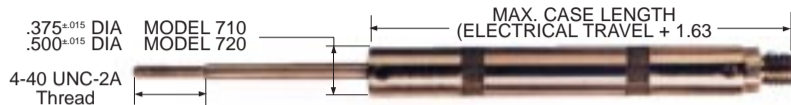


# 700 SERIES LINEAR POSITION SENSORS



700 Series Linear Position Sensors provide accurate and reliable performance in high-temperature and high-pressure environments. Designed to operate reliably in such extreme environments as “down hole” oil well applications with temperatures reaching up to 550°F and pressures to 28,000psi, these specialized units feature nickel-plated aluminum housings available in a variety of styles to meet specific mounting and interface requirements. The housing can be vented for immersion in fluids.

For use in confined spaces such as small-diameter casings and cylindrical shafts, the 700 Series is offered in two miniature diameters of 3/8" and 1/2", and may be specified in electrical travel lengths from 1" to 6". Models feature threaded stainless steel shafts and are available with threaded housings or slotted flanges to serve as stationary mounting ends.



## ELECTRICAL SPECIFICATIONS

Electrical Travel: 1inch min. to 6 inch max.  
Total Resistance: Standard Range 2K to 10K per inch  
Extended Range 1K to 20K per inch  
Resistance Tolerance:  $\pm 25\%$   
Accuracy Over Usable Range:  
(Independent Linearity see note 2)  
Standard  $\pm 0.020$  inch  
Best  $\pm 0.005$  inch  
Power Rating @ 175°C: 0.25 watt per inch  
(Derated to .10 watts @ 250°C)

Output Smoothness: 0.1%  
Insulation Resistance @ 250VDC:  
1000 megohms  
Dielectric Strength: 250VRMS  
Temperature Range: -40° to +250°C

## MECHANICAL SPECIFICATIONS

Mechanical Travel: Electrical travel + 0.2 inch min.  
Actuation Force: 2oz. max.  
Repeatability: Within .001 inch  
Life:  $5 \times 10^5$  cycles  
Leads: jacketed/shielded cable.

## NOTES:

1. Dimensions are in inches. Tolerance:  $\pm 0.010$
2. Consult factory for clarification of independent linearity vs. absolute accuracy.