

Position Sensor Rectilinear



Features:

- Contactless linear sensor.
- IP64 debris proof, splash proof.
- Ideal for hydraulic and pneumatic position sensing.
- Liquid level capability.
- Upon request.
- Male or female nicomatic connectors.
- Corresponding exterior magnet.

Specifications:

Mechanical:

Life cycle : >1 million.
Height : $\leq 3.50\text{mm}$ (0.138 inches).
Actuation force : 0.09 to 0.11 lbs pull force at desired distance (pull force rating is for the exterior magnet using a test plate of cold rolled steel).

Environmental:

Operating temperature : up to $+85^{\circ}\text{C}$.
IP rating of active area : IP64.

Electrical:

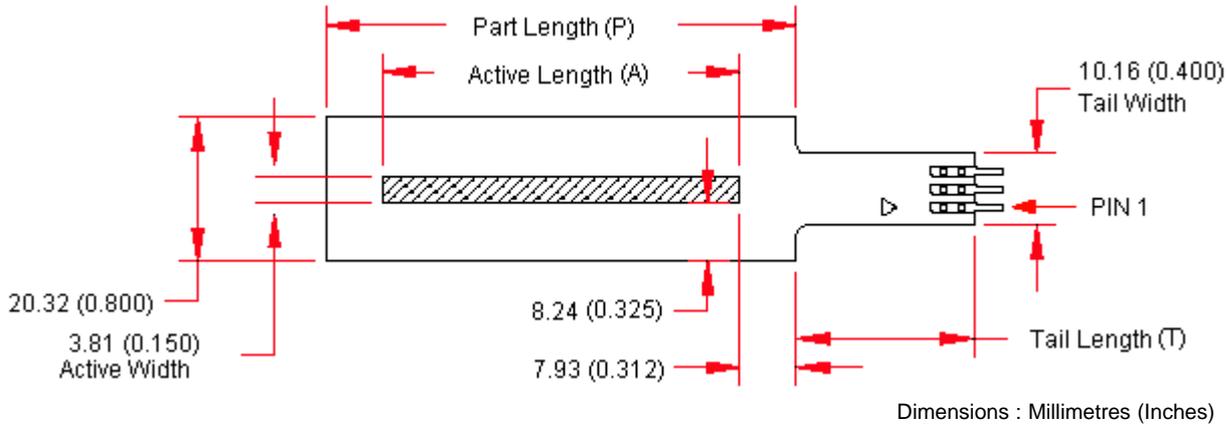
Resistance-standard : $10\text{k}\Omega$ (lengths $>300\text{mm} = 20\text{k}\Omega$).
Resistance-custom : 5k to $500\text{k}\Omega$.
Resistance tolerance : $\pm 20\%$.
Effective electrical travel : 8 to 1200mm.
Resolution : Depends on the exterior magnet strength and distance to the magnetoPot.
Power rating : 0.50 Watt continuous, 1 watt peak.
Dielectric value : No affect at 500V ac for 1 minute.
Independent linearity : $\pm 5\%$ ($\pm 1\%$ available).
Hysteresis : 3mm^* .

Note : * The hysteresis is directly affected by the drive magnet size, strength, and distance from the internal magnet.
* Requires magnet

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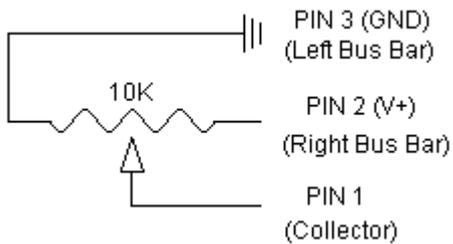
Stock Linear MagnetoPots



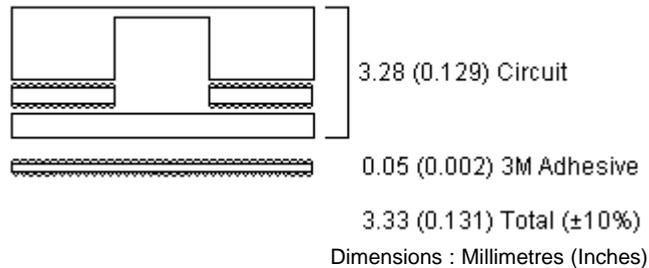
A	12.50 (0.492)	25.00 (0.984)	50.00 (1.969)	100.00 (3.937)	150.00 (5.906)	171.189 (6.768)	200.00 (7.874)	300.00 (11.811)	400.00 (15.748)	500.00 (19.685)	750.00 (29.528)	1000.00 (39.370)
P	28.36 (1.117)	40.86 (1.609)	65.86 (2.593)	115.86 (4.562)	165.86 (6.531)	185.86 (7.318)	215.86 (8.499)	315.86 (12.436)	415.86 (16.373)	515.86 (20.310)	765.86 (30.153)	1015.86 (39.995)
T	12.70 (0.500)							24.89 (0.980)				

Dimensions : Millimetres (Inches)

Electrical Schematic



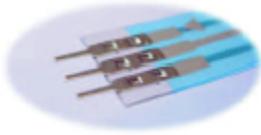
Material Cross-Section



Position Sensor Rectilinear



Standard Connector Options



Crimflex Solder Tab (ST)



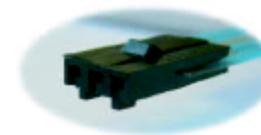
Crimflex Short Male Pins (MP)



Crimflex Female Receptacles with a Plain Housing (RH)

