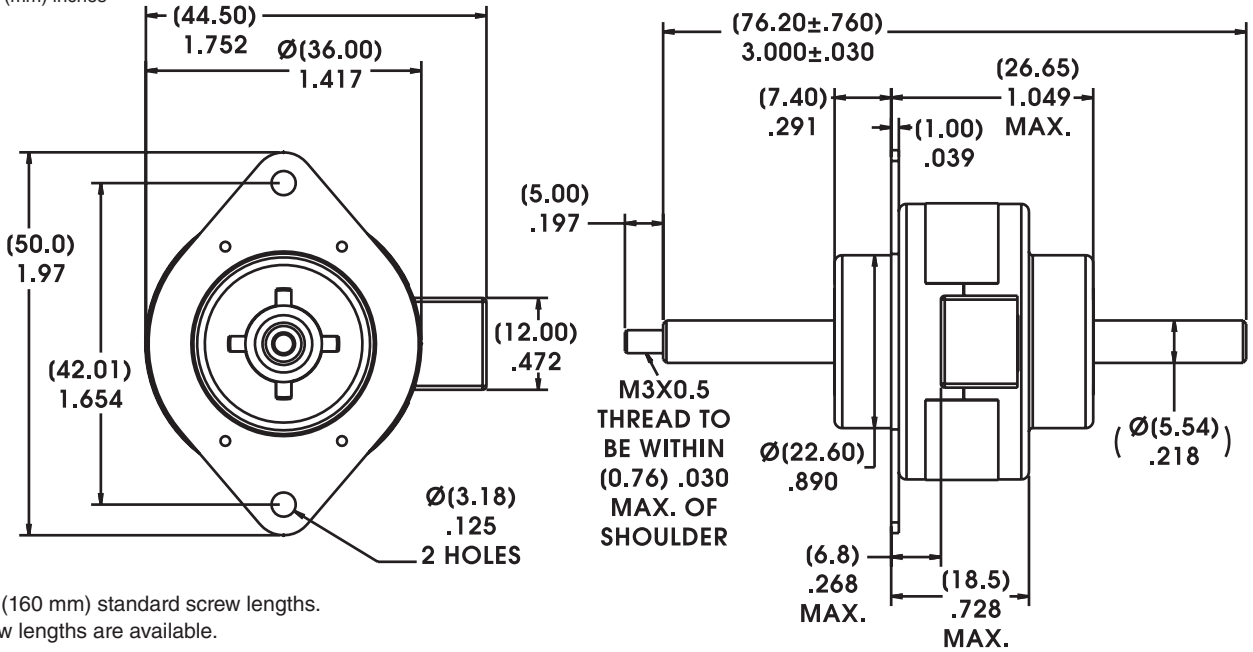
Dimensions = (mm) inches



| STROKE (Minimum) | FRONT SLEEVE A | RETRACTED B | EXTENDED C | REAR SLEEVE D | CODE with CONNECTOR | CODE with LEADS |
|------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|-----------------|
| (16 mm) .631 | (13.67±0.25) .538±.010 | (17.19±0.64) .677±.025 | (34.24±0.38) 1.348±.015 | (33.85 Max.) 1.333 Max. | - 905 | - 1005 |
| (25.4 mm) 1.00 | (26.37±0.25) 1.038±.010 | (29.89±0.64) 1.177±.025 | (56.94±0.38) 2.348±.015 | (46.55 Max.) 1.833 Max. | - 910 | - 1010 |
| (38.1 mm) 1.50 | (39.07±0.25) 1.538±.010 | (42.59±0.64) 1.677±.025 | (85.04±0.38) 3.348±.015 | (59.25 Max.) 2.333 Max. | - 915 | - 1015 |

