

MODEL 612

The Duncan 600 Series provides an extremely accurate method of position sensing in applications that require a rugged instrument operating in a tight area. Its long life, infinite resolution and very smooth output deliver high reliability in critical measurements.

Seven models provide a choice of electrical travel from 1" (25mm) to 12" (305mm), and include a floating shaft design to accommodate shaft/interface connecting misalignments. Accessories for the 600 Series include a rod end bearing and mounting bracket.

## ELECTRICAL SPECIFICATIONS

### Electrical Travel:

1.00" (25mm) to 12.00" (305mm) (See table)

### Resistance Range:

1.0K to 12.0K $\Omega$  standard (See table)

### Resistance Tolerance:

$\pm 20\%$

### Independent Linearity:

$\pm 0.70$  to  $0.08\%$  (See table)

### Power Rating at 70°C:

0.25 watts

Per inch of electrical travel derated  
to 0 watts at 125°C

### Output Smoothness:

0.1%

### Resolution:

Infinite

### Insulation Resistance at 500 VDC:

1000 megohms

### Dielectric Strength:

500 VRMS

### Temperature Range:

-55 to +125°C

## MECHANICAL SPECIFICATIONS

### Mechanical Travel:

Electrical travel +0.1 inch min.

### Actuation Force:

2 oz. max.

### Repeatability:

Within .0005 in.

### Life:

$10 \times 10^6$  Cycles

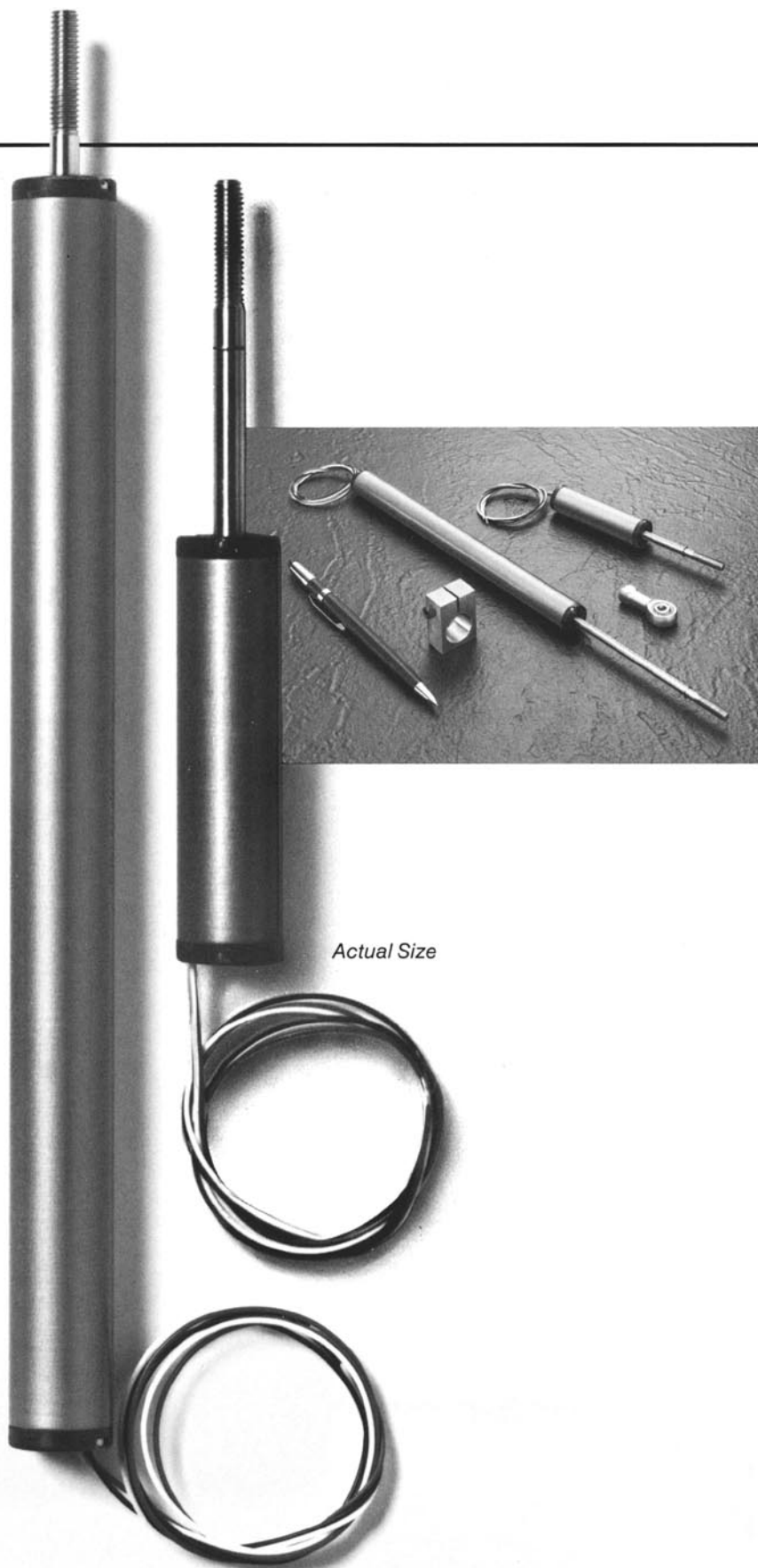
### Shaft Alignment:

Floating shaft design allows for shaft/interface  
misalignment up to 0.010" (.25).

