# **Model 404 Series**

# **Position Sensor**



#### **Features:**

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



### **Applications:**

- Robotics
- Automotive
- Heavy equipment

- Industrial automation
- Wing flap position
- Pedal position
- Satellite dish
- Electro surgical equipment

#### **Electrical**

Resistance range	1K to 150K Ohms
Standard resistance tolerance	±10%
Minimum practical resistance tolerance	±5%
Independent linearity	±1%
Minimum practical independent linearity	±0.5%
Input voltage	400 VDC maximum, not to exceed power rating
Dielectric strength	1,000 V rms
Insulation resistance	1,000 Megohms minimum
Output smoothness	$0.1\%$ maximum at $10^{\prime\prime}$ to $18^{\prime\prime}$ 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	-400 ppm/°C typical
Temperature coefficient of output voltage	±10 ppm/°C typical

#### Mechanical

Torque 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

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## **Environmental (MIL-PRF-39023)**

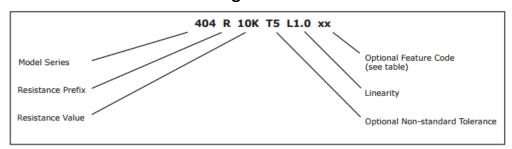
Operating temperature range

-40°C to +125°C dynamic, -55°C to +125°C static

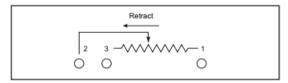
Load life

1 million shaft cycles at 0.25 Watts & 70°C, maximum 10%  $\Delta R$ 

### **Ordering Information**



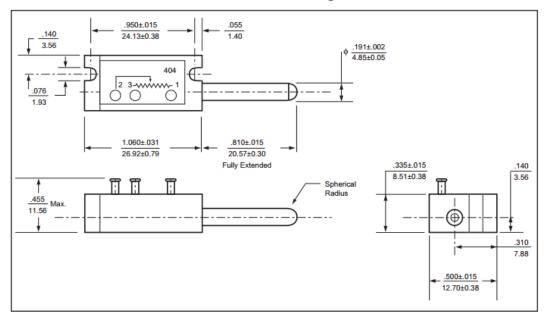
## **Circuit Diagram**



### **Feature Codes**

Linearity Tape	LT

## **Outline Drawing**



# **Mouser Electronics**

**Authorized Distributor** 

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# TT Electronics:

<u>404R10KL1.0</u> <u>404R1KL1.0</u> <u>404R5KL1.0</u> <u>404R5KL1.0</u> <u>404R2KL.5</u> <u>404R5KL.5</u> <u>404R10KL.5</u> <u>404R10KL1.0</u> <u>404R5KL1.0</u>