Non-Captive Lead-screw

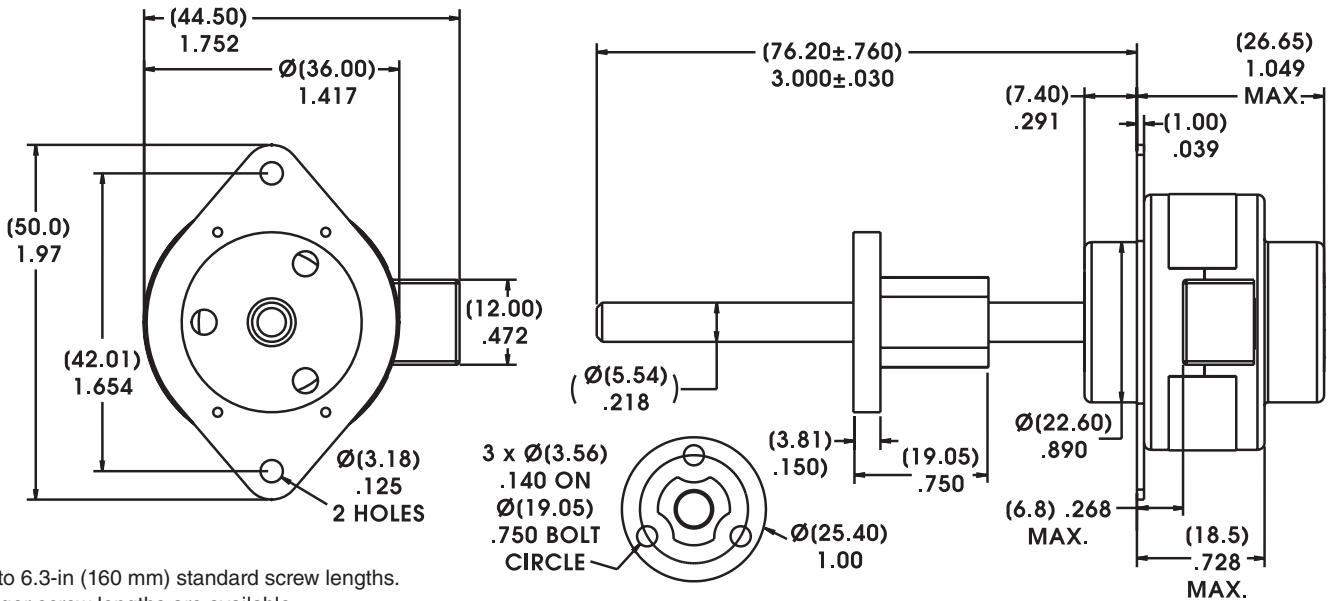
Dimensions = (mm) inches



Up to 6.3-in (160 mm) standard screw lengths.
 Longer screw lengths are available.

External Linear

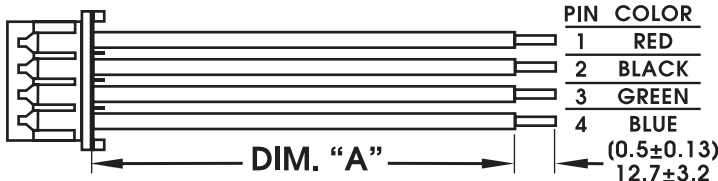
Dimensions = (mm) inches



Up to 6.3-in (160 mm) standard screw lengths.
 Longer screw lengths are available.

Connector

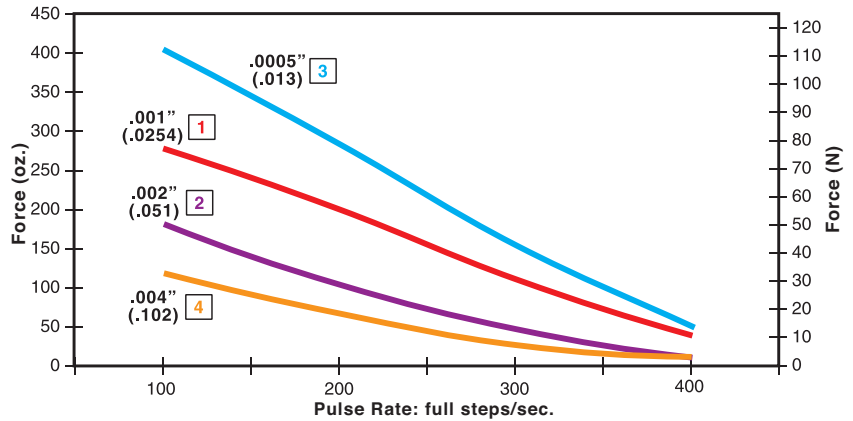
CONNECTOR:
JST PHR-4
TERMINAL: JST
SPH-002T-PO.5S