Shaft rotates freely

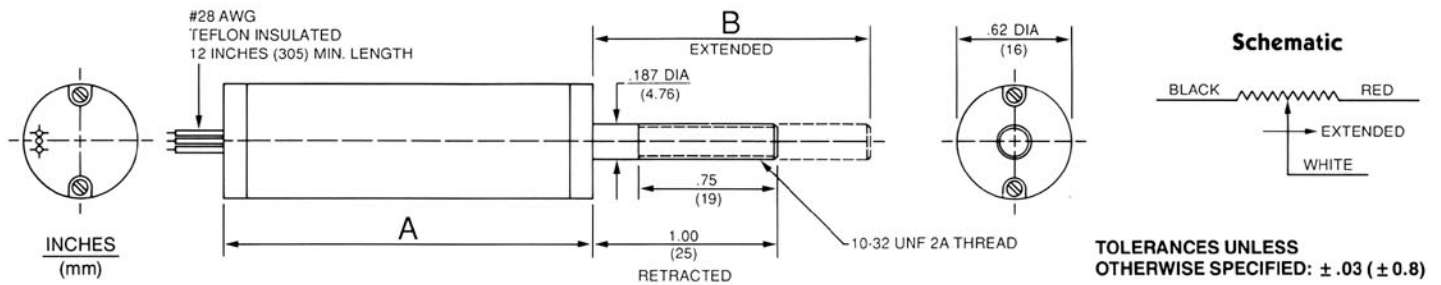
## NOTES:

- 1 Available in dual configuration.
- 2 Most specifications may be altered to meet specific requirements.
- 3 Other travels available.



# LINEAR MOTION POSITION SENSOR INFINITE RESOLUTION

## OUTLINE SPECIFICATIONS



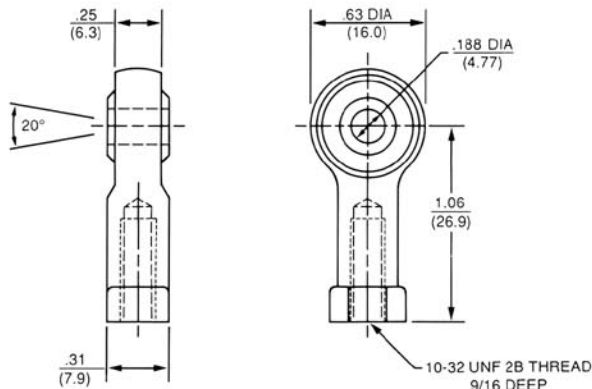
<b>MODEL</b>	<b>612</b>
Resistance K $\Omega$	12.0
Linearity $\pm$ %	0.08
Electrical Travel inches (mm)	12.00 (305)
<b>Case Dimensions</b>	
A inches (mm)	13.50 (343)
B inches (mm)	13.10 (333)

## ACCESSORIES

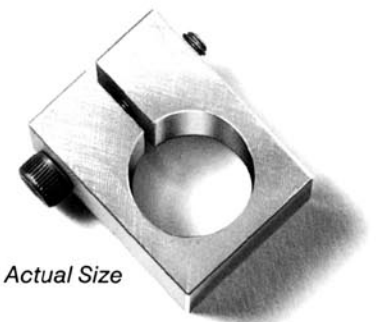
ROD END BEARING  
600-52



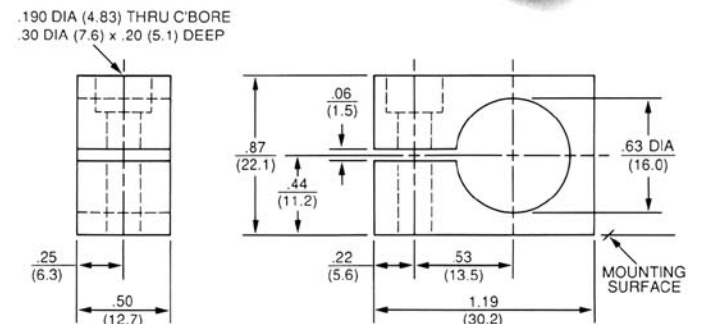
Actual Size



MOUNTING BRACKET  
600-51



Actual Size



INCHES  
(mm)

TOLERANCES UNLESS  
OTHERWISE SPECIFIED:  $\pm .03$  ( $\pm 0.8$ )

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