

MBX Series

Linear Motion Potentiometer (Conductive Plastic Element)



- **Open Frame - Economical**
- **Shaftless - Sliding Cursor**
- **100, 150 & 200mm Stroke Length**
- **5,000,000 Stroke Life**
- **Infinite Resolution**
- **RoHS**

Electrical Data (Note 1)	Model	MBX-100	MBX-150	MBX-200
Electrical Stroke		100 ±0.3mm	150 ±0.3mm	200 ±0.3mm
Standard Resistance Values		5k Ω	7.5k Ω	10k Ω
Power Rating @ 70°C (0W @ 105°C)		50 mW	75 mW	100 mW
Resistance Tolerance		30%		
Independent Linearity Tolerance		1%		
Resolution		Essentially infinite		
Output Smoothness		< 0.1% against input voltage		
Resistance Temperature Coefficient		±400p.p.m./°C		
Recommended Wiper Current		< 1μA (voltage divider circuit)		
Maximum Wiper Current		< 1mA		

Mechanical Data (Note 1)	Model	MBX-100	MBX-150	MBX-200
Mechanical Stroke*		105.5 ±0.3mm	154.5 ±0.3mm	205 ±0.3mm
Life Expectancy		5,000,000 reciprocating motions		
Friction (Starting Torque)		< 1 N		
Vibration (IEC 68-2-6)		10 G (55....2000 Hz, 0.75mm, 12h)		
Shock (IEC 68-2-27)		50 G (half sine, 11ms (18x))		
Maximum Displacement Speed		0.5 m/s		
Operating Temperature		-15°C to +70°C		
Storage Temperature		-30°C to +85°C		
Protection Grade		IP40		
Housing Material		Aluminum		
Cursor Material		Plastic		
Weight		21g	27g	33g

*Mechanical stroke values are approximate. Because there are no mechanical stoppers at the ends, please be careful so that the sliding wiper contact does not leave the element track.

• Special Specifications Available

Non-standard resistance values, custom stroke lengths. Custom cabling

Note 1: Customers should test and verify device performance in any given application. General specifications values are measured at temperatures of +15°C ~ +35°C. Specifications are subject to change without notice.