| Part Number | Dimension "A" |
|-------------|-----------------------------|
| 56-1436-1 | (6.0 ± 0.39) 152 ± 10 mm |
| 56-1436-2 | (12 ± 0.39) 305 ± 10 mm |

FORCE vs. PULSE RATE

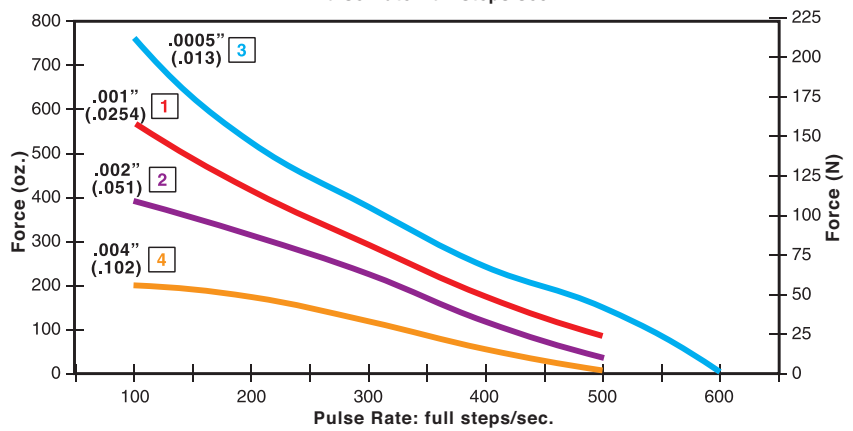
L/R Drive • Bipolar
100% Duty Cycle



FORCE vs. PULSE RATE

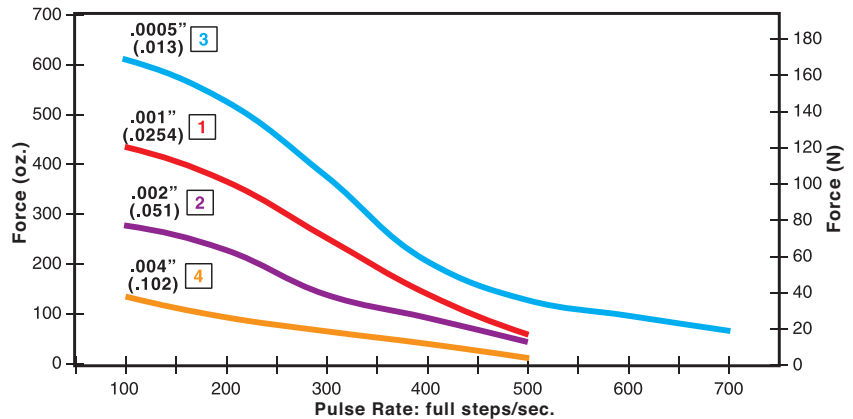
L/R Drive • Bipolar
25% Duty Cycle

Obtained by a special winding or by running a standard motor at double the rated current.



