

# 9600 Series Spring Return Linear Position Sensor

BEI Sensors



Designed for a variety of space-limited feedback applications that require high accuracy. The BEI Sensors 9600 Series Linear Position Sensor is ideally suited for use where reliability in a harsh operating environment is a primary consideration.

Industrial, vehicular, appliance, machine tool and robotic applications benefit from the unit's high temperature stability. The solderable terminal tabs, suitable for use with .110" (2.8mm) PDK styled crimped wiring lugs, and durable spring-loaded plunger, make installation and operation easy.

The 9600 Series is available in three standard sizes and provides excellent life at 1,000,000 full cycles (5 million dither cycles), which means high reliability in demanding installations.

## Specifications

| Model   | 9605  | 9610                       | 9615                       |
|---|---|----------------------------|----------------------------|
| Part Number   | 9605R1.7KL2.0   | 9610R3.4KL2.0              | 9615R5.1KL2.0              |
| Total Electrical Travel<br>(A) inches(mm)                     | 0.50 (12.7)   | 1.00 (25.4)                | 1.50 (38.1)                |
| Total DC Resistance $\pm 25\%$                                | 1.7K  | 3.4K                       | 5.1K                       |
| Linearity Over Active Electrical Travel                       |   | $\pm 2\%$                  |                            |
| Best Practical Linearity (Option)                             | $\pm 1.0\%$   | $\pm 0.5\%$                | $\pm 0.35\%$               |
| Power Rating at 70°C, Watts                                   | 0.25  | 0.50                       | 0.75                       |
| Mechanical Travel $\pm .015(\pm 0.4)$<br>(B) inches (mm)      | 0.56 (14.2)   | 1.06 (26.9)                | 1.56 (39.6)                |
| Housing Length $\pm .015 (\pm 0.4)$<br>(C) inches (mm)        | 1.06 (26.9)   | 1.56 (39.6)                | 2.06 (52.3)                |
| Terminal Spacing<br>(D) inches (mm)<br>(E) inches (mm)        | 0.30 (7.6)<br>0.20 (5.1)  | 0.50 (12.7)<br>0.50 (12.7) | 0.80 (20.3)<br>0.70 (17.8) |
| Fully Extended Length $\pm .015 (\pm 0.4)$<br>(F) inches (mm) | 0.810 (20.6)  | 1.310 (33.3)               | 1.810 (46.0)               |
| Mechanical Life   | 1,000,000 Full Cycles; 5,000,000 Dither Cycles  |                            |                            |
| Stop Strength oz. (Newtons)                                   | 360 (100)   |                            |                            |
| Actuation Force oz. (Newtons)                                 | 14.4 (4.0) Maximum, supplied with internal spring to return actuator to extended position |                            |                            |
| Humidity  | 95% @ 38°C  |                            |                            |
| Vibration   | 15g's 50 to 1,000Hz, 2 hrs, each axis   |                            |                            |
| Shock   | Up to 50g's   |                            |                            |
| Temperature Limits  | -40°C to +135°C   |                            |                            |

