

MDP42

Spring Loaded Potentiometer

MeasureX

Features

- High Measuring Accuracy
- Measurement Range of 10 to 100mm
- Compact and Rugged Model
- Wide Range of Applications
- Low Static and Thermal Errors
- Suitable for Static Measurement



Description

MDP42 is a spring loaded rugged potentiometric based displacement sensor suitable for static measurement in harsh environments. This compact displacement sensor offers great flexibility and reliability for a wide range of applications with highly competitive pricing.

MDP42 is available in measuring ranges from 10 to 100mm with a Voltage output, relative to supplied input voltage. The spring loaded potentiometer shaft is running in a precision bearing and this potentiometer is suitable for accurate industrial displacement measurements. It has the option of having a hemispherical tip or a roller ball depending upon the application requirements. Standard Nonlinearity of this sensor is $\pm 0.1\%$ FS. The robust construction of MDP42 with its high performance makes it ideal for demanding long term applications.

Applications

- Automation applications
- Hydraulic cylinder positioning
- Construction and mining industry
- Aerospace, automotive and rail applications
- Gap and tolerance control systems
- Industrial machinery positioning
- Valve position control
- Inspection and quality control systems

Technical Specifications

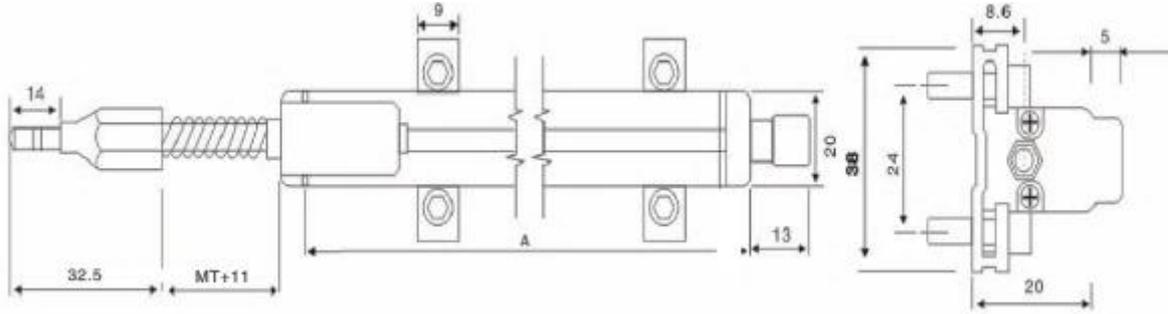
- **Ranges:** 10 to 100mm
- **Input voltage:** 5-36VDC
- **Operating current:** $\leq 10\text{mA}$
- **Output:** Nearly same as input voltage
- **Maximum operating speed:** 10m/s
- **Linearity:** $\pm 0.1\%$ FS
- **Repeatability:** $\leq 0.01\text{mm}$
- **Shock rating:** 50g
- **Vibration rating:** 20g
- **Protection level:** IP65
- **Operating temp. range:** -60 to $+120^\circ\text{C}$
- **Temp. coefficient of span:** $\leq 1.5\text{ppm FS}/^\circ\text{C}$
- **Relative humidity:** 90%, no condensation
- **Resistance:** $1\text{k}\Omega \pm 20\%$
- **Electrical connection:** pin connection, Integrated cable
- **Body material:** Aluminium
- **Core extension rod material:** Stainless Steel
- **Core extension rod size:** Refer dimension drawing, other options available

MDP42

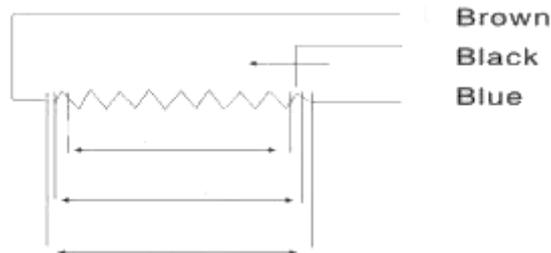
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Dimensions



Wiring



Range (mm)	10	25	50	75	100
Total Sensor Length	120mm	152mm	206mm	260mm	314mm
Mechanical stroke	Range +3mm				
Total Body Length (A)	Range + 43mm				

Ordering Code

MDP42			
	Range	10, 25, 50, 75, 100mm or other ranges in mm	
			Probe Tip Shape
			H - Hemi-Spherical
			R - Roller ball
			Electrical Connection
			Integrated 1m Cable
			Pin connector
MDP42	50mm	H	Pin connector

Note: All specifications are subject to change without prior notice
Different cable lengths are available on request for pin connector (1m, 3m, 5m are standard)

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