FORCE vs. PULSE RATE

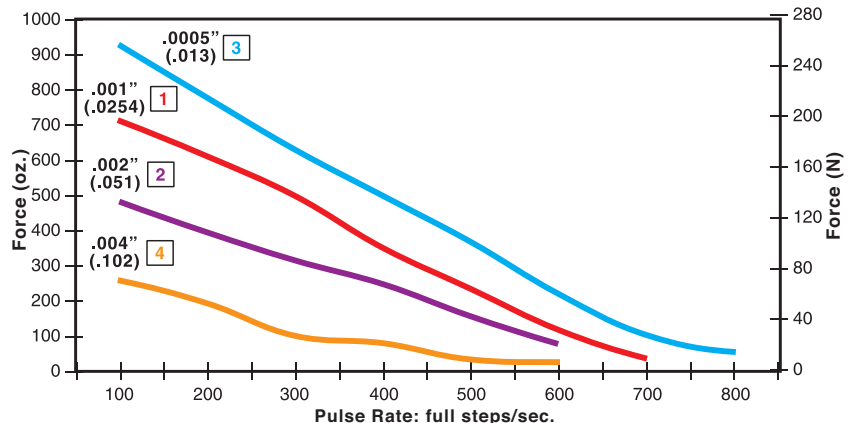
Chopper Drive • Bipolar
100% Duty Cycle



FORCE vs. PULSE RATE

Chopper Drive • Bipolar
25% Duty Cycle

Obtained by a special winding or by running a standard motor at double the rated current.



NOTE: All chopper drive curves were created with a 5 volt motor and a 40 volt power supply.

Ramping can increase the performance of a motor either by increasing the top speed or getting a heavier load accelerated up to speed faster. Also, deceleration can be used to stop the motor without overshoot.

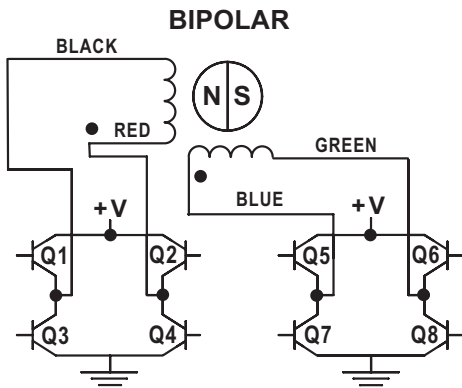
Identifying the Can-Stack part number codes when ordering

| | | | | | | | | |
|---|---|--|---|---|---|---|---|---|
| E | 37 | 4 | 4 | 2 | - | 05 | - | 1015 |
| Prefix (include only when using the following) E = External K = External with 40° thread form | Series number designation 37 = 37000 (Series numbers represent approximate diameters of motor body) | Style 3 = 7.5° non-captive 4 = 7.5° Captive or External (use "E" or "K" Prefix for External version) 5 = 15° Captive or External (use "E" or "K" Prefix for External version) 8 = 15° non-captive | Coils 4 = Bipolar (4 wire) | Code ID Resolution Travel/Step 1 = .001-in (.0254) 2 = .002-in (.051) 3 = .0005-in (.013) 4 = .004-in (.102) | | Voltage 05 = 5 VDC 12 = 12VDC <i>Custom V available</i> | | Suffix Stroke Example: -1015 = captive 38.1mm stroke with leads Suffix also represents: -XXX = Proprietary suffix assigned to a specific customer application. The identifier can apply to either a standard or custom part. |

NOTE: Dashes must be included in Part Number (-) as shown above. For assistance or order entry, call our engineering team at 203 756 7441.

Haydon kerk Express
 Motion Solutions
 Standard products available 24-hrs. at
www.haydonkerkexpress.com

Can-Stacks: Wiring



Can-Stack Stepper Motor Linear Actuators: OPTIONS

- SCREW LENGTH OPTIONS**
for non-captive and external linear shaft motors various screw lengths are available to accommodate almost any travel requirement.
- OPTIONAL ASSEMBLIES** for Can-Stack Linear Actuator Motors.

Can-Stacks: Stepping Sequence

| | | | | | | |
|---------------|---------|-------|-------|-------|-------|---------------|
| | Bipolar | Q2-Q3 | Q1-Q4 | Q6-Q7 | Q5-Q8 | |
| | Step | | | | | |
| | 1 | ON | OFF | ON | OFF | |
| | 2 | OFF | ON | ON | OFF | |
| | 3 | OFF | ON | OFF | ON | |
| | 4 | ON | OFF | OFF | ON | |
| | 1 | ON | OFF | ON | OFF | |
| ← EXTEND CW ↑ | | | | | | RETRACT CCW ↓ |

Note: Half stepping is accomplished by inserting an off state between transitioning phases.