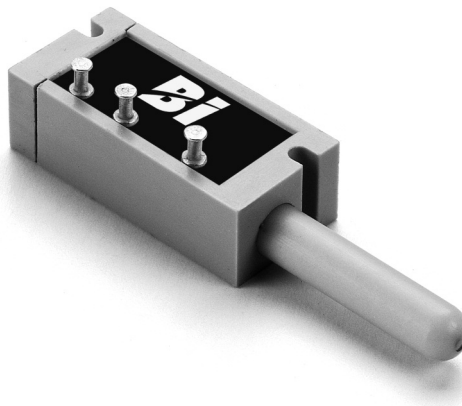


# Model 404 Series

## Spring Return Linear Actuation Conductive Plastic Position Sensor

## Applications in Robotics, Automotive, Heavy Equipment, and Industrial Automation



### FEATURES & BENEFITS

Short travel (0.5 inches), linear motion with spring return
Accurate position feedback
Low cost
Compact design for small spaces
Conductive plastic technology
Long life - 5 million actuations

### ELECTRICAL<sup>1</sup>

Resistance Range	1K to 150K Ohms
Standard Resistance Tolerance	±10%
Minimum Practical Resistance Tolerance	±5%
Independent Linearity <sup>2</sup>	±1%
Minimum Practical Independent Linearity	±0.5%
Input Voltage	400 VDC maximum, not to exceed power rating
Power Rating	0.25 Watts at 70°C, derating to 0 at 125°C
Dielectric Strength	1,000 V rms
Insulation Resistance	1,000 Megohms minimum
Output smoothness	0.1% maximum at 10" to 18" per minute
Actual Electrical Travel	0.50" ±0.015" (12.7 mm ±0.38 mm)
Electrical Continuity Travel	within mechanical travel
End Voltage	maximum 0.5% of input voltage
Resolution	essentially infinite
Temperature Coefficient of Resistance <sup>3</sup>	-400 ppm/°C typical
Temperature Coefficient of Output Voltage <sup>4</sup>	±10 ppm/°C typical

<sup>1</sup> Specifications subject to change without notice.

<sup>2</sup> Linearity is measured between 1% and 99% of input voltage.

<sup>3</sup> Special TCR available to ±100 ppm/°C.

<sup>4</sup> Measured with 10 VDC CW to CCW and slider at 50% of electrical travel.



# Model 404

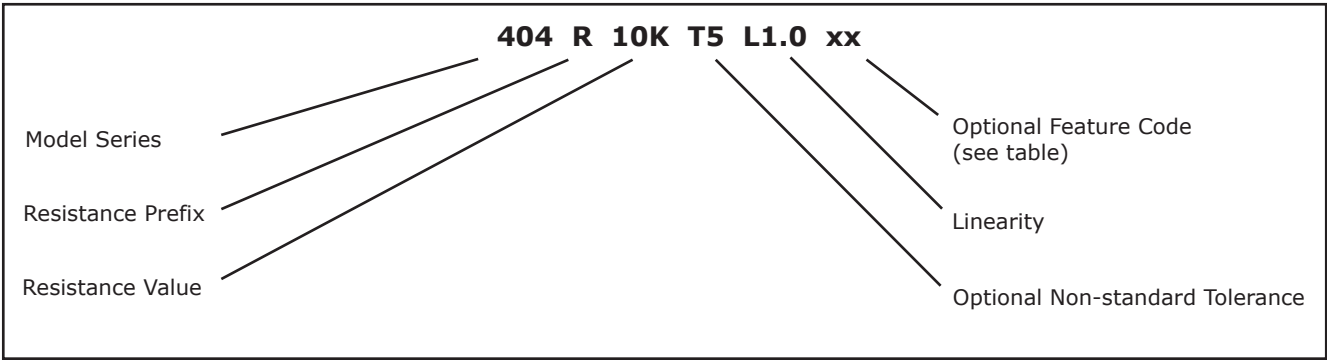
## MECHANICAL

Total Mechanical Travel	0.56" ±0.015" (14.2 mm ±0.38 mm)
Actuating Force	14 oz. maximum, internal spring to return slider to extended position
Backlash	0.003" maximum
Static Stop Strength	20 lb. minimum
Body Style	rectangular
Termination Style	turret terminations

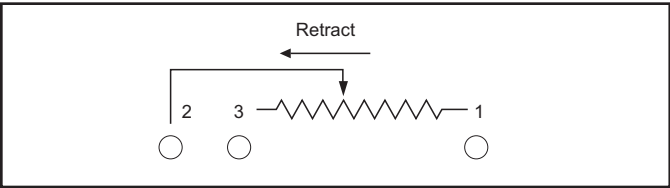
## ENVIRONMENTAL (MIL-PRF-39023)

Operating Temperature Range	-40°C to +125°C dynamic, -55°C to +125°C static
Load Life	1 million shaft cycles at 0.25 Watts & 70°C, maximum 10% ΔR

## ORDERING INFORMATION



## CIRCUIT DIAGRAM



## FEATURE CODES

Linearity Tape	LT
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## Model 404

## OUTLINE DRAWING