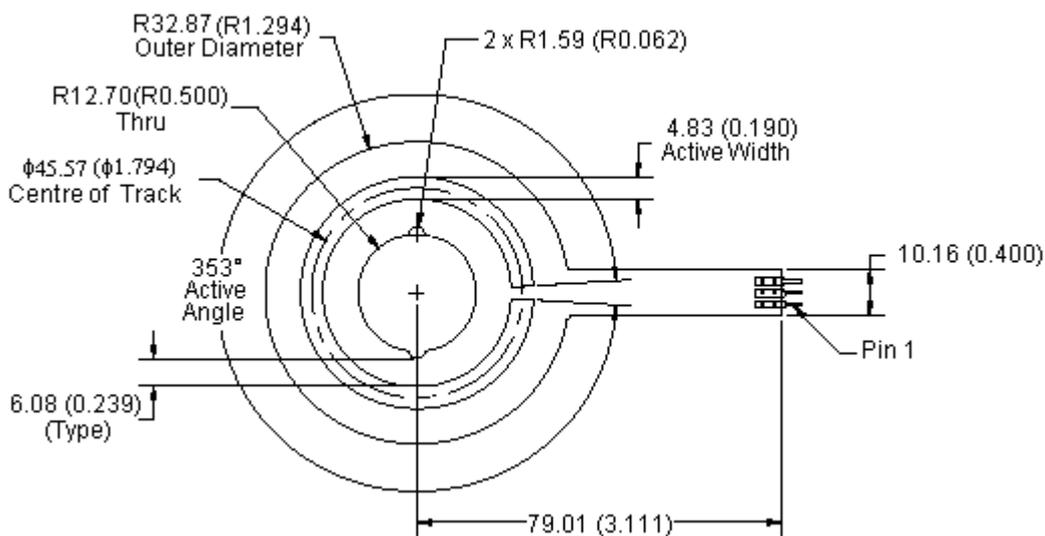


Crimflex Female Receptacles with a Latch Housing (RL)



Crimflex Female Receptacles with a Detent Housing (RD)

Stock Linear MagnetoPots

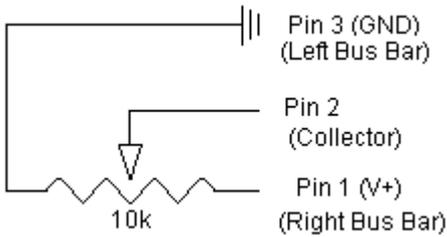


Dimensions : Millimetres (Inches)

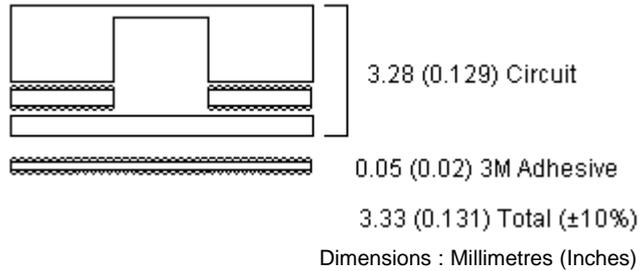
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Electrical Schematic



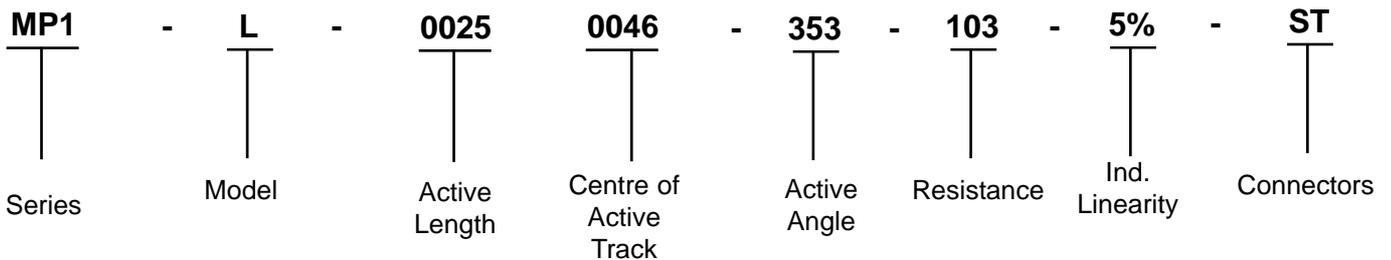
Material Cross-Section



Part Number Table

Description	Part Number
Sensor, Linear, Magneto, 25mm	MP1-L-0025-103-5%-ST
Sensor, Linear, Magneto, 50mm	MP1-L-0050-103-5%-ST
Sensor, Linear, Magneto, 100mm	MP1-L-0100-103-5%-ST
Sensor, Linear, Magneto, 150mm	MP1-L-0150-103-5%-ST
Sensor, Linear, Magneto, 300mm	MP1-L-0300-103-5%-ST
Sensor, Linear, Magneto, 500mm	MP1-L-0500-103-5%-ST
Sensor, Linear, Magneto, Rotary	MP1-R-0046-353-103-5%-ST

Part Number Explanation:



- Series** : MP1 = MagnetoPot.
- Model** : L = Linear and R = Rotary.
- Active angle** : 0025 = 25, 0050 = 50, 0100 = 100, 0150 = 150, 0300 = 300 and 0500 = 500mm.
- Centre of active track** : 0046 = 45.57mm.
- Active angle** : 0353 = 353°.
- Resistance** : Active lengths ≤300mm 103 = 10KΩ.
- Ind. linearity** : 5% = ±5%.
- Connectors** : ST = Solder tab.

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